

# **A Survey on Changing Socio- Spatial Patterns in Contemporary Housing of Iran**

**Samira Forouzmand**

Submitted to the  
Institute of Graduate Studies and Research  
in partial fulfillment of the requirements for the Degree of

Master of Science  
in  
Architecture

Eastern Mediterranean University  
January 2013  
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

---

Prof. Dr. Elvan Yılmaz  
Director

I certify that this thesis satisfies the requirements as a thesis for the degree of Master of Science in Architecture.

---

Assoc. Prof. Dr. Özgür Dinçyürek  
Chair, Department of Architecture

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Science in Architecture.

---

Assos. Prof. Dr. Hıfsiye Pulhan  
Supervisor

---

Examining Committee

1. Assoc. Prof. Dr. Hıfsiye Pulhan

2. Asst. Prof. Dr. Kağan Günçe

3. Asst. Prof. Dr. Beril Özmen Mayer

## ABSTRACT

Evolution of Iranian house started from its traditional form and space organization to its contemporary situation. There are many factors that affect the organization of spaces in a house and its quality of being pleasant and functional. These evolutions are results of changes in different features of life and society and also technology and rules plays a fundamental role in the process of cultural, social and even individual paradigm shifts in contemporary era. These shifts lead to changes in lifestyle and folowingly in housing.

After modernization Iran started to import features of social life and built environment from the West. And rate of changes in social, cultural, personal and many other aspects of Iranian life started to grow so fast. Amongst these features three Social, Cultural and Personal items are selected in order to reach a reliable result of investigations in the influence of lifestyle on spatial organization and vice versa. In order to gain information about the spatial organization of contemporary houses rules and regulations of construction in Iran has been studied and also spatial organization is a case that needs to be observed and the level of residents' satisfactory depends on how much their lifestyles match the spaces in which they live. So interviews have been made in order to observe, categorize and evaluate the existing qualities of the relationship between lifestyle and spatial organization.

By doing a study on the background of traditional houses in Iran and evaluating them based on rules and definitions in the cultural, social and personal involvement of householders, this research is concluded by opening a new angle about the feasibility

study on the existing role of privacy and flexibility in the amount of user requirements in the contemporary houses' spatial organization and how it fits the spatial organization of the houses.

**Keywords:** Iran, House, Spatial organization, Lifestyle, Culture

## ÖZ

İran evinin evrimi, geleneksel form ve mekan organizasyonundan başlar ve günümüz şeklini alır. Bir evin mekan organizasyonu kalitesini ve onun estetik ve fonksiyonel oluşunu etkileyen birçok unsur vardır. Genellikle bu gelişim toplumun ve yaşamın farklı özelliklerindeki değişimlerin sonucu olarak ortaya çıkar. Aynı zamanda, teknoloji ve yasalar mevcut kültürel, sosyal ve kişisel değişimlerin yaşanmasında temel bir rol oynar. Bu değişimler yaşam biçimi ve devamında konut kavramını ve yapımını da etkiler.

Bu kapsamda, modernleşme sürecinde sosyal yaşam özellikleri ithal eden İran'da batı tarzı bir yapılaşmış çevrenin inşa edildiği görülür. Sosyal, kültürel, kişisel özelliklerin ve İran yaşam tarzının çok hızlı bir değişim sürecinden geçmektedir ve bu durum konut çevreleri üzerinde önemli bir etkiye sahiptir. Bu nedenle, yaşam tarzının mekan organizasyonu üzerindeki etkisini değerlendirmek için mevcut çalışmada sosyal, kültürel, ve kişisel özellikler göz önünde tutulmuştur. Çağdaş konutların mekan organizasyonu hakkında bilgi edinebilmek için, İran'daki bina yapım kuralları ve düzenlemeleri üzerinde durulmuş, geleneksel İran Evi'ne bakılmıştır. Süregelen yaşama alışkanlıkları ve mevcut yasal düzenlemeler ışığında, konuttaki memnuniyet ve yaşam-mekan uyumu kullanıcılar ile yapılan mülakat ve gözlemlere dayalı olarak değerlendirilmiştir.

Yaşam biçimi ve konut arasındaki ilişki ve etkileşimler kuramsal olarak tartışıldıktan sonra, İran'daki geleneksel evlerin geri planı hakkında bilgi verilmiştir. Kültürel, sosyal ve kişisel tanımlara bağlı olarak 5 ayrı İran kentinden seçilmiş toplam 24

apartman dairesi konut üzerinden mekansal organizasyonda kullanıcı gereksinimleri değerlendirilmiştir. Mevcut mahremiyet ve esneklik beklentileri üzerine vurgu yapılarak yeni yaşam çevrelerinin mekansal organizasyonuna yeni bir bakış sağlanması gerekliliği üzerinde durulmuştur.

**Anahtar Kelimeler:** İran, konut, mekansal organizasyon, yaşam tarzı, kültür

**To my family**

## **ACKNOWLEDGMENT**

I would like to thank the ones who have been reliable and trustworthy companions and also supportive to me both academically and spiritually.

I would like to thank Dr. Hifsiyeh Pullhan, my supervisor whose smile has been supportive in difficult moments as well as supervising all the procedure of developing this study.

Special thanks to my great beloved family, to my father for being patiently strong during difficult times of life, to my mother whose warm embrace always has been a world to me. And to the most beloved sister and brother in the world for being the reason of my happiness.

Also I would like to thank my friends Maryam Naghibi, Fatemeh Ghafari, Ali Mirshahi, Aref Arfaee, Faezeh Nabavi, Simin Noroozi, Maryam Forouzmand, Rokhsaneh Rahbarian, and Lia Erfani for giving hope and sharing their ideas during my investigations and writing this thesis.



# TABLE OF CONTENTS

ABSTRACT .....	iii
ÖZ .....	v
ACKNOWLEDGMENT .....	viii
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xii
1 INTRODUCTION .....	1
1.1 Background Information .....	2
1.2 Statement of Problem .....	7
1.3 Aim and Objectives .....	8
1.4 Research Design and Methodology .....	9
2 CONCEPTUAL AND THEORETICAL FRAMEWORK .....	11
2.1 Meaning and Roles of House .....	11
2.1.1 House as Symbol .....	12
2.1.2 House as a Structure .....	17
2.2 Variety of House Types .....	19
2.2.1 Housing over the Time .....	19
2.2.2 House Types due to Physical Relations .....	22
2.3 Concept of Lifestyle .....	27
2.4 Lifestyle and House .....	32
3 LIFESTYLE AND TRADITIONAL HOUSES IN IRAN .....	36
3.1 Types of Spaces in Traditional Iranian House .....	37
3.2 Spatial Organizations in Traditional Iranian House .....	41

3.3 Traditional Iranian Lifestyle .....	46
3.4 Effect of lifestyle in spatial organization of the Traditional Iranian House .....	48
3.4.1 Effects of Personal Factors .....	49
3.4.2 Effects of Cultural Factors .....	53
3.4.3 Effects of Social Factors .....	55
<b>4 CONTEMPORARY HOUSE IN IRAN AND ITS SPATIAL ORGANIZATION</b>	<b>60</b>
4.1 Rules and Regulations of Contemporary Housing in Iran .....	62
4.2 Types of Spaces in Contemporary House in Iran .....	67
4.3 Spatial Organizations in Contemporary House in Iran .....	71
4.4 Contemporary Lifestyle in Iran .....	73
<b>5 EFFECTS OF LIFESTYLE ON APARTMENT RESIDENTIAL UNITS IN IRAN</b>	<b>77</b>
5.1 Effects of Personal Factors on Contemporary Housing in Iran .....	79
5.3 Effects of cultural Factors on Contemporary Housing in Iran .....	86
5.4 Effects of Social Factors on Contemporary Housing in Iran .....	90
<b>6 CONCLUSION</b> .....	<b>98</b>
<b>REFERENCES</b> .....	<b>103</b>
<b>APPENDICES</b> .....	<b>119</b>
Appendix A: Questioner .....	120
Appendix B: Plans Analysis .....	122

## LIST OF TABLES

Table 1: Meaning and roles of house .....	18
Table 2: Types of housing according to time and their cause's changes .....	21
Table 3: Types of housing according to spatial characteristics.....	27
Table 4: Concept of lifestyle .....	30
Table 5: Elements of the concept of lifestyle.....	31
Table 6: Effect of lifestyle in spaces of house .....	35
Table 7: lifestyle factors and their effects on spatial organization of traditional houses .....	57
Table 8: Layouts of building situations.....	66
Table 9: Location of kitchen .....	82
Table 10: Location of balcony .....	84
Table 11: Combination and hierarchy between spaces .....	89
Table 12: Location and form of entrance in apartments .....	96
Table 13: Effects of lifestyle factors and construction roles in spatial organization of contemporary houses.....	97

## LIST OF FIGURES

Figure 1: types of spaces in traditional Iranian house.....	5
Figure 2: changing form of house from attached to detached.....	6
Figure 3: types of spaces in contemporary Iranian houses .....	7
Figure 4: Cumba element in Cypriot house .....	15
Figure 5: Spatial layout of traditional urban house of Iran .....	15
Figure 6: Detached house in north of Iran .....	23
Figure 7: Detached house with central courtyard (Tabatabaee’s house) .....	23
Figure 8: Semi-detached house joined by wall .....	24
Figure 9: Semi-detached house joined by common space .....	24
Figure 10: Row house .....	25
Figure 11: Apartment .....	26
Figure 12: All of the factors effect on lifestyle .....	28
Figure 13: Type of spaces in traditional houses.....	37
Figure 14: Kind of open spaces.....	38
Figure 15: Kinds of semi-open.....	39
Figure 16: Kind of rooms as closed spaces ( <i>panjdari</i> and <i>sedari</i> ).....	40
Figure 17: Kind of service areas as closed spaces (Kitchen and Cellar) .....	41
Figure 18: Central organization in Traditional house in Yazd.....	43
Figure 19: Clustered organization in Traditional house in Yazd .....	44
Figure 20: Clustered organization in Traditional house in Shiraz .....	44
Figure 21: Relationship between spaces in a traditional house in Boshehr .....	45
Figure 22: Spatial in traditional Iranian house .....	46
Figure 23: <i>Andarouni</i> and <i>Birouni</i> .....	50

Figure 24: Connection between open and close space with Semi- open space .....	51
Figure 25: Rooms in private courtyard of a traditional Iranian house .....	52
Figure 26: Daily activities in traditional house spaces.....	52
Figure 27: Combination of <i>Andarouni</i> , <i>Birouni</i> and service spaces .....	53
Figure 28: Guest room in outer part ( <i>birouni</i> ) in traditional house.....	54
Figure 29: Rooms for entertaining guests in traditional Iranian house ( <i>Tallar</i> and <i>shahmeshin</i> ) .....	55
Figure 30: Entrance spaces in traditional house.....	56
Figure 31: pattern of housing changes .....	61
Figure 32: Location pattern of yard and building (all of buildings located in north of land parcels, the effect of urban design pattern and pathways on the zoning of open and closed spaces).....	65
Figure 33: Types of spaces in apartments (in this plan the Proportions between spaces are visible, most of the land parcel belong to closed space, after that open space (yard) and a small part of closed space formed as semi-open space) .....	67
Figure 34: Separated spaces in apartments .....	68
Figure 35: Combined spaces .....	69
Figure 36: Spatial relationships in apartments, 1) Relationship between kitchen and sitting room, 2) relationship between public and private spaces, 3) Relationship between bedrooms, bath room and toilet with corridor .....	70
Figure 37: Grid organization in apartments .....	71
Figure 38: Centralized organization in apartments .....	72
Figure 39: Clustered organization in apartments .....	73
Figure 40: Location of cities in map of Iran .....	78
Figure 41: percentage of members' satisfaction of their private room .....	80

Figure 42: Percentage of members that possess private room .....	80
Figure 43: Location of bedroom in northern building and situation of windows .....	81
Figure 44: Using curtain for creating privacy .....	83
Figure 45: Yard and parking in ground floor of apartments .....	85
Figure 46: percentage of ceremonies take place in the house .....	88
Figure 47: Percentage of the families that through ceremonyise in their houses.....	88
Figure 48: Spaces used for ceremonies .....	88
Figure 49: Define living room and dining room spaces with setting furniture and using some decorative elements for separating these spaces .....	92
Figure 50: living room, dining room and TV room just defined with setting furniture .....	94

# Chapter 1

## INTRODUCTION

Settlements have been shaped by their expectation to be harmonious with social rules and lifestyles. According to Nasr (1978) “the external environment which man creates for him is no more than a reflection of his inner state”. Also, architecture has a close relationship with behaviors, but after the modern age some changes happened in the presentation of culture in architectural language. Martin Heidegger (1993) said that building and dwelling are a single phenomenon, the creation by the individual consciousness out of its rootedness in culture, time, and place.

Among all aspects of human’s life and his behavior and nature there are some factors, which are in priority while the case is studying the relationship between his lifestyle and spatial organization of dwellings in which he lives within. Some of the most important factors are personality, culture and social factors. According to the researchers’ studies each of these factors affects some of space characteristics and spatial organization of the houses. Among the three aforesaid factors, culture is a comprehensive topic, which covers two other factors in some angles; and this describes the possibility of existence of a relationship between lifestyle and spatial organization of houses. Hence the lifestyle causes changes in the house’s space organization. The relationship between a lifestyle and spatial organization of houses has always been a part of an evolutionary during the time and Iran was not an exception.

With vast and rapid technological advances which are a result of mankind's extraordinary changes and achievements in recent centuries, a wave of change and challenges has come upon Iranians and their houses, a wave that is based on communication and media, technology and scientific and industrial advances, new architectural education. It affects Iranian lifestyle and has made major changes in their houses.

### **1.1 Background Information**

A brief review on house and its concept and structure shows that scholars, architects and researchers such as Heidegger(1993), Bachelord (1994), Le Corbusier (1975), Moore (1974), Rapoport (1996 & 1991) and Norberg-schulz (1993) claim the varieties of house's meaning; each of these definitions clarify different aspects of it. They believe that house is not just a shelter and it has a variety of meanings and concepts in different sciences. Christopher Alexander (1979) claims that a building is a structure that is founded basing on a system of proportions, relations and actions, and this system could be called spatial connection or spatial form. During the time house had different forms and shapes, which all depended on the circumstances of the time and people's demands.

According to Rahbar (1996) and Alexander (1977) houses are in three general categories of attached, semi-detached and detached. These orders have significant effect in the process of spatial organization in the house. People's lifestyle had great impact during the evolutions in organization of the spaces and forms, also according to studies that have done by sociologists, psychologists and architects such as Giddens (1991), Douglas (1996), Chaney (1996), rapoport (1998), Wilska (2002) and Jensen (2007) social, personal and cultural factors have substantial effect on lifestyle.



These factors are changing by the time according to the changes in situations and cause variations in spatial organizations. According to Gifford (1997), Tafakor (2006) and Ghobadian (1999) Position, dimensions and form of the spaces, which are based on effects of personal elements, or the effect of cultural elements on variation of the spaces, and also combination and division of the spaces and hierarchy between them cause changes in spatial organization of the house. It is noteworthy to mention that balance between common and private spaces, privacy, number of rooms and size of the spaces and also definition of space according to its function are the effect of social elements in lifestyle, which affect spatial organization.

According to studies on Iranian traditional houses, there are examples that show how the lifestyle affected the spatial organization and they were harmonious with people's lifestyle. Studies show that traditional house in Iran is categorized in two groups of introverted and extroverted; and this categorizing is based on climate and zoning in this country; but in most of them there is a central organization, which is under the influence of monolithic beliefs. In the space organization of Iranian house there were three types of open, semi-open and closed spaces, which had the same value. Formation of spaces and their connections in traditional houses of Iran happened based on function and inhabitants' demands and lifestyle in addition to structural issues (Pirnia, 1981 & 2009; Haeri, 2010; Memarian and Sadoughi, 2011) .

For instance, according to traditional Iranian lifestyle privacy was one of the most important matters because of many reasons, such as being religious or high level of relations with relatives and neighbors. Therefore their way of living had great influence on organization of spaces in the house. Although architects such as Pirnia (2009), and Haeri (1997) claim that individual issues like daily activities and religion

have also their effects on formation of inner spaces. Open, semi-open and closed spaces were the spaces for gatherings of family members; spaces such as Mahtabi, as an open space, Ivan (Porch), as semi-open space, and rooms with three or five doors (Sedari, Panjdari). Even in these spaces some of daily activities such as sleeping or personal activities take place and they are flexible spaces.

Family is one of the most important of society basics and has a great importance; therefore comfort is a point of attention there (Mirmoghataee, 2009; Fazeli, 2007; Ladier-Fouladi, 2002). Also the role of male and female, and religious and traditional occasions and ceremonies are all important and effective matters in Iranian culture. So male and female role are defined and male characters and their relations and activities mostly take place in “*Birouni*” which is outside the private range of the family spaces. However in the end on of the effective points on the spatial organization of the house are the social interactions. For instance there are two ways leading into the house after entering it, one to *Andarouni* and the other leads to “*Birouni*” because privacy has a great importance in Iranian traditional culture and private areas and spaces should not have been seen by the strangers (Nasir-i-din, 1985, Labaf-Khanigi, 1995; and Mazumdar, 1997 ).

Even the importance of this categorizing in spaces caused the creation of “*shahmeshin*” which is a special place to visit the guests (Figure 1). All these organization in Iranian traditional house are showing “Flexibility” as the other important factor of the spatial organization, which prepares the possibility of change in dimensions or relations between the spaces in the times of need for wider spaces for the guests or ceremonies. For instance doors of different adjacent rooms can be opened when it is needed in order to create larger integrated spaces.

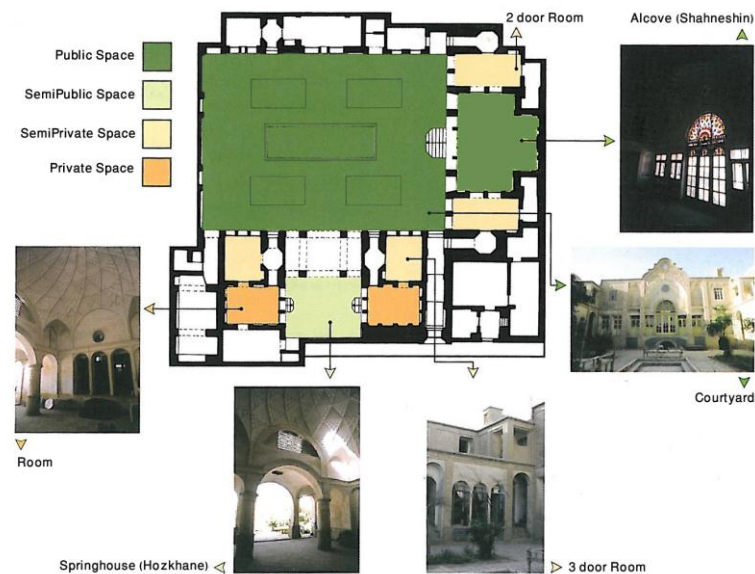


Figure 1: types of spaces in traditional Iranian house

For many years, house in Iran, has been shaped under the influence of tradition, culture, climate and aesthetic theories which is route from Iranians architecture. It is known as a symbol of Iranian culture and identity. Lifestyle and circumstances ruling it have always affected the creation of Iranian houses as a result of the mentioned factors. The effect can be observed in different sections of the house and different points of view such as form, spaces and their organization.

Iranian architecture had faced several sets of changes during the time, parallel with the changes that accrued in the life style of majority of the society. According to Haeri (1997) and Soltanzadeh (2005) Iran had excessive social, economic, and cultural changes, in early of 20th century, which had affected different aspects of Iranian life. Architecture, as the physical depiction of lifestyle, has changed to a great amount. Early in the 20th century, an extreme change in architecture occurred in several developing countries, as the traditional architectural style was replaced by the modern style (Hovansian, 1970; Marefat, 1996; and Fakohi, 2004).

The infiltration of architecture in Iranian life style was more impressive and has different ideas for categorizing the spaces. What had accrued in Iran during past four decades has been the act of applying the concept of life in function and to bring down the concept of function into definition of biologic demands such as eating and sleeping (Haeri, 2010).

Investigating traditional houses and lifestyle of people in the past showed that flexibility and privacy had great importance in the past but according to the researchers and their studies, such as Madanipoor (2003) and Haeri (2010) nowadays form and spatial organization of the Iranian house has changed and form of the housing units changed from attached to detached (Figure 2).

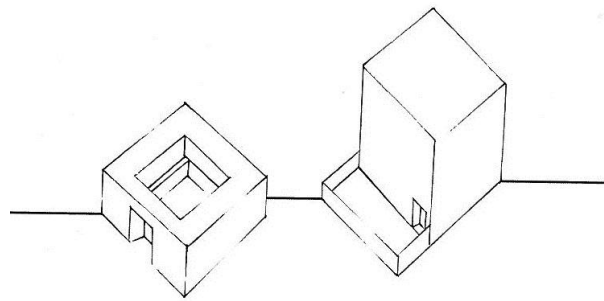


Figure 2: changing form of house from attached to detached

Nowadays people are living in apartments, which are too smaller than the previous form of Iranian house and according to changes lifestyle of the people has changed so much as well. In spite of the past families became more limited and are not extended like the way they were and also individualism is now very important (Fazeli, 2006). The social interactions of family members are not depending on the house anymore and are transferred to the outside environment. Also urbanism and urban life's circumstances led to rules and regulations in the field of construction,

definition of the land parcels and location of the building, which have a great impact on the space organization of the houses. Closed spaces have more significant role in contemporary houses and open and semi-open spaces have a minor importance or their function have completely changed; and these changes led to decreasing the variation and number of spaces (Figure 3). All these factors and orders led to changes in formation of contemporary house and turned home to more of a place for sleeping and eating (Haeri, 1996 & 2010 ).

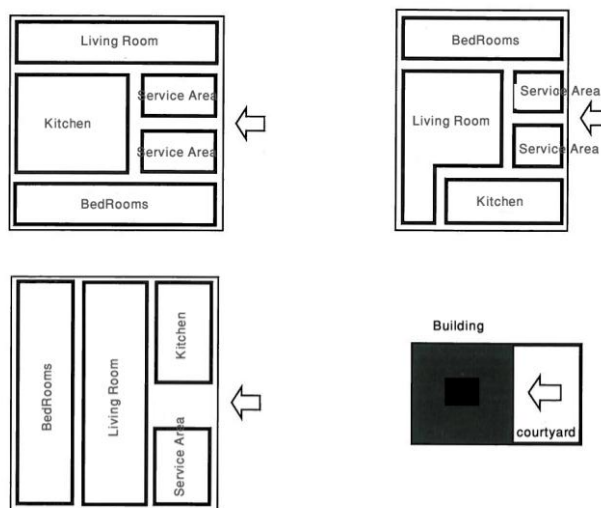


Figure 3: types of spaces in contemporary Iranian houses

If this new wave of change is not studied well and its forces are not recognized and analyzed, it will separate Iranian house from its historical and social role and cause a lack of identity in the field of house architecture. In other words house will no longer carry its cultural and identifying role and fail to answer various and numerous needs of residents.

## 1.2 Statement of Problem

In Iran, development and urbanization have resulted in changing of residential housing from regular substitute of personality houses to nowadays residential

complexes and apartments. Foreign construction companies and Iranian architects, have been educated abroad have less information about Iranians' living traditions and lifestyles, they are the ones who design contemporary residential units in Iran. Because of this situation in the new living environments, spatial characteristics of traditional Iranian houses have been progressively lost. Instead of them, different spatial features that are developed in relation to required contemporary lifestyles are appeared.

As it is mentioned above, lifestyle is one of the factors affects spatial organization of house, the changes in lifestyle have differences in housing environments and the quality of spaces. At this point, the caused great effects on recent changes of Iranian residential house are of the significance of the research. Therefore, the main questions underlying the present study are: what factors effect on lifestyle? And, how dose lifestyle affects spatial organization? Or how does lifestyle affect spatial organization in contemporary house in Iran?" Besides, estimating the amount of lifstyle's effect on spatial organization of contemporary houses.

### **1.3 Aim and Objectives**

The aim of this research is to provide a framework for better understanding of the concept of house with the meaning of home, which is a relation between lifestyle and house as a spatial entity. Therefore, it could be considered as an investigation of those aspects that create harmony between inhabitants, and house and space.

In order to reach to this aim, some objectives are determined to expose the scope of the study. Therefore the concepts of house by referring to certain meanings are identified firstly. Secondly, a variety of different house types are explained. Thirdly,

the concept of lifestyle is dealt with to find out interrelation between lifestyle and house.

#### **1.4 Research Design and Methodology**

Methodology of this research deals with deskwork survey meanwhile it is a case study research within a qualitative approach. It will start with the literature review to create a theoretical framework in regards to house, space and lifestyle. They are interpreted by referring to the traditional and contemporary housing environments. The methods of data collection contain field study, questioner, and observation. In order to collect the data for evaluation approximately 150 people has been interviewed and 24 flats in 4 different main cities of Iran were studied. These houses are chosen based on the items, which are reflected in the scope of this study; the area of the house, yard, limitation of levels of the apartments, which is up to 6 floors and the type of space organization of the case studies. The case studies also reflect if the flexibility and privacy are satisfying, or whether they were matter of concern while organizing the spaces.

The first step of research methodology includes literature review for achieving the framework of the study. The literature is an outcome of various sources such as books, articles, thesis and available web sources. In the theoretical framework of the study issues related to lifestyle, house and space organization are investigated. In the second stage, a number of cases, which reflects certain characteristics of traditional and contemporary Iranian houses, are selected due to the framework that is obtained from theoretical part. Spatial organization with the attention to lifestyle is analyzed in the case study. At the end, the conclusion will be the assessment of lifestyle effects

on space organization and some principles of contemporary housing will be discovered through the structure is achieved from in theoretical background.



## Chapter 2

### CONCEPTUAL AND THEORETICAL FRAMEWORK

House is considered as a basic unit of social life but even a house should be related with householders psychologically and then it would be called home; so, user could define the concept of 'home' after the title of 'house'. Home needs personal attachments. Home has abstract meaning for the householders and householders make psychological and sociological connections with the house. Consequently, in some contexts, meaning of "house" may be equal to dwelling, residence, home, abode, lodging, accommodation, or housing.

This chapter will address some concepts and theories related to house from different viewpoints. Concept of house and people's interpretations on it represent types of insights to their world and lifestyle. The concept of house is the primary step to understand the joint spot of lifestyle and space and to study their different relationship levels leading to future approaches.

#### **2.1 Meaning and Roles of House**

The concept of house has been studied from various approaches in different fields of research such as psychological, phenomenological, sociological, economic and cultural. Therefore, several authors have mentioned that more integrative and interdisciplinary approach is needed and perspectives are interrelated. House, as a shelter from early periods of humanity has been a valuable place, each culture and race has grown up under this container. Martin Heidegger (1993) claims that both

building and dwelling are a single phenomenon, created by the individual consciousness out of its rootedness in culture, time, and place.

House is the center of the world for its inhabitants and according to its location it is the most significant building in stabilizing the place (Moore, 1974: 50). Moreover, according to Le Corbusier, house is a cover which, is in accordance with circumstances and makes an intimate relationship between the outside environment and human biological singularities. House is where a person or a family live and perform their opinions (Le Corbusier, 1975: 45).

A dwelling is an individual's primary anchor in its environment. It is capable of serving many functions from the simplest such as shelter, security and control up to more complex as privacy and status. From this perspective, the concept of dwellings is based on these functional relations between human beings and their houses. According to Rapaport (1969) house can be defined in the first place as an institution and not a building for complicated functions, it assists the cultural concerns under its influence. Even from the beginning, concept of house hasn't been just a function based space, rather than creating a desirable atmosphere for family as a communication atmosphere and a shelter. But the significant point is that the main duty of a house is to shelter. House is a social institution created by human due to rituals and cultural distributions. Next parts will focus on the concept of house by considering it as symbol and structure respectively.

### **2.1.1 House as Symbol**

With a glimpse to the variety of definitions and concepts, there are different roles of house. When the role of house is considered, it comes forward as the symbol or representatives of the users living inside. Therefore, house is called as an institution

of dwelling or a cultural phenomenon or living organism. . Each of these issues will be explained in detail in the following parts.

**House as an Institution of Dwelling:** House as an architectural building is a kind of institution, which enhances its position beyond the physical characters. It is an institution of complex behaviors with a particular order and organization, and obviously with particular purposes. House is not a formal institution but it is a container, which its contents are human as a (family) social group and its behaviors. House therefore is a place in which human was born and grew up; and everyone have their house image; where they born as an archetype of a house which is not just a simple image but a value and as Moor (2000) mentioned as the center of the world.

In one essence, house seems to be helping inhabitants due to find position in the world regarding to Norberg- Schulz (1993) and Lawrence (1987), house is the origin by which humankind begins everything from, explores and then returns. This feeling of constancy, going and coming back has a close relation with everyday life style and concept of house. Also, home is the place that belongs to inhabitants on the earth, and more importantly, it is their first container.

Before anything else there is an inner place and this being internal becomes meaningful with its relationship with outside; therefore it becomes a grand center and a small world, facing the big world's image. It could be stated that man builds his house according to the forms of creation and his information about this world and this knowledge and forms affect spatial organization, form and elements of house. According to Bachelard (1994) house as the institution of residence is a symbol of self, reflects personal identity and a reflection of personal human characteristics and

how man sees himself. Similarly, Cooper (1997) states "house as mirror of self" manifests people's feelings in a symbolic way and has a close relationship with individual and collective character of the family. Thus it can be deduced that we give identity to physical structure and change it from a mere habitat to home, what's more, we sometimes find our identity through this.

**House as a Cultural Phenomenon:** House is a cultural phenomenon and is introduced as a symbol of the culture. In effect, it is an institution in the first place, not only a building but also a cultural phenomenon. House associates feelings of solidarity, tribal dependence and social position. Spatial form and its order helps to us feel unity with certain people, past and future. We feel ourselves as a part of a big family, group and culture. Lawrence (1995) considers a role for the house to carry the culture and social expressions, which have psychological functions for each person. That is the main key in order to design for human being. Also, house is considered as a window to show how certain cultures are related with their physical environments (Altman & Chemers, 1998).

Culture and tradition of each country are people's identity and it is very effective on their lifestyle, social behavior and relationships. For example, Cumba element in Cypriot house is an embodiment of the Ottoman Islamic culture. Functionally, it is an enclosed extended space for having a connection with the street life. However, it is also representing the Ottoman identity in the island (Figure 4).



Figure 4: Cumba element in Cypriot house (Author, 2011; H. Pulhan, 2006)

Modern anthropologists and also researchers approach to the idea of culture as an entire way of life. Lang mentions “our beliefs and attitudes toward other people, the terrestrial environment, our roles in society, and the way we carry out daily activities are all parts of our culture” (Lang, 1987: 80). Also, system of rules and habits reflect ideals and create a lifestyle, guides behaviors and roles as well as a built system (Rapoport, 1991, pg. 14). Iranian houses are the good representations of Iranian culture, as they are with a high level of hierarchy, which has been shaped in a complex composition of functional and physical organization which shows their way of life and culture (Figure 5).

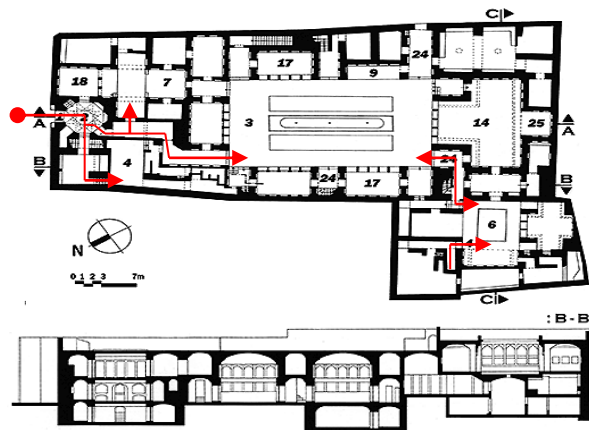


Figure 5: Spatial layout of traditional urban house of Iran (Ganjnameh, vol 14, 2003)

History, culture and everyday life are tied simultaneously with lives inside the houses. Also, about the house and family, Ghaznavian (2010) considers house in its common meaning as the center of family and the stage for playing family roles. Shape and its spatial organizations are under the influence of culture, which it belongs to and the positive aspect of house is to create a desirable atmosphere for family life as a social unit (Rapoport, 1964).

Secondly, the society is another important factor in housing as a cultural phenomenon. According to Bachelard (1994) house is a symbol of society, therefore throughout history it has been the partition between individuals and society and the origin of social, cultural, economic and spatial movements of mankind. House is a face by which people would like the society to know them, regarding to Tafakor (2006) house shows the owners' social position and the relationship between individual and society: Individuals with each other is shown by creating a sense of territory and/or position of the entrance.

**House as a living Organism:** House is not a neutral four-walled enclosure with “divine geometry” but an experience and a symbol of self, family, society and security. Humans change and evolve during time and if they reside at a certain house they wish to change it according to this evolution. Any addition or adaptations in the house could let the transformation of it. So, house is a living organism.

Clair Cooper (1997) gives the example of Jung house as:

“In 1923 the first round house was built, that house gave him a warm motherly feeling. Four years later he added an extension. Four years later he felt that he needed to have a separate room for privacy and meditation where no one could enter and be a corner for spiritual focus. Four years later he felt that he needed another space. A place that is open to the sky and nature. So

he added a yard and a covered balcony to the house. Finally after his wife died he felt the inner urge "to become who I am" and so focused his attention on the central and small part of the house."

That was a place where Jung describes:

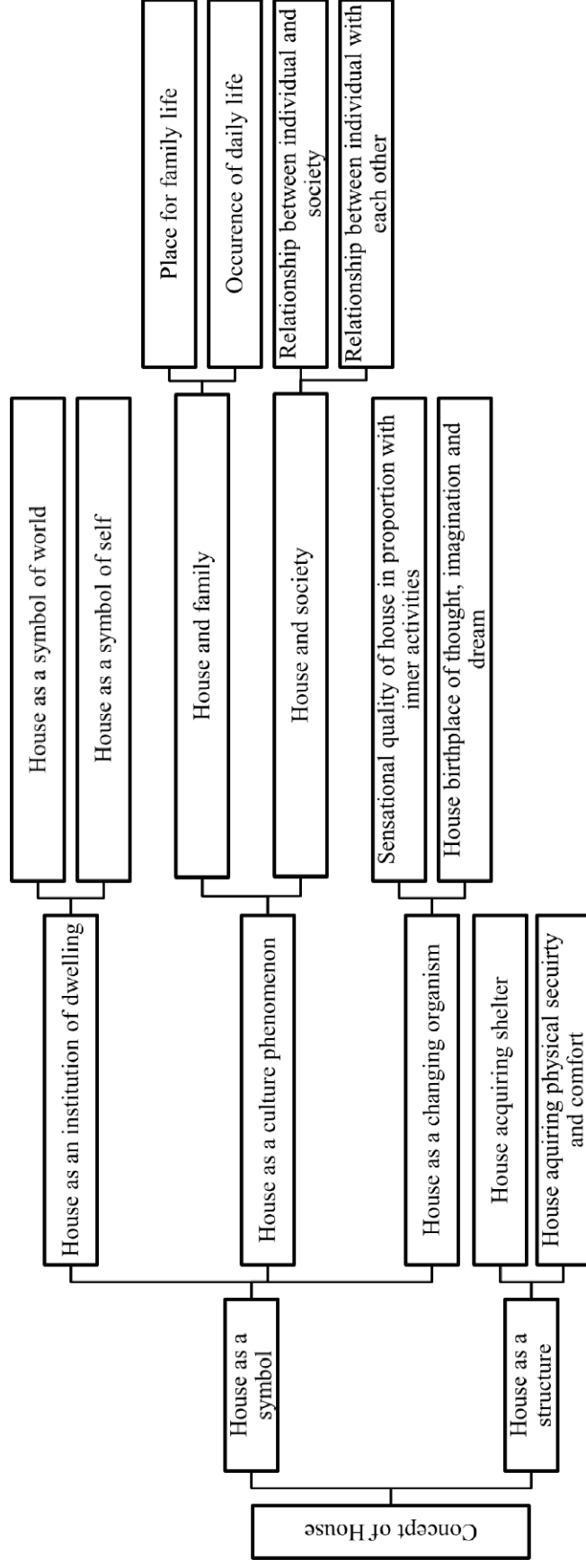
"Inside it I was at the focal point of my real life. I was really myself. From the very beginning I saw the building as a place for growth and evolution. I felt that there, I could be what I was, am and will be. Therefore that building is the visualization of a personal process." (Jung, 1989: 182, 183)

From this perspective, a house as living organism ought to have features which are mainly: sensational quality of house in proportion with inner activities and birthplace of thought, imagination, and dream.

### **2.1.2 House as a Structure**

The simplest role of a house is to provide a place for daily and primary activities such as cooking, eating and sleeping, and a safe shelter. People who live in a hazardous environment with persistent threats have a vision of protecting shell or strong castle of their house (Tafakor, 2006). The good examples for this issue are living in an unsafe neighborhood or war condition. In different circumstances humans in all ages have built their houses in order to be protected by basing on their lifestyle and economic power. On this issue, Rapoport (1987) mention that easiest role and duty of the house is to make a safe shelter. He investigates house as a specific building that should provide maximum security and a sense of security. In this case spatial organization is composed of defensive elements that require attention towards lifestyle and human beliefs. Thus, house could be interpreted as a structure that should have a proper character physically existential and technologically constant.

Table 1: Meaning and roles of house (presented by Author by basing on Rapoport, Cooper, Bachelard, Altman and Norberg-Schulz, 2012)





To sum up, all issues considered in this section define house as a symbol as well as being a structure. It is not just a structure but containing the life from birth to growing and die. As it is summarized in table 1, house has certain meanings and roles which are going to be considered for the definition of traditional Iranian houses. It is believed that understanding of traditional house will provide the needed medium for analyzing the contemporary housing in Iran.

## **2. Variety of House Types**

Buildings are the stable structures since the first agricultural settlements. However they have been exhibited different types due to certain circumstances. Physical characteristics of the houses and their spaces respond geographical, cultural and natural needs of each region and ethnicity. Therefore, houses are built according to these needs and we face with many different types of house. Under this scope, in this section, the changes in housing over the time will be briefly mentioned and then housing types due to physical relations are to be presented. Since a certain type of housing has been selected for the study of contemporary housing in Iran this section has certain definitions on which analysis are based.

### **2.2.1 Housing over the Time**

Time is always an affecting factor in formation and transformation of house. The industrial revolution seemingly has influenced the process of housing and its form. One key factor is the mass production, which reduced the construction work however the form of house had to follow the industrial productions, and the two factors of 'cost' and 'speed' proved it adequately to designers and constructors. With an increasing speed of changes from 19<sup>th</sup> century to present time the house form is nowadays considered as style. These modern changes have affected the quality of the modern house and contemporary human as well as human inhabitation, form

and increase in the number of houses parallel with population growth. The demographic, economic, cultural and social characters of urban areas are changing, particularly in those countries with undergoing fast urbanization (Jenkins, P., Smith, H. and Wang, Y.P., 2007).

Therefore, growth of urbanization and temporarily industrial revolution corresponding to the Second World War, have been a turning point in many social structures, as in habitat. According to Friedman (2002) these changes also resulted in demographic transformations, accelerating technological evolution and new life style trends. Therefore, the changes were a necessity for a new design paradigm in which there is a need for future house for being more flexible to the dynamic nature of human life (Friedman, 2002).

Considering these changes, Schoenauer (1994) studied and demonstrated form of houses under what condition of house replace or change with another form since the Second World War. The first individual houses were single unit houses, with a central courtyard. By considering the land shortage, expense issues and financial saving, people tend to use another form of individual houses which are such as one story houses, mezzanine, linked houses, and row houses that were smaller than the first individual houses.

However the aforesaid houses are more social ones. By referring to Schoenauer (1994) changes in the structure of family and society, growth of demands for residential caused raise of the land price and creates more security cause to build the shared residential complex. The technology improvement was however another effective factor in this change. This form of housing includes apartments, residential



Basically, housing is the most vigorous, intimate and, to some extent, unique fragment of the man-made environment. Indeed, the role of housing in life of the modern man develops further than the basic survival supplies. Certainly, rapid development of technologies, together with continuously changing socio-economical, demographic, and political circumstances all around the world, have their extensive impact on the spatial characteristics of the houses, from one side; and on variations in the user's demands, necessities, needs and expectations, from the other side. It can be understood that nowadays, apartments due to surveying the topic as the house typology are common types. Also, as the house change chronology, the attached houses are accepted as dominant pattern based on different conditions

### **2.2.2 House Types due to Physical Relations**

Physical qualities can be analyzed in relation to changing forms of the housing units, according to Alexander (1977) and Rahbar (1996), which consist of detached, semi-detached, and attached housing. All three types may be very greatly in scale and amount of accommodation provided. Many of the variations are purely matters of style rather than spatial arrangement or scale. Therefore, it seems that basic categories of housing relation to their spatial characteristics. In this framework, detached house may vary significantly in scale and number of accommodations. Similarly, attached housing is also diverse in scale and facilities.

**Detached housing:** A detached house or single-family detached house, also variously known as a single detached dwelling or separate house. Free standing residential buildings, which are situated on a site autonomously and are entangled by the garden along each of their sides or insides (central courtyard houses). Frequently, these types of houses are built as one or two story (duplex) or triplex buildings and

have separate plans (Figure 6&7) According to Tafazoli (2009), they are more expensive, and may provide more privacy and occasions in harmony with needs and desires of its residents.

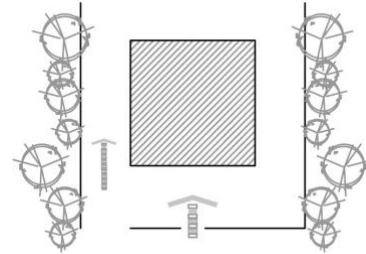


Figure 6: Detached house in north of Iran (Memar magazine)

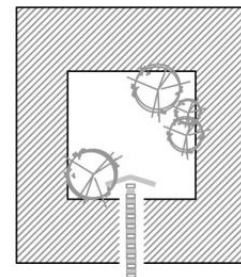


Figure 7: Detached house with central courtyard (Tabatabaee's house)

Also, known as single family detached, this means the home is a standalone structure with its own lot. Single-family residences differ from condominiums, townhomes, cooperatives, or multifamily homes, which are all attached residences (Weston, 2002). Typically only members of a single family live in this type of house, yet in the wider sense it refers to single party of people.

**Semi-detached housing:** Two separate houses share a common wall and have separate entrances. One of the two dwellings is attached side to each other, but not to any other dwelling or structure. A semi-detached dwelling has no dwelling either above it or below it and the two units together have open space on all sides (Crosbie, 2003). Semi-detached housing consists of pairs of houses built side by side as units

sharing a party wall or common spaces like garage or laundry and usually in such a way that each house's layout is a mirror image of its twin (Figure 8&9).

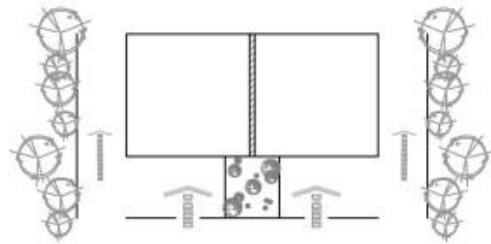


Figure 8: Semi-detached house joined by wall

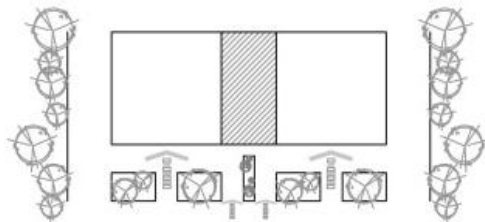


Figure 9: Semi-detached house joined by common space

Apart from houses which are linked with a common or certain space can be considered in this category. Schoenauer (1994) considers this type of units, which are connected together with garages and are designed as one floor, two floors, and mezzanine. In fact, they share a archetypal plan and are arranged in small groups, in order to repeat the scale and composition of the neighborhoods.

**Attached housing:** Attached houses are categorized as row houses and apartments, according to their spatial possessions. Due to the fact that such houses share a wall with its neighbor, there is lack of privacy in these houses (Alexander, 1977; 79-82). In general, attachments of housing units are realized in the horizontal or vertical axes which are named row houses and apartments respectively.

Row house: it is usually considered as “single family house which is joined to other similar houses by walls that partially extended from ground to roof, forming a connecting group of housing (Rahbar, 1996: 148). Row houses or low height housings are categorized by analogous planning principles, construction techniques, structural system, and material choice, alternating from one up to three story building, or duplex in one shred. In fact, row houses’ open spaces are typically divided into two parts, which are ‘public’ or ‘half-public’ open spaces, with its location at the frontside of the building, and ‘private’ open spaces at its back (Schneider, 1966; 241-273).

Row houses or terraced houses are similar and consist of several adjacent uniform units. A row of identical or mirror- image houses share sidewalls. The first and last of these houses is called an end terrace. So, these houses have horizontal attachment (Figure 10).

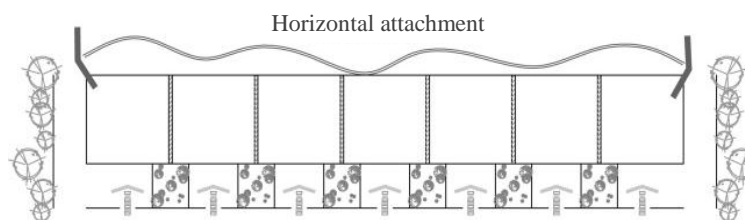


Figure 10: Row house

**Apartments (multi-story dwelling or shared residential complexes):** they refer to a building, which is built in order to provide simultaneously a number of families with the housing supplies. generally, apartment is a moderately self-contained residential unit in a building that frequently each of its units is bought by a person or rented out to some one.

Living in apartments is also more convenient than to own a house, as the general maintenance and landscaping is taken off by the owner. An apartment building, block of flats or apartment is a multi-unit dwelling made up several apartments or flats (Kara, 2010). According to Tafazoli (2009), in this type of housing, the family members are sharing the same common areas, which may include yard, carpark, and entrance hall. Where the building is a high-rise construction, it is termed a tower block (Figure 11).

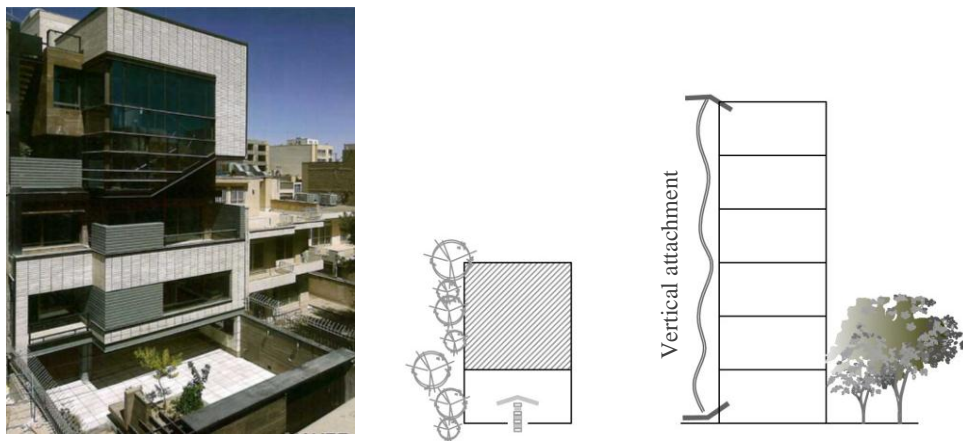
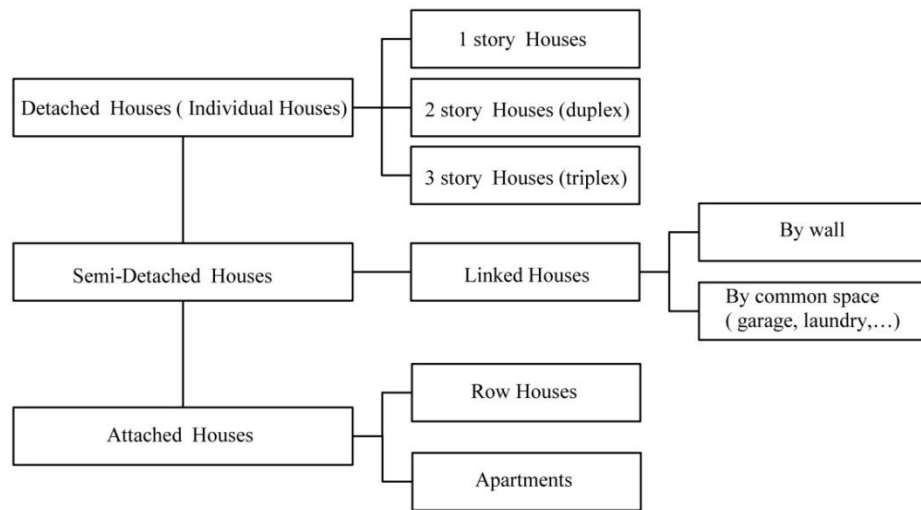


Figure 11: Apartment (Memar magazine, no. 58, 2009)

On balance, taking everything into consideration, it seems logical to say that all of the houses with different form can be categorized in these three terms (Table 3).



Table 3: Types of housing according to spatial characteristics (prepared by Auther, 2012)



### 2.3 Concept of Lifestyle

Lifestyle is one of the effective factors on people’s visions of the house, its form and organization. The reviewed concepts of house and different types of housing over the time indicate this fact. However, the concept of lifestyle is defined in various ways and conveys different meanings. Chaney claimed that ‘Lifestyles helps to make sense of what people do, and why they do it, and what does it mean to them and others’ (Chaney, 1996: 4). In this part, concept of lifestyle is explained more extensively with its different aspects. Besides, effective elements on lifestyle are mentioned.

Sociologists, anthropologists and even architects explained the concept of lifestyle in different ways. Rapoport (1998) as an architect pointed out that lifestyle is the most useful criterion in order to define groups, especially nowadays. All variables such as culture, world views and values and other features that are defined under the effect of aforesaid become relevant only when they influence lifestyle and thus choice, whether

among the city, suburb or small town/rural (Hummon, 1990), or of housing (including design and use) (Figure 12). Other aspects of culture, which not explicitly listed (e.g. education, class, race, ethnicity, religion, etc.) they are related to housing even if they affect lifestyle.

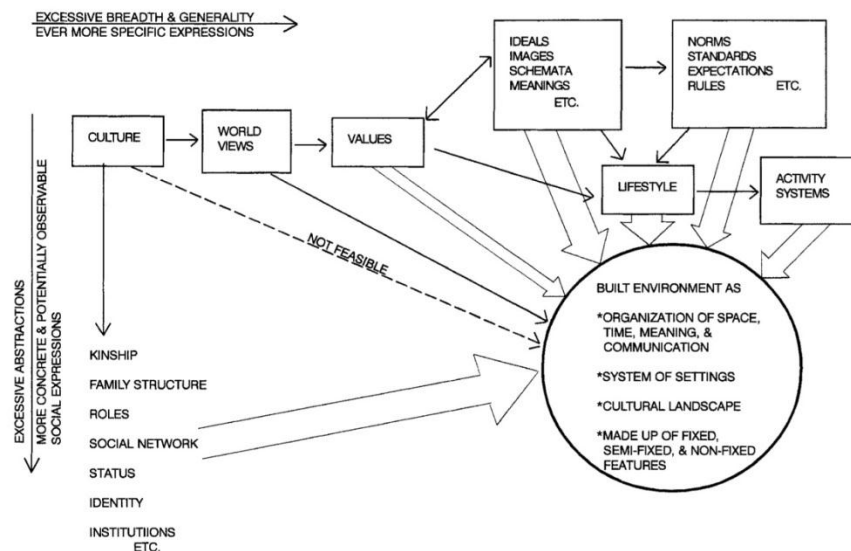


Figure 12: All of the factors effect on lifestyle (Rapoport, 1998)

Douglas (1996) as an anthropologist believed that there are different ways of life. According to her viewpoint the variety of lifestyles resulted in sub-cultures. Pisman (2007) mentions Adler (1933), Wirth (1938), Gans (1967) and Bourdieu (1979) are some of the foremost sociologists who have concretized the impression of lifestyles in the last 75 years. There is a clear evolution, from the idea of lifestyle as a very static concept, lifestyles defined by social class or culture, towards lifestyles as a more dynamic concept.

In the light of these statements lifestyle can be studied according to two concepts which are static and dynamic. When lifestyle according to static concept is reflected,

Solomon takes lifestyle as an exhibited 'set of shared values' (Solomon, 1994: 621). Lifestyles are patterned ways of investing certain aspects of everyday life with social or symbolic values; but this also means that lifestyles are conducts of playing with identity. Lifestyles are sets of tries and attitudes, which make sense in precise contexts (Chaney, 1996). Here, culture makes impact on the way of life for a group of people who share their perceptions, customs, and services that are interconnected, transferred, or passed from one generation to another through language or other ways. Lifestyle is the monotonous manifestation of subcultures and visually differentiates one subculture from another or from culture in the wider sense (Jensen, 2007).

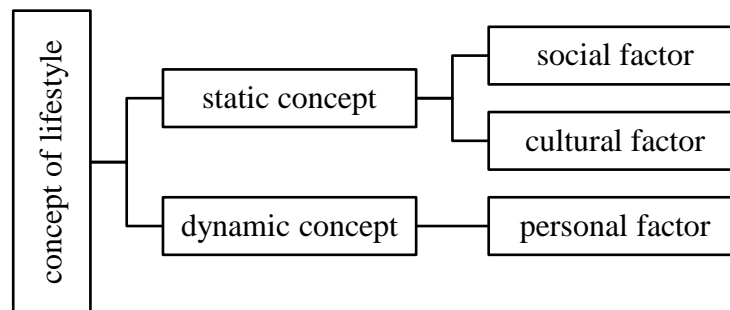
Furthermore, a lifestyle is a pattern of frequent acts that are both dynamic and in some ways the individual is unconscious. In this definition, lifestyle is based on beliefs about the world, and its consistency over time is guided by intentions to achieve ambitions. In other words, a lifestyle is a set of behaviors that are directed by the same main goal (Jensen, 2007). It is synchronized by (social) feedback and by access to artifacts.

'Lifestyles are routine practices, the routines incorporated into habits of dress, eating, methods of acting and favored surroundings in order to come across others; but the followed routines are instinctively open to change in the light of the transportable essence of self-identity' (Giddens 1991). Thus, authors such as Peter and Olson (1994: 463), Wedel and Kamakura (2000) define 'lifestyle' as 'the manner in which people treat their lives, as well as activities, interests, and estimations'. Also, lifestyle is the visual expression that distinguishes one man from another. Hawkins (1998) sees the lifestyle as an external expression of one's self-concept, which he says is the

entire thoughts of an individual and his/her feelings. Individual lifestyle is deeply tangled with self-identity. Lifestyle is perceived as a feature of the individual's expression of identity (Wilska 2002).

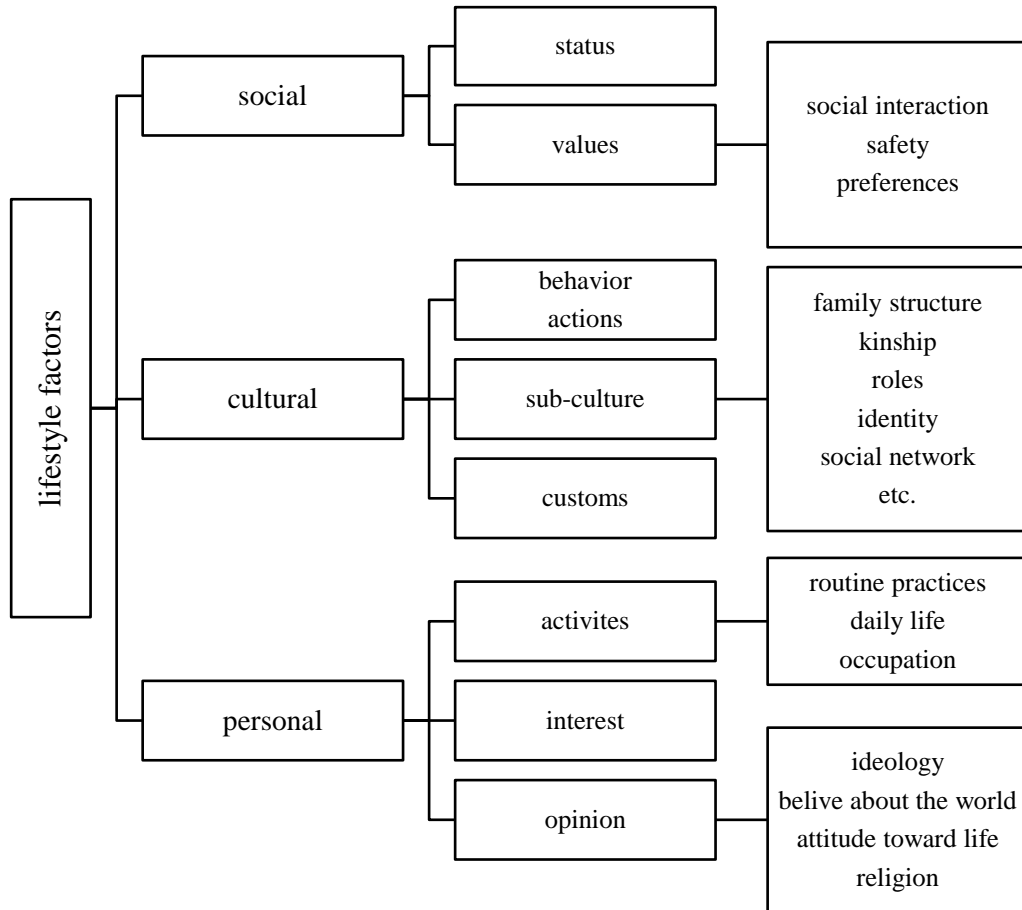
Totally, lifestyles are determined or influenced by factors which are in return become also components of lifestyle, which are social, cultural and personal (Table 4). These factors also have sub-factors that explain a man or a community's life style. Finally, the sub-groups coordinate in the process of analyzing the effects of lifestyle in house and way of organizing it. These factors are to be studied in the next part.

Table 4: Concept of lifestyle (prepared by Author, 2012)



By basing on the above scheme, lifestyle depends on social and cultural factors when static circumstances (or concepts) exist, and also on personal factors in dynamic circumstances. Lifestyle mechanism according to Erwin (1994), Rapoport (1991), Strauss (1976), and Wisner and Weible (1981) includes occupation, education, family origin, income, social status, gender, ethnicity, role, hobby, cultural customs, identity, consumption behavior, and family type and its size. These details are different from one culture to another, from one group to another, and from person to person. These elements could be categorized in three groups which are personal, cultural and social (Table 5).

Table 5: Elements of the concept of lifestyle (prepared by Auther, 2012)



In terms of personal factor, activities are manifest actions that include work, hobbies, social events, vacation, entertainment, community, shopping, sports, etc. For example "I often paint or study." Besides, being interested in some objects, events or themes such as family, home, job, community, recreation, fashion, food, media, achievements, etc. is the degree of excitement that accompanies both special and long-lasting attention to it. Finally, opinions are expressive beliefs (of oneself, social issues, politics, business, economics, education, products, future, culture, etc.) such as; a woman's position is in the home (Plummer; 1974, and Ewing et al.,2001).

Cultural components indicate norms that regulate acceptable and unacceptable behavior in a certain situation. Another element is set of customs which work as

services that periodically repeat in order to provide meanings and cultural symbols. Symbols and approved signs that are recognized by a community to have common meaning that are objects that are given meaning within a culture. Furthermore, sub-cultures exist for specific groups within the large society and culture, who share common values, beliefs, and patterns of practiced behavior. Needless to say cultural values differ according to different sub-cultures (Al-Homoud, Al-Oun and Abed. 2003).

The last set of affecting parameter on lifestyle is social factor. It is divided to main sub-groups as social status and values. Social status is social approval and person acceptance by others and generally by society. Values that are commonly defined as desirable, goals, varying in importance, that serve as guiding principles in people's lives. Therefore, values are also important lifestyle determinants. According to Vyncke (2002) social values include several factors. Some of them are social relation, security, and preferences. Social interaction creates network society and depended several parameters. Security is the result of belonging a social field and finally preferences including law, common parlance, and social regulation and disciplines that limiting people.

## **2.4 Lifestyle and House**

According to discussions in the previous parts an extensive and clear image of the factors that are affecting the way of life and house are step up. The social factor can be divided based on reciprocal relation to others and priorities, these factors affect the house related to "House as an Institution of Dwelling". In the other words, when it is represented with the social factor affect it more than other factors. This

impression happens through effort to balance the private and public part, privacy personal site, room numbers, defined parts and space enlargement (Gifford, 1997).

Cultural factor is investigated through the behavioral interactions, sub-cultures and customs. They include family structure, roles, and identities, which affect the insight to house that take house as “Cultural Phenomenon”. In other words, when the house is expressed as a cultural symbol, the cultural factors of the lifestyle can be studied. These factors affect the house space diversity, the way of combining them, dividing and hierarchies (Ghobadian, 1999).

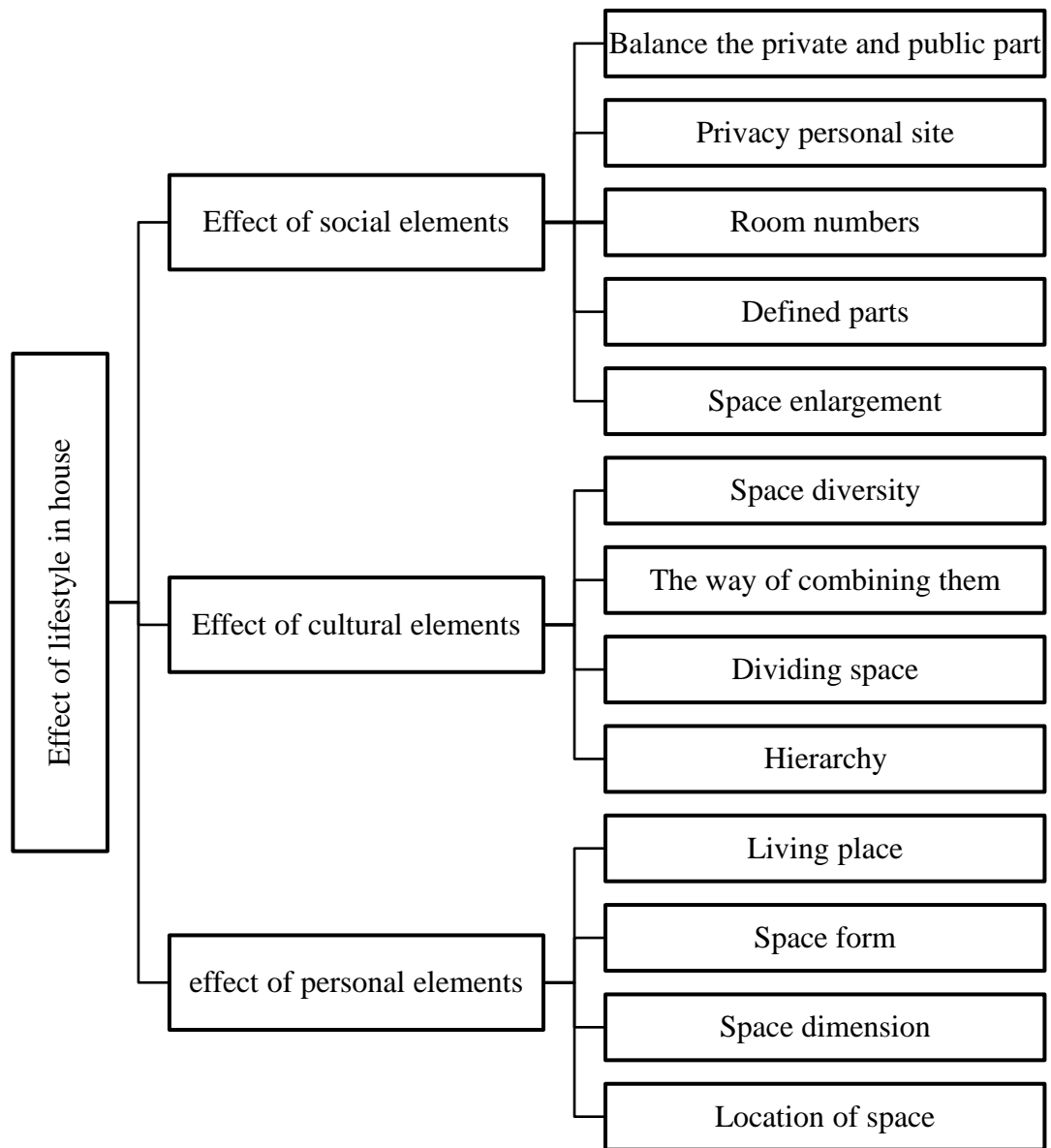
The last set of lifestyle factors is personal factor. These factors are based on a dynamic perception and more effective and mostly represent diversity of lifestyle’s spectrums. There is harmony between this set as the house concept and the house as living organism. As it was told, personal factors are divided to sub-components such as activities, interests and opinions that including these items religion, ideology, occupation and daily activates. These features affect the house through the living place, space form and dimension, location of space (Tafakor, 2006).

However, it can be said that the relationship between the lifestyle factors and the house concept as structure implicitly. These relationship set and relational categorization are shown in (table 6). It can be said that the three reviewed factors in lifestyle represent static and dynamic traits, according to triple insights, house is recognizable as variable institution of dwelling, cultural phenomenon and living organism. Thus, they affect the house and constitution in various ways.

All the studies that have been done about the lifestyle and effective factors on the way of each group of people's living are embodied in scope of a built structure. According to definitions and expressions about the concept of lifestyle and also its components, life styles of all the humans are for sure dependent on their traditions and history and also social behaviors are effective in a way. Each house type satisfies specific groups of residents according to aforesaid factors and in balance with life's circumstances. Traditional housing is a symbol of how people fulfilled their demands and tried to build an environment, which is capable of preparing all their cultural demands and also flexible in order to serve the family as a system, which possesses a specific space organization.



Table 6: Effect of lifestyle in spaces of house (prepared by Auther by basing on Gifford, Ghobadian and Tafakor, 2012)



## Chapter 3

### LIFESTYLE AND TRADITIONAL HOUSES IN IRAN

Rapoport (1969) statement proves that “Traditional house is the result of the collaboration of many people over many generations as well as the collaboration between makers and users of buildings and other artifacts”. It can be said that the house that was defined as traditional Iranian house hundred years ago, is the symbol of a major historical fact.

Since Safavid dynasty (1501) until the first period of Qajar dynasty(1781-1858), houses followed traditional Iranian architectural features in form of main and relational spaces. Most of houses in Iran categorized in two terms introverted (Daroungara) and extroverted (Boroungara) (Memarian, 1993) and these are also categorized as detached houses.

Various forms and structures were obtained in Iran due to climate diversity and zones’ vastness; however there is a significant set of common principles. All these buildings were built in order to fulfill people’s requirements (Arjmandi, 2010). Traditional builders have presented a series of logical solutions of human comfort and user’s demands (Maleki, 2011). The emphasis was on the relation between building and user.

Under this scope, it is necessary to firstly know spaces and their organization in traditional Iranian house in order to become familiar with the interaction between the house and user. So, the different spaces in traditional Iranian house are addressed in regards to open, semi-open, close spaces, and their spatial organizations.

### 3.1 Types of Spaces in Traditional Iranian House

Traditional Iranian houses have different forms but same space organization pattern. Haeri (2010) believes that all the houses, which built until 1920s, big or small, in any climate, have courtyard and the arrangement of subspaces around the courtyard follows a certain spatial module. However it is possible to see that some spaces are not present in every house or are used under another name.

Traditional Iranian houses have different spaces suitable for special activities. They are in harmony with Iranian lifestyle and inhabitants' needs. The physical feature of traditional Iranian houses regard to Mirmoghtadaee (2009) reflects natural, cultural needs and occupant's requirements. Traditional Iranian house's spaces can be divided into open, semi-open and closed spaces and each of them contain sub spaces (Mashhodi 1995, Moradi 1995 And Haeri 2010), (Figure 13).

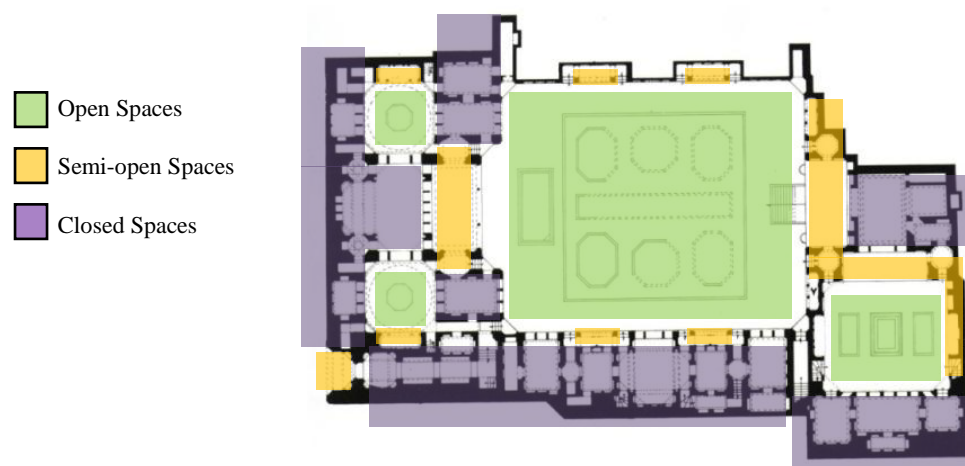


Figure 13: Type of spaces in traditional houses (Ganjnameh, vol. 1, 1996)

**Open Spaces:** It is the main location in an Iranian house. Placement of the open space and its relation with other spaces around is the most crucial issue in Iranian house. The courtyard is the main open space. It is categorized as entrance yard (*Birouni*), private courtyard (*Andarouni*), and backyard or service yard (*hayat poshti*). Sometimes the yard is located in lower level as “sunken garden” (Moradi, 1995, Pg. 149-172).

Apart from the yard, various ranges of open spaces are recognizable in Iranian house. According to Haeri (2010) these spaces originate the courtyard and are formed in different levels facing to the sky. There is a balcony (*Sofeh*) slightly higher from yard. *Mahtabi* is in the first floor and upper the *Sofeh* and the last upper level is the roof. Also, the open corridor to connect the places and sites in top floor named as ‘*Sharemi*’. These spaces are located in front of rooms in upper floor that are usable as added room if necessary by open doors and windows of rooms (Figure 14).

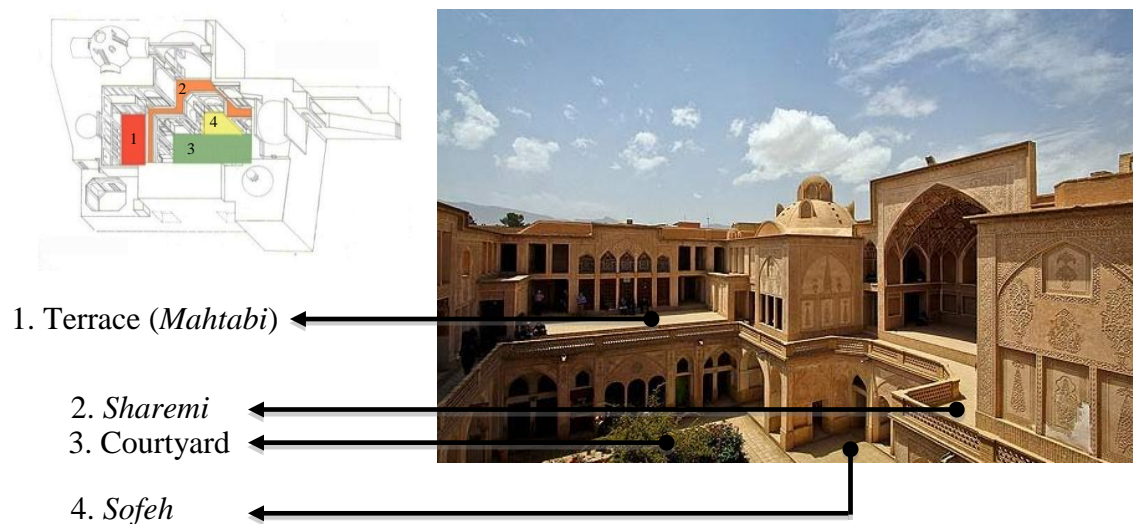


Figure 14: Kind of open spaces (Rahmani, 2012)

All of the life activities can take place in these open spaces by opening the doors and windows (Saremi, 1995). Also the open spaces overhangs the yard are being used for sleeping in spring and summer nights. So, the life is experienced in open and close space synchronic. The home resident can develop his/her activities and take the advantage the more various experience and freedom feeling in this spatial complexity of close and open space.

**Semi-open Space:** Between open and closed spaces there are middle spaces named as covered or semi-open space in Iranian houses. These covered spaces usually locate in order to create connection to the nature, light, natural ventilation and different alternatives for the residents and their interactions. Semi-open spaces have different sizes and functions. Their importance is as the close and open spaces (Tahbaz, 1995).

Some types of semi-open spaces named as *Eivan* that is a roofed semi-open space that is usually closed on three sides and open on the fourth which appears on the edge of a courtyard. Other semi-open space called “*Eivanche*” is a small *Eivan* (figure 15). Generally, they are located in lower floor, the yard, and rooms’ partition with the doors-windows around the yard. Semi-open spaces were for family gatherings and had the potential to be expanded to each other.



Figure 15: Kinds of semi-open (Eivan and Eivanche)

**Closed Spaces:** It is one of the existing spaces in Iranian architecture. The function and definition of closed space depends on open and semi-open spaces' status; including rooms and service areas. According to Mashhoudi (1995) the rooms were known by their morphology, the number of doors or windows; *panjdari*, as a room with five doors, *sedari*; as a room with three doors, or their location like; *balakhaneh*, as a room located on the second floor (Figure 16). Likewise, some of them are named according to the period (season) that they were used in (winter room and summer room). These rooms are usually organized around the courtyard in a manner that the summer rooms always face the north: far from the hot summer afternoon sun, whereas winter rooms are located in opposite side (Kheirabadi, 2000). These rooms sited in two parts; *Andarouni* (family zone) and *Birouni* (special part for guests). *Birouni* located near the entrance side; but *Andarouni* has spread in other sectors.



Figure 16: Kind of rooms as closed spaces (*panjdari* and *sedari*) (Author, 2009)

Moreover, service areas were in the close spaces. They were separated from living quarters. This split-up causes all service areas, such as kitchens, lavatories, storage, cellar and stables, to stay hidden and not affect inhabitants' comfort (Mirmoghtadaee, 2009) (Figure 17). Besides, Moradi (1995) claimed that there are no structures due to formulize general dimensions and lighting strategies, in certain patterns. The only

thing that can be observed general notes is the kitchen, which is exposed to the yard in ground floor and in the first floor a small kitchen inclined the common parts of *Andarouni* or *Birouni* in one floor or several floors.



Figure 17: Kind of service areas as closed spaces (Kitchen and Cellar)  
(Molahasani, 2011; Author,2009)

### 3.2 Spatial Organizations in Traditional Iranian House

In Iran, from Safavy dynasty (1501) to the first period of Qajar era (1781-1858), houses had the principles of traditional Iranian architecture in form of main and relational spaces. In general, most of the houses in Iran are categorized according to their introversion and extroversion (Memarian, 1993) and these are detached houses. But, it could be said the majority of traditional houses are introverted and all the spaces were arranged around a rectangular courtyard, which formed the link between various areas of the house.

The arrangement follows certain geometrical rules. According to Haji-Qassemi (2003), this geometry not only defines the general body of ensemble and gives shape to its every single detail, but also imposes a hierarchy to its different areas, which determine their locations and relationships in accordance with their character and importance. While harmoniously connected to each other in the design, areas of the

house enjoy complete independence and are always separated from the others by intermediary areas.

Totally, Iranian house is described as:

After passing through the entrance door, there is a small space called vestibule (Hashti), which is a waiting and resting space for guests till their host arrive to welcome them. After vestibule (Hashti) there is a corridor (Dalan), which guides people to exterior area (Birouni) or interior area (Andarouni). *Andaruni* was used by females and children, and the *Biruni* by males and guests (Einifar, 2003). After passing the courtyard as an open space, there are usually semi-open spaces. These spaces were unrestricted to open spaces and blocked were by a closed space. That is why these areas are also called covered areas. Closed spaces are rooms and private areas for individuals (Arjmandi, Tahir and et. al. 2010). Variety of rooms (three door room, five door room, *Tallar*, *Shahneshin* and *balakhane*) and variety of levels (cellar, downstairs, upstairs, roof) has made the house very diverse. The names of the spaces were usually dependent to their spatial position and form features.

Follow it, in this part are represented different types of space organization in Iranian traditional house and various types of connection between open, semi-open and close space.

**Central Space Organization:** traditional Iranian houses generally had central organization. Meiss (1990) claimed that central organization is related to hierarchy of spaces and the most valuable space is dominated in the center and it is surrounded with secondary spaces. In traditional Iranian houses, courtyard is usually the center point and a part of the house such as porches and rooms are in the surrounding of the



courtyard, and the direction of the spaces are also toward the central point (Leylian, et.al. 2010, Akhtarkavan, 2008), (Figure 18).

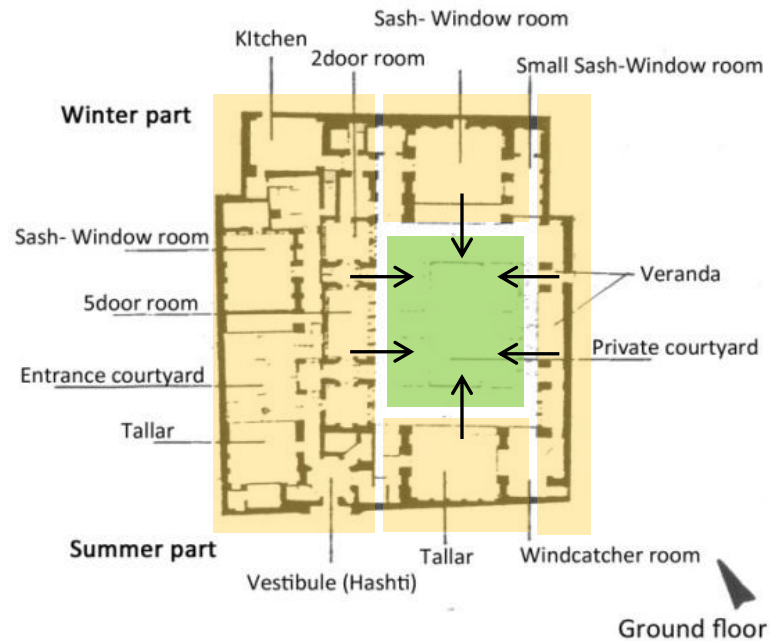


Figure 18: Central organization in Traditional house in Yazd  
(Based on Memarian, 1993)

**Clustered Space Organization:** Sometimes, clustered organization can be seen in the space organization of traditional Iran house. Salvan (1999) mentions that relating spaces can be repeating while they have similar form and are positioned to the same direction and also have the same function. There is also possibility to have clustered organization with the groups of spaces with no similarity in dimension, size, form and function. This type of cluster can be made by using axis and symmetry (Salvan, 1999). According to these definitions, one of the noticeable cluster organization in traditional Iranian house is composed of several central yard surrounded with spaces that constitute an extended house (Figure 19).

Other form of clusters are also created in winter and summer quarters of the house and each quarter includes several rectangular spaces in different sizes such as three doors room (Seh dari) and five doors room (Panj dari) and porches (Eskandari, 2011) (Figure 20).

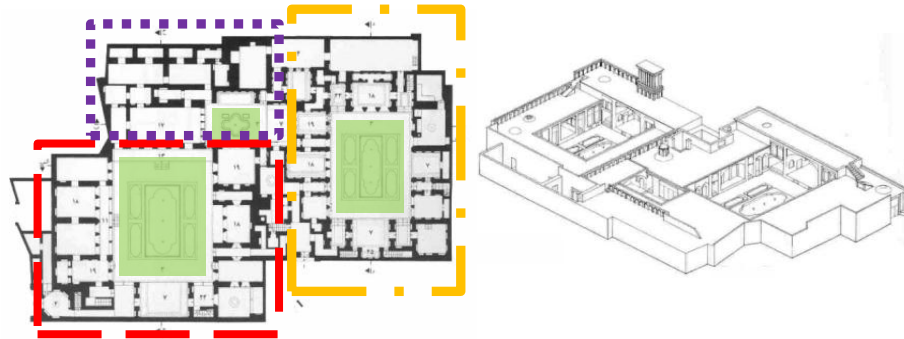


Figure 19: Clustered organization in Traditional house in Yazd  
(Based on Ganjnameh, vol. 14, 2003)

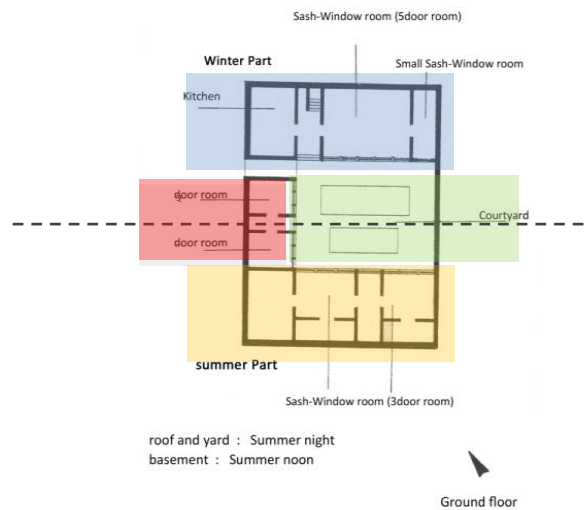


Figure 20: Clustered organization in Traditional house in Shiraz  
(Based on Memarian, 1993)

Above all, there is certain regularity and coordination dominate the space relations in traditional Iranian house.

The relationship between the interior spaces of the house regarding to Eskandari (2011) is created in two main forms. In the first type, which is called adjacent space, openings such as doors and glass partitions are the separating elements between the. The second type is the flowing space, in which spaces are not completely separated and there is a common space in between them (Chen, 2011). The common spaces are small spaces such as reception halls and transitional spaces such as corridors. (Chen, 2011). In most of the houses two forms of space linkage are found, although in few cases the connections of spaces are the adjacent space (Figure 21).

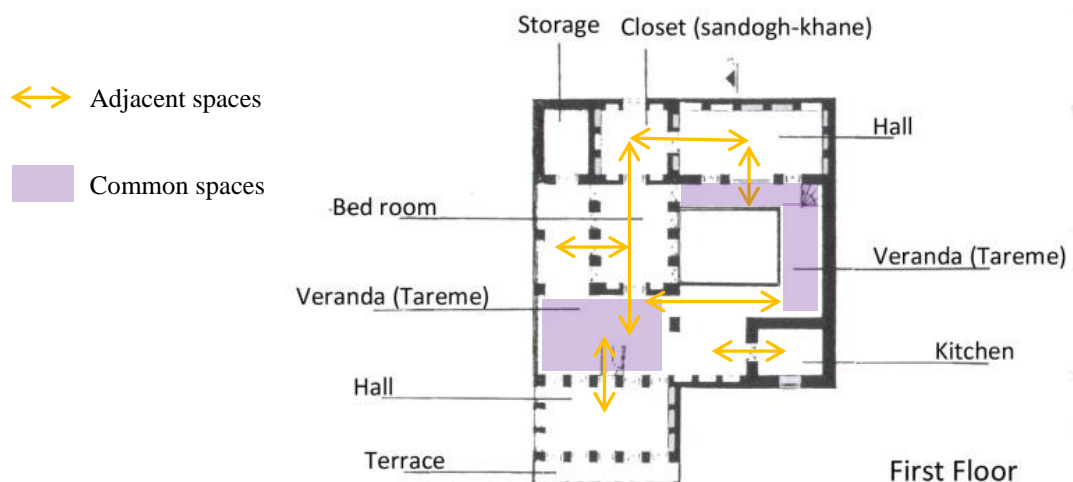


Figure 21: Relationship between spaces in a traditional house in Boshehr (Based on Memarian, 1993)

Additionally, according to Haeri (1996), however arrangement of spaces in the houses is different from each other, but in general there is a sequence from open space to semi open space and end to closed space (Figure 22).

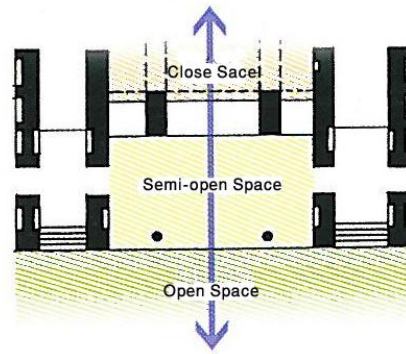


Figure 22: Spatial in traditional Iranian house (Based on Haeri, 2010)

### 3.3 Traditional Iranian Lifestyle

Iranian race is a complex of vast and extended range of different nations with various cultures and customs. The fact along with geographical and climate diversity leads to very different and propagated life style under the name Iran. This country contains territories of different origins and many old beliefs and ethics such as monotheistic religions. Islam was combined with Iranian cultural ceremonies and beliefs; even social structures extensively were affected. The researchers consider two eras, before and after Islam, in order to address the historical, cultural and social process and phenomena of cultural and ethics diversification (Omer, 2006). Also Armaki (2007) claims that maximized Islam believers constitute the main structure the style named as traditional Iranian lifestyle. Besides, family has the base role in Iranian life.

According to Mashhodi (1995) the family structure is the primary social unit in two approaches in order to form the ethic and cultural personality, and appearance representing the religious values as a Muslim. Therefore, family system and its pattern is the first container surveying the Iranian lifestyle. Iranian traditional family is extended. In other words, the family develops by increasing members or linking with other families (Mirmoghtadae 2009). The family extends in vertical approach,

the series the successive generation and horizontal approach; Birth, and marriage. Family record, children birth and members marriage increase the unit.

In this pattern, personal identity as a family member is based on his/her role and situation. The men have main and determinant role due to the society public values and social norms (Ladier-Fouladi, 2002). Home and property ownership, family and clan title and name, social activity and decision making role focused in men personality. The sons are inheritor their fathers' social and cultural patterns.

Women are affected by the social norms and values play. Their roles in the family; they are generally on the second step after men. In regard to Soltanzadeh, (2005) trends produce different forms of economic, cultural and social roles for them. Also, children breeding, housewifery and matronage, and some home jobs such as carpet weaving and textile weaving are the woman's work examples. Daughters grow up in the same way. In this system, higher generation and old people are valuable and respected. So, family's elder and lords those generally are men whom play special role of decision making and family establishment. Finally it can be said that the members' roles and placements are pre-arranged so the member-family close relation is not insignificant.

Family's relation with the outside has different approaches. One of them is the result of member and society relation. For example men transfer some parts of their outdoor relations into the house. In other words, the outside world and society are connected to the house by means of men's relations (Pirnia, 2001). Generally women communicated with other women in family frame and neighborhood. Other relation series including is the result of relative relation. Family greeting is an Iranian value.

According to Asadi and Tahir (2011) family meeting is a main part of family relations.

In addition neighbors and the relations between them is an important aspect of Iranian family relations. Islam focuses on respecting and looking up the neighbors. They related to each other in different levels and aspects from daily and need-based relation to aim relation in neighborhood. A part of the relation was observable in home and between family and the other parts on as an expanded society (Soltanzadeh, 2005). The guest is said as God's company in Iranian culture and they esteem the guest venerably. Finally, the last family relation with outside was the traditional ceremonies and rites. Families sometimes hold these ceremonies and they were the host. Islamic celebration (*Eyd*) and ceremonies, national celebration, family ceremonies such as marriage, anniversaries are the examples of these rites and ceremony are held by families in different scale of relatives, and neighborhood.

Some religious-based ceremonies should be noted to address the Iranian traditional lifestyle completely. Belief the inseparable linkage between religion and world in Islamic view represents it as a complete life style. It means that of the service and religious mortality observation, the religious value obedience in all personal and social life aspects and proper relation to other people in all of the their life are significant and considerable.

### **3.4 Effect of lifestyle in spatial organization of the Traditional Iranian House**

Space organization is an important subject in the theory of architecture, which can explain a way of living or living habits and culture of a society. Also Iranian house's

functionality, covering, calmness, and structure were based on different necessary elements, and related to that lifestyle and culture (Pirnia, 2002: 159). Thus, investigations on traditional Iranian lifestyle can illustrate its effects in the spatial organization.

Traditional Iranian house is the combination of several different open, semi-open and closed spaces that articulately mingle the lifestyle and house together. This combination, by concentrating on the spatial figures and the ability of movement and circulation, tried to create a useful space for dwellers (Shabani, M.M., Tahir. M.M., Arjmandi, H., Che-Ani, A.I., Abdullah, N.A.G., Usman, I.M.S., 2010). In addition, regarding to Haeri (2010) the space organization in traditional house had same importance as the structure, lifestyle, norms and values. He mentions that land parcel, its location, geographical, and cultural factors acting upon it. had direct effect on structure of Iranian house. Although, in this case, effect of lifestyle was not direct it is influential in the formation of house.

Moreover, effect of lifestyle could be investigated to the by interactions of person, culture, and society with space. In this part, these elements of lifestyle and their effects on spatial organization of traditional Iranian organization is discussed.

#### **3.4.1 Effects of Personal Factors**

It can be said, the role and place which a family considers for a person is an effective personal factor in organizing the spatial of Iranian houses. These factors are divided into two groups basing on the concept of gender and age. According to Nasir-i-din, (1985) and Mazumdar (1997) religion and religious beliefs are effective too. Therefore, the place that is considered for women in the family leads to the creation of inner spaces (*Andarouni*) and spaces which are specialized for their activities

(Memarian and Sadughi, 2011). These spaces contain the private courtyard and its surrounding spaces. The *Andarouni* is placed lower than the exterior space (*Birouni*) in a hierarchy and does not have a direct connection with outside of the house (Figure 23). Because of the Islam belief in *Mahram*, sexual segregation or the division of space between women and strangers (men) was formed (khatib-chahidi, 1993: 115).

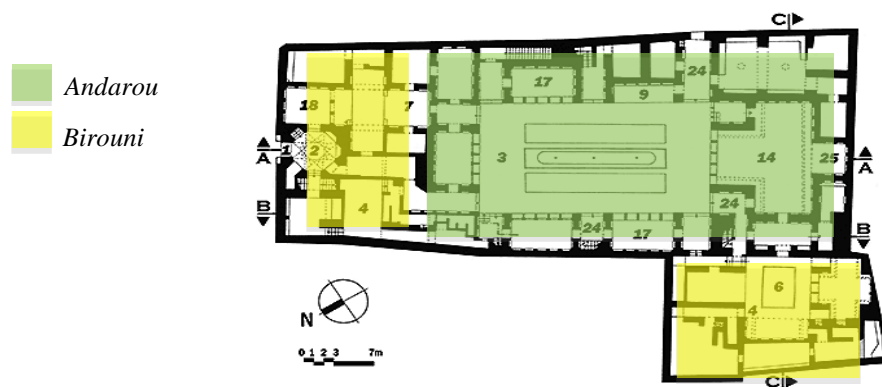


Figure 23: *Andarouni* and *Birouni* (Based on Ganjnameh, Vol. 14, 2003)

*Andarouni* contained other spaces such as (open, semi-open and close spaces), in a traditional Iranian house. The main space was the private courtyard. According to Pirnia (2002) it was a place for some activities such as family gathering, relationships, the play of children, doing chores by women and it had suitable special qualities for the free time. *Mahtabi* and *Sofeh* are other kinds of open spaces which were placed around the interior courtyard with different levels. They were used for resting, sleeping and other daily activities (Haeri, 1996).

Around the inner yard, Moradi (1995) mentioned that, there were semi-open spaces in which different activities such as carpet weaving and cloth-weaving were done. Porches were used for family gathering, entertaining and eating in some seasons.



Connection between the yard and other close was through these semi-open spaces (Figure 24). Some of them were used for movement and circulation between the spaces (Tafakor, 2006). Some of the semi-open spaces connected the close spaces together. These spaces were connected to each other through internal connections and by semi-open spaces.



Figure 24: Connection between open and close space with Semi- open space (Author, 2009)

Closed spaces around the private yard were formed in different levels. Most of these spaces were adjacent to the inner yard, thus their position were higher; as a consequent their connection via circulation and view was increased. Mashhodi (1995), Moradi (1995) and Pirnia (2001) maintained close spaces contain different rooms like two-door room (*2-dari*), three-door room (*3- dari*), *Ghoshvare* and etc. Besides, kitchen and service spaces with their own special qualities were connected to the inner yard (Figure 25). Daily activities were done in two-door room and three-door room and included carpet-weaving, taking care of children and so on (figure 26). In these spaces the young persons, because of their age, were in upstairs rooms such as *Goshvare* or *Balakhaneh*. The elderly were in the center and close spaces.

Since the close spaces were far from the inner yard, they were more private such as *pastoo* and were used for praying, studying and so on.

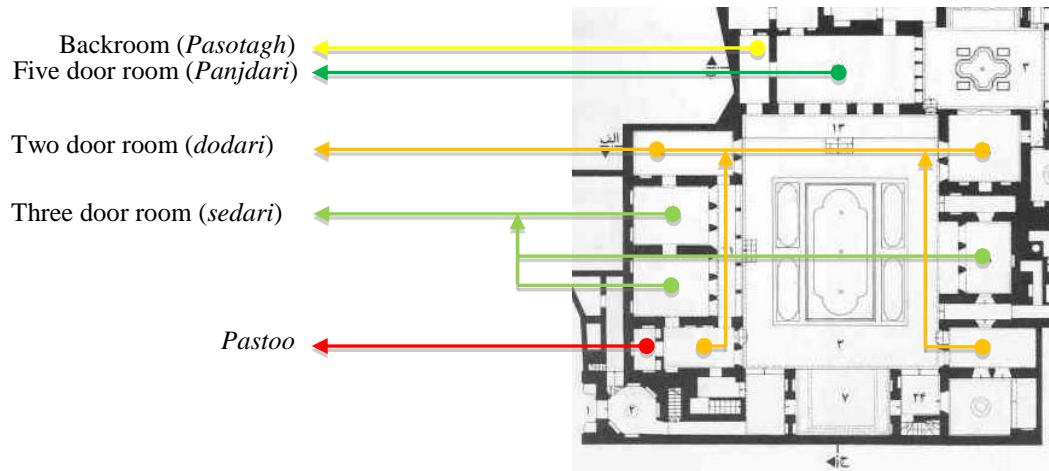


Figure 25: Rooms in private courtyard of a traditional Iranian house (Based on Ganjnameh, vol. 14, 2003)



Figure 26: Daily activities in traditional house spaces (Saati, 2011)

In the division of an Iranian house into different spaces, the outer space was placed in the male parts and was in connection with outside of the house. It was a place for many activities. Besides, based on religious ideas about sexual segregation, this space was used specially for strangers and people who were not related to family (Memarian and Brown, 2006). The *Andaruni* and *Birouni*'s spaces were construction in central form and around the central yard. According to Saremi and Radmard

(1997) this could be because of people's belief in monotheism or a symbol of paradise. But the more important issues were the family system because of the importance of its members' identity and regional subjects.

### 3.4.2 Effects of Cultural Factors

As it has been mentioned, family has a great status in Iran. It is a social organization rooted in tribal and religious characteristics and house is the base of family. According to Mirmoghtadaee (2009) in the past, an Iranian family grew large and extended and this could happen in an Iranian house. Therefore, as the family grew larger, the house was developed too. As the Iranian house with its different spaces such as *Andarouni* and *Birouni*, and their subdivisions like open, semi-open and closed spaces were developed the organization of it became more complex. This organization was a combination of several inner (*Andarouni*), outer (*Birouni*) and service spaces (Memarian, 1991) (Figure 27). Sometimes the service spaces were divided into different parts in the process of development. The organization pattern for an Iranian house was formed in a cluster organization, which means there was a connection between outer and inner spaces, outer spaces with each other and inner spaces with each other.

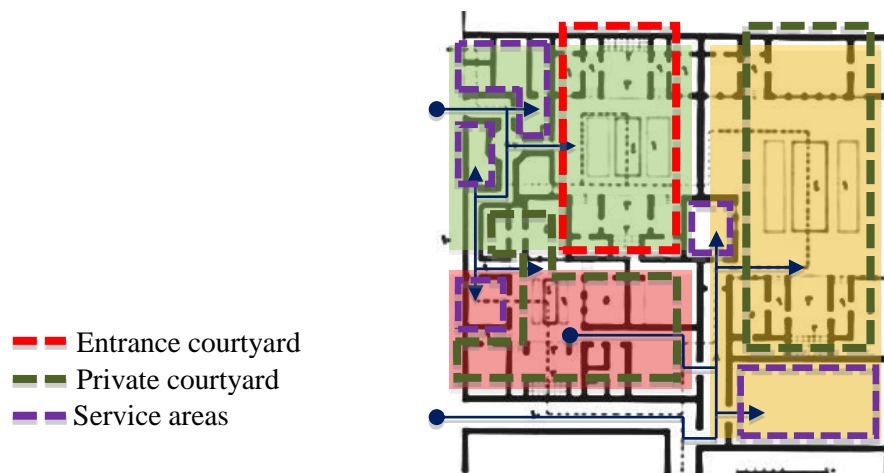


Figure 27: Combination of *Andarouni*, *Birouni* and service spaces

In this process, the function of some spaces was a mixture together and sometimes it was specialized. The common spaces in a developed house were a place for partnership among the inhabitants, and contained open spaces, service and public spaces. According to Pirnia (2001) sometimes there was a vertical development. In addition to a cluster organization there was a vertical organization around open spaces. Additionally, man-based approach dominant the society, men's role, social position and their social relationships effects on house lead to outdoor parts (*Birouni*), guest and occupation areas (Memarian and Brown, 1996:45) (figure 28). Entrance spaces developed spatially due to this situation and there is distinctive and professional space according to complex linear and radial organization.



Figure 28: Guest room in outer part (*birouni*) in traditional house (Saati, 2011)

Holding religious and national rituals in the house influenced its development and caused dedication of a special area for the ceremonies. In regard to Haeri (2010) this created an active organization besides the static one and created a construction which could be developed easily or could accept more functions. This organization helped to create flexible and active spaces.

### 3.4.3 Effects of Social Factors

The relation between an Iranian family and outside influenced its organization in different ways. The division of house into outer (*Birouni*) and inner (*Andarouni*) spaces made the '*Andarouni*' as a private place especially for women. Actually it was a place for the relation between women. The '*Birouni*' was for male relationships, and was separated from the '*Andarouni*' (Einifar, 2003). Its space, with the most primitive division, had a limitation in its view and used the middle spaces too. This matter caused a double access or specialization. The importance of family relationships among Iranians caused the specialization in spaces such as the five-door room (*Panjdari*), Hall (*Tallar*), '*Shahneshin*' and '*Shekamdaride*' (Figure 29). These spaces had more dimensions and were embellished (Labaf-Khanigi, 1995). They also had a view from *Andarouni* and *Birouni*, which means in inner and outer spaces there were same places for guests.

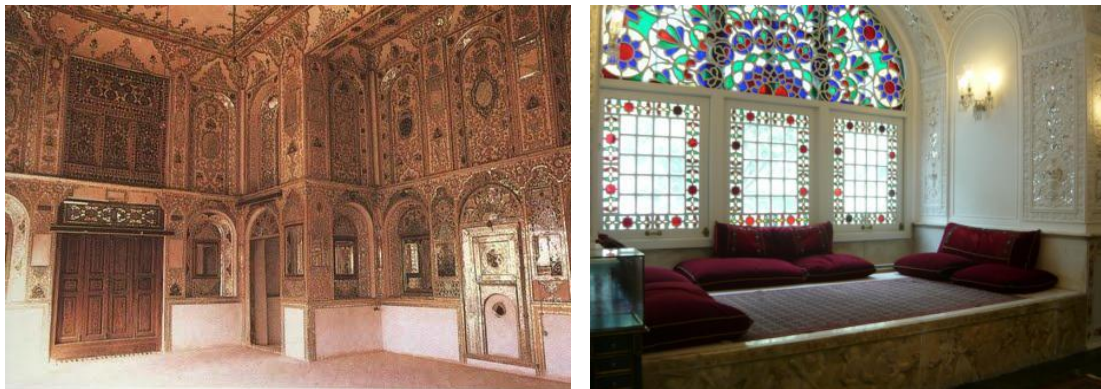


Figure 29: Rooms for entertaining guests in traditional Iranian house (*Tallar* and *shahneshin*)( Molahasani, 2011)

In addition to these factors, neighborhood relationships caused another form of space, which affected the entrance space, apart from *Birouni* and *Andarouni*. Entrance part was divided into several spaces in which were mainly semi-open and closed, and were formed in a linear style. *Dargah*, vestibule (*Hashti*), and corridors (*Dallan*) are special parts of the entrance in an Iranian house (Leylian, Amirkhani,

Bemanian and Abedi, 2010) (Figure30). Sometimes there was a connection between the entrance and the spaces in higher levels such as the roof by stairs. Generally, all of the spaces in an Iranian house served the life of family. Even the roof had its own function for the family.

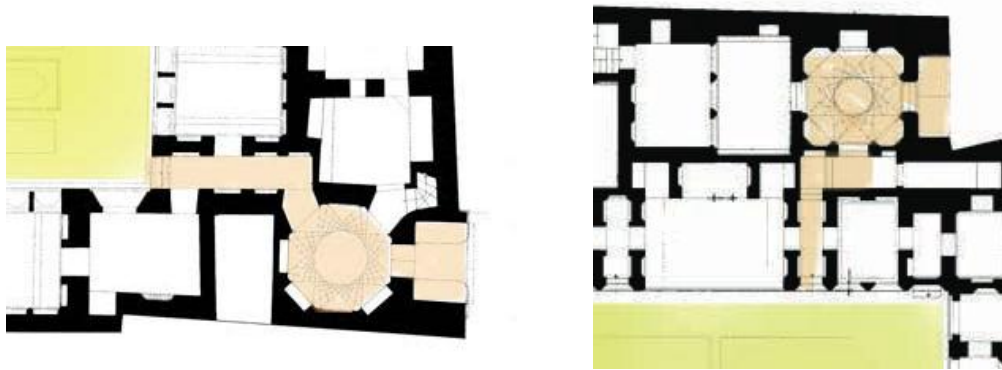


Figure 30: Entrance spaces in traditional house

After analyzing aforesaid factors and their effects on social, personal and cultural aspects in traditional houses' spatial organization it is noteworthy to mention all the items and the impact they made in more a detailed way. Also it is shown that flexibility and privacy is more obviously understandable through the focused study on these items (Table 7).

Table 7: lifestyle factors and their effects on spatial organization of traditional houses (prepared by Author, 2012)

<b>Factors</b>	<b>Sub – fsctores</b>	<b>Effects</b>
<b>Personal</b>	Islamic tradition	<ul style="list-style-type: none"> <li>- Centralism</li> <li>- Private area (<i>Andarouni</i>)</li> <li>- Public area (<i>Birouni</i>)</li> <li>- Create privacy with different parts and levels</li> </ul>
	Daily activities (sleeping, cooking, eating, the play of children, carpet weaving, and family gathering)	<ul style="list-style-type: none"> <li>-Variety of spaces</li> <li>- These spaces located in <i>Andarouni</i></li> <li>- Create different rooms</li> <li>- Dimension and form of rooms related with activities do in it (<i>dodari, sedari, goshvare</i>)</li> <li>- Using open spaces (privacy courtyard, <i>Sofeh, Mahtabi</i>)</li> <li>- Using semi-open ( porch “ivan”)</li> </ul>
<b>cultural</b>	Iranian cultural traditions	<ul style="list-style-type: none"> <li>- Divided spaces (Create privacy)</li> <li>- Comibined spaces for holding ceremonies (flexibale spaces)</li> <li>- Hierarchy between spaces</li> </ul>
	Extended family	- Cluster organization
	Man and his guest (Patriarchy)	<ul style="list-style-type: none"> <li>- Birouni</li> <li>- Hierarchy between <i>Birouni</i> and <i>Andarouni</i></li> </ul>
	Woman	- Andarouni
<b>social</b>	Social interaction	<ul style="list-style-type: none"> <li>- double circulation system 1. guide guests to <i>Buironi</i> 2. guide guests to <i>Andarouni</i> (create privacy)</li> <li>- <i>Hashti</i>, for negotiation, quick and unofficial meetings, exchange of necessities</li> <li>- Number, enlargement, and definition of spaces harmony with inhabitant desires (flexible spaces)</li> <li>- Create luxury rooms (Guest room, <i>panjdari, Shah neshin, Tallar</i>)</li> </ul>

One of the most important factors in the shaping process of traditional house was the climate. According to different climate zones in Iran, traditional houses have different sections which are used in summer and winter. These sections are not defined just based on weather condition but other important reason for this zoning is the matter of privacy, which is directly a subsequent of culture. From old times until now it was important for Iranian family to have certain hierarchies in privacy, whether between the inhabitants, based on gender and age, or between inhabitants of one house and people from outside of the family.

Based on the collected information and studies about the lifestyle of traditional Iranian family and also their corresponding houses with a complete well designed spatial organization, the framework and system of these houses obviously is based on the cultural issues of people, and social life has an interaction with the family life among the filter of traditional house. The existing situation of housing in contemporary Iran is a combination of cultural matters that still are a common point among the families and also sets of principles, which are applied to some extent according to rules and regulations.

Privacy and flexibility of the space are still in the place of great importance for Iranian families and these factors have direct relationship with the spatial organization. Traditional houses are clearly following principles in order to be pleasant as the very first social community centers. The current study aims to show how life style is fitting in the scope of contemporary form of houses? Whether they are able to prepare basic factors of privacy and accurate relation between spaces and to sum up, is the new spatial organization pattern of Iranian house fit to the contemporary life style? Considering that the whole life style has not been changed



and these people still kept parts of traditional culture as some additions to their modernized way of living.

## Chapter 4

# CONTEMPORARY HOUSE IN IRAN AND ITS SPATIAL ORGANIZATION

Iranian houses have been started to change since the second period of Qajar dynasty (1853). Their extreme changes started from the first Pahlavi era (1925) because, in accordance to Eiraji (2011), there were some effects of Europe and even some eastern countries in earlier 20<sup>th</sup> century on Iranian culture, architecture and Iranians became more interested in modern world and modern architecture as well.

According to Houvansian (1970; 35-36), Al-e-Ahmad (1978; 155), Mokhaber (1996; 38), Marefat (1996; 130) and Fakohi (2004; 476-477) fundamental changes in architecture started from Pahlavi period. In this era, the government started to live the past behind and import features of western life in Iranian culture and life style. Fascist attitude spread in the society, they tried to accept modernism, and made combinations of architecture of ancient Iran and European patterns, and finally utilized new materials such as concrete, steel, and glass in order to facilitate the structure and obey aesthetic rules of time. As a consequence, forms of houses have changed. Also, since the beginning of 20th century, global changes such as advancement in communications affected Iranian society. Transformations of urban structure, growth of population, and rise of new careers have led not only to massive changes in life styles, but also in the rise of small-scale houses.

The new style has been responsive to the country's increasing housing demands. In general, they are the new high-rise housings look like mass boxes. According to Madanipour (1998), change of building patterns started from an Inward-looking, Low-rise Courtyard House (1) to an Outward-looking, Medium-rised apartment with a Courtyard (2), and High-rise Apartment (3) (Figure 31).

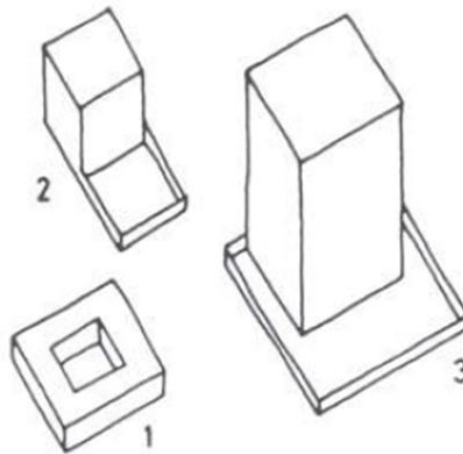


Figure 31: pattern of housing changes (Madanipour, 1998)

In this chapter, contemporary apartments which are composed of vertically attached housing units are focused and the ones selected at different cities in Iran are examined and analyzed for understanding of effects of lifestyle on space. The chapter brings up types of spaces in contemporary houses and space organizations by basing on observations at certain contemporary housing in Iran. Types of spatial organization are discussed and spatial relationships are analyzed. Contemporary Iranian lifestyle has its own special influences on the spatial organization of houses and amongst them there are some factors with major effects, they are individual, cultural and social factors; which are also investigated in the same chapter to give a

perspective of which influences of Iranian lifestyle could be observed on spatial organization of contemporary houses in general.

#### **4.1 Rules and Regulations of Contemporary Housing in Iran**

New patterns of Iranian house born by modern and new functions, in fact architecture of houses is becoming more simple and small and the most important circumstance of becoming modern in the houses is to use the maximum space which is itself one of the key features of modern architecture (Fazeli, 2006). Also policies and plans of government and municipality in relation to urban spaces, housing and mass production, have important roles in the way of space organization in contemporary house. Utilizing these standards cause changes in the style of the house and its internal relations.

It is noteworthy to say that there are many rules and regulations in construction such as height limitation of floors, number of floors, car park areas, closed, open and semi-open spaces, structure of building, building's fire protection, and energy saving, etc. all these factors have serious influence on spatial organization of the buildings and they are collected under 20 topics for designers and constructors. These are the technical rules and control order of construction, which should be considered during the process of design, calculations, construction, usage and maintenance of the building to prepare safety, energy efficiency and to be economic. These are the regulations applied by all constructors in the country.

These rules are mostly used during the construction process and architects are mostly related to the third, fourth and fifteenth; therefore most of other topics are related to mechanical and electronic engineers' duties. It is also to mention that each building

has a license from municipality which mentions itself other sets of rules and regulations; such as number of the floors and car parks.

**Topic third** includes rules about safety, fire escapes and other important issues related to protections. Location and proportions of the building, structure types, material and structure protection, stair case and elevator, walls and finishing, mechanical and electronic equipment, and fire protection systems are mentioned as details in this topic.

**Topic fourth** is about to supervise the preparation of at least minimum requirements of the users such as proportion of spaces, lighting and suitable ventilation and other common regulations. These rules must be obeyed for all of to be constructed buildings. In case of housing these rules consider walls, roofs and columns, stairs and stair cases, escapes, corridors and ramps, elevators, doors and windows, elevation of the building and common spaces.

**Topic fifteenth** is about the minimum requirements for the safe usage of elevator and escalator. This topic considers the choice of type, number and position of the construction field, also supervises the installation of the elevator and testing it.

It is noteworthy to mention specifically that by locating the building in the northern part of the land the backside of the building faces the neighbor's yard, and it is not possible to put windows on this side in respect to the proximity and territorial rights of the neighbor. Instead there is a rule, which allows the owner to build a backyard in this side in order to have openings in this side in accordance to municipality rules (National Construction Rules and Regulations topic 4), but the rules are limiting

dimensions of the window and it should at least be 1.7 meters above the ground in order to control the view to the neighbor's yard. This kind of limitations have serious impacts on the spatial organization of a house by limiting the light and according to priority of use of light in different spaces in the house; and also it is a serious harm to the quality of the space inside the house.

According to the national rules and regulations of construction in order to build staircase and elevator, topics 4 and 15 respectively, proportions of the stairs, isolation of staircases and other matters such as fire escapes and circulation spaces are the items, which should be considered while planning and construction; and it is also an effective issue in the design of entrance spaces. For instance, there are new building instructions, which allow the buildings to cover 60% of the land parcel and leave 40% as open space. These instructions have a great effect on the spatial organization of houses other than on urban design (Soltanzadeh, 2005). Location of the buildings is always on the northern edge. In addition, streets and car access has been effective elements on spatial organization in contemporary houses (Figure 32).

In contemporary housing environment, courtyard is located in the front or back of building instead of central part and multi-storied apartment buildings became the most chosen type of housing (Haeri, 2010). Contemporary house's spatial organization is usually based on two parts: yard and building. Yard refers to open spaces between the street and the building or between the buildings of the northern and southern parts. Building in contemporary houses mostly consists of closed spaces and semi-open spaces. In this new type of houses, each residential unit has smaller space for and a shares courtyard, which used with all families living in a multi-story building (Mirmoghtadaee, 2009).

According to the placement of the closed part (building) and the open part (yard) of the building in land property, entrance to closed part is set in two ways. Entering the houses that street is on the south of the land and their closed part is on the northern part of the land is done through the yard. In some houses and residential complexes after the yard is the extension of yard, which is under the closed part. After that in higher level are reached by stairs or elevators and through the corridors the entrance is reached (Table 8).

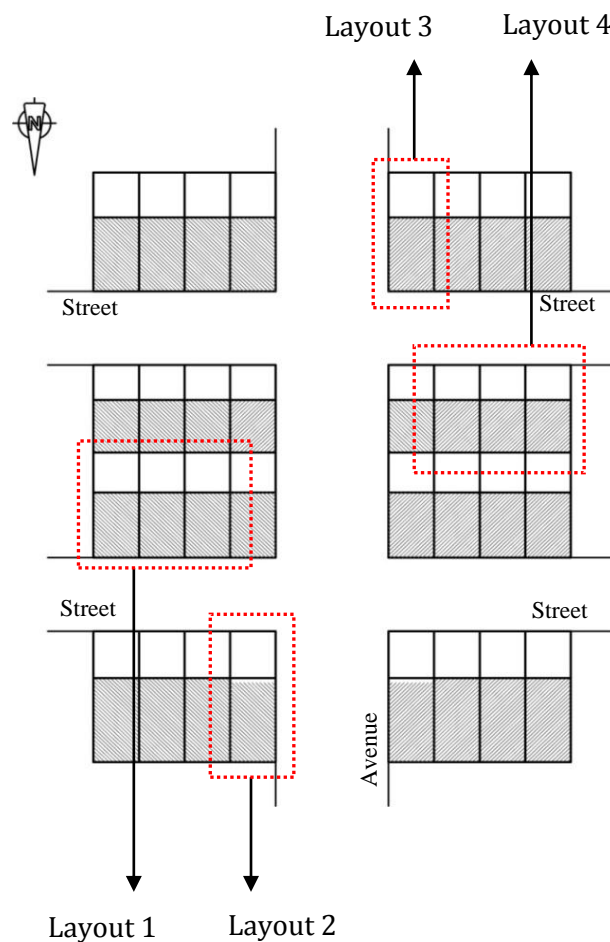
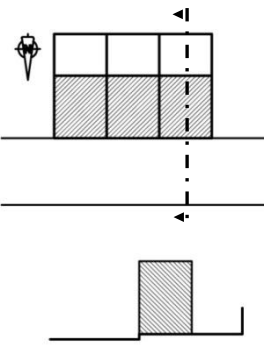
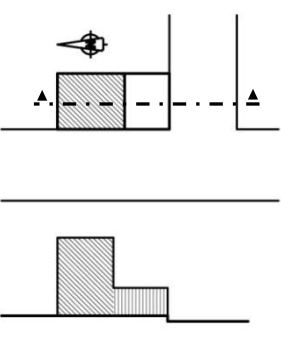
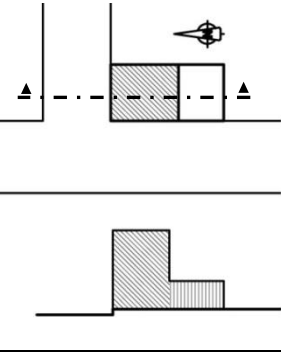
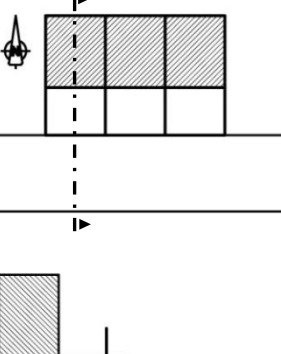


Figure 32: Location pattern of yard and building (all of buildings located in north of land parcels, the effect of urban design pattern and pathways on the zoning of open and closed spaces), (Author, 2012)

Table 8: Layouts of building situations (preparing by Author, 1012)

No.	Layout	Explanation
Layout 1.		<p>Yard is located in back of the building</p> <p>* According to location of street this building is called southern building, have two sides for catching day light</p>
Layout 2.		<p>yard is located in front of building</p> <p>* According to location of street, building is located in the corner of the alley, has two sides for catching day light</p>
Layout 3.		<p>yard is located in back of building</p> <p>* According to location of the street, building located in the corner of the alley, has three sides for catching natural light</p>
Layout 4.		<p>Yard is located in front of the building.</p> <p>* According to location of the street this building is called northern building, have one side for catching day light</p>



## 4.2 Types of Spaces in Contemporary House in Iran

Contemporary houses in Iran contain open, semi-open and closed spaces as they were in traditional houses. However, they are used in different manner and categorized in different subspaces. Plans of contemporary apartments mostly consist of closed spaces (rooms, and service areas) and rarely include semi-open spaces (balconies) or open spaces (yard, and roof) (Figure 33). It is noteworthy to say that these spaces do not have any variety as in the spaces of traditional houses, ( although there is a functional variation, no spatial distinction is considered to create and express different hierarchies in space. Moreover but also some of them lost their importance like open and semi-open areas in contemporary house especially in apartments.

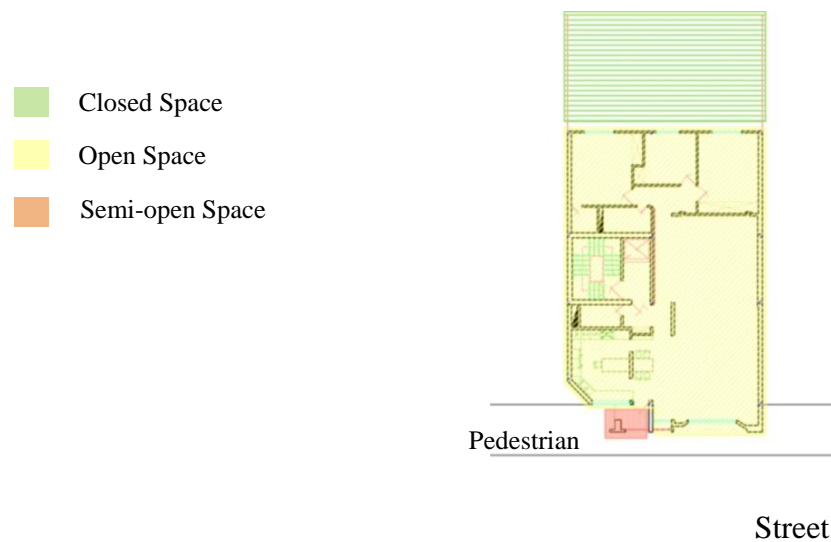


Figure 33: Types of spaces in apartments (in this plan the Proportions between spaces are visible, most of the land parcel belong to closed space, after that open space (yard) and a small part of closed space formed as semi-open space)

Besides, analysis of different contemporary apartments shows that living spaces are divided into two groups in terms of their spatial organization aspects: combined and separated areas (Haeri, 1996), which are described as following:

**Separated spaces:** apart from living rooms, dining room, and relevant spaces, there are some spaces, which are not visible in first visit, separated by walls and partitions, such as bedrooms, bathroom, or toilets (Figure 34). These spaces are not recognizable with closed doors and have their independent characteristic. These spaces might be categorized as private in level of sleeping area and services such as toilet or storage.

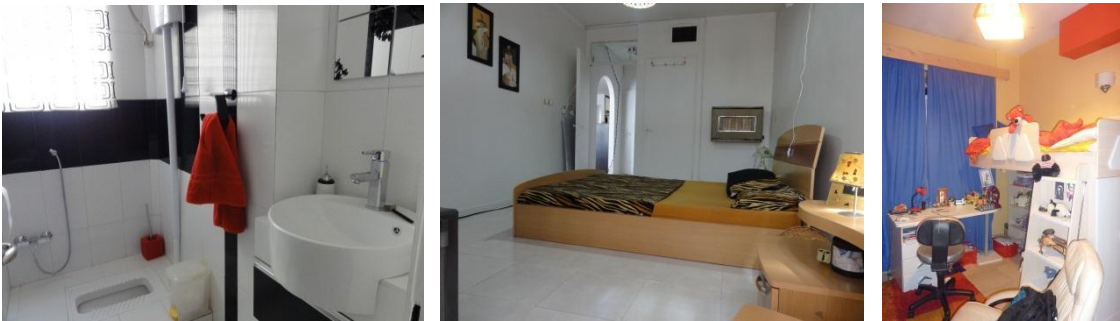


Figure 34: Separated spaces in apartments (Author, 2012)

**Combined spaces:** These types of spaces cannot be defined clearly and this is due to the unclear area of entrance, dining room, or living room; since such functions are merely divided by furniture (Figure 35). The only function that might be different from other parts and might have an independent spatial quality is the kitchen. Kitchen has the potential to be flexible and to expand into other areas while having the view and lighting. In some examples patio can be a part of this category and can provide the natural light in addition to the view. As far as un-expandability of these spaces is concerned, there cannot be a specific definition for them. In contemporary houses, there are no limits and borders between spaces (entrance space, living room, dining room and etc.) in most of the houses (Haeri, 1996 & 2010) (Figure 35).

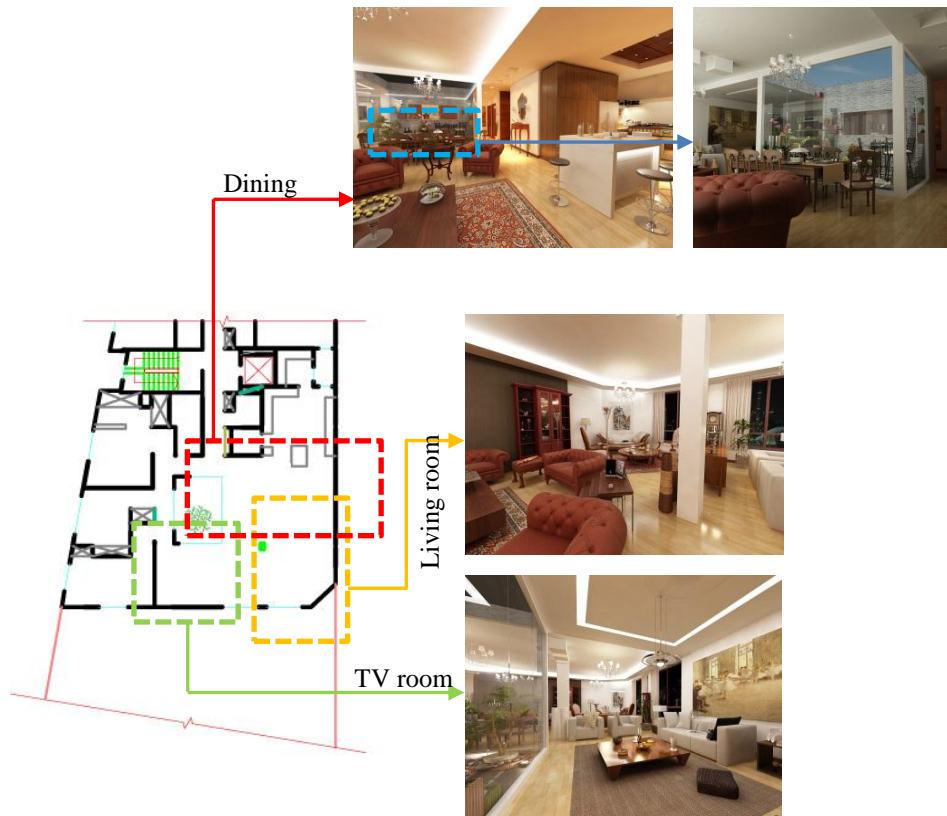


Figure 35: Combined spaces (Author, 2012)

However, plans and observations illustrated the relationship between interior spaces this is produced by adjacent spaces or common space. In adjacent spaces, the degree of visual and spatial continuity that occurs between two spaces depends on the nature of the plane that separates and binds them together in the same time (Ching, 1996). The separating plane may limit the visual and physical access between two adjacent spaces, or be merely implied with a change in level or a contrast in surface material or texture between the two spaces. This usually happens between the kitchen and living room or TV room. Even though the kitchen is not a closed space but still the view becomes restricted or the counter makes a division in the space but in some cases this spaces are separated with a slight level difference like a step or two.

As far as it was mentioned at the beginning of this part most of the adjacent spaces are overlapped and there is no specific definition for them. Also, there can be a common individual space which links two other spaces, this space can be different in form and size with the other two spaces and it is also named as transitional space (Chen, 2011). In most of apartment bedrooms section (private spaces) are related to living room (public space) by transitional spaces (corridor). Here corridor acts as a common space linking two sections, which are private and public in the house (figure 36).

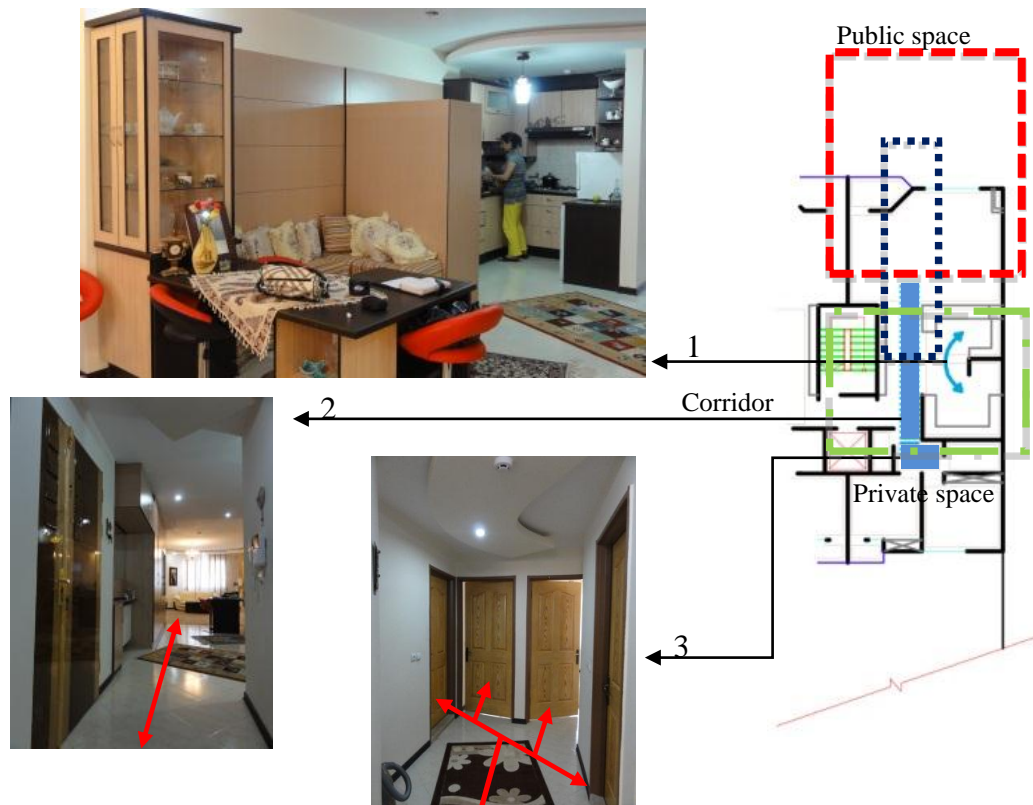


Figure 36: Spatial relationships in apartments, 1) Relationship between kitchen and sitting room, 2) relationship between public and private spaces, 3) Relationship between bedrooms, bath room and toilet with corridor (Author, 2012)

### 4.3 Spatial Organizations in Contemporary House in Iran

Generally Iranian contemporary houses show the characteristics of spatial organizations, which are grid, central, and cluster. According to observation and plan analysis in most cases the grid organization is used extensively. This can be happened because of its compatibility with the skeletal structural, which is the most available structural system. Grid organization gives the sense of continuity and regularity; the modules can be different in form, size and function. Moreover sometimes with the aim of adaption of the building to the condition of the site the grid organization can have several subtractions and additions (Figure 37).

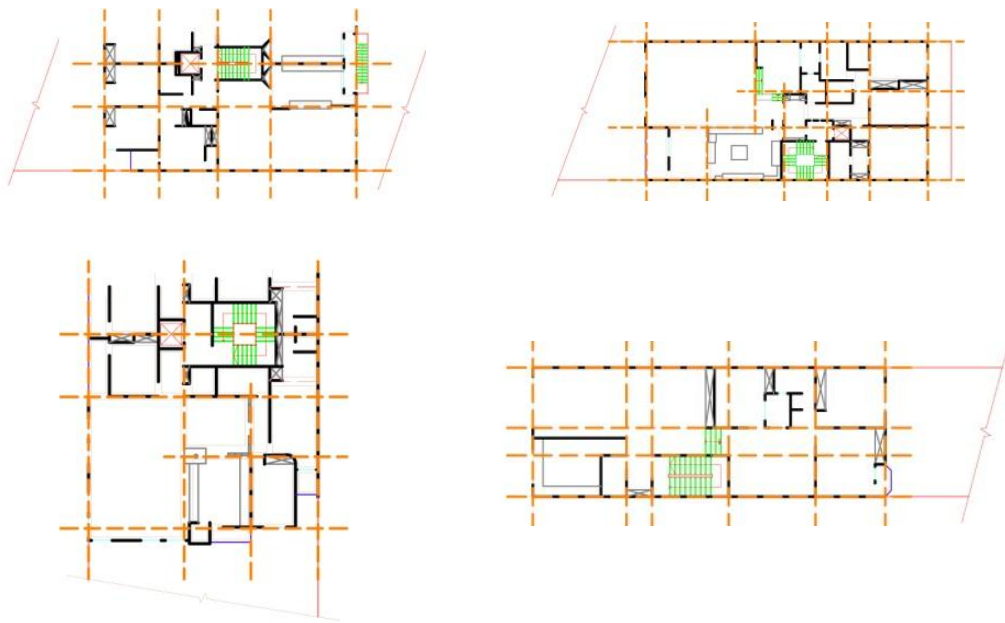


Figure 37: Grid organization in apartments (Author, 2012)

Analyses of some houses show also centralized organization. Second type is centralized plan characteristics in the second type. A large space is ruled by smaller secondary spaces, which are surrounding the central space in consistent form. The urban roles have determined the closed and open spaces' locations and it led to organization of the apartments' plans in both interior and the closed spaces. So these

roles do not let designers to use all kinds of spaces in different forms. Usually, in this type of organization, all the spaces like kitchen, bedrooms, balcony, etc. as secondary components located around the living room (Figure 38). Analysis of plans shows that centralized organization hardly is used in the newly built apartments. Residents were not satisfied with this organization because it is not in harmony with their necessities. However, in most of traditional Iranian houses, the courtyard is defined as the central point and other spaces, which are grouped around it, are defined as secondary spaces.

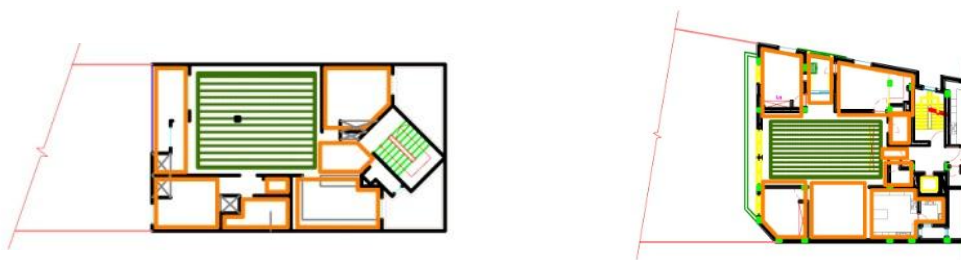


Figure 38: Centralized organization in apartments (Author, 2012)

Finally, the third type is clustered organization; and in this type there is a spatial element, which has the path role and connects the spaces to each other. It is not frequently used in the spatial organization of apartments. A clustered organization creates relationship between each unit of space to its nearest unit. Clustered spaces can be organized around an entry point of the building or along a corridor, which leads to it (Ching, 1996). Both of these forms of clustered organization were shown in contemporary houses in some case studies. In one of them the corridor has the path role and connects the spaces in different parts such as private, public and service areas (Figure 39). Besides, in other case studies with clustered organization the cluster pattern is found same as centralized organization.

However, in evaluation process of these types of organization happen inside the building that includes the closed and semi-open spaces in all parts of the apartment

because, as shown in table 7, the city rules determined the organization between open and closed spaces.

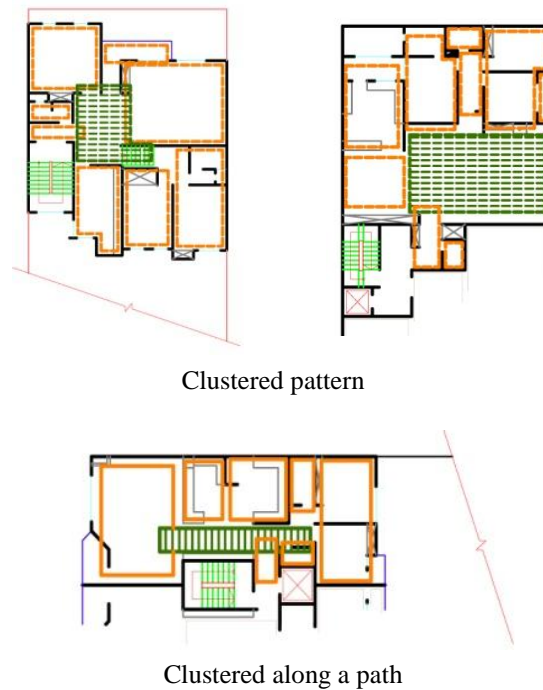


Figure 39: Clustered organization in apartments (Author, 2012)

#### 4.4 Contemporary Lifestyle in Iran

Lives of Iranian people have changed a lot by means of major changes that had occurred under circumstances of time and evolutions of surrounding spaces. As it has been mentioned previously, two main points played fundamental roles in formation of Iranian life; at first, variety of sub cultures and local traditions and secondly their adherence to Islam changed the Iranian lifestyle. Evolutions caused changes in both of mentioned issues and made a new contribution to western culture. According to the rise of connections between different nations and generations by means of immigrations, media and other communication facilities, rate of Iranians' confrontation with each other is raised, and this goes as far as turning the local traditions into new national ethics that are totally different than the past (Azad-Armaki, 2007).

Also by so many social, political and other types of evolutions, changes happened in religious views of Iranians and their interpretations about the subjectivity of religion are now various and different than the traditional way of religiosity. The third factor, which is Western civilization, entered Iranian life seriously during the Qajar era. Paradigm shifts in political, cultural and social interactions and methods made Iranian lifestyle to change and it definitely have its side effects on places and built environment (Zakati, 2007). If we specifically consider these three factors in Iranian lifestyle and the family which is the most fundamental basis and the main beneficent of “the House” it will make more sense to mention the coming matters:

According to survey on the data done in 1986 and 1996, most of the Iranian families are nuclear family (Mirmoghtadaee, 2009; Pg.75). Also, according to (Abbasi & Asgari,2005) researches show that the typical Iranian women in the past had total of 7 children, this number decreased to 2 or 3 children for each woman in the present time (Abasi and Asgari, 2005). It is noteworthy to mention that according to observations and interviews, most of the families have 4-5 members and they are mostly nuclear families and they are mostly nuclear.

Family members are more individualists than the traditional families and the individual personalities become stronger (Fazeli, 2006). This is extensible between men and women. Nowadays, social responsibilities and roles that family members play are more various; and it significantly affects their connections. However, the roles of these groups, which family members are participating in, such as social, guilds, to name but a few, are more than the others. In this respect, male and females social positions are represented with less discrimination, comparing to the past.



The women's role is more important in social actions and they spend less time on housework and taking care of children (Mirmoghtadaee, 2009). This caused paradigm shifts in social and cultural aspects of life; and new paradigms, careers, hobbies and activities entered Iranian society. Moreover, according to analysis, the relationship between people, family, society, neighbors, and citizens is affected. Also the urban pattern, which is the basis for the contemporary living activities, is completely changed and technology, specially communication technologies, took the connections between society members and neighbors under its influence.

Apart from family members, friendships, etc. economic issues now are a major factor in the Iranian contemporary life and it has its effects on the system of their evaluations and decisions (Shahabi, 2007). While analyzing this amount of changes in three realms of individual, social and cultural, it appears that Iranian life style has changed dramatically and rate of these changes is so high that it is almost not possible to conclude the lifestyle of Iranians in a certain category.

On balance, the relationship between a lifestyle and spatial organization of houses has always been a part of an evolutionary during the time and Iran was not an exception. According to Haeri (1997) and Soltanzadeh (2005) Iran had great social, economic, and cultural changes, in early of 20th century, that have influenced different aspects of Iranian life. Architecture, as the physical picture of way of life, has changed to a great extent. Early in the 20th century, an extreme change in architecture occurred in several developing countries, as the traditional architectural style was replaced by the modern style. The infiltration of architecture in Iranian life style was more impressive and has different ideas for categorizing the spaces. What had accrued in Iran during past four decades has been the act of applying the concept

of life in function and to bring down the concept of function into definition of biologic demands such as eating and sleeping (Haeri, 2010).

In the following parts effects of contemporary lifestyle's on spatial organization of Iranian contemporary house will be discussed.

## **Chapter 5**

### **EFFECTS OF LIFESTYLE ON APARTMENT**

#### **RESIDENTIAL UNITS IN IRAN**

This chapter is the analysis of contemporary houses selected from Tehran, Mashhad, Gorgan and Yazd, which are all capitals of four provinces in Iran. Tehran is the capital of Iran and Mashhad, Yazd and Gorgan are coming after. These cities lost their historical context except Yazd, and many new buildings have been constructed. The four cities are located in the North, Center and eastern part of Iran and include variety of climates.

The first city chosen to be studied is Tehran, which is the capital of Iran. It is located in the south of Alborz mountains, sited in north of Iran. It has the variety of climate, some parts have the cold (near the mountain) and other parts have the moderate weather. The province of Tehran is almost 20000 square kilometers and was with population of 7705036 in 2006. Next city selected is Mashhad, which is the religious capital of Iran. Mashhad is a city located in the east of Iran and belongs to province of “Khorasan Razavi”. Its climate is cold- arid. This province has 127432Square kilometers area with population of almost 559307 in 2006. Gorgan is chosen, a city in north of Iran that has the moderate-humid climate, the center of Golestan province, its population was 462455 people in 2011. This province has 22022 square kilometers. Some cases were chosen from Yazd that is located in the central part of Iran. It has the climate of central region of Iran, hot-arid. Its area is 131575 square

kilometers. Also, according to census in 2006, its population was nearly 983052. Considering apartment as contemporary house in these cities, they are densely settled in urban centers.

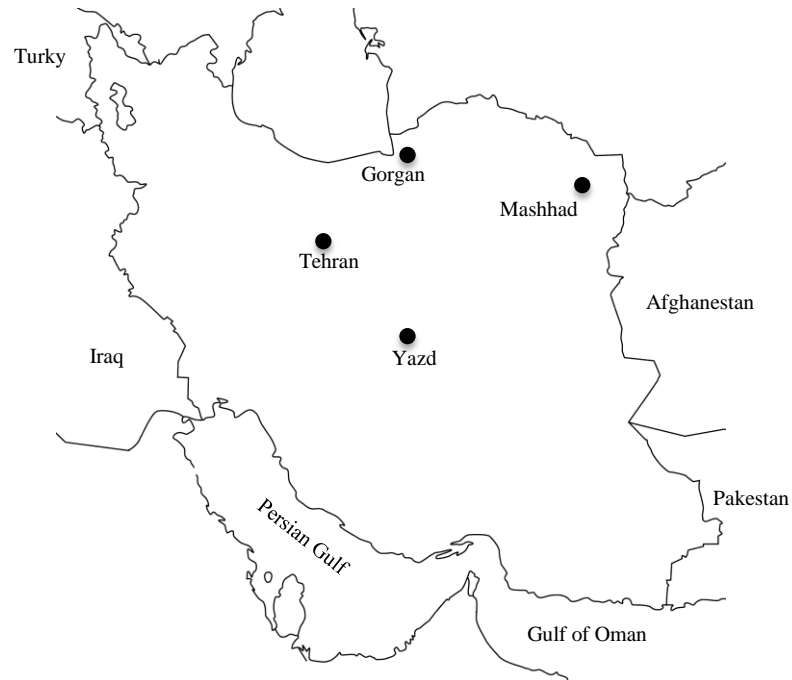


Figure 40: Location of cities in map of Iran

Criteria for choosing contemporary houses are: having a yard in order to analyze location and relations of open spaces with the building; also position of the center the entrance, whether it is crossing the yard or not. The other criterion is the numbers of floors, the cases are mostly are 6 floors with approximately 100 to 300 square meter areas.

Totally twenty four cases have been chosen, to analysis according to demands of the residents. Findings shed a light also onto the spatial organizations and relations since there is not much information about spatial features of contemporary houses in Iran.

According to the findings in this research, 70% of applicants are the land lord and only 30% were involved in the process of construction, so it is possible to say that only 30% of the owners were able to take part in the construction process according to their lifestyle. Among those land lords whom purchased their houses or the ones whom rented the house, the only option apart from economic factors, location and so on, is that they are able to choose the houses which are more correspondents to their demands and lifestyle. In other words the house is purchased as merchandize or service from the producers to the costumers. The relationship between inhabitants and the house is similar to relationship between servers and client and this is the logic of the market.

Among all aspects of human's life and his behavior and nature there are some factors, which are in priority while the relationship between his lifestyle and spatial organization of dwellings in which he lives is under study. Some of the most important factors are individual, cultural and social factors.

### **5.1 Effects of Personal Factors on Contemporary Housing in Iran**

Personal factors, which are mostly related with occupation, beliefs, attention to individualism and daily activities have influences on spatial organization of the houses. However, amongst all, level of family income comes forward.

The reasons are various from financial issues to lack of commitment of the owners in the process of construction. Location of the house is dependent on financial status, social level and career that are very important attributes which have direct influence on the lifestyle and accordingly on choosing residential places. Neighbor's status is not a very serious matter of concern in choosing a selection of residents and what

they expect from a house. The level of income in approximately 60% of the candidates is average according to their own. According to this statistics economy can be perceived as the most effective item among studied features, in selecting a housing unit. In other words, housing issue in Iran is an economical phenomenon, which follows up the economic situation of Iran. As it is observable, location of the house and economic statuses of the family are two relevant issues that affect the family choice of housing units.

According to the findings almost half of residents want private rooms. This shows that in contemporary houses each person demands his/her own private individual space and despite the individualism that is a feature of contemporary life, it is not considered in contemporary houses in Iran.

In more than half of the cases, residents own a personal room. However they are not satisfied with the facilities of the rooms. Only 10% of them have accepted their room as it is without applying any adjustments (Figure 41 & 42). Lack of enough space in the room, problematic physical proportions and discomfort are the mentioned major reasons.

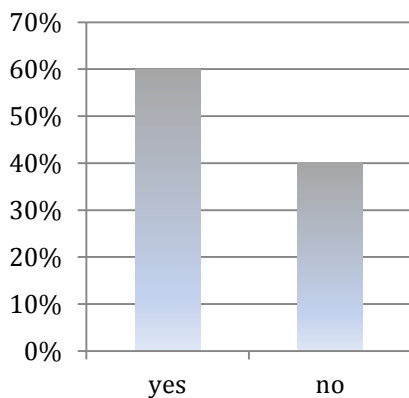


Figure 42: Percentage of members that possess private room

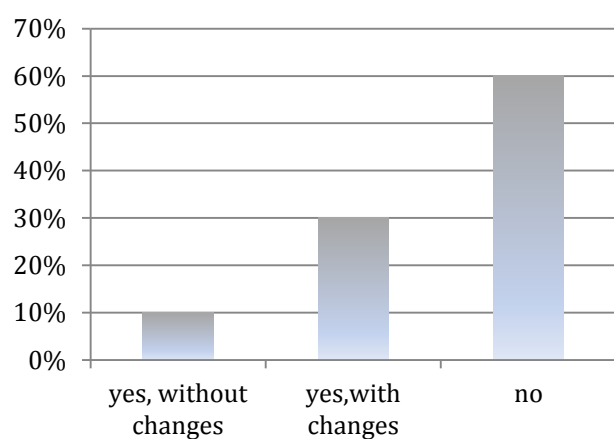


Figure 41: percentage of members' satisfaction of their private room

Moreover about desire of the householders it is noteworthy to mention that in most cases they are not satisfied with the location of bedrooms, which are usually located in backwards, for instance northern buildings less benefit from the daylight because the rules and regulations limit the height of the windows from floor to be minimum 170cm or the window should have matt glasses, which block the view to the neighbors territory; despite the fact that these spaces are considered not just as a place for sleeping but also for activities such as study and some daily activities (Figure 43).

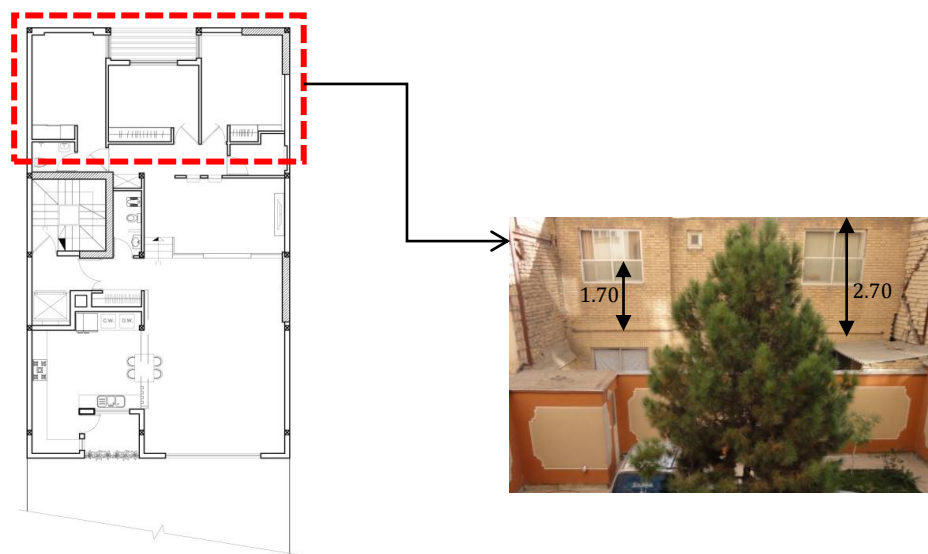
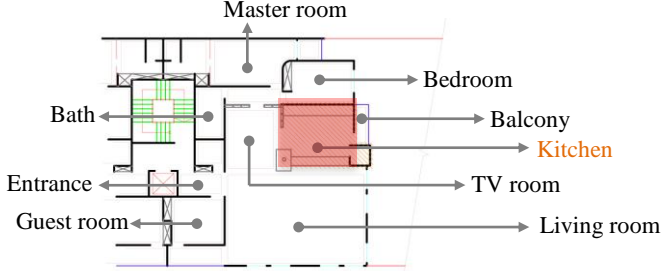
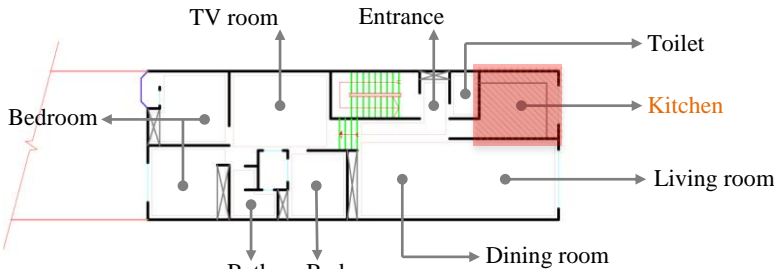
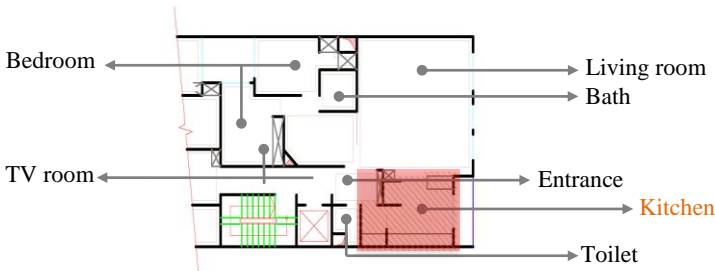
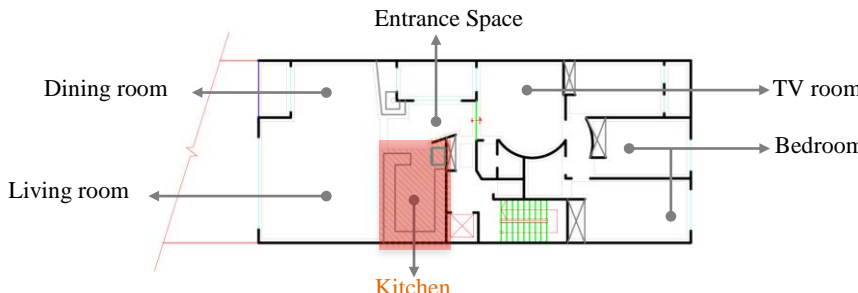


Figure 43: Location of bedroom in northern building and situation of windows (Author, 2012)

On the other hand, it is possible to say that these types of translocation of spaces can be suitable responses to spatial organization according to geometry and the building's location because spaces such as kitchen and living room need more light than other parts according to daily activities of the family. Although in some housing areas it is not a matter of attention and the relation between spaces is not defined by basing on demands of residents. For instance in some cases the kitchen is located in a

spot far from bedrooms and TV room, which are important spaces in the house and this distance will cause unbalance in circulation. Also dimensions of the kitchen usually are not in harmony with the households' demands (Table 9).

Table 9: Location of kitchen (prepared by Author, 2012)

No.	Location of kitchen
1	 <p>Floor plan 1 shows a kitchen (highlighted in red) located in the center-right area of the house. It is adjacent to a TV room and a living room. To the left of the kitchen are the entrance, a guest room, a bath, and a bedroom. A master room is located at the top of the plan, and a balcony is situated to the right of the kitchen.</p>
2	 <p>Floor plan 2 shows a kitchen (highlighted in red) located on the right side of the house. It is adjacent to a living room and a dining room. To the left of the kitchen are the entrance, a bedroom, and a bath. A TV room is located at the top left, and a toilet is located to the right of the kitchen.</p>
3	 <p>Floor plan 3 shows a kitchen (highlighted in red) located in the bottom-right area of the house. It is adjacent to an entrance and a toilet. To the left of the kitchen are a TV room and a bedroom. To the right of the kitchen are a living room and a bath.</p>
4	 <p>Floor plan 4 shows a kitchen (highlighted in red) located in the bottom-center area of the house. It is adjacent to an entrance space. To the left of the kitchen are a living room and a dining room. To the right of the kitchen are a TV room and a bedroom.</p>



However residents demand maximum amount of daylight in different spaces of the house but because of the close placement of apartments and conversion of buildings, most of the residents cover their windows with curtains and it will cause lack of daylight . the interviews show that most of them put the curtains in order to obtain more privacy (Figure 44).

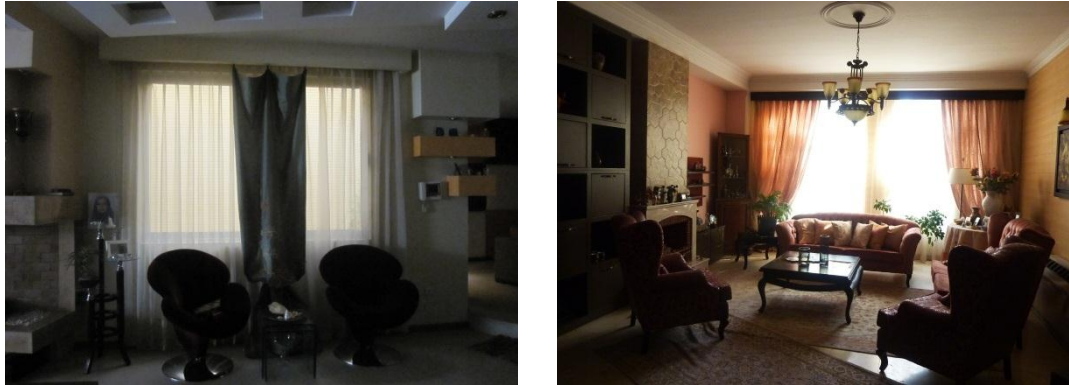


Figure 44: Using curtain for creating privacy (Author, 2012)

Studies show that half of people's daily activities take place at home and almost half of those activities are performed in groups. Although almost half of activities like eating and exercising are done out, activities such as dining, watching TV and family visits are some activities that gather the family members together. For such activities of family members some common spaces have been considered and for some of them there are no specific spaces.

For activities such as dining the kitchen and TV room are the most used spaces and in most cases because of the lack of time this activity takes place in restaurants and outside spaces. Also for exercising there is no enough space inside the house and this activity also moves to stadiums or gyms. TV room is a space for gathering in most cases where family members get together and use it as a common space but in most of the cases this space is created with the furniture arrangement.

Development of urban life caused changes in family life this is reflected in the house. Many of house's functions such as eating, entertainment, gatherings and parties, traditional ceremonies are mostly taken out of the home. Therefore, restaurants, coffee shops, country sides, parks, saloons, stadiums, cinemas, streets, shopping centers and other places replaced the traditional roles of the house.

In most of the cases the residents of apartment flats are demanding at least a small open space in order to keep their connection with the nature and green areas. In other cases which may have some difficulties to create this open space they are using balconies that they can connected with living room, bedroom and kitchen (Table 10).

Table 10: Location of balcony (prepared by Author, 2012)

Location	Plans
Connected with bedroom	
Connected with kitchen	
Connected with living room	

Although nowadays we are witnessing that the role of open and semi-open spaces is fading in spatial arrangement of the houses, but as a matter of fact the cultural behaviors of family members still give the feeling of need for such spaces in the house. In old houses the courtyard was a place for family gatherings in open space, but there is no such function in most of the contemporary multi story houses and they were transformed to car parks (Figure 45).

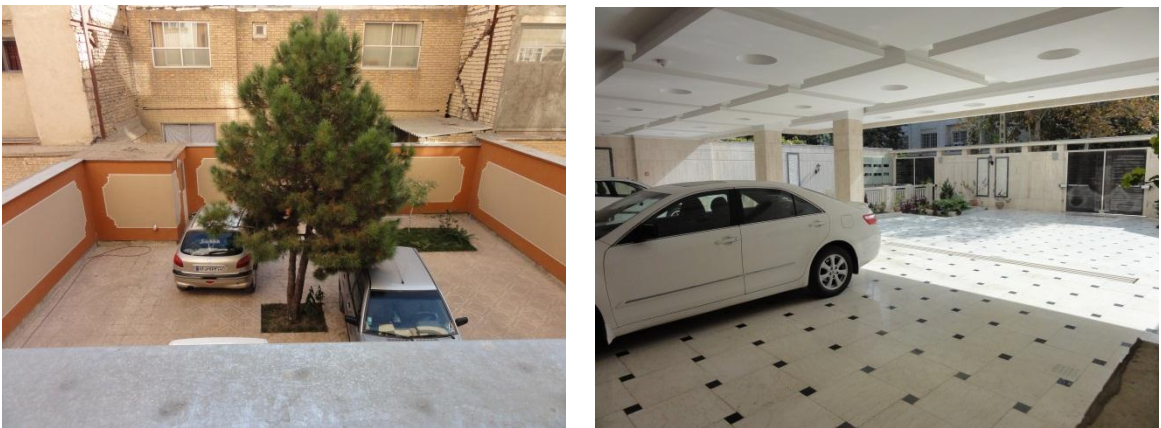


Figure 45: Yard and parking in ground floor of apartments (Author, 2012)

Privacy is one of the human's primary requirements in a house. The concept of privacy has a common definition as a property of built environment, which has existed for many years. Having specific domains for each person or a group of them has been one of the main concerns of human. House can be seen as a distinctive space in which individuals come together in close relationship, demanding the control of these spaces for privacy and comfort. These individuals are creating a combination of private, semi private, and at times even semipublic spaces. Therefore the relationship between them takes various forms and subsequently, the space they use for these relationships takes various levels of privacy.

Although the individualism is a feature of contemporary life, it is not considered in contemporary houses. Privacy was one of the desires that people were always examining due to their cultural and religious opinions. From another point of view privacy is the voluntary and temporary withdrawal of a person from the common society by means of physical or psychological mediums, either in a state of solitude or, when among larger groups, in a condition of obscurity or reserve.

### **5.3 Effects of cultural Factors on Contemporary Housing in Iran**

One of the most effective factors on spatial organization of a house is culture which includes sub cultures such as traditions, behavioral patterns, family structure, role of family members and their relations with relatives.

According to observations and interviews, only one out of five residents lives more than fifteen years; and 15% of them are living in their houses for less than five years. Iranian family was extending during the time in traditional lifestyle and this extension lasted in the same living space in the past. This means that living space was aging parallel with the family's timeline and several generations of one family used to live in one house using even more than 100 years and it was satisfying. Nowadays, although relatives and family members visit and their commitment are still important but the Iranian family has changed its behavior based on the modern lifestyle and it is not like the past anymore. According to findings contemporary Iranian house is not supporting living of different generations together.

Number of family members is to be limited became limited, so the residents of a house are now less and it possibly effects on dimensions of the house or vice versa. Iranian family is nuclear family and except for some rare cases, lives in the same

building in separate flats. Other families live independently from their close relatives, with the least common spaces in the spatial organization of the building. The family growth pattern is no longer including the whole siblings in the same place. And expansion of the family is not in vast range anymore. However still there is some elderly living in their children's house or some newly married couples staying temporarily in parents' house.

On the other hand, in contemporary Iranian house the guests are entertained in common spaces or living room. Although hospitality is still so important to Iranians but nowadays houses and the spaces are not supporting organization of such cultural activities at home this part of cultural habits. Traditions are now are not in the priorities for families to take place inside their houses.

Ceremonies and traditional events were attention point in traditional houses but nowadays despite families' ambition it is not possible to hold off such events because of lack of space. According to investigations and analysis families mostly through small parties such as birthdays or anniversaries, which are sort of private but still there is a need for wider space that lead to some changes in furniture arrangements. Also most of the religious ceremonies are held off in mausques and grand parties in halls and specific gardens(Figure 46, 47 & 48).

According to Iranian culture and the importance of privacy for the family, most of the houses include a space for family members, separate from other common spaces. In this regards, residents are demanding separation between private and common spaces. They also have a semi private space for the family members and common

space. for the guest meetings. TV room is the most used space for family gatherings.

Television is the object of connecting family members around it.

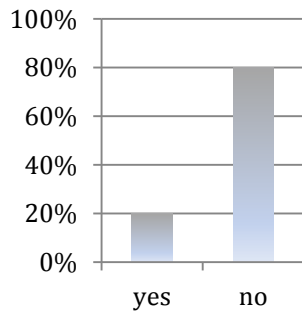


Figure 46: percentage of ceremonies take place in the house

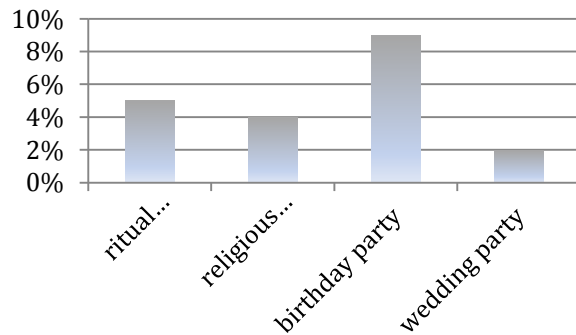


Figure 47: Percentage of the families that through ceremonyise in their houses

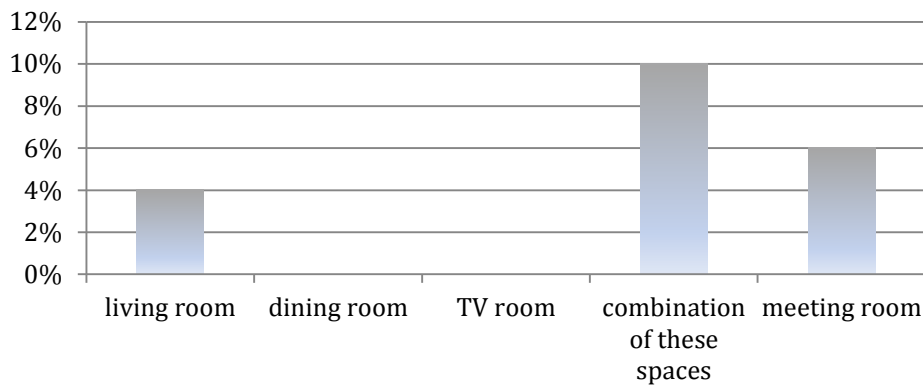
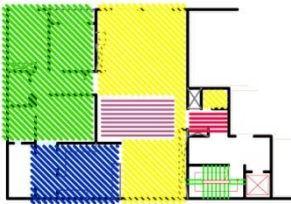
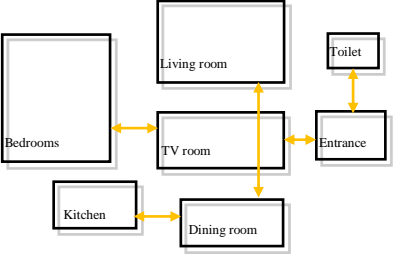
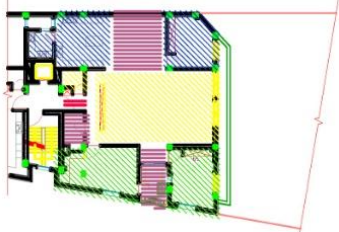
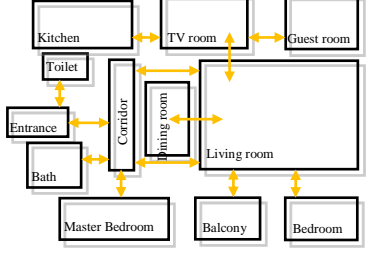


Figure 48: Spaces used for ceremonies

According to observations and plan analyses most of the residents prefer to separate their private space from other parts of the house, and mostly they don't reach this demand because of the area of spaces and their formal situation. Even the hierarchy between spaces is not reflected in plans and there is always a space in the house, which is not really accepted by the householders. And in some cases, the

combination of spaces became more like a passing space rather than another space (Table 11).

Table 11: Combination and hierarchy between spaces (prepared by Author, 2012)

No.	Plans	
1		
2		
<p> <span style="display: inline-block; width: 15px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></span> Public space             <span style="display: inline-block; width: 15px; height: 10px; background-color: blue; border: 1px solid black; margin-right: 5px; margin-left: 20px;"></span> Semi-public space             <span style="display: inline-block; width: 15px; height: 10px; background-color: purple; border: 1px solid black; margin-right: 5px; margin-left: 20px;"></span> Semi-private space             <span style="display: inline-block; width: 15px; height: 10px; background-color: green; border: 1px solid black; margin-right: 5px; margin-left: 20px;"></span> Private space             <span style="display: inline-block; width: 15px; height: 10px; background-color: red; border: 1px solid black; margin-right: 5px; margin-left: 20px;"></span> Entrance         </p>		

These diagrams of combination and hierarchy of indoor spaces mostly are not paying enough attention to cultural demands of inhabitants. None of the spaces is not located in a suitable spot and does not matching with their lifestyle. These translocations do not have any attention about hierarchies from private to common spaces, or even not to the privacy of the families. Inhabitants expressed their demands for privacy so obviously, but in most of the houses there is a chaos in the system of combination of spaces and their hierarchies, which according to demands of the inhabitants and flexibility of the spaces, these diagrams might help them to change the spatial organization and improve the quality of the spaces.

At this point of the study it is worth to mention the matter of flexibility and what would be its effects on the life of a family by means of space organization. In general flexibility is an eminent characteristic of a space and is used extensively in architecture. flexibility as a main topic is capable of being a cure for the architectural tensions. Also users achieve satisfaction by changing the physical features of their environments in order to create more flexible spaces.

Flexibility can be introduced as a method for achieving the suitable quality of space because of the lack of enough space, today's apartments in Iran have lost their quality. The term 'flexibility' refers to use of space for different purposes without making physical variations and they concern the house's flexibility potential for the various needs of families, and also for their variable needs in time. In case of Iranian houses nowadays it is seen as the changes that households make in the arrangement of furniture, or slight change in the space organization of their houses.

#### **5.4 Effects of Social Factors on Contemporary Housing in Iran**

Social relations of people and their priorities mostly affected size of the spaces, number of rooms and the balance between common and private spaces in the house.

The neighbors were one of the very fundamental elements of residential places and formation of quarters in ancient cities of Iran and this made the neighborhood one of the cores of society and social activities which people attended to, mostly started from neighborhoods. During the modernization process of Iranian lifestyle interrelations between members of neighborhoods decreased and now people that living in same quarter are not acquainted and have no special connection, although lives of neighbors who live in the same building are affecting each other's but the



level of those relations is no longer devotional and so close and relations became more formal and work as a system in which is managed by a group of residents in the building.

Although living in apartments now are the most common type of living and there are also common spaces shared between the residents, the relationship between the neighbors is one of the minor significance. In other words nowadays, close houses don't bring people into close relationships.

Social interactions are now playing more important roles than the past in family members' interrelations and this specially can be seen because of women's participating in the society, but the houses are still not a good environment to deal with new circumstances of modernized society. Most of these dealings happen outside the houses and this is mostly the effect of unsuitable spatial capacity of houses. These interrelations need more space than the regular living spaces in most of the houses. Analysis shows that some families try to make proximities and create hierarchical privacy by means of interior design or decorative elements such as furniture of portable partitions, which interrupt the useful space that belongs to the family and it, will harm the comfort zone of the family members (figure 49).

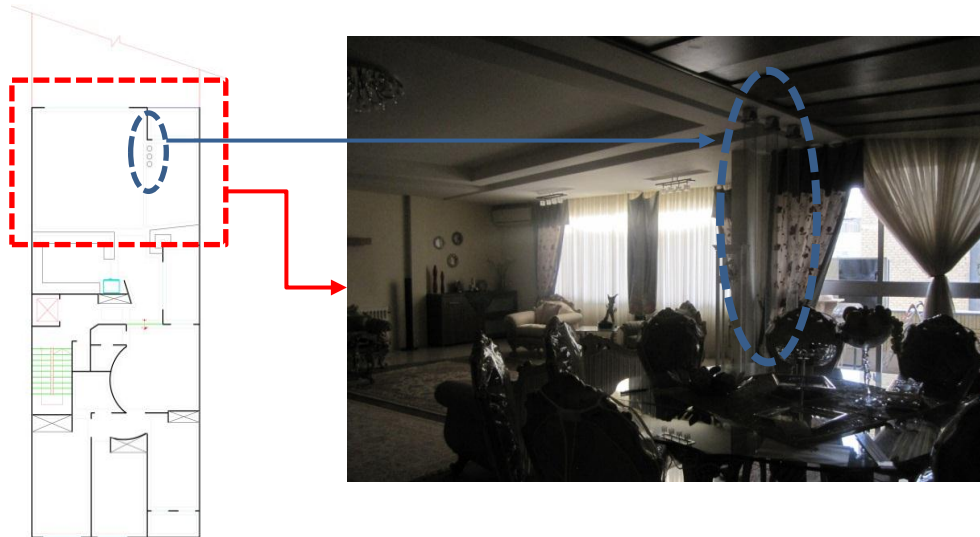


Figure 49: Define living room and dining room spaces with setting furniture and using some decorative elements for separating these spaces (Author, 2012)

According to analysis done and observations in more than half of the cases dimensions of residential units are not suitable for such demands of the residents. Their demand is not just to have a larger flat but also they want more space for bedrooms, living room, and kitchen. Also it has been detected that mostly the users are not satisfied with the number of bedrooms and also they are complaining about lack of space for work, guest room, dining room and storage. Residents' demands have not been fulfilled neither about quantity of spaces nor about their quality.

One of the most basic reasons for the growth of population is immigration from villages and suburbs to the cities. For instance, many Iranian families have relatives out of their hometown or country. Sometimes elderly members move into their family members and live in different houses in special periods of time.

All these occasions and some other special cases which householders are hosting guest temporarily for few days, cause some changes in spatial organization of the houses. In most cases a part of family's space will be devoted to the guests, which

preferably is connected to the restroom and in some cases even to the kitchen. Sometimes this space is placed in another story for some families.

In accordance with the area of the house there is not enough space for a separate room for guests and most of the times a part of the common space is allocated to them or guests will stay for a few days in one of the households' bedrooms and this attitude for sure causes a temporary chaos in the life of family members and they are not happy with this situation. However, the questionnaires show that such guests are not often visited anymore.

Moreover, there are some major categories in the scope of householders' demands, which are firstly about the connection between the entrance and other spaces. They want more suitable entrance space for the house and also detachment of the entrance from other spaces. Secondly, about the relationship between private and common spaces, there is no suitable detachment and it is not defined. Thirdly, about the connection of the kitchen and common spaces, they are not reaching their demands. These sets of connections, including visual and functional, are not well estimated and the design of the house is not satisfying the residents. The locations of spaces are not adequately defined for the residents.

Although most of the activities, gatherings and meetings are transferred out of the houses and spaces such as restaurants, cafes, etc., but still householders demand larger spaces for TV rooms and living rooms, also despite what is happening nowadays, they want to have well-defined spaces for these functions instead of making territories with the use of furniture (figure 50).

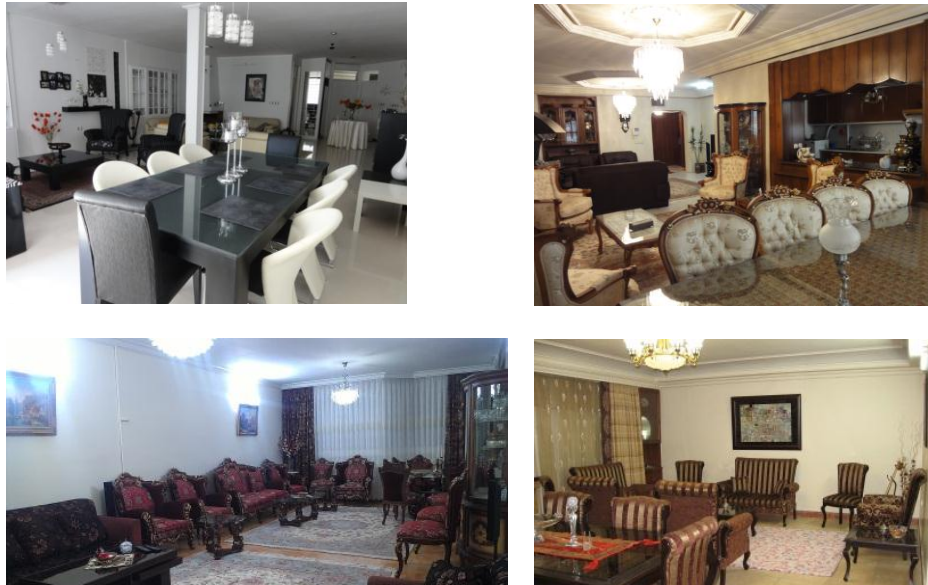


Figure 50: living room, dining room and TV room just defined with setting furniture (Auther, 2012)

In some of the houses interactions decreased and private spaces are more important; hence there is no balance between private and common spaces. Analysis mostly shows that spaces are mixed and are not in specific order. Usually there is a lack of one bedroom and or a guest room or a space for work.

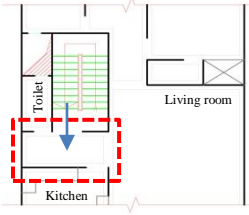

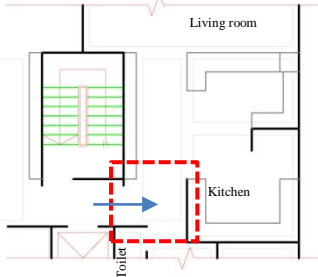
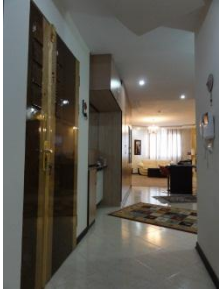
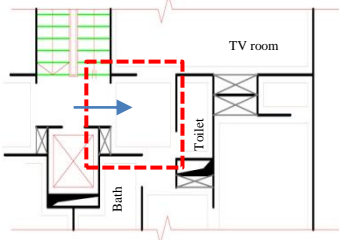

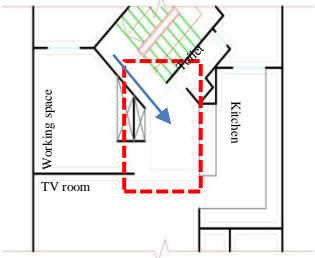

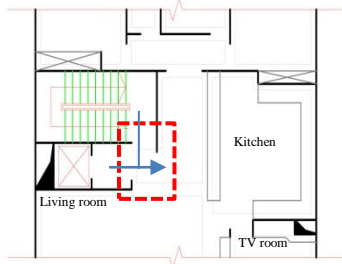

However it is possible to say that according to priorities of Iranian family which is related with their social communications. In most of the observed cases it is obvious that the entrance is defined in relevance with social relations and activities of family members.it are not only a space for changing shoes or putting cloths but also is a space for small chats with the neighbors or to convey the guests.

According to the situation of multi-story buildings and access to entrances and usage of stairs and elevator, and also regulations about fire escape and minimum dimensions of stairs and elevator and access to them in topics 3 and 15, in most of the case studies there is no obedience of these rules and regulations and mostly thes

spaces are so small and even in some cases there is no defined space for changing cloths and shoes. These entrance halls are not capable of leading the guest to the living room or they are not located in order to separate private spaces from common spaces, although in some cases they are, but still they are not responsive in order to provide privacy for the private parts of the house and not even defined well enough. On balance it is possible to say house is not capable of social issues anymore and the outside environment is playing this role instead; although this is a fundamental demand for the Iranian family (table 12).

consequently in it is noteworthy to mention that spatial organization of contemporary houses is highly dependent on the demands of family members and also according to the family scale, social situation of members, and economic status of the family and location of the building plus many other factors quality of spaces and their relations is changing. The interrelation between houses' spatial organization and contemporary lifestyle is the result of a system, which is composed of different elements and parts; they are all subsets of matters such as Culture, economy, social level, family type, etc. so the system is working but the guarantee for its efficiency is uncertain and depends on the amount of coordination between factors in different levels and situations.

Table 12: Location and form of entrance in apartments (prepared by Author, 2012)

No.	Entrance plan	Picture and Explanation
1		 <p>entrance is just a narrow corridor which have access to toilet and kitchen. It is not suitable for the function of entrance hall</p>
2		<p>There is no proper definition of entrance hall at it is combined with the kitchen</p> 
3		 <p>There is a small closet but no enough space for interactions</p>
4		<p>entrance does not have a well defined space and is in complete combination with the toilet and work space.</p> 
5		 <p>this entrance hall does not have any space for changing cloths and shoes and is in combination with the living room.</p>

The two parameters that effect the social, personal and cultural factors are the lifestyle and construction rules and regulations. They effect each factor in some ways. Also the combination of their effect on all factors makes the most strong impact on the spatial organization of the house (Table 13).

Table 13: Effects of lifestyle factors and construction roles in spatial organization of contemporary houses (prepared by Author, 2012)

Effect of lifestyle factors		Effect of construction rules and regulations
personal	<ul style="list-style-type: none"> <li>- Bedrooms as private spaces</li> <li>- Combined space as public spaces</li> <li>- Living room, dining room, Tv room, and Kitchen located the side of building can catche natural light</li> </ul>	<ul style="list-style-type: none"> <li>- Location of spaces related to situation of building in land</li> <li>- Form and dimension of spaces related to building area</li> <li>- Decrease of privacy</li> <li>- Decrease of flexibility</li> </ul>
cultural	<ul style="list-style-type: none"> <li>- Create Tv room as a place for gathering family</li> <li>- Decrease of Public area (living room, dining room) because holding ceremonies happen outside of home</li> <li>- There is not hierarchy between spaces like traditional house (drop privacy)</li> </ul>	<ul style="list-style-type: none"> <li>- There is not suitable division between private and public space</li> <li>- Mix most of spaces (living room, dining room, Tv room, and some times bedrooms with the public spaces)</li> <li>- Decline of area cause to limited spaces</li> <li>- There is not hierarchy between open, semi-open and closed space</li> </ul>
social	<ul style="list-style-type: none"> <li>- Mix living room, dining room and Tv room as a part for intertaining guests</li> <li>- Use furnitures for difinding spaces</li> <li>- Create guest room</li> </ul>	<ul style="list-style-type: none"> <li>- Enlargement of space is not suitable cause to limitation in area of building (drop flexibility)</li> <li>- Number of rooms relaed to the apartment unit area</li> <li>- Entrance part enlargement and how enter to unit complitly related to form and location of staries and elevetor</li> </ul>

## **Chapter 6**

### **CONCLUSION**

According to the basic studies about house and life style, it is noteworthy to say that there is a close relationship between these two factors and in order to reach the concept of home it is important to pay attention to demands of the inhabitants and their lifestyle, so that they feel satisfied with the space in which they grow up and live. Lifestyle is dependent on three dimensions of individual, social and cultural, which defines life style of a person or a group. As far as it was mentioned before these factors are effective from different angles and lead to various spatial organizations in accordance with these factors' effects. Also the studies show that these factors have changed during the time and caused changes in spatial organization and various forms of houses. Effect of lifestyle was more in the past and it was easier to talk about the home instead of house, but while changes in the time being by the changes in lifestyle or globalization home is transformed to a place of eating and sleeping more than the former functions of a home.

Investigations on traditional houses show the strong connection between inhabitants and their demands and lifestyle, and also many spaces and their proportions and hierarchies are shaped based on these factors and there is a complete harmony between these two; importance of this issue is equal to the importance of construction process.



Researches done about contemporary houses in four cities of Iran shows that although some features of lifestyle are dependent on the past history of people's lifestyle and they still try to reach those features in their houses; but there are some other important factors, which have impact of their demands, such as changes in urban texture, rise of population and immigrations to the cities that cause big transitions in construction procedure of houses. Inhabitants are not the constructors anymore, so they are not the ones who build their houses according to their desire and needs anymore. Form of the houses faced basic changes in accordance with the increasing number of construction and also the rate of need for houses in residents. Big houses with central courtyards gradually became small apartment units in multi-story buildings and green central courtyards turned to small yards in front or in the backside of the houses, which mostly are used as car parks; and this is an important turning point in the evolution of spatial organization.

According to rise of people's demand for construction and in order to prevent chaos in the urban system of construction there are a sets of rules and regulations confined, which caused another set of changes in organization of spaces in the house nowadays. Houses become smaller and also regarding to the construction rules and regulations has a significant impact on the process of changes in spatial organization of houses and inhabitants compulsorily accept them. Economy is a matter of concern in this discourse because as it has been mentioned before, economic issues are one of the key factors that effect on inhabitants choice of a house's location and area and also the quality of lifestyle.

Evolutions in social life, individual attitudes and choices and also cultural paradigm shifts cause challenges in people's way of living and in time being create a new

lifestyle, which lead to a new space organization; and this is a result of communication era and globalization. Afterwards houses mostly have a certain basic formal structure and spaces are defined based on a general pattern with minimum of dimensions that have codified in rules and regulations.

By investigation in the new life style, this study shows that individualism is the most emphasized factor and in all case studies residents demanding a private space, which of course is merely available because of houses' lack of space and there is a need for such spaces in the space organization structure of the contemporary houses. As for Iranian culture privacy is still a matter of concern and inhabitants demanding their privacy in the frame of living units, even demands of the residents are also based, to some extent, on this cultural factor, even the designers try to separate bedrooms from other parts of the house, still privacy is a critical issue in the field of housing; and it has direct effects on user satisfaction of existing situation in the space organization of contemporary houses in Iran.

Considering the social interactions of Iranian families the spatial organization of houses is not corresponding enough so inhabitants prefer to socialize in public places out of the housing units most of the times. Common spaces such as living room and dining room are combined in most of the case studies, even these spaces are combined with TV room, which is a semi-private space in the house but still the dimensions are not enough for traditional ceremonies or big family parties. However these combinations between different spaces are not done properly and can be identified only by the arrangement of furniture. Although in some occasions and for some purposes it is possible to match the space to some of them by rearranging the

furniture, but it is not comparable with how the traditional house could support ceremonies and family events with a big population of guests.

Nowadays flexibility and privacy in spatial organization of contemporary houses are merely visible. Structure of Iranian family still has traditional theme and context directly related to both of aforesaid issues, but contemporary houses are not in correspondence with their demands for these items. According to the lifestyle of contemporary Iranian family, house is not matching properly to demands of inhabitants and house is more just a shelter instead of being pleasant enough to keep the family members inside the way that traditional house was doing. In addition to the fact that demands for aforesaid features are still strongly not answered, nowadays the contemporary house has no item under the influence of the traditional style.

By considering the individual, cultural and social factors that have been studied in this research although there are various paradigm shifts visible, and in the same time still there are some items, which are matter of importance with slight changes, specially in cultural factors; there is no more any reflection of traditional way of spatial organization in the contemporary Iranian house. In other words, changes have been strongly affected the priorities in the design of the houses and organizaing the spaces.

There is a possibility to turn contemporary houses to home more than nowadays and in order to reach this purpose demands and desire of the households should be taken more seriously, because inhabitants make a house, which is responding their needs, home, and they are trying to reach their ideal feeling of space, even with slight possible changes that they are making. Flexible design can be helpful in order to get

closer to the pleasant lifestyle of the majority of a society, which in this case is Iranian family. Therefore house would not be only a shelter to cover primary needs of people and it will feel desirable more to stay and socialize. A big step in order to reach the indicators of suitable spatial organization would be to investigate the possibility of flexible design in the field of housing in contemporary Iranian architecture.

## REFERENCES

Abasi, M.J. and Asgari, A. (2005). Household changes and fertility reduction in Iran, a case study of Yazd. *Nameye-olum-ejtemai, A Journal of the Social Sciences*, 25, 25–75

Akhtarkavan, A.M. (2008). Sustainable architecture in the hot, arid and sunny regions of Iran, *Architect Engineering*, 19, (Special Issue)

Al-Ahmad, J. (1978). *Served and betrayed the intellectuals*. Tehran: Kharazmi.

Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A Pattern Language: Towns, Buildings, Construction*. New Yourk: Oxford University Press

Al-Homoud, M. Al-Oun, S. and Abed, A. (2003). *Reflective lifestyle on Badu Homes in Jordan*. Paper presented at the Edra proceedings. Retrieved from [http://www.edra.org/sites/default/files/publications/EDRA34-Al-Homoud\\_1.pdf](http://www.edra.org/sites/default/files/publications/EDRA34-Al-Homoud_1.pdf), (used on 10th April, 2012), 41-55

Altaş, N. E., & Özsoy, A. (1998). Spatial adaptability and flexibility as parameters of user satisfaction for quality housing. *Building and Environment*, 33(5), 315–323. doi:10.1016/S0360-1323(97)00050-4

Altman, I. & chemers, M.M. (1998). *Home around the world: culture and environment*. Monterey: Brooks/ Cole pub.co.

- Altman, I., & Chemers, M. M. (1984). *Culture and Environment*. CUP Archive.
- Arjmandi, H. Tahir, M.M. Shabani, M.M. Che-Ani, A.I. Abdullah, N.A.G. and Usman, I.M.S. (2010). Application of Transparency to Increase Day Lighting Level of Interior Spaces in Dwelling Apartments in Tehran – A Lesson Form Iranian Traditional Architecture. *Journal of Design + Built*, 3, 41-55.
- Arjmandi, H. Tahir, M.M. Shanbankareh, H., Shabani, M.M., ans Mazaheri, F. (2011). Psychological and Spiritual Effects of Light and Color from Iranian Traditional Houses on Dwellers, *Journal of Sciences and Humanities*, 6, 2, 288-301.
- Asadi, M. Tahir, M.M. (2012). The Social Relationship of Contemporary Residents in Iranian Housing. *Journal of Social Sciences and Humanities*, 7, 1, 86-93.
- Azad-Armaki, T. (June,2007). Pattern of Lifestyle in Iran, Tehran: Center for Strategic Research
- Bachelard, G. (1994). *The Poetics of Space*. Boston: Beacon Press.
- Bowlby, S., Gregory, S., & McKie, L. (1997). “Doing home”: Patriarchy, caring, and space. *Women’s Studies International Forum*, 20(3), 343–350. doi:10.1016/S0277-5395(97)00018-6
- Chany, D. (1996). *Lifestyle*. London: Routledge

Chen, G. (2011). *Landscape Architecture: Planting Design Illustrated*. United States of America: ArchiteG, Inc

Ching, F.D. (1979). *Architecture: form, space, and order*. New York: Van Nostrand reinhold

Ching, F.D. (1996). *Architecture: form, space, and order* (2<sup>nd</sup> b.). New York: Oxford University Press.

Cooper, C. (1997). *House as Mirror of Self: Exploring the Deeper Meaning of Home*. Berkeley , California: Conari Press.

Crosbie, M.J. (2003). *Multi-Family Housing: the Art of Sharing*. Mulgrave.

Douglas, M., 1996. *Thought Styles: Critical Essays in Good Taste*. London, UK: Sage Publications.

Einifar, A. (2003). A model to analyze residential spaces: based on flexibility criteria of traditional housing. *Honarhaye ziba Journal of Faculty of Fine Arts*, 13, 64–77

Eiraji, J. Nalbandy Boukani, A. and Sabounchi, M. (2011). The Relationship between Qajar Architecture and Art and Iranian Culture and the Effects of West and East on them. *International Conference on Humanities, Society and Culture*, 20, 355-358. Singapore: IACSIT Press.

Erwin, P. G. (1994). *Effectiveness of social skills training with children: A meta-analytic study*. *Counselling Psychology Quarterly*, 7, 305-310.

Eskandari. P. (2011). *Analysis of Traditional Iranian Houses of Kashan, Iran in Terms of Space Organization and Access Design* (Unpublished master's thesis). Eastern Mediterranean University, Famagusta, North Cyprus.

Fakohi. (2004). *Anthropology of Urban*. Tehran: Nay press.

Fazeli, N. (2006). *Mafhome farhange khane dar iran. Concept of House Culture in Iran*. Retrieved from <http://www.isa.org.ir>.

Fazeli, N. (2007). Modernity and Housing; ethnographic approach to the concept of home, rural lifestyle and modern developments. *Journal of Cultural Studies, First Year* (1), 25-63

Finch, J., & Hayes, L. (1994). Inheritance, Death and the Concept of the Home. *Sociology*, 28(2), 417–433. doi:10.1177/0038038594028002004

Friedman, A. (2002). *The Adaptable House : Designing Homes for Change* (1st ed.). New York: McGraw-Hill Professional.

Georgiou, M. (2006, September). Architectural privacy: a topological approach to relational design problems. Thesis. Retrieved December 25, 2012, retrieved from <http://eprints.ucl.ac.uk/2919/>



Ghaznavian, Z. (2010, Aug). *Domestic Space* . Retrieved Feb 10, 2012, from Anthropology and Culture: [www.anthropology.ir](http://www.anthropology.ir)

Ghobadian, V. (1999). Residential Environment psychology. Robert Gifford. *Architecture and Culture* 2-3, autumn and winter, 71-98

Giddens, A. (1991). *Modernity and Self- Identity; Self and Society in the Last Modern Age*. Palo Alto, CA: Stanford University Press.

Gifford, R. (1996). *Environmental Psychology: Principles and Practice* (2nd ed.). Allyn & Bacon.

Haeri, M. (1996, May). Housing Unit Is Not Home. *Architecture and Urbanization*, 31-32.

Haeri, M. (1997). Designing the contemporary house and the architectural principles of traditional houses. *Abadi, Quarterly Journal of Architecture and Urbanism*, 18–28.

Haeri, M. (2010). *House, culture, and Nature of Iran*. Tehran: Information and Research Center of architecture and urbanism publications.

Haeri, M. (2010, June). *From Understanding to Design of House*. Tehran: Naghsh-e-Jahan Art Center Scholarships.

Haji-Qassem, K (1996). *Ganjnameh* (Encyclopedia of Iranian Islamic architecture), First Volume: Masions of Kashan. Iran: Shahid Beheshti University Publication.

Haji-Qassemi, K (2003). *Ganjnameh* (Encyclopedia of Iranian Islamic architecture), Fourteenth Volume: Masions of Yazd. Iran: ShahidBeheshti University Publication.

Haji-Qassemi, K (2003). *Iranian Islamic architecture*, (Vol. 14), Yazd houses. Iran: Rowzaneh Publication.

Hawkins, D.I. Best, R.J. and Coney, K.A. (1998). *Consumer Behavior: Building Marketing Strategy*, Boston: McGraw-Hill.

Heidegger, M. (1993). *Building, Dwelling, thinking*. London: Basic Writings.

Hertzberger H. (2005). *Lessons for student in architecture*. 010 Publisher.

Houvansian, V. (1970). Iran Architecture At the Crossroads National and New Style. *Art and Architecture, 1*, 35-36.

Hummon, D. M. (1990). *Commonplaces: Community Ideology and Identity in American Culture*. Al-bany: SUNY Press.

Jenkins, P., Smith, H. and Wang, Y.P. (2007). *Planning and Housing in the Rapidly Urbanising World*. London & NewYork: Routledge.

Jensen, M. (June, 2007). Defining lifestyle. Taylor & Francis. *Environmental sciences, 4* (2), 63-73.

Jones, G. (1995). *Leaving Home*. Buckingham: Open University Press.

Jones, G. (2000). Experimenting with Households and Inventing 'Home'. *International Social Science Journal*, 52(164), 183–194. doi:10.1111/1468-2451.00250

Jung, C. G. (1989). *Memories, Dreams, Reflections*. (C. Winston & R. Winston, Trans., A. Jaffe, Ed.) (Revised Edition.). Vintage. 182-183

Khatib-chahidi, J. (1993). *Sexual Prohibitions, Space and Fictive Marriages in Shi-ite Iran*. In S. Ardener (ed) *Women and space: Ground Rules and Social Maps*, revised edition Berg, Oxford: Oxford. 112-134

Kheirabadi, M (2000). *Iranian cities*. Iran: Syracuse University Press.

Labaf-khanigi, R. (1995). Molaheze sharaf ensan dar memari sonata iran. Attention to man in traditional Iranian architecture. In S. B. Congress, *Article collection of Congress of History of Architecture and Urbanism of Iran, 1*, 273-277. Bam, Kerman: Iran Cultural Heritage, Handcrafts and Tourism Organization.

Ladier-Fouladi, M. (2002). Iranian families between demographic change and the birth of the welfare state. *Population (English Edition)*, 57(2), 361–370

Lang, j. (1987). *Creating architectural theory*. Van Nostrand Reinhold company Inc., New York.

Lawrence, R. (1987). *Housing, Dwelling and Homes; design theory, research and practice*. London: John Wiley & Sons.

Lawrence, R. (1995). *Deciphering Home: An Integrative Historical Perspective*. In Benjamin, D.N. & Stea, D. (Eds), *The Home: Words, Interpretations, Meanings, and Environments*. England: Ashgate Publishing.

Le.Corbusier. (1975). *How to Think about Urbanization Issues?* (M. Katebi, Trans.) Tehran: Amirkabir University.

Leylian, M.A. (2010, September). Design principles in the hot and arid, *International journal of academic research*,2

Madanipoor, A. (2003). *Public and Private Spaces of the City*. London: Routledge.

Maleki, B. (2011, March). Traditional sustainable solutions in Iranian desert architecture to solve the energy problem. *International journal on "Technical and Physical Problems of Engineering"*, 6. Retrieved December 25, 2012, from <http://www.iotpe.com/IJTPE/IJTPE-2011/IJTPE-Issue6-Vol3-No1-Mar2011/16-IJTPE-Issue6-Vol3-No1-Mar2011-pp84-91.pdf>.

Marefat, M. (1996). *Tehran, Two hundred-year capital*. Tehran: Community of.

Mashhodi, S. (1995). Surveying Housing Architecture History in Shoshtar Historical context. In S. B. Congress, *Article collection of Congress of History of Architecture and Urbanism of Iran*, 1, 190-197. Bam, Kerman: Iran Cultural Heritage, Handcrafts and Tourism Organization.

Mazumdar, S. (1997). Religious traditions and domestic architecture: A comparative

analysis of Zoroastrian and Islamic houses in Iran, *J. Architect. Plan. Res.*, 14(3): 181-207.

Meiss, P.V. (1990). *Element of Architecture*. London: E & FN Spon.

Memarian, Gh. (1993). *Acquaintance with Iran Residential Architecture, typology of Introvert*. Elm o Sanat University, Iran, Tehran.

Memarian, GH. Brown, F. (1996). *Patterns of Privacy and Hospitality in the traditional Persian House*. Paper presented at the fifth IASTE conference: Identity, Tradition and built form: Working Papers Series Berkeley, 100, 42-82.

Memarian, GH. Brown, F. (2006). *The shared characteristics of Iranian and Arab courtyard houses*. In SM. a. HM. Edward B (eds) *Courtyard Housing*, Oxon: Taylor & Francis, 21-30

Memarian, Gh.& Sadoughi, A. (9 December, 2011). Application of access graphs and home culture: Examining factors relative to climate and privacy in Iranian houses. *Scientific Research and Essays Vol. 6(30)*, 6350-6363.

Mirmoghtadaee, M. (2009). *Process of Housing Transformation in Iran*. *Journal of Construction in Developing Countries*, 14 (1), 69-80

Mokhaber, A. (1996). *Pahlavi Dynasty and Religious Forces*. Tehran: New Design.

Moor, J. (2000). Placing home in context. *Journal of Environmental Psychology*, 207-217.

Moore, Ch. et all. (1974). *The Place of House*. Winston: Holt Rinhart.

Moradi, A. (1995). Surveying about Naien and Mohammadiieh Traditional Houses and General Principles in their Design. In S. B. Congress, *Article collection of Congress of History of Architecture and Urbanism of Iran, 1*, 149-172. Bam, Kerman: Iran Cultural Heritage, Handcrafts and Tourism Organization.

Nasr, S.H. (1978). *The contemporary Muslim and architectural transformation of the Islamic urban environment*. In Towardan Architecture in the Spirit of Islam. R. Holod, (ed.)Philadelphia: The Aga Khan Award for Architecture.

Nasir-i-din, TM. (1985). *Akhlaghe Naseri (Naseri's Ethics)*. Tehran: Kharazmi.

Norberg-Schulz, C. (1993). *The Concept of Dwelling*. New York: Rizzoli.

Office development and promotion of national construction regulations. (2008). National Construction Regulations, Topic Three: Protecting buildings against fire. Publication of Iran Development.

Office development and promotion of national construction regulations. (2008). National Construction Regulations, Topic Four: General Requirements for Construction. Publication of Iran Development.

Office development and promotion of national construction regulations. (2006). National Construction Regulations, Topic six: Loads on buildings. Publication of Iran Development. Second edition.

Office development and promotion of national construction regulations. (2008). National Construction Regulations, Topic Fifteen: Elevators and Escalators. Publication of Iran Development.

Omer, S. (2006). Towards an understanding of the concept of the Islamic house. *HBRC Journal*

Peter, J.P. and Olson, J.C. (1994). *Understanding Consumer Behavior*. Burr Ridge, IL: Irwin.

Pinto, T. M., Soutar, G. N., & Ewing, M. T. (2001). Agency-Client Chemistry: Demographic and Psychographic Influences. *International Journal of Advertising*, 20(2), 169-187. Retrieved from <http://www.internationaljournalofadvertising.com/ViewAbstract.aspx?id=49837>

Pirnia, M. (1981). *Acquaintance with Iran Islamic Architecture*. Tehran, Iran: Tehran University.

Pirnia, M.K. (2001). *Styles of Iran Architecture*. Tehran: Islamic Art institute.

Pirnia, M.K. (2009). Ashnaee ba Memari Eslami Iran; Introduce to Islamic Iranian Architecture (Cilt 14). (G. Memrian, Du.) Iran: Sourosh-e-Danesh

Pisman, A. (2007). Focus on housing demands in spatial planning. *8ste FirW Doctoraatssymposium, Gent. 2007* (pp. 66–66). Universiteit Gent - Faculteit Ingenieurswetenschappen. Gent, Belgium.

Plummer, J.T. (1974). ‘The Concept of Life Style Segmentation’, *Journal of Marketing*, 38, 33-37

Pourdeihimi, S. (2001, Summer). Experience and Process of Housing Formation. *Architecture and Culture*, 53-62.

Pulhan, H. & Numan, I. (2006). The Traditional Urban House in Cyprus as Material Expression of Cultural Transformation. *Journal of Design History* 19(2)

Rahbar, M. (1996). *Privacy in Row Houses of Montreal*. Montreal: McGill University.

Rapoport, A. (1969). *House Form and Culture*. Prentice Hall.

Rapoport, A. (1987). On the Cultural Responsiveness of Architecture. *Journal of Architectural Education (1984-)*, 41(1), 10–15. doi:10.2307/1424903

Rapoport, A. (1991). “*Housing: Symbol, Structure, Site*”. In L. Taylor (Ed.), *Housing and Culture*. Rizzoli: New York. 14-15.

Rapoport, A. (1994) *Sustainability, Meaning and Traditional Environments*. Berkeley: Center for Environmental Design Research, University of California-



Berkeley, *Traditional Dwellings and Settlements Working Paper Series*, 75, IASTE: 75–94.

Rapoport, A. (1998). Using “Culture” in Housing Design. *Housing and society*, 25 (1&2).

Rapoport, A. (2005). *Culture architecture and design*. Locke Science Publishing Company, Inc, Chicago.

Rybczynski, W. (1987). *Home, A Short History of an Idea*. Penguin Books.

Saati, A. *Aziz Saati's Photo of "with Hatami in Tehran"*. Tehran: Nazar Art Publication

Salvan, G. (1999). *Architectural Theories of Design*. Philippine: JMC Press, Inc.

Saremi, A.A. (1995). Anasor paydar va moteghayer dar memari hayat. Stable and Variable Elements in architecture courtyard. In S. B. Congress, *Article collection of Congress of History of Architecture and Urbanism of Iran 1*, 228-246). Bam, Kerman: Iran Cultural Heritage, Handcrafts and Tourism Organization.

Saremi, A.A. & Radmard, T. (1997). *Sustainable Values in Iranian Architecture*. Iran Cultural Heritage, Handcrafts and Tourism Organization. Tehran

Schneider, F. (Eds). (1966). *Floor Plan Manual, Housing*. Tehran: Khak Press.

Schoenauer, N. (1994). *Cities, Suburban, Dwelling in the Postwar Era*. Montreal, Quebec, Canada: School of Architecture, McGill University.

Shabani, M.M., Tahir. M.M., Arjmandi, H., Che-Ani, A.I., Adbullah, N.A.G., and Usman, I.M.S. *Achieving Privacy in the Iranian Contemporary Compact Apartment through Flexible Design*. Department of Architecture, Universiti Kebangsaan Malaysia 43600, UKM, Bangi, Selangor, Malaysia. ISSN: 1792-5088. Retrieved December 21, 2011, from [http://www.academia.edu/405513/Achieving\\_Privacy\\_in\\_the\\_Iranian\\_Contemporary\\_Compact\\_Apartment\\_Through\\_Flexible\\_Design](http://www.academia.edu/405513/Achieving_Privacy_in_the_Iranian_Contemporary_Compact_Apartment_Through_Flexible_Design)

Shabani, M.M., Tahir. M.M., Shabankareh, H., Arjmandi, H., and Mazaheri, F. (2011). Relation of Culture and Social Attributes in Dwelling, Responding to Privacy in Traditional House. *Journal of Sciences and Humanities*, 6(2). 273-287

Shahabi, M. (2007). *Power, Wealth and Lifestyles in Iran*. Tehran: Center for Strategic Research

Sharbatian, M. (2010, Oct). *Thinking on Cultural and Social studies of House*. Retrieved Feb 10, 2012, from Anthropology and Culture: [www.anthropology.ir](http://www.anthropology.ir)

Solomon, M.R. (1994). *Consumer Behavior: Buying, Having, Being*. Boston, MA: Allyn and Bacon.

Soltanzadeh, H. (2005). From house to apartment. *Architecture and Culture Quarterly*, 7 (23), 142–154.

Strauss, A. (1976). "Life Style and Urban Space". In H. Proshnasky, W. ittelson, and L. Rivlin (Eds.), *Environment Psychology, People and their Physical Settings*. Holt, Rinohart and Winston: New York. 528-537.

Tafakor, S. (2006). *A Survey the contemporary house ( An Speculation on House in Consumer Society)*. Mashhad: Unpublished Master Thesis, Azad University, Branch of Mashhad.

Tafazoli Harandi, M. (2009). *An Assessment of User Satisfaction in Public Housing: Case of Gazimagusa*. Unpublished master's thesis. Eastern Mediterranean University, Famagusta, North Cyprus.

Tahbaz, M. (1995). Principles of Desert Architecture. In S. B. Congress, *Article collection of Congress of History of Architecture and Urbanism of Iran*, 2, 228-246. Bam, Kerman: Iran Cultural Heritage, Handcrafts and Tourism Organization.

Vyncke, P. (2002). Lifestyle Segmentation From Attitudes, Interests and Opinions, to Values, Aesthetic Styles, Life Visions and Media Preferences. *European Journal of Communication*, 17(4), 445–463. doi:10.1177/02673231020170040301

Wedel, M., & Kamakura, W. A. (2000). *Market Segmentation: Conceptual and Methodological Foundations* (2ND. ed.). Boston: Kluwer Academic Publishers.

Weisner, T. S., & Weibel, J. C. (1981). Home Environments and Family Lifestyles in California. *Environment and Behavior*, 13(4), 417–460. doi:10.1177/0013916581134002

Weston, R. (2002). *The House in the 20th Century*. London: Laurence King.

Wilska, T.-A. (2002). Me–A Consumer? Consumption, Identities and Lifestyles in Today's Finland. *Acta Sociologica*, 45(3), 195–210.  
doi:10.1177/000169930204500302

Zakati, M.S. (2007). *Changing lifestyle patterns of youth in Iran*. Center for Strategic Research. Tehran.

## **APPENDICES**

## Appendix A: Questioner

Individual features:

1. How old are you?  
1-15                      15-30                      30-45                      older than 45
2. Gender: Male                      Female
3. What is your religion?  
Islam                      Christian                      Jewish                      Zoroastrian
4. What is your job?
5. What is your ownership status?  
Landlord- buyer                      Landlord- builder                      Tenant
6. How long you stay in this house?  
Less than 5 years                      5- 10 years                      10-15 years                      More than 15 years
7. How many people are living here?  
1-2 people                      3-4 people                      5-6 people                      More than 6 people
8. What is the family income situation in average?  
Very high                      High                      Normally                      Low                      Very low
9. What were affective factors you had in your mind in order to choose your house?  
Economy                      Neighbors                      Facilities                      Plan design                      Location
10. Do you have a private room? Yes                      No
- 10.1. Does your room proportional with demands? Yes                      No
- 10.1.1. Yes, what changes made in it for adapted with your desires?  
.....
- 10.1.2. No, what changes need to adapt with your desires?  
.....

11. Daily activities:

Activities	Individual	Collective	In house	Out of house	Which space use for it	explanation
Eating						
Gathering family						
Study						
Saying prayer						
Exercising						
Sleeping						
Cooking						
Others .....						

Cultural feature:

12. What is your family structure?  
Nuclear family                      Extended family

13. What is your role in family?  
 Father                  Mother                  Children
14. Which other member of family live with u?  
 Grand father                  Grand mother                  Groom                  Brid
15. Which spaces are for entertainment of relatives?  
 Living room                  Dining room                  TV room                  Bedroom
16. Do you held the religious and ritual ceremonies in your own house? Yes      No
- 16.1. Which ceremonies:  
 Ritual                  Religious                  Parties (wedding, birthday)                  Others
- 16.2. Which spaces use for these ceremonies?  
 Living room                  Dining room                  TV room                  .....
- 16.3. Do spaces have harmony with these ceremonies? Yes      No  
 Why? .....

Social features:

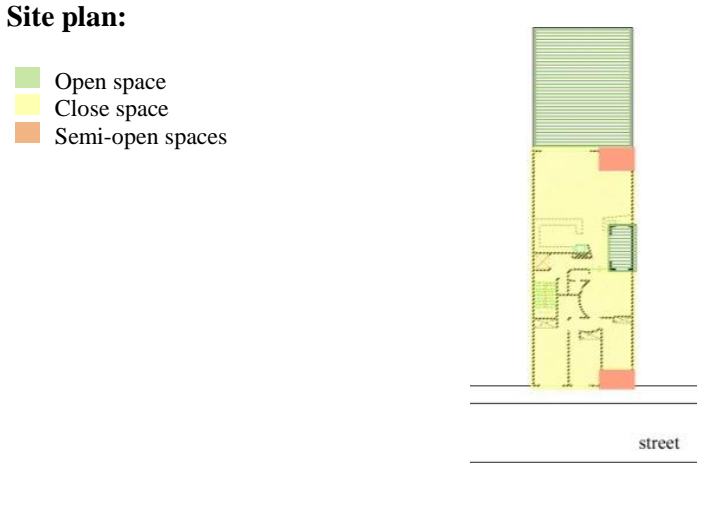
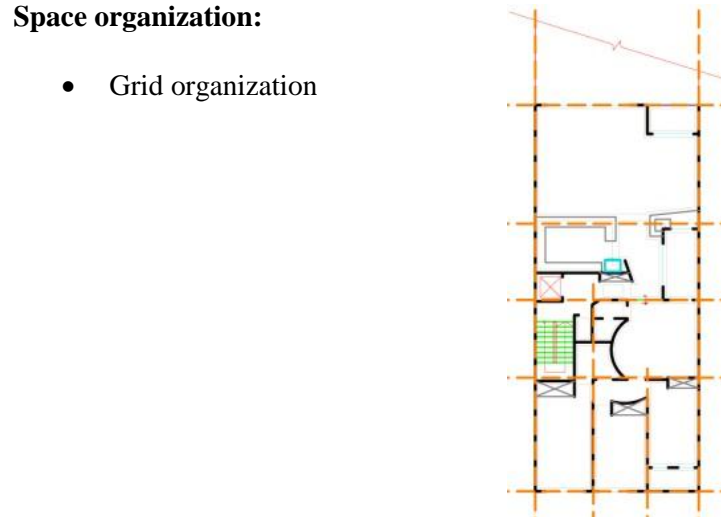
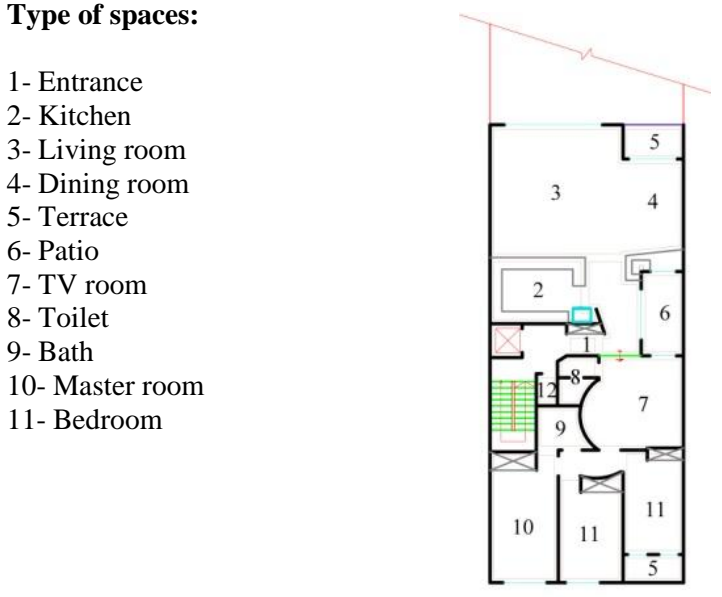
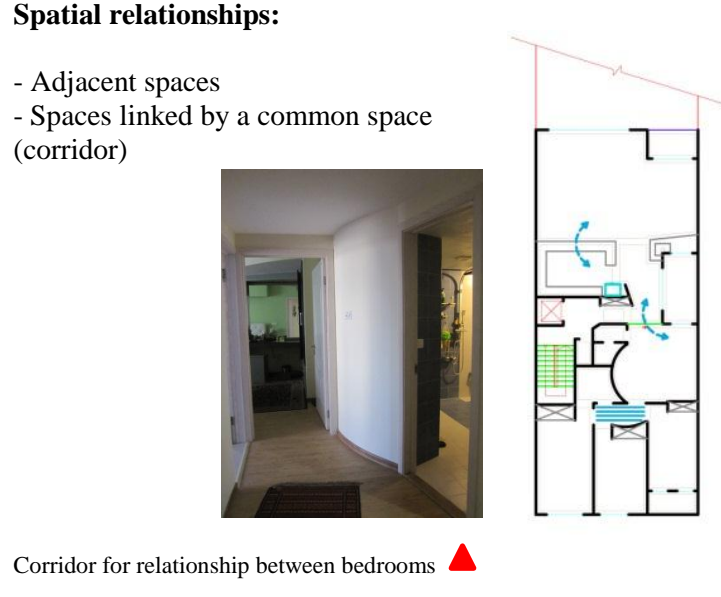
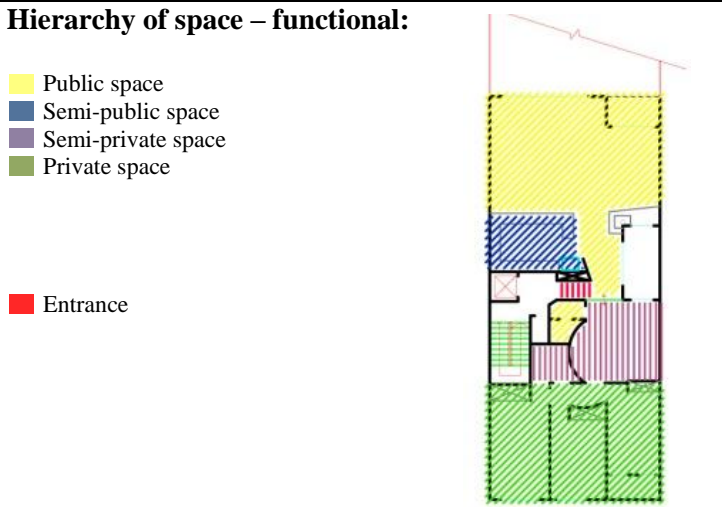
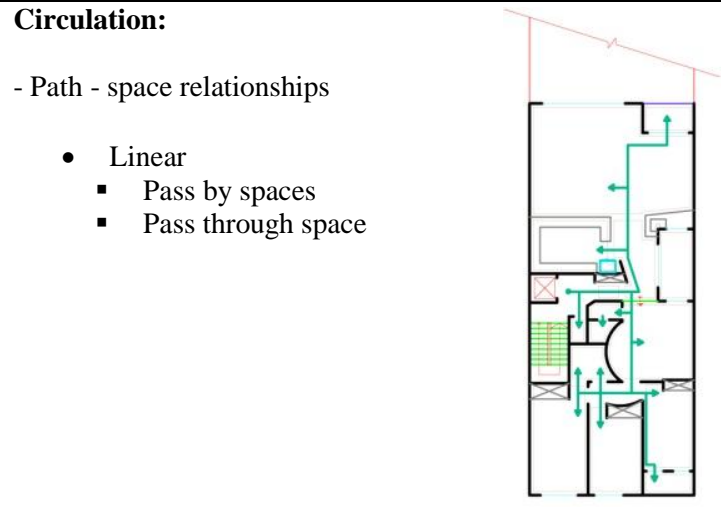
17. What kind of social interaction do you have:  
 Friendship      Neighbors      Coworkers      Member of social or cultural group
18. How much is the range of your relationship with those groups?  
 Very high      High      Normally      Low      Very low
19. Do you held these parties at home? Yes      No
- 19.1. How many usually do you have guests?  
 Less than 5 people      5-10      10-15      More than 15 people
- 19.2. Which spaces in your house use for entertainment of your guests?  
 Living room                  Dining room                  TV room                  Bedroom
- 19.3. What effects have on enlargement and definition of spaces?  
 .....
20. Is it possible to host a guest for more than one day? Yes      No
- 20.1. Does it cause to create special spaces? Yes      No
- 20.2. Which spaces?  
 .....
21. Does this house have harmony with your desires? For example in :

	Yes	No	Explanation about not suitable things	What you want?
Dimension and enlargement				
Number of spaces				
Kind of spaces				
Relationship between spaces				
Location of spaces				

Thanks for your time

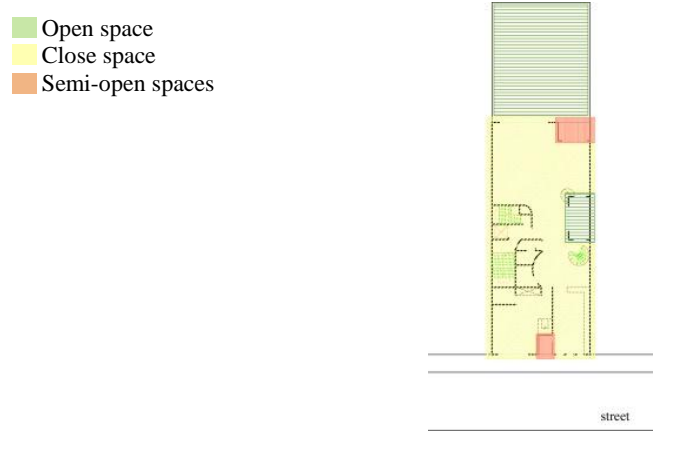
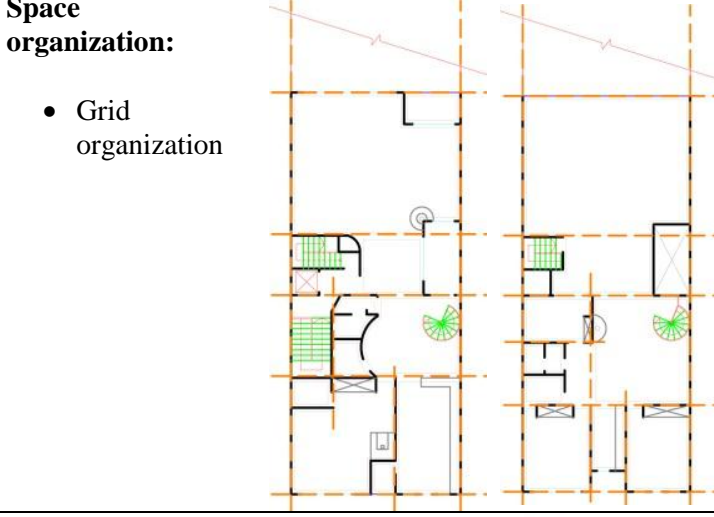
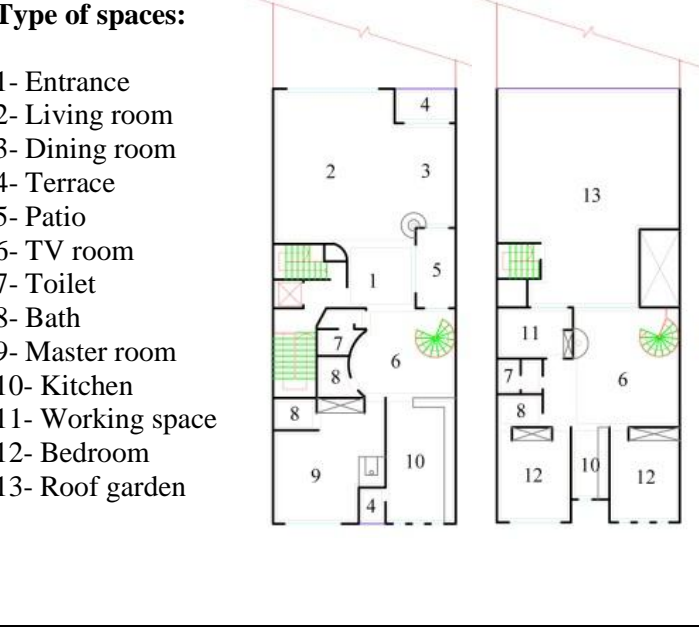
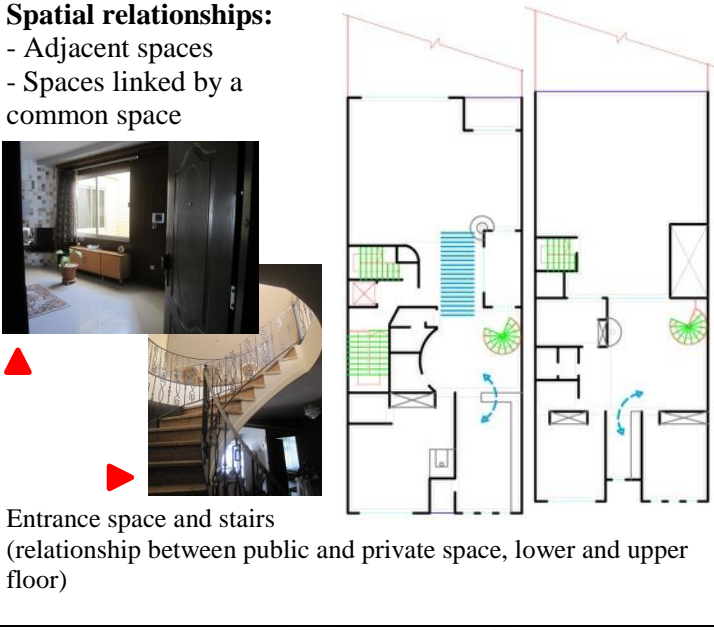

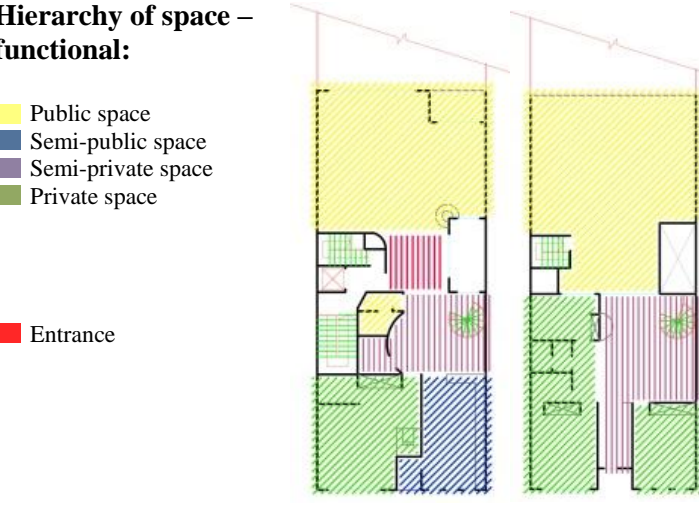
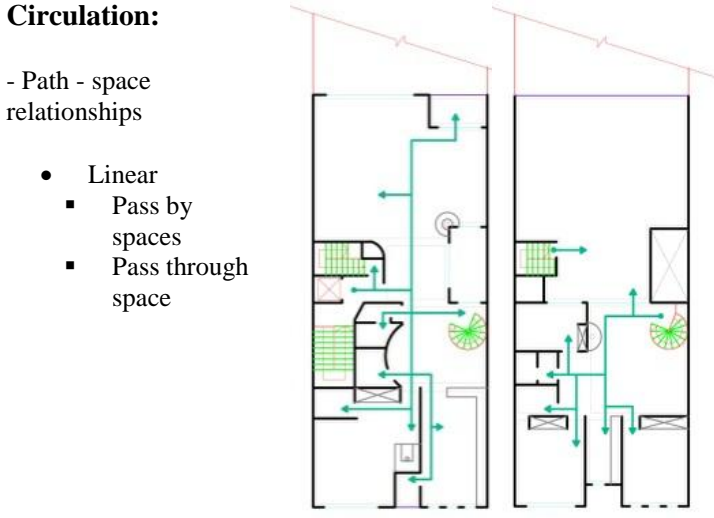
## **Appendix B: Plans Analysis**

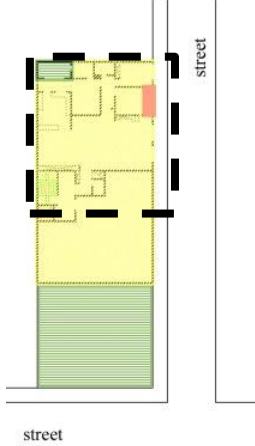

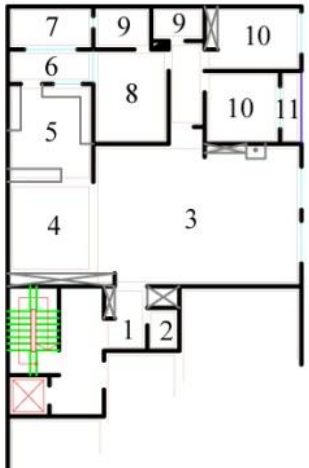







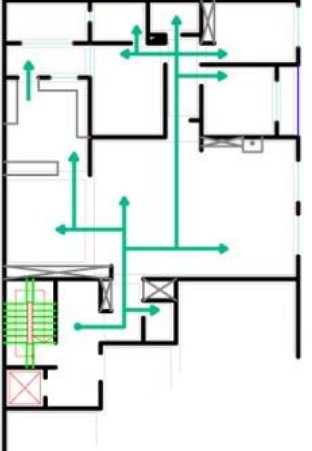


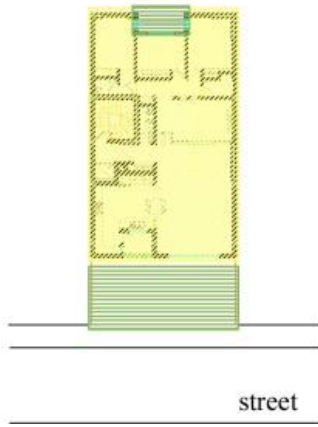


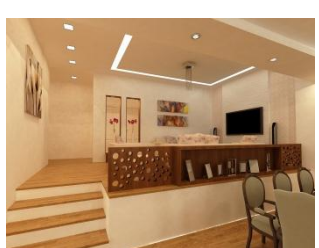




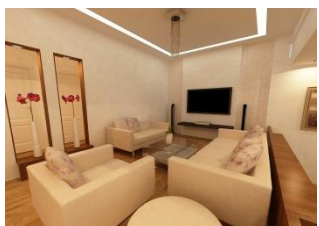
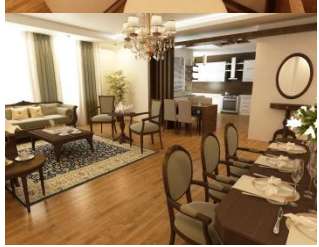
<b>Building 1.</b>			
<b>City:</b> Tehran		<b>information about building:</b> 4 floors/ 3 units/ parking in ground floor/ yard located to behind of building	
<b>Information about unit:</b> 1 <sup>st</sup> floor/ 185 m2		<b>users:</b> 2 people (husband: civil engineer, wife: architect)	
		<b>Ownership:</b> Owner - buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the middle part of building) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* create different form for TV room</li> <li>- want separate bath for master room</li> <li>- want to working space located near the entrance</li> </ul>
<b>Type of spaces:</b> 1- Entrance 2- Kitchen 3- Living room 4- Dining room 5- Terrace 6- Patio 7- TV room 8- Toilet 9- Bath 10- Master room 11- Bedroom	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>  <p>Corridor for relationship between bedrooms ▲</p>	<b>Pictures</b>  <p>Entrance Entrance space Master room ▼</p> <p>TV room Living room Dining room ▲</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*combining and dividing spaces is related to users' needs</li> <li>* hierarchy between spaces response to requests inhabitant</li> <li>- want to relationship between kitchen and TV room</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul> <p>Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear               <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*entrance part is suitable because have harmony with the social interaction and their customs</li> <li>*spaces definition are good (between public and private spaces)</li> <li>* spaces enlargement have harmony with users need and number of guests and parties</li> </ul>

**Building 2.**

**City:** Tehran **information about building:** 4 floors/ 3 units/ parking in ground floor/ yard located to behind of building  
**Information about unit:** 1<sup>st</sup> floor/ 280 m2/ duplex **users:** 4 people (father: civil engineer, mother: teacher, 1- son: civil engineer and 2- son: student ) **Ownership:** Owner – buyer

Analyses		Regulations	Expectation of users
<p><b>Site plan:</b></p> 	<p><b>Space organization:</b></p> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the middle part of building) (topic 4)</li> </ul>	<p><b>Individual:</b></p> <ul style="list-style-type: none"> <li>* two open kitchen (in different floor)</li> <li>* one kitchen with balcony</li> <li>* master room in lower floor</li> <li>* other bedroom located in upper floor</li> <li>* working space (upper floor and related to open space)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to kitchen near to living room</li> </ul>
<p><b>Type of spaces:</b></p> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Living room</li> <li>3- Dining room</li> <li>4- Terrace</li> <li>5- Patio</li> <li>6- TV room</li> <li>7- Toilet</li> <li>8- Bath</li> <li>9- Master room</li> <li>10- Kitchen</li> <li>11- Working space</li> <li>12- Bedroom</li> <li>13- Roof garden</li> </ol> 	<p><b>Spatial relationships:</b></p> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space</li> </ul>  <p>Entrance space and stairs (relationship between public and private space, lower and upper floor)</p>	<p><b>Pictures</b></p>  <ul style="list-style-type: none"> <li>Lower floor: <ul style="list-style-type: none"> <li>◀ Living room</li> <li>◀ TV room</li> <li>◀ Kitchen</li> </ul> </li> <li>Upper floor: <ul style="list-style-type: none"> <li>◀ Roof garden</li> <li>◀ TV room</li> </ul> </li> </ul>	<p><b>Cultural:</b></p> <ul style="list-style-type: none"> <li>* TV room</li> <li>* two zone : Private zone Public zone</li> <li>* upper floor for family gathering</li> <li>* roof garden ( entertainment of guests and gathering family)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to obey hierarchy between public spaces and private spaces</li> <li>- want to kitchen near to living room</li> </ul>
<p><b>Hierarchy of space – functional:</b></p> 	<p><b>Circulation:</b></p> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>*entrance part have enough space for welcoming customs</li> <li>*spaces enlargement have harmony with users need</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to pay attention to spaces definition (between dining room and living room)</li> </ul>	

<b>Building 3.</b>			
<b>City:</b> Tehran		<b>information about building:</b> 6 floors/ 12 units/ parking ,store rooms and meeting room in ground floor/ yard located in front of building	
<b>Information about unit:</b> 4 <sup>th</sup> floor/ 180 m2		<b>users:</b> 4 people (father: civil engineer, mother: architect, daughter and son: student)	
		<b>Ownership:</b> Owner – buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Open space</li> <li><span style="color: yellow;">■</span> Close space</li> <li><span style="color: orange;">■</span> Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• clustered organization (clustered pattern)</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the back of spaces) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* kitchen with service courtyard</li> <li>* master room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- change the location of master rooms (do not have suitable light)</li> <li>- need the working space</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Living room</li> <li>4- Dining room</li> <li>5- Kitchen</li> <li>6- Service yard</li> <li>7- Patio</li> <li>8- Master room</li> <li>9- Bath</li> <li>10- Bedroom</li> <li>11- Terrace</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>  <p>Corridor for relationship between bedrooms</p>	<b>Pictures</b>  <p>▲ Entrance</p>  <p>▲ Dining room</p>  <p>Living room ▲</p>  <p>TV room ▲</p>  <p>Kitchen ▲</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*create the TV room by setting furniture</li> <li>* good relationship between kitchen and dining room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need more pay attention to combining spaces (between TV space , living room and dining room)</li> <li>- need to obey hierarchy between public spaces and private spaces</li> <li>- need the divided between spaces (private and public space mixed together)</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li><span style="color: yellow;">■</span> Public space</li> <li><span style="color: blue;">■</span> Semi-public space</li> <li><span style="color: purple;">■</span> Semi-private space</li> <li><span style="color: green;">■</span> Private space</li> <li><span style="color: red;">■</span> Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>* entrance space does not harmony with its function because it is as a corridor</li> <li>*there are balance between public and private spaces</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Need the guest room</li> <li>- need larger living room and kitchen</li> <li>- need more definition for TV room</li> </ul>

<b>Building 4.</b>			
<b>City:</b> Tehran		<b>information about building:</b> 4 floors/ 3 units/ lobby, parking and store rooms in ground floor/ yard located in front of building	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 150		<b>users:</b> 4 people (father: manager of consulting engineer, mother: housewife, son and daughter: student)	
		<b>Ownership:</b> Owner – buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Open space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Close space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> Semi-open spaces</li> </ul>  <p style="text-align: center;">street</p>	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (patio)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* Large open kitchen with balcony</li> <li>* master room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- change location of bedrooms (they do not have suitable light)</li> <li>- need the kitchen located near to TV room</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Kitchen</li> <li>3- Balcony</li> <li>4- Living room</li> <li>5- TV room</li> <li>6- Bath</li> <li>7- Bedroom</li> <li>8- master room</li> <li>9- Toilet</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>  <p style="text-align: center;">▲ Relationship between TV room and living room</p> 	<ul style="list-style-type: none"> <li>- rules about windows open on Patio (its location is in 170 meter higher from floor)</li> </ul>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* TV room</li> <li>* divided to two zone : <ul style="list-style-type: none"> <li>Private zone</li> <li>Public zone</li> </ul> </li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want more privacy for bedrooms</li> <li>- want pay attention to combining spaces (living room and dining room)</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #0000FF; border: 1px solid black; margin-right: 5px;"></span> Semi-public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> Semi-private space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> Private space</li> </ul> <p style="margin-top: 10px;"><span style="display: inline-block; width: 10px; height: 10px; background-color: #FF0000; border: 1px solid black; margin-right: 5px;"></span> Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 	<b>Pictures</b>  <p style="text-align: center;">Elevation ▶</p>  <p style="text-align: center;">▶ TV room</p>  <p style="text-align: center;">▶ Living room</p>	<b>Social:</b> <ul style="list-style-type: none"> <li>* there are balance between public and private space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to definition for spaces</li> <li>- want more room as a guest room</li> <li>- need to larger living room</li> </ul>

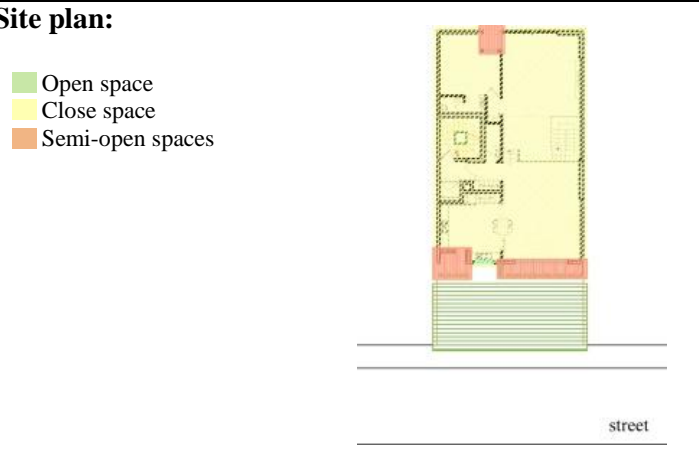
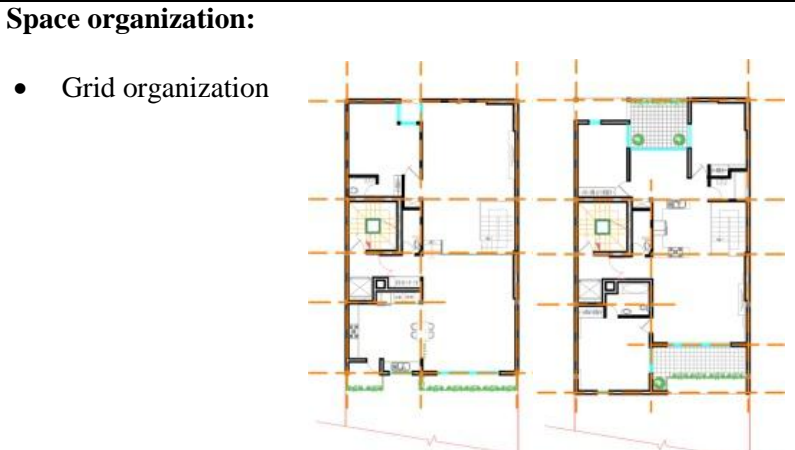
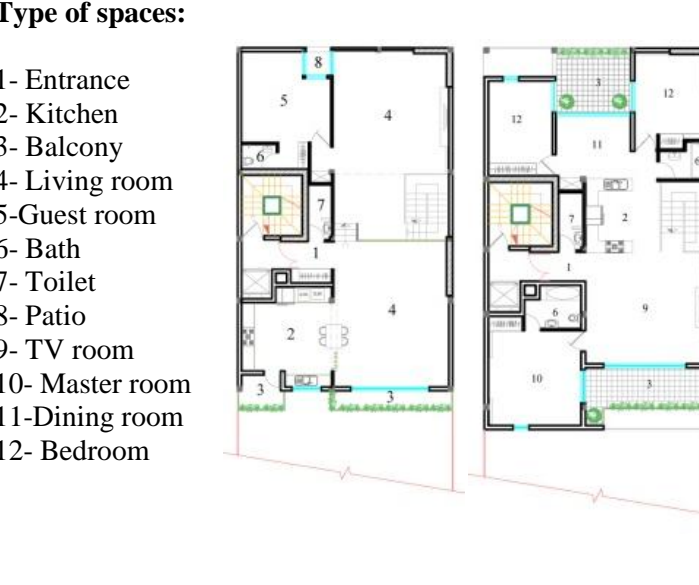
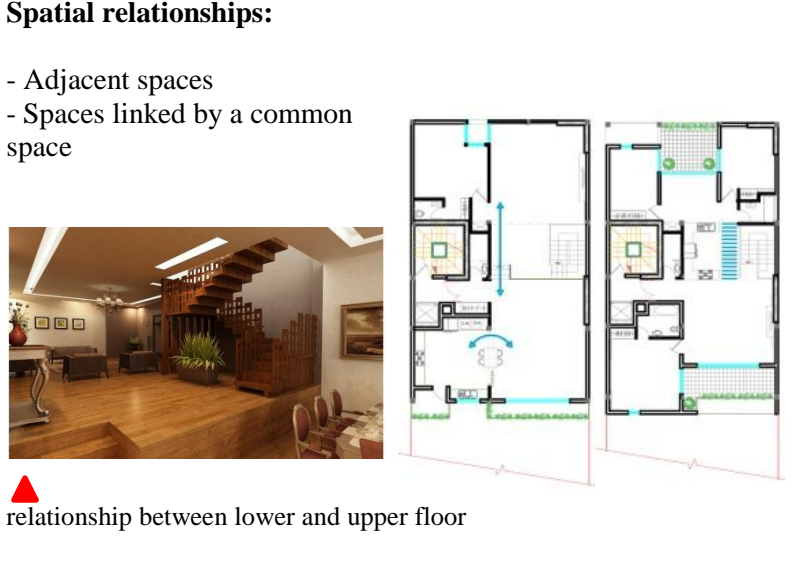
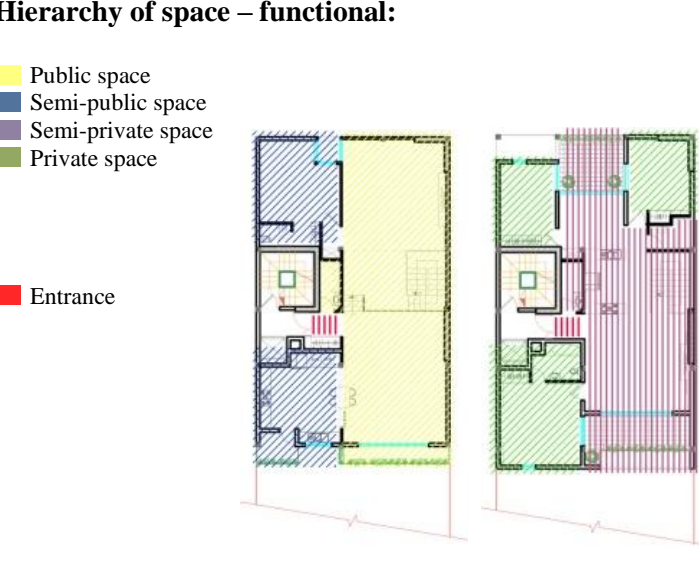
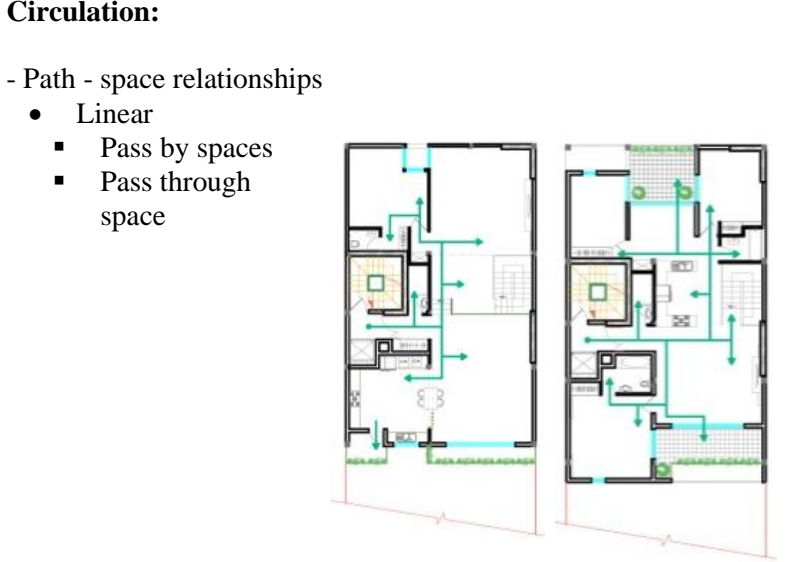


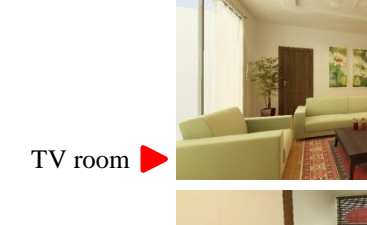
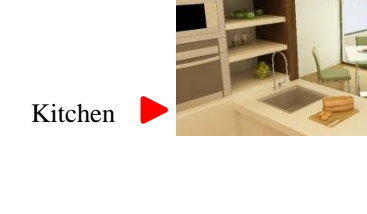
**Building 5.**

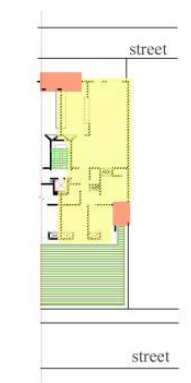
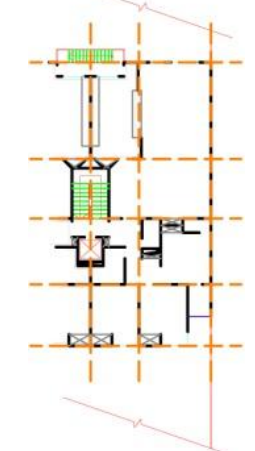
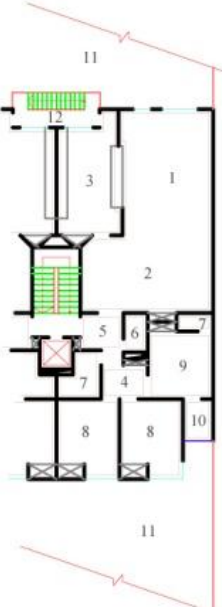
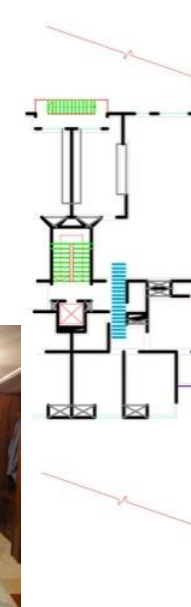






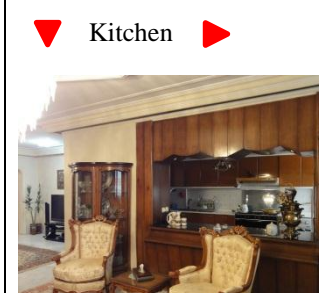

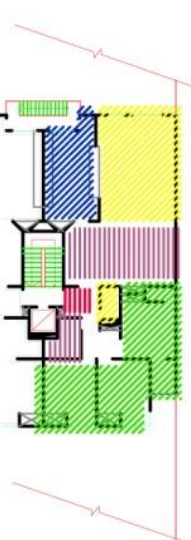
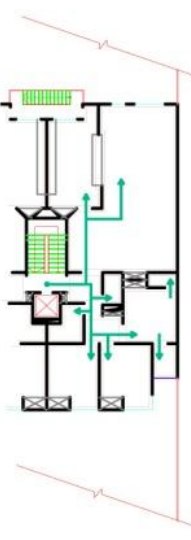



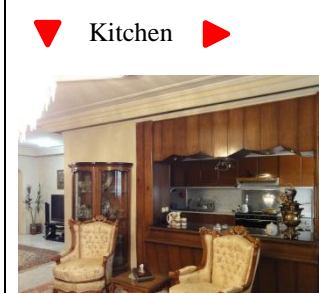

**City:** Tehran **information about building:** 4 floors/ 3 units/ lobby, parking and store rooms in ground floor/ yard located in front of building  
**Information about unit:** 1<sup>st</sup> floor/ 250 m2 / duplex **users:** 4 people (father: civil engineer, mother: computer engineer , son and daughter: student) **Ownership:** Owner - Producer

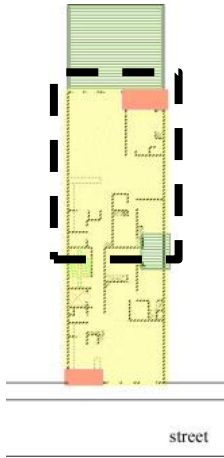
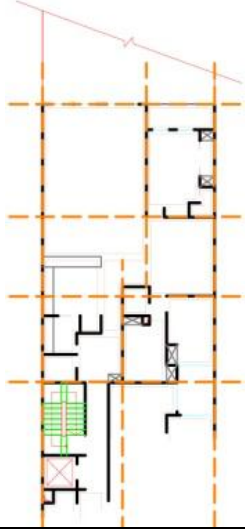
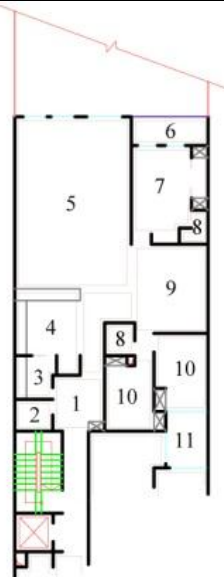

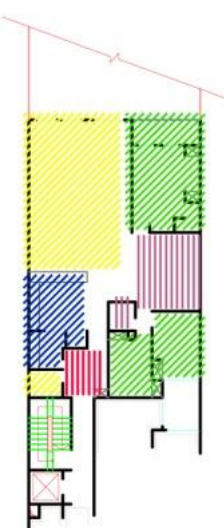
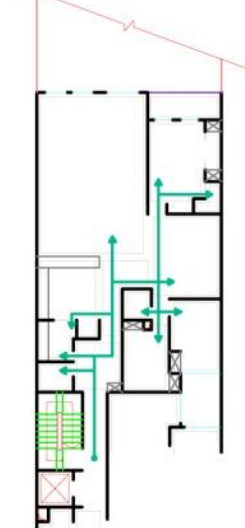
Analyses		Regulations	Expectation of users
<p><b>Site plan:</b></p>  <p>Legend:  <span style="color: green;">■</span> Open space  <span style="color: yellow;">■</span> Close space  <span style="color: orange;">■</span> Semi-open spaces</p>	<p><b>Space organization:</b></p> <ul style="list-style-type: none"> <li>Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (patio)</li> </ul>	<p><b>Individual:</b></p> <ul style="list-style-type: none"> <li>* two open kitchen (in different floor)</li> <li>* one kitchen with balcony</li> <li>* master room</li> <li>* a flexible space (as guest room or extended living room in lower floor)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Want to change the location of bedrooms</li> </ul>
<p><b>Type of spaces:</b></p> <ol style="list-style-type: none"> <li>Entrance</li> <li>Toilet</li> <li>Guest room</li> <li>Living room</li> <li>Kitchen</li> <li>Patio</li> <li>TV room</li> <li>Master room</li> <li>Bedroom</li> <li>Bath</li> <li>Balcony</li> <li>Yard</li> </ol> 	<p><b>Spatial relationships:</b></p> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul> 	<ul style="list-style-type: none"> <li>- rules about windows open on Patio (its location is in 170 meter higher from floor)</li> </ul>	<p><b>Cultural:</b></p> <ul style="list-style-type: none"> <li>* TV room</li> <li>* two zone : Private zone Public zone</li> <li>* upper floor for entertain relative and family gathering</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to relationship between kitchen and TV room (in upper floor)</li> <li>- pay attention to hierarchy between space (in upper floor)</li> </ul>
<p><b>Hierarchy of space – functional:</b></p>  <p>Legend:  <span style="color: yellow;">■</span> Public space  <span style="color: blue;">■</span> Semi-public space  <span style="color: purple;">■</span> Semi-private space  <span style="color: green;">■</span> Private space  <span style="color: red;">■</span> Entrance</p>	<p><b>Circulation:</b></p> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>Linear <ul style="list-style-type: none"> <li>Pass by spaces</li> <li>Pass through space</li> </ul> </li> </ul> 	<p><b>Pictures</b></p>  <p>Lower floor:  TV room ▲  Living room ►</p>  <p>Upper floor:  Living room ▲  Kitchen ▼</p>  	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>*Two Public zone ( in different floor)</li> <li>* lower floor (for guest)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to defined spaces as TV room, living room and dining room in upper floor</li> </ul>

**Building 6.**

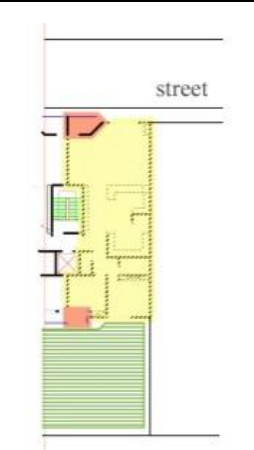









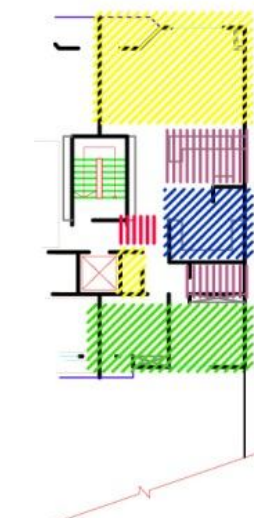
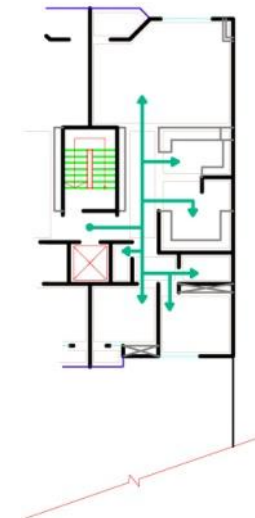
**City:** Tehran **information about building:** 4 floors/ 3 units/ lobby, parking and store rooms in ground floor/ yard located in front of building  
**Information about unit:** 3<sup>rd</sup> floor/ 300 m2/ duplex **users:** 4 people (father: Merchant, mother: accountant, daughters: student) **Ownership:** Owner - Producer


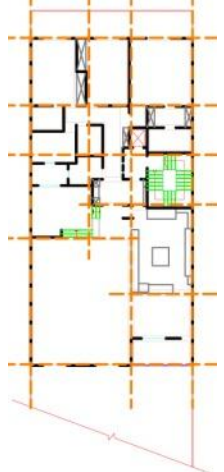
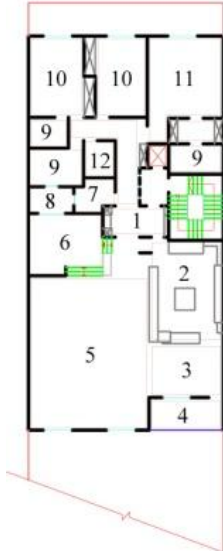
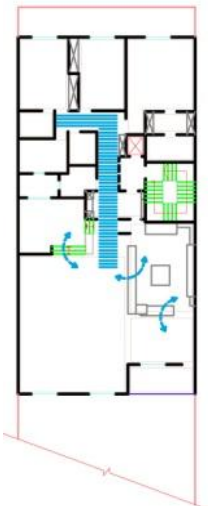



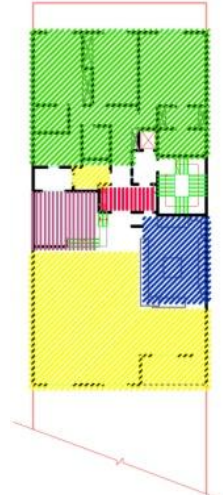
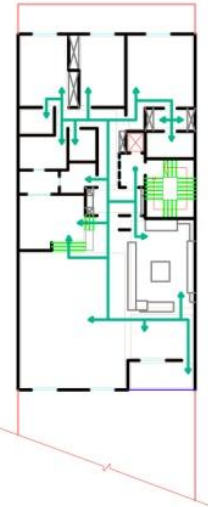
Analyses		Regulations	Expectation of users
<p><b>Site plan:</b></p> 	<p><b>Space organization:</b></p> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (patio)</li> </ul>	<p><b>Individual:</b></p> <ul style="list-style-type: none"> <li>* two open kitchen (in different floor)</li> <li>* one kitchen with balcony</li> <li>* master room</li> <li>* large balcony ( as yard) related to dinning space and bedrooms in upper floor</li> </ul>
<p><b>Type of spaces:</b></p> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Kitchen</li> <li>3- Balcony</li> <li>4- Living room</li> <li>5-Guest room</li> <li>6- Bath</li> <li>7- Toilet</li> <li>8- Patio</li> <li>9- TV room</li> <li>10- Master room</li> <li>11-Dining room</li> <li>12- Bedroom</li> </ol> 	<p><b>Spatial relationships:</b></p> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space</li> </ul>  <p>▲ relationship between lower and upper floor</p>	<p><b>Regulations:</b></p> <ul style="list-style-type: none"> <li>- rules about windows open on Patio (its location is in 170 meter higher from floor)</li> </ul>	<p><b>Cultural:</b></p> <ul style="list-style-type: none"> <li>* TV room</li> <li>* two zone : Private zone Public zone</li> <li>* upper floor for family gathering</li> <li>* large balcony related to living room in upper floor</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Pay attention to combining space</li> <li>- want to hierarchy between spaces</li> </ul>
<p><b>Hierarchy of space – functional:</b></p> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<p><b>Circulation:</b></p> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 	<p><b>Regulations:</b></p> <ul style="list-style-type: none"> <li>- city hall rules (patio)</li> </ul>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>* lower floor as public zone and for entertain guest</li> <li>* guest room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to suitable entrance space (it does not have enough area)</li> <li>- want to more definition between spaces (TV room , living room, dining room)</li> </ul>
		<p><b>Pictures</b></p>  <p>◀ TV room</p>  <p>◀ Dining room</p>  <p>TV room ▶</p>  <p>Kitchen ▶</p>	

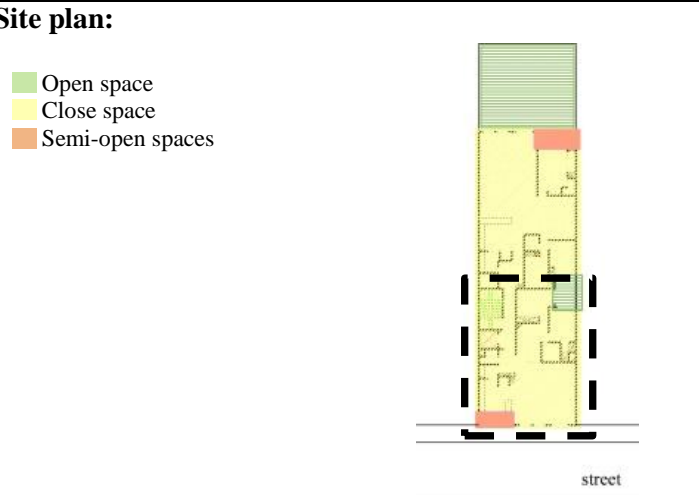
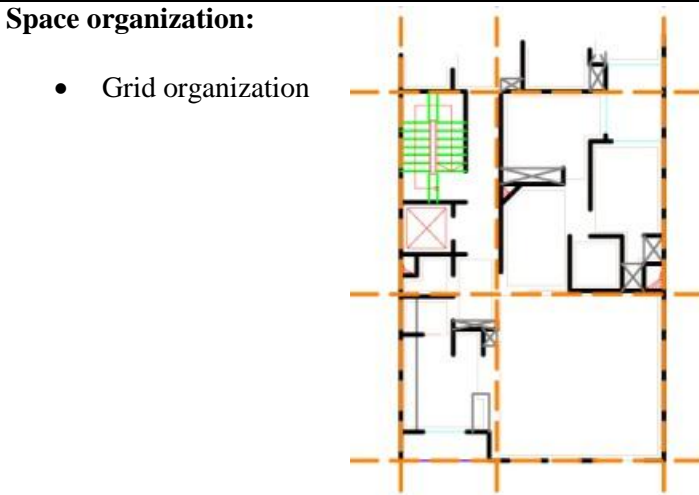
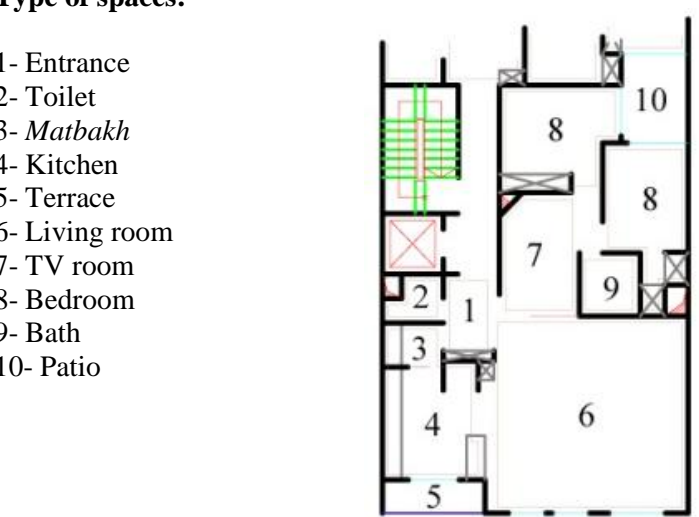
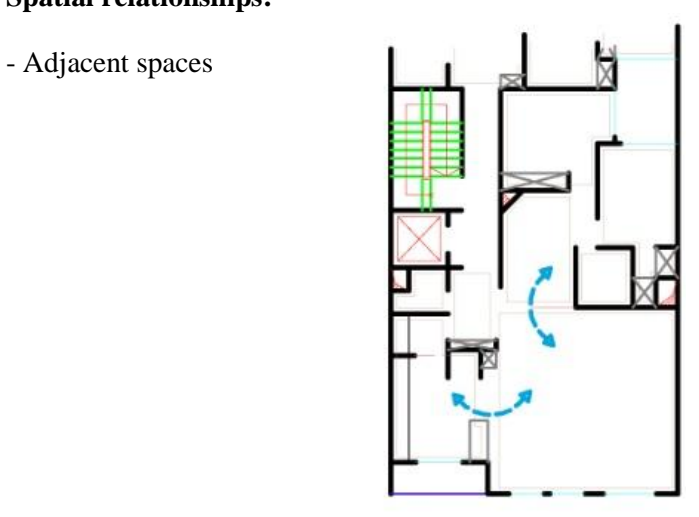
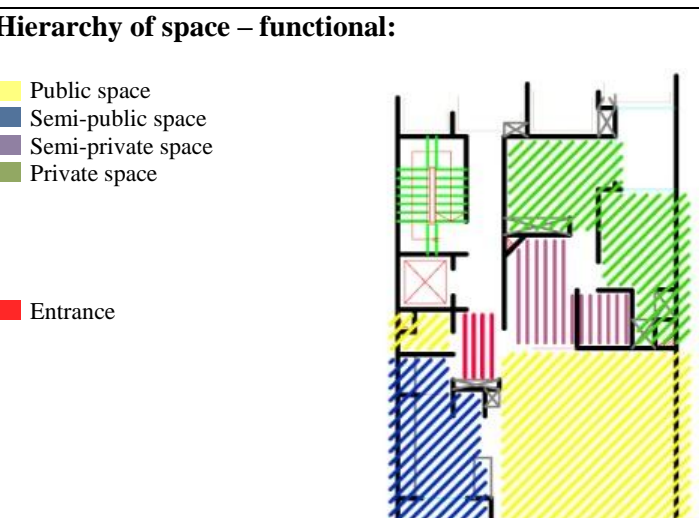
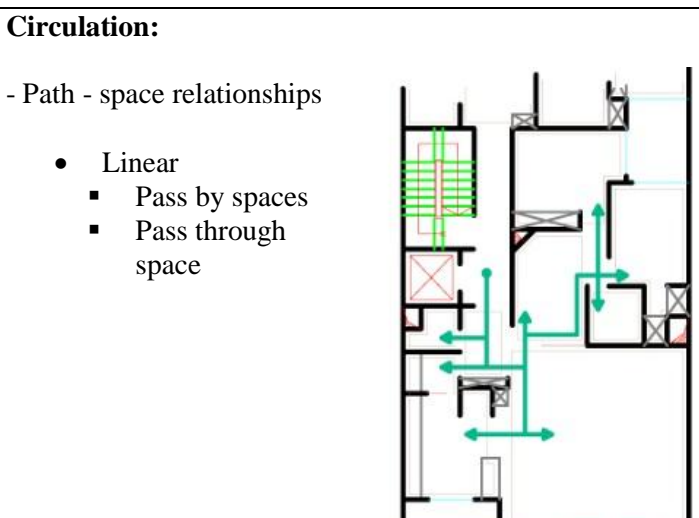
<b>Building 7.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 5 floors/ 10 units/ parking, store rooms and guard room in ground floor/ two yard one of located in front of building, other one behind it	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 160 m <sup>2</sup>		<b>users:</b> 5 people (father: business man, mother: house wife, daughters and son: student)	<b>Ownership:</b> Owner - buyer
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box (topics 15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*master room</li> <li>*open kitchen with balcony</li> <li>- want to change dimension of master room, kitchen and terrace</li> <li>- want to change location of TV room</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Living room</li> <li>2- TV room</li> <li>3- Kitchen</li> <li>4- Corridor</li> <li>5- Entrance</li> <li>6- Toilet</li> <li>7- Bath</li> <li>8- Bedroom</li> <li>9- Master room</li> <li>10- Terrace</li> <li>11- Yard</li> <li>12- Scape stairs</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>   	<b>Pictures</b>      	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*part of bedrooms divide from other parts</li> <li>- need more pay attention to combining and dividing spaces</li> <li>- need separate TV room</li> <li>- want to obey hierarchy between spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul>   	  	<b>Social:</b> <ul style="list-style-type: none"> <li>* entrance space enlargement is appropriate</li> <li>- need more definition between semi-private and public spaces</li> <li>- need one more bedroom</li> <li>- need larger living room</li> <li>- need dining room</li> </ul>

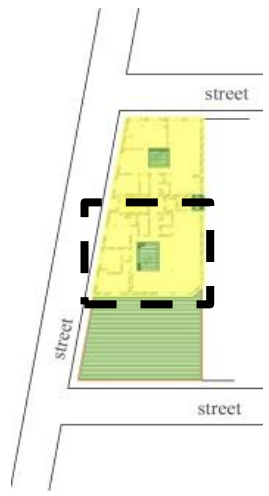

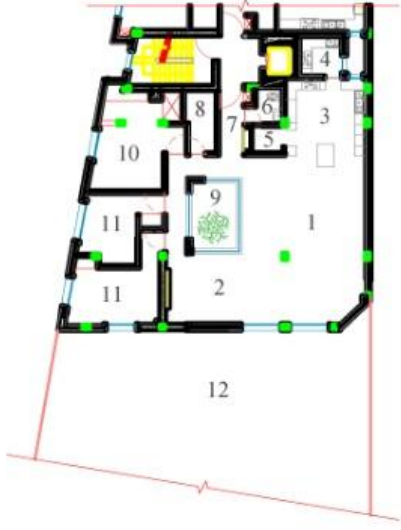
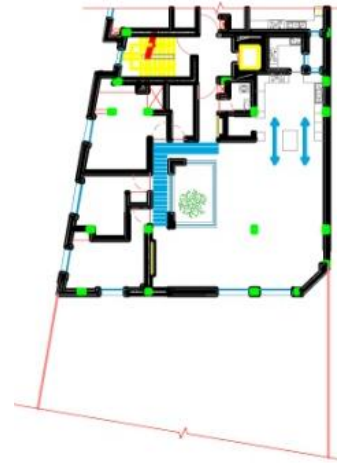





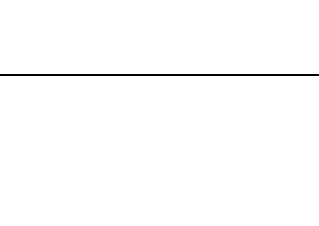
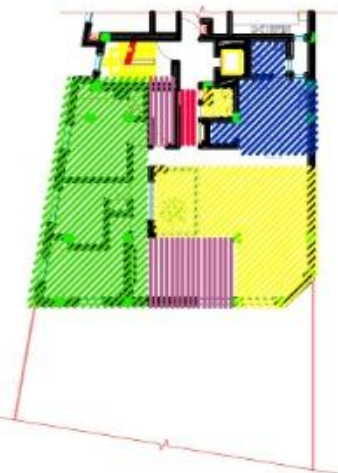
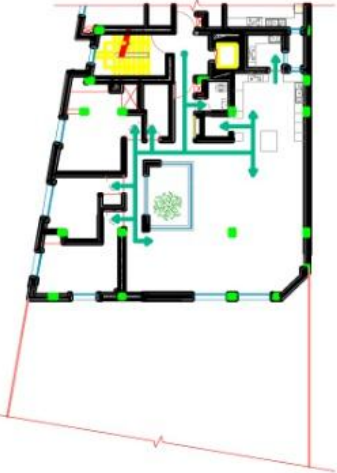
<b>Building 8.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 5 floors/ 8 units/ 2 units in ground floor/ parking and store room in -1 floor/ yard located to behind of building	
<b>Information about unit:</b> 3 <sup>rd</sup> floor/ 150 m <sup>2</sup>		<b>users:</b> 5 people (father: business man , mother: housewife, son and daughter: student, daughter: carpet designer ) <b>ownership:</b> Owner – buyer	
Analyses		Regulations	Expectation of users
<b>Site plan:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Open space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Close space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the middle part of building) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*Open kitchen + <i>matbakh</i> (small close kitchen)</li> <li>*master room</li> <li>* other bedroom near to each other for children</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- change the location of two bedrooms (for catching the natural light)</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- <i>Matbakh</i></li> <li>4- Kitchen</li> <li>5- Living room</li> <li>6- Terrace</li> <li>7- Master room</li> <li>8- Bath</li> <li>9- TV room</li> <li>10- Bedroom</li> <li>11- Patio</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul> 		<b>Cultural:</b> <ul style="list-style-type: none"> <li>*Two zone: private zone Public zone</li> <li>*TV room</li> <li>* relationship between kitchen and TV room and living room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to more divided between TV room and public area</li> <li>- want to hierarchy between spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #4682B4; border: 1px solid black; margin-right: 5px;"></span> Semi-public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> Semi-private space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Private space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FF0000; border: 1px solid black; margin-right: 5px;"></span> Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*there are balance between public and private spaces</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- more definition between some spaces (living room and dining room )</li> <li>- spaces enlargement have not harmony with their needs ( bedrooms)</li> </ul>

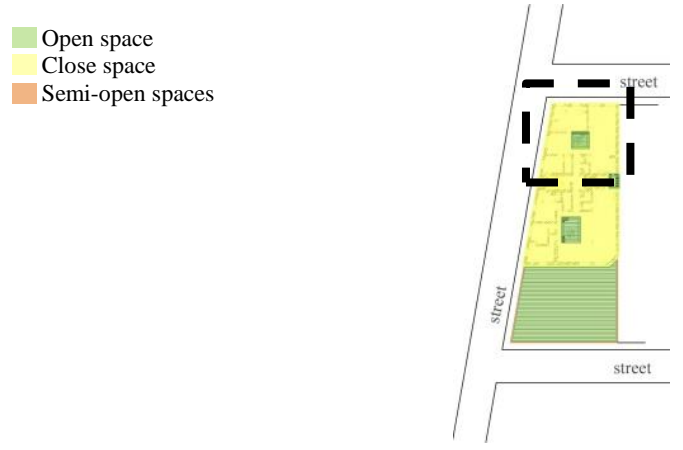






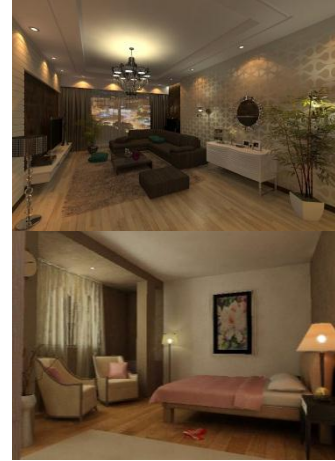


<b>Building 9.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 8 units/ parking and storerooms in ground floor/ yard located in back of building (use as parking)	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 100 m2		<b>users:</b> 2 people (1.sister: architect, 2.sister: artist (musician))	<b>Ownership:</b> Owner – buyer
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>clustered organization (clustered along a path)</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* bed rooms are proportional to member of family</li> <li>- want to another form of room as: working space</li> <li>Master room</li> <li>- want to change the location of kitchen (kitchen near to living room)</li> </ul>
<b>Type of spaces:</b> 1- Living room 2- Sitting room 3- Kitchen 4- Corridor 5- Entrance 6- Toilet 7- Bath 8- Bedroom 9- Terrace 10-Yard	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>   <p>Relationship between kitchen and sitting room</p>  <p>Relationship between public and private spaces</p>	<b>Pictures</b>  <p>Yard</p>  <p>Elevation</p>  <p>Living room</p>  <p>Sitting room</p>  <p>bedroom</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* private spaces separate from public spaces</li> <li>- More privacy for sitting room</li> <li>- pay Attention to spatial hierarchy</li> <li>- want to pay attention to combination between spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>Linear             <ul style="list-style-type: none"> <li>Pass by spaces</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>* living room area is proportionate with their needs</li> <li>- want to definition space as entrance</li> <li>- more visual privacy between bedrooms area and living room</li> <li>- want dining room</li> </ul>

<b>Building 10.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 4 units/ meeting room, parking and guard room in ground floor/ two yard one of located in front of building, other one behind it	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 280 m <sup>2</sup>		<b>users:</b> 3 people (father: Carpet Merchant, mother: housewife, son: Shopkeeper)	
		<b>Ownership:</b> Owner - buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- Back yard (topic 4)</li> <li>- create patio ( to catch light for the back of spaces) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*larger kitchen and relation with dining room, living room and near to TV room</li> <li>*one bedroom with bath for the one of children</li> <li>*master bedroom with bath and walking closet</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Want to different location for bedrooms</li> <li>- want to located TV room in Private space</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Kitchen</li> <li>3- Dining room</li> <li>4- Terrace</li> <li>5- Living room</li> <li>6- TV room</li> <li>7- Toilet</li> <li>8- Patio</li> <li>9- Bath</li> <li>10- Bedroom</li> <li>11- Master room</li> <li>12- laundry</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 	<b>Pictures</b>  <p style="text-align: right;">◀ Elevation</p>  <p style="text-align: right;">◀ Elevation</p>  <p style="text-align: right;">◀ Lobby</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*Separate TV room by some stairs</li> <li>* obey hierarchy between public spaces and private spaces</li> <li>*combining and dividing spaces is good</li> <li>* hierarchy between spaces is good</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to divided between public and semi-private area</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul> <p>Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*enlargement of entrance part is suitable for welcoming customs</li> <li>* private area is larger than public spaces</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- larger TV room</li> <li>- need the definition space for dining room</li> <li>- need more one room as guest room</li> </ul>

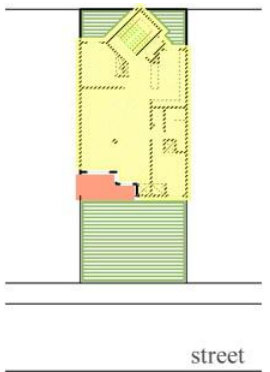

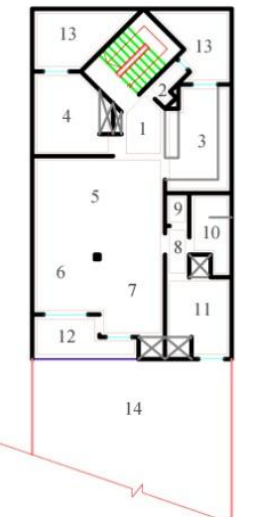

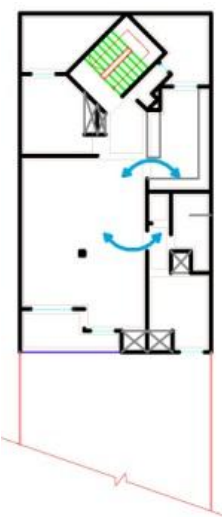

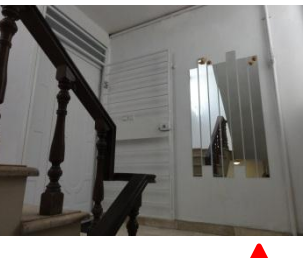
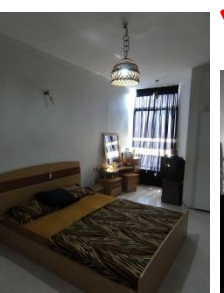
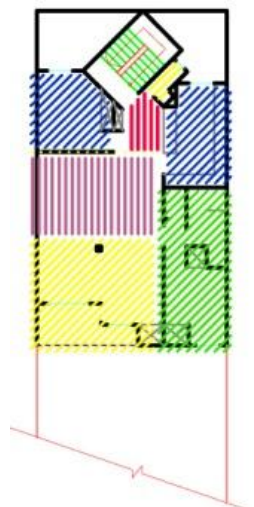
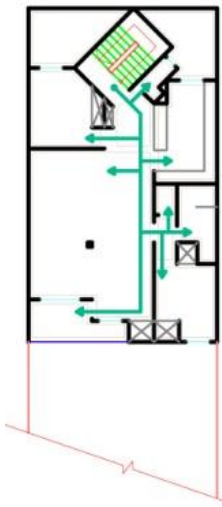

<b>Building 11.</b>			
<b>City:</b> information about building: 5 floors/ 8 units/ 2 units in ground floor/ parking and store room in -1 floor/ yard located to behind of building		<b>Ownership:</b> Owner - buyer	
<b>Information about unit:</b> 3 <sup>rd</sup> floor/ 100 m <sup>2</sup>		<b>users:</b> 4 people (father: Employee, mother: Employee, son and daughter: student)	
Analyses		Regulations	Expectation of users
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the middle part of building) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*Open kitchen + <i>matbakh</i> (small close kitchen)</li> <li>- Change location of bedrooms</li> <li>- need other form of room as master room</li> <li>- change location of TV room (most area of TV room use for circulation)</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- <i>Matbakh</i></li> <li>4- Kitchen</li> <li>5- Terrace</li> <li>6- Living room</li> <li>7- TV room</li> <li>8- Bedroom</li> <li>9- Bath</li> <li>10- Patio</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul> 		<b>Cultural:</b> <ul style="list-style-type: none"> <li>*Two zone: private zone Public zone</li> <li>*TV room</li> <li>*obey the hierarchy</li> <li>- want to pay attention to the space combination</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>- need more definition between some spaces (living room and dining room )</li> <li>- spaces enlargement have not harmony with their needs ( bedrooms, TV room and living room)</li> <li>- want to other bedroom</li> </ul>

<b>Building 12.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 8 units/ lobby, parking and store rooms in ground floor/ yard located in front of building/ roof garden	
<b>Information about unit:</b> 4 <sup>th</sup> floor/ 200 m2		<b>users:</b> 4 people (father: engineer, mother: doctor, daughter and son: student)	<b>Ownership:</b> Owner - Producer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (chamfer)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* open kitchen+ matbakh (small close kitchen)</li> <li>* master room ( with bath, and walking closet)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to change location of kitchen (near to TV room)</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Living room</li> <li>2- TV room</li> <li>3- Kitchen</li> <li>4- Matbakh</li> <li>5- store room</li> <li>6- Toilet</li> <li>7- Entrance</li> <li>8- Bath</li> <li>9- central yard</li> <li>10- Master room</li> <li>11- Bedroom</li> <li>12- Yard</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>   <p>▲ Connection between kitchen and living room</p>	 <p>central yard ▲</p>  <p>Elevation ▲</p>  <p>◀ TV room</p>  <p>◀ Dining room</p>  <p>◀ Living room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* TV room</li> <li>* central courtyard</li> <li>* two zone : Private zone Public zone</li> <li>* private roof garden</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to pay attention to combine and divide between spaces</li> <li>- want to obey hierarchy of spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul> <p>■ Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear</li> <li>▪ Pass by spaces</li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>* Large living room</li> <li>* Dinning space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want more definition for spaces ( exactly for dining room, living room and TV room)</li> </ul>



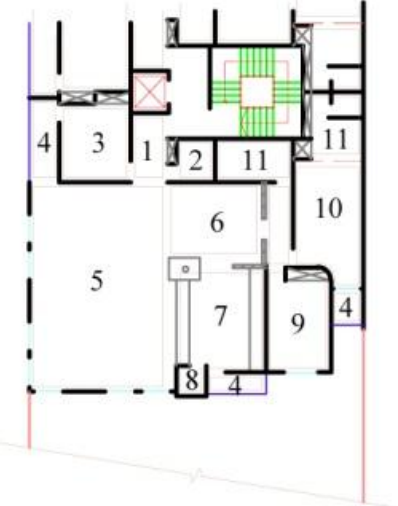
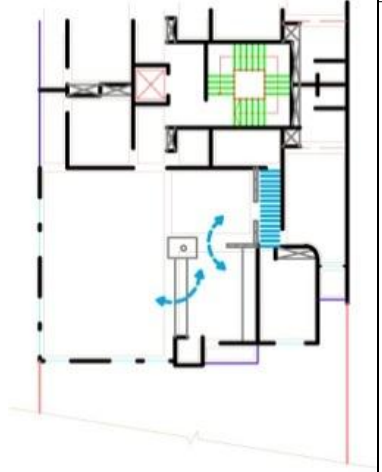




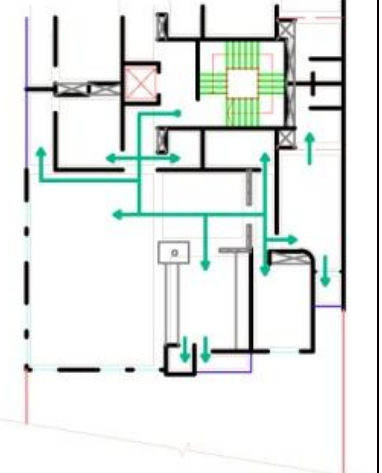
<b>Building 13.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 8 units/ lobby, parking and store rooms in ground floor/ yard located in front of building/ roof garden	
<b>Information about unit:</b> 4 <sup>th</sup> floor/ 140 m <sup>2</sup>		<b>users:</b> 2 people (husband: manager of petrochemical company, wife: architect)	<b>Ownership:</b> Owner - Producer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* open kitchen</li> <li>* master room (with walking closet)</li> <li>* working space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to different form and dimension for working space</li> <li>- change location the working space (near to entrance)</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Living room</li> <li>2- Kitchen</li> <li>3- Toilet</li> <li>4- Entrance</li> <li>5- Central yard</li> <li>6- Bedroom</li> <li>7- TV room</li> <li>8- Working space</li> <li>9- Bath</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 	<div style="text-align: center;">Pictures</div>  <p style="text-align: center;">▲ Elevation ▶</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* TV room</li> <li>* central courtyard</li> <li>* two zone : Private zone Public zone</li> <li>* private roof garden</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- obey the hierarchy</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 	 <p style="text-align: right;">◀ Living room</p> <p style="text-align: right;">◀ Bedroom</p>	<b>Social:</b> <ul style="list-style-type: none"> <li>* Large living room</li> <li>* Dinning space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to a good define for dining room because it was mixed with living room</li> <li>- want to suitable entrance space because it is as a corridor and does not have enough area for welcoming customs</li> </ul>

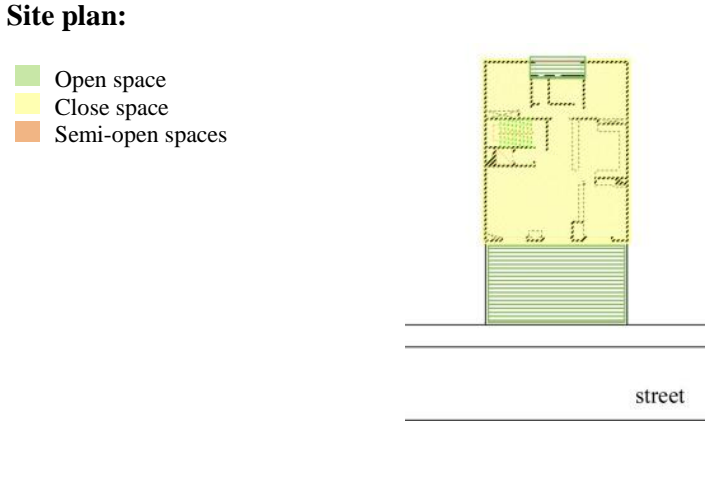
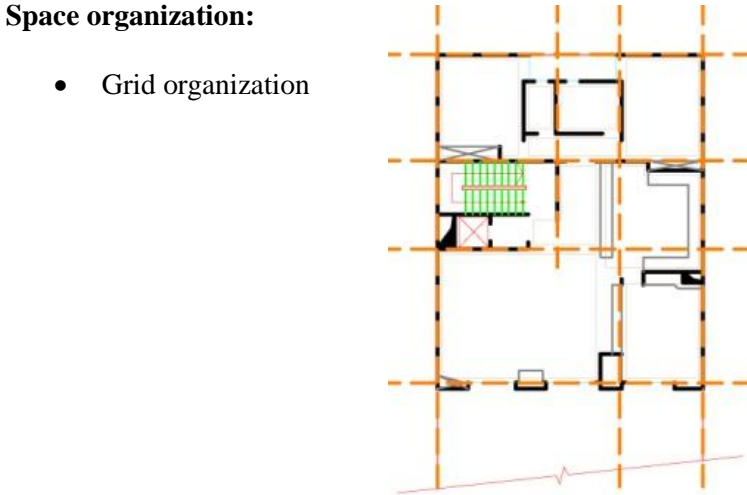
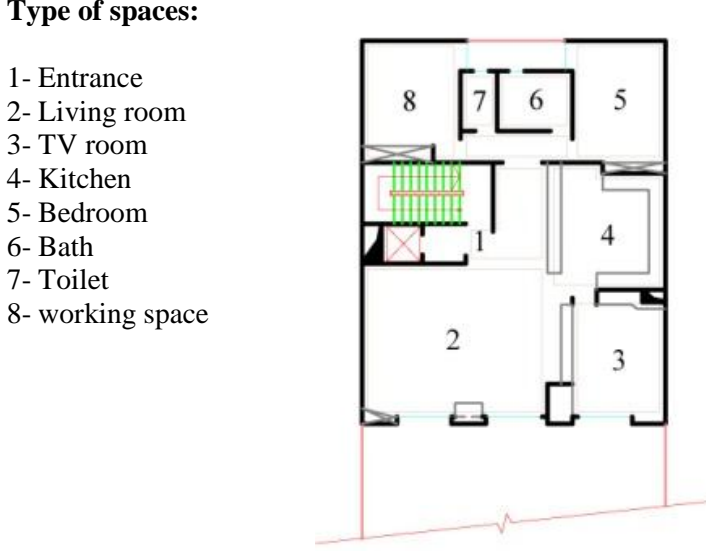
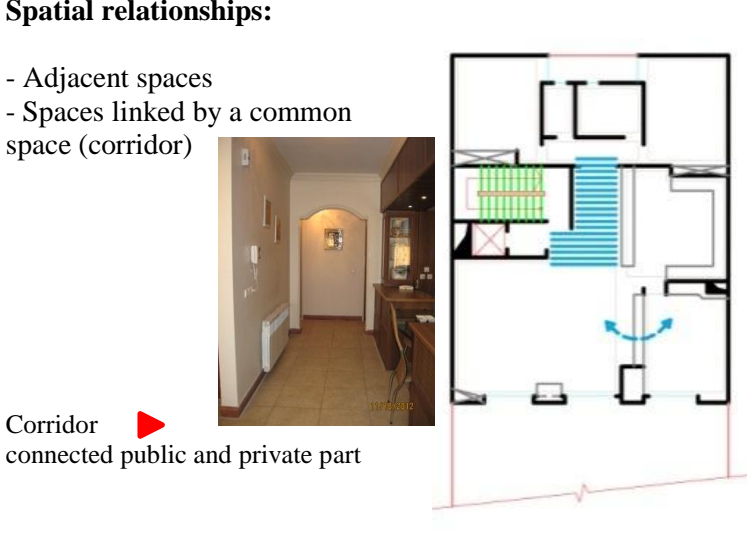
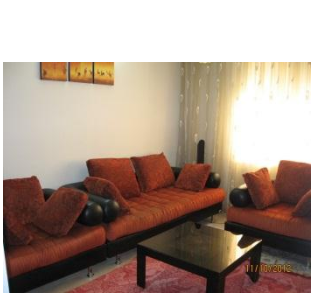

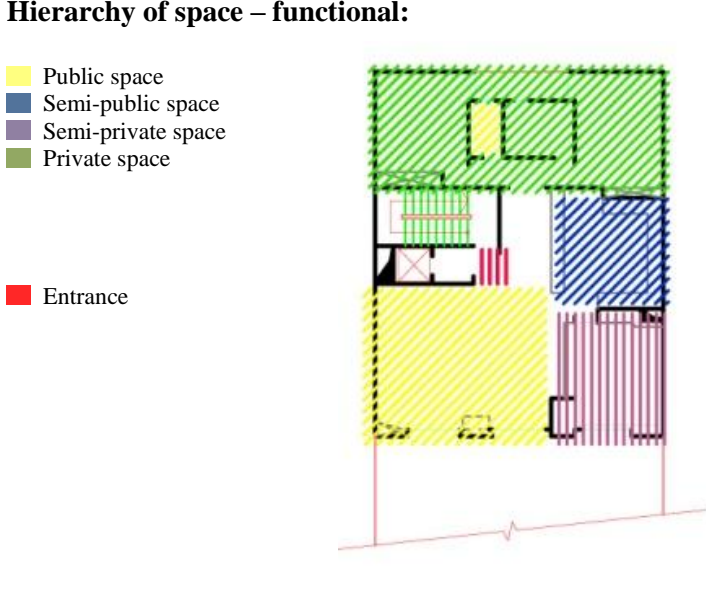
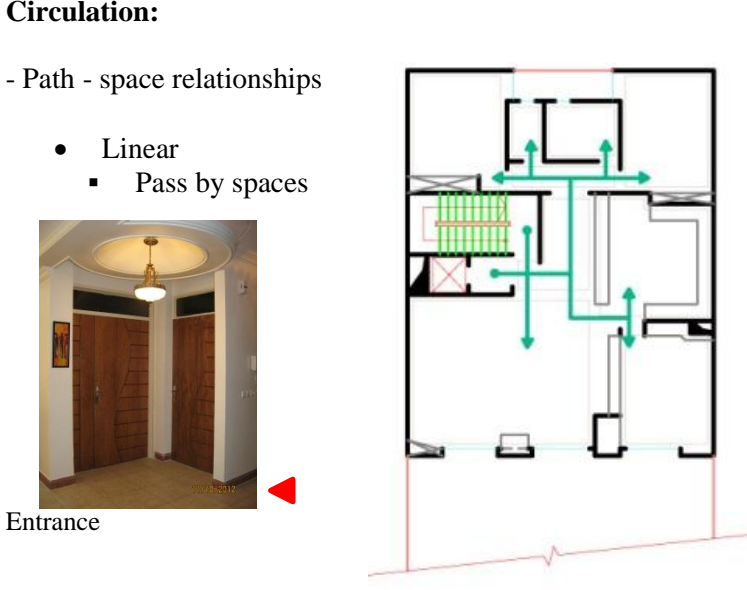


<b>Building 14.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 8 units/ lobby, parking and store rooms in ground floor/ yard located in front of building	
<b>Information about unit:</b> 3 <sup>th</sup> floor/ 180 m2		<b>users:</b> 4 people (father: doctor, mother: nurse , sons: student)	<b>Ownership:</b> Owner - Producer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>Centralized organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (chamfer)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* master room ( without bath, and with walking closet)</li> <li>* open kitchen + matbakh (small close kitchen)</li> <li>* balcony for all bed room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to change location of guest room</li> <li>- they use guest room as bedroom for one of children</li> </ul>
<b>Type of spaces:</b> 1- Entrance 2- Living room 3- Guest room 4- TV room 5- Kitchen 6- Matbakh 7- Toilet 8- Bath 9- Master room 10- Balcony 11-Bedroom 12- Yard 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul>  <p>▲ Connection between kitchen and TV room</p>	<b>Pictures</b>  TV room  Living room  Kitchen	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* TV room</li> <li>* Large balcony (for gathering family, sitting)</li> <li>* combined the public and private spaces ( more relationship between members)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to obey the hierarchy</li> <li>- want to more privacy for bedroom</li> </ul>
<b>Hierarchy of space – functional:</b> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>Linear               <ul style="list-style-type: none"> <li>Pass by spaces</li> <li>Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>* Large living room</li> <li>* Dinning space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to large and equip entrance</li> <li>- dining room need to more definition space</li> </ul>

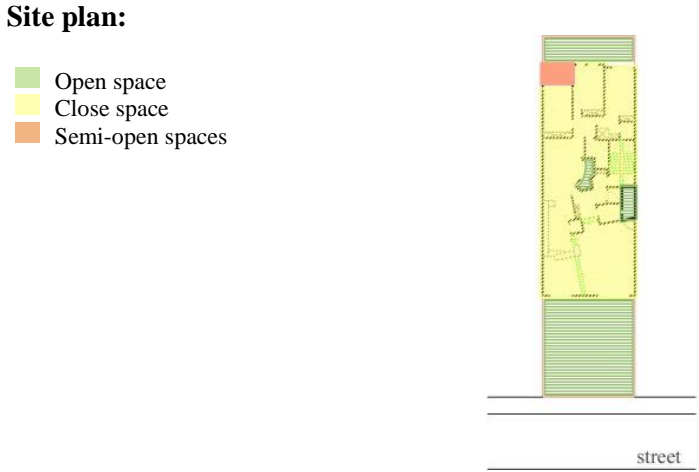

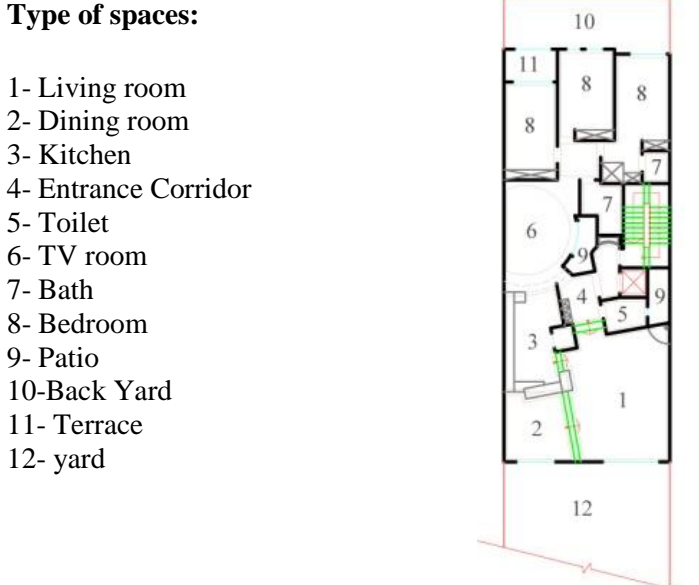
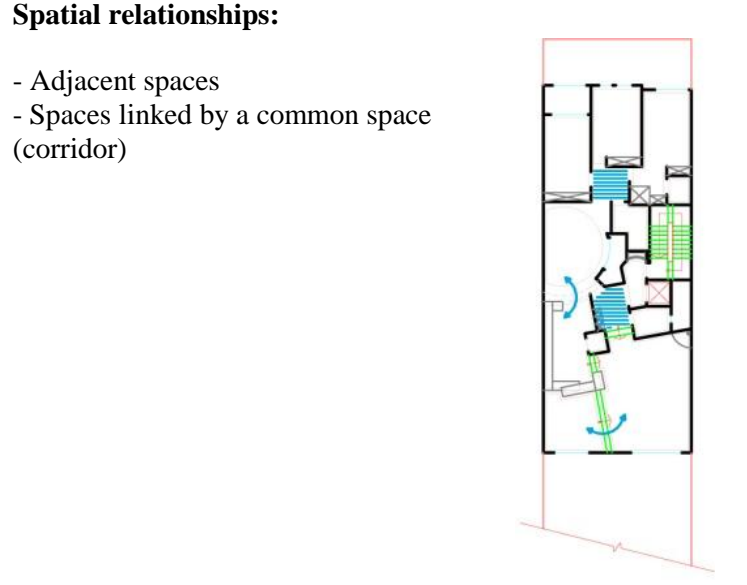
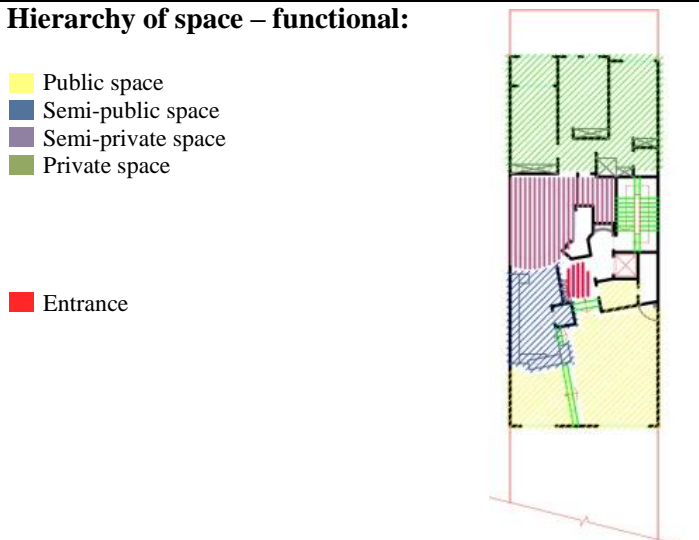
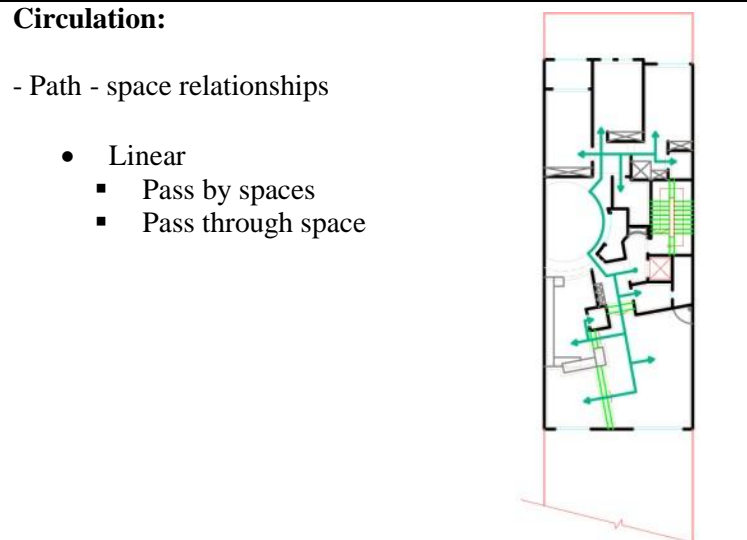
<b>Building 15.</b>			
<b>City:</b> Mashhad		<b>information about building:</b> 4 floors/ 8 units/ lobby, parking and store rooms in ground floor/ yard located in front of building	
<b>Information about unit:</b> 3 <sup>th</sup> floor/ 140 m2		<b>users:</b> 5 people (father: accountant, mother: translator , sons and daughter: student)	
<b>Ownership:</b> Owner - Producer			
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* open kitchen</li> <li>* a separate bed room for parents</li> <li>* two bed room near each other for children</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- change location of parent's room</li> <li>- different form for TV room (most of area use for circulation)</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Kitchen</li> <li>3- Living room</li> <li>4- Balcony</li> <li>5- Bedroom</li> <li>6- Bath</li> <li>7- TV room</li> <li>8- Toilet</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul>  <p>▲ Relationship between TV room and Living room</p>	<b>Pictures</b>  <p>◀ TV room</p>  <p>◀ Living room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* TV room</li> <li>* large balcony</li> <li>* two zone : Private zone Public zone</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to obey the hierarchy</li> <li>- want more privacy for private space</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul>  <p>■ Entrance</p>	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass through space</li> </ul> </li> <li>• Radial</li> </ul> 	 <p>◀ Dining room</p>  <p>◀ Kitchen</p>	<b>Social:</b> <ul style="list-style-type: none"> <li>* create large living room by join the dining room, TV room with living room</li> <li>* Dinning space</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to defined space for dining room and living room</li> <li>- want to equip and large entrance space</li> </ul>

<b>Building 16.</b>			
<b>City:</b> Gorgan		<b>information about building:</b> 4 floors/ 4 units/ parking and store rooms in ground floor/ yard located in front of building (use as parking)	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 120 m <sup>2</sup>		<b>users:</b> 2 people (husband: architect, wife: architect)	<b>Ownership:</b> Owner - buyer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Open space</li> <li><span style="color: yellow;">■</span> Close space</li> <li><span style="color: orange;">■</span> Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Centralized organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box (topics 15)</li> <li>- Building height (topic 4)</li> <li>- create patio ( to catch light for the back of spaces) (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*location of working space is good</li> <li>*totally the private part has master room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- location all of spaces surround the living room have not harmony with their life</li> <li>- change the location of kitchen (change with working space)</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Kitchen</li> <li>4- Working space</li> <li>5- Sitting room</li> <li>6- Living room</li> <li>7- Dining room</li> <li>8- Corridor</li> <li>9- Store room</li> <li>10- Bath</li> <li>11- Bedroom</li> <li>12- Terrace</li> <li>13- Patio</li> <li>14-Yard</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul>  <p>▲ Relationship between kitchen and living room ▲ between private space and living room</p> 	<b>Pictures</b>  <p>Elevation and parking ▲</p>  <p>Entrance and entrance space ▲</p>  <p>▼ Bedroom and Living room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*made the diversity spaces exactly in living room with setting furniture</li> <li>*TV room for gathering family</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need more pay attention to combining and dividing spaces</li> <li>- need to obey hierarchy between spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li><span style="color: yellow;">■</span> Public space</li> <li><span style="color: blue;">■</span> Semi-public space</li> <li><span style="color: purple;">■</span> Semi-private space</li> <li><span style="color: green;">■</span> Private space</li> </ul> <p>■ Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>* can join the living room and TV room for create the large living room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- there are not balance between public and private spaces</li> <li>- need more definition between public spaces</li> <li>- need larger living room</li> <li>- need more one bedroom (for child)</li> </ul>

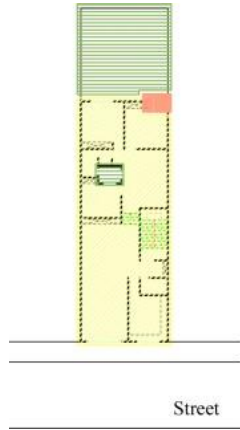

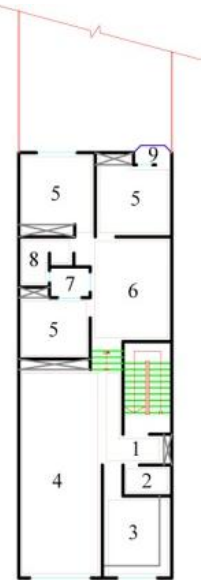

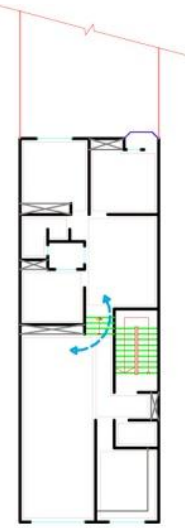


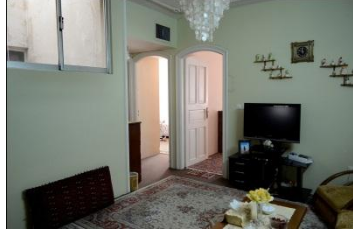
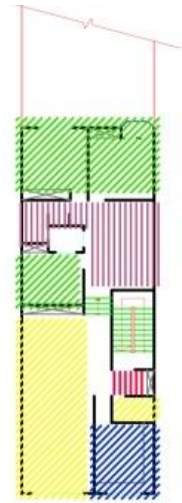

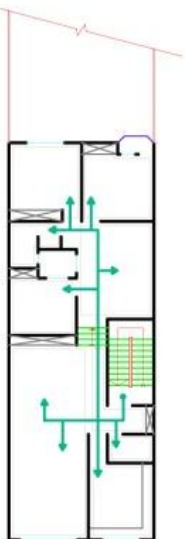


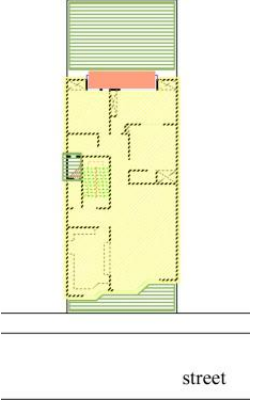
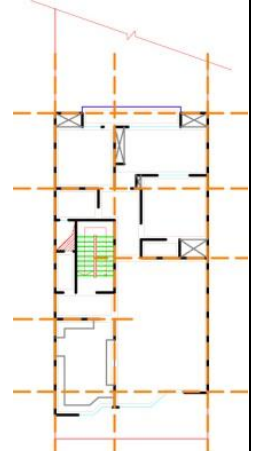
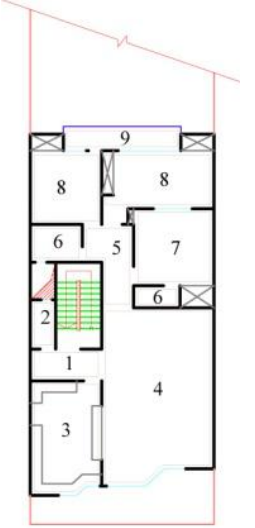


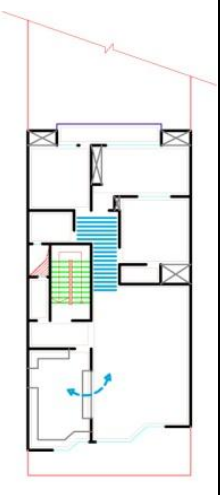



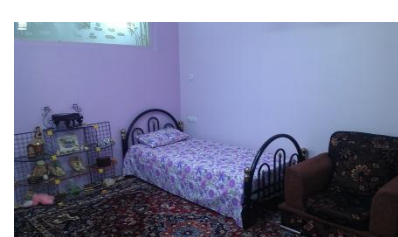
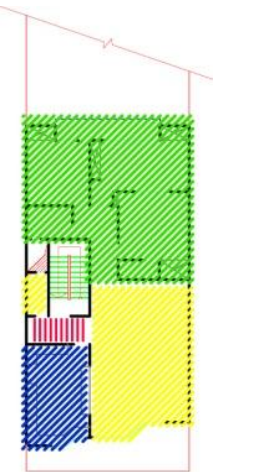

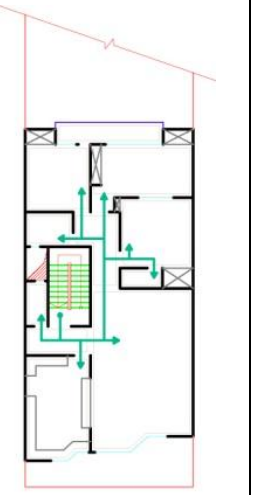
<b>Building 17.</b>			
<b>City:</b> Gorgan		<b>information about building:</b> 4 floors/8 units/ lobby, parking and store rooms in ground floor/ yard located in front of building/ pool, sauna and parking in-1 floor/ roof garden	
<b>Information about unit:</b> 4 <sup>th</sup> floor/ 180 m <sup>2</sup>		<b>users:</b> 4 people (father: civil engineer, mother: teacher, daughter and son: student)	<b>Ownership:</b> Owner - buyer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in North of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (chamfer)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*guest room</li> <li>*open kitchen with storeroom and balcony</li> <li>*master room with walking closet and bath</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Location and dimension of TV room must be change</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Guest room</li> <li>4- Terrace</li> <li>5- Living room</li> <li>6- TV room</li> <li>7- Kitchen</li> <li>8- Store room</li> <li>9- Bedroom</li> <li>10- Master room</li> <li>11- Bath</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 	<b>Pictures</b>  <p>◀ Elevation</p>  <p>◀ Elevation</p>  <p>◀ Yard and parking</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*TV room</li> <li>* relationship between kitchen TV room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to obey hierarchy between public spaces and private spaces</li> <li>- pay attention to circulation for reaching to bedrooms (pass through the TV room)</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*Number of room have harmony with the user need (they use the guest room as the bedroom)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need to create balance between public and private spaces</li> <li>- need the definition space as dining room</li> </ul>



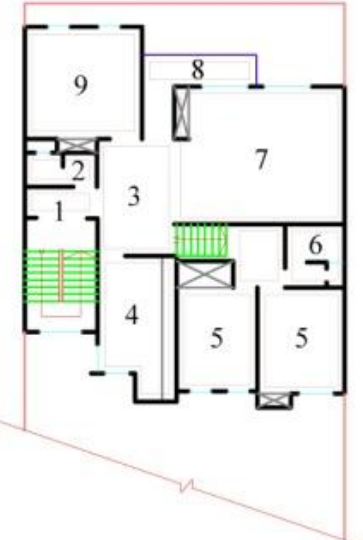
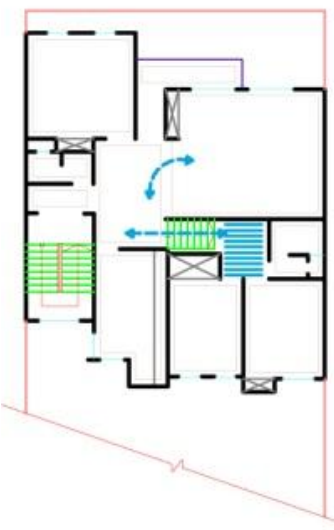

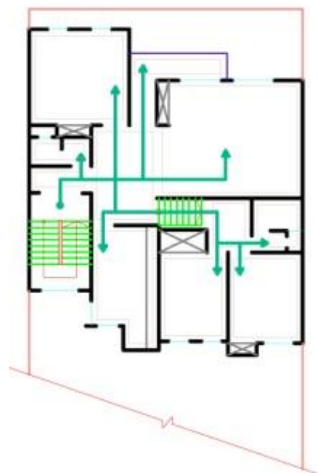
<b>Building 18.</b>			
<b>City:</b> Gorgan		<b>information about building:</b> 3 floors/ 3 units/ parking and store rooms in ground floor/ yard located in front of building	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 125 m <sup>2</sup>		<b>users:</b> 2 people (husband: agricultural engineer, wife: architect)	
		<b>Ownership:</b> Owner - Producer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*size of bedroom are proportional to users' need</li> <li>- Bedroom location is not good ( for catching the light and near to working space)</li> <li>- better to change location of TV room with kitchen</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Living room</li> <li>3- TV room</li> <li>4- Kitchen</li> <li>5- Bedroom</li> <li>6- Bath</li> <li>7- Toilet</li> <li>8- working space</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>  <p>Corridor connected public and private part</p>	<b>Pictures</b>  <p>◀ TV room</p>  <p>◀ Dining room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*variety of rooms is suitable with their wants</li> <li>*TV room for family gathering</li> <li>- need to more pay attention to combining and hierarchy spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> </ul> </li> </ul>  <p>Entrance</p>	 <p>◀ Living room</p>  <p>◀ Bedroom</p>	<b>Social:</b> <ul style="list-style-type: none"> <li>*living room has proportion with family desires</li> <li>- there are not balance between public and private spaces</li> <li>- space definition is not good ( for example, working space is as a bedroom)</li> </ul>

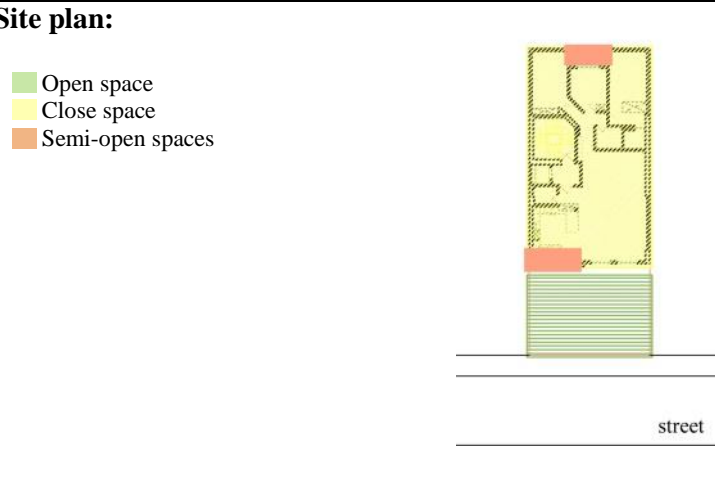
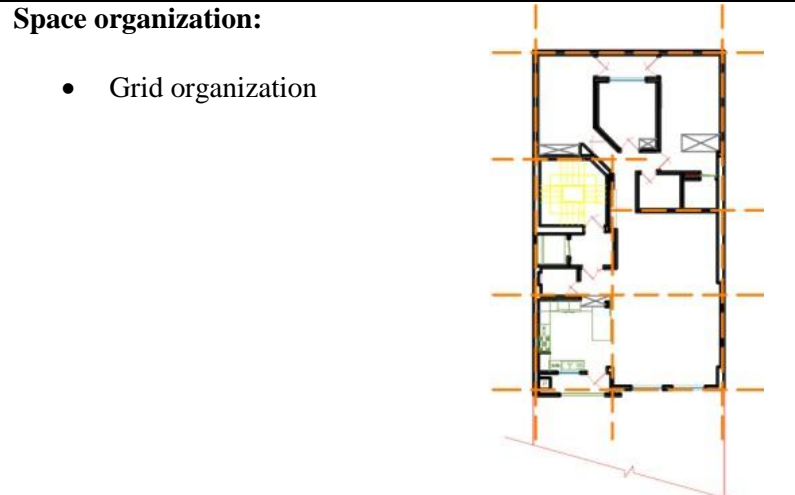
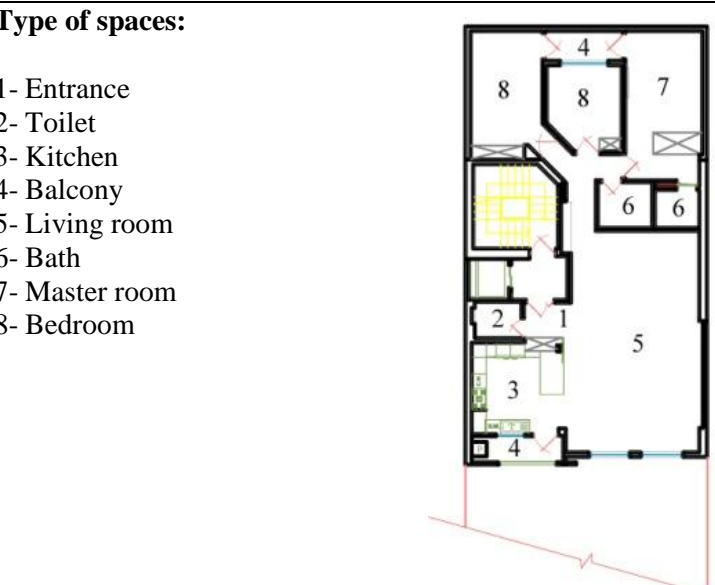
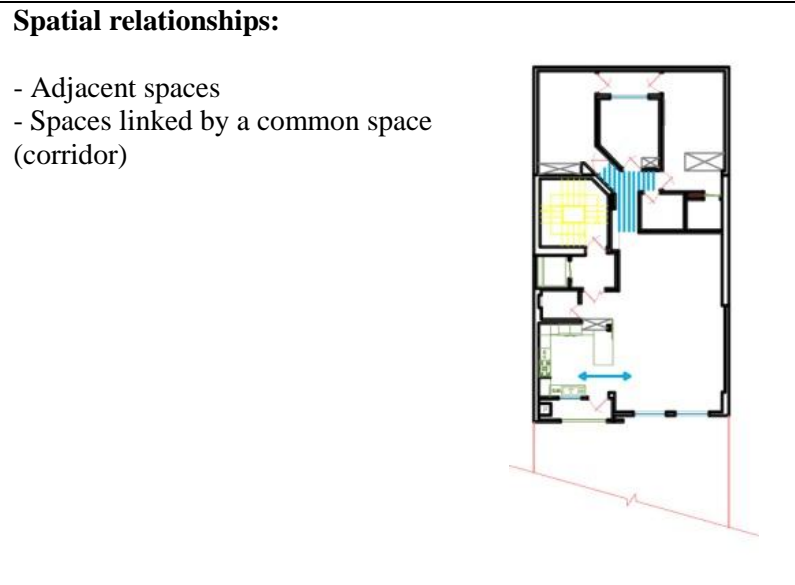
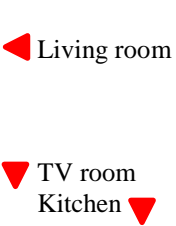
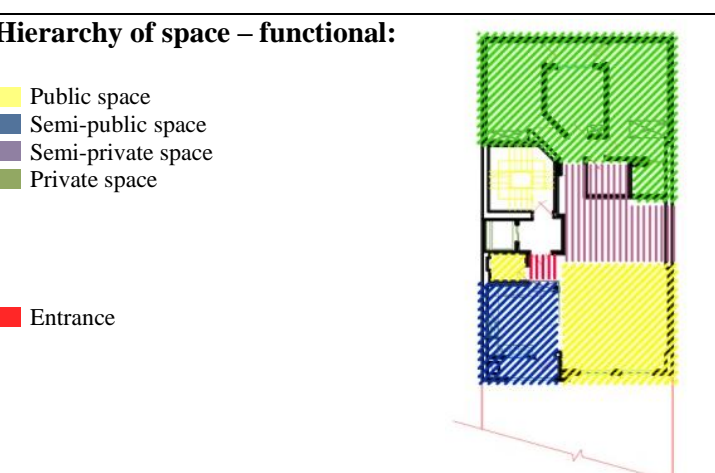
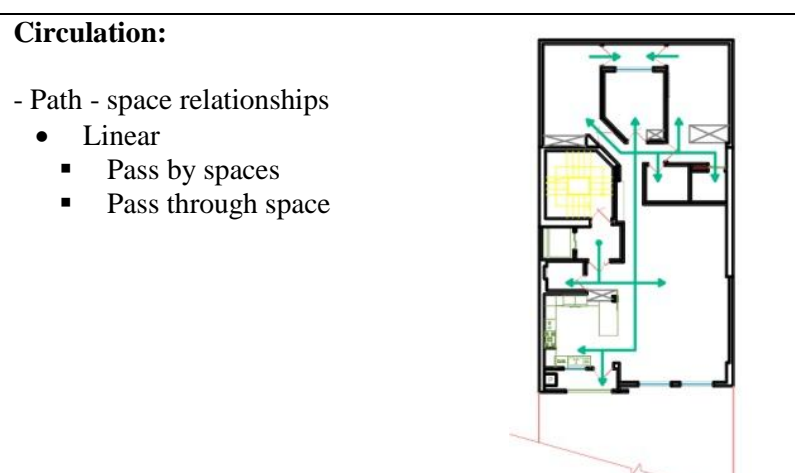

<b>Building 19.</b>			
<b>City:</b> Gorgan		<b>information about building:</b> 4 floors/ 7 units/ parking and store rooms in ground floor/ two yard one of located in front of building, other one behind it	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 200 m2		<b>users:</b> 5 people (father: Industrialist, mother: housewife, daughters: student)	
		<b>Ownership:</b> Owner - Producer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> <li>• Radial organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- Back yard (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* TV room located in private part</li> <li>* location of spaces is suitable</li> <li>* different form for TV room</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Living room</li> <li>2- Dining room</li> <li>3- Kitchen</li> <li>4- Entrance Corridor</li> <li>5- Toilet</li> <li>6- TV room</li> <li>7- Bath</li> <li>8- Bedroom</li> <li>9- Patio</li> <li>10-Back Yard</li> <li>11- Terrace</li> <li>12- yard</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 		<b>Cultural:</b> <ul style="list-style-type: none"> <li>*good relationship between kitchen and dining room and TV room</li> <li>*combining and dividing spaces are good</li> <li>* hierarchy between spaces is good</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*most of spaces have definition related to function</li> <li>* spaces enlargement have harmony with users need</li> <li>- want to equip and large entrance space</li> </ul>

<b>Building 20.</b>			
<b>City:</b> Gorgan		<b>information about building:</b> 4 floors/ 4 units/ lobby, parking and store rooms in ground floor/ yard located to behind of building	
<b>Information about unit:</b> 1 <sup>st</sup> floor/ 150 m <sup>2</sup>		<b>users:</b> 5 people (father: shopkeeper, mother: shopkeeper, sons: student)	<b>Ownership:</b> Owner - buyer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (chamfer)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* open kitchen with balcony</li> <li>* master room</li> <li>* create space in kitchen for family eating food</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- dimension of bedroom is not suitable</li> <li>- want to change location of kitchen</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Kitchen</li> <li>4- Balcony</li> <li>5- TV room</li> <li>6- Living room</li> <li>7- Bath</li> <li>8- Master room</li> <li>9- Bedroom</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 	<b>Pictures</b>  <p>◀ Elevation</p>  <p>◀ Kitchen</p>  <p>◀ TV room</p>  <p>◀ Dining room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>* More privacy for bedrooms</li> <li>* TV room ( gathering family space) near to kitchen</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- more pay attention to combine and divide the spaces</li> <li>- want to obey the hierarchy between spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul> <p>Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>- create spaces for dining room between living room and TV room</li> <li>- create large living by join the TV room, dining room and living room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to suitable definition for some space like TV room, living room and dining room</li> <li>- need to more one bedroom</li> </ul>

<b>Building 21.</b>			
<b>City:</b> Yazd		<b>information about building:</b> 3 floors/ 4 units/ parking ground floor/ yard located to behind of building	
<b>Information about unit:</b> 2 <sup>nd</sup> floor/ 145 m2		<b>users:</b> 4 people (father: Bank staff, mother: teacher, son: architect, daughter: computer engineer)	
		<b>Ownership:</b> Owner - buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*TV room in private space</li> <li>*close kitchen</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Master room</li> <li>- Working space</li> <li>- want to TV room catching the more natural light (change location of it)</li> <li>- want to larger balcony</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Kitchen</li> <li>4- Living room</li> <li>5- Bedroom</li> <li>6- TV room</li> <li>7- Patio</li> <li>8- Bath</li> <li>9- Terrace</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> </ul>  <p>Connection between public and private space ▲</p> 	<b>Pictures</b>  <p>Living room</p>  <p>Dining room</p>  <p>TV room</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*Divided to Two zone: Public and private</li> <li>*there are hierarchy between spaces</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need more pay attention to combining the spaces</li> <li>- need the different spaces for diversity function ( one room for painting)</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> </ul> <p>Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> <p>Entrance space ▶</p>  		<b>Social:</b> <ul style="list-style-type: none"> <li>*definition between private and public area is good</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need larger living room</li> <li>- need guest room</li> <li>- need the suitable entrance part because it is a corridor as accesses to toilet and just has area for put off shoes and dress</li> </ul>

<b>Building 22.</b>			
<b>City:</b> Yazd		<b>information about building:</b> 4 floors/ 4 units/ parking and storerooms in ground floor/ yard located in back of building	
<b>Information about unit:</b> 3 <sup>rd</sup> floor/ 150 m <sup>2</sup>		<b>users:</b> 3 people (father : engineer, mother: teacher, daughter: student)	
		<b>Ownership:</b> Owner - buyer	
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Open space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Close space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Building height (topic 4)</li> <li>- little yard, in front of building (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>- want to change form of a bedroom as working space</li> <li>- want to change location of guest room</li> </ul>
<b>Type of spaces:</b> <ol style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Kitchen</li> <li>4- Living room</li> <li>5- Corridor</li> <li>6- Bath</li> <li>7- Guest room</li> <li>8- Bedroom</li> <li>9- Terrace</li> </ol> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul>    <p>Connection between kitchen and living room ▲</p> <p>Corridor, connected bedrooms to living room ▲</p>	<b>pictures</b>  <p>◀ Living room</p>  <p>◀ Sitting room</p>  <p>◀ Kitchen</p>  <p>◀ Bedroom</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>*Divided to two zone: Public and private</li> <li>*Made diversity function for bed rooms like: Working space</li> <li>Master room</li> <li>- diversity functions are not adopted with rooms</li> <li>- combining between living room and TV room is not suitable</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #4682B4; border: 1px solid black; margin-right: 5px;"></span> Semi-public space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> Semi-private space</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Private space</li> </ul> <p>◀ Entrance</p> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul>  <p>Entrance ▶</p> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*There are balance between public and private spaces</li> <li>*Number of rooms is appropriate</li> <li>- need definition between living room and TV room</li> <li>- size of living room is not proportion with the family needs</li> </ul>

<b>Building 23.</b>			
<b>City:</b> Yazd		<b>information about building:</b> 4 floors/ 4 units/ parking in ground floor/ yard located in front of building	
<b>Information about unit:</b> 1 <sup>st</sup> floor/ 160 m <sup>2</sup>		<b>users:</b> 4 people (father: business man, mother: house wife, sons: student)	<b>Ownership:</b> Owner - buyer
Analyses		Regulations	Expectation of users
<b>Site plan:</b> <ul style="list-style-type: none"> <li>Open space</li> <li>Close space</li> <li>Semi-open spaces</li> </ul> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>clustered organization (clustered pattern)</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- little yard, in front of building (topic 4)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>*location of bedrooms is good</li> <li>*dimension of spaces is suitable</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to change location of kitchen</li> <li>- need master room (with bath)</li> </ul>
<b>Type of spaces:</b> <ul style="list-style-type: none"> <li>1- Entrance</li> <li>2- Toilet</li> <li>3- Corridor</li> <li>4- Kitchen</li> <li>5- Bedroom</li> <li>6- Bath</li> <li>7- Living room</li> <li>8- Terrace</li> <li>9- working space</li> </ul> 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 		<b>Cultural:</b> <ul style="list-style-type: none"> <li>*private space separated from the other spaces with some stairs</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need TV room for gathering family</li> <li>- attention to way of combining and hierarchy of spaces</li> </ul>
<b>Hierarchy of space – functional:</b> <ul style="list-style-type: none"> <li>Public space</li> <li>Semi-public space</li> <li>Semi-private space</li> <li>Private space</li> <li>Entrance</li> </ul> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>Linear <ul style="list-style-type: none"> <li>Pass by spaces</li> <li>Pass through space</li> </ul> </li> </ul> 		<b>Social:</b> <ul style="list-style-type: none"> <li>*has defined spaces</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- need one more bed room</li> <li>- need larger living room</li> </ul>

<b>Building 24.</b>			
<b>City:</b> Yazd		<b>information about building:</b> 4 floors/ 4 units/ lobby, parking and store rooms in ground floor/ roof garden/ yard located to behind of building	
<b>Information about unit:</b> 1 <sup>st</sup> floor/ 150 m2		<b>users:</b> 5 people (father: shopkeeper, mother: housewife , sons: student)	<b>Ownership:</b> Owner - buyer
<b>Analyses</b>		<b>Regulations</b>	<b>Expectation of users</b>
<b>Site plan:</b> 	<b>Space organization:</b> <ul style="list-style-type: none"> <li>• Grid organization</li> </ul> 	<ul style="list-style-type: none"> <li>- Located in north of land parcel</li> <li>- Open space: 40% of land parcel</li> <li>- Close space: 60% of land parcel</li> <li>- Stair box and Elevator (topics 3&amp;15)</li> <li>- Building height (topic 4)</li> <li>- city hall rules (patio)</li> </ul>	<b>Individual:</b> <ul style="list-style-type: none"> <li>* open kitchen with balcony</li> <li>* master room</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- dimension of bedrooms are not suitable with their needs</li> <li>- want to change location of bedroom (for catching the more light)</li> </ul>
<b>Type of spaces:</b> 1- Entrance 2- Toilet 3- Kitchen 4- Balcony 5- Living room 6- Bath 7- Master room 8- Bedroom 	<b>Spatial relationships:</b> <ul style="list-style-type: none"> <li>- Adjacent spaces</li> <li>- Spaces linked by a common space (corridor)</li> </ul> 	<b>Pictures</b>  <p>◀ Elevation</p>  <p>◀ Living room</p>  <p>▼ TV room ▼ Kitchen</p>	<b>Cultural:</b> <ul style="list-style-type: none"> <li>- two zone : Private zone Public zone</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- want to more divided between TV room and living room</li> <li>- want to more relationship between kitchen and TV room</li> </ul>
<b>Hierarchy of space – functional:</b> 	<b>Circulation:</b> <ul style="list-style-type: none"> <li>- Path - space relationships</li> <li>• Linear               <ul style="list-style-type: none"> <li>▪ Pass by spaces</li> <li>▪ Pass through space</li> </ul> </li> </ul> 	 <p>◀ Bedroom</p>	<b>Social:</b> <ul style="list-style-type: none"> <li>- want to more definition between private and public spaces</li> <li>- want to a larger living room</li> <li>- want to large and equip entrance space</li> </ul>