Aesthetics of Lighting of Trees in Valiasr Street

Artistic Approach, the Missing Link in Lighting in Tehran

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Abstract | City natural Landscape identity Lighting can improve nightlife quality. Recognizing urban identity elements and their appropriate lighting is an urban Art. Natural urban elements have personality because they participate in constructing collective memory. The most important natural urban element in Tehran is tree and Valiasr street sycamores are the most characteristic of them. Preserving the character of Valiasr sycamores in lighting for maintaining day and night view can be obtained by implementing aesthetic points. Most of the visual aesthetic points are adaptable on lighting, because lighted night view like a painting has the energy of elements such as Line, point, surface, texture and etc. that made by light on night black background. Like painting, controlling these elements along with the background can cause different Expressions of the same subjects. Studding the role of aesthetics in maintaining the figure of visual urban elements and improving night view is the goal of this study.

Keywords | Lighting, Aesthetics, Identity, Tree, Color.

Introduction | Life developing at night formed night life in Tehran. The performance of Natural spaces is also important at night. Realizing city nightlife identity is dependent on city lighting identifies. "Because it provides the possibility of re-architecting urban spaces" (Daraki & Varesi, 2011). The art of city lighting is effective on the people experiences from night urban environment (Narboni, 2004: 12). Sense of place at night make by lighting views and activities that shaped by lighting (Mahdavinejad & Pourfathollah, 2015: 132). Lighting natural elements make urban milestones readable and convert them as references for passing night Leisure.

Attention to nature night view lighting in Tehran requires attention to cultural and aesthetic conditions. Tehran municipality, in order to create urban special lighting effects, lighted Valiasr street trees. The first phase of the project implemented in distance between Parkway and Tajrish square. 1100 lamp of florin 2 RGB model, in five colors and 14 ways of lighting were operated (www.yjc.ir/fa/news/4854335).

This lighting is significant from two terms. From one point of view the arterial importance of the street was perceived. On the other hand, choosing sycamores as lighting subjects emphasized on the most important street identity elements. Sycamores have so important role in day view at Valiasr Street. However, studying this lighting causes some questions:

1. How much attention had paid to sycamores aesthetics and dignity?

2. How this lighting aesthetic can be affected by visual art aesthetic?

3. Can lighting identity Principles of Valiasr sycamores be obtain from aesthetic lighting characteristics?

To answer these questions, Qualitative Research was done by using library and field information.

Hypothesis | Observing principles of visual arts aesthetics in lighting characteristic urban elements improves night life quality and citizen's sense of identity.

Cultural Landscape of Valiasr

The 18 kilometers of Valiasr Street is the most characteristic street in Tehran. It is known as the longest street with the longest sycamore planting in the Middle East. More than half a century ago, 60 thousand sycamores were planted on both sides of it and besides each of them a rose was planted (Afarideh, 2014). This caused Tehran to be known as sycamores city[1]. This street was one of the most important and historical streets in Tehran with many important buildings. Whatever remains from old architectural elements and natural view are qualified elements that still identify Tehran. The background of Alborz Mountain is the other natural identify element in this street (Pic. 1).

This street now has several thousand square meters of sidewalk, raceway and about 11 thousand 90-year-old sycamores. The meaning of these elements takes shape in citizen's minds by referring to the past. Valiasr sycamores remind the old tree planting tradition in foothills city alleys. Valiasr street identity is alive by these live sycamores.

Aesthetic Evaluation of Valiasr Sycamores Lighting

Aesthetic points in lighting are the main elements of lighting evaluating. Valiasr is an historical street. So it's day and night view is important. In order to reviewing Valiasr lighting, some points about its aesthetic, effects on sycamores identity and citizens perception should be presented:

● The aesthetic effect of colored lighting on street perspective

Selecting and changing color lights is the most important aesthetic element in lighting, but in past years it has been dealing with personal taste. The art of urban lighting in Iran is new. By entering new technologies and great opportunities for users, extreme use of color is seen in this field. All the five colors of RGB lamps were used in this project without caring about their aesthetic effects. Colored lights that on and off alternatively can cause Stress

Pic 1: A vision of Alborz Mountain and Valiasr Street. Source: http://iranianuk. com/201307172217490027.

(Veitch, 2001), changing of colors can affect citizen's perception of sycamores.

From aesthetic sight, alternative changing of colored lights from red to blue, green and … distorting visual perception of trees and environment. Colors have psychological effect on eye. In visual arts, warm colors are used in head plans and cold colors such as blue in back plans to seem farther. Alternative changing of lighting colors from sharp warm such as red to cold blue and green, confused attendance in understanding the dimensions of space and make unrealistic and unsafe atmosphere. (Pic. 2) So that from peace factor (Rezai & Rezvani, 2014: 49) hard atmosphere was made for citizens. In other words without paying attention to three dimensional street perspective, alternative colored lighting omit third dimension of the street and distorted the sense of place. Valiasr Street and its sycamores identity do not change at night and we should not force unreal

atmosphere to it, by wrong lighting. Lighting that has no relation to Valiasr natural lively day view.

● Change of light - Change of color

The intensity and color of light are important factors in urban lighting. Unlike classic painting that no changes in colors can be done after coloring, in urban lighting, the color light of urban landscape can be changed by proper visual and artistic arrangements that make it more divers. But these changes should not have negative effect on environment aesthetic. In other words changing colors in lighting is allowed up to the point that it has no negative psychological effect on attendance, does not distort using and does not affect identified aesthetic. During Impressionism period, artists by the goal of studying colors, painted one subject in different times of the day to study sunlight color changes on objects (Pic. 3). Impressionism study transform chromatic in art and cause legislating
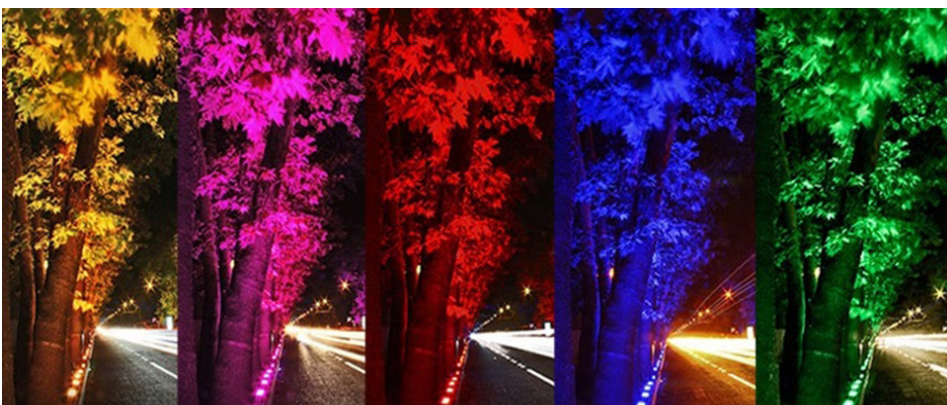
Pic 2: The effect of colored lights on Valiasr Street sycamores. Source: http://www.golnoor.com/ lighting/?page_id=188.

Pic 4: A sample of Iranian traditional tiling with complementary colors (turquoise-blue and ochre) along with natural color of white and black to make sense the brightness of blue. Source: http://marematgar.ir/fa/tag.

seven laws of color and their use in art[2]. Pointillists by using doting method in painting, understood that colors receives by human eyes are results of colors effects on each other. Even colors, in small areas, understood as a whole[3]. To get more vivid secondary colors they did not combine primary colors on pallet, but put small dots of two primary colors together. These colors combined together naturally by eye from identified distance and receive as the secondary color. This discovery of pointillists could prove that human eyes have natural reaction from colors and lights glisters from them, so neuron analyses results can be different from what really exists. Lighting as an urban art can be positively affected by visual arts, especially painting. Lighting artists should pay attention to artist's findings about color light effects on human eye. Lighting art is a modern and newborn

one that can use painting aesthetic, at least in color field, in order to reach full maturity. What human eyes receive from urban lighting colors should be considered in lighting design and its strategies as an artistic action.

The point that pedestrians forced to tolerate these colored lighting, reveals the importance of impressionism findings about colors effects on human eyes. Yet using harmonic colors with relations to historical background of the street and identified sycamores can better help to achieve the goals of this project. White yellowish lights that are proper for historical places (Ghafouri, 2012: 43) in combine with pale warm lights, such as orange gives a sense of warmth and receptivity to the environment. Also green that emphasized on happiness and sense of life of the trees can be the best color selection for
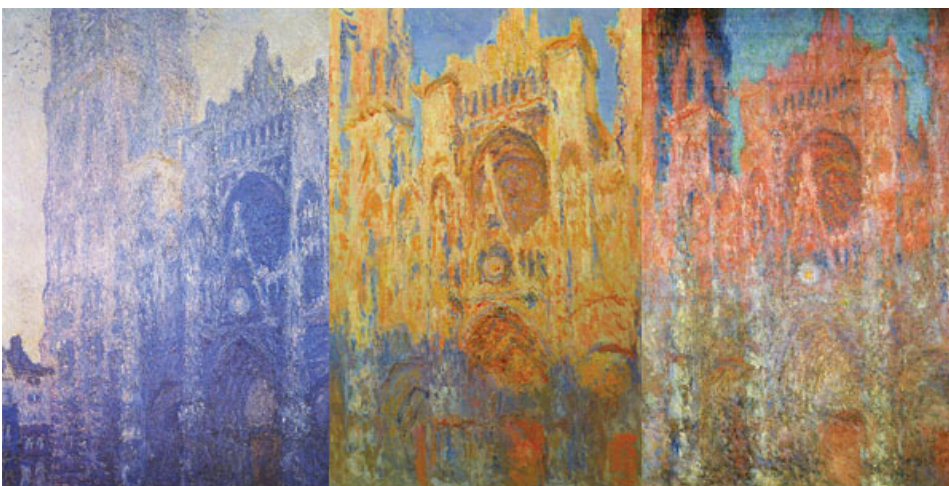
Pic 3: The Cathedral that Monet painted in three different day light. Source: http://www.museyon.com/wp-content/uploads/2013/04/RouenCathedral-1893-94.jpg.
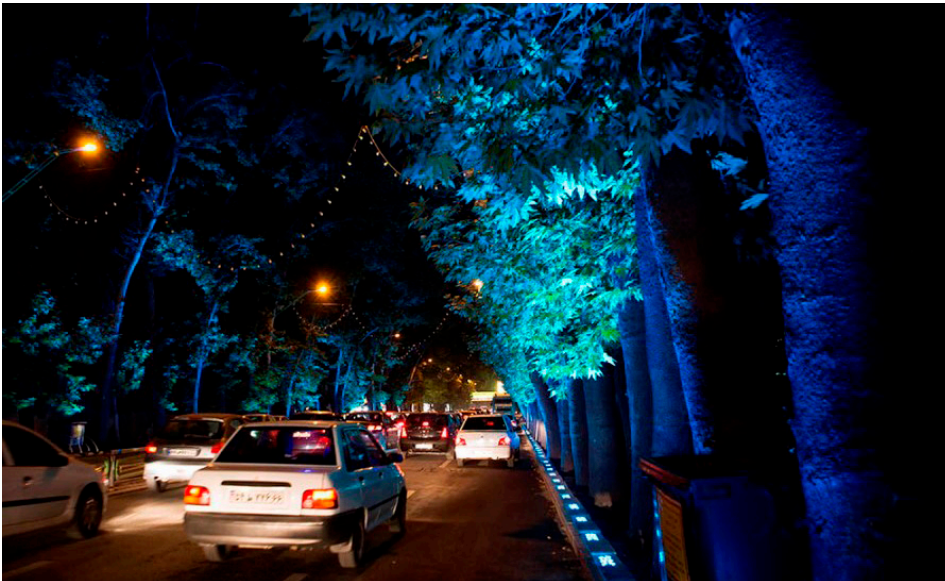
Pic 5: A vision of Valiasr sycamores down lighting. Source: http://shafaf.ir/fa/news/284192.

these trees. Colored lights should use little and just for giving meaning and identity to white and yellow lights. "Otherwise collective memory that is one of the most important reasons for the sense of peace at night, will be distorted" (Basiri Mozhdehi & Mahmeli Abyane, 2012: 37). The possibility of planning LED lamps offers the opportunity to have different color emphasis according to the nature of urban ceremonies for yellowish lights in common.

● Harmony and Color Familiarity

Harmonic lighting causes the increase of place sense (Mahdavinejad & Pourfathollah, 2015: 138). The nonconformity of the above aesthetic principle in this project reduced its quality. Colors such as red, green, blue, purple and yellow have high contrast and considered as the main colors of color wheel. These are selections that used in graphic art in order to catch the viewer attention quickly. These contrasts are intolerable for human eyes for a long time and eyes searches for complementary and more neutral colors unconsciously. The harmonic chromatic considered pleasantly In Iranian traditional art. We can mention color options of Islamic tiling (Pic. 4). Eye-catching colors that obey simultaneous[4] color contrast logic are dynamic and will not disturb eye during time. Lighting Valiasr street is not an advertising poster designing, so it cannot be offer to the spectator in certain aspects, transfer the message in a short time

and the spectator return from it by his own disposal. Color peace in urban arts especially in lighting is an aesthetic priority.

● Studyng the Direction of Lighting and Its Effect on beauty of tress

The Direction and the source of color light should have harmony with environment. Choosing the downer light direction is proper to watching tree from specified angel and suitable for car riders. So pedestrians who are the main goal of night city designs were neglected in this project. This lighting direction emphasized on trees greatness, because it lights the downer part of leaves instead of the upper part as day view (Pic. 5). This caused changing in sycamores anatomy at night and makes it different from its day beauty. This kind of lighting transforms trees to dead items that little visual action being established between them and the spectator. If this lighting was going to be used as a different read outing of Valiasr sycamores for a short time and as an artistic show, it could be a good Justification; But using it for a long time as an urban art that is designed for the public shows weak policies in lighting.

● Dark spaces legibility and their effect on lighting beauty

The combination of dark and lightness and decreasing light pollution has an important role in urban

elements. Darkness should be considered as white and empty background of art in lighting, which is full of energy. Technical conditions imposed caused trees row lighting without distinction. So the exists lights were annoyed and the effect of main lighting as an artistic art reduced. When we full the canvas causelessly with visual elements of color, line and etc., we cannot expect that the result upgrade aesthetic visual literacy of citizens, despite significant cost and time. If the integration of visual elements be based on calculated and specific purpose, then we can hope that the beauty is transferred in art. If without caring about existed lights in night view of a street we proceed lighting, then the visual impact of targeted darkness will be ignored. Darkness is like white canvas in painting. The empty space of a painting has visual energy that so called "White Reading". We may classify "Darkness reading" principle as one of the most important measures of lighting success. For example we can mention one of Rembrandt's paintings. Rembrandt was an artist who can make darkness meaningful in painting composition. His special lighting emphasized on important elements of painting, dived special energy to dark parts of it. Without that emphasize the composition and the main elements lose their visual energy (Pic. 6). Lighting is such as painting, just composition made by lighting on darkness instead of paint on canvas. By this art, some

of the urban elements can be omitted or be emphasized. City night view can be recreated by lighting.

● Selection in lighting by controlling lighting angel and light intensity

In this project, the most emphasize was on the trunks and their texture. Because the lamps are installed on trees foot and the most intense lights are on trees bodies. Gradually towards top of the trees the light sharpness becomes weaker and at the end, tree crown and its top branches go in to obscurity and almost a selected image of tree presents to attendance. Selection in lighting, based on aesthetic principles and not technical accidents, can vary Valiasr sycamores view. Something like this selection about nature happened in contemporary arts (Pic. 7). In this sample Sohrab Sepehry omitted tree crown and emphasized on its trunk and obtain special and different reading from tree.

Emphasizing on tree trunk stress on its strength, resistance and hard parts, instead of Lush and refreshing parts. Common subjects such as trees can be introduced in new forms by the urban artist creativity. Urban art subjects can be repeat such as painting subjects by artist creative look. They can offer new words from fixed elements and make new urban view that is inspiring and stimulating for citizens.

Pic 6: The night watch by Rembrandt. The contrast between darkness and lights. Source: http://historylists.org/art/list-of-10-most-famous-rembrandts-paintings.html.

Pic 7: Painting by Sohrab Sepehry. Tree subject and emphasize on trunks. Source: https://greyartgallery.nyu.edu/artworks/trees-2.

Emphasizing on sycamore's trunks by omitting crowns shows them as row columns that make a natural wall besides the street. Border made by tree in street day view between raceway, pedestrian and street has more emphasis at night view. This lighting emphasis separates pedestrian from street more than before. This fact shows that this lighting unlike night city goals contemplate drivers instead of pedestrians. The visual choices should be studied that to what extent and how can be used in urban lighting and what their effects would be on street landscape. Night landscape that made by lighting has more complicated visual points compare with two dimensional arts. A painting has just aesthetic use compered to lighting landscape that has different usages for citizens; so visual choices in urban lighting art are more complicated.

Result | Urban lighting is not just illuminating with decorative look, but this illuminating should

Conclusion | Aesthetic points in lighting are the main factor. Lighting is an urban art and as the other arts should have aesthetic principles that use by artists and not lighting engineers. The Valiasr Street sycamores identity did not maintained in its lighting. If we adopt the elements of this lighting to a painting, we can consider how to use visual aesthetic to maintain sycamores identify. In this

be along with considering proper background, identity and aesthetics. Identified lighting means light design for special background by index and familiar elements for attendance and considering points of urban art. Decorative look about urban lighting in Tehran, even about its natural and identified elements are not near to night city goals. Due to the new born urban lighting art, we can use visual beauty points in visual arts until the time urban lighting matured enough and achieved its suitable aesthetic and principles. Comparisons done in this text between painting and lighting samples shows that in many points these arts are shared and the rich history of art and its achievements can speed up development of urban lighting. We should lead aesthetic lighting to technical one. What remains in the citizens' mind about lighting is its aesthetic points and not unnecessary technical facilities used in it.

lighting, night background is like a white canvas and the shape of lights such as point, line and surface are like texture in painting. By compliance indicators to aesthetic lighting, we can obtain Valiasr sycamores identified lighting principles. By maintaining city elements identity and positive effect on citizens, in harmonic Lighting, all the results of observing visual aesthetic will boom

night life in city. Lighting should not be an accidental happening without caring about usages. Then we can that observing principles of visual arts aesthetics in lighting characteristic urban elements improve night life quality and citizen's sense of identity.

Endnotes

1. "Pietro Della Valle" Italian tourist wrote in describing Tehran: "If Istanbul is the city of cedars, we should call Tehran the city of sycamores" (www.beytoote.com/art/negah-gozashte/longest3-street2-middle.html).

2. The meaning of color contrast is comparing two colors differences with each other. Seven contrasts are: tone, darkness and lightness, warm and cold, supplement, saturated, symmetry and simultaneous contrast (www.bsnashriyat.ir/1393/07/11).

3. The practice of Pointillism is in sharp contrast to the traditional methods of blending pigments on a palette. Pointillism is analogous to the four-color CMYK printing process used by some color printers and large presses that place dots of Cyan (blue), Magenta (red), Yellow, and Key (black). Televisions and computer monitors use a similar technique to represent image colors using Red, Green, and Blue (RGB) colors.

4. Two colors, side by side, interact with one another and change our perception accordingly. The effect of this interaction is called simultaneous contrast. Since we rarely see colors in isolation, simultaneous contrast affects our sense of the color that we see the real colors are not altered; only our perception of them changes (www.sci-of-archi.blogfa.com/post/5).

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