

## **Concept of missing piece of color in the perspective of urban facades (Case study: city of Ahvaz, Salman Farsi street)**

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### **Abstract**

City streets as a part of the public spaces in cities play an important role in meeting human needs. Many urban theorists account city streets as one of the main components of urban system. So behaviors that form these spaces should be noted and examined in order to provide more dynamics in these environments and meet the needs of the people. Since efficiency of often used colors in city streets are in the low level as a result of non-compliance of users' needs with suitable environmental qualities that suit behavioral domains, it is necessary to consider principled program based on the behaviors of users in such spaces.

Since an important part of human interaction with the environment is related to colors, attention to colors as aesthetic elements to human environment is significant. Factor of Color in urban spaces causes Mental and visual relaxation and boosts our perception of spaces. Salman Farsi street in the city of Ahvaz was selected as case study research.

This study is a field research with analytical and descriptive approach and tries to answer this main question that what is effect of Patterns, behavioral domains and colors on improvement of people's psychological quality from streets and urban landscape and how can it be achieved?

In this study, quantitative analysis of index using a design of behavioral questionnaire based on the sample size has been conducted.

The results of this research demonstrate that Given the crucial role of color in human life, with application and the appropriate companionship of colors in the body of city, whether from the perspective of beauty or identity, Urban planners can reduce many behavioral problems in urban life by applying appropriate strategies.

**Keywords:** calm, climate, street, color, City, facade.

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## **1. Introduction**

Iran's southern coasts have been separated by the Zagros Mountains from the central plateau, constitute hot and humid climate in Iran. Make very hot and humid summers and mild winters are some of the features of this climate. Its multinational residents and indigenous groups such as Arabs, Lor Bakhtiari and Fars have caused to create different dialects and tastes and cultures.

Since an important part of human interaction with the environment is related to colors, considering to the colors as aesthetic elements and human environment have special Importance. Using the right colors in the face of urban spaces leads to our mental and visual peace and enhances our understanding of space.

City is an environment where human beings live, work and commute. A place where they meet in social interactions , expand their knowledge , entertain themselves and are affected by so much wonderful surroundings [1].

Depending on the wishes of residents, their education, life records, belonging to the cultural domains, professional interests and their objectives of urban environment, they gain different perceptions and thus they have various attitudes and behaviors toward the city [2].

Color Unlike form, size, facade or flooring is not in situated in the hidden layer and most of us are affected of available colors unconsciously or consciously when viewing an urban landscape. Less attention is drawn to the issue of color in regulations and rules of design.

Nowadays color of buildings is chosen according to the tastes of the their owners or materials which are present in the market regardless of climatic and cultural conditions, While in the not too distant past, people were trying to be modest and introverted And this matter is observed in simplicity and unadorned facade of their structures (whether from the perspective of design and selection of materials or painting), So that specific color or texture was considered as a city's identity [3].

Urban landscape the carries a meaning for residents, as it demonstrates the history, culture, nature and collective memories of different generations from different perspectives [4]

Human mind forms the landscape and also is shaped in the landscape so that urban passages or streets as a one of the perspective in urban space is Objectivity derived of its shape and a symbol that opens up Cultural values and ideals [2].

In general there is a very sensitive relationship between people's tendencies and certain colors. Human mind is affected by the colors, so one of the easiest ways to restore peace to the people is using the appropriate colors, especially In Harmony and proper coordination in the context of urban aesthetics. [3].

## **2. Necessity of the research**

The overall goal of this research is the role of color in the plan of urban space affected by building facades and its impact on the perception and behavior of people and ductility and influence on behavioral patterns, particularly in public places, especially in urban streets.

Sub-goals in this research include examining the visual harmony and tranquility created by the colors in available physical condition, Determining the Location of the greatest amount of visual disturbance based on satisfaction table and rate of acceptance in colors of facades in the Salman Farsi street (Naderi) that is one of the main thoroughfares from different dimensions of the business and administration and services in the city of Ahvaz. This street has been considered as a Case study of research.

### **3. Research Hypotheses**

1. It seems that Color turmoil in the visual landscape of the Salman Farsi street is in such a way that has a very negative effect on the demeanor and spirits of pedestrians of this street.
2. It seems that the tonality and color values in Salman Farsi street have been implemented regardless of climatic conditions and the mood of the people of this area.

### **4. Research question**

How can we provide a solution with the implemented facade of existing buildings in Salman Farsi street for amending and coordinating present colors to create calm on the spirit of pedestrians?

### **5. Estimation of sample size and sampling method**

In this study, Salman Farsi street, that its old name was Naderi, is located in the center of Ahvaz it is extended along the East to West and it is situated in the East of Karun River and it is one of the busiest streets in the eastern part.

Salman Farsi street in the first zone in Ahvaz is considered as a volume of sampling to collect information about research.

Sampling method has been conducted on the basis of a questionnaire from three groups including pedestrians, market traders in the Salman Farsi street, building professionals.

### **6. Research Method**

in this study, it has been tried to study the issues with survey description of the effective factors by making a comparative perspective for Comparing the required items together And observing Concrete sample in the region.so it has been attempted to examine missing calm of colors on the façade of the existing building based on the status quo and observations of Salman Farsi street.

### **7. Research literature:**

So far, many studies have been done in the field of improving the quality of urban spaces which is the most important place for social interactions occurrence and the source of vitality and dynamism in cities with an emphasis on impacts of behavioral environment at inside and outside

of the country. It seems that before World War II, Research about Behavioral Sciences has not had much impact on urban design, architecture and theory related to it.

In the field of international experience, the prominent scholars who have considered to the investigation of psychological and mental effects of urban spaces on the behavior of people And also they have presented theories in relation to environmental and behavioral influences. Among them can be referred to Kevin Lynch,

Erwin Goffman, Roger Barker, Erwin Altman, Amos Rapoport, William White, Habermas, Romedi Passini, Allotment, Holvil and Moore, Ian Gal and John Lang.

Among the most prominent Iranian experts who has focused on the environmental and behavioral impacts can be referred to Hussain Bahraini. In his book named analysis of urban spaces, He evaluates the qualitative and quantitative behavioral patterns of users from the street in which from his point of view is the main element of urban form.

Behnaz Amin Zadeh also in a research entitled "*Design and proposed behavioral patterns suggestions for improvement of city streets*" studied compatibility and flexibility of behavioral place through Hierarchy of human needs. Key components of experts' comments have been pointed out in Table 1.

**Table 1: Key components theorists. Source: author**

Theoretician	Year	Theory	Key components
Roger Barker	1968	Behavioral setting	Continuous activity , territory and environment, Structure of environment of location- behavior - period of time
Irwin Altman	1975	Environment and social behavior	Privacy, personal space, territory and congestion
Erwin Goffman	1967	Study of Behavior in public space	Approaching humans To each other and strengthening social tendencies
Kevin Lynch	1960	Urban landscape	Node-edge-mark-path-area as five elements which make urban landscape
Amos Rapoport	1977	Human aspects, City form	human passive position against the Environment of orienting pedestrians in urban spaces, Culture, perception, cognition, behavior and Built Environment
Habermas	1980	Instrumental and Communicative action	Relationship between human and environment
William White	1980	social life in small urban spaces	Emphasis on the social role of urban spaces
Ian gahl	1987	Living among buildings	Three activity groups in urban space (necessary, optional, and social categories)
Allotment Acts, Holvil and Moore	1985	Evaluation of urban landscape	Examining psychological and mental effects of city spaces on the people
Romedi Passini	1984	Routing in Architecture	Orientation of people in urban areas and considering users' specific needs
Hussein Bahraini	1996	Analysis of urban spaces in relation to the behavioral patterns of users	Provision of appropriate rules of designing By quantity and quality analyzing of the of street space And behavioral patterns of users particularly pedestrians
John Lang	1987	theoretical creation of architecture (the role of behavioral science in environmental design)	Human perception of space, people's imagination of environment as a mental schema

## **8. Problem statement:**

In New Urbanism, the role of color and how to use color materials and specific rules of it, are a part of research in most of developed societies and different Charters have been created for Garnishing visual appearance and also spiritual view of cities of such countries.

As a result of expansion of the urban environment and the development of its various aspects of both physical and social relations, it should be considered to The color concept and its role in the urban development and urban streets to create a balance in the environment and earn a mental-psychological health and comfort in urban spaces and to obtain a special charter for the physical structure of each city, provides the possibility of sustainable development.

Color has a subjective concept. The utility of working with color requires recognition of Mental concepts that they a society in process of evolution, has believed them from its emergence. Perhaps colors are joyful for many people and this sense is the least feeling that is expected to see them. But, given the importance of Salman Farsi street. In terms of business and commute, mental influx of colors on people of this region is in such way that does not meet any of the items listed above. With the passing of time and lack of attention to this important issue by building executives and according to the theory of behavioral setting that environment and different factors have a psychological effect on people, colors have not provided needed calm on people spirits .

It did not meet people's factors so desired or not, people of this are deprived of color harmony and their psychological value to obtain required peace. Therefore, in this study it is intend to investigate the influences and Implement appropriate solutions for this important issue. For this purpose, it can be referred to successful models inside and outside of Iran.

### **8.1. Foreign and domestic case studies:**

Among Some successful models of domestic samples to create solutions which have been used to Eliminate turmoil in used colors in The body of street and urban landscape and make psychological comfort of their people caused by them, Taleghani street and also avenue of Imam Khomeini , as one of the busy streets in the center of the city, in Ahwaz Can be noted.

By constitution of a porch with a simple form and placement of red on white bed in Taleghani street have caused to create the texture with warm and calm colors.

In Imam Khomeini avenue with brick texture and Chevron form of porch which is applied in the body leads to elimination of turmoil in colors of these passages. In addition, it causes to make appropriate harmonious texture So that other used colors have recovered their calm. Nawab Safavi street in city of Tehran can be cited as other examples of domestic cases. Pictures 1 and 2 and 3.



**Figure 1:** Taleghani street in Ahvaz. Source: author



**Figure 2:** Nawab Safavi street in Tehran.  
Source: author



**Figure 3:** Imam Khomeini street.  
Source: author

Among prospering foreign samples can be noted to Champs-Élysées street in Paris- France that by creating a green belt of trees on both sides of the street provides a unified and relaxing view. While pedestrians benefit from view of nature and color of the trees, do not see color confusion caused by commercial billboards and advertisements and a sense of calm and vitality is created in them (figures 4 and 5).



**Figure 4:** Champs-Élysées avenue in Paris  
France. Source : [www.parsacity.com](http://www.parsacity.com)



**Figure 5:** Champs-Élysées avenue in Paris  
France. Source: [www.publicspace.org](http://www.publicspace.org)

La Rambla street can be pointed out as another foreign sample that is one of the busiest and most vibrant streets of Barcelona in Spain. This city is crowded and busy most of time.

This dual-band street which is decorated with trees on both sides has created the appropriate shade on the sidewalks that has lead in provision of Very pleasant freshness. In addition, it reduces turmoil of colors caused by the facades of buildings in this street (Figure 7).

Nisantasi street located in Istanbul, Turkey is another example where there are major business centers, credible stores and administrative centers.

The body of this street view with white background and Very slow movement of colors create a very quiet but lively landscape and has made it as one of the most charming streets of Istanbul (figure 6).



**Figure 6:** Nisantasi street in Istanbul-Turkey

Source: [www.parsacity.com](http://www.parsacity.com)



**Figure 7:** La Rambla avenue in Barcelona-Spain

Source: [www.parsacity.com](http://www.parsacity.com)

## **9. Theoretical Foundations:**

### **9.1. Environmental quality**

"Environmental quality" can be considered as one of the most important concerns of urban design. It is such that many theorists believe that promotion of environmental quality "as the most crucial task of urban design [5].

There are various definitions for concept of environmental quality in Theoretical texts of planning and urban design.

These diverse impressions have been shaped according to intellectual field of experts or method of criteria selection by them.

So the lack of a comprehensive detailed and agreed definition is highlighted for quality of the environment by experts or the method of different criteria selection by them in the theoretical principles of urban design.

This can be as a result of overlapping or associating this concept with other vague and complicated concepts like the quality of life, viability and Stability [6].Some concepts related to environmental quality have been studied In Table 2.

**Table 2:** Definition of Environmental Quality from the viewpoints of researchers and international communities. Source: [6].

Research	Concept of Environmental Quality
Lansing and Marans (1969)	A high quality environment carries a sense of comfort and satisfaction to people through indicators that may be physical, social or symbolic.
Porteous (1971)	Environmental quality is a complex matter that involves subjective perception, attitudes and values that differs among individuals and groups.
RMB (1996)	Environmental quality is due to the quality of composing elements of a region but something more than the sum of the elements. Environmental quality is perception of the place completely. Each of Constituent elements (nature, open space, infrastructure, built environment, facilities and resources of natural environment) have their own special features and relative quality.
RIVM (2002) Workshop livability 2002	Environmental quality can be defined as the main part of the wider concept of "quality of life" such as the primary qualities like health and safety combined with comfort and attractiveness.

## 9.2. Behavioral patterns

A) Behavioral patterns in urban space: while urban space owns social and cultural values, it is also considered as a position which takes urban activities and associated requirements into account [7].

According to Gal (1987), it should be noted that people activities in public spaces can be classified in three groups, each one need different features in the physical environment; necessary activities, optional activities and social activities. In General, the activities include three different ranges which are observed in Table 3.

Table 3: Categorizing people activities in public spaces. Source: [8].

Row	Range	Description
1	Essential activities	They include activities which are more or less mandatory, occur under any circumstances and their occurrence are the least affected from the surrounding environment. Activities such as going to school or work, shopping and other public activities and other daily activities fall in this category.
2	Selective Activities	Activities that are carried out in the urban space form the optional activities that are performed only when there is a willing to do them and The time and location provide favorable conditions. Activities such as walking, sitting and relaxing in attractive places are in this category.
3	Social Activity	Social activities depending on the characteristics of urban space include a wide range of interactions of individuals. These activities are affected by Specific requirements of spaces for standing, sitting, eating, playing and etc. When quality of environment is poor, only essential activities are done, but in a high quality environment, not only the essential activities are implemented but also due to better conditions, there would be increased tendency to devote more time to these activities.

**B) Behavioral patterns in environment:**

Human spatial behavior, in view of urban design, is a concept that describes the relationship between the built environment and its residents. "Good" spatial behavior is an indicator of successful urban design, while "bad" spatial behavior can be the index of resources wastage and the cause of dissatisfaction in residents.

Since environmental psychology has an important place in the study of the interaction between man and environment, it contradicts methods which examine the environment or people as separate entities.

Hence this science believes that it should be considered to dependencies of connection to understand environmental problems [9].

In fact, the environment is container and human is pointed out to be contained within it. Humans As contained in space show different behaviors when they deal with the environment; Behaviors that they can be categorized based on different approaches.

Accordingly, the most two important factors are influential in the type and way of behavior: the environment (the information we have gained from it) and (person) with all their features.

In practice, the foundation of our behavior, is environmental features and individual characteristics simultaneously, so our behaviors are the outcome of the needs, motivations, capability of the environment, perception, mental image and ultimately meaning that we've made for ourselves from environment.

Hence it is clear that our activities which are affected by these factors (environmental and personal) can take many forms [10] so, behavior is the product of environment and their interaction these two factors with each other.

Diverse physical factors such as noise, weather, colors and constantly enclosed spaces influence the human and their movements.

These movements and reactions are called reactive behavior [11]. What is important in investigating definition of behavior includes physical factors (exist in space) and non-physical (exist in the characteristics of the people).

In this regard, physical factors by the examining of concept and ideas of public space and human factors by investigating the theories of behavior and behavioral patterns are obtained; so the behavior should be recognized in order to achieve its effective environmental and personal factors.

### 9.3. Different Types of behavior in the environment

**Table 4:** Different Types of behavior in the environment. Source: [10]

Row	Behavior	Definition
1	Individual behavior	Individual behavior including the behavior that is done alone. The great point about this behavior is that it is performed on an individual basis, which may arise in private or in public places. In other words, individual behavior can be done even in a group
2	Social behavior	Social behavior involves a relationship between two or more people, which means That is done with at least two people like talking, team games and etc. This type of behavior not only are performed with the activity of two or more people, but also people are influenced by each other. (1)
3	Spatial Behavior	Spatial behavior is the one that is performed based on the effect of environment. In fact, in the study of spatial behavior, not only the behavior between humans and the manner between human and the environment are considered but also mutual impact of human and environment is also taken into account. How we use our physical environment around us In Social relationships is considered in the field of examining human social behavior in relation to the physical environment .
4	Non-spatial behavior	It Is referred to the behavior that is arisen in the relationship between humans and is examined regardless of the aspect of location and circumstances surrounding space. (3)

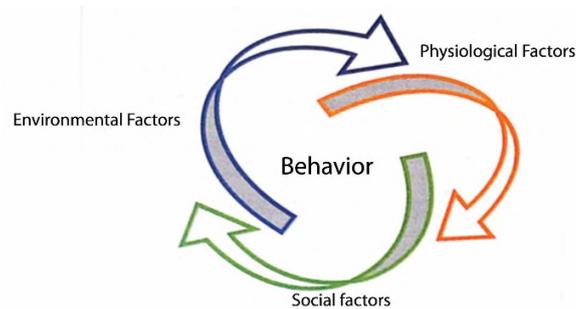
### 9.4 Homology of environment and human behavior: theory of behavioral setting

According to the theory, human behavior occurs in homology of environment. This means that physical environment shapes human behavior.

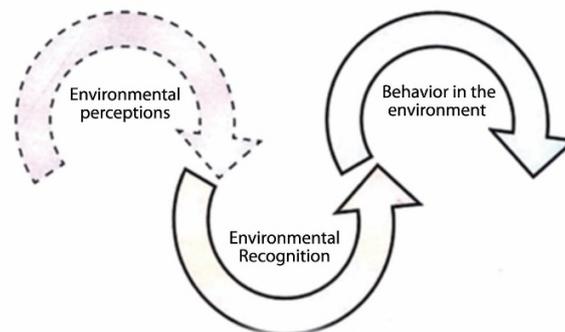
So human behavior and experience cannot be examined separately regardless of environmental conditions. Investigated unit in the context of a "stimulus- inseparable response from the whole" should be considered in studies.

According to this theory by Roger Barker, with an emphasis on the concept of a demeanor codes and analysis of social environments, it can be easily found out that main and perhaps the most basic human behavior occur as a result of social and behavioral interaction in urban streets are Influenced by the environment in which they reside And live and make culture. These streets can have an impact in required psychological comfort and immediately affect people by applying factors such as color and its psychological nature which create in human mind.

Therefore, according to this theory and various environmental factors in the structure of urban streets and cities in case of existing a perfect harmony with all factors such as climate, Culture and Religion, human beings can achieve necessary mental peace by easily creating harmonious relations arising from these factors so that Despite all the setbacks and hardships of life in large cities that are intentionally or unintentionally applied into the community, Appropriate remedy can be exerted to feel that peace in life, behavior and action of people in the district easily(figures8 and 9).



**Figure 8:** Factors affecting behavior - Source : Shahcheraghi Inscripted in the environment



**Figure 9:** Relationship between perception and environmental recognition by environmental behavior - Source :Shahcheraghi

### **Inscripted in the environment**

Behavioral setting theory, at its core has led to greater understanding of the impact of the environment on human. By studying and recognizing the features and characteristics of "behavioral setting" in the human environment At different stages of human life and scrutinizing its related concepts leads to two major theories that are derived from the theory of behavioral setting , including 1-affordance theory and 2-inviting environment which are important from the perspectives of two aspects.

At first, it can lead to better and deeper understanding of the relationship between the physical environment and human behavior; secondly, they are capable of being the foundation of environmental designers, architectures and urban planners.

Therefore, these two theories should be taken into account to correctly understand this issue that How we can make the lost calm of colors in the body of Salman Farsi street and its impact on the spirits of our people[12].

#### *9.4.1. Theory of environmental affordance*

According to this theory, one of the important concepts related to behavioral setting, in ecological psychology is the concept of “environment affordability” or the affordance Theory. This means that behavior of individuals in the environment is from the features and options that it provides them with. So the potential surroundings exist for Effective behavior and environments that Person considers them. So diverse environments have their own unique characteristics that can provide potential conditions for human-specific behavior.

In other words, every environment can have the special nature in which a special feature also arises. Salman Farsi street, According to this theory and its particular nature which is located at the heart and center of Ahwaz Throughout its history, is based on the idea in a consistent manner. However, in practice it has not get enough beneficence [12].

#### *9.4.2. Theory of the quality of inviting environment*

The theory represents that the power of an object is given to it by needs and values of people although the capabilities of an object do not change, its benefit will change by the individual requirements. Detection of capabilities of Object is based on the characteristics, experience, merits and observer needs.

The human learns Features of objects and environments and the appropriate time of their usage. The environment is full of opportunities and constraints Due to its characteristics [13].

So based on the matters mentioned above, behavioral setting owns a life cycle. It is rebuilt Day to day and from hour to hour and it is product of the interaction between people and the meanings that have been formed in this regard. Vicker believes that meaning of interactions of behavioral setting, are made the by individuals within it. An important part of this relationship is constituted through signs, colors, forms, verbal and non-verbal cues.

### **9.5. City streets**

#### **A) streets as a public space:**

Certainly, urban streets should be accounted as the most basic factors of natural and human life in today urban residency. If programmed correctly, they will have the desired effect in the purification of body and soul of humans.

streets as one of the most important public spaces - services of city in transporting play a major role in promoting social, cultural, economic and environmental conditions of urban areas.

These spaces in parallel with the growth and density of urban areas have been considered in different societies and various strategies for positioning and their appropriate distribution in urban environments have been developed and applied [13]. Salman Farsi street is of these category of urban environments that can be cited as the most significant passages in Ahwaz.

In Figure 10, Naderi street without green space and shade and devoid of any coordination in colored structures has caused quite soulless street to be made without paying attention to people's psychological feelings considering appropriate strategy for it.



**Figure 10:** street of Salman Farsi. Source : author

#### **B) street as a "behavioral setting":**

street is a behavioral setting, because fixed patterns of behavior can be observed in it at different times. Behavioral setting or a "position \_ behavior" is an analytical element for environmental analysis that implemented to describe the main functions of architectural spaces and urban design. This concept, for the first time was invented by Roger Barker et al. to analyze the social, psychological and physical environment of children. Constituent elements of a behavioral setting according to Barker are as the following:

1) persistent and continuous activities in a place or stable pattern of behavior, 2) territory or three-dimensional arrangement of an surrounding environment of position \_ behavior, 3) The structure of position \_ behavior that is the result of coexistence between the two primary and secondary elements and 4) existence of a period of time.

Social behavior is a big or small social unit that is achieved by sustainable integrating of an activity and a place in a way to satisfy essential functions of behavioral environment in a regular process (Like Salman Farsi street).

Barker believes that a behavioral setting is said to a fixed set of activities and places in which a repetitive activity or a fixed pattern of behavior happens, it has a specific plan of environment and establishes proper relationship between repetitive activities and the environment that it done in a certain period of time.

A behavioral setting, such as street, enables a person to achieve their set of interests. Different individuals can have very diverse interests.

Vapidity and boredom of space is often due to a lack of fixed patterns of behavior in the environment. Compared to modern spaces, traditional places have faced with fewer shortcomings [15].

In other words, if different permanent behavior patterns in Certain behavioral context at different times are appeared, the mentioned environment acts as a behavioral setting [16].

Social relations and public communication take place in general behavioral settings. They are attracted to headquarters that have the ability and tendency to be compatible with fixed patterns of behavior that occurs there.

Important notation about requiring creating harmony is Adaptability and compatibility between a meme and the physical environment which behavior takes place in.

This feature causes some places associated with some behavioral patterns to be more suitable and to have more capabilities.

### **9.6. The correlation between environmental quality and behavioral patterns**

Various models have been used to evaluate the environmental and human behavior. Human has been considered as a behavior-oriented entity in behavioral pattern.

This proactive approach emphasizes on Environmental dependencies as determinants of behavior and tries to identify them and consider them in design.

In The ecological pattern, behavior, and environment so intertwined that separating them from each other is difficult.

Behavior is definable in the context of the environment. According to this approach, the environment is the Continuation of being and personality of people. In fact, people are the Factor for changing environment not just the ones who accept impacts of the environment [17].

This approach considers the relationship of man with his environment dynamic and constantly changing. According to this approach, human relationship with the environment is established at diverse levels, because too much emphasis on one level makes a person unaware of a systematic quality of the relationship between behavior and environment.

This approach has the capability of linking the Location-centered approach of designer with the process-driven way of researcher [11].

Behavioral patterns are due to culture, beliefs, habits, living environment, Community rules, individual characteristics, types and the harmony of colors and their relevance to climate and each of these features explains the different behaviors of people lonely or in combination with other factors.

However, different patterns of behavior need their own Special environment to emerge or control. In different urban environments, individuals and Homogeneous groups of citizens based on their purpose, show different behavior.

According to Chepin and Braille, the activity of each person in space is function of spatial pattern of system of his activities.

In fact, system of activity is doing during a specific time to achieve a particular goal. In the system of Activity, a person exhibits a unit of behavior that is known as an episode in a particular place.

Accordingly, David Havilaneh proposes the term "active space" And as mentioned earlier, Roger Barker introduces the term "behavioral setting".

Barker explains patterns of behavior associated with physical location of the same behavior. He considers Behavioral settings of built environment ranging from a building to a city, In addition to aesthetic purposes, in order to provide behavioral environment of the Beneficiaries in the surroundings (Activity Space or behavioral setting).

According to Barker's theory, behavioral setting refers to space that has a relationship with two sets of elements: psychological Elements and non-psychological factors. From his point of view, element of Psychology refers to a particular form of behavior and non-psychological element includes material objects that facilitates the emergence of certain behaviors.

It has been observed that the probability of certain behavior in a specific behavioral setting is more than other meme. Such probability is directly linked to our perception of identity of location [18].

However, Barker states that: "Behavioral setting owns two categories of essential features which are structural and dynamic. In the structural part, a behavioral setting includes one or more current patterns of behavior and the surrounding environment and they have homologous relationship with each other. In the dynamic section, components of environment - behavior which are called homolog, have a degree of dependency. This dependency degree is more than mentioned degree with homologs of other behavioral settings". Then he states the seven indicators of this definition:

The current pattern of behavior, the current pattern of behavior and environment, environment encompasses the behavior, environment has a homologous relationship with a pattern of behavior, the components of behavior-environment are called homologs, homologs of a certain setting have a determined degree of dependency and the rate of dependency of homologs of certain setting to themselves are higher Compared to other behavioral settings [18].

Environment and behavior and their homologous relationship as the most important components of behavioral setting and consequently the most significant components of the built environment have enormous importance either in examining constructed environment from the perspective of behavior or environmental design and colors with the behavioral approach.

By examining the numerous sources that have dealt with the built environment with different approaches, from anthropological to cultural and indigenous issues. It is specified that considering to the homologs and other components of behavioral setting is crucial in designing by any approach.

That's why Barker expresses that a behavioral setting enables person to achieve satisfaction despite the differences in acquiescence.

### **9.7. Color effect on the human understanding of the environment:**

Colors can cause relax and tension by cold and warmth, Affectation or humility, severity or reduction, or in the non-verbal form make weight in the space.

Effectiveness colors on our spirits Based on the theory of "behavioral setting" forms an important part of our relationship with surrounding environment.

In general, there is very sensitive relationship among individual mental tendencies.

If we considered the world around us completely without color and everything would be seen in black and white, the human mind would not achieve any Understanding that leads him to necessary peace and perception.

The human mind by viewing the colors and, understands objects in the world around them in thoroughly reasonable way. One of the easiest ways to restore peace to the people is use of colors with appropriate harmonies that fit the culture, climate and beautification of the city. Overall, Color perception depends on three factors that are seen in Table 4.

**Table 4:** Factors of color perception. Source: author

Row	Title
1	And environment and conditions that color can be seen on them
2	Specifications of Surface of the reflector like texture and its ability to absorb or reflect light
3	Ability of person to perceive colors

### **9.8. Determining the types of materials and methods of their application**

Using the Color Guide Plan on the facades of buildings in the urban context where most buildings such as offices, commercial and religious ones are located, types of materials and methods of their application consistent with the pattern of the covering pattern can be chosen According to The rules are contained in the plan (determining the type of color, text, facade and facade panels, the rhythm of windows, facade materials and etc. For example, now in the old part of Paris, in terms of landscape architecture, a Guidance Plan of architecture for paint and facade has been defined for every neighborhood and every street to maintain visual and mental balance of color values and create a balanced peace in them.

Although this work in our country in many of our large cities such as Isfahan, Mashhad and Tabriz has been emerged in successful way, Unfortunately, in city of Ahvaz, especially in the principal thoroughfares of the city such as Salman Farsi street which is one of the main streets of the city in terms of its ecology, less attention has been paid to the task. In the not too distant past, width of crossing sidewalk in Salman Farsi street has been up to 2 meters that it was increased to 12 meters in the plan of Amendment of the street but by disregarding the colors of sidewalk flooring and its material, required peace has not been created in pedestrians (figures11).



**Figure 11:** Salman Farsi street. Source: author

Although proper Proportionality among the crowd of pedestrians In terms of commuting in this passage has been made by its opening, unfortunately the influx of hawkers and peddlers stand on all along the sidewalk for selling things has led to make very flawed atmosphere In addition to street congestion and has caused a lot of problems in businesses of this street.

In the picture located in the front, the old part of the sidewalk with porches which had not been demolished at that time shows the history of this sidewalk.

In Figure 12, the width of the new street crossing in Salman Farsi street and Creation of Open Space and proportional to the population of the street is visible But unfortunately is devoid of any green space. This causes freshness and vitality of the environment. Although calm in colors in nature is in a way that requires no explanation. According to mentioned documents in this street based on the theory of behavioral setting, it can be well understood that disregarding the impact of colors on the psyche of the people of this region In addition to the lack of shade that is in dire need of them in this climate are not observed.



**Figure 12:** Salman Farsi street Ahvaz.  
Source: author

small number of chairs a and lack backrest with completely lifeless color show Lack of identity so Unwillingness is felt for sitting on them, Although the type of color of used materials have not been chosen to be dingy completely, they look quite dirty over not so long time from their construction. So in order to achieve a comprehensive outcome of calm that prevail in the implemented colors and also existing ones in the street of Salman Farsi and its impact on the psyche 300 of people, questionnaire was prepared From each three groups of pedestrians and drivers, shopkeepers and specialists and distributed that are shown in Table 6 and the result is demonstrated in Figure 13 as following:

**Table 6:** Questions and satisfaction of groups including: pedestrians and drivers, traders and salespeople and construction specialists from Salman Farsi street (in terms of number of people).  
Source: author.

Row	Questions	Pedestrians and drivers		traders on Salman Farsi street		Building experts		Satisfaction percentage	
		yes	No	yes	no	yes	No	yes	No
1	Are the available colors of the buildings in Salman Farsi street benefit from required desirability?	64	236	107	193	15	285	20%	80%
2	Is the color of flooring implemented in this street appropriate?	111	189	121	179	52	248	31%	69%
3	Do you like the color of billboards and service units?	153	147	214	86	68	232	48%	52%
4	In your opinion Is the lack of green space in the street desirable?	11	289	6	294	3	297	2%	98%
5	Do the colors used in this street provide psychological comfort for you?	57	263	36	264	57	243	15%	85%
6	Are you satisfied with the harmony of used colors?	51	249	85	215	13	287	17%	83%
7	Are the colors on the body of this street fit with the culture and climate of the region?	62	238	71	229	32	268	19%	81%



**Figure 13:** Result of satisfaction Table based on table 5. Source: author.

**Conclusion:**

With regard to the cases cited in this study And the importance of considering principles based on influence of colors on behavior of users In urban spaces such as streets station according to the theory of behavioral setting That was the main focus of this research from the perspective of psychological influence, And since an significant part of human interaction with the environment is affected by the colors and elements of urban landscape regardless of considering to psychological comfort of color can an greatly disgust people from tumultuous life of city and manifest adverse social impacts on people's lives Therefore, to create a sense of missing tranquility in the facades of urban landscape, specifically Salman Farsi street in the city of Ahvaz has been considered In this study And according to the provided hypotheses in response to the research questions and the satisfaction table of three Groups including pedestrians and drivers, building professionals tradespeople of street Salman Farsi, results are as follows:

1. By creating porches on either side of Passages in size and scale of human and using colors that suit the climate, culture and religion of the region which is an appropriate solution to solve the chaos of implemented colors caused by Commercial advertising and building materials on the facades of urban streets, can achieve a psychological comfort of pedestrians;
2. Using Green space or a belt of trees at regular intervals with species which is consistent with climate of region, in addition to provision of shadows, led to creation of calm colorful textures that developed sense of and mental peace on pedestrians.

Given the breadth of this research within the framework of psychology of the urban environment, it is proposed that other researchers continue this research aligned with the context of other objectives.

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