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# The Influence of Neo-Classical Facades on Urban Textures of Iran

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## **Abstract**

One of the most important aims of designing the building's facades, in addition to maintaining its durability and sustainability against the severe weather conditions, is the beauty and attractiveness of the appearance and its overall adaptation to the urban context system. Because a building alone, no matter how beautiful it is, is ultimately compared to its adjacent buildings. These days, with a little surfing in the top areas of Tehran and other metropolitan areas of Iran, we will encounter with beautiful and seemingly aristocratic buildings, which called "Roman Facade". This research is aimed at studying the influence of Roman facades on the urban textures of Iran. The magnificent and seemingly aristocratic facades taken from the architecture of the classical Greek and Roman period, which have nothing to do with Iranian architecture, have led to a lack of visual harmony in urban textures. According to the results of statistical analysis of Expert Choice software and reviewing the opinions of experts in architecture and urban design, the most important factor affecting on urban facades is physical context and adaptation of the facades with urban context and due to the structural incompatibility of the neo-classical façade with the texture of the indigenous architecture of the region, such views cause inconsistency in the urban texture system of Iranian cities. Therefore, with solutions such as referring to the rich history of Iranian architecture and its eclecticism with the technology of the day, it is possible to satisfy the requirements of the society in a more favorable way so that by observing physical context, urban landscapes, with their personal character and credibility will be an element of unified society in the urban context system.

**Keywords:** Neo-classical façade, Façade, Urban texture, Urban landscape, AHP method, SWOT technique.

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## 1. Introduction

One of the most important aims of designing the building's facades, in addition to maintaining its durability and sustainability against the severe weather conditions, is the beauty and attractiveness of the appearance and its overall adaptation to the urban context system. Because a building alone, no matter how beautiful it is, is ultimately compared to its adjacent buildings. Consequently, context-based design is one of the important and influential principles in the overall context of cities. So in the design of a building's façade, it is necessary to pay attention to physical contextual structures of the buildings.

One of the factors which influence the design of the building's facade is, design based on the climate of that area, which consideration of this issue leads to the adaptation of the physical context of urban spaces. As in traditional Iranian architecture, we have seen this climate diversity in different parts of the country. A method which was made by experience, testing, and abundant errors; today, failure to comply with these issues has become one of the main problems of Iran's contemporary architecture and urbanism. So that we can see the buildings in the same style in the cities of Tehran, Qazvin, Mashhad, Tabriz, Rasht and so on regardless of their different climate conditions.

Designing based on indigenous materials, considering the advancement of science and technology is another important point in the design of urban facades, which itself can lead to the principles of contextual architecture. As in the traditional architecture of Rasht, wood was used as a material because of abundance of trees, or in the desert architecture of Yazd, materials such as clay and brick were used, due to the abundance of soil.

Another prevalently used material in traditional Iranian architecture has been a tile that appeared to be used as a decorative element in the traditional buildings' facades; which "It was as similar as a visitor in the paradise full of flowers" (Memarian, 2008). But the fact was that they used tiles as thermal insulation. Or materials such as stucco used in the Achaemenid and Sassanid era in Iran were the other artistic phenomena used in unique Iranian architecture. According to archaeologists, art of plastering has flourished in Iran during the Sassanid, Seljuk, Timurid and Safavid eras.

Especially in the palace of Isfahan which is one of Safavids architectural masterpieces, all evidence demonstrated that the art of plastering has not only been decorated but also used as acoustic and thermal insulation; and many of these mysteries concealed in the art of Iranian architecture. All of these prove that Iranian architecture has always been an artistic function, and then it was executed in a completely artistic manner. Now, what happened to this rich art and architecture with a few thousand years history that its foundations, has tended to imitate from Western architecture?

# 1.1. Problem Statement

These days, with a little surfing in the top areas of Tehran and other metropolitan areas of Iran, we will encounter with beautiful and seemingly aristocratic buildings, which called "Roman Facade". Elevations often inspired from the style of classical, neoclassical, and Hellenistic architecture; which is a combination of figurative elements of Greek and Roman architecture; volumes and elements of a statue that does not have any similarity to Iranian architecture. The present research seeks to root the reasons for the people's interest in this style of architecture and tries to organize the texture of the Iranian cities by providing appropriate solutions and using the rich background of Iranian architecture.

# 1.2. Research Questions

- How does the use of the neoclassical facade affect the general context of the cities in Iran?
- What are the reasons for the interest of developers and citizens in this style of architecture?

# 1.3. Research Hypothesis

- In this research, the authors assume that the reoccupation of neoclassical architecture causes inconsistency in the urban texture system in Iranian cities.
- Also, by addressing the rich history of Iranian architecture and its eclecticism with the technology of the day, it is possible to satisfy the requirements of the society in a more favorable way.

## 2. Literature Review

An attempt has been made to investigate the changes that have taken place in the field of residential building facades and their influence on urban texture by highly valued professors such as Dr. Jahanshah Pakzad (2003), Dr. Kamran Afshar Naderi (2004; 2008), Eng. Faramarz Parsi (2008), and others that have been published in the form of some articles. But in reviewing the reoccupation of neoclassical architecture under the title of "Roman Facade" in Iran, important efforts have been made by some scholars in the form of articles (Monshizade & Mousapour, 2015; Zafarmandi & Imani, 2016; Damercheli, Saeedi Rezvani, & Salehi, 2019). Therefore, in this article, it has been attempted to find a suitable solution by examining the similarities and related discussions in these articles and comparing them with the hypothesis and the results of this article.

Askari et al. (2014) in their article, "An evaluation of the elements and characteristics of historical building façades in the context of Malaysia", identify visual elements and features of historical facades that enhance the historical image of a region. The findings of this research indicated that inconsistent colors and non-standardized advertisement boards may spoil the historical appearance. Also, historical building facades with detail and ornament simplicity, along with inconsistency of shapes and dimensions with neighboring context, which results in visual monotony, do not create a powerful image in the eyes of the observers.

Monshizadeh & Musapour (2015), in their paper entitled "The phenomenon of Roman façade and palatial syndrome" have a critical review on this phenomenon in contemporary Iranian architecture. Results indicate that one of the reasons for the tendency of the people in this style of representation is the social phenomenon which is the luxury-oriented and some people have found a great desire for this style to demonstrate the appearance of their buildings to the royal palaces.

Zafarmandi & Imani (2016), in their research entitled "Roman architecture against indigenous architecture", evaluated the characteristics of the classical trend in Tehran's contemporary architecture. The results of this research indicate that the neoclassical architecture used in Tehran is a perfectly apparent conception and does not correlate with its principle, and even golden proportions are not often observed in it which its destination is just fashion and economical profits, regardless of the Iranian indigenous architecture.

Niki Amiri (2017) investigated the factors affecting the identity crisis in contemporary designs and architectural styles of Iran. According to research, most important weaknesses and problems in today's Iranian architecture include lack of attention to cultural infrastructures, capability of integrating all cultural spheres, paying too much attention to the economic aspects in the constructions, lack of explanation of Iranian traditional architecture patterns, consumable culture of Iranian society, lack of attention to the potential of traditional tissues to integrate with today's architecture.

Damercheli et al. (2019) in their article investigated the role of neoclassicism in the regeneration of urban spaces in Tehran from the viewpoint of sense of place. Results of the research indicated that urban spaces which involved in neoclassicism presented as an example which creates a conflict between tradition and modernity and faces many physical and nonphysical problems. Based on the responses gathered from questionnaires, this functional disorientation and visual heterogeneity in urban spaces have a negative effect on the spatial perception of citizens in the meaning of place.

## 2.1. Definitions and Theoretical Framework

#### 2.1.1. Elevation in Architecture

If we consider the building as a packed volume, we will see surfaces in the exterior side of the building that are adjacent to the open air. In this way, elevation is a part of the building that is seen from the public space like street, square, etc. (Afshar Naderi, 2008).

## 2.1.2. Façade

In Europe, from four potential elevations, the one with a more important face and better viewing and access was called "Façade" (Pakzad, 2003).

## 2.1.3. Façadism

This title can also be used for the extreme tendency of some architects to design the exterior. Architects who consider design facade as the main element of communication with the audience (Grutter, 1997). Façadism means a particular tendency to be represented without an organic link with the plan that emerged in the last decades of the last century in the postmodern period (Mirzayian, 2008).

## 2.1.4. Ancient Greek Architecture

Greek architecture has had many ups and downs in history, whose evolution has had a dramatic impact on the history of world architecture. In Greek architecture, the column was the main element, and it was as size and standard as all other elements of the building were based on it (Marzban, 2009). The oldest segregation practices in Greek architecture are: Doric, Ionic and Corinthian (Zareii, 2010).

## 2.1.5. Ancient Roman Architecture

As Roman people were different, Roman architecture was very diverse. Roman art and architecture are blended and eclectic in the art of Atreus, Greek, Western Asia, Egyptians and natives. Roman art and architecture, although very slow and late, came to life, but they found special durability in the whole history (Zareii, 2010). In the first period of the Roman Republic, Roman identity, especially in the field of architecture and urban planning was exhibited (Mahdavinejad, 2012). Roman buildings were generally made of concrete and brick, covered with mortar, marble, or marble slabs. In the second century BC, the invention of concrete with better arching, dome and large span was made practical (Marzban, 2009).

## 2.1.6. Neo-classical Architecture

The ancient Greek and Roman philosophy and civilization form the intellectual and social foundation of the Western civilization and over the past two thousand years, classical philosophy has always been evident in the subjective vision and physical structure of the Western civilization. Western architecture was no exception to this, and classical architecture has been continuously introduced in all historical periods of the West. Neoclassical architects consider the past and especially classical architecture, as their source of inspiration and classical architecture, as they are physically designed for today's requirements (Ghobadian, 2010).

However, it should be noted that all these modern welfare devices have been provided within these historical forms. If we want to define this style in a sentence, it can be said that the neoclassical building is a classic shell on modern facilities. Architects of this style consider classical architecture as an eternal and everlasting architecture. The principles of this architecture, such as order, proportionality, symmetry, harmony and perfection that were designed for the home of Gods in ancient Greece, are eternal principles (Ghobadian, 2010).

## 2.2. The Qajar Period, the Initiator of the Arrival European Architecture in Iran

During the Qajar period, due to the increasing contact with the West and especially Europe, a political, social and artistic transformation took place, and Iranian architecture was also influenced by the culture and civilization of Europe. The architectural achievements of this period have been discussed until today. Some critics considered this period as a period of decadence of architecture and some of them considered it as flourishing and architectural innovation. One of the most important points of this period is the use of European architectural elements, and in particular the facades of the buildings. In urbanization, the extrovert buildings changed the face of the street in Iranian cities, especially Tehran and major cities such as Tabriz and Isfahan. In general, the facades of the Qajar period are in terms of diversity, proportions, innovation, eclecticism of different styles, complexity, richness of color, decoration and elegance noteworthy (Afshar Naderi, 2008).

# 2.3. The Evolutionary of Expectations from the Façade

Harald Deilmann and his colleagues (1987), in their brief review on the facades of the buildings addressed four functions that are expected from the facade: 1- Protection 2- Making connection 3- Introduction 4- A part of an urban space. These expectations seem to contradict with each other, but practically, there are the extremes that the designer must attempt to balance and reconcile between them (Pakzad, 2003).

## 2.3.1. Façade as a Protector

The earliest duty of the façade was the task of protecting humans against external threats. As long as the house for its inhabitants was a shield and made it safe to protect against external threats, facades did not represent artistic meaning (Pakzad, 2003).

## 2.3.2. Façade as a Connector

Façade was required to play the role of connectivity between the inside and the outside, private and public, quiet and noisy, artificial and natural and it should provide the entrance of light, breeze, and guest to the interior and create a good visibility. Apertures and openings assumed the role of physical or visual interfaces as elements of this view (Pakzad, 2003).

## 2.3.3. Façade as an Introducer

Since the dress of the person, represents his personality, buildings was considered as a second dress, it should also indicate its personality, honor and social status. The facade of buildings in a general picture represents the economic, social and political conditions of society at the certain times. In Iran, for reasons such as the danger of confiscation and humility due to Islamic thought, the home remained inward until the end of the nineteenth century and limited any appearance to the walls of the central courtyard and private space. From the late nineteenth century and the famous visit of Naser-al-Din Shah to the Europe, it was decided that Iran and Iranian would enjoy the benefits of modernity. But this approach was so superficial and superstitious that in architecture, the duplicating of housing patterns and European façade was summed up.

In apartment buildings the tastes of residents in the design of the facade is meaningless. But the faster purchase of a residential units, make the designer and developers in a position that should be responsive to the fashion and taste of the customer and market. The housing market has created a situation in which the architect sees himself as an artist to satisfy customers and remain competitive. The owner and developer are also looking to highlight their building and attract more customers. The customer is also confused by this excessive variety, looking for a residential unit and a façade that demonstrate the financial status and personality more than the reality (Pakzad, 2003).

# 2.3.4. Façade as a Part of a Complex

Answering to the three above expectations will be in the best case a building with an acceptable façade. But in reality, in the urban space, we are not faced with a building and its facades; also building is a part of a larger complex called *Urban Space*. Its ugliness affects the quality of public spaces and its beauty depends on the coordination with other elements of that place. Building is not an isolated and self-contained entity that can attract all the attention of the designer and the owner but must retain an element of unified society by retaining its character and credibility (Afshar Naderi, 2004).

Investigating the proportions and geometric relationships in Iranian historical architecture reflects the fact that Iranian architects have drawn attention to the important buildings and carefully designed them. Confusion in the urban landscape is a new phenomenon. Diversity of the materials and timeliness of new styles, along with customary construction, led to the emergence of heterogeneity elements in urban spaces. The architecture of the past, due to the limitation of materials used in the facade, provides a more integrated façade in the urban space, which has played a significant role in inducing a sense of harmony and continuity in the context of the urban spaces. But by passing the time, some buildings have undergone some changes and the facades of the past have been hidden under various layers of cement, plaster and paint. In a way that there is almost no harmony of the urban landscape like past (Shafiee, 2011).

In any case, the facade, in its traditional sense, has its characteristics, the most important of which can be referred to as "part of the urban landscape". As in the building of each component, it is understood in relation to the whole and with other components. In the street view or alley, in its familiar sense, the single-facade view is a part of a set that appears as a single urban element and evaluation of its elements is not possible alone. Thus, each architectural or urban element is composed of elements that are arranged in accordance with certain order and relations and on another scale, that element is a part of a larger element. As a result, the facade is not an independent element, but it is a knot of complex texture which called street or plaza (Afshar Naderi, 2004).





Figure 1- Some of the Neo-Classical façades in Golsar Street of Rasht

## 3. Research Methodology

In this research, it has been tried to examine the reasons for the orientation of clients and citizens in this style of construction by using a descriptive-analytical method based on surveys and investigates. In this research, AHP method was used to obtain prioritization. Therefore, the views of some of the experts in architecture and urban design were used as the expert community. The questionnaire is based on one of the well-known decision making models called "Analytic Hierarchy Process", based on a pairwise comparison of elements. In this way, the matrices of the components, criteria and indicators were given to the experts and the final weight of each criteria and indicators was obtained by calculating their geometric mean. Finally, by submitting the questionnaire data to the Expert Choice software, it is considered to provide the appropriate solution to meet the community's needs appropriately. This research is quantitative and also the Excel software was used to analyze the data's and results. Then, with using SWOT model, we tried to examine the strengths, weaknesses, opportunities and threats of the neo-classical façade, to provide appropriate solutions to improve the physical and climatic context and sustainability of the urban textures in Iran.

# 4. Results

According to the studies, the most important main features of building facades can be divided into three categories of physical context, climate context and sustainability that according to an assurvey conducted by the community of experts, physical context (matching with urban texture) with a relative weight of 0.471 is the most important factor in the urban textures and that's why it's top priority. Also, the sustainability with a relative weight of 0.443 is ranked second and climate context with a relative weight of 0.095 is the third priority of building facades. Meanwhile, the inconsistency rate of the paired comparison is 0.006, which is acceptable due to the lower than 0/01 (Chart 1).

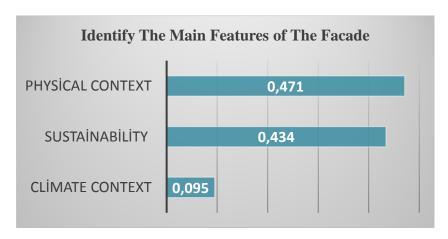


Chart 1. Prioritizing effective factors in the evaluation of building facades

# 4.1. Calculation of Relative Weight of Physical Context Indicators

After making the model in the Expert Choice software and entering the pairwise comparison of indices, the weight of the criteria and prioritizing the factors affecting the physical orientation of the neo-classical façade, as shown below, were obtained. As seen in chart 2, the component of decorative elements in neo-classical façade with a relative weight of 0.197 is the most important factor and that's why it's top priority. Subsequently, components such as proportion with a relative weight of 0.162, discipline with a relative weight of 0.124, symmetry with a relative weight of 0.114, geometric relations with a relative weight of 0.110 and arch with a relative weight of 0.087 prioritize in the next categories in the neo-classical façade (Chart 2).

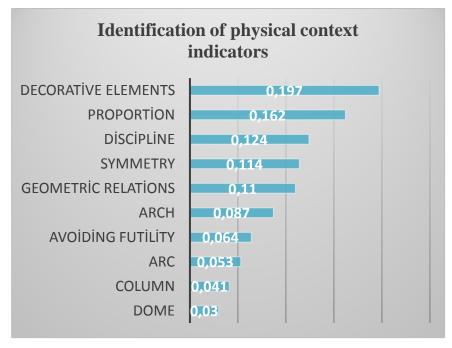


Chart 2. Prioritizing effective factors in the evaluation of physical context of neo-classical façade

# 4.2. Calculation of Relative Weight of Sustainability Indicators

The privileges obtained from the analysis of sustainability indicators show that the price with a relative weight of 0.347 is the most important index identified in sustainability. Then factors such as quality with a relative weight of 0.245 and materials with a relative weight of 0.244 are in the next prioritizing the factors affecting the structural characteristics of the sustainability of the facades (Chart 3).

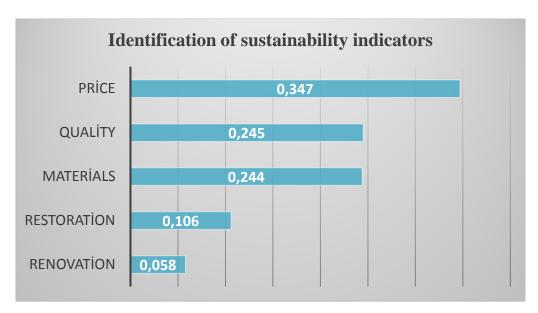


Chart 3. Prioritizing effective factors in the evaluation of sustainability indicators in the building facades

# 4.3. Calculation of Relative Weight of Climatic Context Indicators

According to the results of the analysis the climatic context-based criteria in the design of building facades, architecture compatible with the climate with a relative weight of 0.361, compared to the native materials, with a relative weight of 0.303, has more priority in designing building facades (Chart 4).

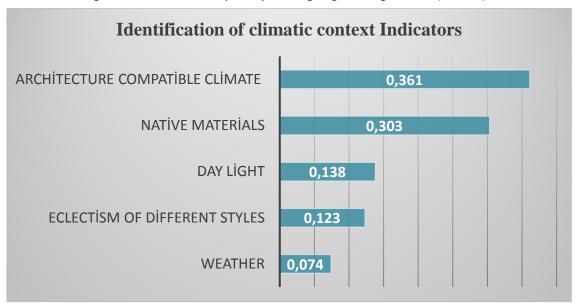


Chart 4. Prioritizing the effective factors in the evaluation of climate context factors of building facades

# 4.4. Explaining the Final Score of the Neo-classical Façade

Using the importance factor of each studied characteristics compared to the sub-criteria which was obtained in the previous sections, according to the obtained scores of each index, and also, by explaining the weight of each indices and criteria, the final score or, in other words, the final priority of the neo-classical façade is calculated according to the main components and ultimately with the main criterion.

The scores obtained from the comparative comparisons of each component in neo-classical façade by the AHP method indicate that decorative elements with a relative weight of 0.12 is the most important prioritized in these style of façade. Then, factors such as price with a relative weight of 0.111 and

proportions with a relative weight of 0.099 are the most important priorities known in the design of neoclassical façade.

# 4.5. Neo-classical façade analysis using SWOT technique

The SWOT technique is an efficient way of identifying environmental conditions and capabilities within the project and based on the recognition of the environment. The SWOT words are the beginning of Strength, Weakness, Opportunity and Threat. Basically, strength and weakness depend on the internal factors, and the opportunity and the threat are influenced by external factors (Askarizad, Safari, & Pourimanparast, 2017). To achieve a comprehensive and applied result, all aspects, including physical context, climatic context and sustainability, should be analyzed. Hence, the strengths and weaknesses of the neo-classical façade were studied and the opportunities and threats affecting the urban textures are also being investigated (Table 1).

Table 1. Analysis of the strengths, weaknesses, opportunities and threats available on neo-classical façade

Study Axis	Internal Factors		External Factors	
	Strength Points	Weak Points	Opportunities	Threats
Physical Context	1- Beautiful and aristocratic visual arts in urban texture 2- Classic proportions that make it more legible 3- Observing principles such as discipline, rhythm, symmetry, harmony and perfection 4- Utilize traditional materials such as stone	1- Incompatibility and visual disturbance in urban landscapes due to noncontrasting styles of construction 2- Disturbing context-oriented system in the urban texture of Iran 3- Appear duplicating without regard to its function	1- Utilize durable materials in the facade of the building, such as the stone, which provides protection from the façade 2- Rise creativity in the architects, as we have witnessed a kind of Qajar gable roof in postmodern architecture in recent decades	1- The gradual loss of urban texture due to inconsistencies in building facades 2- Showcase class differences between buildings in an urban texture 3- Create facades with the same styles in different cities and different climates
Climatic Context	1- Due to the use of durable materials such as stone, it has the ability to endure extreme weather conditions.	1- Lack of using from native materials which causes visual inconsistency in the urban context	1- Customer satisfaction is due to the elegance of neoclassical façade designs	1- Lack of consistency with the climate makes it uncomfortable for interior spaces
	<ul><li>1- High build quality in terms of durability</li><li>2- Use of durable materials that increases the</li></ul>	1- The high cost of this kind of building facades 2- Using the statue of the species in these facades, which increases the weight and	1- The huge interest of customers and citizens in this style of construction that developers can	1- Because of the high cost of constructing this type of view, some developers use the weakest materials and

#### 5. Discuss and Conclusion

This research is aimed at studying the influence of the neo-classical façade on the metropolises texture of Iranian cities. Impressive and seemingly aristocratic facades taken from the architecture of the classical Greek and Roman period which has nothing to do with Iranian architecture and has led to a lack of visual harmony in urban textures. This is while, according to some researchers, "one of the reasons for the tendency of the people in this style of representation is the social phenomenon which is the luxury-oriented and some people have found a great desire for this style to demonstrate the appearance of their buildings to the royal palaces" (Monshizade & Mousapour, 2015).

According to the studies, the most important main features of building facades can be divided into three categories of physical context, climate context and sustainability. According to a survey conducted by the community of experts, physical context and adaptation of the facades with urban texture and its physical form with a relative weight of 0.471 have the most important and that's why it's top priority. Also, the component of resistance and sustainability with a relative weight of 0.434 is second and climatic context with a relative weight of 0.095 is the third priority of building facades.

According to the results of statistical analysis of Expert Choice software and SWOT technique, as well as reviewing the views of experts in architecture and urban design, the most important factor affecting urban texture is physical context and adaptation of the façade with urban texture. Due to the structural incompatibility of neo-classical façade with the texture of the indigenous architecture of the region, such facades cause inconsistency in the urban texture system in Iranian cities.

Due to the interest of developers and citizens in this style of construction, one can point to factors such as the interest of builders and customers in luxury-oriented, which is rooted in a social problem. Hence, with solutions such as referring to the rich history of Iranian architecture and its eclecticism with the technology of the day, it is possible to better satisfy the requirements of society in a more favorable way so that by observing physical context, urban landscapes, with their personal character and credibility, are an element of a unified society in the urban texture system.

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