COMPARATIVE INVESTIGATION OF SENSORY RICHNESS WITH EMPHASIS ON THE ROLE OF IDENTITY IN URBAN TOWNSHIPS
CASE STUDY: SAGHARISAZAN TOWNSHIP, RASHT AND TANDIRCHILER OF ORUMIE

‘Fatemeh Sadat Khoshhal Shaghaji1 and Seyedeh Mitra Kazemini2
1Department of Urban Design, Islamic Azad University, Qazvin, Iran
2Department of Urban Design, Islamic Azad University, Zanjan, Iran
*Author for Correspondence

ABSTRACT
Sensory richness is the different sensory experiences that citizens achieve of a fixed environment. Its theoretical importance is hidden in this important question that “how people can achieve different sensory experiences of a fixed environment”. In response to this question, various views of urban environment quality based on the votes of Lynch, Bentley, Allan Jacobs and Donald Appleyard, Tibbalds, Punter and Carmona. The mentioned theorists considered some qualities as improving complexity, happiness, visual enjoyment in artifact, urban view and urban perspective effective on achieving different sensory experiences in urban spaces. Bentley considered the above mentioned qualities as sensory richness and mentioned the effective factors on achieving this concept. This study is evaluation and is done by analytic-comparative study. This study attempts to investigate the impact of identity in a place on its sensory richness in Sagharisazan townships in Rasht and Tandarichler of Orumie. To achieve this aim, at first we can determine the identity features via investigation of natural, built and humanistic components of these townships and then, we can investigate the visual sensory richness from the view of physical-performance dimensions, perception-visual and time. The survey data collection method is based on objective investigations of the researchers. The final evaluation and the data analysis are done by AHP method. The analytical results and evaluation showed that Sagharisazan Township with 0.6042 scores has good sensory richness quality and it reflects the identity features of the mentioned township. According to the study findings, the sensory richness and place identity have close relation with each other.

Keywords: Sensory Richness, Identity in Place, Urban Design

INTRODUCTION
Urban environment quality is the result of a complex combination of structural elements of city, urban activities and natural environment elements. Urban design as environment quality improvement should learn environmental perception indices well and can use the achievement method to these indices in various levels of urban design from urban sets to detailed plans level. The improvement of experiencing qualities of city is one of the goals of urban design and it is creating the environments developing good experiences of city (Tabatabayi, 2006). One of the tools to achieve this goal and improving environment quality is the investigation of various aspects of people. Where they could and could not go, the range of users availability, how easily they could understand what opportunities its offers, the degree to which they could use a given place for different purposes, whether the detailed appearance of the place made them aware of the choice available, their choice of sensory experience, the extent to which they could put their own stamp on a place (Carmona, 2006). But fixed components of places are considered for designers. These fixed components should be considered in design as the sensory various choices can be provided in sensory richness. The design requirements can include the trend in which people can select different sensory experiences based on different opportunities. Thus, we should start our question as how people can choose different sensory experiences form a fixed environment (Bentley et al., 2013). The present study aimed to investigate the township identity in sensory richness quality in urban townships as considered in two townships with two different climates. The first section of study presents the criteria of investigation of urban environment quality from the view of various theories and identity in place. Second
Research Article

The Investigation of Urban Environment Quality: the View of Theorists

Based on the definitions, quality is a set of definite attributes enabling us to judge about superiority, similarity or inferiority in comparison to another thing and we can judge regarding the beauty or ugliness, efficiency or inefficiency and etc. Its scientific importance is regarding investigation of major challenges of cities, new cities and quality crisis.

Kevin Lynch

Lynch identified five performance dimensions of urban design: Vitality, the degree to which the form of places supports the functions, biological requirements, sense, the degree to which places can clearly perceived and structured in time and space by users. fit, the degree to which the form and capacity of spaces matches the pattern of behaviors that people engage or want to engage in, access, the ability to reach other persons, activities, resources, services, information of places including the quality and diversity of elements that can be reached. Control, the degree to which those who use, work, or reside in places can create and manage access to spaces and activities. There are two final criteria in subset of these five dimensions: 1) efficiency, relating to the costs of creating and maintaining a place for any given level of attainment of the dimensions, 2) justice, relating to the way in which environmental benefits were distributed. Thus, for Lynch the key questions were 1) what is the relative cost of achieving a particular degree of vitality, sense, fit, access or control? b) Who is getting how much of it? (Carmona, 2006).

Bentley et al.,

5 Choices are raised in making places responsive: permeability means access (physical relation and visual relation with various points), variety, performance variety, type of forms and people and social groups, legibility, easy reading of environment and easy finding to the required addresses, robustness, the places that are used for various purposes and can present more choices to users, visual appropriateness, the fitness of visual features of place with performance and its meaning, richness, considering the tender trends in sensory stimulations not merely visual stimulations and personalization, the residents and citizens can put their stamp on city space and can make it personalized.

It was later suggested that resource efficiency, cleanliness and biotic support be added to include the ecological impact. Bentley (1999) has subsequently proposed a responsive city typology consisting of the deformed grid, the complex use pattern, robust plot development, the positive privacy gradient, the perimeter block and the native biotic network (Carmona, 2006).

Francis Tibbalds

In 1989, 10 design principles were stated: consider the places before buildings, have the humility to learn from the past and respect the context, encourage the mixing of uses in towns and cities, design on a human scale, encourage the freedom to walk about, cater for all sections of the community and consult with them, build legible environments, build to last and adapt, avoid change on too great a scale at the same time, with all the means available, promote intricacy, joy and visual delight in the built environment (Carmona, 2006). In design process, there is no fully true or false response and there is better and the worse and their quality is determined in definite time. The frameworks can determine the product and output of urban design better than its process dimension and qualities of good environment and good urban design and their achieving can be proposed. The urban designers also need to understand the concepts acting by it and the process by which the places and developments can be created. Also, there is a gap between theory and practice and new city—orientation experience is an example (Carmona, 2006). The comparison of the various vies of theorists is collected in the following Table.
### Table 1: Comparison of various views regarding urban environment quality, source, Abaszadegan, 2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td>Identity</td>
<td>Environmental sustainability quality</td>
<td>Neighboring is should be diverse in use and population</td>
<td>Livability</td>
<td>Variety</td>
<td>Vitality</td>
<td></td>
</tr>
<tr>
<td><strong>Space construction and space norm</strong></td>
<td>Continuity and surrounding</td>
<td>City perspective quality</td>
<td>Communities should be designed for the pedestrian and for transit</td>
<td>Identity and control</td>
<td>Legibility</td>
<td>Sense</td>
<td></td>
</tr>
<tr>
<td><strong>Public space</strong></td>
<td>Public presentation quality</td>
<td>Views quality</td>
<td>Cities and towns should be shaped by physically defined and accessible public spaces</td>
<td>encourage the mixing of uses in towns and cities</td>
<td>Access to opportunitie s, imagination and joy</td>
<td>Robustness</td>
<td>Fit</td>
</tr>
<tr>
<td><strong>Safety and security</strong></td>
<td>Easy motion</td>
<td>City form quality</td>
<td>Considering local history</td>
<td>design on a human scale</td>
<td>Meaning</td>
<td>appropriateness</td>
<td>Access</td>
</tr>
<tr>
<td><strong>Urban perspective</strong></td>
<td>Legibility</td>
<td>Building form quality</td>
<td>Climate</td>
<td>encourage the freedom to walk about</td>
<td>Community and public life</td>
<td>Richness</td>
<td>Control</td>
</tr>
<tr>
<td><strong>Mix and congestion</strong></td>
<td>Flexibility</td>
<td>Public field quality</td>
<td>Ecology</td>
<td>cater for all sections of the community</td>
<td>Urban self-reliance</td>
<td>Personalization</td>
<td>Efficienc y</td>
</tr>
<tr>
<td><strong>Universality</strong></td>
<td>Variety</td>
<td>Building practice</td>
<td>Building practice</td>
<td>build legible environmen ts</td>
<td>An environmen t for all</td>
<td>Permeability</td>
<td>Justice</td>
</tr>
<tr>
<td><strong>Space time managemen t</strong></td>
<td></td>
<td></td>
<td></td>
<td>build to last and adapt</td>
<td>Resources efficiency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- © Copyright 2014 | Centre for Info Bio Technology (CIBTech)

- Cleanliness
### Table 2: The classification of the views of theorists based on 10 common cases of urban environment, source: Abaszadegan (2009)

<table>
<thead>
<tr>
<th>Visual appropriateness and human scale</th>
<th>Efficiency</th>
<th>Safety and security</th>
<th>Richness</th>
<th>Legibility and identity</th>
<th>Variety and vitality</th>
<th>Sustainability</th>
<th>Public presentation quality</th>
<th>Permeability</th>
<th>Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fit</td>
<td>Efficiency</td>
<td>Control</td>
<td>Richness</td>
<td>Sense</td>
<td>Vitality</td>
<td>Resource efficiency and biotic support</td>
<td>Social public and community</td>
<td>Access</td>
<td>Justice</td>
</tr>
<tr>
<td>Visual appropriateness</td>
<td>Robustness</td>
<td>Control</td>
<td>promote intricacy, joy and visual delight in the built environment</td>
<td>Legibility and personalization</td>
<td>Variety</td>
<td>Livability and urban self-reliance</td>
<td>consider the places before building</td>
<td>Permeability</td>
<td>Environment for all</td>
</tr>
<tr>
<td>Design at human scale and Avoid change on too great a scale at the same time</td>
<td>fit to adapt</td>
<td>Safety and security</td>
<td>Urban perspective</td>
<td>Meaning and identity</td>
<td>encourage the mixing of uses in towns and cities</td>
<td>Built to last</td>
<td>designed for the pedestrian and for</td>
<td>Access to opportunities and joy</td>
<td>Providing for all parts of society or their participation</td>
</tr>
<tr>
<td>City form of building</td>
<td>Conceiving performance</td>
<td>Urban perspective</td>
<td>have the humility to learn from the past and respect the context and building legible environment</td>
<td>Neighborhoods should be diverse in use and population</td>
<td>Considering climate and ecology</td>
<td>Public field quality</td>
<td>Promoting freedom in pedestrian</td>
<td>Access of cities or public spaces for pedestrians</td>
<td></td>
</tr>
<tr>
<td>Continuity and surrounding</td>
<td>Flexibility</td>
<td>Hard and soft space</td>
<td>Local history</td>
<td>Variety</td>
<td>Environmental sustainability</td>
<td>Public field quality</td>
<td>Easy motion</td>
<td>Universality</td>
<td></td>
</tr>
</tbody>
</table>

© Copyright 2014 | Centre for Info Bio Technology (CIBTech)
The Concept of Identify in Place
Identity from the View of Architects and Urbanity Planners
Christopher Alexander considers identity as the physical imagination of unknown qualities in buildings, the qualities the main basis of life and soul of any human, city, building or virgin nature but it cannot be named (Alexander, 2002). Walter Bor believes that identity is small and big differences leading to the distinguishing of a place or legibility and it creates place attachment (Qotbi, 2008). Callen emphasizes on the importance of difference of each environment with other environments. He defines identity as considering personal character of place and avoiding uniformity and similarity of urban environments via showing specific features of each environment. According to Rappaport, identity can be distinguished from an element to another one. Rappaport gives intelligent solution regarding identity and determines public and private identity and believes that two kinds of identity tools should be distinguished (Fanmays, 2005).

1. Private identity, fixation of identity for the self and the relatives and only those informed can distinguish these cases.
2. Public identity, the manifestations of the identity tool should be clear and recognized.

Private identity means the extra-group difference. Public identity means internal group similarity. The identity requires having two different and similar qualities of features at the same time. These features should be as the city body is changed in time continuity and finally it leads to the formation of total (Mir, 2004). There are three evaluation criteria of identity- distinction with others and similarity with self, continuity and change and unity in multiplicity are defined implicitly and the distinction from the other and similarity with the self is fundamental principle and two next criteria are the subsets. Among these two criteria, the continuity and change are raised in single building architecture and considering this feature gives unity to city as the result of multiplicity of different components and the unity feature is manifested in multiplicity (Mahdavinejad, 2010). Behzadfar in the city identity book separates the cities as all creatures based on different attributes separating them from other creatures with identity. He divides city identity components into three types of natural and artificial and human components (Behzadfar, 2008).

The Natural Components of City Identity
Each city has natural specific position distinguishing it form other cities. The natural features of each city depict a part of city identity as defined in the form of natural identity of city. It is mountains range, desert and natural mines in the surrounding of the city. The recognition of natural components is investigated in six branches.

1. General total position (longitude and latitude of the city and relevant indices)
2. Geographical structural components (topography, hydrography and relevant indices)
3. Natural structural components (river, valleys)
4. Natural build field components (soil variety, vegetation and watershed flow)
5. Point components (springs, valleys and similar cases)
6. Linear-point components (water path and similar cases)

The Built Components of City Identity
Any city is investigated in terms of structural-physical identity in various time layers. This identity is pursued since the city was as a village unit now acting as a big city. The dimension of built identity of each city are based on thinking in linear elements, focal, squares, gateways and etc. The built agents of identity of each city are manifested as structural-physical in various layers of time in city space. The mechanisms of evaluation of these agents include the factors affecting the components and generality of built unit of city. The variables of built component of city identity indices are classified in various subsystems.

1. Public view, including city form quality with bird eye showing the city condition from the past to now
2. Linear-structural elements: Including the main streets of city structure
3. Focal indices and point of city as squares, gateways, parks and the like
4. Linear-point indices of historical and physical including palaces and the like
5. Urban indices single buildings
6. Masses, fields and important urban spaces: Old townships of old city, the set of residential buildings and the like (Behzadfar, 2008).

Human Components of City Identity
This component is based on the tradition, beliefs and the life method of the residents of each city and refers to the civil aspects of citizens. The important part of this human component is the accent or language of the city as considered Masses, fields and important urban spaces: Old townships of old city, the set of residential buildings and the like (Behzadfar, 2008).

The Color and City Identity
Color is one of the most important tools that can be used to improve legibility and identity in urban spaces. The colors have symbolic meaning and are manifested in our mental imaginations as each building with specific colors (Behzadfar, 2008). Various colors can associate time, meaning and specific events. In the past cities, natural colors of local materials by which the buildings are built coordinated the city and were consistent with the morale, climate and culture of people and the color of each city was fixed and it showed an aspect of its identity (Behzadfar, 2008). In old buildings of Tandirchiller Township, variegated brick and green wooden windows were used and gave identity to the township. The new constructed buildings were without old texture with different materials and colors. In Sagharisazan township, wood and heated brick and clay ceiling were used as fixed component of place as repeated in this township as rhythmical and gave identity to the township as making it distinct.

MATERIALS AND METHODS
This study is evaluation research methods and is conducted as analytic-comparative. Based on existing criteria in evaluation of sensory richness quality and based on main approach of study, the mentioned townships can be evaluated. The theoretical framework is investigated by specialized library studies of quality of urban environments and then is investigated in the form of the views of theorists of urban issues. The valuation of objective components is done by expert observation by present study researchers and is used to evaluate the sensory richness quality in visual, perception, physical, functional and time dimensions and the investigation of identity variables in three components of natural, artificial and humanistic. The field study in various places of township is the basis of qualitative data collection. Finally, to adapt the mentioned components, AHP and Expert Choice software can be used for final adaptation.

Case Study
The Investigation of the Identity in Studied Townships
Tandirchiller township is old texture of Orumie located in western Azarbayjian including northwest to Bakery boulevard and Bakery three-way and from north east to Shahid Montazeri street and Mahabad square and from south to Besat and Pezeshkian street. In 1921, the old border of city passed form southern part of this township and there were two gateways of Hezaran and Bazarbash (located in Mahabad square and Janbazan square, respectively) in two sides and Khanbaghi and Shahid Azimi alleys were used as one of the main districts in Pahlavi era. These townships were designed at first as organic and to meet the needs of pedestrians. Due to introversion, the main domain is observed in access arrangement. The models of the buildings are also introvert. The furnace construction was remained yet and it is the identity of this township and one of the humanistic components of city identity is the Turkish language of most of the residents of this township. Tandir Chillar in Turkish means the owner of furnace. Sagharisazan township is one of the old historical texture townships in Rasht city of Gilan province. This township has organic texture and the alleys are located as introvert with low permeability. The model of the buildings is extrovert. This township was designed at first to meet the demands of pedestrian and later by the car; it couldn’t fulfill the transportation needs. The greatest identity factor is using steep ceiling in the roof and this is due to the natural identity components of Rasht city. This city has mild and humid climate and the average rainfall is more than 1000 mL per year.
Based on these townships, we can compare some of the natural, artificial and humanistic identity components and the findings are in the following Table.

<table>
<thead>
<tr>
<th>Tandirchiller township in Orumie</th>
<th>Sagharisazan township in Rasht</th>
<th>Identity subcomponents</th>
</tr>
</thead>
<tbody>
<tr>
<td>45°, $4^\circ$ eastern longitude from Grinveech and northern latitude from equator 37°, 33'</td>
<td>49°, 58' eastern longitude from Grinveech and northern latitude from equator 37°, 27'</td>
<td>Longitude and latitude of city</td>
</tr>
<tr>
<td>An area with height 1300 to 3000 m of sea level</td>
<td>Elevation from sea 5m</td>
<td>Roughness in city</td>
</tr>
<tr>
<td>287.3mm</td>
<td>More than 1000 mm</td>
<td>Average annual rainfall</td>
</tr>
<tr>
<td>Mountainous</td>
<td>plateau</td>
<td>City location in natural environment zone</td>
</tr>
<tr>
<td>1-5%</td>
<td>2-5%</td>
<td>Required region gradient</td>
</tr>
<tr>
<td>Bakery boulevard as one of the important streets (Orumie city), Besat street as going to the old market of city.</td>
<td>Establishing township market and using historical and religious use around it, great squares of Sagharisazan with four important historical buildings in center</td>
<td>Linear-structural elements of indices</td>
</tr>
<tr>
<td>Goldis park for Women, Mahabad square and Janbazan square (placing Hezaran and Bazarbash gateways in Pahlavi era as destructed today)</td>
<td>Establishing historical bank of Sepah in entrance of township and creating good view, great square of Sagharisazan and four important historical buildings and creating strong view, establishing township market and establishing historical and religious use around it as important visual center</td>
<td>Focal and point indices of city</td>
</tr>
<tr>
<td>Tanursazan</td>
<td>Badiallah place and establishing a</td>
<td>Linear-point</td>
</tr>
</tbody>
</table>

Figure 1: Aerial image of Sagharisazan and Tandirchiller townships, Source: comprehensive plan and Google earth
team of great market of Rasht in township due to the street design in the relevant zone, historical and cultural body from the beginning to the end of local street

Tow old mosques, Ferdowsi bathroom
Holy shrine of sister of Imam, Seyed Abas tomb, Haj Sami mosque, Goldaste mosque, Golzar bathroom, Gilan culture house

Most they are Turkish, Kurdish and Persian as national language of our country

Language

Identifying humanistic component

 indices of historical and physical

Important single buildings

Religion

Investigation of Richness
Regarding the investigation of richness in the mentioned townships, perception, visual, physical and performance components and qualitative valuation time. Qualitative valuation of each of the mentioned components is done by SWOT technique. The environment view elements for exact investigation of richness quality can be analyzed.

Physical-Performance
The presence of physical index elements as bathroom, mosque and traditional furnace construction and memorial buildings with local value architecture and the materials used in these elements are effective factors in physical features in achieving richness. The applied techniques and financial and economic justification are effective in richness-based design. This is important to consider in design the attractive applications of a region and pedestrian and rider access paths as an important indicator in legibility of region. Destroyed buildings are important potentials to create good urban space taking its visual signs from traditional architecture models of the region and it leads to keeping local identity. By exact design of urban spaces structure, we can give good richness to spaces users.

Table 4: Physical-performance analysis of Sagharisazan township, Rasht

<table>
<thead>
<tr>
<th>Threats</th>
<th>Opportunities</th>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enhancing physical wear-out in most of the areas in case of ignoring it</td>
<td>• The possibility of project definition and improvement-gathering of the areas with fine texture</td>
<td>• High wear-out of residential textures</td>
<td>• Presence of important physical indices (Holy shrine of sister of Imam, Seyed Abas tomb, Haj Sami mosque, Goldaste mosque, Golzar bathroom, Gilan and a part of market) as earthquake, snow due to high physical wear-out</td>
</tr>
</tbody>
</table>
Table 5: Physical-performance analysis of Tandirchiler township

<table>
<thead>
<tr>
<th>Threats</th>
<th>Opportunities</th>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Enhancing physical wear-out in most of the areas in case of ignoring it</td>
<td>▪ The possibility of project definition and improvement-gathering of the areas with fine texture</td>
<td>▪ Low permeability and routs and narrow spaces (Ashtikonan alley)</td>
<td>▪ Presence of important physical indices (old bathroom of the township) as effective on physical identity of the studied area.</td>
</tr>
<tr>
<td>▪ High vulnerability of parts to natural disasters as earthquake, snow due to high physical wear-out</td>
<td>▪ Creating pedestrian tourism area</td>
<td>▪ old residential buildings older than 20 years in the region</td>
<td></td>
</tr>
<tr>
<td>▪ turmoil in physical building in the area</td>
<td>▪ Using unused land and destruction buildings for creating urban space</td>
<td>▪ Most of housing sectors have problems in access to routs</td>
<td></td>
</tr>
<tr>
<td>▪ Inconsistent use with township texture</td>
<td>▪ The destruction buildings as creating urban spaces</td>
<td>▪ Occupancy level in most of the new areas is high and open spaces are low.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: The structural-performance component and the investigation of environment view elements in Tandirchiler township of Orumie and Sagharisazan of Rasht

© Copyright 2014 | Centre for Info Bio Technology (CIBTech)
Research Article

Figure 3: The lack of definition of pedestrian and rider routs in Tandirchiller and Sagharisazan townships

Figure 4: The definition of pedestrian and alleys called Ashtikonan in old texture of Tandirchiller and Sagharisazan townships

Perception-visual
In taking decision to provide visual sensory richness, three factors should be considered:
1- The range of the distances by which various parts of schema can be observed, 2-Relative count of those observing the building form the various view locations, 3-the time in which the views can be considered. The elements to play the role in improving sensory richness’ should be observed. A part of the power of users in observing the elements depends upon the distance of the building from them (Bentley, 2013).
The investigation of environment view elements in Sagharisazan township:

Way: Rider and pedestrian view, feature of way wall, continuity, sky line.
Edge: Physical form, edge geometry, route, passing electricity wires, regions, built, empty and full areas

The investigation of environment view elements in Tandarchiller township:

Way: Rider and pedestrian view, feature of way wall, continuity, sky line.
Edge: Physical form, edge geometry, Sign: Natural (tree)
Regions: built, empty and full areas

Figure 5: The range of basic view distance of the considerations of sensory richness and Tandirchiller

Table 6: Visual-perception analysis of Sagharisazan Township, Rasht

<table>
<thead>
<tr>
<th>Threats</th>
<th>Opportunities</th>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of memorial sense of residents of texture with new constructions without considering township identity</td>
<td>Enhancing legibility and mental map of residents of township by using design and sign in node points, vertical green space</td>
<td>Creating unsuitable image for pedestrians due to the use of irrelevant materials with specific architecture of region</td>
<td>The presence of elements and memorial buildings-a memory in the township with the sign role can increase legibility of township texture.</td>
</tr>
<tr>
<td>Creating visual turmoil in the area with new attachments as modern construction equipment, electricity and telephone wires in all accesses</td>
<td>Definition, identification and design of potential entrances to improve identity of historical and cultural regions</td>
<td>The lack of scale and fit in new constructions</td>
<td>The presence of human scale of building in most of internal parts of area texture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The change of new construction scale due to increasing congestion</td>
<td>Suitability of area in the mental image of residents</td>
</tr>
</tbody>
</table>
**Research Article**

Figure 6: The change of view, Sagharisazan, Tandirchiller

Table 7: Perception-visual analysis of Tandirchiller Township

<table>
<thead>
<tr>
<th>Threats</th>
<th>Opportunities</th>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing dissatisfaction of people of area due to the increase of wear-out and low quality</td>
<td>Enhancing legibility and mental map of residents of township by using design and sign in node points, vertical green space</td>
<td>The lack of scale and fit in new constructions</td>
<td>The presence of elements and memorial buildings-a memory in the township with the sign role can increase legibility of township texture.</td>
</tr>
<tr>
<td>Increasing wear-out of area due to the lack of considering existing texture</td>
<td>Definition, identification and design of potential entrances to improve identity of historical and cultural regions</td>
<td>The change of new constructions scale due to increasing density and number of floors in texture of region without considering the physical nature of existing condition</td>
<td>The presence of human scale of building in most of internal parts of area texture</td>
</tr>
<tr>
<td>Creating a place for criminals in case of increasing wear-out</td>
<td></td>
<td>Lack of flooring and definition of good materials in movement routes in the township</td>
<td>Suitable of area in the mental image of residents</td>
</tr>
</tbody>
</table>
The perception-visual component and investigation of environment view elements in Sagharisazan and Tandirchiller townships

**Time**

In sensory richness, time range or duration of each views experienced on that period is important. The required level is organized as the power, durability and empowerment can be continued and by three following solutions, we can achieve the following goal:

1-Via great visual intricacy, 2-Via interesting things or visual secrets, 3-Via interpretation or generalizing suitable images (Bentley, 2013).

**Analysis and Comparative Comparison of Sensory Richness and Identity**

The first step in hierarchy analysis process is creating a hierarchy structure of the studied issue in which the goals of criteria, choices and their relation are shown. Four next stages in hierarchy analysis process are weight calculation (importance coefficient), criteria (sub-criteria if necessary), weight calculation (importance coefficient), choices, final score calculation of choices and investigation of logical consistency of judgment (Zebardast, 2001). Thus, for analysis of identity and sensory and visual richness for each subject as separately in the first stage creates hierarchy structure in charts of 9, 11 and in second and third stages are shown in charts 10, 12. Then, the final score of each township is calculated.
Research Article

Figure 9: Hierarchy analytic process of identity in studied townships

Figure 10: Importance coefficients of criteria and sub criteria in studied townships
By comparative comparison of two areas by AHP method, it was found that Sagharisazan township regarding better sensory richness is best and as this region in identity is better in Tandirchillel township. It seems that there is a direct association between sensory richness of a location and its identity and the study hypothesis is supported.
RESULTS AND DISCUSSION

The recognition of each place is in its presence place and the physical and performance structure with its features, memories and relevant place feelings can be vital for us and we can identify the place. Bentley referred to two key factors in evaluation of the visual sensory richness: 1- Time range or duration that each of views can be experienced in that period. 2- The range of distance that the required level is observed. One of the ways of observing a place is having place identity and you cannot have sensory experience of place and claim you don’t know there. The place has identity as it is in your mind. The location of township dedicating your time is in your memory. This place with identity can reflect sensory richness, this place is important than other indices and attracts your attention. The improving of the identity of a place is effective on its visual sensory richness and as physical dimensions and performance are effective on its identity, it can be said besides the effect of visual components and time mentioned by Bentley, considering the physical, perception and performance components is effective in sensory richness-based design. He believed that the techniques and materials in sensory-richness design should have financial and economic justification. According to the study findings, the image recognition of normal people of cities and environment are important perception indices in quality of sensory richness. Attractive use of a region and historical, cultural and physical elements can be effective on improving experience of sensory richness in users of a space. Thus, besides effect of visual and time components mentioned by Bentley, considering physical, perception and performance components are effective on sensory richness design. Carmona considers fixed effects of places and using them in design in using various sensory choices to fulfill sensory richness. He mentioned one of the tools to achieve this goal and improving quality of environment as investigation of people selection aspects. Based on the mentioned items, Saghari and Kazemini townships with organic texture and two different climates have potential capacity in terms of investigation of this important index. Tandirchiller is located in Orumie by specific industrial activities as furnace making based on the name of township. Also, colorful bricks and green windows and pedestrian routes have fixed components in place and besides valuable potential can give special identity for sensory-richness design. Saghari and Kazemini township is located in Rasht and follows the same rule. Using wood, brick and clay ceiling as fixed component of place repeated as rhythmic is effective on formation of local identity of region. Saghari means tanning leather. Thus, this township is based on the activities of craftsmen on that time. Passing this township, a person can feel the old spaces of Rasht. The fixed components of place are based on the views of the theorists in urban design and urbanity in studied places design as providing the selection of various sensory choices in fulfilling sensory richness. It is required the planners and designers of urban and regional issues are in this route to improve sensory richness experience as the effective quality in urban environments.

REFERENCES


© Copyright 2014 | Centre for Info Bio Technology (CIBTech)