

Visual Presentation of Sensitivity of Streetscape in the Heart of Sabzevar City, Iran

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Abstract---People perceive an image and identity of the place within the amalgamation of built structures and layout based on the nature and character of activities, available materials, shape and function in the city. City image is important since the ability of recognizing objects within the environment is critical to human abilities to act and function. Thus, the ability of a city is somehow depends on its ability to be easily found and identified. Sense is one of the dimensions of determining the performance of city introduced by Kevin Lynch. Sense is how the citizens recognize the physical city. This paper tackles the dimension in detail and attempts to find out the user's perceptions and the degree of fit between the Sabzevar CBD streets and the way people recognizing it as well as the sensitivity in the cognitive urban image.

Keywords: *Sensitivity of Space, Space Character, Mental Image, Streetscape, Urban Image*



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1 INTRODUCTION

Sense is the degree of fit between the physical city and the way people recognize and organize it in their minds or is the degree of homogeneity between environment and observer. Sense then, reflects the clarity with which people perceive the space. Sense depends upon spatial structure, quality, the culture and the current purpose of the observer [1]. The presence of common or shared meanings in the image of a streetscape suggests that it is possible to create or design environments that will be used and experienced by many people in comparable ways [2]. From this perspective, Lynch developed the concept of imageability; an ability for the shape, color and arrangement of elements within an urban environment to evoke a strong image for an observer. Imageability is related to streetscape character in the way in which both are concerned with the visual arrangement of elements within the environment [3]. Streetscape character analysis attempts to show how a city can be expressed diagrammatically as the combination of elements that differentiate parts of the urban fabric. [4]. This is because streetscape character is specifically shaped by the boundaries between the elements that constitute the street wall or façade and how those elements relate to each other in patterns that are consistent within a specific urban or suburban built environment [5].

In Lynch's view, image can be explained as "a picture especially in the mind", a sentimental combination between objective city image and subjective human thoughts. The productions of environment images are influenced by a two-way process between the observer and the observed. The observer, with great adaptability and in the light of his own purposes, selects and organizes what he sees. Therefore, the specific image can be totally different from the different perspective of observers [3].

Lynch elements (Paths, Edges, Districts, Nodes, and Landmarks) are an agenda for understanding urban streetscape character. Understanding the five mentioned elements provides a picture of how people perceive, inhabit and move around in the urban landscape with emphasis on streetscape. It shows that streetscape in Sabzevar city center is not just composed of the physical characteristics but equally by representations in mental images [3]. Sensitivity in heart of Sabzevar city explains about the predominant streetscape character of the immediate area in central streets and as a whole together. This includes all architectural features and articulation. This paper analyses the heart of Sabzevar city using Lynch approach for understanding the physical city character as well as the sensitivity of space within this boundary. It also tries to explore the sentimental relationship between streetscape and its daily users. So that, the Lynch's point of view with pictorial analysis have been framed up to determine the streetscape characteristics in heart of Sabzevar city.

2 HEART OF SABZEVAR CITY

Sabzevar commercial and business center also known as the city's "financial district" is located inside the boundaries of sector three, one of the twelfth divisions of the city. This part is actually encompassing the historic part as well as the main commercial hub in the city. Sabzevar's shape and architectural pattern of Central Business District (CBD) reflects the city's history and is surrounded by commercial, financial and administrative blocks. Sabzevar has a single central area with an urban density higher than the surrounding districts which contains all the tallest buildings and acts both as the geographical center and the commercial and cultural city center known as heart of the city.

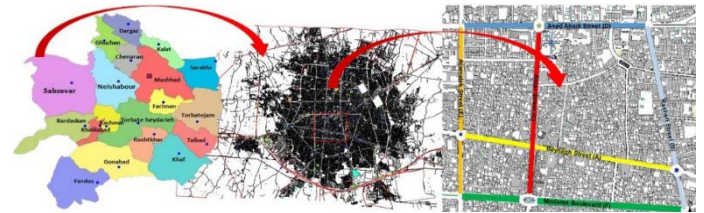


Fig. 1. Sabzevar City and CBD

Since the Sabzevar city has emerged around today's CBD, therefore it has great amount of resident populations and residential land use and still CBD populations are increasing as younger professionals and business workers move into city center apartments or work in the departments located there. City center district which is surrounding the study area can be called as city center district. Sabzevar CBD has been enclosed in a trapezoidal shape surrounded by main streets all around. From north it is limited to AsadAbadi Street between Kooshk and Dadgostari junctions, from east is attached to Kashefi Street between Dadgostari and Kashefi-Modares junctions, in the south, it is limited to Modares boulevard between Kashefi-Modares and Modares junctions and in west to Atamalek street between Modares and Kooshk junctions.

3 SENSITIVITY OF SABZEVAR STREETScape

Phrases such as place sensitivity or sense of place refer to the complex relationship between humans and their surrounding environment. This relationship involves both the influence of the natural environment on humans as well as the changes that human activities have imposed on the surrounding environment. Building the image of a city environment is a two way process and is the result of an interaction between the observer and the surrounding environment. In the streetscape scenario in the heart of Sabzevar, it is not about how the things are seen, but it includes everything as part of street environment. Sense of the streetscape is nothing but the relationship between physical qualities of street environment and cognition. "Nothing is experienced by itself, but in relation to its

surroundings, the sequences of events leading up to it" [2]. Keeping the Lynch elements in mind, the component of sensitivity of space has been broken down into six sub-elements to be analysed and understood in the streetscape scenario in heart of Sabzevar:

A. Identity

Identity is a core concept in the field of environmental and space psychology which identifies form in relation to environments. "Identity is the characteristic that allow us to differentiate one space from another" [6]. Considering identity in streetscape, it is the character and spatial attributes of an object or a building or any physical element that enhances the ability of recognizing and identifying an environment. These attributes of the object make it distinct, ultimately unique and easily separable, then it stands for individuality or oneness [7]. Within the CBD of Sabzevar, there are many of these objects known as main historical buildings that give the sense of identity to the citizens. These objects widely affect the movement and define the surrounding land use. One of the most recognized objects in city center is the Imam Zadeh Yahya. It is not only a religious-historical monument, but also the cultural-religious identity certificate of the city. The place attracts visitors in different time of the day especially during prayer time and festivals which leads to the drastic change of the street appearance. After the prayer, pilgrims walk around the Imam Zadeh in the connecting streets for shopping, eating and site seeing. It shall be kept in mind that it is not only an identity of place, but it could be an identity of events which differs naturally from the first as it gives people a meaning to remember events that happened, thus helps them to structure their life. Imam Zadeh Yahya has both the function whereas Jama mosque holds the identity for different events and religious ceremonies.



Fig. 2. Imam Zadeh Yahya and Jama mosque as the Identity Elements of Sabzevar Streetscape

B. Structure

It is how the objects or blocks are physically placed in the space considering their relation to observer and other objects, as the object is not seen isolated from surroundings

but as a part of all environmental components. It is to be realized that the forms of any building react on adjacent forms and since the Sabzevar streetscape is mostly a man-made scene, the organization of the structure becomes very important to determine the unity, harmony and order of the blocks and all objects. In the city center of Sabzevar, such unity and harmony exists partially in Beyhagh Street where the street follows the old characteristics of the Sabzevar tide up with historical and architectural values. In the recently built streets such as Kashefi, AsadAbadi, Modares and Atamalek such characteristics does not exist as the buildings are owned by the private ownership and each facade is decorated or treated by the taste of its owner. It is the lack of the united rule or bye-laws to help to retain the characteristics of the city and to create the order.



Fig.3. CBD Blocks Lacking in Harmony, Order and Unity

C. The Meaning

The Meaning is that which the place stands for or represents [7]. It is a hidden character of the object and the deepen sense that reflects the importance of the object, this sense may be practical or emotional. For instance, the meaning of mosque is a place for prayers or meaning of a glass door in the shop is a see through opening for entrance and exit. The meaning is a complicated notion and their side are difficult to be specified but is separated from the form. Meaning could be extracted from the entire stretch as streetscape or an individual element by itself such as boards and signs. For example Beyhagh Street may stand for enjoyment, vitality, religion, history whereas Asrar Street may stand for public service and therapeutic land-use presented in mental image of Sabzevar citizens. Lynch says that "the visual environment should be meaningful; that is, its visible character shall relate to other aspects of life". When there is a proportion between physical form of the object and activity. The prime example is the Jama mosque in Beyhagh Street, since its form determines its function. Just by looking at the tall minarets of the mosque from any corner of CBD streets it resembles the holiness,

prayer, God and religion. People select and filter these information which are meaningful to them and make their choices based on that.



Fig. 4. Jama Mosque Representing the Meaning in Sabzevar City Center Streets

D. Congruence

It is the relationship of the form to its function. In other words, how is the environmental structure congruent with non-spatial structure. For instance, the degree of streetscape elements such as lighting to the number of daily visitors or the availability of the trash bin based on the daily visiting population of the street. Within the framework of streetscape in heart of Sabzevar, congruence is tested by comparing abstraction of place or element with abstraction of its function. For example: parking space in AsadAbadi Street which is basically an allocated space for car park alongside the street, but the space with no meaning is enough to meet the car park requirement. The same scenario applies to other streets of CBD such as Beyhagh, Kashefi and Asrar. The figure (5) represents the same parking crisis within the CBD area. This is the lack of congruence in parking space in relation to functionality of space in all the mentioned streets.



Fig.5. Parking Crisis in Sabzevar CBD as the Violation of Congruence between Space and Function

One of the other examples of lack of congruence in CBD streets is in the landscape or existence of trees. Trees

consume carbon dioxide, reduce noise, modify local climates and provide habitat for animals. They direct movement, clarify spaces and purposes of buildings, screen car parks and unsightly areas, and locate and emphasis entrances. Trees provide shelter and shade and enhance open space. So, the function is defined but whether there are enough trees planted in Sabzevar CBD streets to carry out the mentioned function. Many of the CBD streets lack in providing landscape or at least trees. For instance, Beyhagh Street has no dedicated space for landscape and the old trees have been planted in no order. The figure (6) shows the lack of landscape in Beyhagh Street which denies congruence in CBD streetscape.



Fig. 6. Lack of Defined Landscape as the Violation of Congruence in Beyhagh Street

E. Transparency

It stands for the degree of visibility of any process occurring in the place to the users. In other words, it is the degree to which one can actually see what's going on. In the CBD of Sabzevar, many events occur such as selling, buying and movement but how many of them are actually seen is the level of transparency. Definitely, whatever is seen is lesser than what actually happening. The transparency level in streetscape of Sabzevar CBD can be seen in its buildings holding the street together and could be categorized into two groups. Firstly, the high level of transparency which is the reflection of the actual action happening in the street such as in Beyhagh Street commercial activities and the city old market which present the actual land-use and users, and secondly group of buildings in streets which hide their activity from the public views. A good example is the Kashefi or AsadAbadi streets where the governmental offices or hospitals function is not open to the public and is not visible. Usually, such buildings have multiple entrances and exits which are hidden away from public view. The figure (7) tries to show both group of transparency in buildings of the CBD streets in Sabzevar.



Fig.7. Transparency Level in the CBD streets

F. Legibility

Legibility refers to the measure that helps people to understand where they are and identifies the way they need to go. Legible streets have legible streetscape and legible buildings, meaning that they have an easy way to understand their routs, junction, location and even mental map that users make for themselves. It is the term that has been used for a long time in urban planning defined as “the ease with which its parts can be recognized and organized into a coherent pattern” [2]. It is the quality which makes an area understandable. Legibility is “the degree of distinctiveness that enables the viewer to understand or categorize the contents of a scene the greater the legibility the greater the preference” [8]. It is the physical and spatial characteristic of the streetscape or the urban area which includes visual sensation of colour, smell, motion, sound, and touch etc. which reinforce the legibility. One of the plus points of Sabzevar streets is the legibility and the historical character which are sympathetic to the existing context. Such example is clearly visible in the Beyhagh Street where the identifiable places are the focal point of the street and their character is reflected in the homogeneity of buildings’ scales and appearances. Even though the recent development interventions have affected the legibility of the streetscape in the Beyhagh Street, but due to the appearance of legible and familiar objects, buildings, spaces, as well as socio-cultural activities, the legibility still exists. The same legibility character can be seen in the Asrar Street as well, where the colour, texture and scale does not experience a drastic change and it represent the cultural-religious roots of the city.



Fig. 8. Legibility in CBD Streets of Sabzevar

The mentioned legibility allows users to form a clear and accurate image of a place, while visibility and appearance help to orientate themselves within the streetscape. But the legibility is not uniform throughout the Sabzevar CBD as the character of the streetscape and the design language changes from point to point. These transformations have influenced the users experience and feel about these places especially in the recently developed streets such as Kashefi, AsadAbadi, Modares and Atamalek. The weakening of a place’s identity could result in the loss of meaning and disrupts emotional attachment to place.

4 DISCUSSION

The physical attributes of streetscape play an important role in supporting the sense of place. The physical and the social characteristics of Sabzevar city are not very complex due to the absence of many different cultural (ethnic) rootedness, languages and religion. The users’ identification on the salient qualities of place and attachment of the main socio-cultural groups define place sensitivity which is seen among the old streets of CBD where there is a historical-religious center which is also considered as the cultural gathering place or festival host. Sabzevar’s sense of the place also reduces feelings of vulnerability caused by confusion or uncertainty in the CBD environment. Streetscape elements that influence sensitivity include sightlines to destinations, consistency of materials, finishes and furniture, use of lighting and supporting information such as signs, maps, announcements and streetscape and landscape features function as informative reference to the users. Considering the south part of Sabzevar CBD, since the scale, appearance and function of some street is identical, therefore there is a great chance of being lost for a user new to the area.

5 CONCLUSION

It is important to know that the urban elements are not hermetically designed into precise and final detail but present an open-ended order. Combination of all the mentioned elements creates a phenomenon called sense of space which in this study was focused on the street environment and the buildings surrounding it. The study

showed that, the recent streetscape developments, for instance in AsadAbadi Street, have partially caused improvement, but often have created areas of highly illegible streetscape. Sensitivity should be given a priority and opportunities for improvement, through new development and enhancement schemes, but not to be deviated. Sensitivity helps to create environmental image for all citizens that remains in their memories and meanings. In Sabzevar, especially in the recent years, the element of sense of space have been neglected and forgotten. Therefore, there is a clear need to improve sensitivity in all the six elements and shapes within the Sabzevar CBD streetscape. A sensible zone results in quicker and less stressful transfer between modes, easier identification of landmarks, nodes, pathways and operational thresholds and minimizes the need for additional street infrastructure and signs to aid movement which ultimately means more legible, more visible, more congruent, meaningful, better physically oriented and identifiable.

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