

Persian translation of this paper entitled:

بازشناسی اصول طراحی شهری میدانی شکل گرفته در دوره پهلوی اول
is also published in this issue of journal.

Urban Design Principles of the Squares in the First Pahlavi Period Revisited

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Received 2017/06/04

revised 2017/12/31

accepted 2018/02/04

available online 2018/06/22

Abstract

Every generation occupies the city and its spaces in a different manner. Drawing upon its technical knowledge and the features of its period, each generation creates private and public spaces. Any intervention in the urban spaces requires a better understanding of the cities and their stories throughout the history. In late Qajar and early Pahlavi era, the developments in the West in some way paralleled the changes in urban design methods in the East. The prevalent method in the West was used in combination with traditional methods. Over time, such practices in the first Pahlavi era resulted in a historical disconnection between the local principles and methods of urban design. The purpose of the present research is to understand how the principles of urban design and its related fields have contributed to the formation of the squares during the first Pahlavi era. This research is interpretive and historical in nature. Data were collected through library research and field study. The samples of this research consisted of 28 squares formed in the first Pahlavi period (1921-1941) in the major cities of Iran. For this purpose, the key factors in the formation of new urban spaces in the first Pahlavi period were investigated. The factors included urban renewal, lifestyle, socio-cultural elements and technology; then the language of the urban design principles was developed based on Carmona's urban design dimensions. The results showed that the design language was influenced by the factors contributing to the formation of urban spaces and reflected the changes in its creating factors. In fact, the differences in the changes occurred were unassociated with evolutions and prior historical changes and resulted in the urban spaces with a new design language which was different from the one used in a prior urban design. However, such differences were somehow reflected in the designs of the squares before the first Pahlavi era.

Keywords: *Urban squares, First Pahlavi era, Urban design principles, Urban space production.*



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This article is part of a Master's thesis titled "Urban design principles of the squares in the first Pahlavi period revisited. The research was conducted under the supervision of Dr. Akbar Abdollah Zadeh, in Islamic Azad University, Tabriz Branch.

Introduction

• Statement of the Problem

No society can have an accurate understanding of its current identity and conditions if they do not have knowledge of the past. Developing efficient plans for improving the social life require such knowledge.

In this regards, Cuthbert (2006) argues that urban design attempts to study how the cities are physically transformed and the procedures through which they can be renovated; urban design studies investigate how the civilizations are reflected in spatial forms and the procedures through which the specific urban shapes are realized. Cuthbert maintains that the cities gradually formed throughout the history are a symbolic representation of our world and the urban design is about transforming the urban concept to special urban forms. Row and Koetter (1978) believes that the city provides a platform for presenting and remembering memories and emphasizes that the city should include memorable places and elements. He draws attention to the traditions contributing to the social structure and emphasizes that they are associated with its contexts. Similarly, Bacon (1968) believes that “architecture is the expression of space through which a special experience for a person is created while he is connecting his previous experiences to his future.” This proposition put forward by Bacon for architecture but it can be generalized to urban design. In this regards, Lefebvre (1991) believes that space is of social nature and given that social, political and economic conditions are produced and reproduced; space is also produced and reproduced in a special era.

As the history plays a key role in the creation of urban space, this research is an attempt to study those parts of the urban spaces that were created during the contemporary period (first Pahlavi) and paralleled with political changes. The selected spaces went through cultural, social, technological changes as well as urban renovation. Although the changes started in the late Qajar era, their highest tide

occurred during the Pahlavi era (Kiani, 2005: 180). The stated evolutions and generally the modernity created spaces whose features were different from the ones in the past. This difference can be seen in the shape and content of urban spaces in both street space scale and square. Much has been documented on the architecture and urban development in the first Pahlavi era. However, the studies on the new spaces in the first Pahlavi era has not considered the scale of squares and not investigated their designing language. Therefore, the present research aims at answering these questions “ What are the spatial-organizational principles of the squares formed during the first Pahlavi era from urban design perspectives?

• Research Questions

Main Question: As stated previously in the introduction, this study is an attempt to address the following question:

What are the spatial-organizational principles of the squares formed during the first Pahlavi era from urban design perspectives?

• Sub-Questions

- How do the organizational principles of squares reflect political, cultural, social and economic changes during that era?

- What were the main political, cultural, social, economic and urban renewal changes during the first Pahlavi era fields and?

• Research purpose

- Revisiting the urban design principles in the spatial organization of the squares formed during the first Pahlavi era.

-Explaining the relationship between the organizational principles and other changes (political, social, cultural, and technological) occurred during the first Pahlavi era.

•Theoretical Foundations

Major evolutions during the first Pahlavi period

As previously mentioned in the introduction, Cuthbert argues that urban design attempts to study how the cities are physically transformed and explain the procedures through which the special

urban shapes are realized. The procedures refer to historical changes that occur in the worldview of the government or nation. Such a worldview leads to the production and reproduction of new spaces with specific shapes. Undoubtedly, the evolutions occurred during the first Pahlavi era was historically matched with – not simultaneous– the evolutions that occurred in the West were the result of developing the relationship between the Iranian government, Fath-Ali Shah Qajar, and Europe (Habibi, 2004: 19). The evolutions occurred in the West known as the “modernity” resulted in major changes in different aspects of the life. Modernity means replacing the old way of living with today’s lifestyle (Ahmadi, 2004: 9). Modernity is characterized by its own specific features which are different from the specifications of human’s life in traditional age. Modernity always calls for moving towards “the new” and putting away “the old” (Jahanbaglu, 1997: 5). Modernity as a new way of thinking and a new life has had a special effect on Iranian culture and civilization. In this section, we attempt to investigate the evolutions of Iranian society in terms of urban renovation, lifestyle, and examine social, cultural, economic and technological changes. Urban Renovation: In the first Pahlavi era, modernity was of urgent necessity for urban renovation. The urban renovation included different urban terms such as cleanliness, paths, path lighting, as well as leveling, and widening the streets (Safari, Sheikhnoori & Yusefifar, 2014: 57). Mainly, “the streets” underwent a major renovation and “the street” was mainly used for identifying the city. The importance of the street was associated with the requirements for new renovation such as a modern view of the city, modern transportation vehicles, and new goods and such requirements needed a suitable space. Producing–the required space for the streets needed some changes in the life of the citizens and purchasing or destructing their houses (Safari, Sheikhnoori & Yusefifar, 2014: 30). Parallel to the changes in the streets, the square space as the result of the intersection of two streets

was produced; the shape and content of new space were different from the ones existed before the first Pahlavi era. During this period, “the square” was a new interpretation of the European roundabout “. This concept of the roundabout was first proposed by Eugene Henard. The purpose of his proposal was improving and facilitating the traffic flow in the city and the roundabouts were constructed in imitation of the West (Kashanijo & Mofidishemirani, 2010:Adelvand, Salahshur & Gholijkhani, 2015: 15).

The evolution resulted in changes in the physical structure and spatial organization of the city, one of which was changing the location of the city center. Constructing new neighborhoods and extending the streets and squares, transferred the gravity center of the city from its primary and traditional core (bazaar) to the newly established region (Alalhesabi, 2010: 25). In addition, apart from the growth and development of urban infrastructures, some unprecedented changes occurred in the old textures. The number of new buildings which were mostly official, governmental, educational, service, and industrial increased. The building of police department, the Ministry of Justice Administration, Melli Bank, University buildings, and museum were examples of the buildings (Alalhesabi, 2010: 24). Lifestyle Evolutions: The first western modernism changes in the lifestyle emerged during the late Qajar era in Iran (Peter Auri Quoted in Ebrahimi, Soltanzade & Mirshahzade, 2017: 506) and continued to the first Pahlavi era. One of the goals of the Pahlavi dynasty was modernization and changing the lifestyle in imitation of the West. In this regard, different activities such as renovating the city, equipping the army, creating bureaucracy and centeredness, developing new educational organizations, striving for the presence of women in general fields and unveiling the Hijab, unifying the clothes, trying to weaken the institutions and traditional and religious forces were -carried out based on the image of the West (Hedayat, quoted in Ebrahimi, Soltanzade & Mirshahzade, 2017: 506

Atabaki, 2004:18).

Social Evolutions: Because the policies adopted by the Pahlavi government were in line with renovation, they could create new classes of people and make changes in some social classes, as well as social structure; this new class of people included industrial workers urban average class, such as pensioners, the employees of governmental, military and private sections, experts, and newly graduated, and open-minded people (Sanaei, quoted in Najafzade & Abbasi Shakhkouh, 2014: 83). The Pahlavi government needed the power to achieve the modern goals, while the leaders of network society¹, its competitors, resisted against its demands. The reform process and western renovation required some changes and evolutions in the society's structure and this meant decreasing or destructing the power and influence of social pioneers. To this end, Pahlavi made attempts to have a control over the behavioral codes of the people and society or change them as it wished through different methods (Najafzade & Abbasi Shakhkouh, 2014: 70).

• Cultural Evolutions

The mandatory modernization imposed during the first Pahlavi era was to introduce a new style to the society in imitation of European countries (Azari, Quoted in Ebrahimi, Soltanzade & Mirshahzade, 2017: 506). Reza Shah tried to benefit from the western lifestyle and to create a new identity in cultural and religious fields; and he did it by the religious people and paying attention to Ancient Iran era –Such activities remained no space for religion and Islamic traditions in the society (Malekzade, 2016: 77). The evolutions occurred in the first Pahlavi era were reflected mainly in two concepts of “Nationalism” “Archaism”. Nationalism refers to creating a unifying space that people identify themselves with and according to which all the cultural elements are driven to obey the dominant official culture (Ashrafnazari, 2007: 146). The concept of the nationalist worldview is tightly

connected with the goal of seeking for authenticity and achieving a kind of dignity through the evolution in the destiny. To this purpose, the ignored history should be replaced with an overpowering destiny that can be discovered in the golden ages of the nation. This perception of the history requires exerting strenuous efforts for the mythical, ancient and ethnic-racial elements in national historiography (Ashrafnazari, 2007: 156). This concept is known as “Archaism”. Such an attitude change in the cultural organization of the country can be observed in the formation of “National works association” in 1922. Most of the association members believed that Qajar kings were the major culprit of underdevelopment of the country and to compensate for this, and have a powerful and modern Iran like the one during the Achaemenian and the Sasanian periods, the government needed to practice Zoroastrianism religion and restore and preserve the historical monuments and works especially those dating back to pre-Islam and presenting the greatness and glory of Iran, (Mehdizade & Hanachi, 2016: 7). Accordingly, during this era, the architectural structure of new buildings included old architectural elements and the plans of the buildings such as museums, post offices, banks, etc serving the different needs of those days, had an ancient façade (Habibi, 2004: 28). This period witnessed other cultural evolutions such as the construction and development of new schools and university buildings, some progress was reported in publication of information including the press and books.

• Economic Revolutions

After World War I and Reza Shah's monarchy, the depressed economy of Iran became generally stable. As the authority of central government increased, the roads became safer, banditry decreased, the transportation costs and the risk of developing commerce decreased, and Iran's economy became increasingly dependent on oil. Moreover, the British government strongly wished

for the economic stability of Iran to preserve its benefits in Iran and the region. In addition, the implementation of infrastructure projects, though limited and industrial, could make the conditions better as long as the projects were in line with new industries. Reorganization of the budget and financial system of the country decreased the government's debts. Apart from oil, the governments' revenue came from customs, indirect taxes and income tax. However, the income, welfare and their distribution among the people were not fair, resulted in a new class difference and prevented a proper economic growth (Katuzian, 1995., Abrahamian, 2001 & Pakzad, 2016).

Technological Factors: The considerable increase in the number of vehicles in the first Pahlavi era augmented the number and breadth of the streets and squares. Increasing the number of the construction projects in this period resulted in considerable production and use of construction materials. In the past, most of the buildings were made of clay or raw mud, thatch or baked brick, while in this period, new materials such as steel, concrete, and glass, and new methods of structure and building construction were introduced (Bemanian, 2006: 6). Another thing that influenced the view of the cities, was the new method of lightening. For this reason, the streets and squares of all cities were equipped with power posts.

Architecture and Urban Development Procedure during the first Pahlavi era During the first Pahlavi era, four spatial templates and dialogue were used in the exchange of views between internal concepts (tradition) and external meanings (modernity), in the confrontation between the old and new, in the turbulence of the conflict between obsolete and commonplace traditions, in the controversies between form and content (Habibi, 1999:170): First: The architecture was based on the combination of local and foreign elements which dated back to the evolutions occurred during the late Qajar era.

Second: The architecture was based on the glory of

far past and archaism attitude.

Third: The architecture was based on international style, affected by new architectural movement in Europe. This architecture, the dominant style in this period, was reflected in the view of newly constructed streets.

Fourth: The architecture was based on "European classic style". This architecture was generally used in decorating the newly constructed squares, intersections, and the junction of the streets with squares.

• Space Reproduction

Henri Lefebvre proposes the social reproduction of space based on the dialectic materialism of Marx, the idea of consciousness of Hegel, and language and power of Niche and presents a new perspective of the space, time and the relationship of these two in the urban society. Such perspective criticizes the passive role of the human in the life. In his opinion, space is divided into three groups of physical space, mental space, and social space. Space first and foremost, is a social issue that is created and recreated with reference to the time requirements, and social, political, and economic conditions of each period. In addition, using terms 'spatial action and spatialized body', he introduces the space as a dialectic process between the subjective and objective issues and emphasizes that space is physically represented through the actions of the individuals. One of his concerns is to connect the mind and object. The theory of social reproduction of space is presents such connection and defines three spatial species which are representational spaces, spatial actions, and the space of representations (Lefebvre, 1991: 43). The representational space refers to the daily life occurring in the space. It is perceived through the symbols, signs, and the images of the residents and users. It is in spatial practices that space is produced and reproduced dialectically through daily life actions. The space of representations which is related to the ruling power and ideology can be represented in streets, urban pathways,

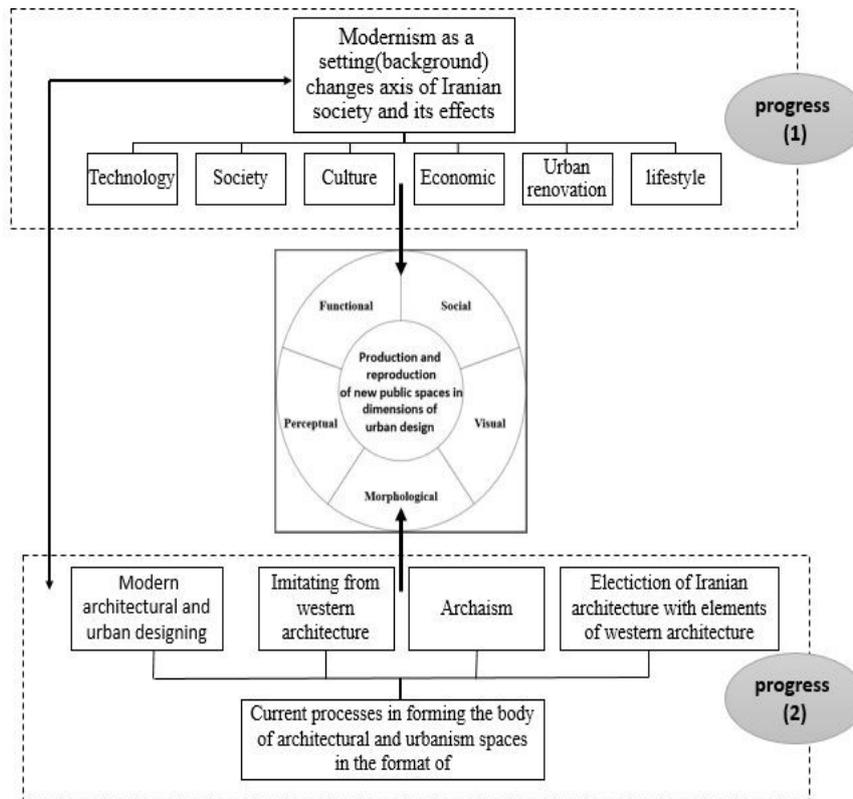


Fig. 1. Analytical Framework of the study. Source: authors.

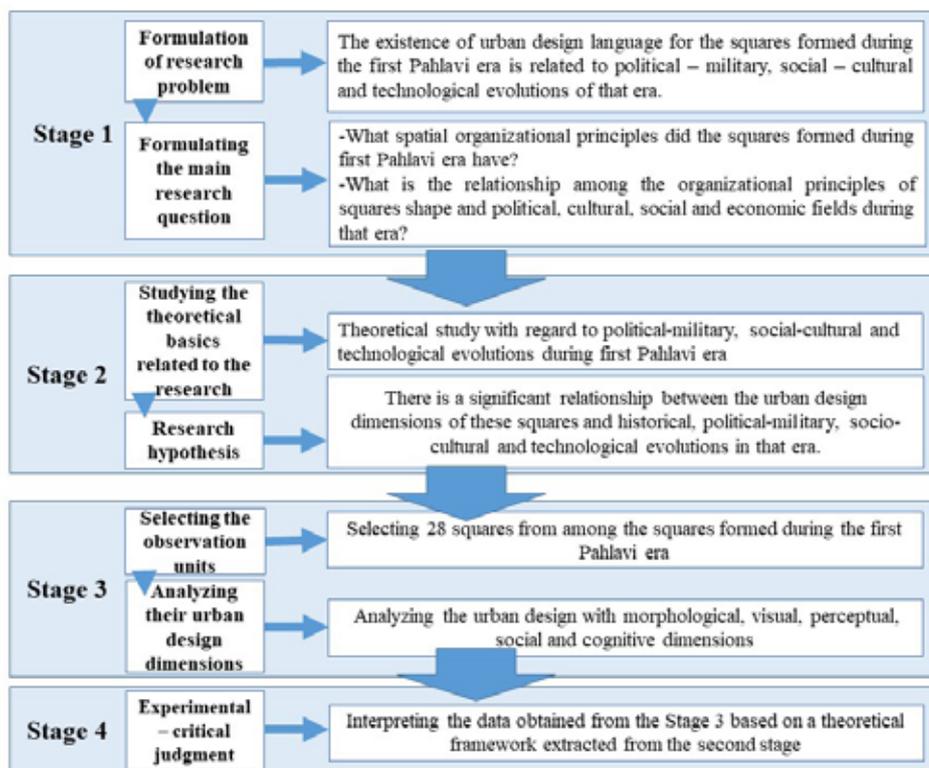


Fig. 2. Diagram of the research procedure and its stages. Source: authors.

squares, statues, and buildings. By introducing the space as a subjective issue, the ruling power attempts to occupy, produce and reproduce it and achieve its purposes and goals (Shield, 1999: 162 & Merrifield, 1993: 523).

Lefebvre presents a different view of the city and considers it as a form of various sub-forms. According to him, the form and content have a close relationship with each other. Each form has its own special content but, in combination with other forms, its content can be substituted. There is no form without content and vice versa, and the relationship between forms and contents is obvious in the city. Based on the spatial representations, the forms depending on power and ideology rule the city and do not present their main contents and they can only be subjectively perceived. In fact, by breaking this relationship, the ruling people and ideology in subjective and objective forms produce and reproduce urban spaces in the city (Representational Spaces & Space of Representations) in order to achieve their goals (Goonewardena and Milgram, 2008).

Developing the Analytical Model of Urban Design Language for the Squares in the First Pahlavi era

As explained before, the production and reproduction of new urban places and their design language in the first Pahlavi era was generally originated from two main processes. The first process in the framework of modernity influenced the different aspects of Iranian society's life. The second process had an effect on the body of architectural spaces in the form of four main patterns. These processes as the contextual factors affect the urban design language. When it comes to the effect of contextual factors on the formation of urban spaces, it is necessary to explain the s of urban space and then examine the effect of the contextual factors on each dimension. With regard to the aspects of urban design, different models have been developed since the time this profession

was introduced: a sense of place (Panther, 1991), a place model (Canter, 1977), a sense of place (Montgomery, 1998 & Moughtin, 1999). Compared to the proposed models, Matthew Carmona's model (2003) is more comprehensive and covers different dimensions of urban space. The demensions are morphological, visual, social, functional, and perceptual. Considering the contextual evolutions during the first Pahlavi era, and their effects on the formation of the new language of urban space design, the analytical framework of this research are as follows: (Fig. 1).

Research Methodology

• Research approach and its procedure

This research is interpretive-historical in nature and its procedure includes four main steps: Stage (1): Formulating the research problem; Stage (2): Developing the theoretical framework of the research; Stage (3): Operational stage; Stage (4): Conducting empirical-critical analysis. The details related to the nature of the problem have been presented in Figure 2. Generally, in developing the theoretical framework of the research, the focus has been on the evolutions in the urban renovation, lifestyle, economy, society, culture, and technology. The evolutions of the selected squares and their expansion in relation to Carmona's urban design dimensions (morphological dimension, visual dimension, social dimension, functional dimension and perceptual dimension) were experimentally and critically interpreted (Fig.2).

• Data Collection Method

Data were collected through library research and field study. The instruments for data collection in the experimental studies were mainly observation, historical maps, and images.

• Observation Sites (Statistical population and statistical sample)

The samples of the research were the squares formed during the first Pahlavi era. The statistical samples was 28 squares located in Tabriz, Tehran, Rudsar, Urmia, Qazvin, Gorgan, Kermanshah,

Table 1. The research observation sites (the squares of the first Pahlavi era) and their references. Source: authors.

City Name	Square Name	Research Type	Research Name	Author
Tabriz	Four squares around Bagh Golestan	Research project	An investigation of the factors contributing to the urban spaces during the first Pahlavi era in Tabriz	Darioush Sattarzadeh
Tehran	Daneshsara square	Book	Iran's contemporary architecture	Bani Masoud
	Toupkhaneh square	Book	Tehran's Toupkhaneh square, a look at the continuity and evolution in urban spaces	Farrokh Mohammadzadeh
	Hasanabad square	Book	The architecture of the first Pahlavi era	Mostafa Kiani
	Baharestan square	Book	Iran's architecture history	Bani Masoud
		Book	Baharestan square, an innovative experience in Iranian urban space	Zahra Ahari and Seyyedmohsen Habibi
Rudsar	Taleghani square	Map	The map of 1940	
Urmia	Velayat Faghih square	Book	Iran's architecture history	Bani Masoud
		Map	The map of 1935	
Qazvin	Sabzeh Meydan square	Paper	Sabzeh Meydan square of Qazvin over time	Bahareh Mazhab
	Rahahan square	Book	Iran's architecture history	Bani Masoud
Gorgan	Shahrdari square	Book	The history of city and urbanization in Iran during the Qajar and Pahlavi periods	Jahanshah Pakzad
Kermanshah	Shahrdari square			
Mashhad	Shohada square			
Sanandaj	Enghelab square			
Yazd	Shahid Beheshti square	Book	The architecture of the first Pahlavi era	Mostafa Kiani
		Paper	Contemplation in the urban development of the first Pahlavi era (Yazd case study)	Vahid Vahdatzadeh
Ahvaz	Se Dokhtaran square	Book	A summary of the events during last 100 years in Ahvaz	Mohammad Mohammadi
	Mojassameh square			
Babolsar	Shahr bani square	Book	The history of city and urbanization in Iran during the Qajar and Pahlavi periods	Jahanshah Pakzad
		Book	The architecture of the first Pahlavi era	Mostafa Kiani
Shiraz	Shahrdari square	Book	The architecture of the first Pahlavi era	Mostafa Kiani
		Book	The architecture and urban development during the first Pahlavi era in Shiraz city	Tahereh Nasr

Mashhad, Sanandaj, Yazd, Ahvaz, Babolsar, and Shiraz cities. All of the squares were selected either from the architecture and urban development reference books or the book of Iran's monuments in which the national monuments are listed. In this study, the first Pahlavi era² refers to the period between 1921 and 1941. (Table 1) indicates the list of investigated squares in the above-mentioned cities.

Findings

In the following section, the common specifications of urban design shared by the mentioned squares

are presented. The specifications were classified based on the different dimensions of urban design, morphology, as well as perceptual, social, visual and functional features. The design process consisted of dimensions and contextual factors that were continuous and relevant to each other and the reason for the separation of these dimensions are provided and discussed.

•Morphological Dimension

Morphological analysis showed that the samples of the current study were characterized by centralization, continuity and connection of buildings forming a wall, open semi-public spaces

Table 2. Common features of urban design – morphological dimension. Source: authors.

Dimension	Feature	Feature Description	Samples and Features	
Morphological Dimension	Centralization	The squares are mostly circle-shaped and different features such as the direction, shape of buildings and green space in the middle of the square seem to draw the attention of the visitors to the centers. The attention of the spectators to the squares are drawn by the location of Reza Khan's statue on the horse in the center or other statues in a high platform on rectangle-shaped and triangular-shaped squares. The squares are used to reinforce the centralized view of Reza Khan. This reinforcement is achieved by placing the buildings around one center.	 Shahrdari square in Kermanshah	All squares included as the samples
	Continuous and connected buildings forming a wall	The buildings around squares are well-planned. The buildings are stretched and disconnected. This stretching has been continued up to the adjacent streets and attaches the square to them.		
	Shape of the square or pseudo square	The shape of the squares is mostly circular and in all of them, an element in the middle of the square facilitates the vehicle's movement around the square.		
	Central and axial symmetries	The central and axial symmetries in the plan of the squares is associated with the symmetric and formal geometry of the shape of these squares.		All squares except for Se Dokhtaran of Ahvaz and Moallem of Chalus
	Dominancy presented in the shape of oriented squares	In the squares studied, the presence of dominant elements on one side of the square seems to have changed the form of the squares to oriented or dominant squares ³ .	 Shahrdari square in Rasht	Saat of Tabriz, Shahrdari of Rasht, Rahahan and Baharestan of Tehran
	Existence of semi-public open space behind the buildings	The arrangement of the buildings around the sample squares is orderly. The buildings are disconnected and stretched up to the square and to the adjacent streets. This feature connects the square to the streets.		Saat of Tabriz, Shahrdari of Shiraz, Shohada of Mashhad, Shahrdari of Gorgan, Iyalat of Urmia

behind the buildings, the shape of the roundabout or pseudo square, central and axial symmetries and dominancy presented in the shape of oriented squares. In (Table 2) each of the morphological features are presented.

•Visual Dimension

Based on the visual analysis of the samples investigated the following visual design principles are: a) Having a similarity in the skyline, b) increasing the permeability and visual transparency, c) using imported urban

design elements, d) lightening, and e) using the human scale for the walls, f) Having the rhythm, symmetry and prominence, and g) designing the eye- catching corners. These features are shown in (Table 3) and the squares with these visual features are presented.

•Perceptual Dimension

The cognitive analysis of the samples showed that visual design principles were as follows: a) disconnection from the past, b) symbolism, c) the value changes in the elements surrounding

Table. 3. Common features of urban design – visual dimension. Source: authors.

Dimension	Feature	Feature Description	Samples and Features
Visual Dimension	Having a similarity in the skyline	<p>Two types of skylines can be seen in these squares. The first group is projected in the center and has created oriented squares, such as Rahahan square of Tehran and Saat square of Tabriz.</p>  <p>In the second group of samples, there is an emphasis on the corner of walls. The urban walls have received less attention than a spatial framework.</p>	All square samples
	Increasing the permeability and visual transparency	<p>The rotation of monuments in the square towards out show an exhibitive function of building and create the most openings through various windows. Watching the activities within the buildings make urban space more lively and different. The shops have windows to display their goods. Using balcony in the buildings gives an extrovert mode to the balcony while the architecture is introvert, and other elements such as fountains and gardens are stretched from the internal space to the outside; the stairs are no longer in the internal architecture of the buildings. They are in the urban space and the squares are like an internal yard for the citizens and are surrounded by buildings. In all samples, the walls are short and high level of transparency is created by the fences.</p>	
	Using imported urban design elements (Fountain, Statue)	<p>In the squares formed during the first Pahlavi era, the details, urban design elements, and the landscaping common in Europe were added to urban spaces in Iran and the statue of Reza Shah was placed on horseback in most of the important squares which served as the square center and emphasized his dignity, rank, and divinity. The statue of Reza Shah was a symbolic element and dominated over the whole square. Volumetric elements and statuary reflected both dual ancient and western urban design perspectives.</p>	
	Lightening	<p>By the advent of technological development and its introduction to Iran, the lantern lights were replaced with electric lights and most of the cities were equipped with the electricity and in 1939 all cities benefitted from electricity less or more. This energy was mostly used for lightening the paths of the cities and the departments and was not adequate or regular (Pakzad, 2016:190). The light posts in the squares now are used for identifying the square and are an inseparable part of it. For example, Shohada square of Lahijan is still called Chahar. The Cheragh in Shahr-dari square of Rudsar has been replaced with other elements.</p>	
	Using a Human scale in forming the walls	<p>The investigation of the concept of man-made scale in urban space indicates that the following features must be: 1) The proportion between the space dimensions and human dimensions, 2) space enclosure, 3) the details and peoples' participation in the space must be taken into consideration. Enclosure to the squares is different due to various breadths. The man-made scale for the walls of the studied square is created in the following ways:</p> <p>a) Promoting interaction with the interior parts of buildings through increasing the transparency status of the floor, b) projecting the floor texture; c) creating openings, arcs, and windows by dividing the space in the long walls; d) building a porch or colonnade, and e) separating the façade of the floors.</p>	
	Having a rhythm, symmetry and prominence	<p>Analyzing all buildings in the squares of the first Pahlavi era show that the symmetry and rhythm are created with the help of arcs, colonnades, and openings. In large buildings with administrative and governmental functions, the emphasis is created through the clock tower and pergola and in some of the squares, symmetry is completely created.</p>	
Designing the eye-catching corners serving as an index	<p>By emphasizing the corners have resulted in and as a result, have specifying the space as a joint between the street connect the space in the its surrounding streets. This most of the studied squares quality.</p> 	<p>framework of urban space, the projection and clarity, promoted the quality of (Bahreini, 2014:98) and act and square; the corners middle of each square with feature has been observed in and has increased their</p>	

Table 4. Common features of the urban design – cognitive dimension. Source: authors.

Dimension	Feature	Feature Description	Samples and Features
Perceptual Dimension	Disconnection from the past ⁴	There was no sign of urban development in late Islamic period in the squares of the first Pahlavi era; Reza Khan believed that religion was against any kind of renovation. During the Qajar and Safavi periods, places such as palaces, mosques, and Bazaars were replaced with the places serving the military, administrative and commercial ⁵ functions during the first Pahlavi era. In architecture and urban development style, this period did not influence the façade building in the wall of some spaces in the Qajar style or past methods.	All square samples
	Symbolism ⁶	The main square samples constructed in Reza Shah's period mostly included the governmental squares reflecting the special architecture of those days. Over time, these squares have turned into signs and main symbols of the cities and have been used by people for remembering the city.	
	Value changes in elements surrounding the square	Before the Pahlavi era, the squares were surrounded by monuments such as a government fortress, mosques, Bazaars, and bathrooms. These elements reflect the importance and beauty of architecture. During the Pahlavi period, the squares were surrounded by the military, administrative and commercial buildings characterized by architectural decorations and glory.	
	Exhibitive-formalities features ⁷	Governmental-administrative squares and also Rahahan squares represent the authority of the system as well as their glory and splendor. This feature is more prominent in rectangle-shaped squares whose area and buildings are bigger. Using the memorial elements such as the statue and fountain and emphasizing other elements such as clock tower increase the glory of the squares, too. Another effective factor is the special geometry of these squares. The surrounding buildings of the squares have created symmetry and rhythm using the openings and columns. The wide stairs whose width decreases towards the entrance increase the glory and ceremonial feature of the buildings.	Shahrdari of Rasht, Saat of Tabriz, Shohada of Mashhad, Shahrdari of Sari, Toupkhaneh of Tehran, Iyalat of Urmia, Shahrdari of Rudsar, Shahrdari of Shiraz
	Archaism in architecture	The elements used in the squares include façades, columns and etc The elements were constructed in imitation of the West, but looked like the ancient buildings in the Achaemenian and Sassanian periods. The appearance and structure of the buildings were ancient while their functions were new. The designs of the squares present greatness and glory of the square space using ancient details and motifs. The Achaemenid columns are used to show the authority of the government. –just like Hitler, Mussolini, and Stalin that used Doric capitals –	Hassanabad of Tehran, Shohada of Mashhad, Baharestan of Tehran, Shohada of Lahijan

the squares, d) – Exhibitive-formalities features and e) Archaism in architecture. The perceptual components have been detailed in (Table 4).

•Social Dimension

Analyzing the effective socio- cultural factors during the first Pahlavi era showed that the squares had the following features: a) Space formation based on the policies imposed by the authorities and lack of public participation, b) lack of space for pedestrians, c) monopolization of the square

for a special class, and d) the square as a platform for participation. The social features are separately described in (Table 5).

• Functional dimension

Functional analysis of the case samples of the research shows that the operational functions of squares were as follows: Emphasis on green space, Hybrid functions, facilitation of traffic flow, and concentration on new functions are seen in them. In (Table 6) the operational features are explained

Table 5. Common features of urban design – social dimension. Source: authors.

Dimension	Feature	Feature Description	Samples and Features
Social Dimension	Space formation based on the policies imposed by the authorities, and lack of public participation	Partially, the changes in the city paralleled with the changes of power and governmental system. During the first Pahlavi era, the urban development was a tool to show the authority and achieve the special goal of the government. Except for the few people that were called open-minded in those days, the public (most of the people) were not involved in changing the shape of the city and construction of the squares and streets. "The mayor of Tehran at that time was Colonel Karim Agha Bouzar Jomhour. According to the map of the new streets, he used to raise a red flag on people's houses or shops at night and ruin them before they could get chance to move." To prevent such events, the parliament approved a law in 1928 saying that before any destruction, the people must be informed and they must be compensated for the damages (Makki, 1983:452). Lack of responsibility for observing the law turned violating the law to a chronic and contagious issue for Iranian peoples (Pakzad, 2016:183).	All square samples
	Lack of space for pedestrians-	Overtime by increasing the number of cars, the pedestrians faced difficulty for walking around, and their presence was limited to the sidewalks. Building the squares beside the administrative centers of transportation means turned the squares to a gridlock for vehicles and the view of these places was damaged.	
	Monopolization of the square for a special class of people	Due to the new and modern structure and the function of the squares, it was not expected that the traditional society be able and to willing to use the spaces. The open-minded social class of people ⁸ was the first user of these squares. Cafes as places for the hangout of the dignified, educated and high-class people were one of the modernism elements that remained in the squares of the first Pahlavi era. As analysis shows these squares are mostly designed to be used for cars; however, in many cases, there were no cars in smaller cities. During this period, the process of segregation of wealthy and poor people became intensified and the term uptown and downtown became prevalent (Pakzad, 2016:182).	
	Squares as a platform for participation ⁹	The squares gained popularity by the presence of the people and served as a platform for participation of the citizens in social arenas. One of Reza Khan's goals which were realized through urban development was to involve the people, especially women in the city and society. Although the constructed squares did not have the main indicators of the square and were mainly designed for cars than people, extroversion has resulted in increasing the people's presence in comparison to the past. The squares with a variety of functions such as shops in new style, cafes, cinemas, and hotels result of the prevalence of nightlife in them. For the first time, women attended these places.	

Table 6. Common Features of Urban Design – Operational Dimension. Source: authors.

Dimension	Feature	Feature Description	Samples with Feature
Functional Dimension	Emphasis on green space and park (imported element)	In the middle of any square, there is a green space in the form of an Island. The square facilitates traffic flow. Circular squares and green space are covered in grass, flower, and bush and also trees in rectangular forms other natural elements. For the first time, parks were created next to the squares for amusement and leisure. Reza Shah emphasized planting trees and prevented cutting them down. (Example: Shahrdari square of Rasht and Sabzeh Meydan square of Qazvin).	All square samples
	Hybrid Functions of the squares	Various functions of the squares show the flow of life. Though governmental squares mostly consisted of administrative buildings, they were not limited to them and different places such as shops, cafes, and cinemas resulted in the creation of a diverse space.	
	Facilitation of the traffic flow Concentration on the new functions	The functions of new spaces or squares in the junction smooth the traffic facilitation to the extent that there is no need for a traffic light. Compared to the organization of the traditional city, a new spatial organization atmosphere provides new urban functions such as municipality building, post office, and cinema. These buildings are formed beside new centers.	

in detail.

Discussion and Conclusion

Based on the theoretical framework of the research, in the production and reproduction of urban spaces and especially the squares in this research, two main processes contributed to the language of urban design of the squares formed during the first Pahlavi era. The first process was the influence of modernity on lifestyle, urban renovation and political, economic, social, cultural aspects of life. Such evolutions required developing a new form of urban spaces proportionate to the evolutions of those days. The second process was the effect of previous periods on the form and the shape of the urban space. Each process influenced the language of each of the urban design dimensions. The present research was an attempt to answer the main question through two sub-questions. The second question investigated the evolutions occurred during the first Pahlavi era in relation to political, cultural, social, economic aspects of life and urban renovation and lifestyle. Then, based on content analysis of the squares formed in this period, we discovered their urban design language and categorized them into five dimensions from urban space design perspectives. In answering the question related to the principles of spatial organization in the formed squares, the following findings emerged.

From morphological dimension, the samples were characterized by centralization, symmetry in the geometry of square plans, dominancy presented in the shape of square, continuity in the structure of urban space, and the shape of the square- From the visual dimension, the designing principles included the invariable and harmonic skylines, high permeability and transparency in the form of extrovert facades, night landscape of the city, the existence of rhythm, coordination, and integrity. From cognitive dimension, the samples had the following features: discontinuity from the near past and connection to the far past (ancient time), symbolism, changes in the functional values of

the element surrounding the squares. Analyzing the sample from social aspect showed that spaces were mainly produced through the lens of ruling powers and the focus of functional dimensions of the space were on drivers or riders instead of pedestrian. The space was exclusively used by a special class of people and the women were encouraged to participate in urban spaces. From the functional dimension, the following principles received much attention: facilitation of the traffic flow, the importance of green space and hybrid functions of the squares and promotion for the activities around the square. We applied the artistic space production theory of Lefebvre to answer the following question: "how are organizational principles of squares associated with the contextual evolutions occurred during that period?"

Lefebvre (1991) suggests three spatial species: representational spaces, spatial actions, and the space of representations. Lefebvre believes that space is of a dialectic nature including subjective and objective issues that are physically represented through the actions of the individuals. The space representation is related to the ruling power and ideology and it can be seen in streets, urban passages, squares, statues, and buildings. What Lefebvre explains is the final arrangement of the building beside each other. By introducing the space as a subjective issue, the ruling power attempts to occupy, produce and reproduce it and achieve its purposes and goals. Lefebvre believes that the representational space has more priority to two other spaces. In fact, based on the theory of Lefebvre, the representational space is formed to meet the goals of the governing rules and based on the specific language. The relationship between the political goals of the ruling powers and occurred evolutions can be explained using the designing language shared by the squares. The explanation is as follows:

1. The spaces of this period were formed and produced by the central government and people were not involved in this process, and this

formation process can be observed in the centralized governments such as the first Pahlavi.

2. The result related to feature 1 showed the physical integrity in designing the walls and the structure of the space. Such integrity was implicitly based on “nationalistic” goals of the Pahlavi dynasty 1 emphasizing the idea of cultural imperialism.

3. With reference to the effect of rulers on the produced spaces, we concluded that a dominating element in the squares’ space was at the center of attention and the spatial attractions to new and modern functions were often created by the central government. For example Municipality buildings, bank, post office, etc.

4. The architectural structures of these monuments and their relation with an ancient explanation of Iran’s ancient architecture highlighted the strength of the King and the ruling government, and this effect was reinforced by creating symmetries.

5. The King’s statue in the center reinforces the idea of “concentration” and “authoritarianism” of the ruling government, an organization with an emphasis on the square center. Undoubtedly, this spatial expression was borrowed from European urban spaces.

6. These artistic works (especially the King’s statue) reinforced the sovereignty and the presence of the King in urban space. Given that the square was constructed by the government, the king’s statue could also have been the symbol of sovereignty.

7. The policy of segregating religion from politics imposed by Reza Khan and he also gave less attention to religious factors. This was completely observed in the production of new spaces around the squares. The spaces were devoid of any religious elements. The “mosque” or the main element of squares was replaced by modern and new elements.

8. The new spaces around of squares were produced to meet some new functions not for the whole Iranian society, but for a special class of people. The users of space were the special class of educated and high-class people, and the new spaces socially separated the fans of modernity from those who

were interested in tradition.

9. The elements of the new era around these squares encouraged the presence of educated and high-class people and especially women in the spaces. The presence of the women was more acceptable in these spaces than before compared to traditional spaces.

10. The ancient concepts were omitted and new concepts of urban elements such as square and street were presented. Contrary to the past, the square was not a place for social demonstrations but is mostly considered for facilitation of the traffic flow.

11. Despite the great influence of the dominant approaches on architecture based on archaism, some buildings reflected the international architecture and were built in the imitation of the West and represented the architectural elements of the Qajar period.

12. The name used for representational spaces were attributed to the ruling powers. The squares with the names of Shah, Shahpour, Pahlavi, and Mojassameh (statue) are the examples of representational spaces.

13. In the architecture of the constructed spaces, there were attempts for disconnecting them from the past and connecting them to today and the future. This is different from what characterizes the ancient architectural elements of in Iran.

Finally, the study found that “there is a significant relationship between urban design dimensions of the squares in the first Pahlavi era and historical, political, social, cultural, and economic evaluations of that era”. Moreover, in the design language of the newly produced spaces both modernity and current processes were effective and the language in all dimensions of urban design was in line what the central government intended to represent from a space. Such representation helped the government to change public opinion based on their own ideologies. The ideology was characterized by “nationalism”, “archaism”, “concentration”, and “authoritarianism”.

Endnote

1. This society consisted of social organizations. Each one independently but strongly exercised power and had freedom of action for social control and was considered powerful because the rules governing the people were determined by the social organizations rather than governmental legislation. / 2. In this regard, we included the squares such as Toupkhaneh and Baharestan that were formed in Tehran before Pahlavi era and went through considerable changes in that era. / 3. Dominated Square: In Zucker's classification oriented squares refer to the squares in which an important element creates spatial attraction in the walls.

4. The "past" refers to the near past and Islamic period. / 5. The "formalities" here is used in the European style and is defined in contrast with the traditional Bazaar in the cities of Iran. / 6. This feature was created for the squares during the first Pahlavi era, over years.

7. The representational feature is related to the functional dimension. This feature and the formalities function have been mentioned in this part and are not explained in detail. / 8. The open-minded society informed by the current changes demanded a rapid change in Iran and renovation and modernization. / 9. The presence of men and women together was introduced as the feature of the urban space for the first time in Iran.

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HOW TO CITE THIS ARTICLE

Mirmozafari, H. & Abdollah Zadeh Taraf, A. (2018). *Urban Design Principles of the Squares in the First Pahlavi Period Revisited*. *Bagh- e Nazar*, 15 (61):27-42.

DOI: 10.22034/bagh.2018.63861

URL: http://www.bagh-sj.com/article_63861_en.html

