Volume 4, Issue 5: 522-528 (2014)



Structural Elements of Urban Squares from Tradition to Modernity in Iran: A Comparative Study of Isfahan's Naghsh-e-Jahan Square and Tehran's Toop-khaneh Square

Zahra Khodabakhshi

PhD student, Department of Earth Sciences, Shahid Beheshti University, Tehran, Iran *Corresponding author's E-mail: Zahra.khodabakhshi89@gmail.com

ABSTRACT: Modernism, as one of the main achievements of man, has been the source of various changes in the spatial structure of cities. Among the changes, city square, as the most significant structural representative of the city, is one of the changes originating from modernism. Using library resources, this study examined the change and development of structural elements of the square from tradition to modernism. It targeted the trend of structural changes of the square by comparing the two squares of Naghsh-e-Jahan and Toop-khaneh from beginning to the present time. The findings showed that with the appearance of modernism in Iran's cities, structural elements of the traditional square were modified, and modern elements, which fulfil the modernist needs, replaced them and were made in the body of the square. The present study compared the two case squares. It is concluded that the continued growth of modernism lead to changes, not only in the structure of the modern urban square, but also in the essence of the square. In case in the design of urban squares enough consideration is granted for human criteria as well as restrictions in access to transportation vehicles, urban space of squares can be revitalized, and defects in modernist modifications of squares can be decreased .

Keywords: Structural Elements, Square, Tradition, Modernism, Naghsh-e-Jahan, Toop-khaneh.

INTRODUCTION

Central squares in Iran have undergone various changes so far. The first change to the body of the square happened in Seleucid era, but with the decline of the regime, the square returned to its former urban form.

After introduction of Islam to Iran, the second substantial change occurred to spatial organization of the city square. Such changes originated from Islamic ideologies. Iranian city square in Islamic period was formed on the basis of social life order and monotheistic beliefs (Nejad-sattari, 2011). The Iranian-Islamic city square in Safavid era brought the changes caused by Islamic patterns to its highest point by forming a logical structured-spatial set. Through the introduction of modernism to Iran, not only did the third change occur to the framework and elements of the square, but also was the essence of the square revolutionized.

In their research in 2012, Ghobadian and Reza'ee studied the first squares of Tehran from Safavid era up to modern era. They aimed at finding the first modern square in Tehran and found that Toop-khaneh is the first modern square in Tehran. Another related study is that of Farahani which analyzed Naghsh-e-Jahan square and its peripheral elements like Ali-ghapoo palace, Shah Mosque, Sheikh Lotfollah mosque, and Bazar (market).

What makes the present study different from other related studies which are about city squares is that this study investigated physical elements of both squares, Naghsh-e-Jahan and Toop-khaneh from the time of their construction up to today; compared these two squares through analyzing what elements were present in the body of traditional squares and what elements, with the appearance of modernism, replaced the previous ones and what changes occurred to the framework of the square through the continuation of modernism.

Therefore, this study aimed at determining the physical elements of traditional and modern squares as well as identifying their changes (in 2 case samples) from tradition to modernism.

Review of Literature

From theoretical point of view, the concept of modernism is based on attitudinal, value-based and cultural changes. Regarding the concept of modernism Jahan-beglou (cited in Tabriz-nia) writes: "Modernism is the knowledge of the beginning of a new era. This period, is revealed in the power of logic, the power which leads to a subject's authority.

The modernism which entered Iran roughly goes back to Europeans who entered Iran in Safavid era. With 70 years delay in its zero point, this trend started from the time of the wars between Iran and Russia, and two treaties of Gulistan and Turkmenchay at Fath-Ali Shah's reign (Jahan-beglou, 2008). At this time people confronted the European society which had entered a new phase of progress and development, whose industries progressed day by day, and whose political influence was increasingly growing (Zare'a, 2009). The fame of industrial progress and developments of Europe and their impact on urbanization had an awakening effect on some levels of society, and the tendency for reconstructing the

ORIGINAL ARTICLE Received 03 Jun. 2014 Accepted 09 Sep. 2014

society and, thus, the need for learning new sciences and changes in learning principles became necessary (Moghtader, 1993). Subsequently modernist changes were happening in different areas of the society some of will be mentioned here:

Information propagation (founding print office, book publication, newspaper publication), literacy propagation (sending Iranian students abroad; establishing new and European schools) (Zare'a, 2009), getting patterns for western painting, architecture and urbanism (Moghtader, 1993), opening up new factories like pram production (Mehdi-zadeh, 2001), employing military councilors by Abbas-Mirza; gatting modern technology; Shah's trip to Europe; entrance of photography and smoking transportation vehicles; establishing Darolfonoun; the development and propagation of new political ideas and works, the appearance of new intellectuals, and the modernization from Reza Shah's time up to present" (Tabriz-nia, 2009). Thus, the appearance of modernism, as a new thinking and life style, had a special impact on Iranian culture and civilization (Zare'a, 2009). Such a change included the evolution in all aspects of economic, social, religious, and municipal structural systems. The present research mainly addresses the changes and effects of modernism on the city's façade.

Up to modernist period, the physical shape of Iranian city, like other Islamic cities, included Darolhokoumeh, the Big square or Khalife square, Jame'a mosque, royal palaces (Nezar Al Sayyad, 1995), "school, Bazar, citadal, residential areas, street network, wall and exterior facade" (Ghani-zadeh, 2006). These elements existed in the body or periphery of the city's central square. Up to late Ghajar era, the spatial structure of Iran's cities was of endogenic cities type constructed on the basis of cultural heritage of their people or group (Riazi, 2010).

With the influence of modernist ideas on physical space, cities with different exogenic and endogenicexogenic appearances were formed. The spatial structure of cities in this period influenced by exogenic factors originating from modernist attitudes led to the formation of cities representative of modernistic attitudes and symbols. Gradually modernism changed all aspects of human life in cities.

The reflection of such attitudes, influenced by Europe, appeared in the architecture and urbanization in the time of Nasered-din Shah of Ghajar in the creation of constructions such as Toop-khaneh square, Faradastan region of the northern part of city, architecture of buildings and gardens (Saremi, 1995); founding Darolfonoun, Shahi bank, telegraph office building, post office building, opening up factories and etc.

Different people like Seyyed Mohsen Habibi in the book"From Shar to Shahr", in "The First Modernist Reverberation in Iran", and in "The Second Modernist Reverberation in Iran"; Seyed Abdol-hassan Riazi in "The Effect of Modernism on the Spatial Organization of Tehran in Ghajar's Era"; Reza Moghtader in "100 years of Modernism in Iran's Architecture and Urbanism" and "Construction and Reconstruction in Ghajar's Era"; Ramin Jahan-beglou in the book "Iran and Modernism"; and Mohammad Reza Kazem-zadeh in "Contemporary Architecture in Iran: Roams of Tradition and Modernism" and etc. have studied tradition and modernism and their effects on different areas especially in architecture and urbanism which are used in the present study whenever required.

MATERIAL AND METHODS

Regarding content, this study is a qualitative research which investigates the changes in the physical elements of Isfahan's Naghsh-e-Jahan and Tehran's Toopkhaneh through historical description from the time of their construction to the present time. The data were written and historical manuscripts utilized through contrastive method.

RESULT

Formation of the Targeted Squares

Naghsh-e-Jahan Square of Isfahan: (Naghsh-e Jahan and Toop-khaneh Squares are respectively named Imam and Imam Khomeini Squares today. However, due to the historical nature of this study, the old names are used all over the text):

In spring of 1006 (lunar year) Shah Abbas, moved his capital from Ghazvin to Isfahan (Jackson and Lockheart, 2008). Without making major changes in the old parts of Isfahan city, he added new parts to it (Mahdavi, 2010) and extended the southern part of the city. His urbanism was based on the two elements of Chahar-bagh and Naghsh-e-Jahan Square (Rahmani Samani, 2009) which was on the basis of a big square. The original idea of this square was an inspiration from the old squares of Isfahan, Saheb-abad of Tabriz (Parsi et al., 2011) and Ali-ghapoo of Ghazvin (Tehrani et al., 2011).



Figure 1. The Location of Old Square and the Elements of Isfahan's Naghsh-e-Jahan Square.

In an area not much far from the old square in a garden called Jahan-nama, Naghsh-e -Jahan Square was shaped as a square in dimensions of 159×512 m (Jackson and Lockheart, 2008). Naghsh-e-Jahan square, like Horse square of Ghazvin, had different uses including as a place for martial practice and ceremonies, official meeting of someone, Chowgan, shooting, musical games, Friday

market, Marionette, Shah and people's visiting place and alameda of city (Moghtader, 2001).

Naghsh-e-Jahan square was a spacious area surrounded by two arcs, and in each of its sides there was a portal which led to the palace and Haram, new bazaars, and royal mosques (Alemi, 2009). Figure 1 shows the old Islamic Square and Naghsh-e-Jahan square with their elements.

Toop-khaneh Square of Tehran: Up to Nasereddin Shah's reign, Tehran was about 4 km² (Kariman, 1976) and consisted of the elements of "state buildings, Shah Mosque, Sabz-e-meydan and Bazar". With population growth and lack of sufficient land in the city, new buildings and constructions were built out of the city (Kiani, 2007). Thus, Nasered-din Shah agreed with the city's extension as solution. As the extension began, old walls collapsed, and the city extended from 4 sides, and the city size became 19 km² (Habibi, 2003).

Toop-khaneh square was built in 1904 (1281 lunar year) in two floors, square-shaped, 220 m long and 110m wide in north of citadal (Zaka'e, 1970). The ground floor was a space for storing cannon and ammunition, and the upper floor was designed to room cannon-men (Sultanzadeh, 2011). Toop-khaneh square, unlike the squares of its time, did not have the uniform elements of the past in its body and, instead, modern elements were concentrated in the body of square. In the four bodies of Toop-khaneh square, elements such as Shahi bank, Nazmyyeh (police office), Ghorkhaneh portal, post office, telegraph office, gates and entrances were located. "Quadruplet bodies of the square had an organized and constant façade composed of half-arcs in two floors and an exterior corridor that surrounded the whole square" (Mohammadzadeh Mehr, 2002). The square was the urban communication center and the place for different ceremonies and also the center of social and cultural life (Behzad-far, 2007).

Structural Elements of Naghsh-e-Jahan Square

Shah mosque: Shah or Abbasi mosque has been one of the architectural masterpieces which was built upon the order of Shah Abbas in southern part of Naghsh-e-Jahan square (Rahmani Samani, 2009). The mosque's construction, regarding architecture, mosaic, stone works, dome's magnificence and high minarets is among the masterpieces of 11th lunar year (Mahdavi, 2010). The entrance portal of mosque faces Naghsh-e-Jahan square and the entrance of mosque's yard is designed to face Mecca.

Alighapoo Palace: Alighapoo palace, Mobarakeh governmental house of Naghsh-e-Jahan square, in 6 floors according to the order of Shah Abbas 1st; was founded in the era of Teymor's successor in the first quarter of 11th lunar century in the western edge of Naghsh-e-Jahan square (Nasiri and Habibi, 2010). Jaberi and Honar-far believe that Shah Abbas has named it Ali-ghapoo imitating "Ali door", the Palace of 'Uthmani Sultan in Istanbul in order to attract European's attention to this palace (which had the same name). With decorations, stucco, paintings, and the high balcony with wooden pillars, and Khatam ceiling, Alighapoo were considered as one of the most beautiful and largest palaces of Safavid era (Mahdavi, 2010). Also Alighapoo palace was the portal and main entrance gate of other inner palaces as well as Shah's living place which was located at the back of Alighapoo (Nasiri and Habibi, 2010).

Portal of Bazar: Bazar's entry was located in the north of Naghsh-e-Jahan square. Bazar was 2 kilometers long which connected the old part of the city to Naghsh-e-Jahan square by Bazar's portal (Farahani, 2009)."Bazar's enormous entry consisted of a high balcony beside which there were two floors of arched upstairs balconies. The upstairs' balconies included a naqareh-house where royal musicians daily played drums and horns" (Beller, 2002). On the first floor of the portal, there was a beverage house. When the guests entered Toughchi's gate, before formal reception; they were served in this house (Farahani, 2009).

Sheykh Lotfollah mosque:

This mosque was built in eastern edge of Naghshe-Jahan square, next to Alighapoo palace. Shah Abbas intended this palace to be a place where Sheykh Lotfollah could teach. That is the reason why it's named Sheykh Lotfollah's mosque. The mosque included a small domical space, no yard, with the edge of about 19 meters (Beller, 2002). The special beauty of the mosque is in the carved mosaics of internal and external layers of the dome, the 7colored baked mosaics, calmness and the decoration of the entry portal, and the rare delicacy of decorative epigraphs (Nasiri and Habibi, 2010). This mosque, like Shah Mosque, was intended to have its Shabistan toward Qibla direction (Rahmani Samani, 2009).

Other than the elements of the body of Naghsh-e-Jahan square, one can mention the two-floored large chambers, marble-curbed water stream around the square (Dalmani, 1976) and maybe the water pool at the center of the square (Honar-far, 1986).

Structural Elements of Tehran's Toop-khaneh Square

The building of Iran's Shahi Bank: As the first bank of Iran, this bank was founded in 1890 in eastern body of Toop-khaneh square next to the gate of Cheragh Gaz Street. In terms of architecture, the historical construction of the bank was a united one; and use of decorative elements of Iranian architecture such as bowlmakings in the half-dome of the entry portal, mosaic, and stucco are among its significant features (Cultural Heritage, 2004). The Portal of Ghorkhane and Nazmie Building: Ghorkhane or Takhshaee was a large building used as a place for producing artillery, ammunition, fire work and warfare materials, a settlement place for the minister of Ghorkhaneh (Najmi, 1988) and pram producing factory (Jamal-zadeh, 1983). Ghorkhaneh was located in the western body of Toop-khaneh square, and a portal of it opened to the body of Toopkhane square. In Ghajar era, some of the arcs of the Ghorkhaneh's portal were destroyed so that Nazmyyeh building could be built there. Thus, in its place was built a construction with 13 entries, as high as the former construction of the square, with gable roof and columned facade (Farhangi, 2004).

Mobarakeh post office: Mobarakeh post office building was made during Nasereddin Shah's reign in the northern edge of Toop-khaneh Square near the gate of Laleh-zar Street. Before that time there existed no office like this in Iran. With more communication with Europe

and more familiarity with modern post methods, with the appearance of Mobarakeh post office, Chapar (courier) post became less popular (Riahi Vafa and Maleki Verna Makhasati, 2005). This building, like other bodies of Toop-khaneh Square, was built in two floors with arched and bricked, columned façade.

Telegraph Office: Telegraph office was one of modern organizations and was added, as an equipped building, to the southern body of Toop-khaneh near the end of Ghajar reign and allocated some space of the square body to itself (Jackson, 1973).

Gates: Toop-khaneh square had six gates in its body where it met the streets. The gates located in the body of square included Laleh-zar Street gate, Sofara (ministers) street gate, Naseryyeh street gate, Bab-e-Homayun street gate, Cheragh Gaz street gate, and Marizkhaneh street gate. Bab-e-Homayun street gate was the most magnificent gate which connected Toop-khaneh square to the northern portal of Citadel. Laleh-zar street and Eynod-doleh (Ferdowsi) street gates, directed Toopkhaneh square northward, that is, the city's extending direction (Moghtader, 1993). Actually, gates of the northern and southern bodies of square, as jointers, connected the northern part of the city to citadel and the southern part. Among these six gates, only Mariz-khaneh street gate was connected to a rampart of the city (Bagh-Shah gate).

In addition to the above elements, the square was beautified with a large pool and lots of trees (Savad-koohi-far, 1999).

The Evolution of the targeted Squares from Tradition to Modernism and afterwards

In Safavid era, Naghsh-e-Jahan square, as a traditional square, had all the basic elements of Islamic cities like Alighapoo palace, Jame'a (Shah) mosque, Shevkh Lotfollah mosque (school) and Bazar's portal in its body. Each of them met some needs and activities of the society. As already mentioned, this square had different- uses, e.g. entertaining, social; formal and luxury ceremonies. religious, educational. and business ceremonies. With the decline of Safavid and the appearance of Zandiyeh, Afshar, Ghajar and Pahlavi, and the Islamic Republic, nothing was changed or added to the square. Only in chaos of the change of regimens, were some parts of the square such as Naghareh house building ruined and destroyed (Zellos-Sultan, 1983). After the Islamic Revolution, this square and its constructions were repaired, and today, as figure 2 displays, Safavid physical elements are located in the body of the square. The square is considered as the central square of Isfahan.

With the beginning of Modernism in Iran, the old elements of the traditional square in the body of Municipal Square were detached and replaced with modern elements. With the insertion of modern elements in the body of the square, Toop-khaneh square was built with a modern style (figure 3). From the time of its construction in a modern way to the present, which is the continuation of modernist approach, lots of changes have happened to this square. Investigation of physical elements of Toop-khaneh square can be categorized into three different periods.



Figure 2. Physical Elements of the Body of Naghshe-Jahan Square at Present Time; Source: http://www.isfp.ir



Figure 3. Toop-khaneh square with modern elements



Figure 4. Changes of the First Period in Physical Elements of Toop-khaneh Square

The First period: In the first period, Toop-khaneh square was formed on the basis of two-floor buildings, crossover street gates, Shahi bank, Ghorkhaneh portal, Telegraph office, and post office. Until modern time, exchange shops played their roles in the Bazar beside traditional elements and were in the side of the square. But the appearance of Shahi Bank's building in the body of the square, predicted an ascendency phase of the new economy with a new investing approach (Riazi, 2010). The appearance of new economy in the modern central square of the city was almost coincidental with that of

other elements like Ghorkhaneh, Telegraph office, post office and streets which all belonged to the modern world and in perfect harmony could meet the needs of the society.

In this period, the first local modifications in the square happened in the gates of the square. The gates were ruined in order to facilitate the entry of transportation vehicles such as carriage, wagon, railroad and smoking cars, except for the citadel gate. The second change, was the destruction of Ghorkhaneh portal and part of the entries and arcs in the western body of the square which was replaced by Nazmiyeh building (Mohammad-zadeh Mehr, 2002) (Figure 4).

The Second Period: The second period of structural changes in the body of Toop-khaneh square happened from 1921 to 1941. Modernism which had started from Ghajar's era intensified in this period, and Reza Shah was at the center of modernization. In this period, the majority of changes happened to the body of the square. The buildings of Sepah Bank, Nazmyyeh (traffic office) and Lister were built. After legislation of Baladyyeh law, which was one of the outcomes of Persian Constitutional Revolution in 1921, Baladyyeh building was built in northern body of the square (Tehran Municipality, 2006). The name of Shahi bank changed to Tejarat. Telecommunication building was ruined and rebuilt; and the two-floor construction all around the square, which was the house to cannon-men and a store for keeping war cannons, was destroyed too. With the construction of these new buildings, especially major governmental institutes, the military application of Toopkhaneh square gave its place to official applications and governmental identity (Mohammad-zadeh, 2002). With the development of streets and growth in the number of cars, car traffic became heavier. Figure 5 shows the destruction of old buildings, construction of new buildings, and the extension of roads and passage network.



Figure 5. All Moderrn Physical Changes in Toop-khaneh Square from1921 to 1941

The Third Period: This period coincides with the reign of Mohammad-Reza Pahlavi. Up to this time old buildings were located around the square, but after that Baladyyeh building was ruined around 1966-1969 (Iranian History, 2011), and its small and big shops appeared, and municipal bus terminal replaced the municipality building.

Telecommunication building was ruined and replaced with post, telegraph, and telephone ministry in the shape of tower 14. Figure 6 displays all the changes of the third period.



Figure 6. All the Modern Physical Changes in Toopkhaneh Square between 1961 and the Islamic revolution

The Fourth Period: This period coincides with the reign of Islamic Republic during which the spatial structure of the city changed substantially, and thus the physic and content of the square changed. In 1982 after explosion in one edge of the telecommunication building, municipal bus terminal moved to the former location of municipal building, and the taxi terminal replaced it since 2004. The eastern body did not change at all, and buildings in the southern part of Sepah street, were gradually ruined and eliminated (They existed up to 1981s) (Mohammad-zadeh, 2002). Subway station building has replaced traffic building, and three subway station entrances are located in the body of Toop-khaneh artillery square. In general, with the destruction of buildings, widening of streets and the growth of transportation vehicles, this square lost its identity, and the remaining buildings around the square have no harmony and consistency. Figure 7 shows the present condition of Toop-khaneh square.



Figure 7. The Present Toop-khaneh square

The Analysis of the Change Trend in Physical Elements of Urban Square

As mentioned, before modernism, Citadel was located in the body of the square, but after modernism it

was separated and located in other sports of the city. In other words, the element of Ali-ghapoo palace was located in the body of traditional square of Naghsh-e-Jahan, but in modern Toop-khaneh square, it was connected to Citadel by gates and streets. In other successor eras (Pahlavi, and Islamic Republic), there was no politically significant building in the square.

The other separated element of the modern square is Jame'a or Shah Mosque. In Isfahan school, the mosque in the southern body with its Islamic architecture indicates a Muslim Shah's authority while in Ghajar's era mosque was located inside the Bazar and other elements like post and telegraph offices were located in the body of Toopkhaneh. These two elements indicated the development of communication and substructure of western world, and being located in Toop-khaneh square they became very close to Citadel and embassies.

In traditional pattern, Bazar was one of the major elements of a city's formation, and usually one of its entries faced the square. In Naghsh-e-Jahan square, the entry of Gheysaryyeh Bazar was located in northern body of the square. This Bazar was the jointing chain of different groups of people- local capitalists and exchangers- with the regime and religion. But it was completely reformed in modernist period. With industrial revolution, capitalism which was founded on land ownership, was revolutionized and replaced with monetary economy (Riazi, 2010). The bank in the body of the central square and beside new checker streets replaced the exchange shops and the traditional Bazar.

Mosque and school of Sheykh Lotfollah, was another important element of traditional square which went under change in the modern square. From the appearance of Islam, mosque had educational applications besides religious ones (Houshyari et al., 2013). With the beginning of modernism and familiarity with Western learning methods, new educational methods were getting formed. One of such actions was the establishment of Darol-fonoun by Amir-kabir. Darol-fonoun building was built inside royal Citadel's territory with a simple series of classes and laboratories (Moghtader, 1993). Therefore, after modernism, the mosque which had an educational role was built in form of a school with new educational method in the city and far from the body of square.

Besides the basic elements of traditional square which were explained above, access network to paths that was in an unorganized way connected from neighborhood and Bazar to Naghsh-e-Jahan square (Mashhadi-zadeh Dahaghani, 2000) in modern era was formed as direct or checker lines in the body of Toop-khaneh square (Ghobadian and Rezaee, 2011). Toop-khaneh square had inseparable relation with new streets, and after the entrance of public transportation vehicles like carriage, prim, and smoking cars, the square was used both as the source and destination of lots of city lines (Zavosh, 1991).

Naghsh-e-Jahan square, copying Ghazvin's Alighapoo, Tabriz's Saheb-abad, and Isfahan's Old square, was designed based on Islamic-Iranian architecture. In the design of Tehran's modern Toopkhaneh square, Western neoclassic style was used (Ghobadian and Rezaee, 2011). It means, the architectural features used in the elements and body of Naghsh-e-Jahan square included stone works, decorations, stucco, mosaic, painting and using wooden pillars and Khatam ceiling and etc.. The architecture of the elements and body of Toop-khaneh square was eclectic architecture (an amalgamation of Iranian-Western architecture). Its major features are mosaic and stucco, half-circle arcs, using three-doors, windows, flat-bricked-pillars, and using brick (combination of brick and stone), etc.

Also with modernist's trend, pool, water fountain and sculpture are used in the design of areas around the squares.

In the construction of both squares, political power's demand was influential in square's formation and its kind (traditional or modern, Islamic or western architecture). The common point of them was the ruler's intention to make an urban space which reflected his reign's magnificence. Through building Naghsh-e-Jahan square, Shah Abbas created an urban space with Islamic architecture, and Nasered-din Shah, through building Toop-khaneh square formed a modern urban space.

CONCLUSION

The development of urban square from tradition to modernism with special focus on case samples shows that with the entrance of modernism in Ghajar's era, traditional elements of square were revolutionized, and with the construction of Toop-khaneh square and new elements, the first modern square of Tehran was built. The modern Toop-khaneh square was completely different from a traditional square with respect to physical elements of the body, landscaping, architecture and access network.

In a modern square, access network to street through direct lines has a significant role, because on the one hand, direct lines connect the square to the city level, and on the other, the role of traditional Bazar moves to streets with different small and big shops. Also with the introduction of transportation vehicles, the physic and essence of the modern square atrophies.

Therefore, with the introduction of modernism to Iran cities, with locating modern elements in the body of central square, the first shake came on the body of the traditional square, but the modern square still had value and identity. But with the growth of new technologies, especially motor transportation vehicles; the physic and content of modern square was revolutionized. It means, it not only lost its identity, but also turned into an outdoor square and transportation terminal.

Thus, both traditional and modern squares, which were formed to make an urban space to display the magnificence and power of the reign and a man-centered application, with the continuation of modernism, a squareshaped structure reflected cars' power rather than that of ruling and man. Through such awareness about these modifications, it is recommended that the urban space of the square, which is now in the form of a roundabout, be adapted for the presence of people and their various activities, through actions including allocation of a space for pedestrians, establishment social and economic-based organizations, putting restrictions on access to cars in the square.

Acknowledgement

The present article is extracted from the author's doctoral thesis, Department of Earth Sciences, Shahid Beheshti University, Tehran, Iran. The author is also

thankful of Dr. Mohammad Taghi Razavian (supervisor) and Dr. Jamileh Tavakolinia (advisor) for their assistance and guidance during the process of investigation.

REFERENCES

- Alemi M. (2009). Safavid Shah's Gardens; A Scene for Manifesting Royal Ceremonies and Political Truthfulness. Golestan-e-Honar. 12: 47-68.
- Behzad-far M. (2007). The Identity of City: A Look at Tehran's Identity. Tehran: Shahr Publications.
- Beller Sh. (2002). Islamic Art and Architecture. Translated: Ardeshir Ashraghi. Tehran: Soroush Publications.
- Cultural Heritage (2004). The Destruction of Shahi Bank was because of Subway Construction. Tehran: Cultural Heritage News Service.
- Dalmani M. (1956). Itinerary from Khorasan to Bakhtiari. Translated by Mohammad-ali Farah-vashi. Tehran: Amir-kabir Publications.
- Farahani R. (2009). Naghsh-e-Jahan Square and its Elements. Mah-e-Honar Book. 4 11.
- Farhangi Kh. M. (2004). Ghoorkhaneh of Tehran, known as the first worj in the country's industry, Retrieved in 2014. From http://www.chn.ir.
- Ghobadian V, Rezaee M. (2011). First Modern Square of Tehran City: the Study of Historical-Spatial Evolution of Tehran's Old Squares Up to Modern Period. Human-Geographical Studies, 45: 177-196.
- Ghorkhaneh Portal (2013). Retrieved in 2014. From www.safarnevis.com
- Habibi M. (2013). From Shar to Shahr. Tehran: Tehran University Press.
- Honar-far L. (2007). Isfahan. Tehran: Scientific and Cultural Publications Inc.
- Houshyari M, Pour-naderi H, Fereshteh-nezhad M. (2013), the typology of Mosque-School in Islamic Architecture. Iran's Architecture Studies, 3: 37-57.
- Iranian History. (2011). A Look at the History of Toopkhaneh Square of Tehran: From Toop-chees to Mezghanchees. Retrieved 02 31.2014 from http://tarikhirani.ir.
- Jaberi Ansari H. (1999). Isfahan's History. Corrections of Jamshid Mazaheri, Mash'eal Publications.
- Jackson V. (1973). Jackson's Travel Notes: Iran in the Past and Present. Translated by Manouchehr Amiri and Fereydoon Badrhay. Tehran: Frankin Publications.
- Jackson P, Lackheart L. (2008). Iran-Cambridge History, translated by Teymour Ghaderi. Tehran: Mahtab Publications.
- Jahan-beglou R. (2008). Iran and Modernism. Translated by Hosein Samei. Tehran: Ghatre Publications.
- Mahdavi M. (2010). Isfahan's School in Urbanism. Social Sciences Book. 36: 80 91.
- Mashhadi-zadeh Dahaghani N. (2000). An Analysis of Iran's Urbanism. Tehran: Science and Industry University.
- Moghtader R. (2001). The Role of Square in Savafid Era. Iran-nameh. 57: 279-292.
- Moghtader R. (1993). 100 Years of Modernism in Iran's Architecture and Urbanism. Iran-nameh. 42: 270-259.

- Moghtader R. (1999). Construction and Reconstruction in Ghajar Era. Iran-nameh. 67: 469-488.
- Mohammad-zadeh Mehr F. (2002). Tehran's Toopkhaneh Square. Tehran: Payam-e-Sima Publications.
- Najmi N. (1989). Tehran, Darol-Khalafeh (Court) of Nasered-din Shah. Tehran: Attar Publications.
- Nasiri M, Habibi H. (2010). Cities of Iran-shahr (first volume). Tehran: Iranology Organization.
- Nejad Satari S. (2011). The role of urban squares and the study of the effects caused by its cecade in modern cities with focus on Iranian cities. Iranian-Islamic Cities. 3: 57 -70.
- Parsi F, Mansouri K, Badri N. (2011). The analysis of social system in the structure of Iran's cities. Determining the location of regions like the social system which gives form to Ghajar cities, The First International Symposium of Islamic Architecture and surbanism. Tabriz.
- Rahmani Samani R. (2009). Naghsh-e-Jahan Square. Roshd-e-Amoozesh-e-Honar. 7(1), 42-47.
- Riahi Vafa A. Maleki Verna Makhasati . (2005). Post History. Tehran: Sepehr Afrooz Publications.
- Riazi H. (2010). The Effect of Modernism on Urban Spacail Organization of Tehran in Late Ghajar's Era. Cultural Researches Quarterly, 3: 129-148.
- Saremi A. (1996). Modernism and Its Implications in Architecture and Urbanism in Iran. Goftegoo magazine. 10: 57-70.
- Savad-kouhi far S. (1999). The Squares of Tehran(in the Passage of Time). Tehran: Behrad Publications.
- Tabriz-nia M. (2009). The Confrontation of Tradition and Modernism. Social Science Month Book, 53, 19-61.
- Tehran Municipality. (2006). Imam Khomeini Square. Retrieved 02 30 (2013) from: http://virtualtour.tehran.ir
- Tehrani F., Ayoobi R, Rad-ahmadi M. (2011). The Comparative Study of Original Patterns of Naghsh-e-Jahan square. Islamic Architecture and Urbanism Conference. Tabriz.
- Zare Gh. (2009) The Study of Modernist Symbols in Iran. Quarterly of Thought and Political History of Contemporary Iran. 81: 40-45.
- Zavosh H. (1991). Tehran in the Passage of Time. Tehran: Eshareh Publications.
- Zellos-Sultan M. (1983).Masoodi History: Autobiography and Memories of Zel-os-sultan and his Farhangestan Itenarary. Translated by Motamedol-dole. Tehran: Donyaye Ketab Publications.