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THE ARCHITECTURE TECHNOLOGY OF TRADITIONALIST STYLE BUILDINGS BUILT IN FIRST PAHLAVI: AN ANALYSIS BASED ON THE ADAPTABILITY OF CULTURE AND TECHNOLOGY

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Abstract

The first Pahlavi period is considered one of the most distinguished eras in terms of architecture and urban planning across contemporary Iranian history from Qajar to the present day. A study of this country's contemporary architecture reveals that this era's architecture depended on particular currents in the country. Huge changes have occurred in Iranian architecture and arts over the past two decades. Over this period, the architecture of 1920-1941 has distinct features that distinguish it from the architecture of its previous and even next eras.

One could not study the first Pahlavi architecture with no previous knowledge of modern arts and architecture, so the present study tries to point out the architectural tendencies and technologies used in the case studies by analyzing the symbols remaining from the area and review the first Pahlavi's nationalism style to determine its level of success. Thus, the article will first discuss the formation of modern architecture in Iran and the influence of Western architecture on it and proceed to review the features of First Pahlavi architecture.

RESEARCH QUESTIONS

1. Which architectural technologies were incorporated in the nationalist-style buildings from the first Pahlavi?
2. Are nationalist buildings from the Pahlavi era compatible in terms of culture and technology?

INTRODUCTION

Contrary to Western architecture, there is no agreement on when the Iranian modern architecture emerged. Some argue that the year 1921 which was the same year the first Pahlavi emerged and coincides with modernist arguments and measures is the beginning of the nationalist architecture styles which is the most accepted and cited opinion in this regard while others consider the constitutional revolution which was associated with socio-political transformation in Iran as the turning point of modern architecture. However, it appears that one must trace the changes and currents of Iranian modern architecture's emergences back to the Qajar dynasty which coincided with the emergence of new architectural currents, and determine the starting point of the Iranian modern architecture based on the architectural features of that era's distinguished and historically influential buildings (Saremi, 2005).

Reza Shah paid efforts to equip the Iranian modern architecture with the technology of its time, so he brought agents to the country to change the architecture technology. However, these changes failed to transform the traditional patterns into modern patterns thoroughly. Modern architecture in Europe adapted modern and new currents to the traditional currents in addition to preserving historical and traditional architecture while the idea of hostility with past and excessive interest in Western architecture was forming in the Iranian architecture (Hovanessian, 1961).

Nationalist architecture became important in the first Pahlavi era since it was rooted in the transmission of the deceptive Western culture into the introverted Iranian community and economic exploitation through architecture. For this purpose, city walls were demolished and the organic urban fabric changed into geometric shapes. Besides, architecture was introduced as an economic commodity since conforming to the modern architecture principle (i.e. elimination of ornaments) turned architecture into an economic commodity rather than a means to reflect culture. This achievement emerged to such an extent that modern Iranian architecture changed its direction toward a style called jerry-building (Al-e Ahmad, 1978). Now, the questions arise that what was the position of technology was in nationalist architecture, how much technology influenced this style, and which parameters are observed in this era's architectural technologies. The use of imported technology in combination with traditional technology and climate resulted in various construction methods in Iran -that are still being used after minor repair- and formed the movement of architecture from Europe to Tehran and from Tehran to provincial capitals and major cities.

The detachment from the traditional Iranian architecture, moving on from the Esfahani style to the Terhani style, and the emergence of modern Iranian architecture in the same cliché from across the country, as well as the lack of theoretical foundation in architecture, the transformation of architects into building planners and constructors, various interpretation of the modern approach in architecture, and the unclear future of architecture, are among the most significant consequences of the quasi-modernist community's architecture. Nevertheless, the dynamic and pioneering feature of the art of architecture diminished under the shadow of the economy due to the incompatibility of cultures and the time difference between Western architectural messages emerging in the west and arriving at Iran (Shirazi et al., 2011).

RESEARCH LITERATURE

Architecture and technology are in fact two sides of the same coin. Answers to a given issue would vary based on the approach adopted in viewing the issue. Historical Iranian architecture used to rely on the country and had a sort of latent technology which was considered the country’s only industry until 400 years ago. Modulation (both in structure and in materials and elements) was used in construction, but architecture had a qualitative understanding of modulation and did not consider it metric and quantitative as it does today. Architecture had no other purpose in adapting to technology except improving the quality of space. Technology and architecture are inseparable, and this unity stood strong in the past Iranian architecture despite it being simpler in terms of materials and height. Even today's spaces strive for unity in art, science, and philosophy and an interdisciplinary nature despite being complex, and no one-dimensional or technical viewpoint towards architecture would realize its purpose (Zibakalam, 2003).

IRANIAN CONTEMPORARY ARCHITECTURE

When it comes to the starting point of Iranian contemporary architecture, one must be reminded that architecture and its components were continuous and could be perceived as a unified complex up to the middle of the Qajar era. Shapes, forms, and methods of designing and constructing buildings by architects and developers varied across time and place, but a firm harmony and balance could be observed between architecture and the community, and differences were limited to small details. thus, one could argue that the changes or differences between buildings from various eras remained limited to the surface of architecture up to the middle of the Qajar era, but the relationship between architecture and the community changed gradually from this point and with the start of Nasser-al-Din Shah's reign and reached its peak during the Pahlavi era (Ebrahimian, 2006).

Although Reza Khan did not travel to Europe over the 20 years of his reign, the presence of foreign experts and a few Iranian engineers and architects who had studied in Europe –Germany, and Austria in particular- promoted the architecture of this era in Iran. Reza Shah's interest in modernist programs at the beginning of his reign resulted in various tendencies forming opposed to the traditional architecture led by Iranian architects who have studied in

Europe and European architects who were invited to the country by the government. Their architecture was a direct reflection of the modern architecture transformation in Europe. They replaced traditional techniques with innovational techniques and introduced new materials, specifically steel, concrete, and glass. The use of concrete was the most significant among these changes which offered Iranian architects unprecedented possibilities in terms of aesthetics and constructions. The biggest purpose of this era's architects was to change the conventional construction methods into the modern methods used across the world and promote modern architecture in Reza-Shah-era Iran (Zahedi et al., 2008).

1) Pahlavi Era Architecture

a. First Pahlavi (1925-1941)
b. Second Pahlavi (1941- the Iranian Islamic revolution)

- **First Pahlavi Architecture (1925-1941)**

The fall of the Ottoman Empire and its colonization by the English and French governments and the emergence of the Russian government with novel ideas had significant influences on the changes of their era. The further penetration of global powers into Iran and their handle over the economic and political powers resulted in further tendencies of the government to depend on Western governments. The Qajar governments' fascination with the West gave way to the blind obedience of Western lifestyle and ideas. People's uprising resulted in the election of a government that strived for modernization due to the needs of its time, which is why it started opposing cultures and values and took measures to change the apparent structure of cities. The beautiful promises of transformation, new deconstructions, and creating a utopia based on people’s believes and internal needs led to a revolution, but such a shame that an authoritarian government hid behind these beautiful mottos (Zibakalam, 2003).

The society of the first Pahlavi era developed with a sense of reviving nationalism, following modern patterns, and accelerating development. In this era, the government determined architecture styles and promoted Western architecture. The construction of large-scale public buildings with distinct technology and function became prevalent which resulted in the emergence of mere symbols of national identity and was the starting point of modernism in Iran. The presence of foreign architects with no knowledge of the Iranian architecture and culture as a designer and their lack of awareness of the patterns and concepts behind Iranian architecture on one hand and the needs stemming from the Western culture and the diminishing of the Iranian culture, on the other hand, resulted in the transformation of the traditional Iranian architecture and the materials becoming the only common element between modern and traditional architecture. Hence, Iranian architecture leaned toward a new movement that started the history of Iranian architecture in the first Pahlavi era (Kiani, 2004).

A set of physically similar buildings and constructions were built in Tehran and other cities over the 20 years of the first Pahlavi which indicates the

presence of specific viewpoint and idea in this era. Reference to the ancient past is among the most prominent viewpoints influencing this era which has manifested in architecture in the form of using pre-Islamic architectural symbols (Sedaghat: 2013:2).

The architecture of the first Pahlavi has a selective quality concerning its past and the West. The approach to Iranian history is selective in the viewpoint of first Pahlavi architecture. The continuity of the traditional Iranian architecture was broken during these years for the first time and the forgotten architecture of the Sassanid and Achaemenid eras was paid more attention. Radical nationalist was evidently involved in this choice, but in its nature, such a measurement was being taken for the very first time in the Iranian history (Saremi, 2005:60).

Modernization became public since Reza Shah's reign. Modern equipment and facilities such as railways, roads, automobiles, universities, elementary and junior high schools, and factories entered the country at a broad level. In terms of urban planning, a modern grid was imposed on our traditional urban texture to facilitate the movement of automobiles, the external façade of buildings became important, and openings appeared on the external facades.

Most of the buildings categorized as those with a first Pahlavi architecture are impacted by the penetration of military people into development plans. Tehran municipality was handed over to a military person for a long period and leveling the road network of the county and construction of large public and private buildings such as cinemas, theatres, hotels, and such were handed over to military people. Due to the penetration of military people into the specialized field of architecture, buildings from this period were divided into two groups of military and non-military buildings. The governing organization resulted in the emergence of military unprecedented buildings such as prisons, checkpoints, barracks, and gendarmeries on one hand, and left a great impact on other non-military buildings and constructions on the other hand. Examples of the aforementioned include:

- The distinction of the buildings compared to traditional buildings in terms of having no shared walls with other buildings and having four facades among which the main façade had the best position. These single buildings indicated the military thought and were the signs of the government.
- The high speed of construction stems from another military belief saying that goal achievement must be carried out in a specified and short time so that many buildings emerged with a considerable speed. The roads, tunnels, railways, abundant bridges, and buildings such as the Mashgh square building complex, the national garden entrance, and the first set of faculties built in Tehran were the result of such a belief.
- A construction control organization was developed for construction projects inspired by the accountability system of the military.
- The most important impact of the military on architecture was inspired by military uniforms which resulted in uniform openings, doors, columns, and other elements in the façade of buildings. These elements resembled soldiers

in their uniforms and expressed the military strength and grandeur calmly and powerfully.

- **The Use of New Materials and Industrial Society**

As Reza Shah's reign began, architecture and arts kept going on their old ways for five years. A movement and transformation in architecture can be observed since 1926 and 19627, but construction suffered from a severe recession until WWII. However, the use of new materials such as concrete and iron resulted in a new transformation in architecture after the world war. The need to construct large buildings resulted in the use of metal structures, and glass was warmly welcomed as a material to cover such structures. Industrial production began and the Karaj crystal and glass factory was established in Iran by the order of Reza Shah. From this point forward, the use of new materials and most modern technologies is observed in large private and public buildings such as train stations, factories, and office and faculty buildings. Direct penetration of European architecture can be observed on residential buildings as well as public buildings, and as a result, we encounter various architecture styles over this era (Kiani, 2004).

- **Architecture Style in First Pahlavi**

The diverse styles used over twenty years based on various viewpoints are divided into the following categories:

- **Traditional Architecture Style**

Some of the works built in the first Pahlavi were influenced by traditional architecture and the Islamic history since the structural movement of the government from religiosity in the first decade, apostasy after a while, and the eventual anti-religiosity naturally influenced architecture and moved toward keeping architectures with Islamic and traditional appearance at arm's distance. These buildings could be divided into three categories:

The first category) buildings with traditionally defined functions such as public buildings, mosques, seminaries, holy shrines, and some residential buildings in the construction of which the government was not involved and were mainly built as a result of social activities so the new era left almost no impact on their historical appearance.

The second category) buildings constructed in the new era and for new functions demonstrating an evident influence of the modernization as well as traditional architecture. Alborz high school in Tehran, the post office, the police academy, and many small public buildings along main streets are examples of such constructions. Generally, buildings of this second category were more influenced by the Islamic era in appearance and façade rather than in space or function.

The third category) the Iranian archeological style in which ancient Iranian symbols from pre-Islamic periods were used based on a nationalist approach. This style paid attention to the two types of architecture belonging to the Sassanid and Achaemenid eras and was used mostly in government buildings.

Similar to Masgh square and Ferdowsi avenue in Tehran, the emergence of this style is the result of nationalist feelings being aroused and is considered a way to promote the lost identity. Buildings expressing these styles were inspired by columns, column capitals, porches, carvings, and –to some extent- staircases from the Achaemenid era while the roof merlons and delicate lotus designs were inspired by the Achaemenid era.

- **Modern Architecture Style**

This group of buildings includes a large portion of private buildings as well as public buildings and are divided into two categories in terms of the style subject:

The first category) the buildings were mainly used as government buildings and clearly incorporated the European expressionist style due to the presence of German experts and engineers in Iran over these two decades. The most prominent principles incorporated in these buildings include extreme symmetry or concentration and placement of the building in its middle, the use of numerous and high columns especially at the entrance, and rhythmic facades with the same height all over the building the result of which were elegant tall buildings that expressed feelings of power, grandeur, and balance. Tehran railway station, the five first faculties of the University of Tehran, Tehran courthouse, the Singar building on Saadi Street, and the former public clinic in Tehran's Arg square are clear examples of this approach.

The second category) the similarity of architectural elements exceeds their differences in this style. In this category, the symmetry is attenuated and there are cases of asymmetry with decorative forms and ornaments with well-calculated architectural use in the corners of alleys that are mainly curved, which sets them apart from the first category that was characterized by its uniqueness and grandeur.

- **The National Style**

The national style goes by various names such as Iranian historicism, idealistic expressionism, national romanticism, and Iranian neoclassic. The national style emerged in response to Reza Shah's government highlighting national identity and seeking to bring back the ancient Iranian traditions. According to the founders of the national style, traditional Iranian history could not respond to the modern needs of buildings while European architecture incorporated suitable modern techniques that could respond to modern needs. Therefore, the European structure of buildings mixed with Iranian architectural elements resulted in a new style. Reza Shah used to command Iranian and foreign archeologists that worked in Iran to study ancient Iranian history and use the results in service of the national style and the architecture of Reza-Shah-inspired buildings. Ghalib Baghlian, Karim Taherzadeh Behzad, Nikolai Markov, and Andre Godard created buildings using this style (Saremi, 2005).

RESEARCH METHOD

The present project has a theoretical objective and nature, and data were collected from two aspects of theory and practice. Desk research was the main

method used to collect data on the theoretical aspect. Observations and historical-descriptive methods were used during desk research to collect data. In the descriptive method, reports on the remnants of the first Pahlavi were reviewed so that the distinctions of this era's architecture were identified. Besides, specialized articles with relevant subjects were collected and analyzed. The present study was conducted assuming that the architecture from the first Pahlavi period (the nationalist style) has not been introduced thoroughly to the society given how it revolutionized the architecture of the country. The lack of accurate definition for the style and the impromptus-ness of measures taken in introducing the style has resulted in a portion of the national architecture and a part of modern construction technologies being neglected during the years after the Islamic revolution. Thus, it appears that buildings constructed in the international style must be studied comprehensively in a way that suits their values and in line with the cultural capabilities.

To reach this end, there is a hypothesis that the understanding of the physical body, structure, and function of nationalist-style buildings will enable one to evaluate the amount of influence they have taken from Iranian culture and Western technologies. Besides, introducing these works of architecture will provide the context for maintaining and improving social identity in the Iranian community.

The following table indicates a general view of the nationalist (neoclassic) style used during the first Pahlavi and provides a general summary of this type of architecture's properties.

Table 1 The Indicators to Identify the Nationalist Style (First Pahlavi)

No	Architectural element	Indicators used in nationalist style (first Pahlavi)
1	**Volume**	The use of bulky and rectangular shapes, the creation of a sense of grandeur using high entrances, large and high porches at the entrances, the use of mass compositions of large porches, large openings, wide staircase, elements of ancient Iranian buildings (high columns in the façade)
2	**Plan**	Discipline, emitting a sense of military and presence of hierarchies, attempts to use traditional Iranian architectural elements such as bricks and ogee arches, the use of tiling, symmetry, and proportion in façade plans in proportion to new activities and new urban fabric
3	**Ceilings and windows**	High ceilings expressing a sense of military, uniform, and elongated windows resembling military uniforms, the use of merlons on the edge of roofs, porches, and staircases
4	**Columns**	Regular and uniform columns resembling soldiers marching, building centrality using columns, column capitals, lintels, and some carvings of military figures from Persepolis, the use of merlons on the edge of roofs, porches, and staircases
5	**Ornaments**	The use of Sassanid and Achaemenid symbols to remind of the Iranian grandeur and glory
6	**Materials**	The use of new technologies, beams, and stones to consolidate buildings, lintels in the windows, the use of strong materials such as cement and stone
7	**Designing scheme**	De-Islamization and the use of Zoroastrian symbols, converting introversion to extroversion in building design, authoritarianism, single and unique buildings with great heights

DATA ANALYSIS

In this section, examples of buildings remaining from the first Pahlavi era are studied to distinguish this style in the form of case studies. These buildings include the Anoushiravan Dadagr School, the building of Bank Melli Iran, and the national museum of Iran.

1). Anoushiravan Dadgar School

An inscription on the entrance of the building provides a good introduction of its founder and date of construction. The building was constructed in 1936 by the efforts of a philanthropist lady called Rayen Baii Tata (Ji Tata), one of the greatest Indian capitalists who named the building after her father Anoushiravan. Nicolai Markov, the architect of the building, graduated from St. Petersburg University majoring in architecture and Persian language. He had a special interest in Iranian literature and art. Two social tendencies are observed in his works:

1. The tendency to create and maintain national identity
2. The enthusiasm for modernism

Building specifications: Anoushiravan high school was built in two stories and small parts of it had basements that were mainly used as the powerhouse. The building is formed based on a longitudinal axis with a length of about 76 meters in the east-west direction and the two north-south arms at the two sides of the building with proportions of 12×22 meters emphasize the building's stability and solidity.

Figure 1 The Southern Façade of Anoushiravan High School (Source: Building Restoration Plan, 2013)

The main façade is on the south of the building which provides access inside through four stairs on the floor of the courtyard. The central part of the building has the properties that characterize its type. The eye-catching solidity and height of the building, the presence of four main columns and two half-columns at the entrance porch and the merlon for of the ceiling reminisce Achaemenid palaces. The proportions of the central part of the building include a width of 16 meters while the longest north-south length at this section of the building is around 38 meters. The staircases connecting the stories can be seen at both sides of the main hall.

The aforementioned properties have collectively resulted in the symmetry of the building in relation to an axis at the center of the building. High proportions of the entrance gate and high columns with capitals shaped like animals as well as roof merlons and elongation, symmetry, and solidity of the building reminisce Sassanid and Achaemenid architecture. Iranian arches in the windows and the brick façade indicate a beautiful integration of pre-Islamic and post-Islamic architecture, a style that is also known as "national architecture". Both floors have the same plan and the placement of classrooms along the building's corridor to its south has made for appropriate natural lighting. Building structure relies on load-bearing brick walls and a flat roof, and beams and rough brick arches have been used to cover the ceiling. The final covering of the building has also been applied to appear flat.

High columns with column capitals in the shape of cows in the southern façade and the Farvahar figure at the southern entrance executed with a great mastery using half-beaten plaster characterize the buildings. Colored tiles with figures of Achaemenid palaces on the two arms of the building could also be mentioned in this regard. However, the most important ornamental element in the building which also has a functional role is "brick" which is a delight to the eye since it has created beautiful frames in the façade, cymatium, and stringcourses.

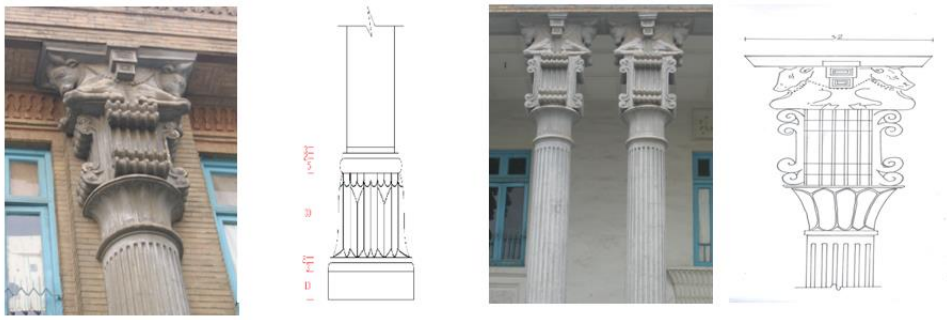

Figure 2: Columns and Capitals Inspired by Persepolis Columns (Source: Building Restoration Plan, 2013)

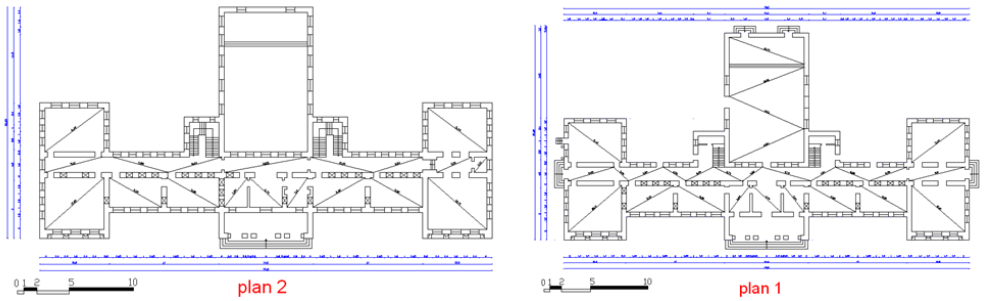

Figure 3 First Floor and Second-floor Plans (Source: Building Restoration Plan, 2013)

The type and application of materials in the building: brick is the main material used in building facades and stone is used to distinguish and create boundaries at the bottom of windows and along their bottom line in the ground floor. Brick has been used with great diversity in this building and accounts

for a part of building ornaments. Tiling ornaments around the openings have been used to connect with ancient Iranian architecture. Doorframes, doors, parapets, and stairs inside the building are made out of wood (Naghsh Jahan Pars, 2009: 54).

Figure 4 Various Windows Used in the Building (Source: Building Restoration Plan, 2013)

Table 2 Evaluation and analysis of Anoushiravan Dadgar school

The name of the building	**Architectural elements**	**Technology**	**culture**
Anoushiravan Dadgar school	• Symmetrical design emphasizing geometrical proportions in the plan, facades, and openings • Adherence to vertical and horizontal proportions	• The use of pre-cut, molded, and carved bricks, stone splints up to a height of 1.5m • Built-in columns	• Efforts to connect with ancient architecture • The use of riling in the building

2) Bank Melli Iran

Bank Melli Iran was established in 1924 in an area of 10,000 meters square designed by Heinrich with a concrete structure and fan coil unit devices using chillers (Naghsh Jahan Pars, 2009: 66).

Building architectural design: the building is a composition of rectangular cube masses in a T-shaped plan with retreats and processions, varying heights, walls decorated with stones along Ferdowsi Street, and brick courtyards.

Spatial organization of building elements: the establishment of a distinguished building connected to ancient history, specifically the pre-Islamic history of Iran has resulted in the emergence of a monument with the latest facilities of the day and connecting with ornamental elements and symbols from pre-Islamic architecture.

Figure 5 Bank Melli Iran Main Entrance (Source: Naghsh Consulting Engineers)

A qualitative study of the spaces: the main entrance is characterized by two pairs of stone columns and capitals inspired by Persepolis carvings. The main hall is a wide area with a rectangular plan, and the spaces allocated to clients and employees have been separated using a U-shaped divider.

The building's distinct elements and techniques: the elements and concepts used in facades –particularly in the eastern façade- and the design of spaces such as the figure of Farvahar, the use of stones and carved elements, the use of stone columns and Achaemenid column capitals, the figure of lotus above the plinths, and the use of two male lion sculptures emphasize the inspiration by and connection to ancient Iranian architecture. When combined with a plan with a non-Iranian structure, this emphasis has created a style and spirit that could be considered to be influenced by neoclassicism (Naghsh Jahan Pars, 2009: 74).

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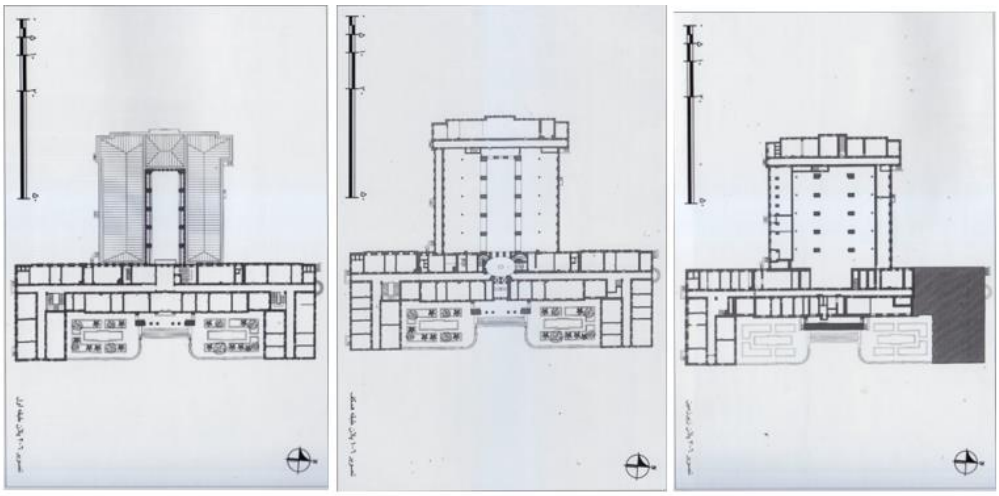


Figure 6 The Plans of Bank Melli Iran floors (Source: Naghshe-e Jahan Consulting Engineers, 2006)

The Type and Technique of Using the Dominating Materials in the Building

The building manifests a pleasant quality, elegance, and accurate execution. The eastern façade is made out of stone while the northern, southern, and western façade is made of a combination of stones and bricks, with bricks dominating most of the surface. The structure of the building is made out of reinforced concrete.

Evaluation and analysis of Bank Melli Iran Façade

Table 3 Summary of the Structure of Bank Melli Iran- First Pahlavi

Name of the building	Architectural element	Technology	Culture
Bank Melli Iran	• Horizontal expansion of the building and emphasis on horizontal elements • Adherence to vertical proportions of the building	• merlon elements on the Edge of the roof, entrance columns, and enclosed space • Strips of stone plinths on the roof edge • The use of concrete in building construction	• Efforts to connect to the ancient architecture • Engraving of Farvahar's figure on the stone installed at the entrance • Engraving lotus figure on roof plinths

3) Iran National Museum

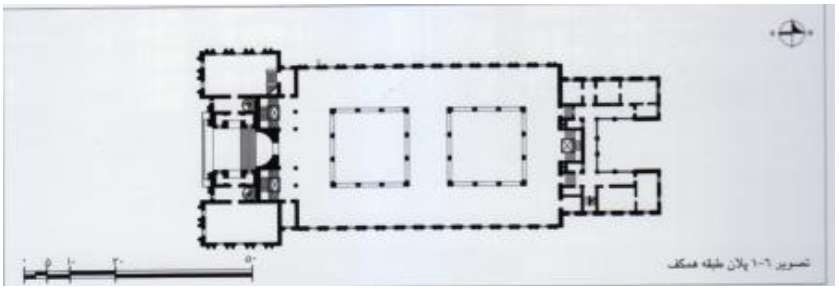
The national association of antiquities was established in 1925 and proposed the establishment of a museum and library in Tehran. After the laws of preserving national antiquities were approved in 1927, the government decided to establish a museum in Tehran. In 1907, French engineer and architect Andre Godard was appointed as the head of archeology to organize

the situation of antiquities and was appointed to prepare the map of the ancient Iran museum in 1929. Among his plans for the building design, he had proposed that the museum building have a design relevant to the antiquities inside it and be connected to the past Architecture of Iran, which is why the overall building of the museum was constructed to resemble Firouzabad Palace and Fars and dark red bricks were selected to build it so that the building would remind one of the Sassanid era architecture. The entrance of the building was inspired by Taq Kasra –the entrance of the Madain porch, one of the most glorious places from the Sassanid era (Naghshe-e Jahan consulting engineers, 2009:80).

Figure 7 Iran National Museum (Source: Naghshe-e Jahan Consulting Engineers, 2009)

Physical description of the building: the building consists of a rectangular cubic mass with the dimensions of 100meters in length and 24 meters in width, with a steel structure. The building includes three sections of the entrance, main hall, and office space from which some masses have been taken apart for the purpose of lighting and creating central courtyards. A high entrance gate has been constructed inspired by the Madain porch entrance and the main physical body of the museum is made up of red bricks forming the external walls and ornaments accompanied by wooden windows repeated on a monotonous rhythm (Naghshe-e Jahan consulting engineers, 2009:80).

Study of the spatial organization of building elements: one of the essential needs of the plan was to create a space to showcase the works of the ancestors so that the outer appearance of the buildings reminisces the ancient architecture of the country and its internal space provides a suitable place for exhibiting objects. The general design of the building is extroverted and connected to the surrounding environment, and the building has been constructed in three stories.



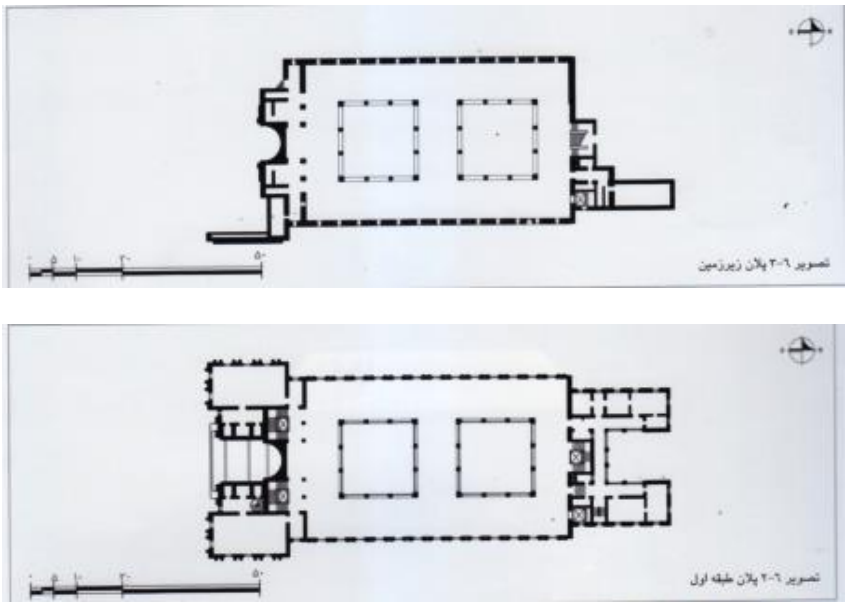


Figure 8

A qualitative study of the space: this building has been designed in three stories connected through two large staircases. The museum entrance is in fact inspired by a large Sassanid arch that characterizes the entrance mass, and pleasant red brickwork encompasses the external wall. Side entrances that leading visitors to exhibition rooms are placed beside the main entrance. The connection of the entrance gate ceiling to the east-western walls and the reliance of this arch on the northern wall is the most interesting and best initiative used by the designer which reflects both technology and traditional Iranian forms. Prominent brick arches that have climbed the rafters in the form of straps and have created grooves in the semi-cylindrical ceiling surface induce a sense of solidity and manifest how the powers move and are distributed across the building. In fact, the walls and the ceiling create a unified body resulting in the unity between technology and form. The main museum plan is a 34×61 rectangular with an area of 2,000meters square inside which an interior skylight is installed that provides suitable lighting for the hall (Naghsh-e Jahan Pars, 2009:82).

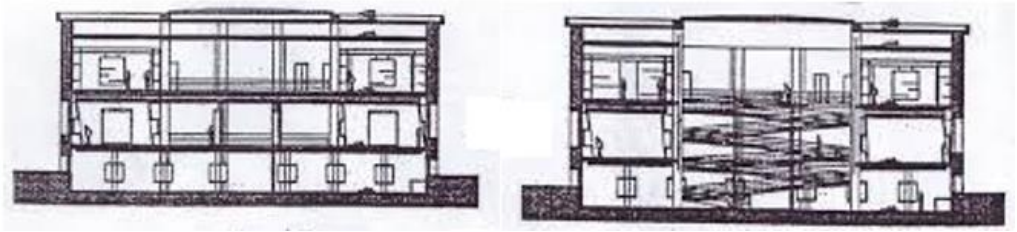


Figure 9 Cross-section of Iran National Museum (Source: Naghsh-e Jahan Pars, 2009)

The building's distinct elements and techniques: the use of elements and concepts from past architecture such as Taq Kasra, brick walls and their respective ornaments, thick rafters, courtyards, spatial hierarchy, geometrical shapes, and their proportions, being placed on a platform, and multiple-sided

perspective of the building indicate the influence of neoclassicism on building design during early Pahlavi era.

The type and technique of dominant materials used in the building: the museum building has a high quality in terms of execution. Brick has been used as the dominant material in this building, both as a load-bearing element and as an ornamental one.

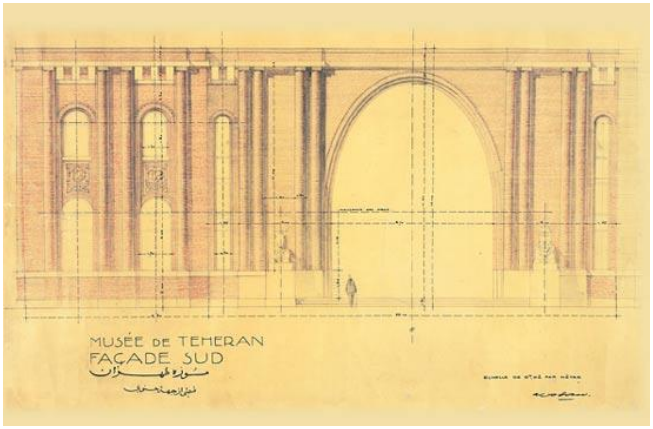


Figure 10 The Façade of Iran National Museum (Source: Naghsh-e Jahan Pars, 2009)

Building façade evaluation and analysis: the building has a simple façade design seeking to establish the greatest connection with past Iranian architecture in terms of form. Brick rafters have protruded from the wall surface and decorated it, resulting in a pleasant rhythm. The articulation of the façade by the functions on the east-west façade reduces facade uniformity and dullness. The stone cornice placed on walls at the height of 1.5 meters from the floor emphasized horizontal proportions and has been balanced out by the rectangular window frames and vertical proportions of the window form (Naghsh-e Jahan Pars, 2009:82).

Table 4 Summary of the Structure of Iran National Museum- First Pahlavi

Name of the building	**Architectural elements**	**Technology**	**Culture**
Iran National Museum building	• Simple design of the plan and façade to facilitate observers' connection with the building • Emphasis on vertical and horizontal proportions	• Façade articulation by functions in the east-west façade • Stone cornices at the height of 1.5meters	• Inspired by Taq Kasra (Madain porch)

Eventually, among the three axes of archaism, anti-religiosity, and Westernization, westernization was the one that could manifest itself from 1941 onwards (Kiani, 2004, 70).

Table 5 Summary of Nationalist Style Buildings

Architecture technology	Culture
Rigid, rectangular, and heavy	Is rigid and the soul of the mechanic society
Disciplined architecture with hierarchies	Social justice/ order in classes
Uniform and similar elements	Class inequality across the society
Luxurious ornaments	Indigenous culture, clothes, etc.
Traditionalism and attention to history	Is there an inclination toward history?
Luxury	Islamism
Cold and emerging materials	Humble living or luxury
Unitary and authoritarian	Ecological materials
	Authoritarian spirit of the society

CONCLUSION

14-20 centuries of rich and evolved history of Iranian architecture and arts was suddenly put aside in the Pahlavi era relying on radical nationalism, and operations appearing to be nationalist and Iranian were launched with the help of non-Iranian architects that confronted the structure of cities and architecture with another type of identity crisis.

The emergence of extroversion opposing the most important character of the past architecture –introversion- was the most essential factor resulting informal changes in the architecture of this era. Among the various factors of this alternation, the most important factor might have been the socio-cultural factor. It was evident that the reason for this change in the form of architectural elements was the different definition that was offered from these elements. It could be suggested that the incompatibility of this era's architecture with the culture of the country is the reason for the failure of nationalist architecture.

The necessity to build numerous new constructions in this era secured a great portion of development and restoration for this style and provided a suitable context for archaistic and nationalistic expression in architecture. The result of such an approach.

In general, nationalist architecture paid attention to ornamental and visual elements of architecture when reviving and using architectural works. Columns, capitals, ornamental figures, and such were borrowed from the Achaemenid and Sassanid eras with no use in architectural plans and function. In fact, Western architecture and new functions filled this void.

Architects were faced with a sort of compulsory choice of using ancient architectural works and incorporating Western architectural elements and had to use these ancient architectural symbols for –at least- as long as the archaism fever subsided.

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