The Effect of Modernism on Spatial-physical Development of Iranian-Islamic Cities such as Tehran

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Received: 10 Nov 2012; Accepted: 10 Jan 2013

Abstract: In this paper, we have tried to analyze and assess the process of formation and spatial–structural evolution of Iranian-Islamic cities through Tehran case study as well as how to organize and effecting different factors specially modernism on urban elements. Also we have discussed about formation and emergence of Tehran and the effect of different pre modernism and postmodernism socio-economic and cultural factors. The result was that Tehran has been as a central point of evolution, concepts, and promoting of new concepts—whether good or bad—during last 200 years, and as a witness of modernity so that it presents the clear face of spatial-structural thoughts of modernism era.

Keywords: Modernism, Tehran, Spatial-Physical development, The Islamic—Iranian Cities.

Introduction

One of the literal meanings of term modernism is modernity and attention to the phenomena and new methods, but in the literary and artistic fields, including architecture and urban planning you can consider it as a special aspect of modernity that denies the past and does not believe in spiritual principles (Taghizade, 1999:79). The word of modern is not a new word in modern genealogy; the word known specially and publically in contemporary world, has been originated from the Latin word of Modernus (Habibi-Jaberi, 2007:68). The Modernism School is one of the most effecting process of the west architecture and urban planning of which has been promoting in Iran architecture from the first of Pahlavi era, and discussion about modernism has been urgent and inevitable because of two main reasons: The first is that it has brought the inevitable universalities culture in modern era, the similarity of cities form in different points of the world, bearing of public city and analyze the special city is the witness of the claim somehow; So paying attention and giving opinion on modernism and its effect on urban planning in general sense toward the extraction of national(Iranian) narration in order to avoid ideological behavior with the spatial and physical organization. The second reason is socio-economic explanation of Iranian new era and

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emergence of its spatial organization i.e. city.

In modern thinking, losing the halo of sanctity means losing the first symbol of religious dependency. In this view, dependency is considered as the base of religious life, and has caused that it encompass the religious halo around some part of human-related issues. The halo composed of holy fear and hope. Modernism has broken, and nothing and no one is sacred in new modern. The holiness has no place in new life (habibi.2007:69).

Nowadays, many of the countries are involved in different issues and problems in the field of urban planning and designing and are affected by the west urban planning standards.

In fact, what mentioned as physical nature, texture, and urban planning in the references of contemporary era, is a kind of physical non-identity and the crisis of identity in physical environment of Iranian city which has not named appropriately so far. With passing the time and emergence of modern era, as the framework arises out of the Iranian-Islamic thinking, without the least effort to subdue the modern urban planning to continue its original urban planning, the Iranian-Islamic city is involved in a kind of escaping from the physical similarity that the city and citizen are incompatible with each other.

In this paper, we have tried to assess the process of spatial-physical development evolution of Iranian-Islamic cities with emphasis on Tehran case study.

Methodology
We had discovering view to the issue due to historical approach of the paper and the analysis of evolution process in the context of historical frame work; so we have assessed the issue using analysis method in the form of documentary assessments; therefore, we have studied a selection of subject-related works subtly, and analyzed the results.

There are two main phases of the study: the first part analyses the Iranian-Islamic cities totally, and the second concentrates on the studies about the discussed subject in the studied sample; therefore the total phases of the study can be described as follow:

**Theoretical concepts**
- Spatial-physical development of pre-modernism Iranian-Islamic cities.
- Post-modernism Iranian-Islamic cities.
- The emergence of Tehran city and its pre-modernism development.
- Tehran and modernism effect in First Pahlavi era.
- The spatial-physical development of Tehran city after Second Pahlavi era.

**Theoretical concepts**

**Modernism**
Modernism refers to the era in which the ideals of the bourgeoisie, cosmology, science believing, holistic, metanarratives, hierarchy, pressure, and systemism consist the spread areas of our world and life spread(shekuei,2002).

Modernity was formed as the context and ground for modernisms in the form of a rule-based and process oriented flow in Europe after 1600B.C and emerged in the form of modernism in art and literature fields (sajadi.2003:12). And four events, including the Renaissance, religious reformism, the Enlightenment and the Industrial Revolution, have created the core elements of modernity or modernism and modernity (ziary, 2003:152).
The impact of Modernism on Urbanization and the Emergence of Modern City

The world after the Middle Ages in the West, along with the emergence of the renaissance is the bourgeoisie world (Aghvami moghadam.1999:51). With the invention of Car, the concepts of velocity, speed and consequently time were changed and the diversity of urban new functions which was emerged in different users, created the spatial organization of new world i.e modern city (Aghvami moghadam.1999:92.)

After founding the modern principles of human thought, it has been the city that has been emerged as a manifestation of modernity with hidden instructions of modernity (Taulmin. 56:1992), and from the point of view of some pioneer urban planners and architectures named (CIAM) (International Congress of Modern Architecture), the urban planning was “the organizing of social life functions”, and the city had four main functions: Residence, work, recreation and transport that connects others(Madanipour .2005:280), and the modern cite changed to the temple of machine goods, and machine worship has broken the old values and delicate relationship created between man and the art(Yarahmadi .1999:26). The accelerated modern urbanization process during about 200 years has experienced different species of urban modernization. The nature of these experiences indicates the tangible presence of their fixed characteristic. (Habibi Jaberi .2007:66)

Table 1: the modernity characteristic and its effect on urbanization

<table>
<thead>
<tr>
<th>science</th>
<th>Its effect on the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>-The birth of urbanization major as a scientific tendency</td>
<td>-opening the context of urban studies</td>
</tr>
<tr>
<td></td>
<td>-becoming the subject of city as science matter</td>
</tr>
<tr>
<td>The empirical attitudes and the ownership of scientific method in the discussion about city</td>
<td>Full understanding of human and his performances, and urban designing to meet the needs of the single known human everywhere.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology and profound industrial evolutions</th>
<th>Physical change of the city having conformity with technology—whether in the form of severe changes of the old textures, or new urban textures, integration of city all over the world as a producible versions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed in urban construction</td>
<td>The definition of new applications such as industrial, railway stations and subways</td>
</tr>
<tr>
<td>The definition of new applications such as industrial, railway stations and subways</td>
<td>With advancing the technology, changes in definition of different spaces and applications, even producing the new space (intangible and virtual space)</td>
</tr>
<tr>
<td>Producing different kinds of city (vertical, spread, virtual etc.)</td>
<td>Production of ephemeral fashions in urban construction and routines of architectural styles and urbanization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Atheism</th>
<th>The city would not be the image of heaven on the earth</th>
</tr>
</thead>
<tbody>
<tr>
<td>The centrality of the city from church changes to economic-financial, trade and commercial centers in the first stage and other urban spaces such as the squares and streets, pass ways in the second stage.</td>
<td>The observance of human scale 1 spaces</td>
</tr>
</tbody>
</table>
The effect of modernism on spatial-physical development of pre-modernism Iranian –Islamic cities

| Acceleration, evolution, and transformation | Rapid and short rise and fall of various urban schools |
| Changing the principles and standards of personal behavior and social customs in city from the religious rules to common law and civil law |
| Changing the holy places from pilgrimage concept to tourism. |
| The lack of continuity and survival of urban form and content for a considerable period of time |

| Evolution scope | Globalization of all city-related issues |
| the intrinsic nature of modern institutes | Forgetting everything about the last, even their vast destroying |
| | The emergence of a new form of city that was not previously possible and modern urbanization with completely different principles than the pre-modern era. |
| Capitalism and its restless cycle | What depends on the city such as land, house, aggregate...Etc.? come to the cycle. Investment, trade and gaining profit would be increased. |
| | Urban economy comes to the urban debates as effective indicators. |
| | In most cases, capitalism enters into arena of modern city changing process in different ways and has the mark on its forehead. |
| | Changing city to”“capital city”, “tools city”, “object city”, “show city”, “artifice city”. |

| Criticism and review | Reviewing and turning in all urban designs |
| | Birthing the new professional and thought schools, and the relationship with urban and urbanization born in the last process criticism. |

| Imaging the human activity as culture | Producing the urban cultures versus rural cultures |

(Jaberi Moghadam, 2005:56)

The spatial-physical development of pre-modernism Iranian –Islamic cities The urbanization in iron before 1300 had signs indicating special samples of Middle East traditional city (Poor Ahmad, 2005).

Structuring a city indicated spatial-physical coordination of city with mentioned terms and conditions on one hand, and indicated the condition of the city main activities process (Soltanzadeh.1986:290) on another hand. The current architecture and its dependent urbanization was a function of different building materials, technical science, and religious beliefs, using them proportionate with what the nature making available to human such as stone, wood, and clay in different areas (Rahnamaei.2005). Observance and insist on different segregations in different eras were the main characteristic of urbanization which had role in the cities formation. (The same as before: 39)
As shown in figure 1, the spatial structure in Iranian-Islamic city is a mixture of what called life and death. These elements consist of: 1-Gate and battlement.2- Organ 3-Square.4-Market.5- Residential neighborhood.6- Grand Mosque.7-Neighborhood center.8- Residential suits (Soltanzadeh 1986:292) which indicate one type of urbanization inspired from traditional and religious thoughts by itself.

Locating and the way of distribution all elements and public spaces were not based on simplicity and availability, and adjacency of socio-economic centers, but were spaces such as taverns to prevent social pollution, and the mortuaries were placed outside the city due to health observance and being or nearby to the cemetery (Soltanzadeh.1986:298).

Generally e few urban spaces are recognizable in Iranian-Islamic city include: counties (palaces and the houses of feudal and lords), neighborhoods (alloys of craftsmen, traders and other classes), he market (as the main social, cultural and commercial center of the city) and secondary centers (neighborhood-like centers such as malls, religious centers and bathes) (Shieeh .2005:204).

Generally, the cities of after Islam era had been placed in the city texture and formed the complete complexes with triple elements of organ, grand mosque and market, along with residential neighborhoods, caravansaries, communicational pass way networks, and other urban spaces and elements with accounted order and attention after the arrival of Islam to Iran. The markets had such accounted elements and strong influence in the city and the influence area of cities that still are active. The residential neighborhood with their special cultural and physical characteristics make the new urban makers pay attention to current urban planning through neighboring relationship, population, and their other characteristics, and try to restore the previous characteristics and yesterday life of the neighborhoods. The communicational networks had attractive and accounted hierarchy and had been formed affected by defiance, social, natural, continental, cultural and beauty factors of architecture in Iranian-Islamic city, whatever exist, are the crystallization of the environment, culture and traditions. (Mashhadizadeh, 1995:36).

The Post-modernism Iranian-Islamic Cities  
Start of evolution in the procedure of urban and urbanization in Iran may be considered as from Constitution (Mashrotiat) era. However, even before that time in Qajar or even and Safavieh, we witnessed impressions and modeling. But at the beginning of severe evolutions and impressionability of capitalism growth may be known as from the early governance of Pahlavi (Hosseinv et al., 2004:65). In such a way that, some signs of modernization process in Iran from radical viewpoints in year 1925 is found in Pahlavi dynasty. However, the role of Qajar in accelerating the way to modernization should not be ignored (Ferdowsian, 2002:46). In this era, the establishment of new social institutes was the base of establishment the forces who believe in modernism governance (Habibi
Vaheri.2005:42) that for the first time in the history of country, urban-orientation and urbanism, the government decide to transform the face and organization of the city not on the basis of the thought and internal evolution, but based on external thought and evolution (Habibi, 2005:161). Penetration of values, techniques, patterns and innovative designs in art and architecture is the characteristics of innovative developments in the era (HabibiVaheri, 2007:42). The government policy in urban modernism resulted in one of the determinant evolutions which effected on the shape and appearance of traditional cities of Iran. These principles of urban renewal were often designed and implemented without regard to historical patterns and inspiration by the traditional architecture designs or paying attention to indigenous cultural values (Ehlers, 2001:170) Since 1300s onwards significant physical changes occurred in cities of Iran. All of these changes are investigable in relation to social and economic structure of the community and position of Iran in the global capitalist system. Many streets were established in relation to streets not as the complementary element of the organization and foundation of the old texture of the city but also is seen as the dominant and determinant element in the city. Creating streets as a symbol of modernity is the first echo of Hosman-like cities that became universal with the European innovative theories in 1920. In Iran, however, by approval of “Widening and Expansion of Roads and Streets Law” in 1933, a clear response was made to this kind of urban development (Habibi, 2005). Government policy in the field of urban modernism was led to one of the most determinant changes that affected the shape and appearance of traditional cities of Iran. Many streets were created in relation to growing demands of the bourgeoisie, so the urbanization was also changed (Hosseinov et.al .2003:65) Urban centers such as Tehran, Isfahan and Tabriz witnessed unprecedented development due to an unbalanced urban growth from 1925 (Ehlers, 2001).The main traffic ways were raised as the basis of establishing the street regular networks with east-west and north-south orientation often passing through residential areas (Ahlores .2001:184)

Figure 2: The model of one traditional-Islamic city –figure 3: The model of a modern Islamic city.
Streets emerge not as the complementary element of the organization and old foundation of the texture of the city but as the dominant and determinant element in the city. Creating streets as the symbol of modernity is the first echo of Hosman-like cities that became universal with the European innovative theories in 1920, heard in Iran. However, the approval of “Widening and Expansion of Roads and Streets Law” in 1933, is a clear response was made to this kind of urbanization (Habibi, 2005:163). As shown in Figure 2 the streets lead to changes in various aspects of life to and the shape of these kind if cities with splitting key elements in Islamic-Iranian city.

Increasing the economic potential in this era made the intervention in the city and implementing the urban and constructing designs possible with innovative models. The rich and welfare groups moved from the old parts to new and great neighborhoods enjoying from current facilities. This process also leads to the incorporation of groups, excluded the "segregation “and distinct neighborhoods ethnically (Ahlores 2001:190).

In fact we can say that what penetrates in Iranian-Islamic city and change its shape, enter an unknown and foreign identity in its texture imperfectly making commotion in morphology, texture and building the Iranian–Islamic city.

**The Emergence of Tehran and its Per-modernism Development**

Tehran called for the first time in the writings of Greek Theodosius in the late second century BC as one of the outskirts of Rocks (Rey) (Davoudpour, 2005: 83). Rey declining is considered as the beginning of early development of satellite villages, including Tehran-Dieh (Behzadfar, 95: 2007) and Tehran had come out of rural shape at the beginning of the reign of the Safavieh (Takmil Homayon.203:38) Agha Mohammad Khan Qajar Chose the Tehran village as the capital of the country, after receiving the power. The role of new city as the capital changed the shape and face of the city, and a ditch and many buildings, mosques, Tekyehs (religious theaters), markets, and new-established neighborhoods and different palaces were created around the city at the time of Fathali Shah.

The artifact elements of main framework of the city at this era include: organ or the place of governmental constructions, market, grand mosque, and Shah mosque, Marvi school, the governors’ palaces and gardens, and the noble lords( Behzadfar 2007:97). In spite the fact Tehran was the capital of the country at Qajar era, never had the grandeur, glory, equipment and facilities that are worthy of capital (Soltanzadeh .1986:145). Fifty-year period of Nasereddin Shah reign until constitutional revolution, was the period of rapid physical growth of the city of Tehran, that, in addition to the construction of new fortification, gate and ditch in Tehran, gardens and numerous buildings were erected in the city.

In this period, due to the rapid growth of the corpus of Tehran and occupying inside area of the fortification and royal palaces, pavilions of Lords, the foreign embassies and houses allocated to foreign people were constructed outside the fence and ditch in octagonal shape of the gate with 12 gates that was an imitation of the fortifications of Paris,and new urban spaces (school, Darolfonoon, Tekyeh Dowlat, new streets and squares, etc.) offer new concepts (Habibi, 1995:130).The main structure of the city in this section has a linear pattern in combination with nuclear pattern. The two main cores have grown constantly at both main ends. The northern core included the governmental and the ceremonia
The effect of modernism on spatial-physical elements and the southern one included business, cultural and religious spaces (Behzadfar, 2005:99). Tehran bazaar was shaped gradually and market orders, Itches and several caravanserais were created (Takmil Homayoun, 1999:98). The city had five major neighborhoods, that each had a lot of pathways. The oldest district of the city was located between the neighborhoods of Oudlajan, Chaleh Meydan and the market around the "Oudlajan Tekyeh". Organ and Sanglj neighborhood that were created since the Shah Tahmasp are relatively new (Mahmoodian, 2005:50).

The Space and Location of 5 main Neighborhoods are Approximately as follow:

Table 2: space and location of 5 main neighborhoods of Tehran

<table>
<thead>
<tr>
<th>Neighborhood name</th>
<th>km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanglag, all over the west of city</td>
<td>1.16</td>
</tr>
<tr>
<td>Oudlajan from center to Eastern North</td>
<td>1.09</td>
</tr>
<tr>
<td>Market from center to South</td>
<td>0.93</td>
</tr>
<tr>
<td>Chaleh Meidan in South</td>
<td>0.86</td>
</tr>
<tr>
<td>Organ from Center to North</td>
<td>0.35</td>
</tr>
<tr>
<td>Total space of the city</td>
<td>4.4</td>
</tr>
<tr>
<td>The city walls length</td>
<td>8500</td>
</tr>
</tbody>
</table>

At the beginning, when the space of Tehran city was 3 km on base map, Naseri Darolkhalafe reached to 19km, and Nasereddin Shad met his wish to create a city like Paris, always had in the heart after returning from Europe (Takmil Homayoun, 2003)

And the presence of new functions such as theater, cinema, print shops, hotels and shops with European style, national park, zoo and botanical, bank and armory etc. abruptly changed the face of the old city and replaced it by the city concept in European and global term.

However, Tehran in Qajar era, still has the characteristics of Iranian-Islamic city, and the main elements of city are: organ, mosques and schools, market, square, and neighborhood (Habibi, 2006:132). Urbanization and architecture (unlike photography, poem, novel etc.) are the matters requiring investment and public innovation.

Planning and Architecture (unlike photography, poetry and novels ...) things that need capital and public initiative, and elitist voluntary innovation of Qajar have not financial and political power and the will and the necessary conditions for innovation in all aspects in the field of architecture and no urbanization (Habibi and Ahari, 2007:43).

The neighborhood is still playing the role of main element of urban organization, and is not the place of ethical, tribal, and racial parade unlike Tehran. From now, the neighborhood would play role as a place for crystallization of social differences (Habibi, 2006:134). In its new concept, the street follows two models: it takes its first model of face and spatial organization from Maktab street of Isfahan, and the second model are the streets having structured body sides facing the street and forming continuous spatial-physical organization.

Undoubtedly, Tehran style (Qajar), although has not languages and expression as perfect as ancient times, and especially Esfahan school, in spite the fact that the time is also encouraging the eclectic interpretations of other cultures external thinking, the style of Tehran in Qajar era can still can be received in continuation and promotion of Esfahan school (the same as before, 2006:135-145). Undoubtedly Iran modernization from the perspective of urban life marked in the Pahlavi era (Habibi and Ahari, 2007:44)
**Tehran and the Effect of Modernism in the Era of first Pahlavi**

Reza Khan's legacy has been the disintegration of Tehran old tissue and changes its identity. Tehran until early Pahlavi was the same as Naseri Era (Rajabi 1986:14) but after that 5 other districts were added to the old neighborhoods, all of which were outside the Naseri flux. These 5 districts include: ”Shemiran Gate, Eshratabad, Peacock throne, Gazvin Gate, Arial Force” (Saeidnia 1992:234). Reza Khan, in an era of internal chaos, relying on military force and the slogans of liberation of chaos, bring security and economic development with the support of the dominant classes of society, including owners and Traders, founded the transition to capitalism and global interdependence. (Nazarian 2000:69); therefore the spatial reflect of socio-economic changes is preliminary changing in composition of urban elements and the context of city would be changed, and the spatial development of cities would be delayed due to limitation of migration (the same as before, 2000:67). Tehran, like many other cities has a contiguous and pent texture have restricted tissue the communications network in the pent textures, due to the gradual formation, alignment with geographic and climatic factors, security and defense issues, and other factors, has organic non-geometric and in some cases almost spiral shape (Soltanzadeh 1994:16).

According to table 3, you can easily see the traffic system, and the relationship between the resident and residence in traditional city compared to modern city in the form of physical manifestation.

**Table 3:**

**The comparison of communicational organization in traditional and modern Iranian – Islamic cities (Aghvami Moghaddam 1999).**

<table>
<thead>
<tr>
<th>Traditional city</th>
<th>Physical manifestation</th>
<th>Modern city</th>
<th>Physical manifestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tráfico formatting</td>
<td>Spatial hierarchy Pathways hierarchy Reliance on deadlock system - The lack of roads in urban scale - low width of pathways</td>
<td>Traffic non-formatting No supervision of traffics</td>
</tr>
<tr>
<td></td>
<td>Supervision of traffics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afoot movement (low speed)</td>
<td>Low width of pathways Low length of pathways Zigzag network Buildings diversity</td>
<td>Riding movement (high speed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The relationship between the resident and residence</td>
<td>Legibly</td>
<td>Human scale of city Low diversity of city Low diversity of functions Direct relationship of performances Spatial hierarchy</td>
<td>illegibly</td>
</tr>
</tbody>
</table>
Tehran would be the symbol of modern era changes in Iran from now on, and at least included modernism intervention completely (Aghvami Moghaddam.1999:208). all the elements emerged in Tehran during less than tow last years were nearly unprecedented in our urban organization. All of these elements which included in public usage scope unexceptionally, interrupting the hierarchy and the ratio of public and private spaces (the same as before:230). With emergence of new elements and consequently their spatial relationship, the symbol of modern era, that is street, has been shaped as the litter of administrative and trade activities, and distanced from the concept of promenade street.

The dynamics of urbanization and the expansion of Tehran began in the wake of a series of fundamental measures in the field of infrastructure of the new system mainly from 1308 AD. First, based on a plan was prepared by the municipality that day; a kilometer (of four sides) was added to area of the city and also declared as the city outskirt (the same as before:1995:242), and for the first time in the history of urbanism and urbanization of the country, the state decided to change the city not on the base of internal thought and change, but on the base of external thought and change (Habibi 1996:161). Removing the believes of Naseri Darolkhelafeh in 1932, the concept of Darolkhalafeh or urbanization, goes from the front of social scene to somewhere back removing the believes of Naseri Darolkhelafeh in 1932 (Habibi and Ahari .2007:43) so that the city pinnacle and fortification which had been made in Nasereddinshadh era were destroyed and the ditches were stowed and replaced them with establishing the new streets, and the limitation of city development has been removed with establishing the ditches, and Tehran continued to develop freely. Tehran expanse which was more than 24 km² in 1929b AD reached to 46 km² in 1933 and 1934 AD (Khalili Araghi 1988:3). The establishment of new social institutes in the first decade of 14 century was the base of establishing the forces believing in modernism governance. This time, reorganization based on daily needs was formed not through the individual decision of all of the city residents, but through the elite, and above them, the needs of First Pahlavi Government wishing the capital of the same dignity as the European capital. (Aghvami Moghadam .1999:233). In First Pahlavi era, the first modernism measure - the approval of “Baladieh (municipality) Law” plan name the street maps – was done in 1930 AD. After that, the approval of “expanding and developing the pathways and streets law” in 1933 was a clear response to modernism urbanization specially “Husmani urbanization” (Ziari.2003:7).

Brigadier General Karim AghaKhan Boozarjmhori, mayor of Tehran at that time, destroyed 12 gates of the city along with other countless monuments in 1930 to “reconstruct the city”, and replaced them with the width boulevards. Furthermore, some new streets were established passing through some parts of city old textures which were considered as “dirty, unsightly and crowded (Madanipour.2002:60). The old neighbors were destroyed, and the most severe damage exerted to Odlajan. On one hand, the new street making sheared the Odlajan neighborhood, and on other hand the spatial needs of its adjacent market help its destruction and evacuation (Dehghanani.2006:379).
The plan of 1937 was introduced following the “Industrial Town” model. The model suggests the place of University, Hospital, Railway station, and factory out of the existing texture, and placed them in distances consistent with introduced items in Industrial Town pattern. The plan obviously affected by urbanization movement and International modern architecture such as checkered texture and its functional separation (Habibi and Ahari.2007:42). In this plan, checkered texture and the separation of urban functions was designed based a dry zoning. According to this theory, the new function placed in the old core of the city, and the finance and Judiciary buildings were constructed with new style on the old destroyed buildings (organ, and the like)(Ziari.2003:6). The neighborhoods of Tehran lost their previous social role as the units of a dynamic and active complex after tumult the public-historical tasks (Takmil Homayon (2003:71).

On one hand, Tehran was focused go vernmentally and administratively, and on other hand, took capital and central state in capitalism system and new economic, and in dependency arena, one of them was the oil undoubtedly. What is remembered above all the effects of Reza Shah on Tehran urbanization is his street-making imitating from European cities which has cut the organic textures of city and connected the start and the end of the city(Tehran General Planning.1998:4). Following the emergence of obvious changes of modernism urbanization, or in other words quasi-modernism and imperfect, Tehran and its neighborhoods which formed the framework, turned from the traditional planning derived from their belief(From traditional designs and their beliefs (introversion and confidentiality) the style of urban planning and architecture that modeled an incomplete European extrovert On the) to one style of urbanization and architecture, which is imperfect modeling of European extroverted cities. In fact, what is presented in table 4 is the investigation of a
comparison of street, users, social dimension, body and spatial units in extroversive Tehran (relying on modernism urbanization) (Aghvami Moghaddam 1999:269).

**Table 4:**
The comparison of two aspects of “being for him “and “being in itself” of Tehran.

<table>
<thead>
<tr>
<th>factors</th>
<th>Introversive Tehran</th>
<th>Extroversive Tehran</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street</td>
<td>-Pathways hierarchy, and its following from city space hierarchy -Designing based on deadlock</td>
<td>-Independence of pathways hierarchy of city space -Planning based on availability facility</td>
</tr>
<tr>
<td>Users</td>
<td>-relatively complete difference of users with each other</td>
<td>-relative integration of users, and leaving the geographical and historical situations(such as market and expanding the trade matters to the streets)</td>
</tr>
<tr>
<td>Social</td>
<td>-Lack of social North and South, and the city, and consecutively its physical appearance -lack of suburbanization</td>
<td>-Social North and South and its physical appearance, which is obvious in all physical and designing existence. -Emerging the city outskirt with special physical organization.</td>
</tr>
<tr>
<td>Body</td>
<td>-very simple bodies which often composed of the same walls</td>
<td>With the expansion of business and administrative activities and placing the residential units faced to the streets or alloys, the body making would be taken into consideration.</td>
</tr>
<tr>
<td>Spatial units</td>
<td>Introversive city relied on neighborhood organization, and each of the neighbors had independent existence.</td>
<td>Lack of neighborhood organization, and no spatial definition for city</td>
</tr>
</tbody>
</table>

The spatial-physical development of Tehran after second Pahlavi

Tehran development was done very fast and uncontrollable after Second World War era. During 45 years after 1941, its population reached to 8.6 times, and its area reached to 12 times. The development emerged as free development of city, surrounding lands, and the development of countryside villages, and satellite towns which were immerged gradually due to new waves of development and expansion inside the urban texture (Madanipour 2002:65). After that, fixing its position from administrative, cultural, and industrial viewpoint which began in RezaShah Era, continued V with creation of various grounds of employment and activity in Tehran, and the attracting the migrator population, pursued the residents of welfare and medium class to reside in outskirt areas of the old city, and new neighborhoods in the North of city (Arabi.2008:117).

Development of the city in decades of 30 and 40, segregation of commercial and residential parts, and the establishment of activity and work centers were intensified and the industrial center, not only replaced in south, but along the west roads ended to the city; therefore, other than markets, the countryside streets were also considered as the most trade centers. The small and large stores of trade companies, banks, hotels, insurance compa-
In addition, the building basements were occupied with stores and the company offices, or residential apartments located in higher floors (Hamidi.1999:59-60). “The amendment of pathways and deep land of the South of Tehran “enacted on 1963 shows that how the urban old areas has made problem for expedite modernity. Those areas that left at the time of establishing the streets on 1931 and after that, as well as the establishing of a new ministry to deal with the city placed on the agenda. “the act of establishing the Ministry of construction and residence” is a clear answer to urban modernity and fast development of urbanization. The mentioned modernism and the approval of “Apartment Ownership Act “ in 1965” indicate the certain change of environmental technics (Habibi.2006:41).

The general plan of Tehran had been vested in Aziz Farmanfarmaean Company of Iran, and Victor Groen from US leaded by Fereidun Jafari, one of the Iranian city-planners, jointly in 1964. In 1968, the plan approved by the government legally (Madanipour.2002:339), and the city faced as modernist with establishing the “Construction and Resident Ministry”, and placing the General urban plans on the agenda. The city takes its model from the Western cities, and a new sewn garment put on the stature of city and society (Habibi.2006:41).

Suddenly the city especially the spatial-physical organization faced with an open model, blaming which not only due to non-efficiency, but also due to its face and physics.

In the late of ‘40s when mostly the emotional and yearning looks were governing the last architecture, the Luikan thought (criticism of modernism) become gradually effective in Iranian architectures view(Saremi 1998). The model changes not only itself, but the physics of the city due to inconsistency with the physics as the urban functions also based on the plan instructions, not based on the bioclimatic conditions (Habibi.2006).

Therefore, the theory related to Tehran General Plan had been derived oniary from Soray Mata suggestion for Madrid City in 1882, as well as Toni Garnieh project for industrial city and Lon don reconstructing after the Second World War. Lord Lulin Devis, the plnner of Washington and Milton Kints cities of Britain, planned and suggested a linear administrative centralization plan for Tehran through the streets network model after General Plan of Tehran (Madanipour .2002:340). The plan had used the concepts of Britain new companies planning, regardless of social objectives (Madanipour .2002:341).

During two decades, along with changing the capitalism system in Iran and changing the residence institutes in second Pahlavi era, the dimensions of Tehran physics development went beyond the city borders, and its traditional construction changed totally.

Integrating two cities of Tajrish and Rey, and hundreds of villages in its physical stature and the golden highways, Tehran turned to metropolis in global scale in this era.

In this era, the steady and non-steady development of city integrated and its district expanded to the countryside big cities such as Karaj and Varamin.

It was in 1996 that some brief laws were enacted for urbanization to limit anarchic expansion of the capital. In this year, the 25-years- old confine of Tehran up to 1991 was specified (Behzadfar.2007:103).In 50s, the widely expansion of the city in the West and Karaj margins happened. Various towns such as Ekbatan, Apadana, and Farhangian etc were constructed in the West part of Tehran. Connecting Tehran to Shemiran which has
been done in last period was connected to Vali-e-Asr Street joint in this era also. moreover, Tehran expanded to Rey in the South. In the next phase, the physical development of the city happened mostly in Western, and Eastern North so that the fundamental change was happened in city expansion, and the steady and horizontal development of the city coincided with the expanded and vertical development. (Arabi.2008:123).

With the advent of Islamic Revolution in 1996 and the expanded socio-political changes arising out of which, a rift emerged between the process of pre-revolution and after-revolution architecture. In fact, the emergence of new viewpoints arises out of National and religious culture ideals were the first factors changing the architecture and urbanization. Tehran affected by fundamental socio-economic changes of the country under the pressure of imposed war, faced with a new attitudes in ways and forms of development. On the other hand, with saturation and occupying the natural expansion of the city, in fact the process of Tehran physics development reached to deadlock, and the tendency to unsteady development accelerated(Behzadfar.2007:103). According to table 5, Tehran has experienced 4 type of development include central, radial, areal, and network in the era of its physical development. From the years of Islamic Revolution Victory, the network development has been introduced as the model of dominant development (Mahdizadeh2002).

Table 5:

<table>
<thead>
<tr>
<th>serial</th>
<th>Kind of development</th>
<th>period</th>
<th>Main characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central</td>
<td>From the beginning to 1941</td>
<td>Flaky and concentric development</td>
</tr>
<tr>
<td>2</td>
<td>Radial</td>
<td>1941-1961</td>
<td>Development in communicational joints pathway</td>
</tr>
<tr>
<td>3</td>
<td>Areal</td>
<td>1962-1978</td>
<td>Development between the main and subsidiary joints.</td>
</tr>
<tr>
<td>5</td>
<td>Network</td>
<td>From 1979 up to now</td>
<td>Development in peripheral centers.</td>
</tr>
</tbody>
</table>

Tehran urban development in the years after the revolution is intensification of vertical development, coinciding with the horizontal and discontinuous development (Arabi. 2008). the establishment of many residential towers in Tehran, the architecture style of which is the continuation of the end period of International style of the West, are the examples of architecture after Islam (Azad .2006:37).

According to diagram 6, we can say that the excessive pattern of development in the years after revolution had a faster trend (Zanganeh.2007).
as a result, in the absence of an efficient and effective general plan, the new wave of high rise buildings and tower making, and tower-living turned to a Pervasive phenomenon in Tehran with adopting the policy of aggregation selling so that during a decade, firstly the general face of Tehran changed basically, and secondly the effects of unplanned and excessive vertical development in Tehran added in the form of environmental problems, intensifying social inequality, and intensifying the turmoil in the economy of land and housing to the last problems. So, the issue of building congestion and selling of congestion turned to an important International socio-economic and political issue in Tehran since the early of 2001.

The most important functional and physical changes which has played an important role in changing the structure and face of Tehran include:

1- Destruction of Jamshid neighborhood (new city) and the establishment of Razi cultural complex.2- Transmission of the old slaughterhouse of Tehran and turning it to Bahman culture centre.3- The completion of highway network and the establishment of many afoot and riding bridges all over the city.4- The establishment and development of urban and forest parks around Tehran.5- Prevalence of high monuments and tower making in different parts of the city.6- Implementation modernization plan of neighborhood and Navab street.7- taking measure to establishment Great Mosque of Tehran in Abbasabad lands.8- the establishment of Imam Khomeini Shrine in the lands of Tehran South.9- the establishment and development of vegetable squares and chain stores.10- The creation of cultural centers and recreational sports centers all over the city.11- creation of Electric Bus lines in Tehran East.12- the establishment of Milad telecommunication and monumental tower (440 meters).13- Development and completion of terminals out of city (South, East, and West).14- the establishment of subway network and
The effect of modernism on spatial-physical…

operating its first lines. 15- construction and operating BRT network of extremist buses. 16-Creation and development of industrial towns around Tehran (Arabi. 2008:124)

Architecture and urbanization after Islamic Revolution was so eclectic that was the result of creating various spectrum of this kind of architecture, for example:

1- Eclecticism with emphasizing on Qajar era architecture. 2- Eclecticism affected by historicism Post-modern 3- imitative post-modern. 4- public-oriented post-modern (Dehbashi. 2006)

Generally, development and urbanization in Tehran are divided to 6 Eras:

The first era began from 7th century when Tehran turned from a small city to a city in the intersection of joints ended to major cities of Mashhad and Ghazvin. The second era of urban changes began from Agha Mohammad Khan-e Qajar era when Tehran was selected as the capital and takes an important role administratively and politically. The third era of urban changes began at the time of Nasereddin Shah-e Qajar. Tehran was named Naseri Darolkhelafeh in this era. The fourth era was the period of 1921-1941. In this era, the government gradually created the preliminary consumable industries and paid attention with promoting the governmental organizations at the same time. In the 5th era, growing Tehran population and its following problems continued, and some unsuccessful policies were implemented to limit Tehran development. Since 1996 and beginning the sixth era of urban changes in Tehran, the government took new policies in order to prevent excessive development of Tehran and independent agriculture extension and as a result, persuasion of people to return to villages; But, these methods were not completely operated, because of some reasons such as non-coordination of governmental organization, and plurality of decision maker authorities, and the lack of precise Industrial and agricultural policies and non-clarification the issue of agricultural lands ownership. (Araghi.1987).

Figure 4: the spatial-physical development and expansion of Tehran (reference: Deputy of Urbanization and Agricultural of Tehran municipality).
Conclusion

Iran cities had evolved characteristics during several centuries, and what they had as the physical characteristics, had architectural values and accounted urban planning which had been formed according to daily needs of city residents, and in response to change and evolution of urbanized community. The old textures as well as elements and spaces inside the city, had latent special cultural, social and historical values in addition to their physical shape and features. But with the advent of modernism, the massive construction projects, workshops, factories and public buildings, remembered as pyramids and monuments of new modern, in the first phase, and influx of great populations into the cities without any plan, in second phase, the spatial-physical development of Iranian cities disrupted.

Tehran city which was the beginning of the first spatial arrangement of the city and its surrounding areas turned to its formation eras. With the advent of battlement and layout of physics of the city, the role of this small rural residence changed and its setting and evolutions began. With the formation of important and main components of the city (organ, market, and Grand mosque), the internal components of the city were also gradually positioned and arranged locational around the main components and choosing this city a county capital is the turning point in its evolutions history.

In Naseri era, the developable confine inside the city walls were completed and the population of Tehran grew more than 150000 people. In this era, in spite of the fact that the city and its components were affected by some factors such as the arrival of machine goods, development of foreign trade, and so on, the evolutions never caused the destruction of the traditional spatial-physical organization of the city and its development forms.

Tehran, following its spatial-physical development phases, affected considerably by different political, social, and cultural factors so that the request for modernism intensified as a result of economic crisis, and advent changes was emerged in spatial-physical system of Tehran with the advent of modernism and direct intervention of the government, and the first transaction of the city with its surrounding areas after collapsing the walls began following the severe tendency to modernism and formation of new social groups, also the confine of the north peripheral of the city was exposed to development and expansion rapidly. Passing urbanization in Reza Khan Era, the political, economic, and physical appearance of Tehran changed seriously again. Some factors such as the Second World War, the arrival of the Allies to Iran, famine, and inflation caused the migration of indebted agricultires and the poor lower classes of the society to Tehran. In 1961’s one of the most important socio-economic and cultural events of the country that is land reforms occurred, some significant impacts on peripheral areas of the cities were created. In the first years of Islamic Revolution, all of the rules and regulations of Tehran development monitoring were practically invalidated, and the city expanded with the excessive development in all sides. In 1981, the tendency to vertical expansion intensified following the change of management policies. If the Iranians looked to the achievements of the West civilization, and the relatively absolute imitation from the west plans were the main features of Iranian modern architecture and urbanization, the Iranian architectures oriented to rehabilitation and eclecticism through an attempt to achieve the cultural
identity during the aftermath years of Revolution. As a result, until Reza Khan Time, the urban components were formed in relation to each other and based on the cultural and social needs and issues in the form of an Iranian-Islamic city, which suddenly interrupted with the advent of modernity and consequently modernism and direct Intervention of statements in formation of spatial order of Tehran, and since then, the development of the city formed not organically, but with the aim of responding to the needs of the modern world and securing their goals.

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