Privacy in the houses of eastern parts of Iran, during the transition period with an emphasis on the architecture of housing entrances

Sepideh Mousavi[1], Mohsen Tabassi[2], Fatemeh Mehdizaheh Seraj[3]

1. Ph. D Student, Department of Architecture, Mashhad Branch, Islamic Azad University, Mashhad, Iran
2. Associate Professor, Department of Architecture, Mashhad Branch, Islamic Azad University, Mashhad, Iran
3. Professor, Faculty of Architecture and Urbanism, Iran University of Science and Technology, Tehran, Iran

Abstract
The culture of the West gradually penetrated the traditional Persian world and during transition period (late Qajar and Pahlavi I dynasty), the speed of westernization was doubled. The research problem is that due to changes, the lifestyle has undergone some changes, which has affected in particular housing entrances. This research examines the process of changes in the entrances of houses in eastern Iran during the transition period with an approach towards the principles of privacy. The statistical population includes over 200 identified houses built during the transition period, in the east of Iran. Forty houses (about 20 %) are selected as examples. The results show that the changes in the political, social and cultural structures provided the grounds for changes in the physical structure of cities. For various reasons, the physical changes of houses were less frequent and slower. The people of eastern Iran resisted as much as possible the social and cultural transformation as well as the physical changes it caused. Since the principle of Privacy in architecture is inextricably linked to religious beliefs and the lifestyle of the people of this area, the changes could not eliminate the privacy of entrances of the Iranian eastern houses.
Keyword: House, entrance, privacy, Iran.

1.Introduction

the Safavid period, Western culture gradually penetrated the traditional Iranian world. The change in the structure of power from Qajar to Pahlavi and Reza Shah's modernist ideas also caused the disintegration of the traditional world to accelerate without providing a way to enter the modern world and providing the infrastructure. Iranian architecture (and especially the house) was no exception. The return of educated architects from Europe, the presence of foreign archaeologists (Kiani, 2004) and architects in Iran (Bani Masoud, 2012), nationalist tendencies (Shirazi and Younesi, 2011) and Reza Shah's militaristic temperament (Mohammadi, 1995) and so on caused the formal and technical continuity of Iranian architecture to face fundamental challenges and a new style emerged. This style underwent many changes in the following years under the influence of factors such as construction technology, rising land prices, government oil revenues and changes in the lifestyle of Iranians. One of the most important turning points in the history of Iranian architecture is the transition period (late Qajar period and the beginning of the Pahlavi dynasty). The problem of the present study is: As a result of the political, social, and cultural developments of the

transition period, the Iranian life style underwent changes. These changes affected the architecture of houses so that all parts of the country (including the eastern regions) gradually experienced physical changes in houses. Therefore, the main question of the research is: How did the political, social, and cultural developments of the transition period affect the architecture of the entrances of the houses in the eastern part of the country? And could these developments destroy the principle of privacy in the homes of these areas? Based on this question, the following hypothesis is formed: The principle of privacy is strongly related to Iranian religious culture and beliefs. For this reason, political, social and cultural developments during the transition period could not eliminate the principle of privacy at the entrances of houses in eastern Iran.

2. Theoretical foundations of research
2.1. Privacy

The Persian equivalent of privacy is 'Mahramiyat', which is taken from the Arabic Root Haram. In the *Loghat-nameh* (the greatest dictionary of Persian language), the word is defined as 'to be a mahram', 'a secretary and a kinship' (Dehkhoda, 1998). The same concept is referred to as 'privacy' and 'security' in most English dictionaries. The online dictionary *of Merriam Webster* defines privacy as "the quality or state of being

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*Corresponding author.
mohsentabasi@mshdiau.ac.ir

apart from company or observation". However, it is not made clear if the description refers to humans or objects. In the *Dictionary of Architecture and Construction*, the phrase 'private area' is defined as "the area whether within or outside a building, which is reserved for the exclusive use of a single family" (Harris, 1975: 380).

To find the architectural aspects of privacy, first, the verses of the Quran (Muslims' holy book) have been considered. According to the Quran verses, houses can be considered as two types of privacy. First, the internal privacy that preserves the dignity of family members; second, the external privacy that protects family members from unauthorized access, sight, and encroachment. In general, the principles of traditional Iranian architecture that have been effective in shaping the privacy are cultural considerations, hierarchy (Ghafourian, Peysokhan and Hesari, 2017), introversion, visual privacy (Seifian & Mahmoudi, 2007) and separation of public and private areas (Madanipour, 2003).

2.2. Iranian house

The Iranian houses have a variety of spaces but more or less similar. The present study focuses specifically on entrances. The entrance spaces in Iranian architecture are composed of different components such as Sar dar (Gate), Hashti (an octagonal space) and Dalan (Corridor) (Soltanzadeh, 2005, p. 106).

2.3. The period of transition

The last one hundred and fifty years in the history of Iran have had turning points, the most important of which must be considered the end of the Qajar era and the beginning of the Pahlavi dynasty. In the present study, the third period of Qajar era, i.e. from 1880 to 1925, and the first Pahlavi government, from 1925 to 1941 has been considered and is called the transition period.

3. Literature Review
3.1. Sources on theoretical foundations

Saremi and Radmard (1997) have mentioned the issue of privacy in a part of their book titled "Sustainable Values in Iranian Architecture". Bemanian et al. (2010) have also examined the architectural identity elements of Iranian houses and, for instance, have paid attention to the house of Rasoulian in Yazd. In the theoretical foundations of housing identity components based on the Quran verses and hadiths, Okhovat (2011) has also paid special attention to privacy. Valizadeh Oghani (2014) studying the ethical principles of the architecture of Iranian houses, has specifically considered privacy and has explained and interpreted these concepts as much as possible. By studying the Islamic concepts of housing design, Hosseinpour et al. (2018) have tried to provide some examples for recreating contemporary housing and, in particular, have pointed to privacy and entrance.

3.2. Sources of case studies

In studying the historical houses of Birjand, Hashemi Zarjabadi et al. (2015) believe that introversion is the main factor in creating privacy in the houses of this region. Alimohammadi et al. (2015) have examined privacy at the entrance of Qajar houses in Qazvin and have shown the effect of cultural changes on the element of entrance and the principle of privacy. Mo'meni et al. (2018) have examined privacy in Qajar houses in Dezful and showed the differences between them and the houses in other cities. Varmaghani et al. (2018) have examined the effect of culture on the entrance of Qajar houses in Gilan and Mazandaran provinces, as well as the similarities and differences between these houses in these two provinces. Hekmatnia (2018) has studied privacy in Yazd houses in connection with the Iranian Islamic lifestyle. After conducting the studies, the independent variables of the research were extracted and divided into four groups including strategies and principles, main goals of the entrance, main functions, and executive solutions (Table 1).

4. Methodology

The present study has a proving approach to the issue in terms of research methodology and the main purpose. The variables obtained on the basis of documentary studies are:

Strategies and principles, including the principle of spatial hierarchy, the principle of separation of public and private spaces, the principle of introversion, the principle of connection with nature.

The main purposes of building an entrance: include maintaining both privacy and family security.

The main functions of the entrance: include communication, access, traffic monitoring

Applied strategies for creating privacy: include access to the courtyard, privacy, related entrance elements (Hashti and corridor). As mentioned earlier, since in addition to the above, the number of entrances and their location can also help maintain privacy, in the present study, these two factors have been considered in the form of executive solutions.

The statistical population of the present study includes houses built in the third period of the Qajar era (1881-1925) and the entire period of Reza Shah Pahlavi's (1925-1941) in cities of Mashhad, Neishabour, Sabzevar, Torbat-Heidariyeh, Gonabad, Boshroyeh, Ferdows, Birjand, and Zahedan. Based on the researchers' judgment, the samples were randomly selected, and in order to clear up the ambiguity about the validity of the sampling, an attempt was made to select the samples with the following conditions:

- They are registered in the list of national monuments. Although some houses have not yet been registered in the list, others have been destroyed before or during the investigation, and some have been removed from the list of national monuments by voting of the Court of Administrative Justice.

- They have architectural and artistic values, in such a way that they provide the possibility of analytical studies.
- They are examples of residential houses of all classes of society.
- The geographical distribution of the samples is considered throughout the studied geographical area.
- The temporal distribution of the samples (in terms of year and period of construction) during the specified periods is also considered.

Based on the above, out of the total of 200 Qajar and Pahlavi houses identified in the mentioned cities, 40 houses (20%) have been selected as the sample. It is clear that due to the multiplicity of the studied indicators and the high volume of the statistical population, the number of samples has been selected in such a way that the amount of duplicate data is minimized. The selected samples by city are Boshroyeh (Panahee, Mostovfi, Sharifi, Edalatpanah, Ashiyanpoor); Birjand (Hadavi, Arasteh, Etamadinia, Khavasi); Torbat Heydariyeh (Amini); Sabzevar (Jafarzadeh, Hejazi, Torshizi, Owliya); Ferdows (Badiee, Rasaee, Majd, Moezi); Gonabad (Beidokhti, Saeedian) Neishabour (Mojtahedi, Vakili); Zahedan (Khatami, Raja, Zaeem, Sarhdi, Soltani, Sanatnama, Taheri); Mashhad (Ghafouri, Amiri, Davoudi, Kermani, Barati, Tamaddoni, Rajayi, Mojtahedzadeh, Majidiyan, Mousavi). The plans of several samples are shown in Figures 1.

5. Research Findings
5.1. Documentary findings
After Reza Shah came to power and established order and security in the country's transportation routes, the east of the country, especially Mashhad, became one of the centers of pilgrimage, trade, and tourism. Due to population development, interference in the fabric of cities also began with the destruction of parts of the old fabric and the construction of new streets. In addition to these interventions, some other activities provided the grounds for the transformation of the appearance and physical growth of the city. Even with the powerful element of religion in the city of Mashhad, the city and other eastern cities have virtually failed to avoid major social changes (which were taking shape at the national level); These include removing the hijab, uniform men's clothing, forming new social classes (military and governmental), establishing a new administrative system, changing the style of education and establishing new schools, bringing cars into the urban transportation network, etc., each of which has had a profound effect on people's lifestyles. However, all these changes took place not overnight, but gradually. The changes in the lifestyle of the people of this vast area of the country in the late Qajar and Reza Shah periods are summarized in Table 2.

5.2. Field findings
After preparing the relevant maps and documents, the house plans were reviewed in terms of the research variables obtained from reviewing the research background. These variables are classified into four groups as strategies and principles (including the principle of spatial hierarchy, the principle of separation of public and private spheres, the principle of introversion, the principle of connection with nature); the main goals of building an entrance (including maintaining both privacy and family security); the main functions of the entrance (including communication, access, and traffic monitoring), and finally, applied strategies for creating privacy (including access to the courtyard and privacy-related entrance elements, like porch and corridor).

6. Discussion and Analysis
A glance at the findings shows that the houses in the eastern part of the country in both the Qajar and Reza Shah Pahlavi periods have similar characteristics, in most of which the principle of separation of public and private spheres is observed and direct access to the courtyards of the houses is avoided. Also, by constructing an entrance, an attempt is usually made to maintain the main functions (communication and monitoring) and the main objectives (maintaining privacy and security) of the entrance. Table 3 shows that the two most important principles of segregation of public and private spheres (with a frequency of 37 cases) and introversion (with a frequency of 36 cases) are the most important principles of creating privacy. (Table 3). In terms of the functions and main purposes of entrances, there is no significant difference between these two periods. The difference is limited to a 5% reduction in the traffic monitoring function in the samples of Reza Shah's period compared to the Qajar one (Table 4). Table 5 outlines the implementation strategies to maintain privacy. 70% of Qajar houses and 65% of Reza Shah's houses have one entrance and there is no significant difference in this regard. The entrance of 80% of Qajar houses are located in the corners or near the corners, while this figure is 65% in the samples of Reza Shah's period which shows a difference of 15%.

In terms of the type of access to the courtyard, 95% of the houses in both periods have indirect entrances (creating a visual restriction) to the courtyard, and in this respect, there is no difference. Considering the fact that the Hashti help to maintain privacy, they are observed in 55% of Qajar houses and only 15% of the houses of Reza Shah's period. A 40% reduction in the construction of the Hashti is considered a major change in the architectural structure of the entrance to the houses (Table 5). In addition to the quantitative analysis of research findings, it is necessary to explain that the

findings of the present study are consistent with the findings and results of two other studies. A study of the historical houses of Birjand by Hashemi Zarjabadi et al. (2015) shows that the principle of introversion is the main factor in creating privacy in the houses of South Khorasan (especially Birjand). Unfortunately, apart from the above study, no other research has been done paying attention to Khorasan houses in this regard. However, considering the closeness as well as climatic and cultural similarities between Yazd and Khorasan provinces, the study conducted by Hekmatnia (2018) regarding Yazd's houses can also be considered. The

study shows that providing and maintaining privacy in Yazd's houses is based on the Iranian-Islamic way of life of the people of that area. In other words, the observance of privacy is one of the characteristics of the Islamic lifestyle, which, in the case of houses, is provided by paying attention to the principle of introversion. But in addition to the similarities in findings and results, it should be noted that both studies emphasized the principle of introversion through the spatial organization, while the present study focuses on the body and shape of entrances.

Table 1: Independent variables of the research based on literature review.

	Strategies and principles	Main goals of the entrance	Main functions	Applied solutions
Hosseinpour, 2018	Hierarchy Separation Connection	privacy security	Monitoring	----
Hekmatnia, 2018	Hierarchy Separation	---	----	---
Mo'meni, 2018	Separation	Maintaining	---	Entrance elements (Hashti & corridor)
Varmaghani, 2018	Hierarchy Separation Introversion	privacy security	----	Entrance elements (Hashti & corridor)
Ghafurian, 2017	Hierarchy Separation Introversion	privacy	----	The way to access to the courtyard
Alimohammadi, et al. 2015	Hierarchy Introversion Connection	privacy security	----	----
Hashemi Zarjabadi, 2014	Hierarchy	---	----	Entrance elements (Hashti & corridor)
Valizadeh Oghani, 2014	Separation of spaces	privacy	----	The way to access to the courtyard Entrance elements (Hashti & corridor)
Okhovat, 2011	Separation	privacy	----	----
Bemanian, 2010	---	privacy	---	----
Seifian, 2007	Hierarchy Introversion Connection	privacy security	---	----
Soltanzadeh, 2005	Hierarchy Separation of spaces	privacy security	Relationship Monitoring	The way to access to the courtyard Entrance elements (Hashti & corridor)
Nasr, 2001	Hierarchy	privacy		----
Saremi, 1997	---	privacy	---	The way to access to the courtyard

Figure 1: Plan of several sample houses. (Source: Authors). Entrances highlighted with a green arrow and atria highlighted in red

Table 2: Research findings; the effect of structural changes of the society on the lifestyle of the people of eastern parts of Iran during the transition period.

Components	Objective examples of change	The impact of changes on people's lifestyles
Changes in the physical structure of the cities	Demolition of the old fabric of the city	Development of public and collective spaces
	Construction of streets	
	Arrival of cars in the intra-city transportation network	Creating modern urban spaces such as squares and streets
	Market reshaping and creating showcases	Promoting consumerism
		Changing the style of shopping
Changes in the official structures of the society	Establishment of government offices and departments	Development of public and collective spaces
		The formation of a new social order
Changes in the financial & economical structures of the cities	Establishment of banks	Change in the form of earning income, savings, and financial management of life
	Establishment of factories and manufacturing institutions	Mass production of goods
	Establishment of cargo and passenger transport garages	Consumption importance
		Change in travel style
		Trade development through the transportation and delivery of products
Changes in the health & treatment structures of the cities	Construction of hospitals and pharmacies	Increase of life expectancy
		Increase of the city's population
		Increase of household size
		Retirement age
Changes in the social structure of the cities	Establishment of charity institutions	Separation of sections of society from the body of families
	Construction of public promenades	Development of collective and public spaces
	Construction of cinemas	Change in leisure style
	Construction of cafes, restaurants, hotels	Change in eating style and food taste
		Change in leisure style
		Increase in the population of travelers and pilgrims in the city throughout the year
	Formation of an independent family institution	Changes in family decision-making
		The gradual separation of generations
Changes in the cultural foundations and structures of cities	Establishment of modern schools, libraries, printing houses	Belief in science and rationalism
		Preferring experimental science over traditional science
		Anti-traditionalism
	Discover women's hijab	Changing the role of women in the structure of the family and society
		Women's entry into the field of production and business
	Uniform men's clothing	Inducing new social order to individuals
	Formation of military and national social classes	Creating class distance in society

Table 3: Quantitative analysis of the findings on strategies and principles.

	Spatial hierarchy		Separation of public & private areas		Introversion		Connection with the nature	
	F	%	F	%	F	%	F	%
Qajar era	19	96	19	95	18	90	12	60
Reza Shah era	15	75	18	90	18	90	10	50
Total	34	---	37	---	36	---	22	---
Percentage	85	---	92.5	---	90	---	55	---

* F means Frequency of cases.

Table 4: Quantitative analysis of the findings regarding the major goals and functions of the entrances.

| | Main functions of the entrance | | | | Major goals | | | |
| | Access & connection | | Monitoring arrival & departure | | Protecting privacy | | Protecting security | |
	F	%	F	%	F	%	F	%
Qajar era	20	100	15	75	19	95	14	70
Reza Shah era	20	100	14	70	19	95	14	70
Total	40	---	29	---	38	---	28	---
Percentage	100	---	72.5	---	95	---	70	---

* F means Frequency of cases.

Table 5: Quantitative analysis of findings on executive solutions.

| | Number of entrances | | | | | | Position of entrances* | | | | | | Form of access to the courtyard** | | | | Elements related to privacy*** | | | | | |
| | 1 | | 2 | | 3 | | The corner | | Near the corner | | Middle of a side | | Direct | | Indirect | | Only Hashti | | Only corridor | | Both | |
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Qajar	14	70	4	20	2	10	10	50	6	30	6	30	3	15	19	95	3	15	7	35	8	40
Reza Shah	13	65	6	30	1	5	9	45	4	20	10	50	6	30	19	95	1	5	16	80	2	10
Total	27	---	10	---	3	---	19	---	10	---	16	---	9	---	38	---	4	---	23	---	10	---
%	67.5	---	25	---	7.5	---	47.5	---	25	---	40	---	22.5	---	95	---	10	---	57.5	---	25	---

*Some houses have more than one entrances in different positions.
**Some houses have both ways of access.
***Some houses have no Hashti or corridor.

7.Conclusions

Given the main question and hypothesis raised in the study, the study shows that with the influence of Western culture and thought on the traditional world of Iranians, modern ideas spread rapidly and accelerated the break with the traditional world. With the changes in political, social, and cultural structures (especially during the reign of Reza Shah), the grounds for a change in the physical structure of cities throughout Iran were provided, and the eastern regions of the country were no exception. On the other hand, unlike the architecture of public buildings, the physical changes of houses during the transition period took place at a slower rate, because the physical changes in the home environment are highly dependent on the lifestyle and cultural characteristics of the residents. In this way, the people of the east of the country resisted as much as possible against social and cultural changes, as well as the resulting physical changes.The present study shows that the degree of adherence to the principle of separation of spaces and the principle of introversion in the houses of both periods has been almost the same. The main functions and goals of the entrance are very similar in both periods. However, in terms of applied solutions in the period of Reza Shah Pahlavi, there are changes compared to the Qajar period. In other words, since the principle of privacy in architecture is inextricably linked to religious beliefs and lifestyles in the eastern regions

of the country, political, social and cultural developments during the transition period failed to eliminate the principle of privacy from the entrances of Khorasan houses (at least in the short term). Studying the history of Iranian architecture can provide valuable information to architects. Investigating the entrances of houses in the past can lead to finding solutions for designing contemporary houses if the present study is completed by studying the houses of the Pahlavi II (Mohammad Reza Shah) and the Islamic republic periods.

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