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Proposing a Method for Analyzing the Color Facade and adopting it as Pattern in Historic Urban Spaces' scape
Case Study: Naghsh-e Jahan Square of Isfahan*

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Abstract

Color as an environmental stimulus is considered as the means for expression of human feelings while reflecting various culture of aspects. Recognizing the characteristics of colors in urban landscape and optimizing their application together with developing responsive urban environments and spaces is major of concern. The concept of color on façade has been and is an inseparable aspect in city planning, because human needs aesthetics. There exist valuable historic urban spaces in Iran where each serves as a unique entity as to formation of an appropriate mosaic. Studies run on the aspect of façade color propose patterns in harmonizing contemporary urban spaces. The objective here proposes a method to analyze façade color and its patterns in urban spaces which include historical structure. The major question of this study is: How the information on environment color concept can be codified by applying modern digital technologies. The method adopted in this study is of analytic descriptive. In this study, the theoretical foundations and history of façade color concept and applied the common methods are analyzed through a combination of digital tools and image processing software. Naghsh-e Jahan Square is selected based on its historical background and its specific importance as a desirable urban space. Attempt is made here to assess the method adopted in our subject area and present the practical implications. The color system applied in this study is CIELab and the method of color strip is applied in the analysis section. The findings indicate that selecting color in harmony with climate in Naghsh-e Jahan Square is an appropriate measure in overcoming to the color problem in urban spaces. These selected colors, in terms of their attribution and characteristics, are in harmony and represented the main colors of the subject space façades. It is observed that the group of complementary color in harmony with the main colors of the background is applied to create qualities like diversity and visual richness, legibility and emphasis on the landmarks and building entrances in an excellent composition.

Keywords

Introduction

The space qualities of public places in cities are considered as the main criteria in evaluating urban spaces. These criteria have been and is being confirmed through works by Lynch (1963), Apple Yard (1981), Carrier (1979), Jacobs (1961), Trancik (1986), Carmona (2003) and etc. These spaces and their corresponding functional, formal and semantic features as unique databases for understanding human perceptions and experiences of aesthetic qualities require more assessment from different aspects to serve as models. One of the main aspects in studying regarding space- quality is the townscape research with the objective to determine different correlations between objective and subjective factors affecting one's perception of space. According to 'Turner' city is referred to as a 'scape'. In his book entitled 'City as Landscape', he argues that the basis of a city is what one perceives and his/her perception from the city is what he/she defines as scape. Studying existing documents regarding historical urbanscapes in Iran like that of Naghsh-e Jahan Square confirm that such urbanscapes have turned into dynamic places. Such historical spaces within different cities, due to their formal patterns, visual appropriateness, contribute to the beauty and richness, desirable function, arranging and creating a space hierarchy and other qualities. Colors, the main factors in the study of historical urbanscapes, show the wisdom of the architects and city planner of their time, where psychological and aesthetics aspects of colors have been implemented. In this contemporary lifestyle, changes in the common aesthetic taste of urban residents due to becoming distanced from nature and the excessive use of artifact materials have introduced a new characteristic of urban space in cities. These changes are not in harmony with nature and the taste of citizen and have therefore caused misconception in the status of the city and citizens thereof. Lack of scientific studies in the field of color for urban spaces in Iran on one hand and the growing importance of the research on the historical cases -especially those requiring an accurate method to survey and study-

on the other led to the selection of Naghsh-e Jahan Square as a case study. The use of appropriate colors ultimately would improve the quality of urban spaces, thus, the recommendation of this study. For this purpose, attend is made to codify the color concept through available digital technologies. When this color coding is accomplished, most probably renovation and conservation of historical buildings will be more feasible. Consequently, preparing an accurate historical data set on color pallet of historical urban spaces is important with respect to following conceptual hierarchy:

• Helping to get a better understanding of aesthetical qualities of space made by consuming color compositions based on cultural and contextual aspects of both citizen and spaces.

• Improving the conservation of these collections based on the context -based protection approach.

• Extracting the folkloric principles and patterns of consuming color and applying these principles and patterns in the contemporary urban spaces.

The research question is how on the new knowledge rather than old methods can be used to capture and record environmental color information in such a way that it is economical and, at the same time, reliable in terms of accuracy. This new information on color can be applied to formulate the principles and patterns applicable in contemporary urban spaces; accordingly, the hypothesis here consists of: digital processing method is more reliable and economically feasible in codifying and analyzing the urban space color data than its manual counterpart.

Literature review

The concept of colors is considered as one of effective elements in identity of the monumental spaces in urban spaces with their profound effect on human emotion and spirit. In general, people choose the colors based on different factors like, personality traits, culture, social norms etc. in this context, Max Luscher (1993), run a test on colors and concluded that the tension and chaos in applying color in general cause inappropriate behavior and could have negative impact on one's personality.

Improvements are observed in studies run on color effect, especially in the last two decades, which provide a strong basis for its recognition as one of the efficient factors in identifying a city`s characteristic. Some studies are run to develop a comprehensive color plan for the cities by (Hee Young, 2000; Kil Hong, 2000), to assess the role of colors on facades and urban spaces by (Chun, 2007; Kodamaa, 2007), to understand disorder and visual pollution caused by colors, to develop coherence and coordination in new developments, to establish a correlation between old and new urban spaces and the textures thereof by (Tipperary, 2005; Van Dusseldorp, 2010; Codoner, et al., 2009). The common point in all these studies is to benefit from the folkloric colors designated to the culture of the given urban space.

In this context, according to O'Conner (2006), Lenclos, a pioneer in color studies of urban spaces found that climate and natural components constitute the unique contributive aspect in developing color palette of city spaces. The results obtained from the study run by Lenclos were applied in numerous studies around the world. For example, Lijima (1997) assessed a number of large and small cities in Japan by focusing on color disturbance of building facades and proposing a consistency between Color of new and old buildings. Porter (1997) run studies on a comprehensive environmental color plan with the objective of minimizing the effects of changes on color identity of existing habitats. These changes often are due changes in material and construction methods in given spaces. In his studies, he adopted color spectra corresponding with a given environment in new urban settlements. According to Foote (1983), building colors have a strategic role in communications among different districts of the city of Chicago.

The impact of a given surrounding environment color on human behavior is well established by (Lijima, 1997; O'Connor, 2006; Porter, 1997; Foote, 1983). In process of designing and organizing urban spaces and public places in the context of interactions behaviors and influenced by cultural,

climatic, biological, and symbolic factors (Muhnke, 1996), colors are often selected by personal choice or are sometimes influenced by the city authority which could somehow result in redundancy. In this sense, building color in its natural context; can contribute to time and place modification which would make a given place more meaningful. Studies run on concept of building color are not bounded to one specific area, region, country etc. Specified field features are of major concern in these studies. The results of which are charted below:

It should be noted that most of the studies reviewed here have adopted qualitative or quantitative methods for extracting and analyzing building colors according to the characteristics and objectives thereof (Diagram 1).

The theoretical foundations
• The urbanscape

The urbanscape, a collection of natural elements and artifacts like the body and spaces of the city, people, and their activities as the first manifestation of the city, reflect the historical, cultural, economic and natural characteristics of the city. The ability of urbanscape is to exhibit and promote a great sense of aesthetic pleasure and astonishment in the ecological complexity, and establish the correlation among societies (Swaffield, 2005: 6). The existing features and patterns in urbanscape develop a strong sense in one because he/she shares the past through them (Lawenthal, 1997). In fact, the urbanscape is the interaction threshold, the mutual understanding between man and environment interpreted through expression of the city's historical layers, and eventually reproduce the qualities that bring the old and new values of the city together.

Cullen called for a citywide visual appeal with an emphasis on the sensory effects that the landscape could have on urban residents and visitors. People not only need to discover and understand the function of buildings or urban spaces, but care about their visual perception and apparent organization. People make sense of the world around them, and focus some of
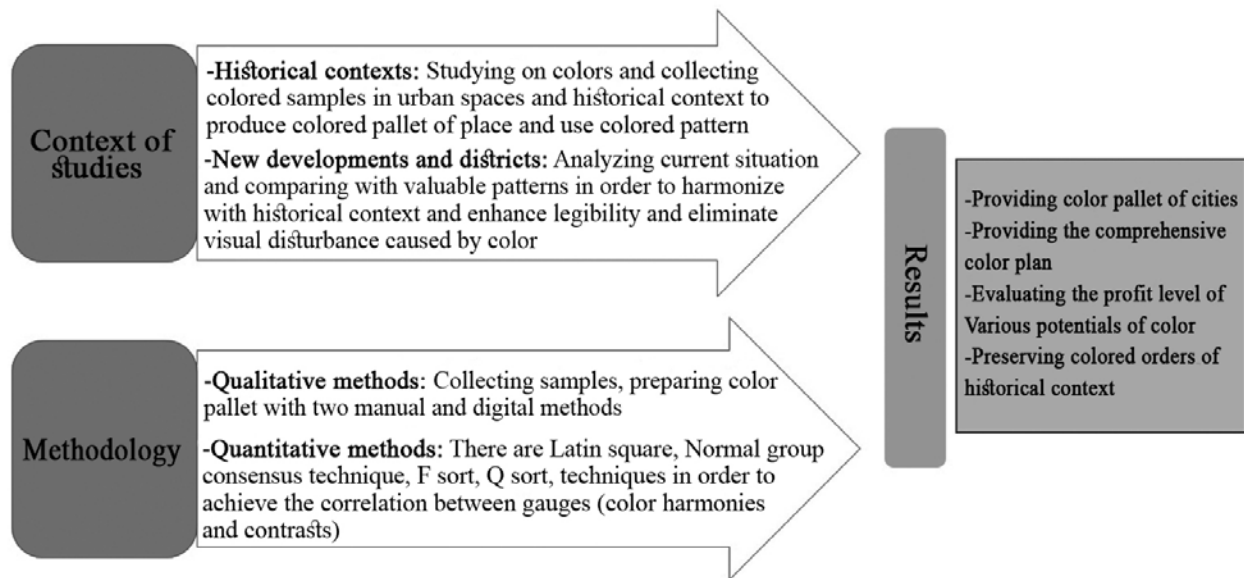
Diagram 1. Typography of color studies based on the research background. Source: authors.

their mental activities on urbanscape. People seek to deepen their aesthetic pleasure and their objective visual organization through scape patterns. The urbanscape is the knowledge of the concept of the city for locals who have lived in this environment throughout the lifetime and have developed created a meaningful relation with the natural and artificial scenery of the environment, a great contributor in urban sustainability (Mansouri, 2009).

Golkar believes that the visual environment and urbanscape reflect the given societies perception through a complex system of social, economic, and cultural characteristics. In the process of interaction between human and the urban space, the visual environment provides the grounds of perception, recognition and environmental evaluation of citizens and visitors as a "common ground". Cities with a desirable visual environment can expand their citizens' aesthetic experience, enhance their mental image of society and promote their pride in sense of belonging (Golkar, 2008). The old urban textures formed due to economic, social and cultural reasons gradually loses its identity due to incorrect mixture

with contemporary life style. Therefore, it is assumed that focusing on urbanscape of these textures and coordinating the new and old urban structures should be of concern because of identification and life cycle in urban environment (Habibi, et al., 2007).

• **Color in urbanscape**

The effect of factor color together with factors like effect of shapes, rhythms, scale, complexity, etc., which constitute the aesthetics of the urbanscape, as one dimension and symbolic dimension (perception of people from the perspective), are the two aesthetics dimensions in artifact. (Lang, 2005). Reza-zadeh (2007) believes that formal aesthetics includes the tangible aspect of space and the visualization of space or their composition and the quality of color and materials. Moreover, colors have a semantic meaning that enhances scape perception. Mansouri believes that that the designs of urbanscape in historical cities of Iran are in harmony with the nature and the social texture. Moreover, the structural elements like minarets and wind towers as vertical elements represented in cream and blue colors, in contrast to the horizontal and soft curved

topographic background of natural colors expose a common view of the Iranian city (Mansouri, 2010); this observation leads to maintaining a unique color identity in harmony with ecological texture and macro landscape. French explorer writer, Luty claims the following about Isfahan, "The eastern houses this turquoises blue and lazuli city, especially in bright mornings, are extremely beautiful and appealing". According to Nafisi (1996) the urban scape described by Luty the picked from documentations regarding Isfahan prior to his visit in late nineteen century know significant difference is observed in the city façade. He wrote that the comprehensive plan of city then was based on concentric-circle concept, where each circle was distinguished from others through its color codes.

In general, four-color systems can be extracted from the studies on colors in urbanscape of Iran. Choosing these systems were subject to economic ability and political situation. Since the multi-color and multi-material system is more specialized than the single-color single-material system, it was applied in more specific areas. Ardalan and Bakhtiar (2011) referred to these color systems as 'single-level' and 'multi-level' color systems. To them, colors extend a given line more clearly up to the third dimension and deepen the level of individuality of the surface. The reviews made in this context allow the authors here to claim that the traditional artist developed a composition of color, space and size in a simultaneous manner to expose the conceptual aspects of their works (Table 1).

• **Naghsh-e Jahan Square: a historical urban space**

According to Trancik (1986) the combination of two main types of urban spaces, the square and street, constitute the city's structure. The square has a special role as the initial hub of the city network which is connected to other squares through street, thus providing urban flow. Among all historical squares most of which are destroyed or changed functionality during time, Naghsh-e Jahan square as the remaining rich monumental space is selected for this study. The Naghsh-e Jahan Square, an urban Arsan (a collection of buildings that meet the urban needs) occupies an area of 150 * 500 m2 constructed in Safavid era in early 11th century A.H (Pirnia, 2005: 287). In its existing status, this square is the only example of the urban historical spaces with almost no major change in its initial structure. (Shahabi Nezhad, et al., 2014).

Methodology

• **Color system**

A color system is an effective measure to sort, identify and reproduce colors. An appropriate color

Table 1. Color systems in Iranian urbanscape. Source: authors, Retrieved from Ardalan & Bakhtiar, 2011.

system should have three properties: 1) all items must be standardized in order to display the colors, 2) all colors must be continuously arranged and coded and 3) the color intervals should be consistent and connected. In general, there exist many color systems referred to: Munsell Color, Ostwald Color, CIE, RGB, CMYK, and NCS (Bakhtiari-Fard, 2009: 26). The color system is essentially a structural model of the chain and color ratios, essentially based on the two basic principles, color physics and the precise measurement of the spectral properties of colored lights (Holtzschue, 2006: 27). The system applied in this study is of CEI Lab model, or L*a*b, which is most closely aligned with human color vision compared to other systems. The color space L*a*b or CIELab is a universal color measurement standard adopted by the 'International Commission on Illumination' in 1967, where L* is a brightness or transparency component within 0 to 100 range, and a* (from green to red) and b* (from blue to yellow) are two color components with unlimited range, but in most articles their range is within -120 to +120. This abstract color space is independent of the device

and color is expressed as a fixed number (Technical Services Department 1996); (Fig. 1).

• **Site survey**

Any change in the amount of light causes a change in the color of the environment; therefore, the effects of factors like light intensity and weather conditions on the color space should be of concern. This fact causes urban elements to reflect different colors at different times. The texture of materials contributes to color reflection (Avila, 2004). In this manner, developing a method with the least error rate should be considered to draw color samples while at the same time being simple and cost-effective. The purpose of reliability is imbedded in the methodology which should produce results independent from personal conceptions. Developing the method applicable to a large number of color samples in a reasonable time, without the need for specialized equipment is cost-effective (Nguyen & Teller, 2017). In the past [including studies by Lancelot (1977) and Porter (1997)], a database was developed for environmental colors including sampling and categorization in a completely manual method. This method is a very
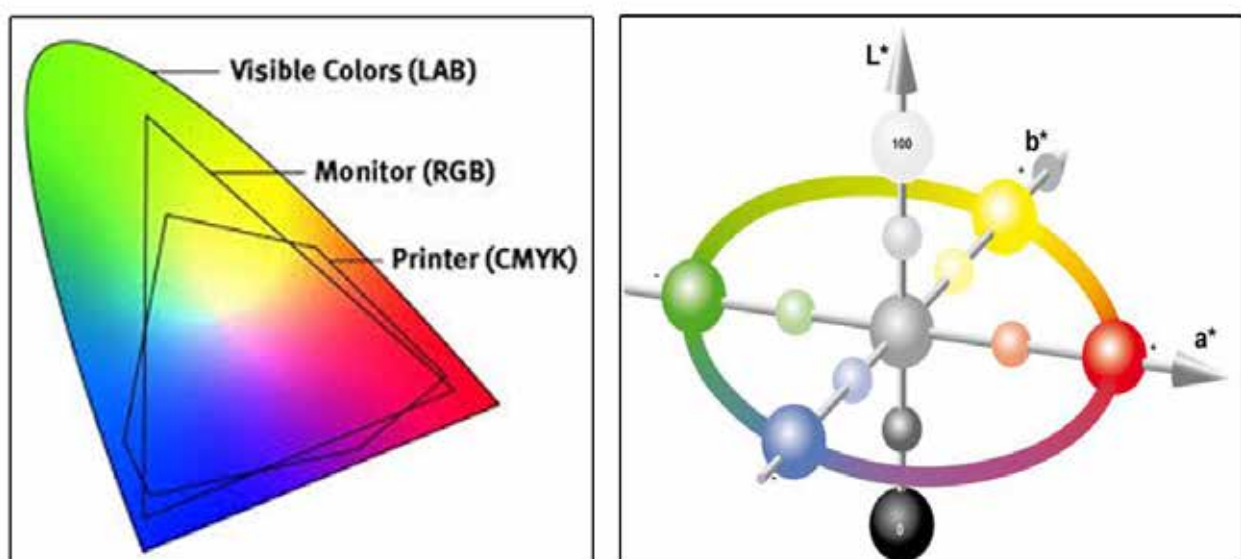

Fig. 1. Right: Schematic diagram of the CIE Lab color system. Left: Comparing the color range of the color system Lab compared to the two RGB and CMYK systems. Source: authors.

time consuming while being expensive. In recent years, manual methods (O'conner, 2006) are replaced with modern techniques and tools (digital cameras) and image processing software (such as Photoshop). In this case study, the following steps are taken, the camera applied here is of (Canon Power Shot XH-DS 60) model.

A) A unique method is defined for recording environment color based on the weather, lighting, and photographic conditions. In order to maintain stability in the assessment of the color in urban spaces, the definition of stable conditions in terms of brightness is necessary. For this purpose, all photos are shot between 12:00 and 2:00 PM when all façades are subject to the maximum sunny conditions with the least shadows.

B) The "auto white balance" and "custom white balance" are made in this camera according to camera use instruction. Through the white (or gray) reference card the photographic sample is produced to check the stable light conditions. In addition, to detect the white balance after recording the images using Photoshop's levels setting, this alignment is made. All photographs are shot at a straight and constant angle, 10 meters from the façade (Fig. 2).

C) Any city view is composed of: the main background, the framework of the doors and windows, the ornaments, the components and extensions of the facade, like canopies and etc. These components can be studied depending on the purpose of the research. Considering the plurality of colors applied in tile ornaments of Naghsh-e Jahan Square and based on the purpose of this study, only the main colors of the background are analyzed in this section. For this purpose, the complete façade of the square is photographed according to the procedure described in step 2 and the corresponding colors are simplified based on the specimen in Fig. 3.

D) In order to analyze the colors applied on the facades, color strip method is adopted. This method is adopted in studies run by (Chun, 2007), (Doherty, 2014) and (Nguyen & Teller, 2017). For this purpose, after simplifying the vertical surfaces, the area of each color is calculated in relation to the total area of the given surface, and the percentage of the total area is plotted in the form of colored strips to compare the covered area by each color in an easy manner. The length of these strips is proportioned in 100 units that is the number of units assigned to each color indicates the percentage of that color in the facade.

Fig. 2. Left: Image before correction, Right: Corrected image after aligning using Photoshop. Source: authors
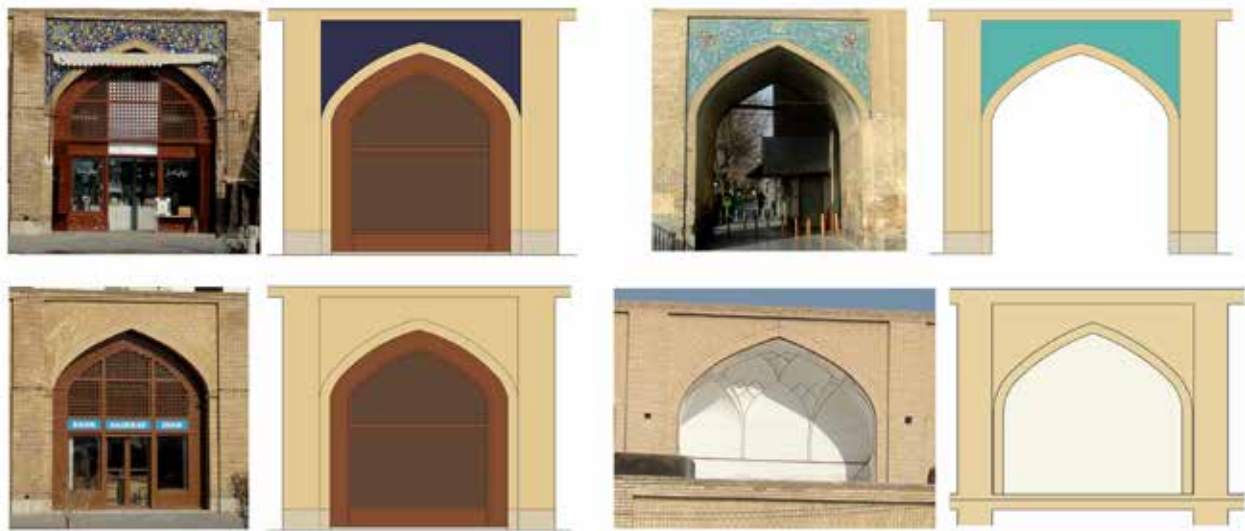
Fig. 3. Simplifies the surfaces of façade based on the original colors. Source: authors.

It should be noted that the photos in Figure.4, taken from the different facade fronts of the square are only applied to introduce the façade. Due to the great number of photos to be analyzed only some samples are illustrated in Fig.4.

Findings

• Color analysis in facades

Adoption of this method is multi- perspective:

- One of the issues regarding historical urban spaces is their conservation and restoration which must be made in a precise method. An accurate database including the main color palette, the details of the facade and the buildings located in these spaces can be generated through this method. Consequently, in the restoration process where the exact code of each color is applied, the error rate is minimized in terms of coordination between the restored and existing parts.

- In terms of qualitative and quantitative assessment, the color strip method provides for the comparison of percentages assigned to each color of the façade in order to determine the significance of that color as being the main color. Moreover, color stacking in

strip form allows the color analysis at different levels as to similar and complementary harmonics.

-The three codes related to the L*a*b variables allow for technical studies on the colors applied on the façade in terms of the difference in brightness and the degree of harmony of colors, Fig.5. If there is a turbulence in the façade color, the above- mentioned variables can identify and correct them.

The analysis run in this study consist of:

• The Cream color (Lab code: 86/4/26) is the dominant (with a percentage between 37 and 57 in each of the square fronts). On the first floor a light Cream color (code Lab: 94/1-/8) is dominant. On The plinth with dominant Gray Cream (Code Lab: 18/0/81) is in full harmony with the façade dominant color.

• The Brown wood tones (Code Lab: 53/15/38, 43/22/29) applied for openings when compared with three variables L*a*b in the overall background, indicate the acceptable coordination in the whole scenery.

• Azure Color (Lab: 19/11/-26) and Turquoise color (Lab: 55/ -22/16) are applied as the dominant colors in the ornament area. The numbers (-26) and (-16) in variable b indicate the application of complementary color harmony to generate maximum degree of visual
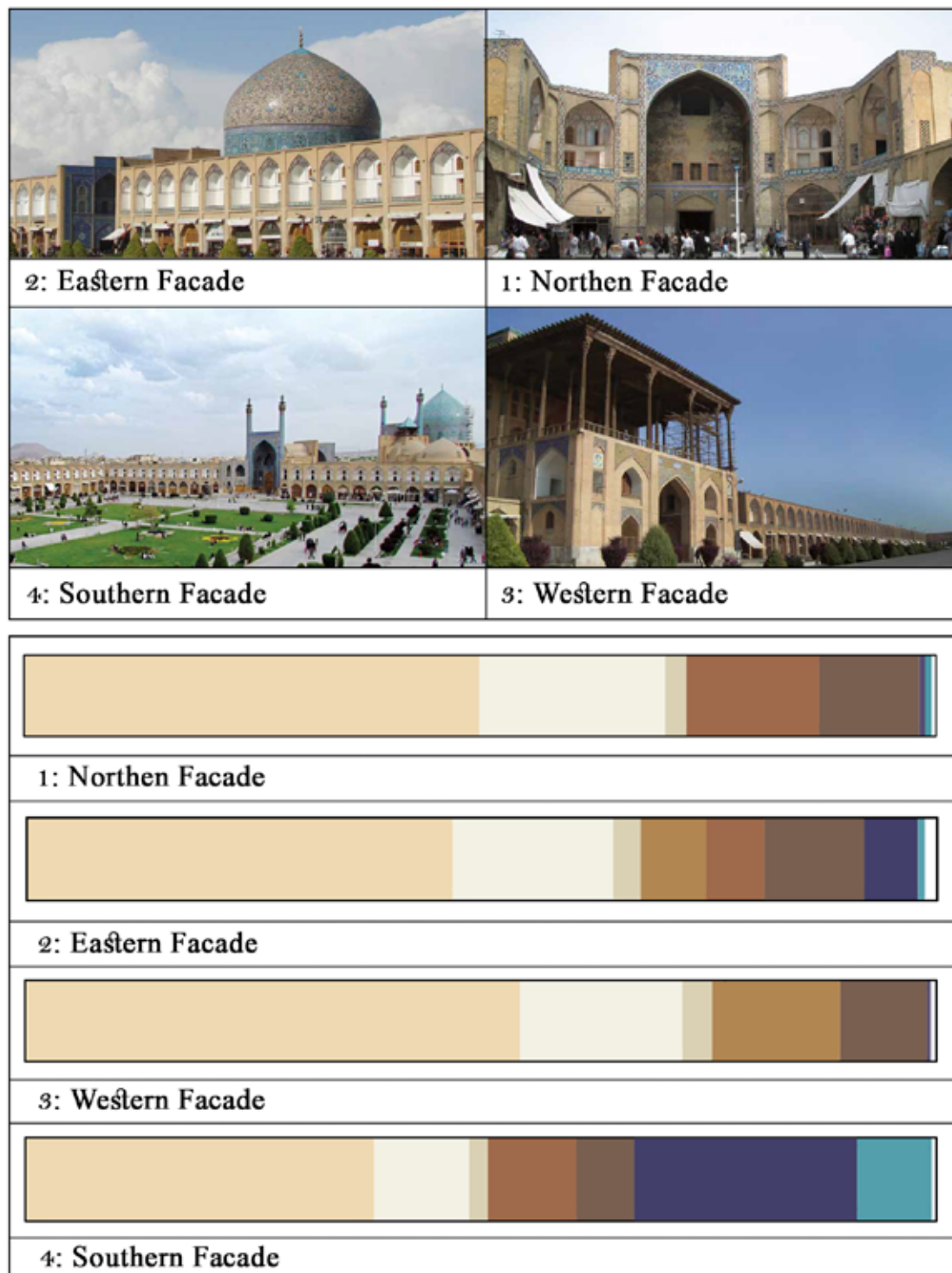
Fig. 4. The color strip of the four main façades of the square. Source: authors.

contrast with the colors applied in the façade. Although, the proportion of applying these colors especially for three north, east and west façade is insignificant, it meets the design purposes (emphasis on index points, rhythms, enrichment and visual diversity).

• Comparing the color strips in four main square facades indicates that harmony of complementary colors (Cream / Lazuli) in the south façade is

Northen Facade

Color	CIELab Color Code			Percent
	86	4	26	52
	94	-1	8	17
	81	0	18	5
	53	15	38	-
	43	22	29	14
	34	11	13	10
	19	11	-26	1
	55	-22	-16	1

Eastern Facade

Color	CIELab Color Code			Percent	Explanations
	86	4	26	46	The main color used in the façade
	94	-1	8	16	Very bright cream color used in the second floor rooms
	81	0	18	5	Grayish cream color used in plinths
	53	15	38	8	Dominant honey color used in door's frameworks
	43	22	29	7	Dominant brown color used in door's frameworks
	34	11	13	11	Darken brown color from reflection of light in glasses
	19	11	-26	6	Azure color as the dominant color in ornament
	55	-22	-16	1	Turquoise color as the complementary color in ornament

Western Facade

Color	CIELab Color Code			Percent
	86	4	26	57
	94	-1	8	17
	81	0	18	5
	53	15	38	12
	43	22	29	-
	34	11	13	9
	19	11	-26	-
	55	-22	-16	-

Southen Facade

Color	CIELab Color Code			Percent	Explanations
	86	4	26	37	The main color used in the façade
	94	-1	8	12	Very bright cream color used in the second floor rooms
	81	0	18	4	Grayish cream color used in plinths
	53	15	38	-	Dominant honey color used in door's frameworks
	43	22	29	10	Dominant brown color used in door's frameworks
	34	11	13	6	Darken brown color from reflection of light in glasses
	19	11	-26	23	Azure color as the dominant color in ornament
	55	-22	-16	8	Turquoise color as the complementary color in ornament

Fig. 5. The colors used in the main palette of Nagheh-e Jahan square along with the color code in the CIELab system and the percentage of each color in the façade. Source: authors.

dominant. This dominance is justified due to the location of Abbasi mosque where Azure and Turquoise colors are dominant, both in terms of the visual emphasis and symbolic meanings of these colors. On the contrary, this type of harmony is visible on the west front at its lowest rate.

• Analysis of the three variables L*a*b for the three main colors of façade indicates that these three colors are similar to the group of harmonic colors because the size difference for these three variables is L: 13 units, a: 5 units and b: 8 units. These three variables follow the same pattern in the two main colors applied in the openings where the difference the variable L is 10 units, a: 7 units and b: 9 units. The two variables with the most effect on the recognition of colors as the similar or complementary harmonics are a (red to green tonalities) and b (tonality (yellow to blue). Changes recorded within a 240 range in this case study are less than 10 units for two variables where the colors have the most similar harmonic levels (Diagram 2).

• Unlike similar color harmonics available in the main colors of the façade and openings, the two main colors applied in ornaments are Azure and Turquoise with complementary harmony with the original color. Comparing three variables L*a*b for two colors of the Cream and Azure; the variable b generates 52 units of change. For Cream and Turquoise colors, the variable a: 26 and variable b generates 42 units of change and for both colors the negative sign indicates that in the CIELab system these two colors are in the harmonic spectrum of complementary colors of Cream (Diagram 3).

Color analysis in ornaments

In Naghsh-e-Jahan Square Tile works, embodies a wide range of colors, which exhibit sensory richness. In addition to the visual appeal, the choice of these colors is based on symbolic, mystical and aesthetic objectives. In order to analyze the color patterns
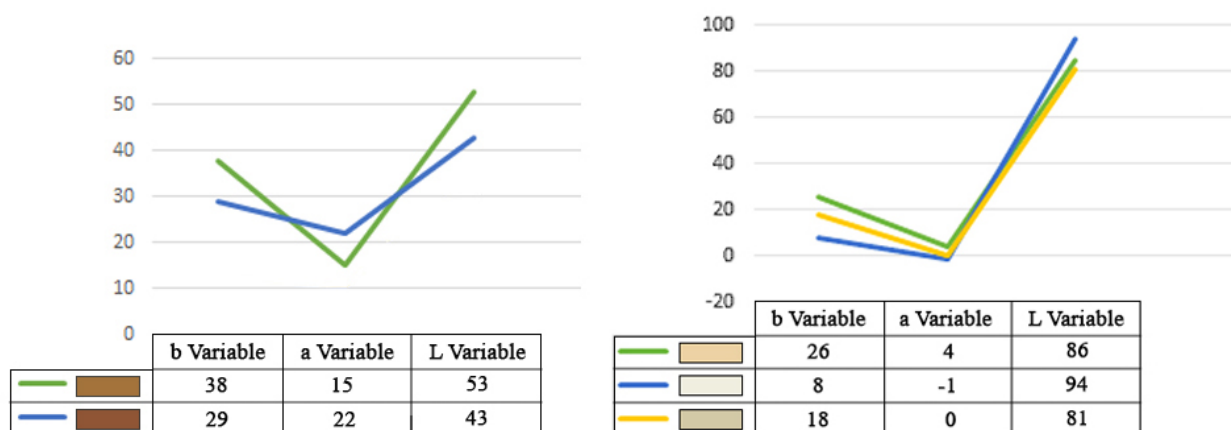
Diagram 2. Right: The status of three variables L*a*b for the main colors used in the façades. Left: the state of the three variables L*a*b for the colors used in the openings. Source: authors.
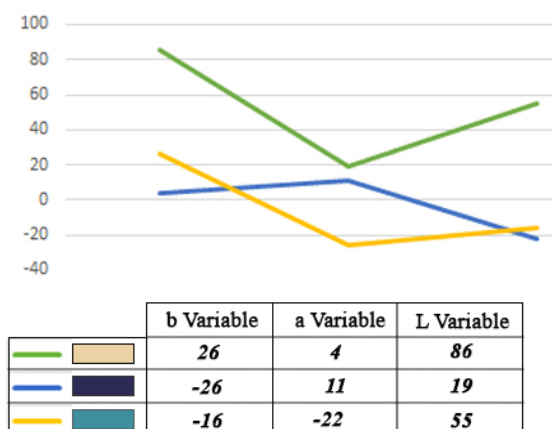

Diagram 3. Compare the three variables L*a*b for the main colors applied in the background of ornaments (lazuli and turquoise) with the main background of façade (cream). Source: authors.

in tiles, samples are photographed, and Photoshop software is applied to analyze the colors of the motifs and the background.

Examining the Lab Code of ornaments' colors in this case study indicates:

1. The highest color spectra in tiles are of Azure, Turquoise and Green. The difference between the two variables a and b and the negative number of these variables in comparison with the Lab Code of main color of façade (Cream) indicates existence of a complementary harmony among this colors' spectra with the color of the background. Thus, there more exposure in the Cream background of façade.

2. The colors in tile works are highly associated with cultural aspects. According to tile coloring method (Safavid era), the seven colors of Black, Brown, Red, Yellow, White, Dark Blue (Azure) and Turquoise are dominant colors. The same colors are the symbolic ones applied in the lifestyle, art and literature of Iranians. Poet Nezami depicts the values and aspects of each one of these symbolism colors in his book, 'Haft Peykar' (Krotkoff, 2005; Balkhari fard, 2009);(Fig. 6).

recommendations based on colorscape study in square

The findings and recommendations of these study are briefed as follows, Table 2.

Conclusion

Identifying different dimensions of color concept in urbanscape leads to establishing sustainable urban space perception in the minds of citizens . Historic urban spaces as valuable old architectural and urban patterns

Table 2. Findings and recommendations based on colorscape study in square. Source: authors.

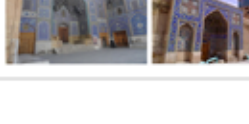| Findings	Recommendations and Explanations	
Use the color in harmony with climate	Use the cream color bricks as the dominant color of space due to low heat absorption	
	Use turquoise and azure colors as complementary color of bricks due to the psychological effect of cold color in warm climate	
Use harmonious color tonality	Use overhanging and recess parts in the surface of building to increase the color tonality which is adjustable by light (increasing the visual variety) The Penumbra makes a contrasting color and harmonic tonality from one color	
Use color for visual emphasis on landmarks	Emphasis on landmarks with the form and apply complementary colors in harmony with background	
Use color to define urban identity	In cities with specific color identity, use that color as a part of place identity in urban space In cities without this feature, define a specific color to emphasize uniqueness	
Pey attention to the color and style of architecture in urban spaces	In revival of historic squares, color scape results from style For instant, in Isfahanian (Safavid) method more various colors (cream, turquoise, yellow, white and black) are used compared to Razi and Azari method and in compared with seven color tiles in terms of color aggregation in one point	
Avoid cognitive tiredness	Use simple color composition (low aesthetic information level) in background in larger area and use the complex color composition (high aesthetic level) in smaller area	
Defined skyline and groundline	Use different colors from facade in defining groundline And specially skyline	
Emphasis on visual balance with the use of color on the facade	Color changes in details of façade to emphasize on horizontal and vertical stretch (emphasis on rhythm in space)	
Use the harmonious colors in details like doors, windows shop signs etc	The belonging sense of space users has been accepted until the total unity has not been limited. This matter is seen in harmony of element with variety in Naghsh-e-Jahan Square	
Pay attention to the Cultural aspect of color in the local cultural of place	For example, in Naghsh-e-Jahan Square, azure belong to earth and turquoise is holy color in ancient Iran	
Use various and happy color spectra In order to increase richness of urban space	Black, brown, red, yellow, white, green, dark blue and turquoise color obtained from analyzing the colors of details on Naghsh-e-Jahan Square façades	
Emphasis on building entrances by changing color and details	Use combination of brick color (cream) and tile color (blue) in entrance of distinctive buildin which has defined the pre entrance and the hierarc of entrance in different spaces	
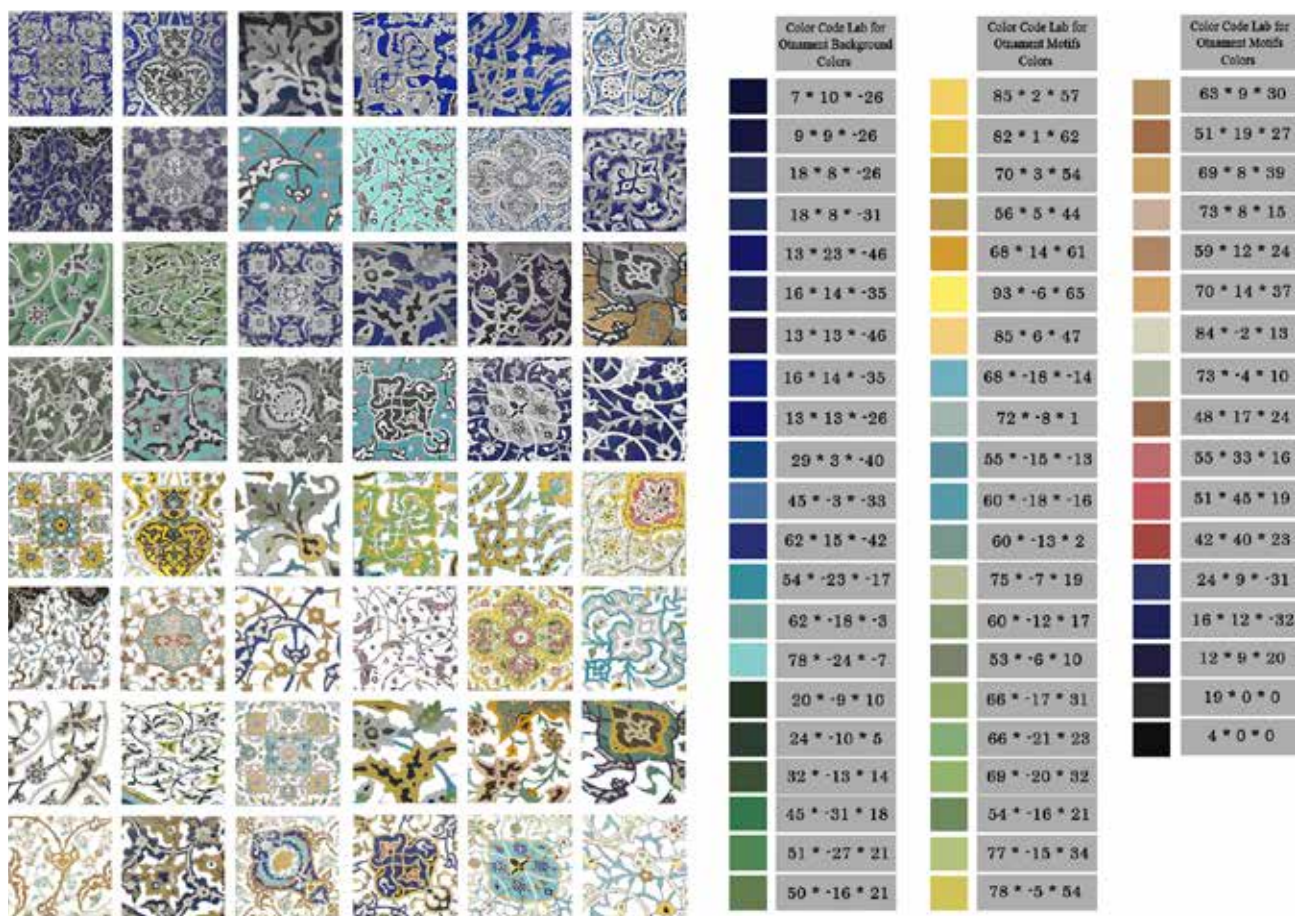
Fig. 6. Colors used in the background and motifs of tiles in the Naghsh-e Jahan with the color code in the CIELab system. Source: authors.

have their special contribution in shaping this image. Color studies in these spaces are important both in terms of historical monument and spaces preservation and modelling contemporary urban spaces. The conceptual features of space influenced by climate and culture are contributed in formation color patterns, which are evident in historic urban spaces. Consequently, an efficient and simple method in color studies the findings of which can be applied by relevant institutions for producing palettes and color patterns in historic cities is essential. Thus, in this article, Naghsh-e-Jahan Square is selected as a case study with respect to its unique historical background. In this study both the structure façades and related ornaments are analysed. A complete harmony is observed in all aspect of color used in this historical structure, unique to Isfahan architecture. Being almost one of pioneers in this context, it can be claimed that more analytical experiences and methods are necessary in Iran to introduce more new ones in this field. It is recommended that Studies on 'Comprehensive Color Plan', which is a firm base for recognizing color as one of the factors influencing the identity of places must continue in order to accomplish more.

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