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## Cultural Dimensions of Housing Entrance Spaces: Lessons for Modern HDVD Housing

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### ABSTRACT

Using spatial concept of the traditional housing can play a vital role to enhance the spatial quality of housing within modern era. Based on research hypothesis, the spatial organization of the related spaces of entrance within Iranian high-density vertical development housing does not conform to the values of Iranian family life pattern. The main aim of this study is to identify the cultural values of traditional Iranian housing and trying for betterment of spatial organization of housing units within Iranian middle-class modern High-Density Vertical Development (HDVD) housing by referring to learnt values from the past. In this regard, through constructivism paradigm, qualitative approach, criterion sampling and instrumental multiple case study strategy, the spatial organization of the entrance spaces of traditional Iranian housing was investigated. To increase the accuracy of findings, the data collection methods through triangulation are a combination of direct observation, open-ended expert interview and taking photo for traditional and direct observation, semi-structured single face to face and focus group interviewing and taking photo for collecting data from modern Iranian middle-class HDVD housing. The findings of the research show that the entrance spatial layers of traditional Iranian housing shaped based on family life pattern and residents' socio-cultural values which is ignored within modern Iranian middle-class HDVD housing. The results of the study can be recommended to enhance the quality of life in the modern Iranian HDVD housing.

**Key words:** Entrance space, HDVD housing, iranian traditional housing, family life pattern

### INTRODUCTION

The human living pattern involving physical needs as well as social cultural values and rituals are much related and influenced by the environment they live in (Hanifi, 2007). Hence, it is vital to address the needs of the residents in terms of housing design since it is where society dwells.

Dwellings and human settlements much reflects dwellers living pattern and life style (Pourdeihimi and Nourtaghani, 2011). Life style can be defined as a collection of individual, familial, communal, social and national activities. "Life style includes the institution of family, interaction among the relatives, as well as daily activities" (Shabani *et al.*, 2010). Further, residential areas are the products of the ways of

people's lives and their socio-cultural interactions which show an establishment of emblematic features of settlements nature (Rapoport, 1969). From this point of view the role of people's socio-cultural needs, patterns of life and beliefs it is vital to form house. In addition, life style is a collection of familial, communal, religious and national activities (Nayyeri Fallah *et al.*, 2014). The related familial routine activities' place is house, so the different parts of house body will be adapted with the spirit and fabric of the style of life by residents and the communal and social needs should be supported through entrance and transitional spaces. Accordingly, in a typical activity, each detailed space can be suitable, disturbing or facilitating. As a result, several meanings, feelings, beliefs or sympathies are felt and needed

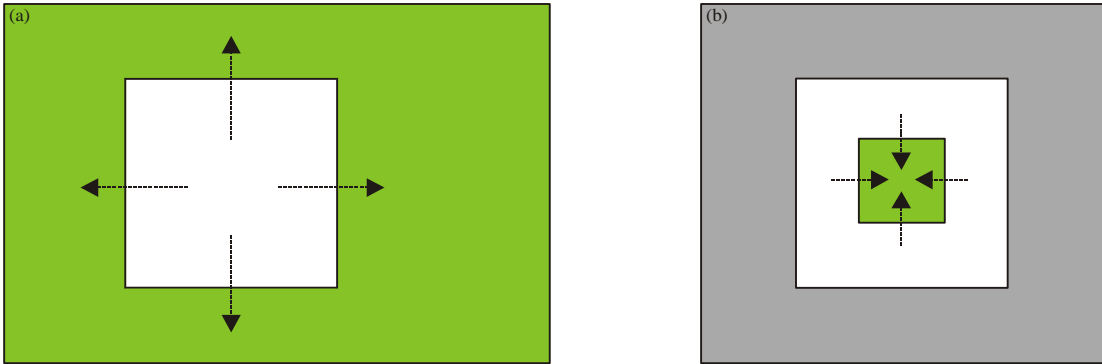


Fig. 1(a-b): Change in the pattern of houses with a central yard to European type houses (a) European type house (landscape around the building, extrovert and (b) Houses with a central yard (view into the yard, introvert) (Sadegh Pey, 2011)

within the house. A house has to include too many types of activities inside and conduct different feelings of people through passing transitional spaces (Shabani *et al.*, 2010).

As Asquith (2006) said that to demonstrate understanding spaces and their usages the individual behavior and its role should be focused. Accordingly, the anthropological approach involves the relationship between characters of culture or space and the built forms. This approach emphasizes on the beliefs and values of a person to a group of people to recognize their life style in the both of individual and socio-cultural dimensions. From this perspective, the outside spaces of home are as important as internal spaces of house, because there is toughly a connection between each space with others. It means that the behavioral approach is useful to define the social aspects of spaces and the existence strong hierarchy between them. In short, according to Rapoport (1969) some of the focal features of pattern of life which influence the house form are: Some basic needs, family, position of women, privacy and social interactions.

Further, house is seen as an important built form for societal living and in designing traditional Iranian house there are three important aspects that determine its built form. First, is the occupant daily life pattern, second is the relationship of daily lifestyle with the neighborhood context and third is the relationship of the housing estates with other residential areas in the macro context. In conjunction to this, it is understood that the Iranian traditional communities much refers to home and its neighborhood context as one integrated space where the public and private spaces are closely interrelated with each other to cater daily activities and events. For instance Iranian people have possibilities to have meeting place at their home and to use other necessary places within the settlement's areas. This type of ideology in Iranian architecture confirms that the house is a part of a large and complex organization which must play its role as medium to make balance human's internal and external settings.

By focusing on the Iranian traditional housing and its identity, it will be clear that the family life pattern played a great role to shape housing toward creating a qualitative places

for residents (Abbaszadeh *et al.*, 2009). This approach faced many problems in the present Iranian architecture in which the present housing lack of values in term of architectural identity which does not consider the importance of family pattern and life (Ghamari and Asli, 2012). The roots of these problems can be investigated in the Iranian society changes during history and especially Qajar dynasty (Pasyan and Motazed, 1998).

During Qajar era (1785-1906), certain social and cultural changes occurred gradually and continuously in Iran (Pasyan and Motazed, 1998). During this period, because the political committee's travels from European countries and Russia to Iran increased and because of Qajar kings' travels and sending students to Europe, people's culture and social relations were affected and changed by the foreign cultures (Sadegh Pey, 2011). Following these changes, lifestyle, behavioral patterns and architectural spaces began to change (Falamaki, 2012a).

Accordingly, designing and constructing straight streets, made changes in the structure and context of new Iranian houses (Zakavat, 1996). These changes included creating an appropriate context for geometric division of lots near public passages and importance of the curbs in order for commercial and administrative functions. As a result, the central yard in traditional houses, around which the house space was located, turned to a kind of middle yard where the spaces would be located only on its two sides (Memarian, 1996). During this time, to imitate foreign patterns, a new type of housing named 'European type house' emerged among the affluent class and foreigners living (Mirmoghtadaee, 2009). These houses, unlike the past traditional and introvert ones, were built within a garden and were facing it from every angle (Sadegh Pey, 2011) (Fig. 1).

The spaces of the European type house, unlike traditional houses, were gathered around a central corridor or hall (Falamaki, 2012b). Beside this important change, some new elements were also introduced to these houses or designed using a totally European form. Some of the changes included the importance of stairs and their location on the major pivots of the building, the change in the form of windows and their

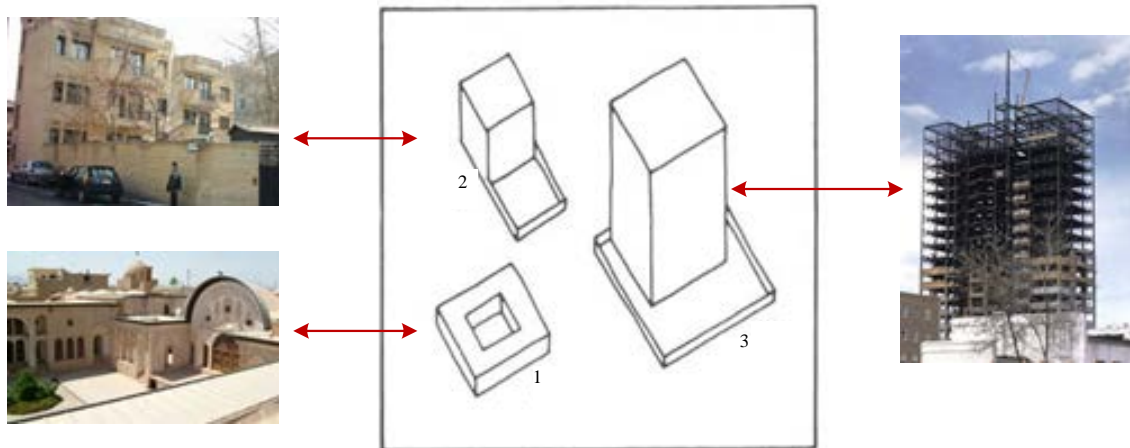


Fig. 2: Changing pattern of the building form, From (1) An inward-looking, low-rise courtyard house to (2) An outward-looking, medium-rise house with a courtyard to (3) High-rise apartment buildings (Madanipour, 2007)

decorations, the change in the form of the ceiling and the change in the design of open spaces surrounding the house (Asadi and Tahir, 2012).

After that, during first Pahlavi Regimen (1941-1961), the changes that had started in Qajar era became more intensified. At this time, major changes occurred in the political, social, cultural and artistic structures which, after a few decades, led to a change in the structure and framework of some architectural spaces and especially residential houses (Diba and Dehbashi, 2004). During this period, wide and straight streets which were suitable for cars, developed across the city. With the increase in the importance of streets, many of the economical, educational, administrative and cultural buildings were relocated from residential environments to the streets (Mirmoghtadaee, 2009). Because the roadside became important, the way the land was divided also changed in an orderly manner.

Accordingly, Asadi and Tahir (2012) said that Iranian modern architecture without any attention to the concept and values of Iranian traditional pattern of life and civilization is developed under western ideology. This approach of development caused losing national identity in the area of built environment. Regarding to the negative effects of modernization on the pattern of Iranian people's life, Mousavi (2009) stated that in the present Iranian housing providing suitable spaces for daily activities, performing rituals and social interactions related to people's life style has been neglected (Fig. 2).

Besides the stated imbalances among different values, unsuitable Iranian building regulations had negative effects on the Iranian housing formation. "New Iranian building regulation which allows buildings to cover 60% of the land parcel and left 40% for open space, had a great effect on the spatial organization of houses as well as on urban design"

(Mirmoghtadaee, 2009). Because of these rules and also increasing land price during recent decades, the relationship among life style, social beliefs and architecture has been forgotten (Asadi and Tahir, 2012). As a result, developing High Density Vertical Development (HDVD) housing as a popular model of Iranian dwelling is the consequence of growing population and increasing the price of the lands. This type of housing has become a bed of many human problems. Abbaszadeh *et al.* (2009) pointed out that, through increasing the number of HDVD housing in the different cities of Iran according to new modern regulation approach, the traditional values of Iranian housing has been lost. As conclude, the majority of the Iranian HDVD housing are made just to keep people alive and the existent laws about them are inefficient (Ardalan and Bakhtiar, 2000).

Modernization has caused many socio-cultural and also physical changes in Iranian life style. These conversions concerted on external features of Iranian life, so the large part of Iranian values, habits and rituals remained on their traditional situations. It makes clear that the imbalances between physical dimensions of settlements and the spirits of Iranian people's pattern of life and beliefs are results of the wave of modernization, so the new houses which produced in recent decades are completely stranger with people's way of life (Mirmoghtadaee, 2009). By starting the changes of the people's ideology about ways of life, the size of Iranian families which was very extended and large replaced by nuclear small independent families. Accordingly, a different pattern of family unit appeared, but the main values of traditional Iranian life style have remained. In other word, it is clear that the remained traditional Iranian housing and settlements are still utilizable, albeit the involved sense of those may have converted partly. The present study was conducted to evaluate the traditional Iranian housing focusing

at the entrance spaces as case study. This is because the Iranian traditional housing portrays excellent evidence of how entrance spaces are shaped according residents life pattern and fulfill the needs of the dwellers in terms of social cultural function. This study will highlights the important values relating to entrance space found in traditional Iranian housing to establish a framework for designing better entrance space for homes in modern Iranian context. Because the space of entrance is important as it creates spatial territory of horizontal movement from outside to inside (Abbaszadeh *et al.*, 2009; Pimia, 2005; Tavassoli, 2001). Within a larger study, this study attempting to determine the relationship between Iranian family life pattern and spatial Iranian middle-class High Density Vertical Development (HDVD) housing typology.

## MATERIALS AND METHODS

**Research hypothesis, aim and methodology:** Based on research hypothesis, the spatial organization of the related spaces of entrance within Iranian high-density vertical development housing does not conform to the values of Iranian family life pattern. In this regard, the aim of this qualitative study is to identify the cultural values of traditional Iranian housing and trying to provide formulation to betterment spatial organization of housing units within Iranian middle-class modern high-density vertical development housing by referring to learnt values. Based on the aim of this study, through constructivism paradigm (Creswell, 2007), qualitative approach and instrumental multiple case study strategy, the spatial organization of the entrance complex as an important part of traditional Iranian housing which is based on Iranian-Islamic cultural values was investigated.

In the next step, the problems faced by residents in terms of entrance spaces of modern middle-class Iranian HDVD housing were identified. Finally, through the lessons learnt from traditional Iranian housing, some recommendation will be formulated. In this regard, three cases of study of the middle-class Iranian traditional and modern housing were selected. Accordingly, through criterion sampling strategy, one middle-class traditional Iranian housing (Taj house located in Kashan-Iran) which is empty conserved and original house and also through random purposeful sampling strategy (Abolmaali, 2012), three blocks of modern middle-class Iranian HDVD housing, located in Kuzu district of new town of Prand- Iran which is the symbol of the trend of Iranian housing in the future (Khalilabad and Noudeh, 2008) were collected.

To increase the accuracy of findings, the data collection methods through triangulation are a combination of direct observation, open-ended expert interview and taking photo for traditional Iranian housing and direct observation, semi-structured single face to face, semi-structured focus group interviewing and taking photo for collecting data from modern Iranian HDVD housing. The phase of data collection procedure was done by main researcher and two research assistants during 4 weeks. After the preliminary investigation by technique of overt direct observation and during the phase of final investigation, the researcher and research assistants did

semi-structured interview with 5 experts about traditional Iranian middle-class housing and 15 respondents of the residents of middle-class modern Iranian high-rise housing. The time of each single face to face interview which was with Farsi language was around 25-35 min and for focus group interviewing, this time became around 50-65 min.

## RESULTS AND DISCUSSION

Based on synthesizing the data collected from multiple tactics which involved semi-structured focus group and single interviewing and direct observation, the routine activities of Iranian families within housing pre-entrance and entrance are presented in Fig. 3.

According to the main aim of this study, by critical critique of Iranian modern HDVD housing through analyzing collected data from multiple tactics, it will be lighted that, in most of the Iranian modern middle-class HDVD housing, the external spaces of house and specially entrance area are not based on the residents' life pattern. Thus the results conform to the research hypothesis.

The entrance of Iranian HDVD housing consists of two main parts. First is the entrance of the housing blocks and second is the entrance of housing units. The connection between these two parts of entrance system is merely by vertical lifts and stair ways from parking spaces and common yard to different levels of the blocks. From this point of view, the system of housing entrance consists of three parts.

- Entering from city spaces to the common yard or parking spaces
- Vertical traveling from yard to common spaces among different levels of building
- Entering inside each unit

The entrance of the units of Iranian middle-class HDVD housing in contrast of its traditional pattern is merely an aperture to enter inside house.

**Main entrance from city public spaces (main door):** The separator the modern middle-class Iranian HDVD housing of the city spaces is merely one or two door which is provided for residents with or without cars. The purpose of this door is, connection outside and inside the common yard or parking spaces.

As can be seen in the Fig. 4, there are not any communal spaces beside the main entrance door. So, there is lack of specific places for talking, resting and communal activities outside the building.

**Travelling by lifts and stairs to units' levels:** To access from the ground or under-ground level of housing blocks to different levels of units, some lifts and stairs are provided. Obviously the main vertical way to this travel is lift and stairs are used just in emergency cases. Through lifts residents will access to the common places among units in the each level. The role of this common place is transition residents and divided them toward their units. The main parts of residents'

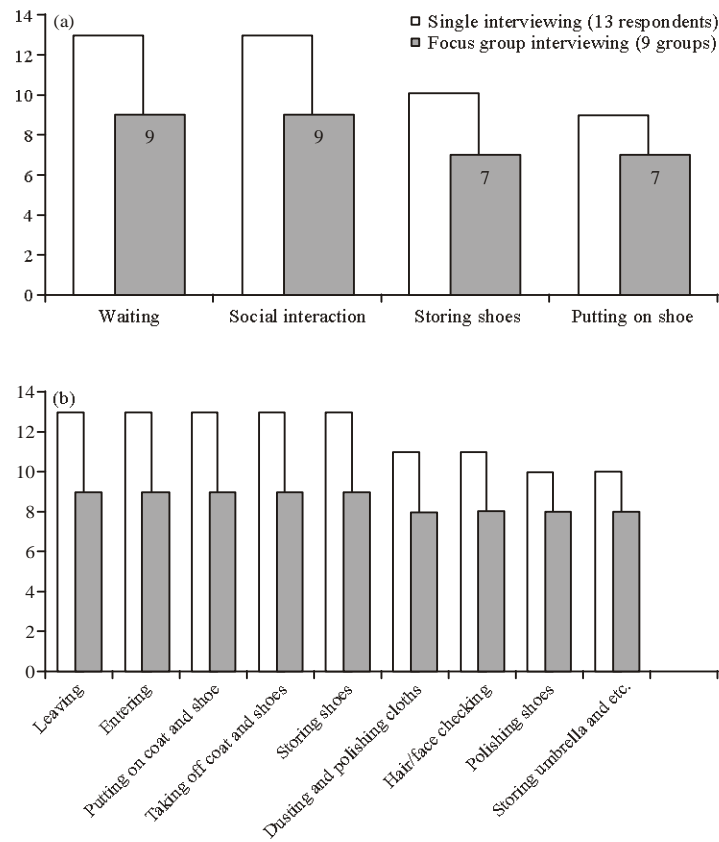


Fig. 3(a-b): Routine middle-class Iranian family activities within housing (a) Pre-entrance and (b) Entrance



Fig. 4: Separated doors for pedestrians in modern HDVD housing, Parand, Iran



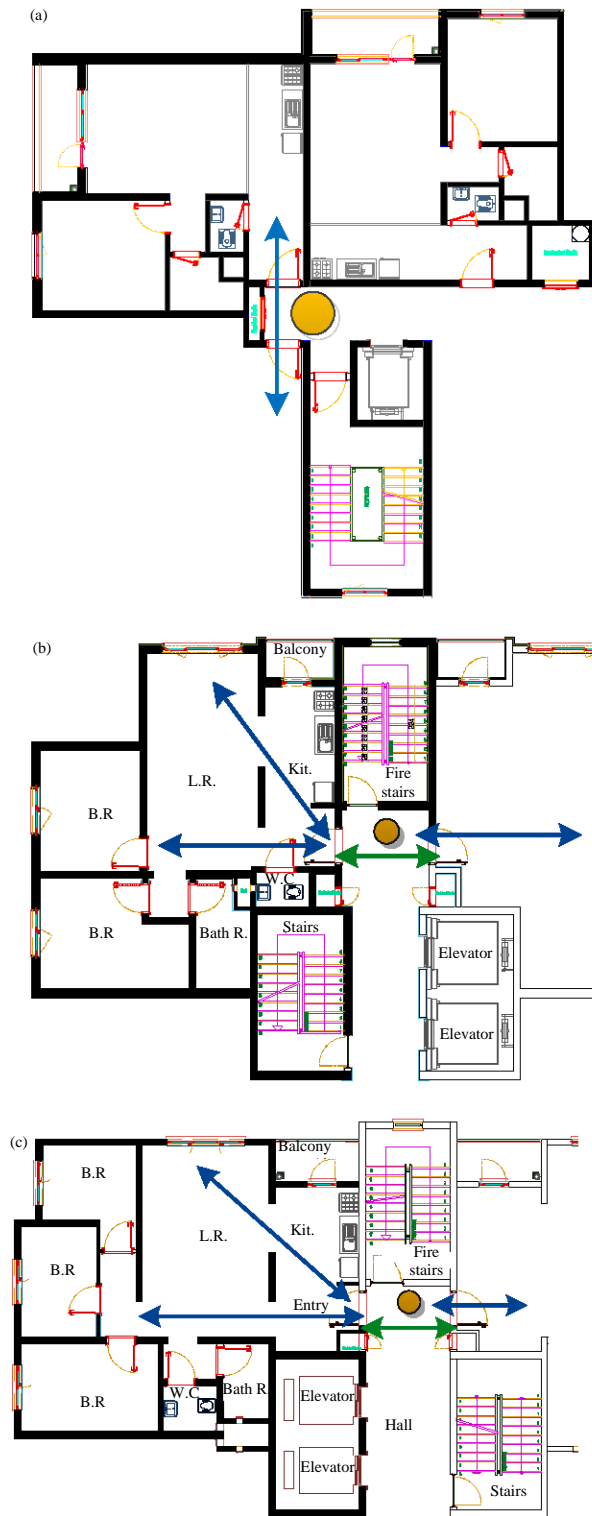


Fig. 5(a-c): Common spaces in between neighbors' units within Iranian HDVD housing, Parand, Iran, Typical unit, (a) Block A1, (b) Block B1 and (c) Block C1

social and communal activities of each level will be done in this small merely common space which is called neighborhood unit. Absence of privacy and also lack of possibility of neighborhood's interaction are the clearest characteristics of these spaces. In other word, in the present Iranian housing, omitting the conditions of spaces in the outside of the houses for regulating movement through pausing places for residents, creates tribulations for settlers. In sum up, it is very difficult to find the suitable common place or suitable neighborhood unit for discussion of neighbors, even for shorts times (Fig. 5).

On the other hand, because of the space limitation inside the housing's units, many of residents put their shoes and some other things outside their houses which are located in the common place of each level (Fig. 6).

It means that, the main point is showing the different problems of a house based on the required culture and identity of Iranian dwellers. The culture and tradition are the identity of people, of which more influence can be seen in their lifestyle and behavior to relationship of people in Iran. So, it can be seen that the new apartments are very culturally limited for their residents.

**Entrance door of units:** The entrance door of units is the final stage to pass from semi-public area to inside the house. According to mentioned intervener forces, the complex system of entrance in the traditional Iranian housing, reformed to the merely just a simple door. In other words, the concepts and of course real role and functions of the entrance as an introduction to enter the house, have lost. Furthermore, in the majority of cases, the openings of units are designed face to face and without any attention to adjustment of sight direction. From this perspective and with taking care to people's culture and identity and also the deep rooted tradition about the relationships between the residents, it will be clear that the design of these contemporary housing creates many pivotal problems for dwellers. In fact, in this situation, residents will lose their privacy and cultural values.

**Lessons learnt from traditional Iranian housing:** Iranian traditional housing as a focal element among interweaving fabric of social environment has had the greatest role to physically and mentally nurture of family members (Pirnia, 2005). The entrance of traditional Iranian houses is one of the most important social characteristics to connect in and outside of the house with special hierarchy (Fig. 7).

Accordingly, entrance of Iranian traditional housing is not merely a simple physical part of house, but is a complex system with special functions. The different parts of this system include platform, entrance door, vestibule and corridor. The functions and characteristics of each of which are as below.

**Platform:** Based on analyzing collected data, there are two platforms "Pirneshin" in the two sides of the door of the entrance of traditional Iranian housing (Azemati *et al.*, 2011). The word of "Pirneshin" in Persian involves two parts: "Pir"

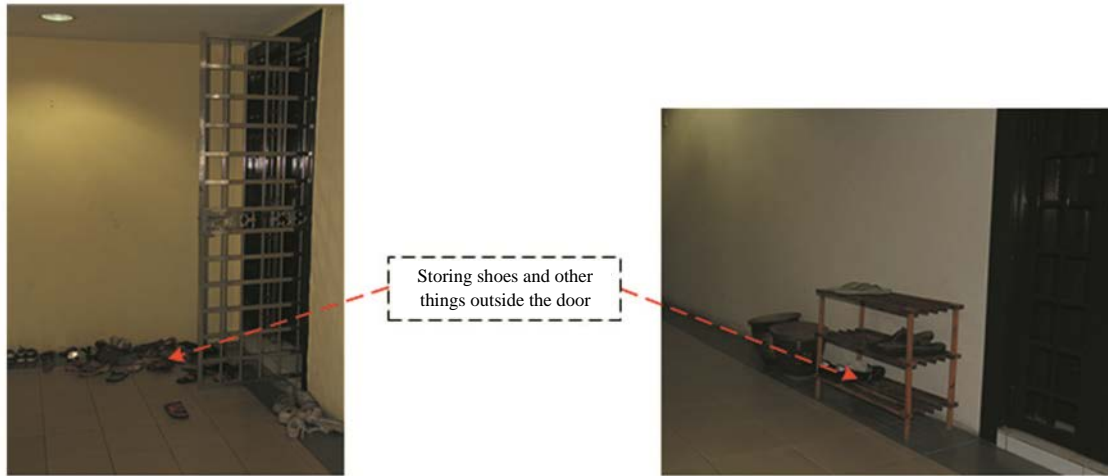


Fig. 6: Storing shoes and other things outside the housing units of HDVD, Parand, Iran

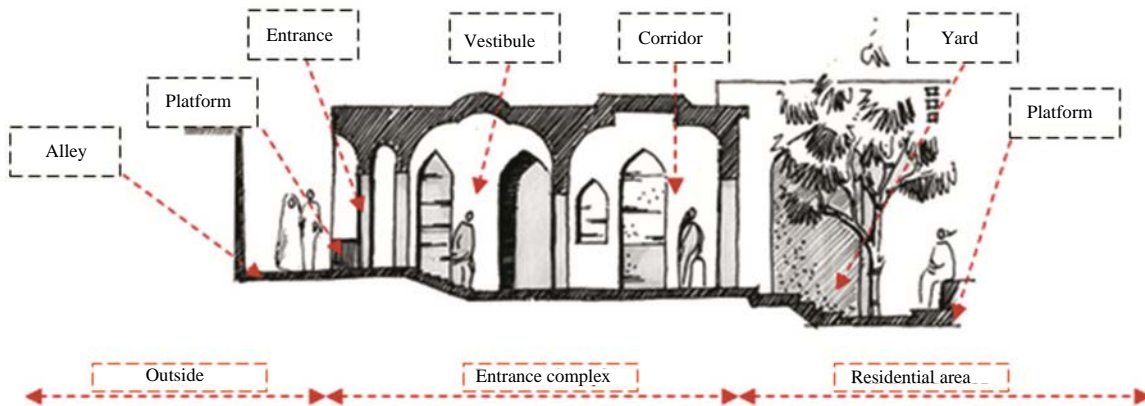


Fig. 7: Entrance hierarchy of Iranian traditional housing (Nayyeri Fallah *et al.*, 2014)

and “Neshin”. “Pir” means elder and “Neshin” means sitting; so the word literally means a place for sitting elders. Further, as can be seen in the Fig. 8, these platforms which are called “Pirneshin” are communal spaces for talking, resting, waiting especially for elders (Nosratpour, 2012). In addition, the people could stay in that place without inconvenience to other passengers in the alley or street (Asadi *et al.*, 2009). Therefore, neighbors could experience a safe place to make connection with each other before entering house. According to Pirnia (2005) these platforms were useful to help people to ride on horses. He made clear that in some cities of Iran the name of these platforms were “Jolo Khan” or “Pish Khan”. The meanings of these two names are the same and it points to the platforms in front of the houses.

**Entrance door:** This part is only phased part of the entrance system in the Iranian traditional housing. In the most Iranian

housing, these doors are wooden and paired. The door knocker which has been installed on pair of ring was divided according to guests’ gender (Fig. 9). Further, the door knocker with low voice is used by the women and hammer knocker is used by men. By this division, hosts could manage gender separation and control the areas which start during entrance to the building.

**Vestibule:** After entrance door, vestibule is the next part of entrance system. This part which is called “Hashti” is one of the most famous sections of the Iranian house. Literally “Hashti” means a place which has octagon form but the form of tetragon of that also has been seen. Vestibule is a lobby with transition function to manage and control accessing to different parts of house. “Hashti” has short ceiling so the sense of privacy is caused when we pass entrance door and reach this space. In addition to



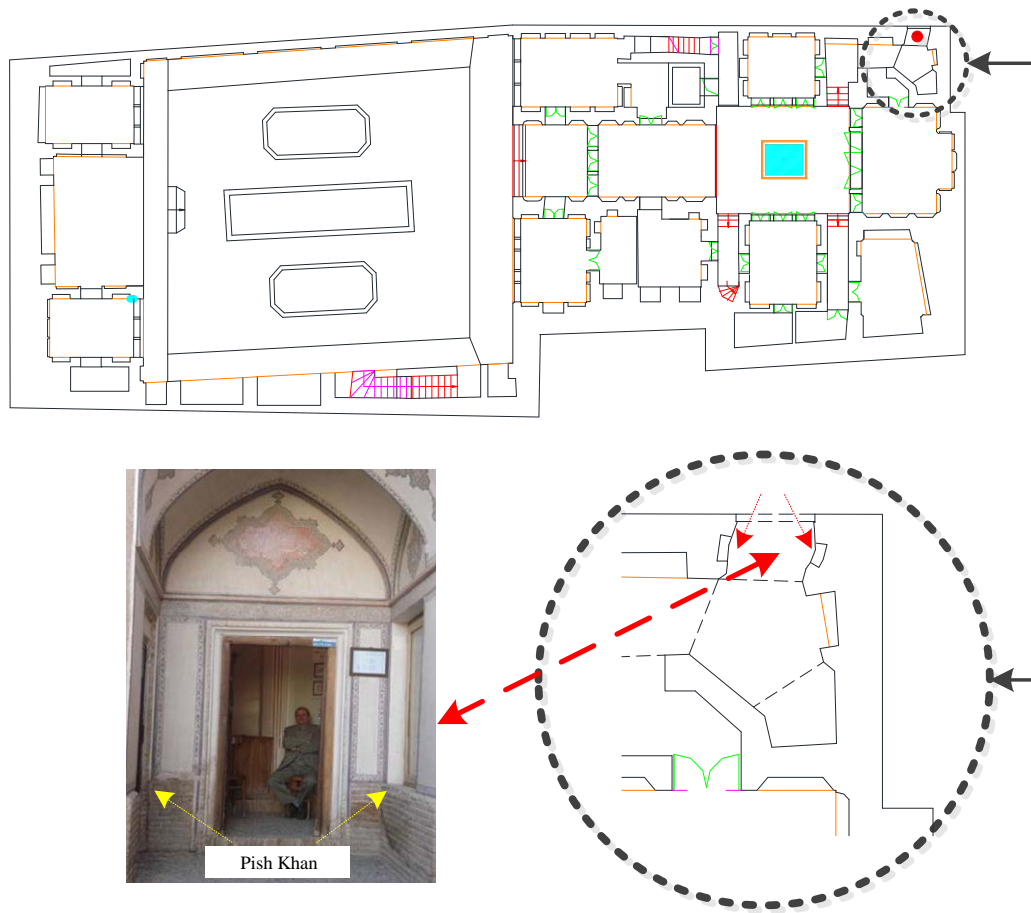


Fig. 8: Platforms or “Pish Khan”; the first stage of Iranian traditional entrance system (Plan for Taj house, Kashan, Photoes: Abyaneh, Iran)

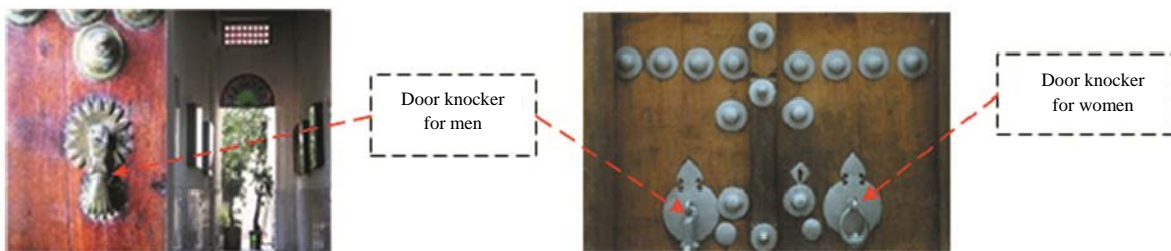


Fig. 9: Entrance door of Iranian traditional houses with divided door knocker by gender, second stage of traditional entrance system

separating function of this space, providing sitting platforms with different parts for men and women, create a suitable waiting place before entering inside the house (Fig. 10). Vestibule is one of the main points to emphasize on gender privacy in the Iranian housing (Nayeri Fallah *et al.*, 2014).

**Corridor:** After vestibule, corridor is the next part of entrance system. Corridor or “Dalan” is a twisting way which connects the “Hashti” to the yard. To respect the family members’ privacy and control eyes directions during accessing different parts of housing, corridors in Iranian traditional houses are non-direct (Fig. 11). Findings show that the combination of

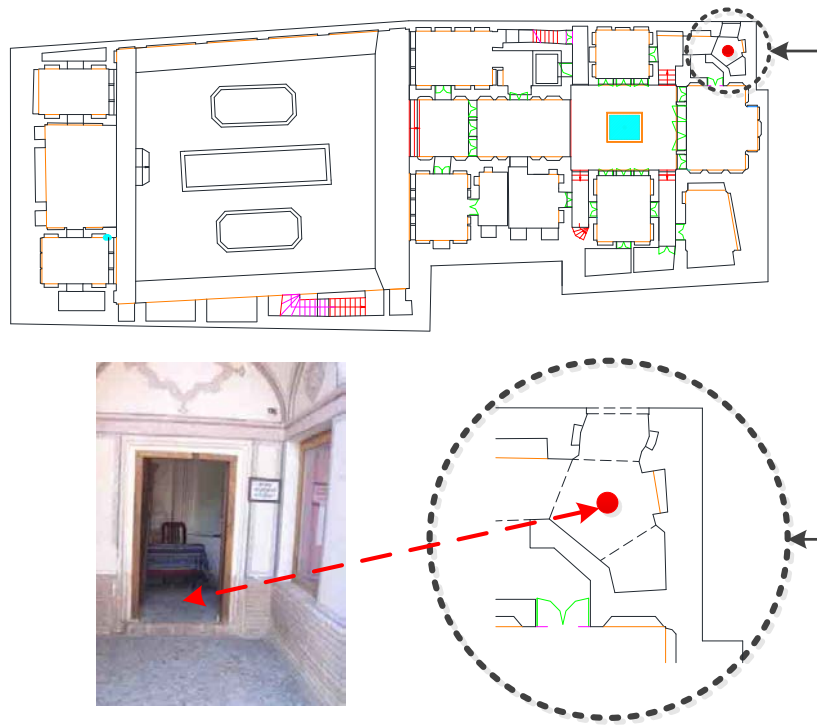


Fig. 10: Vestibule (transitional space) or “Hashti”, the third stage of the entrance system of Iranian traditional housing, Taj house, Kashan, Iran

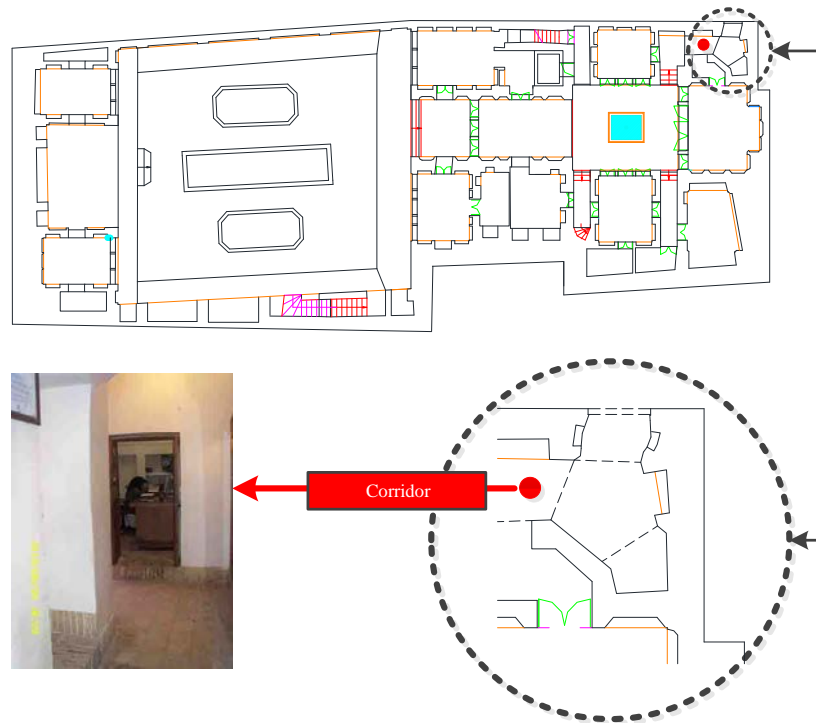


Fig. 11: Corridor or “Dalan” as fourth stage of Iranian traditional entrance system, Plan of Taj house, Kashan, Iran

“Hashti” and “Dalan” is one of the important points of appearing Iranian belief system and cultural rituals and values in the traditional residential areas.

### CONCLUSION

Studies on in-between spaces of house usually focus on spatial characteristics and typology. These approaches commonly will be accompanied with socio-cultural codes to provide physical boundaries related to its conceptual framework. Understanding the basics of creating space is seriously necessary to pass through development stages. With sufficient knowledge and understanding to spatial and social activities within a home, a space can be accessed through the organization process with relation to its anthropological and behavioral approach (Asquith, 2006). With the recognized rituals, activities and routines by individuals or families the dependence of space and place to human will become clear.

From this perspective, the finding conform the research hypothesis. It means that the majority of families settled within the units of HDVD housing cannot perform their routine activities and occasional rituals within their housings' entrance spaces. This limitation is increasing dramatically by minimizing houses in recent years, because their horizontal entering process with a systematic humanistic hierarchy which was according to their rituals, life style and culture converted to a vertical, anti-cultural and mechanical movement which has ignored their humanistic needs. Shortly, through neglecting the socio-cultural hierarchy of entrance system and in-between spaces, the sacred position of family in Iranian culture is reducing. Furthermore, the analysis of Iranian high density vertical development housing shows that the external connections and interactions among neighborhoods zones of each level and among different levels are very weak, because some essential transitional spaces have been lost in the process of designing and constructing. Due to this problem, redefining the spatial structure of current Iranian high density vertical development housing by reviving in-between connections is very vital. In this regard, this study recommends combined two parts entrance space with oblique geometry in combination with parallel geometry to keep inside private and outside public independently. Also, recreating suitable linkages between public and private spaces to permit opportunities to develop neighborhood communities according to Iranian pattern of life and traditional family rituals is much necessary.

### REFERENCES

Abbaszadeh, S., R. Ibrahim, M.N. Baharuddin and A. Salim, 2009. Identifying persian traditional socio-cultural behaviors for application in the design of modern high-rise residences. *Int. J. Archit. Res.*, 3: 116-132.

Abolmaali, K., 2012. *Qualitative Research from Theory to Practice*. 1st Edn., Science Press, Tehran, Iran.

Ardalan, N. and L. Bakhtiar, 2000. *The Sense of Unity: The Sufi Tradition in Persian Architecture*. 2nd Edn., Kazi Publications, Tehran, Iran, Pages: 150.

Asadi, M. and M.M. Tahir, 2012. The social relationship of contemporary residents in iranian housing. *J. Soc. Sci. Human.*, 7: 86-93.

Asadi, M., M.B.M. Tahir, V. Ahmadi, H. Farkisch, H. Arjmandi, M.M. Shabani and M. Monshizadeh, 2009. Influence of cultural factors on design of islamic housing of Iran. *Proceedings of the Regional Engineering Postgraduate Conference*, October 20-21, 2009, Universiti Kebangsaan Malaysia, Putrajaya, Malaysia.

Asquith, L., 2006. Evaluating and illustrating domestic space use: Collecting and analysing behavioural data for space syntax analysis. *Proceedings of the Workshop on Space Syntax and Spatial Cognition*, September 24-28, 2006, Universitat Bremen, Germany.

Azemati, H.R., M. Bagheri, S.B. Hosseini and S.N. Maleki, 2011. An assessment of pedestrian networks in accessible neighborhoods: Traditional neighborhoods in Iran. *Int. J. Archit. Eng. Urban Plan.*, 21: 52-59.

Creswell, J.W., 2007. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. 2nd Edn., SAGE Publications Inc., California, ISBN-13: 978-1412916066, Pages, 416.

Diba, D. and M. Dehbashi, 2004. *Trends in modern Iranian architecture*. Ministry of Housing and Urban Development Publication, Tehran.

Falamaki, M., 2012a. *Formation of Architecture Through the Experiences in Iran and West-World*. 3rd Edn., Nashr-i Faza, Tehran, Iran.

Falamaki, M., 2012b. *Urban Improvement and Renewal*. SAMT, Tehran, Iran, Pages: 296.

Ghamari, M.A.K. and M.F. Asli, 2012. Design of architecture of Iranian houses on traditional and cultural patterns. *Proceedings of the Conference of Hundred Years Contemporary Iranian Architecture and Urbanism, (HYCIAU'12)*, Engineering Organization of Alborz Province, Karaj, pp: 67-79.

Hanifi, N., 2007. Cultural pattern of rural housing. *J. Hous. Revolut.*, 118: 44-51.

Khalilabad, K.H. and E.M. Noudeh, 2008. Assessing site selection of new towns using ecological potential model (case of Hashtgerd, Parand Andisheh). *J. Iran. Soc. Stud.*, 2: 224-249.

Madanipour, A., 2007. *Designing the City of Reason: Foundations and Frameworks*. Routledge, New York, USA., ISBN-13: 9781134103997, Pages: 352.

Memarian, G., 1996. *Iranian Residential Architecture (Inward-Looking Typology)*. University of Science and Technology, Tehran, Iran.

Mirmoghtadaee, M., 2009. Process of housing transformation in Iran. *J. Counstruc. Dev. Count.*, 14: 69-80.

Mousavi, Y., 2009. Urban neighborhood regeneration based on community development planning framework. *Iran. J. Soc. Stud.*, 2: 99-123.

Nayeri Fallah, S., A. Khalili and M.T. Rasdi, 2014. Privacy Layers in traditional Iranian houses, symbol of religious thought in family life pattern. *Proceedings of the 1st International Congress on Culture and Religious Thought*, Volume 6, February 20-21, 2014, Qom, Iran, pp: 1040-1049.

- Nosratpour, D., 2012. Evaluation of traditional Iranian houses and match it with modern housing. *J. Basic Applied Sci. Res.*, 2: 2204-2213.
- Pasyan, N. and K. Motazed, 1998. *During Two Pahlavies Era*. Vaziri Press, Tehran, Iran.
- Pirmia, M.K., 2005. *The Islamic Architecture of Iran*. University of Science and Technology Publication, Tehran, Iran.
- Pourdehimi, S. and A. Nourtaghani, 2011. Housing and identity, interrelationship between residents identity and housing environment. *J. Hous. Rural Environ.*, 30: 3-16.
- Rapoport, A., 1969. *House Form and Culture*. Prentice Hall, Englewood Cliffs, USA., Pages: 162.
- Sadeh Pey, N., 2011. *Architectural Design: Housing Design*. Fatemi Press, Tehran, Iran.
- Shabani, M.M., M.M. Tahir, H. Arjmandi, I.A. Che-Ani, N.A.G. Abdullah and I.M.S. Usman, 2010. Achieving privacy in the Iranian contemporary compact apartment through flexible design. *Proceedings of the 10th WSEAS/IASME International Conference on Electric Power Systems, High Voltages, Electric Machines and 6th WSEAS International Conference on Remote Sensing*, October 4-6, 2010, Japan, pp: 285-296.
- Tavassoli, M., 2001. *Analyzing the politics of creating new high-rise residential buildings in new contexts of Mashhad metropolis*. Ministry of Housing and Urban Development of Iran, Tehran, Iran.
- Zakavat, K., 1996. *Street architecture; The Iranian urban face identity*. In *1st Congress of Architecture and Urbanism*, Volume 3, Cultural Heritage Organization, Bam, Iran, pp: 301-311.