

**A Study of Social - Cultural Aspects of Housing**  
**The Case of Modern High-Rise Residential Buildings in**  
**Tehran**

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*In the Name of the Lord of the Soul and of Wisdom  
Than Whom Thought Can Conceive Nothing Higher*

*Ferdowsi*



## Abstract

High – rise and apartment housing, with a history of less than five decades, has become the predominant type of housing in Iran. Architecturally and socially different to traditional Iranian houses, modern apartments accommodate a distinct form of culturally defined patterns of privacy and social interaction. The concept of privacy in the Iranian – Islamic context is a multi-dimensional phenomenon and its physical manifestation is structured by two interrelated ethical and visual aspects of *Mahramiyat* and *Hejab*. The interpretation of traditional cultural patterns and their implementation in the physical setting of the modern apartment have undergone transformation in the last few decades due to a number of political, economic and social factors but most importantly under the influence of the comprehensive modernisation of the country.

The study investigates the significance of traditional socio-cultural living patterns in the design of modern apartments. A historical and theoretical investigation into the causes of the housing problem and emergence and prevalence of high-rise and apartment housing in both developed and the developing countries relates the problem to a) the process of urbanisation and its interrelated demographic, economic and social factors, and b) modern architecture and the notion of environmental determinism. The environment – behaviour studies indicate a two way relationship between people's behaviour and their physical environment. This relationship, with regards to privacy, takes different forms among people from diverse social and cultural backgrounds, in the context of traditional and modern Iranian housing.

To examine the study question, a case study approach was adopted to obtain empirical data from a high-rise housing complex in Tehran at two sequential stages. The quantitative stage included collection of factual and attitudinal information through questionnaires, observation, documentary data and personal experience, and was followed up by a qualitative stage of physical and behavioural mapping and semi-structured interviews in a number of apartments to which alteration were made. The study findings show a strong stance to public – private distinction and privacy among families but a relaxed attitude to gender integrated spaces within the apartment, especially by women. Examination of three criteria, the traditional principle of gender segregation, the influence of modernism and gender integration, and the general use of space in the converted apartments shows a general attitude to modern life-style and integrated open plan spaces. The pattern of unseen privacy, behavioural codes and women's clothing are the most prevalent pattern of privacy in Iranian families' social interactions.

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## **Glossary**

<i>Andarouni</i>	The female and family section of a traditional Iranian house
<i>Ashâyer</i>	Nomads of Iran
<i>Birouni</i>	The non-family section of a traditional Iranian house
<i>Chador</i>	A black or patterned long garment used by some Iranian women as their covering – <i>Hejab</i>
<i>Ganza-i-punidun</i>	A simple stone hut in the traditional Zoroastrian house, segregated from the main house for women to pass their first few days of their menstrual period in
<i>Hejab</i>	Specific dress and covering of Muslim women, veiling
<i>Hayat</i>	Courtyard
<i>Hashti</i>	Vestibule, a multi-angle entrance hall widely used in traditional Iranian houses
<i>Khaneh</i>	House in Farsi
<i>Mahramiyat</i>	An ethical concept in the Iranian – Islamic context which refers to the relationship between men and women and concerns both genders
<i>Mahram</i>	A term used for men or women who are in a kin relationship and with whom marriage is disallowed. Women are not obliged to cover up in front of their <i>mahrams</i> , such as their father, brother or husband
<i>Mashrabiye</i>	Wooden-latticed windows used in traditional houses
<i>Na-mahram</i>	Opposite <i>mahram</i>
<i>Otaghe-pazirayi</i>	Guest room
<i>Pardeh</i>	Curtain, a garment which separates or covers a space
<i>Pooshesh</i>	A Persian word for covering
<i>Satr</i>	An Arabic word for covering
<i>Shahrake Ekbatan</i>	A high-rise residential complex in West Tehran

<i>Shanashil</i>	Wooden-latticed screens used in traditional coastal houses
<i>yâ-allah</i>	A special saying by Iranian Muslim men to announce their entry when entering a house or a space within the house where a woman is present

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### **Chapter Eight**

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# ***Chapter One***

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## ***Introduction***

## **1.1 Introduction**

One of the achievements of modern architecture for human settlement is high-rise buildings. High-rise and apartment housing initially emerged in the 1950s and 60s as an ideal solution to the post-war population boom and to the increasing number of people moving into already overpopulated urban areas. Dealing both with the problem of space management and efficiency, high-rise apartment buildings characterised the modern lifestyle and the look of the modern city. However, depending on the cultural, political and economic environment in which they were built, they gained significantly different images in different parts of the world. In Western Europe and parts of the USA high-rise housing is often associated with welfare projects, immigrants and the poor – with a few exceptions where renovated high-rise buildings in city centres have been transformed into luxury apartments for single young professionals. Influenced by Le Corbusier's promotion of high-rise architecture and trying to imitate his ideas of 'inclusion', modern apartment buildings were to include features that would foster desired forms of resident interaction, known as 'streets in the sky' (Dunleavy, 1981; Hanley, 2007). However, critics of high-rise buildings remark that the high-rise planners only succeeded in encouraging social problems (Coleman, 1990) and apartment blocks quickly became 'slums in the sky' (Hanley, 2007). By contrast, in many other parts of the world such as in Eastern Europe and parts of Asia, this type of housing represented the bulk of the housing market, thus providing accommodation for a more mixed population.

The debate surrounding high-rise housing includes many different aspects, but one important factor is that the introduction of high-rise residential buildings and apartment blocks has significantly changed the social environment of modern cities, affecting everything from cultural traditions, to lifestyles, neighbourhoods and personal relationships.

## **1.2 Statement of the problem**

In the discussions about the social – cultural aspects of high-rise housing in Iran, two important factors have to be considered: a) the process of urbanisation and its impacts on the country's political, social and economic structure, and b) the social and cultural impacts of the modernisation process under which a transformation in the Iranian life-style and cultural trends has happened. The simultaneous occurrence of the above processes in Iran has had mutual impacts on both the country's housing trends and the people's lifestyle which have led to different forms of relationships between people and their apartments, in particular the manifestation of privacy. The concern is how changes in culture, expressed in behaviour, relate to changes in the physical environment.

Iran is one of the developing countries which has undergone rapid population growth and high level of urbanisation. During the last 50 years, the population of Iran has experienced a three-fold increase – from 19 million to 60 million - while the population of cities has undergone a six-fold growth – from 6 million to 36 million. Currently, nearly one-fifth of the urban population of Iran live in Tehran (Kazemipour & Mirzaie, 2005). While the rapid growth of the urban population has been due to such factors as rural – urban migration, natural population increase, settling down of the nomads, and the new classification of rural centres as towns, Iran's contemporary housing situation and problem has been influenced by the historical events of the political system of the country in the 1860s/1870s and 1930s and also the commencement of the modernisation process in the 1920s, which caused profound political, economic, social and cultural transformations in the structure of the country. The economic modernisation and restructuring of agriculture – the main basis of the economy – accompanied by political centralisation, land reform and an increase in foreign trade and investment, which had an influence on the economic position of smaller provinces, caused massive migration from these areas to larger cities, which in turn put pressure on employment, housing and infrastructure



services on one hand, and made a huge social gap between classes in urban areas on the other hand.

Under the influence of the urbanisation and modernisation process, Tehran was changed both physically and socially. Different social groups and classes appeared and were segregated in a new spatial arrangement based on a north-south divide; an urban middle-class with semi-bourgeois habits and standards emerged; new customs and rules emerged in social relations between people; and the culture of different rural immigrants became part of the dominant urban culture. The housing provision and policies were hence very much affected by the above factors during the two periods of before and after the Islamic revolution.

High-rise and apartment housing in Iran first appeared in the 1960s. Since then two different approaches have been observed in this type of housing.

- a. The country's 1950s/1960s modernisation plans, followed by the 1970s economic boom, gave way to the construction of large high-rise apartment complexes in Tehran and a few major cities where the growing middle and upper classes were living (Hafezi, 1980; Diba, 1979). Promotion of the new values and modern lifestyle of these social classes throughout the wider society as part of the government's modernisation plans, along with stimulating policies for constructors imposed by the state, were other influential factors in the development of high-rise apartment buildings before the revolution.
- b. In the post-revolution era high-rise and apartment gradually became the major type of housing for the mass population. The 1980s/1990s political, social and economic situation of the country due to the start of the Islamic revolution, the country's eight year war with Iraq, and natural population growth, resulted in a huge demand for housing, especially from civil servants and lower income families. This, along

with the rapid urbanisation process and the space limitation of urban areas led the state to initiate a 'high-density construction'<sup>1</sup> policy aimed at the general public, which was developed in the form of high-rise complexes, blocks of apartments and multi-storey building of new towns in and around all the major cities throughout the country, an experience similar to what had happened in Western countries after the Second World War.

The prevalence of high-rise and modern apartments as mass housing brought people from diverse social and cultural backgrounds, people who were formerly living in a variety of traditional, rural, and urban houses, into apartments buildings with limited designs and new social structures. The cultural and sub-cultural diversity of residents, in terms of lifestyle, cultural patterns and practices, were hence to be accommodated in these new environments. Among many Iranian cultural traditions which, under the influence of modernism, have seen change, the pattern of privacy and its physical manifestation in the modern apartments has been transformed most notably. Privacy, in the context of Iranian – Islamic culture, has an ethical significance and concerns two core issues of women and family. Although practiced in a variety of forms in different parts of Iran, the basic principle of privacy rests on visual and physical gender segregation. While this has been a basic principle in Iranian architecture and urban design and was regarded in the plan of traditional Iranian houses, the plan of modern apartments could hardly demonstrate this cultural rule.

### 1.3 Research question

The current study on the relationship between the physical space of modern apartments and the Iranian lifestyle is a response to the following question:

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<sup>1</sup> The government along with its housing policies initiated a new housing plan called PAK 'Pass-andaz, Anboudh-sazi, Koochak-sazi' or 'saving, high-density small-plot construction'



*‘How significant are traditional socio-cultural living patterns in the design of modern apartments?’*

Following the main research question and in order to design different stages of the research, in particular the empirical stage, a number of further questions have been raised for the study to establish the relationship between the modern environment of apartments and the cultural behaviour of Iranian families toward privacy and social interaction. The questions are:

1. What effect do the plans of apartments have on the patterns of privacy and social interaction?
2. What are the impacts of socio-economic issues and the particular sub-culture of families on their relationship with the apartment?
3. What influence does modernism have on the implementation of privacy and social interaction?
4. How can Iranian women maintain a desired level of privacy in the open plan environment of modern apartments?
5. How satisfied are families living in modern apartments with the level of privacy?
6. Could modern apartments accommodate the Iranian lifestyle?

Answers to the above questions are investigated during the course of the research, and a complete picture will be given of the congruency of the architectural form of modern apartments and the cultural patterns of privacy and social interaction through the opinion of the people who live in this type of housing.

#### **1.4 Aims and objectives**

The emergence of high-rise buildings and modern apartments in Iran as a fashionable housing type aimed at middle and upper class families in Tehran followed by its prevalence in other cities, and especially the central positioning

of apartment construction in the government's housing policies during the last few decades, raises the issue of whether this type of housing is suitable for Iranian living. This study, therefore, aims to *analyse the relationship between the physical environment of modern apartments and people's life style and behaviour in the context of Iranian culture*.

To achieve the study's primary aim, the following objectives have to be fulfilled:

- To investigate the architectural space in modern apartments in Iran and to examine its impact on Iranian people's living. This will include a two way interaction between, and modification of the physical space of apartments and people's behaviour and living patterns.
- To investigate the process of urbanisation and modernisation in Iran and its influences on different socio-cultural and political aspects of the country and in particular housing.
- To investigate the traditional cultural living patterns of privacy and social interaction and their manifestations in the traditional Iranian house and modern apartments.
- To investigate the role of gender – women - in the relationship between the physical environment of modern apartments and the behaviour of the people who are living in them

## 1.5 Research methodology

The study progresses through two stages of documentary studies and empirical studies by the following methods:



1. The study commences with a literature review of both Western and Iranian sources to: a) trace the historical causes of the high-rise problem, b) find out what is known about the problem, and c) establish a broad strategy for conducting research and critical appraisal related to the subject of the research.

The literature review covers the following subject areas:

- a. A historical review of the process of urbanisation in developed and the developing countries, its associated demographic, economic and social implications and their relation with the housing problem. This will include an investigation into the urbanisation and modernisation process in Iran and its impact on housing. This part of the literature review will include a study of the high-rise residential buildings in both Western and Iranian contexts.
  - b. A review of Man-Environment Relations Studies in order to establish a theoretical background for the study. Theories on the impact of the built environment on people's behaviour propose alternative views. Environmental determinism advocates that the physical environment determines human behaviour. Other views indicate that the physical environment has no major role in behaviour and consider the built form as a setting offering possibilities and choices for behaviour.
  - c. A review of the concept of privacy and related theories in a western context, and the gender-related definition of privacy in the context of Iranian – Islamic culture. This will be followed by an investigation into different types of traditional and modern Iranian houses and the physical and behavioural applications of privacy within the Iranian house.
2. The second part of study progresses through sequential mixed-method social research to collect empirical data from a case study – *Ekbatan*

*Town* – to measure a) the degree of congruency between cultural patterns of privacy and social interaction and the architectural form of modern apartments, and b) the families' satisfaction with their apartments. Data are collected by the following methods:

- a. Quantitative research, which will be mainly concerned with the factual and attitudinal information about the sample population for which data will be collected through a questionnaire.
- b. Qualitative research will be implemented in a number of individual apartments in which alterations have been made and for which semi-structured interviews and mapping of physical alterations will be carried out. The physical form of apartments and families' privacy behaviours will be investigated on the basis of three criteria: a) the traditional principle of gender segregation, b) the influence of modernity and gender integration, and c) the general trend of living and use of space.

### **1.6 Reasons for choice of *Ekbatan Town* as a case study**

*Ekbatan Town* is the first and the largest purpose-built modern apartment complex situated in Tehran. It contains 14,700 units of apartments and currently accommodates nearly 80,000 population. The population of *Ekbatan Town* represents the social and cultural diversity of Iran. This is due to the length of construction of the site, which stretches from before the Islamic revolution to 15 years after the revolution during which the country underwent radical political and social changes. The modern plan of the apartments and cultural diversity of the inhabitants make *Ekbatan Town* a perfect site to be investigated by the study. The other reason is my personal experiences of living in one of the apartments of *Ekbatan Town* for seven years. My understanding of, and familiarity with, the environment, on one hand, and the



opportunity to observe the types of relationships between families and their apartments, on the other hand, are valuable resources for the study.

## **1.7 Research structure**

The present study includes eight chapters. Chapter one presents an introduction to the study including the problem, aims and objectives, methodology of the research and arguments that provide the basis for this research. A historical background will be established for the study in chapter two, in which the urbanisation process as the main cause for the housing problem and its implication on the widespread construction of high-rise buildings and apartment blocks will be investigated in both developed and the developing countries. As the industrial revolution originated in Western countries, their major cities were the first to become the large industrialised and economically advanced urban regions of the world. With massive migration of job-seeking populations from rural areas, a social transformation followed in the structure of the developed world urban centres. The urbanisation process and its associated demographic, economic and social aspects had different implications in developing countries, including Iran. Construction of high rise buildings and apartment blocks as mass housing has become not only the country's housing policy but also an ultimate solution for the population's increasing demand for housing. Statistics on Iran's current population, education level and economic status, and information about Tehran and its physical and social transformation during the last century aims to set up a historical context for the study and also a background information for the quantitative stage of the research, .

To establish a theoretical background for the study, chapter three investigates the relationship between the environment and people's behaviour. The multi-disciplinary field of environment - behaviour studies examines this relationship in the context of a) the influence of human behaviour on the environment, b) the effect of the environment on human behaviour, and c) the two way

interaction between behaviour and environment. In this context, three basic theoretical positions of environmental determinism, environmental possibilism and environmental probabilism will be investigated to establish the most realistic approach to the relationship between the architectural form of the house and people's behaviour.

The study's main focus on the pattern of privacy and its definition in the context of Iranian – Islamic culture will be discussed in chapter four. Privacy in this context is a multi-dimension gender-oriented phenomenon which has three ethical, visual and physical realms. Privacy and its associated element of social interaction has been the main element in the design and layout of both inward-looking and outward-looking traditional Iranian houses. The visual and physical disconnection and segregation has been a typical manifestation of privacy among Iranian families. In contemporary Iran, many traditional patterns of privacy have changed under the influence of modernisation. As societal values have been transformed, so have architectural artefacts and in particular house design. This has been accelerated by the country's urbanisation process and prevalence of modern apartments.

Chapter five establishes the methodology of the research case study. Due to the complex nature of this study, a multi-method quantitative and qualitative research method is identified for the research. Data will be collected through a number of methods including questionnaires, interviews, documentary data and observations. The case study site is a modern residential high-rise complex in Tehran with a socially and culturally diverse population. This place is where I lived for several years and therefore my personal experiences will be part of the data.

The data collected at the quantitative stage of the research are analysed in chapter six. Analysis at this stage includes two types of data; a) factual information including the sample population's socio – economic and cultural background, and housing choice and characteristics, and b) attitudinal



information including internal organisation of the apartment and privacy. The relationship between the layout of the apartment and pattern of privacy and social interaction are evaluated to assess whether the level of privacy is satisfactory for the people who are living in different types of apartments and if this could be changed by alteration to the apartment.

Chapter seven is a case by case analysis of sixteen interviews conducted with families who have changed the layout of their apartments. The analysis is based on three criteria identified by the research: a) the traditional principle of gender segregation, b) the influence of modernity and gender integration, and c) the general trend of living and use of space. The relationship between the alterations and the identified criteria are analysed and also each family's pattern of privacy and social interaction are mapped. This stage also identifies the relationship between the socio-cultural background of the families, their specific sub-cultural pattern of privacy and the type of alterations. The chapter concludes with analysis of the quantitative research and qualitative case study findings in the context of the study's theoretical framework of the environment-behaviour relations studies.

The study's conclusion is presented in chapter eight. Privacy has been a very important element in the Iranian peoples' lives in their social and behavioural interactions, both in the public and the private sphere of the house. It is discussed that while the traditional pattern of gender segregation has been transformed to one of gender integration due to a number of factors such as the country's modernisation and urbanisation process, education and increasing involvement of women in society, consideration of this element and its sub-cultural variations is important in the design of modern apartments.

## ***Chapter Two***

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***A Historical Review of the Urbanisation Process  
and Housing Problem***

## **2.1 Introduction**

This chapter establishes a historical background for the study to trace the roots of the current housing problem and the mass construction of high-rise buildings. It argues that the urbanisation process and its related demographic, economic and social impacts in both developed and, with different impacts, developing countries, are main factors in the emergence of the current housing situation.

The shortage and inappropriateness of the existing housing stock for the new population composition, along with the new governance and mechanisms of housing construction and allocation, and the initiation of new patterns of living in cities, have led to the construction of high-rise and apartment housing. In Iran, less than five decades ago, apartment blocks and residential high-rise buildings emerged and became widespread, following the political, social and economic transformation and modernisation of the country. This type of housing, backed by the government's housing policy both before and after the Islamic revolution periods, led to further development in large cities, especially in Tehran.

## **2.2 World Urbanisation**

Since the industrialisation process started some two centuries ago, the proportion of the population of the world living in urban areas has increased, especially during the twentieth century. Urbanisation, in one aspect, is "a process of geographic concentration of the population in which the ratio of urban population to the total population in a territory increases" (Hatt & Reiss, 1957:79). In the redistribution of a population within a given territory, urbanisation is the major process of 'centripetal movement'; Paul & Reiss refer to it as a process by which population and resources are drawn into a centre of population concentration. Davis (1962) also explains urbanisation as the process of switching from spread out patterns of human settlements to concentration in urban centres.



Between 1800 and 1950, the world population living in urban agglomerations of 20,000 inhabitants or more increased from 132.2 per cent in 1800-1850 to 193.5 per cent in 1850-1900 and 239.6 per cent in 1900-1950; the corresponding increase in agglomerations with 100,000 or more were 76.3 per cent, 222.2 per cent and 254.1 per cent respectively. The world's urban population reached one billion in 1970, increased to 2.5 billion in 1994 and is projected to reach 5.1 billion by 2025. The proportion of urban population for the above years is 36.6 per cent, 44.8 per cent and 61.1 per cent respectively (Figures 2.1 & 2.2). The regional pattern suggests that about 68 per cent of the urban population resided in more developed regions (Europe, Northern America, Japan, Australia and New Zealand) in 1970, increasing to 75 per cent in 1994 and projected to reach 84 per cent in 2025. According to the United Nations projection, the world's population has been transformed, to become predominantly urban in 2008 (Satterthwaite, 2007).

### **2.2.1 Urbanisation in developed and developing countries**

In the analysis of urbanisation a distinctive correspondence exists between:

1. The spatial concentration of population in a specific form of spatial organisation called 'city',
2. A certain type of production, essentially defined by industrial activity (industrialisation), and
3. A system of values, attitudes and behaviour called 'urban culture' or 'modernism'.

The study of the levels and growth of worldwide urbanisation has long reflected the differing emphases and importance of each of the above criteria in the literature. While some refer to urbanisation as a radical demographic change (Davis, 1965), others look at the socio-economic change and development of countries' economic system (Hay, 1979).



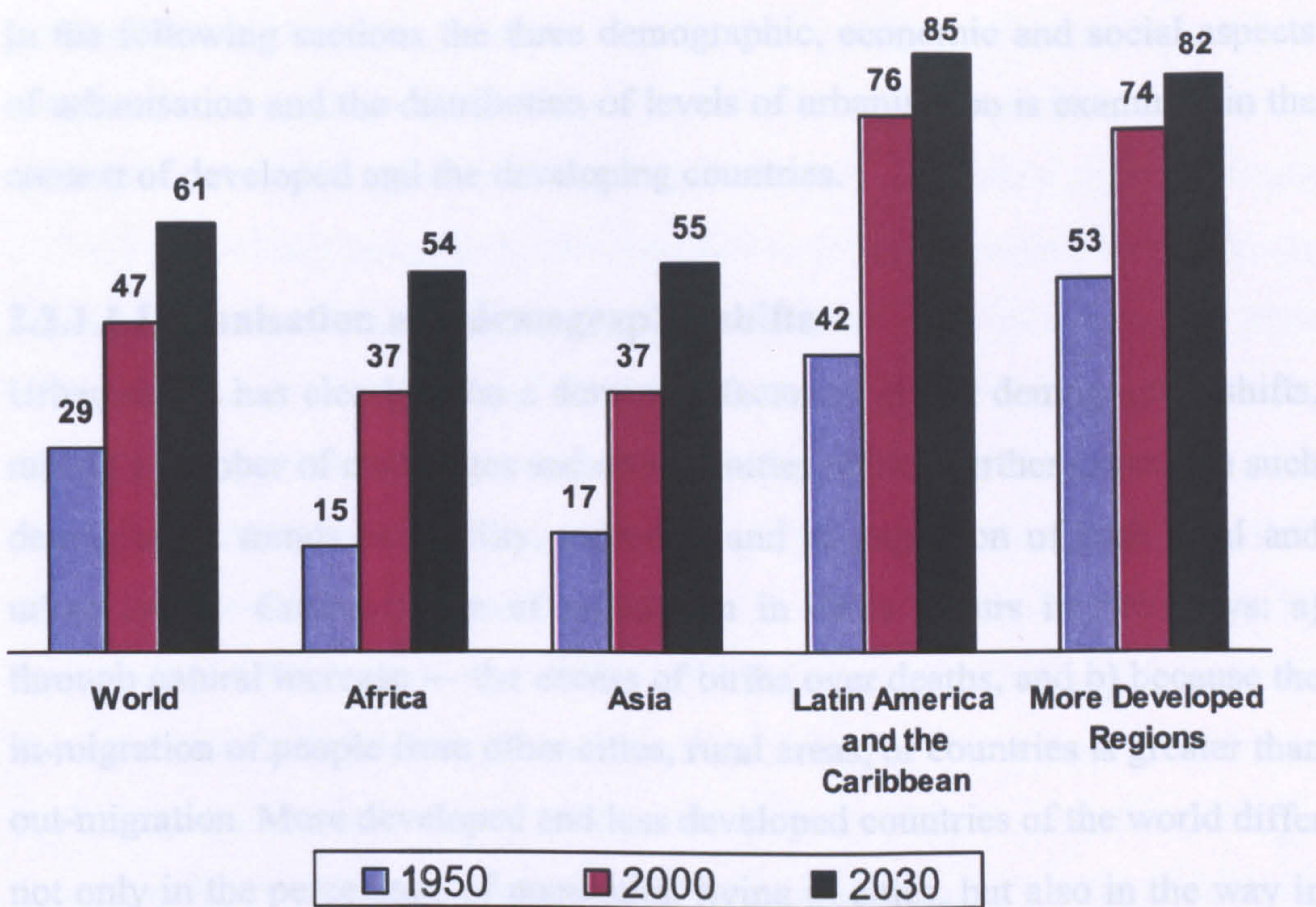


Fig 2.1 Percentage of the world population living in urban areas, (United Nations, 2006a).

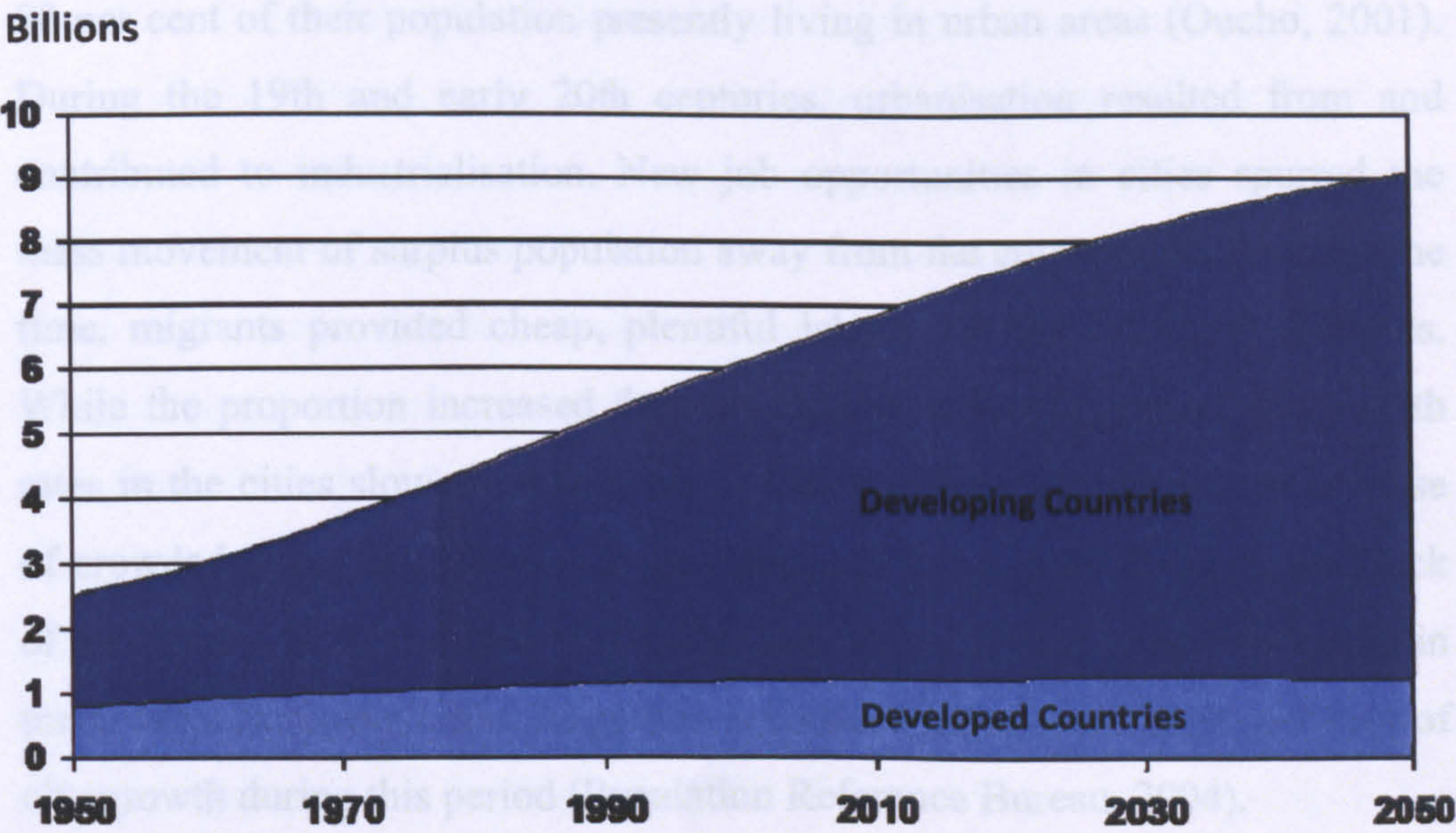


Fig 2.2 World population 1750 – 2050, (United Nations, 2006b).



In the following sections the three demographic, economic and social aspects of urbanisation and the distribution of levels of urbanisation is examined in the context of developed and the developing countries.

#### **2.2.1.1 Urbanisation and demographic shifts**

Urbanisation has clearly been a dominant factor in global demographic shifts, raising a number of challenges and opportunities, which further impact on such demographic trends as fertility, mortality and in-migration of both rural and urban areas. Concentration of population in cities occurs in two ways: a) through natural increase — the excess of births over deaths, and b) because the in-migration of people from other cities, rural areas, or countries is greater than out-migration. More developed and less developed countries of the world differ not only in the percentage of population living in cities, but also in the way in which urbanisation is occurring.

From 1800 onward, cities grew rapidly in the developed capitalist world. These countries eventually became the first urban nations in the world, with almost 80 per cent of their population presently living in urban areas (Oucho, 2001). During the 19th and early 20th centuries, urbanisation resulted from and contributed to industrialisation. New job opportunities in cities spurred the mass movement of surplus population away from the countryside. At the same time, migrants provided cheap, plentiful labour for the emerging factories. While the proportion increased through rural to urban migration, high death rates in the cities slowed urban growth. Cities were unhealthy places because of crowded living conditions, the prevalence of contagious diseases, and lack of sanitation. Until the mid-1800s, the number of deaths exceeded births in many large European cities. Migration accounted for as much as 90 per cent of city growth during this period (Population Reference Bureau, 2004).

Davis (1996), in his early study of urbanisation in industrial nations, investigates the possible sources of urbanites. In his view, the possible answers to the rise of the proportion of population in cities are because: a) settlements

previously classified as rural are re-classified as urban; b) of an excess of births over deaths (natural increase); or c) people have moved from the non-urban to the urban areas. He argues that while the first factor had only a slight influence and the second has never been the case due to cities' excessive mortality, the only real source for the growth in the proportion of people in urban areas during the industrial transition was rural-urban migration. This source had to be plentiful enough not only to overcome the substantial disadvantage of the cities in natural increase but also, above that, to furnish a large margin of growth in their populations. This, indeed, appears to have been the case in the urbanisation of the majority of the developed and industrialised capitalist countries. To understand why this rural-urban migration occurred, one must evaluate the economic facets of the urbanisation process and the principal economic feature of the process, the shift from agricultural to non-agricultural occupations, which is examined in the following section.

The demographic aspect of urbanisation in most developing countries in the past 50 years contrasts sharply with the experience of the more developed countries. Death rates have fallen faster in urban areas because of greater access to health services. Because birth rates are relatively high in most less developed countries, the rates of natural increase are also quite high in cities (Figure 2.3). Abu-Lughod (1971) is well aware of this fact and suggests that in some of the overpopulated, under-industrialised countries, such as India, the rates of natural increase are so high in the cities that the process of urbanisation (i.e. the shift in population from rural to urban area) is not occurring at the same rates as in the developed world. Thus, cities grow from natural increase just as much as from rural-urban migration (Drakakis-Smith, 2000; Potter & Lloyd-Evans, 1998), as opposed to the rather different circumstances in Western Europe and the United States. Davis (1996), enlarging upon this argument, states that it might be more accurate if the process of urbanisation is labelled 'pseudo-urbanisation' (McGee, 1971:25). In some developing countries, then, city growth is not to be equated with urbanisation, and thus one



may argue that the redistribution of population from the rural areas to the urban (said to be so basic to the process of economic growth) is not occurring.

### 2.2.1.2 Urbanisation and economic growth

Clearly “modern urbanisation is best understood in terms of its connection with economic growth” (Davis, 1996:3) and its implications are best perceived in its latest manifestations in advanced countries. One of the most relevant implications is the question of changes in the occupational structure, which are said to accompany the urbanisation process. The most enduring theories to emerge from the Western experience have been those which postulate the change from agricultural to manufacturing occupations and thence to tertiary-dominated occupations.

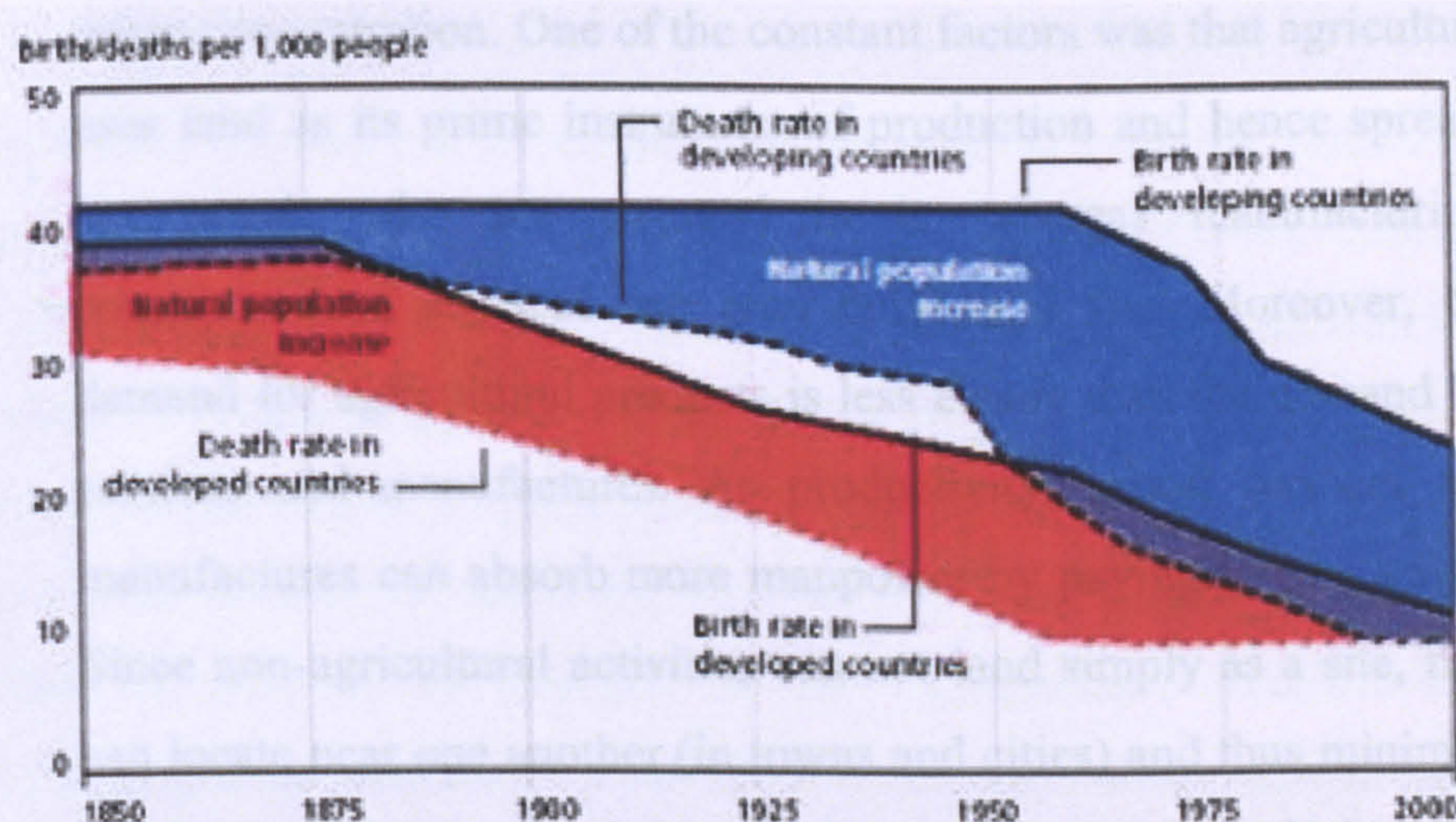


Fig 2.3 Trends in birth and death rates 1850 – 2000, (United Nations, 2003).

Note: Developed countries include high-income countries and present-day transition economies

To understand the connection of urbanisation with economic growth one must view the economic system in the late nineteenth century. This economic system, capitalism, laid the ground for many further changes in all social, economic, technological, political and demographical aspects. Capitalism is a form of economic organisation in which wealth is generated for investors through the production of saleable goods and services. According to Clark



(2003:76) “Capitalism, through mass production and associated agglomeration, generates urban growth and urbanisation because it concentrates productive activity and all the workers and spending power that are associated with it”. The city also serves as a centre for consumption of the profits of capitalism.

Industrial revolution as the accelerator of ‘industrial capitalism’ (Clark, 2003) was the initial phase in which wealth was created by making, rather than merely trading in goods. This involved a massive shift from agricultural to non-agricultural, industrial occupations. Davis has explained the reasons for this structural shift in employment:

‘The reason was that the rise in technological enhancement of human productivity, together with certain constant factors, rewarded urban concentration. One of the constant factors was that agriculture uses land as its prime instrument of production and hence spreads out people who are engaged in it, whereas manufacturing, commerce and services use land only as a site. Moreover, the demand for agricultural products is less elastic than the demand for services and manufactures. As productivity grows, services and manufactures can absorb more manpower by paying higher wages. Since non-agricultural activities can use land simply as a site, they can locate near one another (in towns and cities) and thus minimize the friction of space inevitably involved in the division of labour. At the same time, as agricultural technology is improved, capital costs in farming rise and manpower becomes not only less needed but also economically more burdensome. A substantial portion of the agricultural population is therefore sufficiently disadvantaged, in relative terms, to be attracted by higher wages in other sectors’ (Davis, 1996:6).

The consequence of this structural change in occupations was the reason for the rise in population in cities and rural-urban migration. As such, Great Britain

generated sizeable concentrations of population and labour that in turn attracted more industry and led to rapid and massive urban growth. Great Britain was the first country to experience urbanisation as a result of industrialisation. The industrial revolution transformed the country from a rural agriculture to an urban industrial economy (James, 1991).

The sum total of this economic revolution, often more popularly labelled 'the industrial revolution' was the basis of the rise in the levels of western societies' economic development. Hence urbanisation has come to be understood in the western world in terms of its connection with economic growth; generally, being associated with the level of a nation's economic development. One finds this assumption in virtually all writings concerning economic growth (Gugler, 1997; Sjoberg, 1966; Berry, 1962).

The economic aspect of urbanisation in developing countries, contrary to what happened in the West, was influenced by several factors. Clark (2003) identifies three factors, namely that: a) Mercantilism as the dominant economic system in fifteenth century resulted in the fact that many ports and cities in poor countries began to grow under the influence of the capitalist economic system of developed countries, without any involvement in industries and economic growth; b) changes in the occupational structure of many underdeveloped countries were shifted directly from agriculture to an unorganised, unregulated and unregistered informal sector in urban economies; and c) urbanisation in the developing world was being imposed from the outside, rather than being generated from within, as large cities, national capitals and major ports were centres for investments from foreign countries and economic activities by affording wide access to cheap labour and to domestic markets (Carter, 1995) and to obtain more profits (Clark, 2003).

The empirical evidence for an identical change in occupational structures of many developing countries is not strong. The pattern now appears to be that urbanisation is proceeding at a more rapid pace than the expansion of



manufacturing employment, resulting in a direct shift out of agriculture into services (McGee, 1971). Thus it is the tertiary sector that is growing most obviously in the capital cities of the developing world. The reasons for this tertiarisation of the developing world cities are many. According to McGee, in some countries where industrial production has increased, it has not meant an increase in industrial employment, for it resulted largely from capital-intensive industrialisation, not labour-intensive. In areas where industrialisation has not increased greatly, tertiarisation seems to present a dangerous sign for economic growth because of its association with growing under-employment and unemployment.

The urbanisation process denotes a complex interplay of socio-economic, political, technological, geographical and cultural factors. Thus, variations in the level and growth of urbanisation and economic development are strongly related to cross-sectional and historical variations in the socio-economic development of the world system. Wallerstein (1974) accounts for this contradiction by noting that the third world is presently developing within the structural constraints of a world system created and controlled by the advanced industrial nations of the west. Hay also states:

‘Urbanisation in the third world has not been accompanied by concomitant economic prosperity as it was in western nations. Quite to the contrary, it has been paralleled by increasing inequity in income and material amenities. In recent years, the developed world has become relatively ‘richer’ while the less developed world has become relatively ‘poorer’ (Hay, 1979:72).

### **2.2.1.3 Urbanisation and social change**

The social implication of urbanisation finds its roots in the characteristics of a distinctive mode of life and culture recognised by early sociologists such as Simmel (2005) [1903] and especially Wirth (1938) as ‘Urbanism’. Louise Wirth, by identifying the characteristics of city life believes that the new social

organisation and behavioural patterns are products of the size, density and heterogeneity of the urban population.

‘On the basis of the three variables, number, density of settlement, and degree of heterogeneity of the urban population, it appears possible to explain the characteristics of urban life and to account for the differences between cities of various sizes and types’ (Wirth, 1938:194).

Wirth, however, believed that urbanism and the new mode of life are not restricted to urban centres.

‘Urbanisation no longer denotes merely the process by which persons are attracted to a place called the city and incorporated into its system of life. It refers also to that increasing accentuation of the characteristics distinctive of the mode of life which is associated with the growth of cities, and finally to the changes in the direction of modes of life recognized as urban which are apparent among people, wherever they may be, who have come under the spell of the influences which the city exerts by virtue of the power of its institutions and personalities operating through the means of communication and transportation’ (Wirth, 1938:5).

Wirth’s Urbanism theory laid the ground for the future theories of social change. McGee (1971) states that these theories can be treated in three sections. The first group of theories considered the city to be the centre of social change, introducing new social patterns and breaking down the old, traditional pattern. The second group argued that new social patterns in the city had begun to spread outwards to the rural areas. Hence, in a social sense, urbanisation was not limited purely to the boundaries of a city or to any area defined as ‘urban’. The third group of theories argued that the cities, as

significant social subsystems, caused specific features of personal behaviour in a person residing therein.

Basic to all these theories was the assumption that there were distinct rural-urban differences (Redfield, 1961; Sorokin & Zimmerman, 1929), which were measurable and quantifiable. These ideas of rural-urban distinctions have been built into a broad model of social theory, which has come to dominate a large amount of thinking in Western sociology. It may possible to label this group of theorists as the 'rural-urban continuum' thinkers (McGee, 1971; Clark, 2003). This group of theorists suggested that certain demographic conditions which were thought to characterize town life, large size of population, high densities of population and heterogeneous populations, could induce changes in the personality and social life of the town dweller, which would not occur in the country dweller. The reality of today's process of urbanisation in the world criticises the above western social change theories.

Traditionally, urban patterns of behaviour and identity were thought to be a simple function of place. They were restricted to and experienced by those who actually lived in the city. Today, urban influences are extended well beyond settlement boundaries by long-distance travel, telecommunications and the mass media. Many people in seemingly rural areas are exposed to urban attitudes and values. They have a wired identity and engage with the city via a range of symbols and shared meanings (Morley and Robins, 1995). The ability to participate in an urban way of life is largely independent of location and is open to all. The world, it is argued, is increasingly becoming a global urban society of which we are all residents (Clark, 2003).

The model also does not take into account the movement of people from the rural pole to the urban pole. Such movements bring people whose values, habits and attitudes and whose political, economic and social organization are those of the rural areas into urban areas. Such aspects of rural society do not necessarily disappear in the urban environment, especially when the number of



rural migrants is large, as is the case in many of the world's major cities of today. In other words, the majority of the world's cities are going through a period of 'ruralisation' (McGee, 1971). It is simply claimed that when a city has a high number of rural migrants, it has a high number of features which are characteristically rural. This does not mean that the features of an urban style of life are affected, but it does mean that any static model of urbanism must be changed.

### **2.3 Urbanisation and housing**

The modern housing problem was a creation of the nineteenth and twentieth century because a) new demographic trends multiplied and exacerbated the inherited problems, and b) new social trends gradually raised housing expectations (Burnett, 1980). The last two centuries therefore witnessed both an acceleration of the housing problem and the origins of policies aimed at its solution.

Two important factors are involved in the distribution of housing among social classes. One is that industrialisation in the first half of the nineteenth century was widening social and economic differences within and across the classes in the form of enriching and enlarging the middle classes as a proportion of the whole population, and also creating wider differences of income and status within the working classes (Redfield, 1961). This means that the newly emerged middle classes must have improved their housing conditions in that period (Burnett, 1980). Another factor has been related to the shifting of the population of both the developed and the developing countries from rural areas and small towns to the larger metropolitan concentrations. To accommodate these new concentrations, two phenomena have occurred. Firstly, the middle and upper income populations have, for the most part, moved their residences out of the older central areas to create and occupy a new suburbia, distinguished by its large scale and low density. Secondly, the rural migrants, poor and

disadvantaged, have moved in to occupy the remnants of older central city (Newman, 1972).

The most urgent housing problem was happened in the first half of the twentieth century due to a phenomenally rapid growth of population. The shock of accommodation had to be utilized and expanded at a rate which constantly fell short of need, and which produced many ill-effects on the comfort and health of the inhabitants (Burnett, 1980). Some of the measures adopted in the developed countries to address this problem, including building more housing units with given resources, reducing land acquisition and construction costs by increasing building density, and decreasing building quality, led to the creation of a multitude of housing problems (Aydemir, 1990). Some of the experiences of the developed countries in post war mass housing, are currently occurring in developing countries (Hardoy & Satterthwaite, 1981).

The habitability of a house is influenced not only by the engineering elements but also by social, behavioural, cultural and other elements in the entire societal-environmental system (Michelson, 1970). Consequently, a wide variety of factors should play a part in shaping housing policies, notably population growth and migration, levels of income, climate, political objectives of governments, and of course human needs and desires (McCrone and Stephens, 1995).

### **2.3.1 Housing approaches in developed countries**

Housing has long dominated domestic policies in developed countries. It is observed as not only a fundamental human need, but also visibly a reflection of social progress and individual status within society (Power, 1993). Housing is strongly linked with urban tensions and disorder, and because it is so central to the life and well being of any community, governments tend to intervene when for any reason housing systems break down.

The problem of housing shortages in developed industrial countries started after the Second World War. With the expansion of cities due to the urbanisation process and the shift of population from rural to urban areas, the very first demand of this newly arrived labour force to industrial cities was housing provision. Amongst the first countries to become urbanised were Great Britain and some other European countries. Their urbanisation was relatively slow, allowing time for governments to plan and provide for the housing needs of increasing urban populations.

In considering the problem of housing and the estimation of housing need, there are some factors which have to be taken into account, such as the physical character of the dwelling, mismatching of dwelling with household expectations, overcrowding, price of accommodation, the housing estate and housing area as a totality, provision of social amenities, control over and mobility within the housing units, etc. The history of housing provision in developed countries shows that three different policies have been taken by capitalist, socialist and welfare economies to tackle this problem.

Allocation of housing resources and its relation to various stages of economic development have been identified by Drakakis-Smith (1980) in an analysis of Wheaton's model (1972)<sup>3</sup>. In the capitalist systems, Drakakis-Smith indicates that public commitments to low-cost housing are limited and housing resource distribution relies heavily upon stimulating the private sector through increased incomes in the middle and upper groups. In the United States, for example, where the concept of the free market economy dominates, housing is considered a consumer good not a social right, something that the individual buys in accordance with income. The state provides only a minute proportion – 1 per cent of the total stock – of social housing (Burnett, 1980).

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<sup>3</sup> William and Mary Wheaton (1972) put forward a model, which attempted to illustrate how the allocation of housing resources changed at various stages of economic development.



In the socialist approach towards housing provision, the state takes almost complete responsibility for improving the living conditions, particularly of the proletariat, at the expense of a disappearing upper-income group (Drakakis-Smith, 1980). Under the socialist system of Eastern Europe, housing has been considered a universal right, not a consumer good, an essential part of the 'social capital' provided both for the workforce and for those unable to work (Power, 1993).

Western Europe fits somewhere in between. Generally, housing is considered a limited social right in all these countries (Power, 1993). The situation in these countries was production of low cost subsidised housing for the poor in a gradual programme of squatter and slum clearance and now redevelopment of many poorly designed housing estates (Drakakis-Smith, 1980). The private sector beside the public sector is active for the middle and upper class population.

### **2.3.2 Housing approaches in developing countries**

In the majority of major cities in the developing world, more than one billion people live in illegally or informally developed settlements (Potter & Lloyd-Evans, 1998). According to a United Nations' report (2002) more than "one billion human beings still lack adequate shelter and are living in unacceptable conditions of poverty" (Habitat Agenda, Paragraph 53). The vast majority of these live in developing countries, and as a result of the 'urbanisation of poverty'<sup>4</sup>, an increasing number live in urban areas. Indeed, the sprawling informal settlements and slums of the developing countries are fast becoming the most visual manifestations of poverty itself (Habitat, 1999).

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<sup>4</sup> 'Two of the most significant development challenges facing Africa are rapid urbanisation and growing poverty. The combination of these two trends within Africa's cities and towns has resulted in a special problem now recognised by a new name. That name is "urbanisation of poverty", extracted from a speech by Dr Anna Kajumulo Tibaijuka, Executive Director of Un-Habitat, Nairobi, 27-31 May 2002.

The shortage of affordable housing for low-income urban households in developing countries has resulted in a proliferation of slums and squatter settlements. While large cities in some developing countries are growing at rates of up to 5 per cent per annum (and in some cases even faster), slums and squatter settlements in some of them are growing twice as fast. Slums and squatter settlements dwellers represent a significant part of the population in many cities of the developing countries. In many cities of Sub-Saharan Africa for instance, more than half of the population live in such informal settlements (Habitat, 1999).

The most problematic area of housing in developing countries is housing the low-income and the poor. Due to the vital importance of housing to social welfare and to the development process of a country as a whole, housing is one of the major concerns of both governments and people in developing countries. As urbanisation develops, the need for housing for those who live and those who arrive in the city grows too. To tackle the problem, governments through local and international housing policies try to respond to the needs. Jorge Hardoy and David Satterthwaite (1997), in their essay *'Building the future city'*, while tracing the dismal living conditions of a large part of the urban population in developing countries to the failings of governments at all levels, note that even with the limited resources available in these countries, governments could do much better by the urban masses (Hardoy & Satterthwaite, 1997). But "outdated institutional structures, inappropriate foreign models, and weak, ineffective, and unrepresentative governments are not equal to the task" (Gugler, 1997: 261).

In his study of Third World cities, Drakakis-Smith (1980) identifies three sources of supply for low-cost housing in these cities. They have been labelled the public, private and popular sources.

'Of these the public and private sources fall loosely into what we describe as the formal sector, housing which is built according to

local building standards by legitimate firms through established land, finance, material and labour markets. In contrast, 'popular' housing is that, which is constructed by the poor themselves usually in contravention of some legislation, outside established building conventions and below acceptable standards or norms' (Drakakis-Smith, 1980:85-6).

The fast pace of urbanisation, accompanied by the high rate of population growth, a degree of poverty, and an underdeveloped economy in most developing countries gives little time to governments to keep up with the pace. It is also clear that low-cost housing provision is allocating a small portion of the governments' concern in planning urbanisation policies, and long-term political and socio-economic development programmes. This is occurring in all of those countries characterised by either:

‘ ... a predilection for neglecting urbanisation as a factor in development, (or an) ... attempt ... to slow down the rate of urban growth by reducing the extent of what is often referred to vaguely as ‘rural-urban imbalance’, (or those) ... which have accepted urbanisation as a positive factor in economic development-something to be encouraged rather than prevented’ (Drakakis-Smith, 1980:205-7).

## **2.4 The urbanisation process in Iran**

Iran is one of those developing countries in the world which has recently seen a high level of urbanisation. In 1950, about 27 per cent of the population was urban; now the figure has more than doubled to 65 per cent, and a UN report predicts that by 2030, that percentage will shoot up to nearly 80 – an unprecedented figure for a developing country (IRIN, 2003). As the tenth contributor to the world population growth over the next thirty years (Heilig,



1996), a population increase of almost 60 million is expected to occur during the next three decades.

Since this rapid growth of urbanisation has not coincided with a concomitant growth of productive capacities, nor the necessary structural economic reforms, it has caused many problems from this lagging in many aspects, including an informal settlement phenomenon. According to surveys, about half of the increase in urban population during the last two decades has been the result of factors like the migration of the rural population to the cities, settling the nomads in towns, and the new classification of rural centres as towns. In other words, almost 13.5 million of growth in the urban population between 1976 – 1996 emanated from these factors (United Nations, 2004). The rapid growth of the urban population and its centralisation in large cities caused disorders and resulted in a disproportionate provision of urban services, facilities and employment opportunities for the extra population.

Urban growth and urbanisation have their roots in the historical events of Iran's political system. To understand and trace the contemporary housing situation and problems it is necessary to provide a brief background to the socio-economic and political transformations which occurred in Iran during the twentieth century, particularly since 1920, the start of the country's modernisation. Modernisation and its impacts has been a major factor in the above processes and on the country's current socio-demographic situation. Three factors of a) population, b) economic status of urban households, and c) education, have a cause and effect relationship with housing and the problem of this study. While the two former factors are directly related to the housing provision and shortage, the latter especially with regard to women's education has a direct relationship with the housing type and recent popularity of modern apartments. The three factors and their relationship with the problem of this study are discussed on the following sections.

**2.4.1 Population, education and economic perspectives in Iran**

This section presents a general perspective of information about the population, the education level and the economic status of people in Iran, extracted from the country’s national statistics, and their relationship to housing problem. The information will also be used as a background for the factual information collected from the quantitative research and will assist the reader in understanding the factual analysis of the case study in chapter six.

**2.4.1.1 Population**

In Iran, the actual scientific population and housing census has been conducted every ten years since 1956 and according to the law, it is the responsibility of the Statistical Centre of Iran (SCI)<sup>1</sup> to carry out and produce the country’s national statistics. There have been estimates of population in Iran since 1900, however the first National Population and Housing Census (1956) documented 18,954,704 people in the country. The latest figure shows a total population of 70,495,782 according to the National Population and Housing Census conducted in 2006 (Statistical Centre of Iran, 2007) (Table 2.1).

Table 2.1 Population of Iran 1956-2006

Year	Population
1956 Census	18,954,704
1966 Census	25,788,722
1976 Census	33,379,000
1986 Census	49,445,010
1991 Census	55,837,163
1996 Census	60,055,488
2006 Census	70,495,782

(Statistical Centre of Iran, 2009)

<sup>1</sup> The Statistical Centre of Iran is the most important statistical producer of the country. It is responsible by law for implementation of large-scale surveys such as the censuses of population and housing, agriculture, manufacturing, trade and construction as well as several sample surveys in a variety of fields each year. The SCI also collects registers and records from other organizations to enrich its data collection and to publish them in different reports and publications.

The average population growth rate during the first half of the twentieth century was estimated at less than 2 per cent annually. After World War II, Iran's population growth rate began to rise. Between the first and the second national census in 1956 and 1966 the annual growth rate averaged around 3 per cent. This decreased to 2.7 in the following decade due to the initiation of the country's first family planning program in 1967, which aimed to accelerate economic growth and improve the status of women by reforming divorce laws, encouraging female employment, and acknowledging family planning as a human right (Larsen, 2001). The population growth trend which had been started and continued in the earlier decades, was accelerated and reached 3.9 per cent in 1986<sup>2</sup> (Figure 2.4).

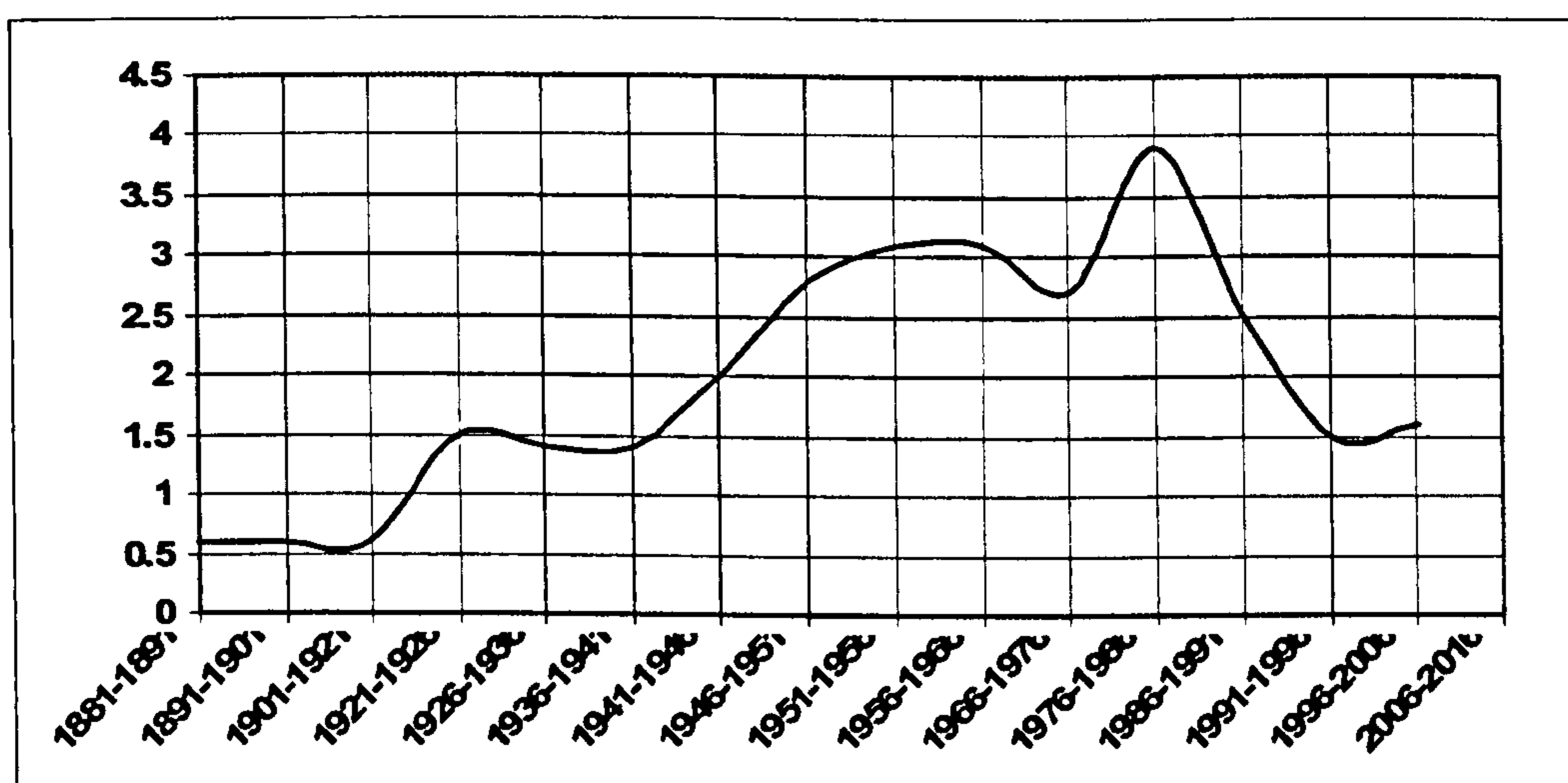


Fig 2.4 Annual natural population growth rates in Iran 1881-2006, (Statistical Centre of Iran, 2009)

<sup>2</sup> Iran's population configuration between 1956 and 1996 shows three major trends in decision making with regards to family planning and birth control, which have been influential on the composition of the current population. Before 1966 there was no official attention towards birth control, and even on the international level, Iran was among the opponents of application of birth control measures. The results of the 1966 national census brought the ever increasing population growth to the government's attention. Iran's first official family planning program was launched in 1967 and pursued until 1978. By the start of the Islamic Revolution and between 1978 – 1986, because of the change in social values and views at both the government and public level, and also the mental impact of the imposed war on the Iranian people, the birth control policies were reviewed and put in suspension. The results of the 1986 national census, once again were alarming for the disproportionate growth of the population. Hence from then on once again attention was paid to birth control. The country's current youth population and conformity of the 15-24 age groups with the age of marriage, education, employment and housing, which demands multilateral policies and planning on all the above areas, stems from the adoption of the 1978 – 1986 births encouraging policy (Statistical Centre of Iran, 2000).



It is argued that the increase is also related to the socio-political and economic situation of the country at the start of the 1979 Islamic Revolution and subsequent occurrence of the Iran-Iraq war (Larsen, 2001). Such an increase in population, accompanied by the country's social-political instability, put pressure on demand for housing. Decline in investment in the housing sector was followed by a noticeable drop in construction activities, lack of housing and urban development policies, shortage of construction materials, along with rural-urban and in-migrations, which were among the reasons which led to a critical housing problem situation both for the government and the people. This will further be discussed in 2.4.3.2.

Iran's rapid population growth during post-war reconstruction in the late 1980s was finally seen as an obstacle to the country's development. The national family planning program was revived and the Iranian government passed a law that encouraged couples to have fewer children by restricting maternity leave benefits after three children<sup>3</sup>. Among the keys to Iran's demographic transition are universal access to health care and family planning, a dramatic rise in female literacy, mandatory premarital contraceptive counselling for couples, men's participation in family planning programs, and strong support from government and religious leaders (Larsen, 2001). Iran's population growth rate dropped from an all-time high of 3.9 per cent in 1986 to just 1.6 per cent in 2006, one of the fastest drops ever recorded.

The 1976 census data indicated that 51.4 per cent of the population was male and 48.6 per cent was female. The median age of the population was 16.5 years, and less than 3.5 per cent of the population was over 65. The relatively large population increase between 1976 and 1986 had the effect of increasing

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<sup>3</sup> It also called for the Ministries of Education, of Culture and Higher Education, and of Health and Medical Education to incorporate information on population, family planning, and mother and child health care in curriculum materials. The Ministry of Islamic Culture and Guidance was told to allow the media to raise awareness of population issues and family planning programs, and the Islamic Republic of Iran Broadcasting was entrusted with broadcasting such information. Religious leaders also became involved with the crusade for smaller families, citing them as a social responsibility in their weekly sermons.



the already extreme youthfulness of the population. In 1986 the government announced that 50 per cent of the population was under 15 years of age, and about 45 per cent was in the 15- to 59-year age group, while only 5 per cent was over the age of 60. The latest figures in 2006 show that 27.1 per cent of the population is under 15 years of age, 68 per cent between 15 and 64 years of age, and 4.9 per cent over 65 years. The median age in this year is 24.23 years. The rise in median age is related to the dramatic decrease in population growth during the last decade. As shown in Figure 2.5, the two most stretched portions of the population pyramid relate to the 20-24 and 15-19 year old age groups respectively, which indicates the dramatic population growth of the 1978-1986 period.

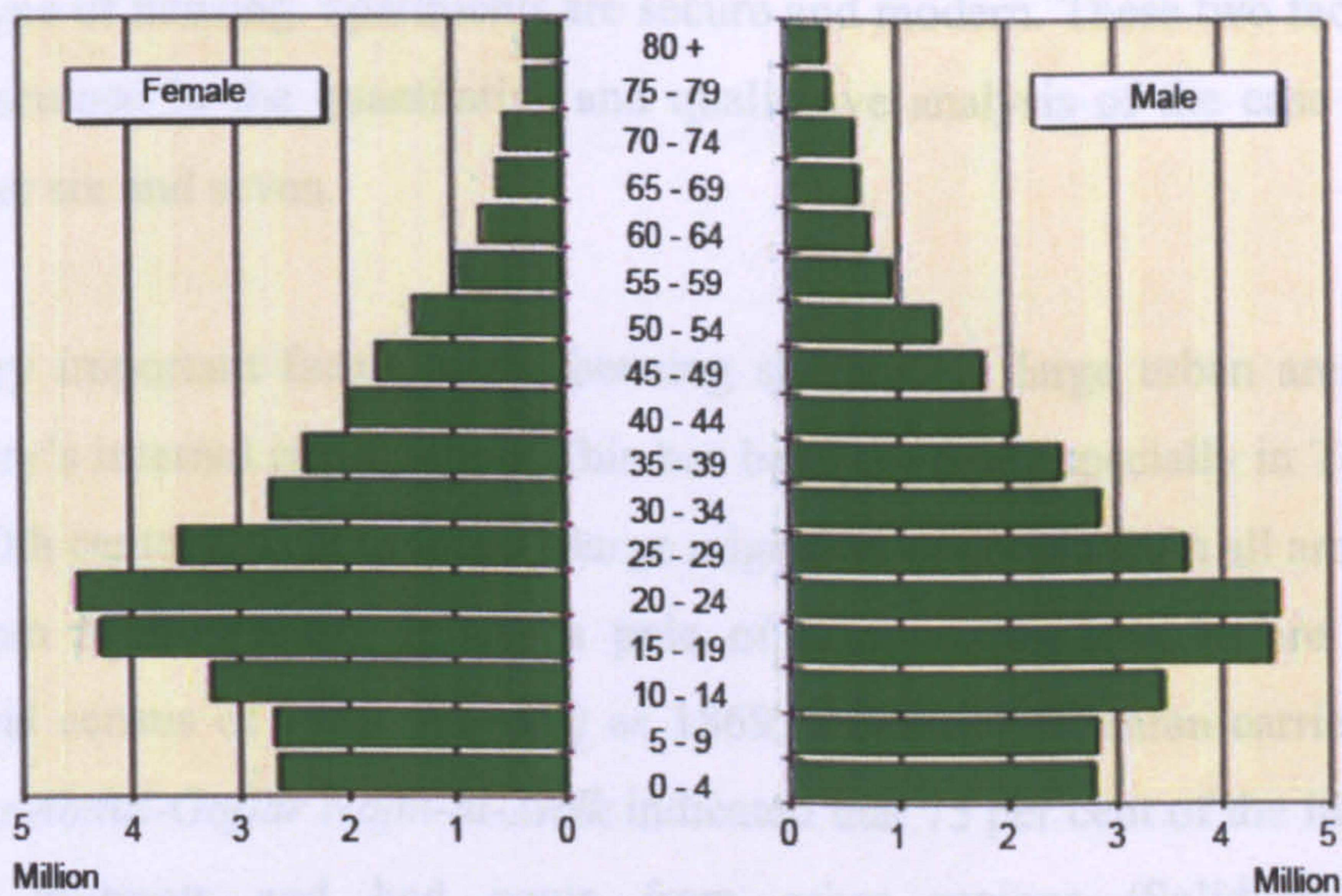


Fig. 2.5 Iran’s Population pyramid, (Statistical Centre of Iran ,2006).

As was discussed earlier, the fast population growth and the socio-political and economic situation of the country in the last half century made housing provision and housing cost a major problem both for the government and the people. The large young portion of the population, which has reached or is approaching the stage of marriage and settlement in their life, and therefore need proper housing, aggravates the condition. Having their own house to live in is part of the Iranian culture “therefore, purchasing a flat is of prime and



vital importance for the youth in Iran” (Shaykh, 2007:153). As the normal age of marriage for young people in Iran is in their 20s, inability in owning accommodation is an important factor to delay and obstruct the marriage. The new generation is tending toward nuclear families in contrast to the older generation, who would live in extended family houses, as society has rapidly changed from a traditional society into a modern society in the past few decades (Shaykh, 2007). This means more housing for increasing new couples and small families. The already existing housing shortage, particularly in highly dense urban areas, has led the government to address the problem by mass housing construction policies, encouraging and facilitating developers to build apartments and high rise buildings. In addition to the government housing policy, two other important factors have been influential in the popularity of this type of housing: apartments are secure and modern. These two factors will be discussed in the quantitative and qualitative analysis of the case study in chapter six and seven.

A very important factor in the housing shortage in large urban areas is the country’s internal immigration. This has been the case especially in Tehran. In the 20th century, Tehran faced a large migration of people from all around Iran (Tehran Municipality). It was a pole of immigration long before the first general census of 1956. As early as 1869, a census of Tehran carried out by *Mirza Abdul-Gaffar Najm-al-Molk* indicated that 73 per cent of the inhabitants were migrants and had come from other regions (Sa’idvandian and Ettehaadiyeh, 1989). As a result of this high level of immigration up to 1976, the rate of increase of population in Tehran surpassed the natural rate of increase of population. This trend, however, as Amani & Zanjani (1997) indicate, was largely reversed in the period 1976 - 86, especially after the Islamic Revolution and the ensuing lengthy and devastating war with Iraq. During the two periods of 1976 - 86 and 1986 - 96, the rate of population growth in Tehran dropped to 2.9 per cent and 1.2 per cent from 5.2 per cent and 6.1 per cent in the two preceding decades (Table 2.2). Two main reasons are proposed for this decrease, one is the decline in natural population growth

and the second is the out-immigration due to the return to their homes of those who were displaced by war (Amani & Zanjani, 1997). Urbanisation of Tehran and its related demographic and social transformations will further be discussed in 2.4.2.1.

Table 2.2 Rate of increase in population in Tehran 1922 - 1996

Period	Percentage
1922-32	4.0
1932-40	8.5
1940-56	5.7
1956-66	6.1
1966-76	5.2
1976-86	2.9
1986-96	1.2

(Amani & Zanjani, 1997)

2.4.1.2 Education

From 1976 to 1999, the overall literacy rate rose dramatically from 48 per cent to 82 per cent. According to the 1996 Population and Housing Census, of a 52,295,000 population of 6 years of age and over, 41,582,000 were literate (Statistical Centre of Iran, 2009). The latest census conducted in 2006 shows a literacy rate of 84.61 per cent. The rate in respect to gender shows 88.74 per cent and 80.34 per cent for males and females respectively. In 1979, there were less than 700,000 Iranians with college degrees. By the turn of the millennium, this figure had shot up to more than four million, with an additional two million completing their university education. In the academic year 2004 - 05, the number of students was 15,815,638. In the same year, 2,117,471 students were in higher education centres and Islamic Azad Universities, of which 1,079,563 were females and 1,037,908 were males. Another group whose level of educational attainment and general awareness has increased significantly since the revolution is the villagers. In rural areas, the literacy rate rose from 30.5 per cent in 1976 to almost 70 per cent in 1996. It is believed that the enormous gains in the educational status of the Iranian population can be



attributed to massive investment of the government in public education (on average 45 per cent of the government’s social affairs budget since 1989) (United Nations, 2004).

Of particular note is the closing of the gender gap in education, where the literacy rate has had a faster pace among women compared to men (Table 2.3). Also, enrollment rates for boys and girls in higher education establishments show a considerable increase in women’s participation. For instance, from early 1998 to 2003, female entrance rates to the universities increased from 52 to 65 per cent (Kousha & Abdoli, 2004).

Table 2.3 Six years of age and over literate population by sex 1966 – 2006

Year	Both sexes	per cent	Male	per cent	Female	per cent
1966	5,556,000	-	3,928,000	-	1,628,000	-
1976	12,877,000	-	8,198,000	58.90	4,679,000	35.50
1986	23,913,000	61.78	14,078,000	71.02	9,835,000	52.08
1996	41,582,000	79.51	22,467,000	84.67	19,118,000	74.21
2006	63,920,000	84.61	32,494,000	88.74	31,425,000	80.34

(Statistical Centre of Iran, 2009)

Women have achieved by far the most dramatic gains in literacy and education. There are some reasons and consequences for this achievement. Prior to the revolution, families from traditional sectors of society were very reluctant to allow their daughters to attend secular schools and higher education institutions. As a result, the female literacy rate was around 35.5 per cent in 1976. With the Islamisation of the education system and institutions, religiously inclined households tended to allow girls to become educated. By 1996, the female literacy rate had reached 74.2 per cent. In recent years, the number of women entering higher education has surpassed the number of men by a few percentage points. The advancement of women's education has had a number of profound social implications. Due to their higher levels of education and sophistication, women in Iran have become increasingly confident, self-

assured, and assertive. It is resulting in a strong presence of women in society, despite the official existence of controlled gender segregation in the public domain. This presence, on the other hand, has weakened the gender barriers in both public and private domains.

The influence of education and the ever increasing presence of women in society have had a visible impact on the role of women in domestic environments in two ways. The physical gender segregation barriers have been largely eliminated in domestic environments and been replaced by open, gender-integrated spaces. However, women tend to rely on dress code and behavioural forms of privacy and establish provisional barriers to maintain control over space and visual access and privacy. The influence of modernism is another important aspect of this change. Education, social awareness and social participation of women are accompanied by and result in strong tendencies toward modernism. When paralleled by the prevalence of modern apartments in the country, the trend appears in a new form of cultural attitude toward privacy. This will be further discussed in chapter seven, the analysis of the interviews.

#### **2.4.1.3 Economic status of urban households**

A population's economic status is usually measured by a number of indicators such as income, employment and tenure status. For the purpose of this study, the Iranian urban households' economic situation has been estimated on the basis of the most recent statistical findings on average annual urban households' gross expenditure and income<sup>4</sup>, the urban employment condition and tenure status.

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<sup>4</sup> Gross Expenditure is the amount of expenses plus household payment for income taxes and retirement pensions. Gross Income is the amount of income less income taxes, retirement pensions (household's share) and earning by selling second – hand goods.



In the World Bank income group classification (World Bank, 2008), Iran with 3470 US\$ GNI per capita is among lower-middle income countries.<sup>5</sup> According to the 2006 household budget survey in urban areas by The Central Bank of Iran (CBI, 2007) each Iranian urban household spent an average of 79,694,612 Rial<sup>6</sup> on current annual living expenses in 2006. The above-mentioned amount includes the rental equivalence of owner occupied houses, household payment for income taxes and retirement pensions. In the same year the urban households had an annual average gross income of 77,553,685 Rial, out of which 72.7 per cent was the share of money income and 27.3 per cent was the share of non – money income. The average annual gross expenditure and income for a household living in Tehran in 2006 was 104,310,754 Rial and 105,400,923 Rial respectively (Table 2.4). According to this report the highest share of 28.5 per cent of an urban household’s expenditure is allocated to housing<sup>7</sup> (Table 2.5).

Table 2.4 Gross annual income and expenditure of urban households, in Rial, in Iran

	<i>Urban household</i>	<i>Percentage</i>	<i>Tehran</i>	<i>Percentage</i>
Average gross annual expenditure	79,694,612	100	104,310,754	100
Average gross annual income	77,553,685	100	105,400,923	100
Housing expenditure* †	22,690,249	28.5	40,438,909	38.8

(Central Bank of Iran, 2007)

\* Including water, gas and electricity  
† for those households whose form of housing occupancy is owner occupied, in lieu services and free of charge, an equivalent rent has been estimated and added to the total housing expenditure.

<sup>5</sup> Gross National Income or GNI, in dollars, is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. In other words, GNI measures the total income of all people who are citizens of a particular country.

<sup>6</sup> The current exchange rate is 16,130 Iranian Rial per 1 GBP and 9,828 Rial per 1 US\$ (CBI, retrieved 23/09/2009) . This rate was around 13,800 Rial per 1 GBP and 8250 per 1 US\$ in 2003.

<sup>7</sup> Including water, gas and electricity

**Table 2.5 Annual gross expenditure and housing expenditure of urban households 1997 – 2007**

<b>Year</b>	<b>Total annual Gross expenditure</b>	<b>Housing expenditure</b>	<b>Percentage</b>
1997	17,169,604	4,480,701	26.1
1998	20,636,143	5,552,469	26.9
1999	25,280,138	6,652,748	26.3
2000	30,268,528	7,745,648	25.6
2001	34,939,682	9,251,075	26.5
2002	43,737,882	11,665,237	26.7
2003	49,315,016	13,814,350	28
2004	60,344,240	16,154,071	26.8
2005	68,734,932	18,511,538	26.9
2006	79,694,612	22,690,249	28.5

(Central Bank of Iran, 2007)

Buying a house is the biggest contract most people make in their lifetime, so in Iran middle income families allocate almost a quarter of their income and low income families half or more of their income to housing (Bahmani, 2008). Therefore any change in housing sale and rent price could have profound effects on many family's lives. In the last decade, a number of factors have resulted in an increasing gap between housing supply and housing demand, which has resulted in dramatic changes in housing occupation trends. A study of the tenure status of urban households between 1997 and 2006 (CBI, 2007) shows a sharp decrease in the number of households who lived in their own dwelling compare to the increasing number of households who lived in rented houses (Table 2.6). These figures show that low economic growth, high inflation rate, increasing liquidity in the country's economy, unemployment and inability of the housing construction industry, as well as the government's housing policies in the provision of adequate housing which is linked to the growth and youthfulness of the population, results in the inability of young couples to find affordable housing.



Table 2.6 Urban households' housing occupation trend 1997 – 2006

<div><div>Housing trend</div><div>Year</div></div>	Owner occupied %	Private rent %	Rent in lieu of services %	Free of charge %
1997	72.3	17.4	1.4	8.9
1998	74.5	16	1.7	7.8
1999	72	18.5	1.7	7.8
2000	72.5	17.6	2.2	7.7
2001	71.7	18.8	2	7.5
2002	72.7	17.9	1.8	7.6
2003	71.2	18.5	2	8.3
2004	68.3	22.9	1.2	7.6
2005	67.2	23.9	1.2	7.7
2006	67	24.5	1.3	7.2

(Central bank of Iran, 2007)

According to The Central Bank of Iran household budget survey (CBI, 2007) in 2006, from the average size of 4.05 person households, 60.9 per cent of urban household members were (at some stages) between 15 – 50 years old, which is the employment age. In the same reported year, 16.7 per cent of the households had no employed member, 56.8 per cent had one employed member, 20.8 per cent had two-employed members and 6.1 per cent had three and more employed member.

2.4.2 Modernisation of Iran

During the nineteenth and early twentieth centuries, the arrival of international powers in the developed world had a great impact on the political and economic systems of developing countries. European modernism, a product of certain developments in advanced countries, in the case of developing countries, including Iran, turned to “pseudo-modernism” (Katouzian, 1981:101), a product of the above product.

‘... it is characteristic of men and women in those societies that – regardless of formal ideological divisions – [they] are alienated from the culture and history of their own society, both in intellectual ideas and in social aspirations, but, unlike the European modernists themselves, they seldom have a real understanding of European ideas, values, and techniques. Thus, third world pseudo-modernism combines the European modernist’s lack of regard for specific features of third world societies with a lack of proper understanding of modern scientific and social development, their scope, limit, and implications, and [from] whence they have emerged’ (Katouzian, 1981:103).

Since the middle of the nineteenth century, Iran was exposed to modern European countries’ ideas and techniques. Many Iranian politicians and intellectuals began to formulate ideas, and develop aspirations, which had been profoundly influenced by their knowledge of European societies. Two stages of radical transformation in the 1860s/1870s and 1930s (Madanipour, 1998) caused profound political, economic and cultural transformation in the structure of the country.

The transformation process started with the restructuring of agriculture, the main basis of the economy, to substitute subsistence crops with cash crops. This phase was accompanied by political centralisation, increase in foreign trade, discovery and exploitation of oil, land reform, drive for industrialisation and the growth of the tertiary sector, improvements in communication and sanitary conditions. This was then followed by an increased rate of population growth and demographic change, resulting in the creation of surplus capital and labour to be absorbed in the development of urban areas (Madanipour, 1998; Katouzian, 1981; Halliday, 1979).

The social transformation was related to economic modernisation. Centralisation of the country, which started in the 1920s, and its influence on



the economic position of smaller provinces, caused a massive migration from these areas to larger cities. This put pressure on employment, housing and infrastructure services. It also made a huge gap between classes in urban areas. “The shah’s approach to economic modernisation favoured the rich over the poor, the big over the small enterprises in both industry and agriculture, and the urban over the rural population” (Lotfi, 1998:105-6). In a study of urbanisation in Tehran in the early 1970s, Halliday (1979) noted a massive gulf in lifestyle between the bulk of north Tehrani residents and the bulk of those in the south. He indicates that southern Tehran is the Iranian exemplar of unplanned migration to the towns in the absence of housing and social services to cope with the influx.

#### **2.4.2.1 Tehran: capital of urbanisation**

The processes of political centralisation and economic transformation in Iran caused the emergence of the capital city as the largest concentration of wealth and population (Madanipour, 1998). Tehran, as a metropolis for over two centuries, changed from a small village to a huge, overgrown city with insoluble problems (Zavoush, 1991). In the period of 1941 to 1986 its population grew by more than eight-fold and its area by twelve-fold (Statistical Centre of Iran, 2009) (Table 2.7). The most dramatic expansion took place after the Second World War. It expanded to include surrounding lands, and the suburban villages and satellite towns gradually integrated into the urban fabric (Figure 2.6) in new waves of expansion and development.

Although the role of natural increase cannot be ignored, and as was discussed earlier in 2.4.1.1, internal migration has played a crucial factor in the population growth of Tehran. These migrants included peasants and rural unskilled labourers seeking jobs in the industrial sites of Tehran, land owners who migrated to Tehran to be near the seat of power to protect their own interests, administrative and white collar officers from other towns and cities who fled to Tehran in search of better amenities, a large number of students in

higher education and single person job seekers. Due to the above factors, between 1900 and 1956 Tehran absorbed 60 per cent of the internal migration of 1.8 million people (Hafezi, 1980). In 1996, 61.3 per cent of the total population of the country lived in urban areas (Statistical Centre of Iran, 1999).

Table 2.7 Population of the city of Tehran between the first and the last census, 1867-2006

Year	Population
1867 Census	155,736
1891 Census	160,000
1922 Census	210,000
1932 Census	310,139
1937 Census	425,000
1939 Census	540,087
1940 Census	700,000
1946 Census	880,000
1956 Census	1,512,082
1966 Census	2,719,730
1976 Census	4,530,223
1980 Census	5,443,721
1986 Census	6,042,584
1991 Census	6,475,527
1996 Census	6,758,845
2006 Census	7,975,679

(Statistical Centre of Iran, 2009)

The unique status of Tehran has led the city to a position that has the highest level of in-migration. According to the 2006 National Population and Housing Census, during the period of 1996 – 2006 the most in and out migration in the country was related to Tehran with positive net migration<sup>8</sup> of 616,000 people (Statistical Centre of Iran, 2009)<sup>9</sup>. Tehran is the administrative centre of Iran. About 30per cent of Iran’s public-sector workforce and 45per cent of large

<sup>8</sup> Net migration is the difference between in-migration and out-migration in a given geographic area during a specified time frame. Net migration can be either positive or negative. Positive net migration indicates in-migration, while negative net migration indicates out-migration.

<sup>9</sup> According to the 2006 National Population and Housing census in Iran, the country’s total internal migration for 1996 – 2006 was estimated at 4,774,040 people, of which the highest level of movement had been related to Tehran.



industrial firms are located in Tehran. It is also the hub of the country's railway network and has two main international airports. The city has numerous large museums, art centres, palace complexes and cultural centres. Today, the city contains a mix of various ethnic and religious minorities who have come from all around the country. Many have been long settled in Tehran, others for a shorter time. The ethnic and cultural diversity of people is an important factor in housing provision, especially in the case of modern apartments, which has been addressed by this study and will be discussed in chapter six, the analysis of the data.



Fig 2.6 Expansion of Tehran 1850s - 1970s, (Madanipour, 1998).

The changes in Tehran were not only physical growth but also in the form of several social impacts. Under the influence of the urbanisation process and consequent changes in the social structure of the city, different social groups

and classes segregated from each other in a new spatial and geographical arrangement based on a north-south divide (Madanipour, 1998). The upper classes started an outward movement from the older part to the newly built suburbs in the north. Other urban migrants clustered either in the north or the new city centre. Rural migrants settled in the old parts and the poor southern suburbs (Hafezi, 1980). New customs and rules were replaced in social communication between people and social relations were exposed to special transformations according to the necessity of the changing time. Rural migrants, who were holders of their particular cultural and local traditions and customs, transformed the urban texture and their culture became part of the urban dominant culture. The urban middle class, who had taken the service occupations, emerged with their semi-bourgeois habits, and ethical specifications and familial durable standards. Also, second class traders, street shop owners, tradesmen and owners of small businesses, governmental employees and permanent workers, who were mostly provincial migrants, emerged as the new social groups of Tehran (Zavoush, 1991).

Coinciding with the end of the Second World War, scarcity, starvation and poverty emerged all over the country. Accompanied by the country's political and economic transformation, discussed earlier, people started to migrate in search of solutions and as a result, a concentration of labour and capital flew to larger cities, especially to Tehran. The government and private sector's high investment in the housing industry caused the switch of a major part of these surpluses into the production of the built environment. Hence, a growth in the size of the urban fabric and a considerable expansion of the construction industry gave rise to further immigration (Madanipour, 1998). During the following years, this increasing immigration, alongside a high natural increase of population growth, led to a higher rate of urbanisation.



### **2.4.3 Housing in Iran**

As discussed earlier, there is a strong relationship between housing and population. It not only depends on population growth, but is also related to different demographic factors like population combination, population distribution and even population movement. Youthfulness of population increases the density in unit in a period of time, but it also results in housing shortage in later periods (see also chapter 6). Furthermore, behaviours like individualism, isolation, generality of marriage or non-marriage and rejection of traditions, especially change of extended family and tendency to nuclear family, have a strong impact on the housing and population relationship (Sociological Research and Studies Institute, 1970).

Since the end of the Second World War, housing in Iran has been a growing problem and governmental concern (Amini & Ahari, 1996). Having a shelter has always been the main problem among people, particularly the low-incomes and migrants. In view of the relation between population combination and housing, discussed above, one has to look at Iran in its particular social, economic and political context. In the following sections, housing condition, housing policies and governmental response to the housing shortage will be analysed in the two periods of pre-Islamic Revolution and post-Islamic Revolution.

#### **2.4.3.1 Pre-Islamic Revolution**

In response to the housing demand, governmental attention was attracted to this problem and from the third five-year development plan in 1963 the existence of the housing problem was officially recognised. During the third development plan, the Iranian state began to formulate policies to provide housing for government employees and aid to the private sector for housing projects (Five-year development plan, 1968-1972). During this plan, almost 0.8 per cent of the total public investments was disbursed in housing. At the end of this plan, the Plan Organisation Report indicates “in spite of the investments by the

private sector, the housing situation in Iran still leaves much to be desired” (Plan Organisation, 1968 in Hafezi, 1980: 144). The policies were followed by the fourth plan, but the 1972 housing survey at the end of the fourth plan, indicated a shortage of 1.1 million units in the urban areas. At the beginning there were 128 units per thousand urban populations and a density of 2.2 persons per room. The statistics at the end of the plan were 117 units and 2.4 persons (Amini & Ahari, 1996). According to this survey there was only one housing unit for every eight persons (Hafezi, 1980).

The early 1970s economic boom in Iran had a major effect on the construction industry. The Iranian government allocated large-scale investment in housing for the first time. This was the financial apparatus, as Diba (1979) indicates, which gave birth to new towns and communities. On the other hand, foreign contractors and building firms, together with designers and engineers, started coming to Iran in increasing numbers with hope of a higher rate of return. The activities of foreign firms together with the expansion of the banks involved in construction activities and the emergence of a breed of achievement-oriented technocrats made the housing market a potential political and financial tool to be manipulated for the sake of power and gain (Diba, 1979).

It is obvious that housing demand and housing shortage are not directly a result of the lack of resources, but a reflection of the way in which the resources are allocated. It is to say that the major part of state and private housing provision in Iran was oriented towards the middle and upper income groups, so the lower incomes were still in housing need.

#### **2.4.3.2 Post-Islamic Revolution**

During the first years after the Islamic revolution in 1979, housing construction quantitatively rose but there was a reduction in the rate of investment. The reason can be found in the withdrawal of restrictions and control over the expansion of cities. The main part of housing activities in this period was self-help, small low-cost houses by immigrants and tenants around and on the edge



of large cities (Amini & Ahari, 1996). With the war between Iran and Iraq in 1980, the housing market and construction stagnated for a few years. However, from 1983 onward, following rapid population growth and increasing migration, especially from border towns to larger cities due to the war (including the Iraqi and Afghan migrants because of the civil war in their countries), the housing shortage and demand increased among those with low incomes. The housing policies in this period flourished in the form of co-operative construction for governmental employees and industrial workers, low cost housing, and high density, small size high-rise construction. However, the private sector at first stayed away from the housing market because it did not seem very profitable, but from the 1990s, by the encouraging and supporting policies of the state, the housing market returned to the private sector (Amini & Ahari, 1996).

#### **2.4.4 High-rise and apartment housing in Iran**

High-rise building in Iran, with a record of less than four decades, was the most effective solution to the lack of housing in all the governmental and private plans. The multi-storey dwelling construction, which started on a small scale since the late 1960s in urban areas, especially in Tehran, increased in the 1970s. The construction of two or more storey dwellings in major cities rose from 17 per cent in 1966 to 24 per cent in 1971. The increase in the number of storeys, however, was more apparent in Tehran as the “construction of new residential buildings of three or more storeys grew rapidly from 10 per cent in 1971 to 72 per cent in 1976” (Hafezi, 1980: 77) (Figure 2.7).

There are several reasons for this increase. The rapid industrialisation and plan of the state to push the country toward development and modernisation, a feature associated with most third world countries, brought about by the government of that time (the Pahlavi dynasty) resulted in social and cultural changes, among them the form of production of houses. Besides, because of the economic boom of the 1970s, rapid development of national and international firms with a heavy capital investment in the construction industry,

seeking high return, resulted in the construction of large housing complexes and high rise buildings in Tehran and a few other major cities where the growing upper and middle classes were living (Hafezi, 1980; Diba, 1979).

Further development of this type of housing was related to the new values and lifestyle of the upper and middle classes, which was produced and encouraged by the Pahlavi State. McCutcheon (1972), in a report on housing, notes: “The state of Iran had attempted a new policy to break traditional living habits and to simulate development of more modern living styles. Parallel to this policy, construction of multi-story, multi-family apartments was being encouraged among private developers and was being carried out in state sponsored projects” (McCutcheon, 1972, in Hafezi, 1980:108). Removing the tax imposed on buildings over 10 storeys high, and granting loans to owners of old buildings to convert them into apartment blocks were the other reasons of development of high rises.

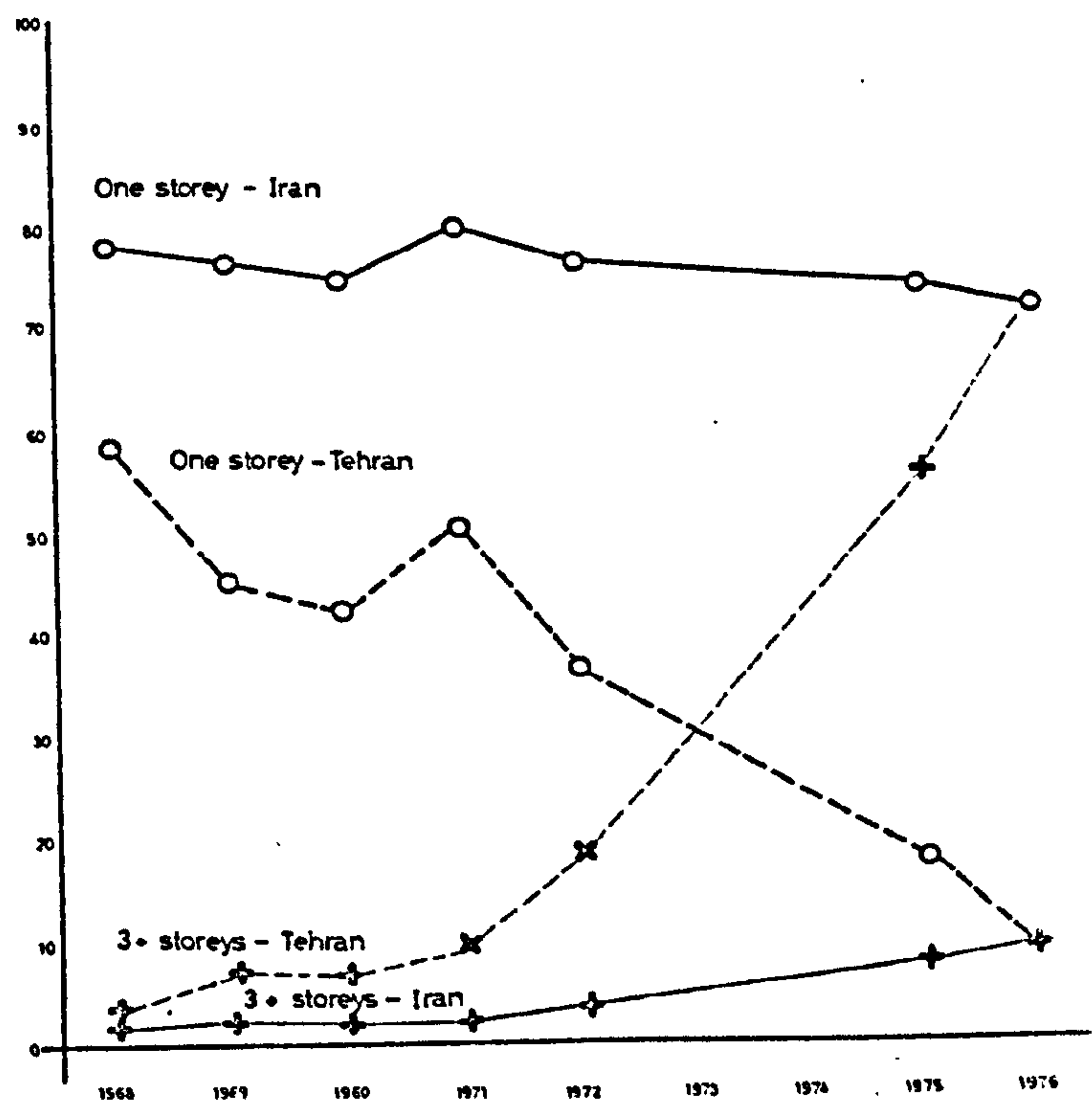


Fig 2.7 Percentage of residential units completed in urban areas and Tehran by number of storeys, (Hafezi, 1980).



After a decade of stagnation in the construction industry due to the start of the Islamic Revolution in 1979 and war in Iran in 1980, from the late 1980s onward blocks of flats and high-rise buildings once again gained in popularity. It was stressed both by the government in its public sector programmes as a solution for high demand for housing and by the private sector as a profitable industry (Figure 2.8). This solution, which had been patterned from the experiences of western countries after the Second World War, was applied as a widespread model in all large cities especially Tehran, (Amini & Ahari, 1996) without paying attention to its unfamiliar architecture and its social and cultural effects on Iranian lifestyle (Figure 2.9). The adaptation of such a policy imposed a stark contrast between modern and traditional houses in Iran.



Fig 2.8 A recent housing development project - *Navab Project* – in central Tehran was built by a collaboration between the government and the private sector. The new multi-storey apartment blocks are lined up on both sides of a motorway linking the centre of the city to the south. Incompatibility of the new buildings with the old texture of the area is visible, (Unknown, 2004).





Fig 2.9 Tehran has been changed recently to a city of middle-rise and high-rise buildings, (Kasraian & Zolfghari, 1994).

## **2.5 The problem of high-rise living**

The study identifies that in modern architecture, which had its roots in Le Corbusier's visions of *La Ville Radieuse* (Le Corbusier, 1967), the tall building was uncritically accepted as the generalised solution for urban housing in Western countries (Francescato et al., 1975). Being faced with the problem of providing housing for large numbers of people in a short space of time left no alternative for authorities but to build high rise towers and slab blocks. The spread of tall buildings was due to the pressure of the post-war period arising out of the space limitations of urban areas and the need to house large sections of the population in such a short time. New technology and the building industry also helped this process as the traditional techniques and materials could not cope with the large volume of construction. This was a common phenomenon among western cities across Europe and USA (Shepherd, 1985).

The theory of environmental determinism (see also chapter 3) and its profound impact on architecture has been the other fact that helped the spread of tall buildings in that period. According to this notion, which is clearly seen in the ideas of Le Corbusier and his fellow architects across the world, well being and



happiness for people can be obtained through architecture, and the plan of the house and city. For people who were suffering from the poor condition of housing, new flats with better conditions and facilities could be attractive and desirable.

By the mid-fifties, however, it was apparent that many developments based on high rise solutions were having problems and it is now fairly well established that a policy using multi-storey housing for all sorts and conditions of households throws up practical problems (Coleman, 1990; Jephcott, 1971). Coleman (1990) identifies blocks of flats as not only financial disasters but also human disasters. The first reason, according to Carter (1995), is the alienation of such accommodation to people's traditions. The living environment provided by high-rise is quite different from what people were accustomed to and "communication between residents and the outside world was restricted, inevitably forcing them into a new social pattern for living" (Shepherd, 1985:15).

Hurd (1983), in his study of different aspects of high-rise housing, quotes Rapoport (1969) that

'building a house is a cultural phenomenon, its forms and organisation are greatly influenced by the cultural milieu to which it belongs. If provision of shelter is the passive function of the house, then its positive purpose is the creation of an environment best suited to the way of life of a people' (Hurd, 1983:13).

The house is part of individual identity. The way someone builds his house, the shape, the materials, decoration, division of internal and external spaces, etc. shows his lifestyle, his values and attitudes and the culture which he belongs to. This is a fact that creates a wide diversity of houses that can never be found in a high-rise building. The monotonous shape of tall buildings with similar plan for flats, cannot show the differences between the households who live in

them. Residents of tall buildings may lose their identity, values and preferences because of restrictions forced by high-rise living (Hurd, 1983).

High-rise housing has attracted much criticism relating to its social and physical environment. One of the most serious social criticisms made concerning high-rise housing is that it provides an unsatisfactory environment for raising children. Children require freedom to play as part of their learning process. The play area around the tower block is an open, unsecured area for children, which cannot be supervised by parents. Imprisoning children in the flats of a high-rise block and lack of interaction inhibit their development. It also creates a severe problem for the parent, who must remain at home all day with the child (Shepherd, 1985; Carter, 1995; Michelson, 1977). This also causes anxiety for parents of youngsters because they do not know the anonymous passers-by who their youngsters have contact with.

The social gap between neighbours, lack of sense of involvement, anonymity, isolation and loneliness are causes of a sense of anxiety between residents of high-rise buildings (Hurd, 1983). Other major problems are related to density, which is said to be associated with noise and stimulus overload and feelings of stress. These may lead to mental, physical, and behavioural ill-health (Porteous, 1977). Heightened aggression, family breakdown, and personal disorder are the other problems of high-rise, which have been highlighted by different investigations (Carter, 1995; Michelson, 1977). Moreover, several investigations and surveys in the case of high-rise and multi-storey blocks around the world have proven other social malaise (Figure 2.12) such as: crime, vandalism, graffiti, litter and damage (Coleman, 1990). The above problems and failure of high-rise buildings are pictured in Figures 10 – 13.

In spite of these considerations, it is not clear, however, that high-rise housing is an unsatisfactory building type. As Adams and Conway (1975) point out, the success of tall buildings is largely determined by the type of household living in them (Figure 2.14). Porteous (1977) also believes that high rise dwellings



are suitable only for certain types of people at certain stages of their life-cycle. For relatively higher income groups, for single adults, for elderly households, and in cases where the trade-offs with desirable conditions can be obtained only with tall buildings, this type of residential environment can be highly satisfactory (Francescato et al., 1975) (Figure 2.15).





Fig 2.10 Failure of apartment housing; a residential tower block in Birmingham before and after demolition.



Fig 2.11 Failure of apartment housing; two high-rise blocks of No.40 and No.50 Millerfield Street disappeared from Glasgow’s skyline on a quiet Sunday morning in February 2002, (Glesgapals, 2002).



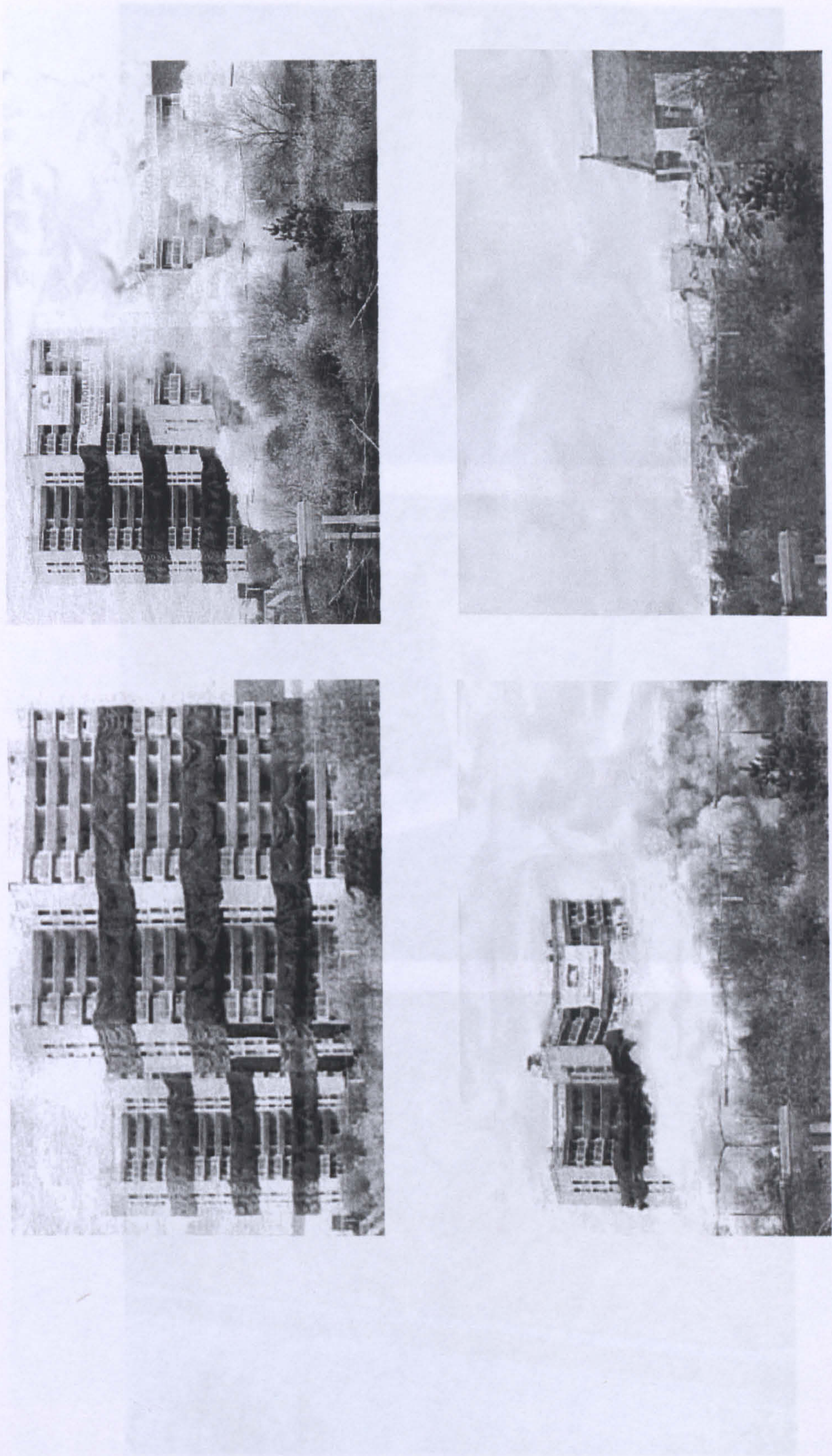


Fig 2.12 Many high-rise blocks were unpopular with tenants. The demolition of two residential tower blocks in Smethwick area, Birmingham on May 2001. (Evening Mail, 2001).

Fig 2.13 Apartment block in Tehran, social malaise such as litter and graffiti are features of high-rise areas.





Fig 2.13 Apartment blocks in Tehran; social malaise such as litter and graffiti are failures of high-rise areas.





Fig 2.14 A block of apartments in south Tehran in which lower-middle and low-income families are living. A sign of incompatibility between this type of housing and residents' lifestyle can be seen, (Kasraian & Zolfghari, 1994).



Fig 2.15 A successful residential high-rise complex for high-income families in north Tehran; the development was started before the Islamic revolution and completed more than a decade after the revolution.



## **2.6 Summary**

This chapter examines the urbanisation process and its relationship with the modern housing problems and shortages in developed, and later, in developing countries, which had impacts on the emergence of alternative solutions such as high-rise and multi storey apartment buildings. According to western experiences, especially in Britain, as the birthplace of the Industrial Revolution (James, 1991), it is assumed that urbanisation and industrialisation are connected (Gugler, 1997). It is the consequence of the concentration of people in urban areas at the expense of the countryside (Clark, 2003). Thus, the three interrelated economic, demographic and social aspects of urbanisation are investigated to address the cause and nature of the housing problem. The fast growth of population and ever-increasing migrations (both internal and international) accompanied by particular economic, political and geographical conditions of the countries, led to the appearance of the housing shortage problem. In developed countries this problem was addressed at the early stages and the current situation is far less acute than in developing countries. In most developing countries slow economic development, fast increase in urban population, rural-urban migrations and unemployment have contributed to the housing problem. These factors, which are direct results of urbanisation, make people reside in houses that are not always completely favourable.

The chapter identifies that three stages of radical political, social and economic transformation in Iran (1860/70, 1930 and 1950/60), especially the recent stage, which have resulted in an ongoing modernisation process in the country accompanied by deep impact on population growth, rural-urban migration, social segregation, housing shortages and new housing policies. These interrelated phenomena in the housing area have been conducive to the emergence and wide extent of high-rise and apartment housing. The chapter then focused on the city of Tehran, tracing the expansion of the city, analysing its social structure, housing policies and finally examining the implications of these factors on housing approaches and solutions.



## ***Chapter Three***

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***Theoretical Studies of Environment – Behaviour Relations***



### **3.1 Introduction**

This chapter aims to establish a theoretical background for the study and to examine the relationship between environment and behaviour by investigating existing research and publications in the field of Environment – Behaviour Studies. The significance of EBS for this study is to develop knowledge on the relationship between people, their behaviour and cultural patterns, and the physical environment.

To fully understand the relationship between environment and behaviour, each concept is explained in separate sections, although no agreement has yet been reached by scientists on the meanings of the words *environment* and *behaviour*. The two concepts then will be investigated within a two-way relationship in which the effects of each variable on the other and the linking mechanisms are identified.

### **3.2 Environment - Behaviour Studies**

The multidisciplinary field of environment – behaviour studies emerged in the 1960s and spawned numerous university institutes and programs with such all-encompassing titles as Environmental Studies, Man-Environment Relations or Man-Environment Studies (Porteous, 1977). It was formally founded in 1969 (Rapoport, 2005), leading to the production of a vast amount of research and literature in journals, books, conference proceedings and bibliographies during the two decades following its formation. Much of the environment – behaviour relationship literature was produced and published in the 1970s, most notably by scholars such as Proshansky *et al.* (1970), Michelson (1970), Bell *et al.* (1973), Lang (1974) and not to forget Amos Rapoport's (1969, 1975, 1976, 1977, 1986, 2005) extensive research with an anthropological approach. Publications in environment – behaviour studies gradually declined, and became confined to such disciplines as geography, psychology, and to some extent social sciences, in the following decades, to the extent that there is little recent research and literature, especially in the context of residential



environments and housing. This chapter therefore has to rely on, apart from a few sources, the publications dating from the early stages of EBS.

EBS developed from the confluence of architecture, urban design and urban planning on the one hand, and the social and behavioural sciences on the other. It emerged from two sets of complementary concerns, one in the professional disciplines of environmental design and the built environment, and the other in the socio-cultural and behavioural sciences (Moore, 2006; Yuan, 2004). In much of traditional modernist architecture, urban design and planning, EBS grew in part from the concern that these disciplines were not paying sufficiently serious attention to behavioural, social, and cultural factors, individual perceptions and preferences, and cultural values and expectations in the planning and design of human environment. On the other hand, from the more strictly behavioural and social sciences – psychology, sociology, anthropology in particular – it grew from the concern that while much was known about individual, group and cultural processes, preferences, attitudes, social norms, semantic structures, and so on – little was known about the relation of these social understandings to the physical environment.

The relationship between environment and behaviour is the subject matter of the field of environment – behaviour studies, the study of the mutual and reciprocal interactions between people and the environment, on all scales, and is concerned with both the influence of the environment upon the organism and of the organism upon its environment (Porteous, 1977; Rapoport, 2005; Moore, 2006). “EBS focuses on the interdependence of physical environmental system and socio-cultural systems, and includes both environmental and human factors” (Moore, 2006:2). Rapoport (2005), in his extensive research in the field of EBS, examines this relationship in the context of three basic questions: the influence of human behaviour on the environment, the effect of



environment on human behaviour, and the two way interaction between behaviour and environment<sup>1</sup>.

While the first question concerns our knowledge about human beings and the changes to the environment by the activities of people, the second question is about design, and the effects of design on people, particularly in relation to house design. In order to link people and environments together, Rapoport's third question, the two-way interaction has to be understood in the form of a variety of mechanisms. However, before discussing and examining the above effects and relationships, each component of behaviour and environment and their nature needs to be investigated.

### 3.2.1 Behaviour

Basically, behaviour normally occurs and "is the overt action performed by the individual" (Porteous, 1977:12) in response to a stimulus. The stimulus may be self-generated e.g. motivations, needs, drives, or may be derived from the environment beyond the organism. Motivation is believed to be the main cause of behaviour which, in turn, is directed toward the satisfaction of needs (Lang, 1987). In identifying the type of human needs, the most used model by scientists is Abraham Maslow's *hierarchy of human needs* (1943, 1954), from the strongest to the weakest, with the stronger taking precedence over the weaker; *physiological needs*, such as hunger and thirst; *safety needs*, such as security and protection from physical harm; *affiliation needs*, such as membership in a group and receiving of affection; *esteem needs*, those desires of an individual to be held in high value by himself or herself and others; *actualisation needs*, representing the desire to fulfil one's capacities; and

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<sup>1</sup> "1- What bio-social, psychological, and cultural characteristics of human beings (as members of a species, as individuals, and as members of various groups) influence (and, in design, *should* influence) which characteristics of the built environment? 2- What effects do which aspects of which environments have on which groups of people, under what circumstances and when, why and how? 3- Given this two-way interaction between people and environments, there must be mechanisms that link them. What are these mechanisms?" (Rapoport, 2005:10)



*cognitive/aesthetic needs*, such as the thirst for knowledge and the desire for beauty for its own sake (Lang, 1974; Porteous, 1977). Some needs are physiologically based, some are sociologically or psychologically based, and some are a mixture. “The degree to which each need has to be fulfilled varies from person to person, depending on the individual’s philosophy of life, personality, culture, and habitation level – what they are used to” (Lang, 1987:85). When translated into overt action, these basic motivations of human behaviour are conditioned and coloured by a variety of subsystems of behaviour, which according to Talcott Parsons (1966) are the *physiological, social, cultural, personality and environmental systems* (Porteous, 1977: Lang, 1987). While the environment, Parsons’ fifth subsystem, has been the matrix encompassing the other four systems, or “merely the physical setting of a particular activity” (Porteous, 1977:12), it should be considered an equal of the four other subsystems in that the environment may influence and direct behaviour; a condition or influence outside the organism.

One area which has high relevance to the study of human spatial behaviour is territoriality; one’s control of space. Territoriality and territorial behaviour have been studied by a number of environmental psychologists, both in the case of animals and humans. In the definition of territory, Sommer (1969) follows Hediger (1950), and uses the term to represent an area “which is first rendered distinctive by its owner in a particular way and, secondly, is defended by the owner” (Sommer, 1969:14). The major components of this definition are therefore *personalization* and *defence*. It is believed that territorial control is exercised by individuals and groups by means of these two mechanisms (Porteous, 1977). Territoriality and territorial behaviour have been studied extensively in the context of urban environment by Porteous (1977), in which security, stimulation and identity, among many features of territoriality, are identified as the most obvious features provided to the individual through control of space. People display a variety of territorial behaviours which may possibly have some instinctual base, though heavily modified by cultural conditioning (Porteous, 1977). The study discusses later in chapter four and



chapter seven that territoriality and territorial behaviour play a significant role in the execution of gender related privacy in both traditional and modern Iranian houses.

Several organising models of human territorial behaviour have been attempted (Lyman and Scott, 1967; Roos, 1968; Altman, 1975; Porteous, 1977). Lyman and Scott (1963), for example, differentiate four types of: public territories, home territories, interactional territories and body territories (Sommer, 1969:43). Altman (1975) on the other hand distinguishes three major types of territorial space: *primary territories*, which include homes, rooms and other private spaces which are exclusive to individuals or groups, relatively permanent and central to our everyday lives; *secondary territories*, which are “less central and pervasive” (Altman, 1975:114) but exclusive, such as a private club or a neighbourhood; and *public territories*, such as parks and transportation systems, which are areas temporarily occupied and over which there is no long term control.

Acknowledging Altman’s territorial distinction, Porteous (1977) argues that he excluded the individual’s body-space from his definition of human territoriality, “yet the bubble of space surrounding one’s body is precisely the space about which we feel the greatest sense of territoriality” (Porteous, 1977:26). In his territorial model, therefore, territorial behaviour occurs at three distinct spatial levels nesting one within the other; *microspace*, *mesospace* and *macrospace*. Two levels of microspace and mesospace are of particular relevance to this study. Microspace, or personal space, includes the body area which is always occupied. It is indeed one’s personal bubble of privacy, “an area with invisible boundaries surrounding a person’s body into which intruders may not come” (Sommer, 1969:26). Personal space, however, can be expanded beyond the immediate body zone and can have collective manifestations, e.g. a group occupying a restricted space thus collectively discourages the invasion of intruders. An important feature of personal space is that it is mobile, a ‘portable territory’ as Sommer describes it; as the individual



moves through space it is carried along with the body, although it disappears under certain conditions, such as crowding (Porteous, 1977; Sommer, 1969). Sommer observes a considerable similarity between personal space and individual distance or the characteristic spacing of species members.

‘Individual distance and personal space interact to affect the distribution of persons. The violation of individual distance is the violation of society’s expectations; the invasion of personal space is an intrusion into a person’s self-boundaries’ (Sommer, 1969:27).

Argyle et. al (1968) , moreover, argues that personal space behaviour is also a mechanism for the maintenance of an optimum level of interaction between individuals. Personal space behaviour, however, varies with culture, personality, gender, social influence, environment and time (Porteous, 1977). The principle of gender segregation, practised in traditional Iranian houses through physical and visual barriers, has been transformed under the influence of modern social trends. For many Iranian women nowadays, this traditional form of privacy is achieved through personal space, i.e. clothing and behaviour, as well as through social codes of gender distancing which provide a form of ‘unseen privacy’ within a common space (see chapter four, p133). This transformed pattern of behaviour is examined in modern apartments in chapter seven of this study.

Mesospace, the second level of Porteous’s territorial behavioural space, is one’s home base; a most frequently used private area, which is usually semi-permanent and is actively defended by their occupants. Home has a secure position for an individual or a family, in which personal, emotional and vulnerable behaviours such as sleeping, grooming, reproductive behaviour and raising children are performed. As people tend to highly personalise and actively defend their home, Porteous argues, the home base is a territorial unit which provides territorial satisfactions: security, identity and stimulation. While security is obtained at the core of the home base through physical



elements and behavioural rituals, it allows personal identity to flower. Stimulation, on the other hand is gained by making, modifying and defending the home base (Porteous, 1977).

Rapoport (1969), in his famous book *House Form and Culture*, suggests that home-base security involves recognition of the sanctity of the threshold which is culturally different. Thus, territorial behaviour and privacy seeking varies with lot layout and cultural differences; from the high surrounding walls of Muslim dwellings, which also suggest a marked gap between public and private (see also chapter four), through the fence or low wall of a British house, to the less defensible open plan houses of the North Americans, which is a cultural indication of a greater public-private congruence (Porteous, 1977).

The study of human behaviour is essential in understanding the type and level of relationship that people establish with their surrounding built environment, especially with their houses. In the following section, the nature and different types of environment will be identified and discussed.

### **3.2.2 Environment**

There is agreement between scientists from different disciplines that no common definition for environment exist (Porteous, 1977; Lang, 1987; Rapoport, 2005). To many geographers, environment traditionally meant the physical world of landforms and climate. To architects, it is largely the structures built by man. Sociologists are concerned with an individual's environment as it consists of social groups made up of other individuals. Child psychiatrists and counsellors may use the word loosely to mean the home background of the child. The categorisation depends on the purpose it serves (Porteous, 1977).

A key attribute of any definition is that environments 'surround' (Gibson, 1966; Ittelson, 1973). Therefore, any definition or description of the nature and functioning of the environment must be in reference to something surrounded.



Although in the context of this study we refer to environment as the built environment, a physical setting in which an activity or behaviour happens, this also cannot happen and be studied in isolation without involving a variety of environment categorisations.

A number of classifications have been made by scientists but what is common between all of them is that, as Lang indicates, they all distinguish “between the actual, real, or objective world that surrounds an individual and the phenomenological world that is perceived and that consciously or unconsciously affects people’s behavioural patterns and emotional responses” (Lang, 1987:77). Some scientists make similar distinctions but use different terms (Lang, 1987), such as Kurt Koffka’s (1935) *geographical environment* and *behavioural environment*, and the differentiation between the *phenomenal environment* and the *personal environment* (Porteous, 1977) made by Lewin (1952), Kirk (1963), and Gans (1968). Others, such as Sonnenfeld (1972), in an attempt to rationalise the use of a single term to include everything from climate and psychiatric ward to peer group, suggest a ‘nested hierarchy of environments’ (Porteous, 1977).

From Lewin’s concepts of environment, i.e. phenomenal and personal, the *phenomenal environment* refers to the world of objects, or the external environment. It consists of human, nonhuman and inanimate objects; “all external conditions or influences impinging upon the envired unit, whether or not he is aware of them” (Porteous, 1977:142). *Personal environment* contains two components. The *behavioural environment* is the cognitive maps or the image of the phenomenal environment held by the individual. The behavioural environment, according to Lewin (1952), is influenced by the individual’s personality, attitudes, preferences, beliefs and values. The second component of the personal environment, the *experiential environment*, is an accumulation of referable information built up from the experiences of the individual (Porteous, 1977; Lang, 1987).



Douglas Porteous (1977), influenced by Kirk and Lewin, adds the third concept of *contextual environment* to the concepts of phenomenal and personal environments.

‘beliefs, attitudes, preferences, and other personality attributes derive not from the individual alone, but are largely coloured by his experiences as a member of family, ethnic, social class, cultural, national and life-style groups’ (Porteous, 1977:143).

From his point of view, how we perceive and how we use space is fundamentally affected by the individual’s culture (or sub-culture), social class and stage in the life cycle: the three major factors of *life level*, *life cycle* and *lifestyle* (Porteous, 1977). Based on a number of previous studies on demographic attributes of urban residential areas, he suggests that the three factors have an important and effective role on people’s attitudes in their housing selection. The three life level, life cycle and lifestyle factors are the main part of factual and attitudinal information which has been collected from the case study and used to examine the problem of research in chapter five, six and seven. Lang (1987), also referring to studies carried out in residential areas by Bagely (1965) and Gans (1967), indicates the importance of social factors in understanding and predicting the usage of built environment and the interaction patterns of people; “ socio-economic status and stage in life cycle as well as factors such as similarity in attitudes toward child-raising, leisure time activities, and general cultural interests” (Lang, 1987:102).

From a social psychologist’s point of view concerned with privacy, Altman (1975) conceptualises environment as three mechanisms of clothing, personal space and territoriality, which are always present where and when the self is present. Other alternative treatments of the environment are Canter and Kenny’s (1975) view of the environment as a set of locations or places, each differing in their access to information, or Margulis’s (1977) view of the environment as an information flow network (Archea, 1999)



Perhaps the most encompassing definition of environment in the field of Environment Behaviour Studies, which also covers all the above categorisations, comes from Amos Rapoport. In his book, *Culture, Architecture and Design*, Rapoport (2005) attempts to conceptualise environment in a broader and much complex context as:

- ‘(a) The organisation of space, time, meaning and communication
  - (b) A system of settings
  - (c) The cultural landscape
  - (d) (Consisting of) fixed, semi-fixed and non-fixed elements’
- (Rapoport, 2005:24)

In his view, the above four conceptualisations of environment, despite their complexity, are complementary to each other, linked closely and can be unified, a similar concept to Sonnenfeld’s nested hierarchy of environments mentioned earlier.

‘The most fundamental and abstract formulation (the environment as the organisation of space, time, meaning and communication) is expressed physically as cultural landscapes at various scales, from the region, through townscape to the housescape. Cultural landscapes consist of systems of settings, within which systems of activities take place. The cultural landscape, the elements comprising settings and their cues, and the activity systems are made up of fixed and semi-fixed elements, and both are created and occupied by non-fixed elements (mainly people)’ (Rapoport, 2005:24-25).

According to Rapoport, people live, and their activities are organised, in time as much as in space, e.g. privacy can be achieved by organising activities in time, as well as through spatial separation, physical devices and other culturally specific mechanisms. Beyond activities and function, however, there



is also an important aspect of *meaning* through which environments and their characteristics are evaluated and preferred. Human activities and interactions, i.e. communications, are part of space organisation and are according to specific rules based on ideals, norms, etc. which in turn are used in organising communication.

A setting comprises a milieu, which defines a situation within which ongoing and predictable behaviour occurs. The built environment, dwellings, parks, shops, cafes and the like, which are arranged in particular ways, “form systems of settings within which particular behaviours, activities and interactions occur at particular times, in particular sequences, including or excluding particular people” (Rapoport, 1988:123). A system of settings, e. g. dwellings, is part of a larger system – the block or compound, neighbourhood, settlement, and even larger units. Rapoport (2005) calls these settings the *Microscale setting*: dwellings and the area of actual usage around them including streets, taverns, clubs, etc.; the *Mesoscale setting*: neighbourhoods such as schools, shops, religious institutions, etc.; and the *Macroscale setting*: settlements such as work, banks, specialised shops and services, major institutions, etc.

It is important to mention that how settings work is determined by a series of rules and is communicated by cues. Rules are an important aspect of culture. They guide behaviour and play a central role in lifestyles and activity systems. The milieu and the behaviour in it are linked by rules as to what is appropriate and expected in the setting (Rapoport, 2005). Thus, activities which occur in settings that are clearly separated in some cultures may occur in a single setting in other cultures. For example, as will be discussed in 4.8.2.1, different activities would happen within a single setting of the nomad tent. “These ‘work’ because of clear, consistent, and strong rules about location and seating patterns for various people; cues can be very subtle or knowledge alone may be sufficient” (Rapoport, 2005:26).



The link between rules, behaviour and culture means that as cultural rules change, so do the activities appropriate to various settings and also the cues. This is important both for understanding cultural differences and for situations of culture change (especially rapid culture change) common today and, therefore, for design – for example, in housing. The influence of modernisation in Iran and its manifestation in social trends, especially in the architectural form of Iranian houses, i.e. the popularity of modern apartments, has led to a radical change in cultural rules with regards to privacy (see also chapters four).

Cultural landscape, as Rapoport indicates, is the impact of human actions on 'primeval' landscape over time. This includes both natural landscape and human-made landscapes, i.e. settlements, thus "the more modified by humans, the more 'cultural' does a landscape become" (Rapoport, 2005:31). Environment is also composed of fixed, semi-fixed and non-fixed elements. Fixed elements such as infrastructure and buildings change infrequently and slowly whereas semi-fixed elements are the interior and exterior furnishings of the environment. The non-fixed elements of the environment, i.e. people, their activities, behaviours, clothing, etc. on the one hand relate environments to values and wants, and on the other hand "link(s) settlements and buildings to all landscapes and to all kinds of outdoor and indoor furnishings at all scales" (Rapoport, 2005:32). A notion close to Rapoport's fixed, semi-fixed and non-fixed elements, as particulars of environment, is Edward T. Hall's (1966) *fixed-feature space*, *semi-fixed-feature space* and *informal space*. Hall, however, identifies the three as fundamental types of layout pattern (Lang, 1987).

In his book *Creating Architectural Theory*, Jon Lang (1987) argues that a fundamental concept of environment which is central to the environmental design theory is the term *affordances*. Coined for the first time by psychologist James Gibson (1979), "the affordances of anything, be it material or non-material, are those of its properties that enable it to be used in a particular way by a particular species or an individual member of that species. The properties of concern to Gibson are the physical properties of the configuration of an



object or setting that allow it to be used for some overt activity” (Lang, 1987:81). The main point is that the affordances of a physical setting are what it offers for good or ill because of the characteristics of its configuration. Different patterns of the built environment thus afford different behaviours and aesthetic experiences. While some environments afford many activities without restructuring, others are easy to change to afford different activities. The former is referred to as *adaptable* and the latter as *flexible*. “An adaptable layout is one that affords different standing patterns of behaviour at different times without requiring physical changes. (...) Flexible layouts are those in which the structure is easy to change to accommodate different needs” (Lang, 1987:119). The popularity of the open plan house layout seems to be because of its adaptability for different activities.

Now that the two concepts of behaviour and environment and their different characteristics and applications have been identified, the relationship between the two from different theoretical perspectives will be investigated in the following section.

### **3.3 Environment – behaviour relationship**

Having discussed two concepts of behaviour and environment, the relationship and interaction between the two are investigated here. Three basic theoretical positions regarding the relationship between environment and behaviour can be identified: a deterministic approach, a possibilistic approach and a probabilistic approach (Porteous, 1977; Gold, 1980; Lang, 1987).

*Environmental Determinism* came to popularity with the idea of environment as dictator, directing man’s actions in one direction rather than another. The concept, derivative of the theory of evolution, as Lang (1987) indicates, is generally taken to mean the geographical and terrestrial context (Porteous, 1977; Lang, 1987). In this view, human behaviour was seen as being primarily adaptive in the face of environmental circumstances, responding to the stimuli



imposed by climate, soils, relief, vegetation, and the like (Gold, 1980). In any given situation, the attributes of physical environment were to be regarded as forces beyond human control; they contributed an independent variable as against the dependent variable of human behaviour (Porteous, 1977). In the environmental design literature, Lang (1987) suggests the terms *environmental determinism*, *physical determinism*, and *architectural determinism* are often used synonymously. They “all refer to the belief that changes in the layout of the environment will lead to a change in the social behaviour and (...) in the aesthetic values of the persons involved” (Lang, 1987:101). Lang, however, differentiates between the above terms and states a hierarchy of beliefs about the impact of the environment on people.

‘Environmental determinism is the belief that changes in the geographic, social, cultural, and built environments shape behaviour. Physical determinism is the belief that changes in the geographic environment and ‘built-form’ will result in changes in behaviour. Architectural determinism is the belief that built form, composed of artificial and/or natural elements, will lead to changes in social behaviour’ (Lang, 1987:101).

In consideration of the environment – behaviour relationship, therefore, the deterministic approach implies a simple cause – effect relationship between the two, on which assumption much of the ideology of the Modern Movement is based (Lang, 1987).

The extreme views taken by many determinists provoked a reaction among proponents of free will as a major factor affecting human history. *Possibilism* saw man as the active agent, with the environment as an inert or permissive forum for his activities. Possibilists perceive the environment to be the ‘afforder’ (Lang, 1987) of human behaviour. To them, as Gold (1980) remarks, there were no necessities, but everywhere possibilities, and that man, as master of the possibilities, is the judge of their use (Gold, 1980). Possibilitists saw the



environment as the medium by which man is presented with opportunities. These opportunities may be realised or they may not; the important factor is the choice and effort of man (Lang, 1987). A modified possibilist view conceived the environment as the context of behaviour which sets limits on the accomplishment of any attempted endeavour. The accumulation of technology, capital and efficient organisational skills widens these limits and expands the range of effective choice (Porteous, 1977).

Neither determinism, the world of inexorable, mechanistic laws, nor possibilism, to a great extent lawless, can identify the regularities among the series of behaviours and objects which are the product of human will. *Probabilism*, a more realistic theory, asserts that lawful relationships exist between environment and behaviour. Terrain, climate and physiology do not dictate but everywhere there exist a large number of latent opportunities and alternative possibilities for action or inaction (Prince, 1971).

‘Given an individual A with attributes a, b, c, set in an Environment E with characteristics d, e, f, and with the Motivation for action M, it is probable that A will perform Behaviour B’ (Prince, 1971 in Porteous, 1977:138)

Probabilism, therefore, opens up a large area of uncertainty concerning man’s motivations, knowledge, and decision-making modes. The individual’s decision cannot be predicted, ‘common-sense’ probabilism (Porteous, 1977) assumes, but his range of possible decisions and the probability of his making any one of them can be ascertained. Behaviour does not occur haphazardly: “it has certain predictability” (Lang, 1987:106). In other words, environment is full of affordances for human behaviour but the perception and use of them is very much a function of individual needs and competencies (Lang, 1987). Rapoport (2005, 1969) believes that culture and cultural rules play an important role in the process of man’s decision making and his possible behaviours. Thus, as cultural rules change, so do the activities appropriate to



various settings. The probabilistic position underlies most of the recent research on the relationship between behaviour and environmental design.

Going back to Amos Rapoport's three basic questions in understanding the environment – behaviour relationship, noted in section 3.2, his first question is the influence of human behaviour on environment. This concerns all we already know, are learning and will learn, in other words our knowledge about human beings. It operates at the level of the individual, the group, society and culture, and includes changes to the environment by the activities of people at these various levels (Moore, 2006).

Rapoport's second question, the effect of environment on human behaviour, as mentioned earlier, is about design. While environments could have direct, indirect and in some situations more effect on people (in 'reduced competence' situations due to illness, age, excessively rapid culture change, etc.), both Rapoport (2005) and Moore (2006) indicate that in reality environments are not determining; "policy, planning, architectural and urban design bring about environments with specific characteristics that will either facilitate or inhibit [certain] types of [behaviours,] experiences, activities and interactions that occur" (Moore, 2006:3). Lang (1987) also believes that the role of the architectural environment is accommodative and not deterministic. Rapoport, however, believes that people, under most conditions, choose and select where to live. This process of habitat selection is the most important aspect of the effect of environment on people (Rapoport, 1980), a process that involves "both rejecting and leaving undesirable, unsuitable, unsupportive, or inhibiting environments (what are called *pushes*) and seeking out desired, suitable, and supportive environments (what are called *pulls*)" (Rapoport, 2005:11). It is, of course, possible that people may pick an unsuitable setting, but they will then change it again (if they can) until congruence is reached, although congruence can also be achieved by changing behaviour and expectations in the first environment (Rapoport, 1980). This statement will be examined later in chapter seven and it will be revealed how people would exercise both ways –



alterations in their apartments and/or modifying cultural rules and behaviours - to achieve a desired level of congruency between the architectural form of their apartment and their life-style.

Considering the above two-way interaction between the environment and behaviour, Rapoport suggests a number of mechanisms that link people and environments together (Figure 3.1). Identifying and understanding these mechanisms will assist in being able to plan or modify the design. Some initially suggested mechanisms are *physiology, anatomy, perception, cognition, meaning, affect, evaluation, action and behaviour, supportiveness and some of the components of culture* (Rapoport, 2005).

It is essential to note that culture plays an important role in the relationship between environment and behaviour and the three basic questions put forward by Rapoport. On one hand, the possession of culture is what is generally taken to define humans; on the other hand, it divides us by language, religion, rules, and many other specifics of culture (Rapoport, 2005). Therefore many important characteristics of people are related to culture. Similar environments can have different effects on people, depending on their specific – cultural or influenced by culture – characteristics, e.g. high-rise apartments have negative effects on some people but work very well with others. Culture also has an influence on, or is related to, many of the mechanisms linking environment and behaviour. Some of these mechanisms, however, vary much more with culture than others. For example, “whereas perception is largely unaffected by culture, cognition varies significantly with culture, and meaning and evaluation are culturally extremely variable” (Rapoport 2005:39).



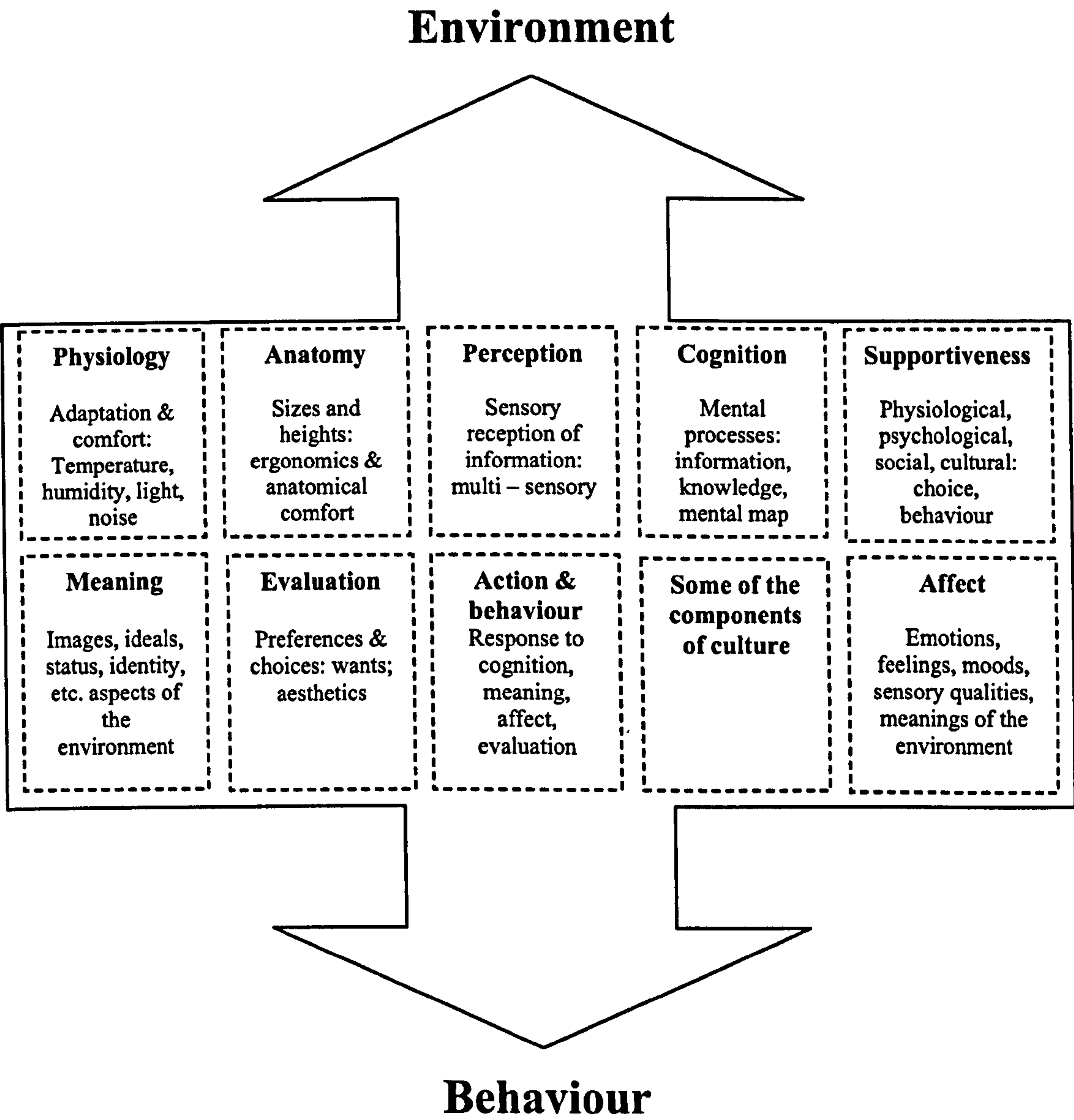


Fig 3.1 Rapoport’s suggested mechanisms that link environment and behaviour

3.4 Summary

It is implicitly accepted that there is a link between behaviour and the form of building in two senses: first, in the sense that an understanding of behaviour patterns, including desires, motivations, and feelings, is essential to the understanding of built form, since built form is the physical embodiment of these patterns; and second, in the sense that forms, once built, affect behaviour and the way of life. Each of these two aspects forms a vast topic in itself, and



both are of great interest to architects, sociologists, psychologists and all those concerned with man's habitat and well-being. The field of environment - behaviour studies has emerged in an attempt to develop empirically-based understandings of the reciprocal interaction among individuals, social groups, cultures and the environments in which they live, and to apply such understandings to the better planning and design of the built environment.

The environmental perception and behavioural approach to the study of human behaviour suggests that an individual's behaviour is a function of his or her motivations, the affordances of the environment, the images of the world outside direct perception and the meanings those images have for the individual (Lang, 1987:97) Behaviour, to some degree, is influenced by the environment. The physical and human environments of the individual and his contextual or socio-cultural group environments interact with his personality in a complex manner to influence his overt behaviour (Porteous, 1977:12). Of fundamental importance, however, is the realisation that certain behaviours may result in an alteration of the environment, especially if the environment itself is a human artefact such as the house. Thus we are able to modify the stimuli which affect the spatial behaviour of ourselves and others (Porteous, 1977).

As for the problem of this study, the physical space of the modern apartment provides possibilities as well as constraints for certain behaviours, but it is the people living in it, including their personality, social status, cultural beliefs and attitudes, who decide how to behave and to interact with the space. The environment – behaviour studies establish a context in which this complex relationship and my case study will be examined.



## ***Chapter Four***

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***A Comparative Analysis of Privacy in the  
Traditional House and the Modern Apartment in  
Iran***



## **4.1 Introduction**

Privacy is a term used with many meanings. Two types of questions about privacy are important. The first relates to the status of the term: is privacy a situation, a right, a claim, a form of control or a value? The second relates to the characteristics of privacy: is it related to information, to autonomy, to personal identity or to physical access? Scholars from different disciplines have tried to support the possible answer in their subject areas. The first part of this chapter tries to examine the above questions from different perspectives.

In the context of Iran, privacy has a cultural and religious meaning to the people. Privacy as a social process (Altman, 1975), in the designed space of traditional Iranian house, inspired by Iranian and Islamic culture, emphasizes such concepts of public – private distance, family sacredness, gender segregation, and visual and physical disconnection. Privacy interprets and acts in different ways; in the arrangement of spaces within the house and in the relationship between inner and outer spaces of the house, but to achieve the same goal. There are subcultural and microcultural differences in the definition of privacy. It also varies within the same culture according to socio-economic grouping, lifestyle, life method, family background and values, and individual status and prestigious (Vaziritabar, 1990).

This chapter intends to a) define ‘privacy’ in the context of traditional and cultural events of Iran, and b) demonstrate how this has been manifested in the physical form of the traditional and modern Iranian house. The central concern is about the interpretation of privacy and its adaptation by people who live in different regions and housing types, with different lifestyles and sub-cultures. The relation between religion (Muslim ideology) and house form is important, but this relationship cannot be considered in isolation.



## **4.2 General concept of privacy**

Two pioneering theories of privacy by Westin (1967) and Altman (1975) are still the most significant theories to the literature. On the definition of privacy in general terms, Westin (1967) speaks of ways in which people protect themselves by temporarily limiting access to themselves by others:

‘Privacy is the claim of individuals, groups or institutions to determine for themselves when, how and to what extent information about them is communicated to others. Viewed in terms of the relation of the individual to social participation, privacy is the voluntary and temporary withdrawal of a person from the general society through physical or psychological means, either in a state of solitude or small group intimacy or, when among large groups, in a condition of anonymity or reserve’ (Westin, 1967:7).

Westin, in his theory of privacy, posits four states (means) (Margulis, 2003b) or types (Al-Kodmany, 1999; Lang, 1987) of *solitude*, *intimacy*, *anonymity* and *reserve* by which purposes of *personal autonomy*, *emotional release*, *self-evaluation*, and *limited and protected communication* are achieved. In the definition of Westin’s four distinct states of privacy: *solitude* refers to the state of being free from the observation of others; *intimacy* is the state of maximising interpersonal relationships by minimizing outside surveillance; *anonymity* is the state of being unknown or unrecognised in a public environment, and *reserve* is the state in which a person employs psychological barriers to control unwanted intrusion (Al-Kodmany, 1999). Marshall (1974) identifies two additional states to Westin’s: *not-neighbouring*, attitudes toward involvement with neighbours and toward having friends or neighbours drop in without warning and *seclusion*, which requires both auditory and visual measures to physically remove the possibility of intrusion by nearby individuals (Margulis, 2003b) (Figure 4.1)



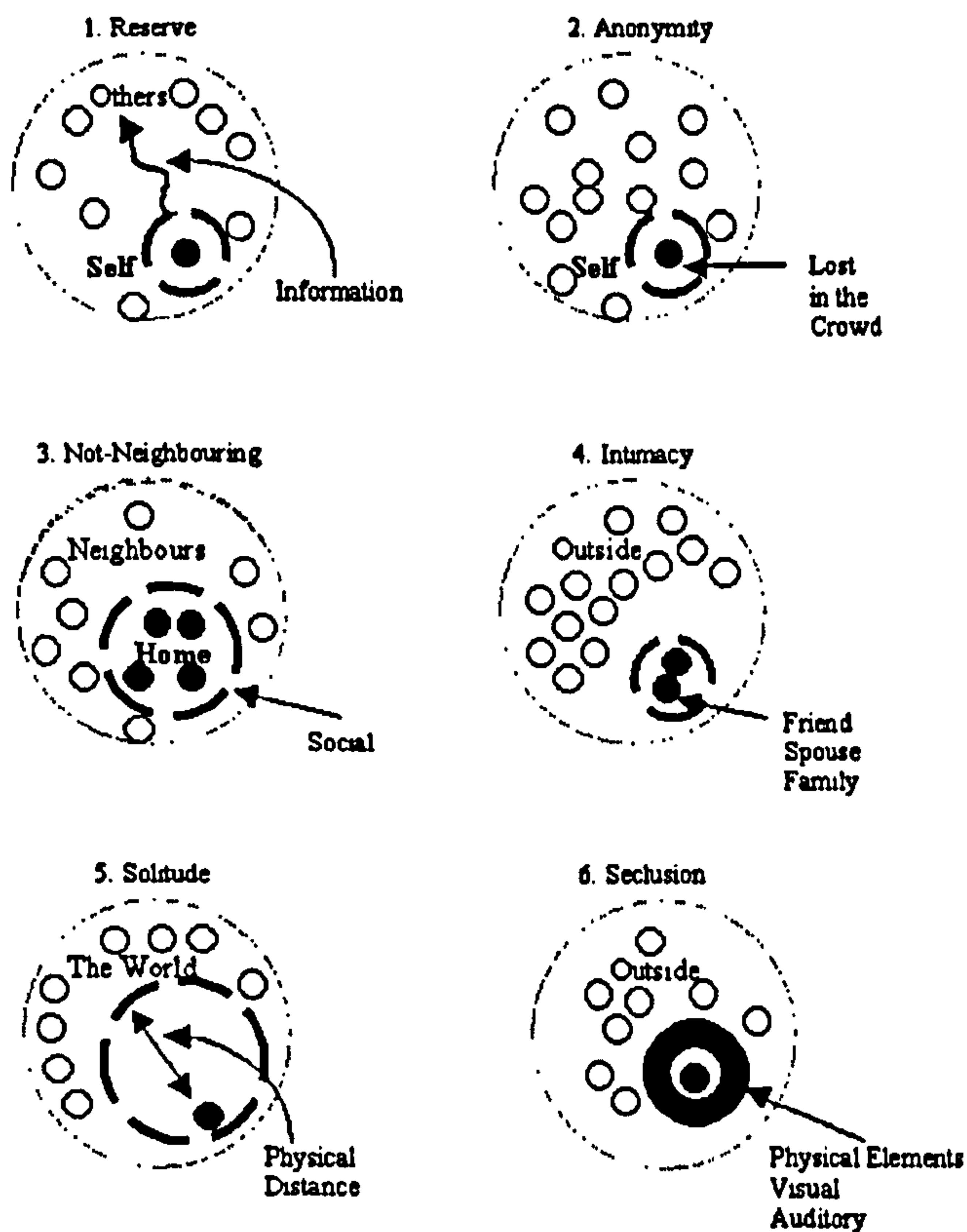


Fig 4.1 States of privacy identified by Westin and Marshal, (Al-Kodmany 1999)

From these states of privacy, *solitude*, *reserve* and *seclusion* are the most related to this study. While visual privacy – a sub-type of solitude and seclusion- is achieved through permanent physical and visual barriers and space divisions in the inward looking traditional house, in the modern apartment it is achieved by temporary barriers, e.g. curtains and removable partitions (see chapter seven). However, invisible privacy – a sub-type of reserve- is maintained mainly through personal space, behaviour and dress code as discussed in chapter three.

Privacy for Altman, is “selective control of access to the self or to one’s group” (Altman, 1975:18). He describes privacy as a boundary-regulating process that is dialectic in nature. It is culturally universal, that is, what differs is not that the need for privacy is present, but the ways in which that need is met, the ways in which privacy is regulated. He considers *personal space* and



*territoriality* to be major regulating mechanisms for attaining privacy (see also chapter three). Other regulating mechanisms of clothing (Archea, 1999), verbal, para-verbal and non-verbal behaviour (Archea, 1999; Kupritz, 2000) and cultural practices (Kupritz, 2000; Lang, 1987) have been indicated too. *Cultural practices* communicate availability or unavailability to others through customs, rules, and norms and are readily understood by most people in a particular culture (Kupritz, 2000). Regulating mechanisms operate in different combinations as a social system. How combinations work together depends upon the particular privacy needs at that time, what is available and what is acceptable (Kupritz, 2000). The above practices will be examined in the Iranian context through case studies in chapter seven.

#### **4.2.1 Personal space**

Providing for personal space needs is a basic mechanism for the attainment of privacy. *Personal space*, or interpersonal distancing, is defined “as a relationship of control over one’s body in social interactions” (Madanipour, 2003:53), which is used as a communication tool to maintain an ‘appropriate’ or ‘desired’ level of contact. It is an important means of privacy regulation that continually changes with circumstances. As Altman (1975) indicate the observation of personal space is closely related to the situations in which social encounters take place and also a number of factors such as age, gender, personality factors and cultural differences (Madanipour, 2003). As individuals respond differently to social stimuli and are socialized in different environments and conditions, they may adopt different approaches to personal space. The existence of personal space, however, according to Madanipour, “is a social institution and depends on the norms of that society, the social positioning and life stage of the individual, and the complexity of the environment” (Madanipour, 2003:31).



### **4.2.2 Territoriality**

As was discussed in chapter three, *territoriality* is a behavioural mechanism that establishes and controls privacy through territorial markers that delineate boundaries. The continuous extension of control over a particular part of physical space by an individual or a group results in the establishment of a territory (Madanipour, 2003). Territoriality or 'territorial behaviour' (Altman, 1975), closely associated with this process, has been defined by Altman as "a self-other boundary regulation mechanism(s) that involves personalisation of or marking a place or object and communication that it is owned by a person or group" (Lang, 1987:148). Altman also believes three forms of territory can be identified depending on the duration of occupancy, the cognitive impacts on the occupant and the others in generating a sense of ownership, the amount of personalisation, and the likelihood of defence when violated. A *primary territory*, such as home, is perceived to be owned by the occupant relatively permanently, is extensively personalised and the owner has complete control over space, finding intrusion a serious matter. The *secondary territory*, such as a classroom, has a moderate level of control and power over the space and may be personalized to some extent during the period of occupancy. The third level is *public territory*. Based on the given definitions and forms of territory, Lang (1987) suggests four basic characteristics of territories: 1- the ownership of or rights to a place, 2- the personalisation or marking of an area, 3- the right to defend against intrusion, and 4- the serving of several functions ranging from the meeting of basic physiological needs to the satisfaction of cognitive and aesthetic needs. The concept and function of territory and territorial behaviour have been extensively discussed in chapter two.

Altman (1975) in particular has considered a number of important aspects of privacy, which are of relevance to this study too. In his theory, privacy is a social process, including the interplay of people, their social world, the physical environment and the temporal nature of social phenomena. The most important aspect is that privacy has a cultural context, which specifically is visible by manifestations. Privacy – environment linkage is central to, and



social interaction is at the heart of, Altman's theory of privacy as it focuses on privacy as a process of regulating levels of social interaction.

To examine the core of privacy and to describe what privacy is, Margulis (2003a) compares and evaluates the commonalities and differences in Westin's and Altman's theories of privacy. He then argues that both theories have a limited-access approach to privacy; that is, both discuss how individuals and groups control or regulate access to themselves. Both theories describe our need for privacy as a continuing dynamic of changing internal and external conditions, to which we respond by regulating privacy in order to achieve a desired level of privacy. In turn, achieved privacy can affect internal states and external conditions and that attempts to regulate privacy may be unsuccessful; we may achieve more or less privacy than we desired. Both agree that privacy can take many forms and that privacy has universal characteristics and that the nature of the forms that privacy can take is probably culturally specific. Both also agree that privacy can support illegitimate goals, but differentiate the forms (or the how's) from the functions (or the why's) of privacy. They agree that the functions of privacy include opportunities for self-evaluation and that privacy contributes to self-identity and individuality. The two theories share so much in common that they provide a reasonable foundation for understanding the fundamentals of privacy as a social – psychological concept.

### **4.3 Privacy and environment**

While environment is one of the central factors in the study of privacy, it is not always clear, as extensively discussed in chapter two, what is being referred to when the term 'environment' is used. The notion of architectural entity is implicit in the frequent attempts to state the design implications of privacy research, yet most research on privacy considers the environment solely in terms of the normative or symbolic qualities superimposed upon it by its inhabitants (Archea, 1999).



The most elaborate treatment of the environment concerned with privacy has been Altman's (1975) account of clothing, personal space and territoriality as privacy-regulating mechanisms. He conceptualises privacy as the key linkage between these three aspects of the environment and verbal or para-verbal behaviour. He also conceptualises these three mechanisms as successively more remote layers of the self. By intentionally confounding the environment with these extensions of one's being and personality, Altman has beclouded the notion of an environment that stands apart from the self. As privacy-regulating mechanisms, these three manifestations of the environment are always present when and where the self is present (Archea, 1999).

Other notions consider environment as something that evokes or sustains a privacy experience (Laufer et al., 1973) or as a prop for the expression of individuality (Archea, 1999). As alternatives to the above behaviour-centred notions of the environment, Canter and Kenny's (1975) view can be considered as a set of locations or places, each differing in their access to information, or Murgulis's (1979) view of the environment as an information flow network. However, the model of visual access and visual exposure presented by Archea (1999), defines the physical environment independent of the behaviour. Through this model, the physical environment has been valued as the means by which the flow of behaviourally relevant information is either facilitated or inhibited. Thus the issue is how one must conduct oneself in order to attain a desired level of privacy, given the distribution of information permitted by the physical arrangement of one's surroundings.

#### **4.3.1 Model of visual access and exposure**

From a behaviour-related physical environment perspective, each person is the centre of a dynamic field of information about surrounding events and activities. As one's ability to monitor surrounding activities increases, so does one's awareness of emerging behavioural opportunities. Similarly as the likelihood of being monitored by others increases, so does the person's accountability for his or her own behaviour. Thus, the regulation of



interpersonal behaviour is influenced by the possibilities for monitoring the behaviour of others (access) and by the possibilities that others can monitor one's own behaviour (exposure). This framework is the foundation for Archea's (1999) model of visual access and exposure. In physically bounded settings, the potentials for seeing others (visual access) and for being seen by them (visual exposure) will vary as functions of the positions of the walls and other visual barriers, though "the arrangement of the physical environment regulates the distribution of the information upon which all interpersonal behaviour depends" (Archea, 1999:121)

According to the model, the physical environment is a relatively stable assembly of walls, doors, corners, and other regulators of the flow of information. The physical arrangement of a given setting remains substantially unchanged from one situation to the next. The dynamic influence of the environment on interpersonal behaviour stems from the ways in which it is used. By selecting or changing one's location or orientation, one establishes a potential for obtaining and conveying behaviourally relevant information. In effect, we change our environment by changing our position within it.

Through the sensible selection of one's position in space, numerous behavioural advantages can be obtained. Opportunities for identifying the appropriate points to enter or withdraw from an activity and for fostering or deterring the notice of one's activities taken by others are both mediated by the manner in which location and orientation establish the potential for access and exposure. In effect, the way in which we present ourselves to others is a function of our position relative to the organisation of our physical surroundings. And how we present ourselves to others is the essence of privacy.

The concept which ties one's presentation of oneself to visual access and exposure, and to privacy, is conspicuousness: the degree to which a person's socio-spatial display is noticeable amid the collective socio-spatial displays of



the surrounding persons and events. The process of deliberately regulating behaviour or position to attain a desired degree of privacy is *selective conspicuousness*. As the control of information about the self, privacy has been characterised as a process of selective concealment and disclosure (Margulis, 1977, in Archea, 1999:132). As the chief means by which one's own privacy is regulated, selective conspicuousness establishes a trade off between the spatial and the behavioural options available in interpersonal situations.

The model of visual access and exposure may explain the current behavioural forms of privacy practised among Iranian families, especially women. The traditional pattern of privacy which was based on gender segregation has been transformed to a gender-integrated pattern under influence of modernism. Thus, according to this new pattern, control of information and privacy is obtained through interpersonal behaviours and one's spatial position. This will be discussed further in the following sections and will be examined in the case study in chapter seven.

## **4.4 Privacy in the Iranian - Islamic context**

### **4.4.1 Study definition of privacy**

Having conveyed arguments on the concept of privacy in the Iranian - Islamic cultural context, privacy has its unique meaning and manifestations. Culturally, privacy is a multi-dimensional phenomenon, whose visible physical manifestations are only descriptive within that very cultural context. Physically, the manifestations are based on social - cultural values and institutions of a particular region or sub-culture. The two aspects will be fully discussed later.

For the purpose of this study, privacy is defined as *the organisation of physical elements (of the house) in order to have control over the level of physical and visual interaction and contact between men and women*. For the house, this



statement is applicable at two levels a) inside privacy, and b) outside – inside privacy.

#### **4.4.2 Dimensions<sup>1</sup> of Privacy**

The concept of privacy within traditional Iranian-Islamic culture is a unique phenomenon, which specifically functions and is definable within that very cultural context. In this context privacy is three dimensional, in which the three dimensions often blend into one another. *Mahramiyat – Hejâb - Privacy* constitute the three integrated, interrelated dimensions of one cultural institution of privacy. The three, as a whole, concern two core issues of women and family. For both, privacy is sacred and carefully guarded. As a right and an exclusive privilege for women, privacy, as El-Guindi (1999) indicates, is reflected in dress, space, architecture and proxemic behaviour.

##### **4.4.2.1 Mahramiyat**

*Mahramiyat* – a dual reality of both gender segregation and interaction within Muslim society - refers to the relationship between men and women. Conceptually it is equally applicable for both sexes toward each other, however in terms of privacy it is practically gender- female- biased. The position of a man toward a woman in Islamic culture would be either *mahram*, “those with whom marriage is disallowed”, or *nâ-mahram*<sup>2</sup> “males with whom marriage is not disallowed” (Mazumdar & Mazumdar, 1997: 185). “Those men and women whose kinship, as defined by the jurists, represents an impediment to marriage are permitted to be on familiar terms with each other and share the same physical space; those not related in this way, should avoid each other’s company” (Khatib-Chahidi, 1993: 112). The following passage from Qur’anic text is specific to identify the *mahram* people to a woman:

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<sup>1</sup> The idea has been adopted from Mernissi, (1991).

<sup>2</sup> “nâ” is a Persian prefix which has been added to the actual Arabic word to give the opposite meaning.



‘And tell the believing women ... not to reveal their adornment save to their own husbands or fathers or husbands’ fathers, or their sons or their husbands’ sons, or their brothers or their brothers’ sons or sisters’ sons, or their women, or their slaves, or male attendants who lack vigour, or children who know naught of women’s nakedness...’ (24:31)

These two concepts, according to Khatib-Chahidi, have a wider meaning among Iranians; they contain a behavioural code. “Uppermost in the mind of the average Iranian when the term is used is the fact that *mahram* persons are those with whom one can mix freely and be on informal terms; familiar behaviour, however, is unacceptable towards *nâ-mahram* persons” (Khatib-Chahidi, 1993: 114). This was, and still to a great degree is, an institutional code in Iranian society on which people’s social and personal behaviours and attitudes would be judged; attitudes such as degree of religiousness, modesty, and even a person’s respect and loyalty to his/her own family. *Mahramiyat* with a very close interpretation has often overlapped the notion of privacy within the Iranian-Islamic culture. It is crucial to note that while *mahramiyat* is ethical, privacy is spatial. Privacy, inspired by the code of *mahramiyat*, practically functions to establish a (physical) boundary and separate two ethical realms of *mahram* and *nâ-mahram*.

#### **4.4.2.2 Hejâb**

A key concept in *mahramiyat* code is *hejâb*, the specific dress and covering of Muslim women. This dimension is visual; to cover something from sight. The word *hejâb* comes from the Arabic word “*hajaba*” meaning to hide from view, to cover, to screen, or to veil (Al-Mowrid, 1996). In the present time it is used to refer to the mandatory dress and veiling of Muslim women. However, the extent and the concept of *hejâb* has been a controversial question for centuries. The question now is what is the extent of covering? Did Islam, by introducing *hejâb*, mean to hide and screen women and withdraw them from society? The noble Qur’an, after recommending the believing men to “... lower their gaze



and be modest, that is purer for them, Lo! Allah is aware of what they do” (24:30), in the same verse as above addresses women and says:

‘And tell the believing women to lower their gaze and be modest, and to display of their adornment only that which is apparent, and to draw their veils over their bosoms, and not to reveal their adornment save to their own husbands ..., And let them not stamp their feet so as to reveal what they hide of their adornment, And turn unto Allah together, O believers, in order that ye may succeed’ (24:31) .

The verse from the Qur’an in respect of *hejâb* contains three main injunctions for women: 1) modesty in their behaviour, 2) to cover their hair, the neck and the bosom, and 3) not to reveal their adornment. The verse also indicates the people who are counted as *mahram* to a woman, thus there is no necessity of covering in their presence. This is a forbidden realm, in which it is allowed to display only to certain *mahram* relatives. This implicit prescription for covering, however, has no fixed standard as to the style of dress or type of clothing that Muslim women must wear. It has differently been interpreted by scholars and practised by Muslims in their social life and artefacts due to the time’s socio-culture, economic, lifestyle, and political grounds. However, in many cases it has led to social restrictions and/or complete seclusion and withdrawal of women from society.

#### **4.4.2.2.1 *Hejâb* in the pre-Islamic context**

The concept and practice of *hejâb* exclusively, and gender segregation in Islamic societies generally, has been the subject of heated debate for centuries especially by western critics. In fact, veiling is mistakenly regarded as the equivalent to women’s social exclusion by critics. While the critics almost blame Islamic culture for the seclusion, one should, however, observe the issue within the intercultural situation of Islam. It is certain on historical grounds that in the prophet’s time there was no segregation in the sense that Muslim



societies later developed (Reeves, 1989; Mernissi, 1991). Muslim women in the early Muslim state took an active part in the religious, political, economic, and social life of their community. However, the issue was moulded and formed in different shapes when this Islamic ideology was confronted with the dominant culture of the new territorial domains such as Persia.

‘Islam operated on a principle of toleration and absorption of a vast diversity of cultural patterns and social practices. With the subjugation of highly civilized peoples, the Arabs freely melded diverse elements from local cultures into their own institutions and laws. At the same time they impressed upon everything they acquired the unmistakable stamp of Islam’ (Yussef, 1974:95).

As far as is presently known, Islam did not invent or introduce the custom of veiling. Veiling, according to El-Guindi (1999) had existed prior to Islam in Hellenic, Judaic, Byzantine, Balkan, and Persian cultures. *Châdor*, a Persian word, was a main part of Iranian women’s clothing from the ancient times. The excavated documents, as early as 3000 BC, from different historical periods of ancient Persia, during Elamian, Assyrian, Achaemenian and Sassanian and later prove the idea<sup>3</sup>. The form, colour, and method of usage, however, were different from what is being used now. The best example of pre-Islamic *Châdor* is found today in the traditional dress of Zoroastrian women living in some parts of Iran, such as Yazd and Kashan (Figure 4.2). In one respect it is assumed to be a decorative element as part of ladies’ dress, which would cover the head and the body. It was also a social marker for women inside Persian society, “a mark of exclusivity, status, privilege and privacy” (El-Guindi, 1999:16).

‘Veiling and segregation were prevalent in Sassanian society.

Upper-class women were veiled and secluded to protect themselves

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<sup>3</sup> Feraydoon Pour Bahman, the author of *History of Ancient Persia Costumes* (in French) in an interview with the BBC, <http://www.oshihan.org/Pages/Dress.htm>



from the glances of and contact with common men. The veil was primarily used as a mark of distinction by the urban high-born as against the slave women, but had also become an instrument of suppression and exclusion of women from public life' (Reeves, 1989:46).

#### **4.4.2.2.2 *Hejâb* in the Islamic context**

Whether by adoption, reinvention, or independent invention, veiling in Islamic culture evolved a distinct function and characteristic meaning from that in pre-Islamic times. *Hejâb*, a sacred notion from the Islamic point of view, represents sanctity, respect and privacy. Mutahhari (1975) argues that one of the reasons for today's misunderstanding, especially in western societies, regarding the covering for women in Islam is in the use of the word *Hejâb* (screen) instead of *Pooshesh* (covering). El-Guindi also, by mentioning this point, suggests the word *Satr* as the closely related concept for covering, as the Qur'an through implicit verse (24:31) indicates the boundaries and basics of covering and a man's and woman's relationship, without mentioning screening or woman's withdrawal from social activities and contacts (Figure 4.3).

'The duty of covering for woman, which has been ruled by Islam, does not mean that a woman is not allowed to go outside; imprisonment and lockup is not propounded in Islam... a woman's covering in Islam is that a woman in her contacts with men covers her body and avoids the flaunting and displaying (of her beauty)' (Mutahhari, 1975:64).

He concludes that the philosophy of Islamic *hejâb* (covering) relates to four issues: 1- psychological tranquillity, 2- strength of family relations, 3- stability of society, and most importantly 4- value and respect of women.

To conclude the above argument, it is suggested that privacy in the cultural context of Islamic Iran is associated closely with the fundamental codes of



*hejâb* and *mahramiyat*. They function, conceptualise and are applied as a unique phenomenon. It is more a gender specific issue; not to exclude, but to privilege. This principle has been the foundation of and influenced many aspects of Muslim life.



Fig 4.2 Zoroastrian prayer women. *Châdor* is part of traditional dress of Zoroastrian women, (Najmi, 1994).

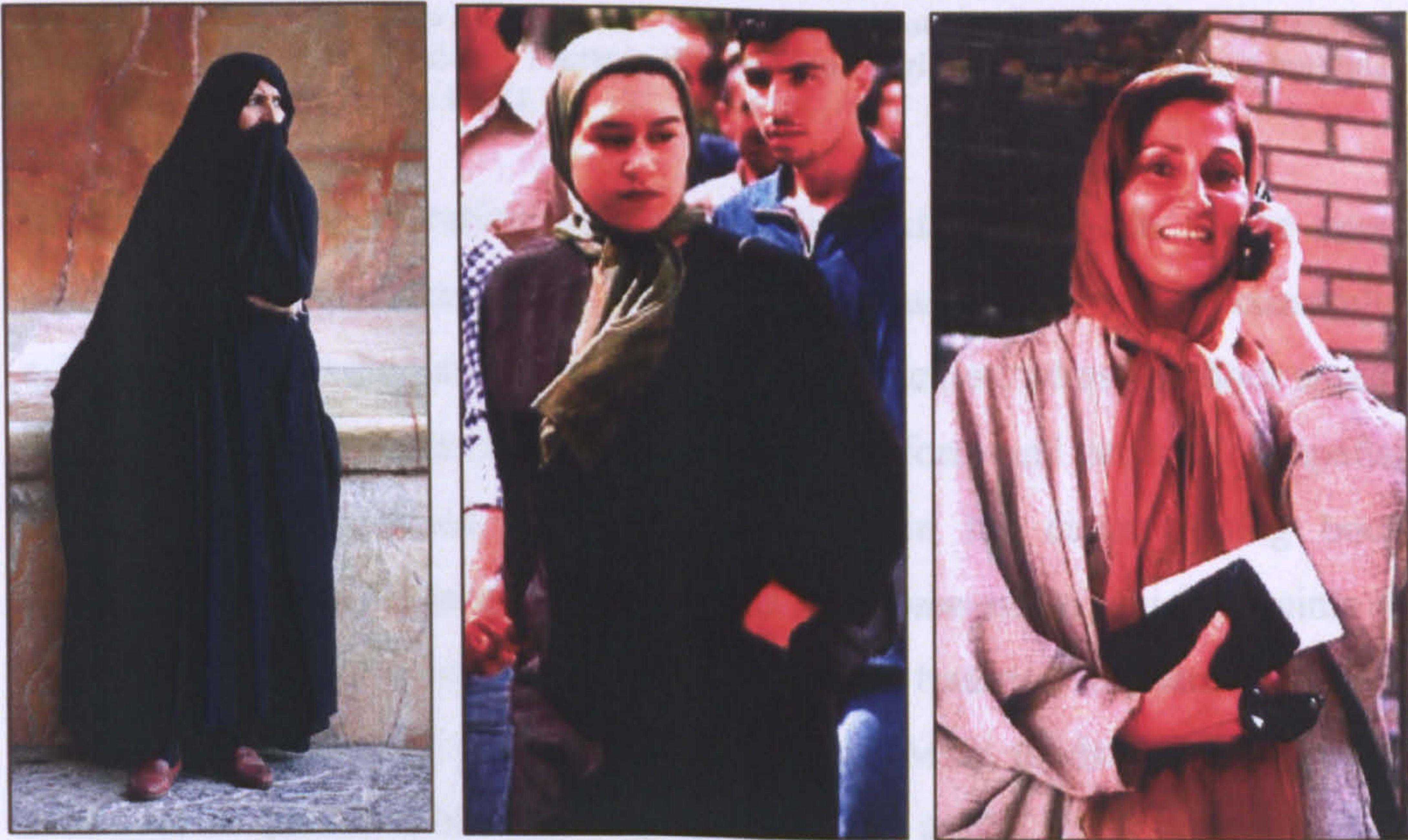


Fig 4.3 Different types of Iranian women's covering *Hejab*, from full covering *Châdor*, to more relaxed types, (Unknown, 2005).



## 4.5 Privacy in Islamic architecture and urban design

Visual privacy, in which maintains *hejâb* and *mahramiyat* was the principle of Islamic traditional architecture and urban design. In the traditional Islamic city, according to Abu-Lughod (1987), Islamic law regulated design and architecture such as the height of adjacent buildings (Figure 4.4), and guided social relationships so that neighbourhoods observe visual privacy. “The object was not only to prevent physically contact but to protect visual privacy. Line-of-sight distance, rather than physically distance, was the object of urban design” (Abu-Lughod, 1987: 167).

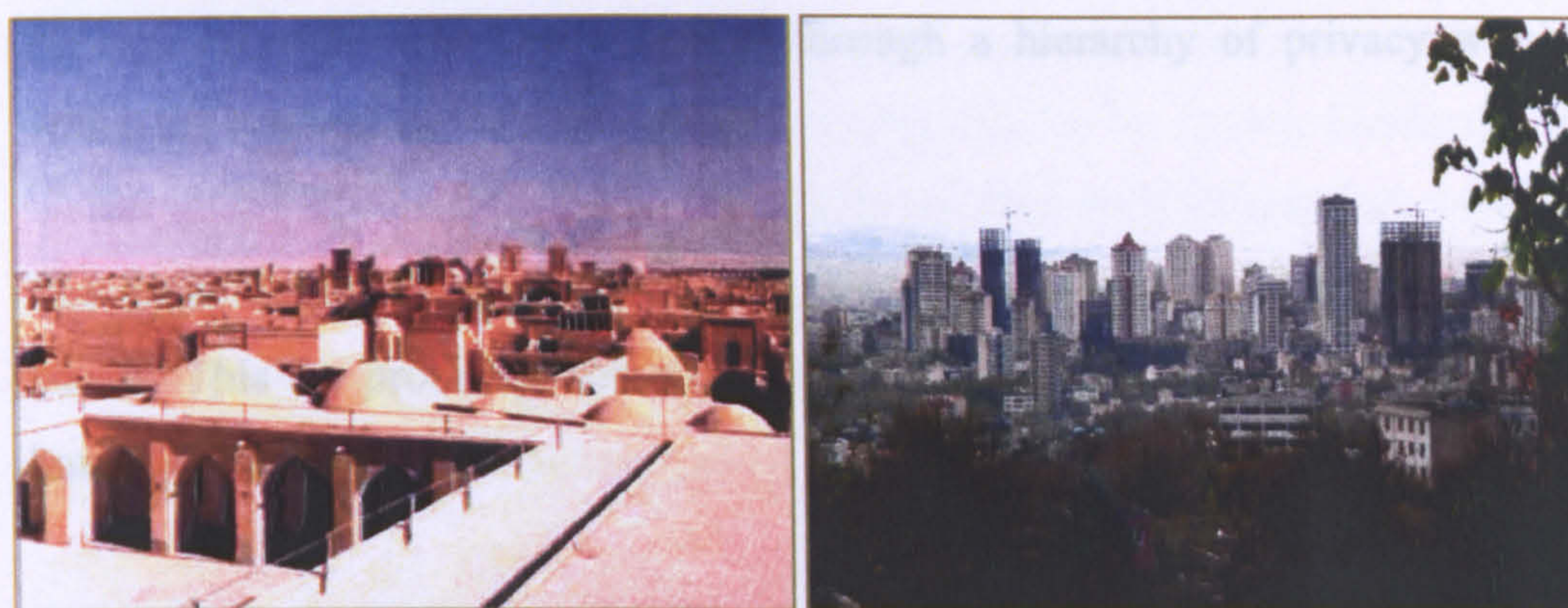


Fig 4.4 A comparative view of two cities' skylines; the contrast between the adjacency of buildings in old part of Yazd and Tehran's recently built high-rise and medium-rise buildings is visible, (Izadi & Kasraian, 1993).

Keeping a clear separation between public and private life is the most significant social characteristic of Islamic culture. This was successfully achieved in the traditional environment of Islamic cities, whose outdoor spaces and streets were in a hierarchical but integrated form and order. This spatial hierarchy was described by Mortada (2003) in his encompassing book *Traditional Islamic Principles of the Built Environment*, in which he aims to explore some of the essential principles which the tradition of Islam has set up for Muslim society and its living environment. “Main roads started from the centre of a quarter where the highest level of public life occurred. They gradually diminished in size, and changed in character, form and function from public to semi-public, to cul-de-sac and eventually private patio for house



access only. The cul-de-sac was so private that it was regarded strictly as an extension of the house's private space" (Mortada, 2003:83-84).

#### **4.5.1 Privacy in the context of the house**

The Islamic principle of house privacy is an affiliation of the principle that calls a Muslim to separate his or her secluded private life from public intercourse. In the sphere of house the ultimate purpose is to provide a secure environment for the comfort of the family, particularly females, to conduct their social and personal activities without being observed and without fear of being observed (Al-Kodmany, 1999) by *nâ-mahram*, either kin or non-kin. Privacy for women is best achieved through a hierarchy of privacy within which the house is the central element.

The noble Qur'an recommends asking permission when entering somebody's house. This is probably for the purpose of avoiding intrusion into the household's privacy:

‘O ye who believe! enter not houses other than your own, until ye have asked permission and saluted those in them: that is best for you, in order that ye may heed (what is seemly) ’ (24:27)

It is a common habit among practising Iranian Muslim men to call out *yâ-allah*, a special saying when entering a house or a space within the house where a woman is present to announce his immediate entry upon women's, or a home's, privacy.

Privacy, with different degrees in terms of a house, deals with a) the idea of protecting the inner space of the house from outsiders' view, and b) protecting the more private spaces within the house from the view of those who enter the house as visitors or guests. In other words, the protection of the privacy of the house from visual intrusion could be affected by the treatment of two design aspects of the house: site and plan (Mortada, 2003). In terms of the site, three



external elements of entrance doors, windows, and height and high projections are distinguished. In the plan, design measurements should be provided in order to eliminate direct visual access between the guest's domain or reception area and the family area.

The general plan and use of different elements in traditional Iranian houses was not only identical physical exposures of this institution but also aimed to achieve all degrees of privacy. Elements such as high walls around the house; spatial hierarchy inside the house by organisation and use of such elements like vestibule (*Hashti*), position of private and semi private spaces toward the entrance, separate sections of *Birouni* and *Andarouni*, separate entrances, separate knockers for men and women, separate room for guests; *Mashrabiyah* (Al-Kodmany, 1999; Basam Behsh, 1993) or *Shanashil* (Memarian, 1997) - wooden-latticed windows, and *pardeh* or curtains (Mazumdar & Mazumdar, 1997) were among them. Some of the above elements are still in use and some have been transformed to more modern physical shapes.

#### **4.5.1.1 Sub-cultural variations on the interpretation of privacy**

The physical manifestation of privacy within an Iranian house has different shapes. It has been adapted and translated according to people's domestic lifestyle and has become a cultural phenomenon whose level of strength – due to the original codes of *hejâb* and *mahramiyat* - is different among people depending on their sub-culture and individual or group interpretation. There is a remarkable difference in the form, style and extent of *hejâb* from region to region, from one social-economic class to another; it ranges from *Châdor*, a full-encompassing black or patterned cloak that covers the whole body from head to toe, to a head-scarf, or a traditional local costume (Figure 4.5).



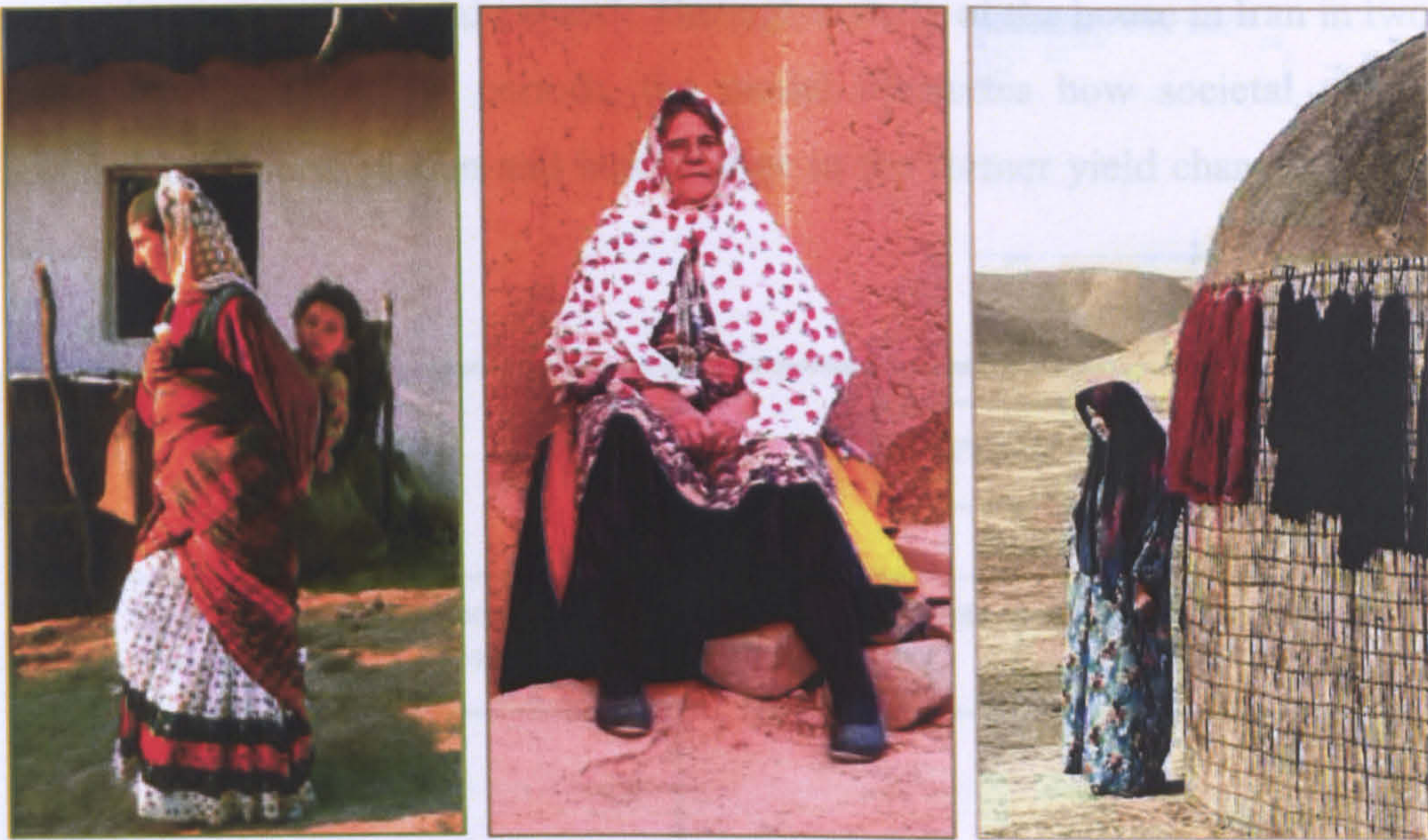


Fig 4.5 Sub-cultural and regional variations in Iranian women's covering in rural areas. From left to right: woman from *Gilan*, woman from *Abyaneh*, *Turkman* woman, (Unknown, 2005).

Fig 4.6 Model of the relationship between culture and architecture (Mazumdar & Mazumdar, 1994)

*Hejab* has also been interpreted differently historically due to socio-cultural situations. While in urban domains it had its extreme form of covering including full-length black chador and in some cases face covering, in the rural and smaller provinces a diverse range of methods was prevalent. "Full veiling becomes a status marker since it is practised primarily by the wealthy. Poor women who work, have to use various adaptations to conform to the dress code and yet be able conduct their work efficiently" (Mazumdar & Mazumdar, 2001:305). Thus, distinctions are visible in the use and interpretation of privacy in different type of houses. It is also influenced by the social status and economic level of the household. For example, the ways that people from northern Iran interpret and utilize privacy inside the house and even between inside and outside is completely different to central Iran.

#### 4.5.2 Societal values and architectural artefacts

On the relationship between culture and architecture, Mazumdar & Mazumdar (1994) presented a four-part model (Figure 4.6) depicting the linkage between architectural artefacts selected or devised by a culture, architectural values,



societal norms and societal values<sup>4</sup>. Through a study of the house in Iran in two pre-Pahlavi and Pahlavi periods, the model illustrates how societal values relate to built form in Iran and how change in the former yield changes to the latter.

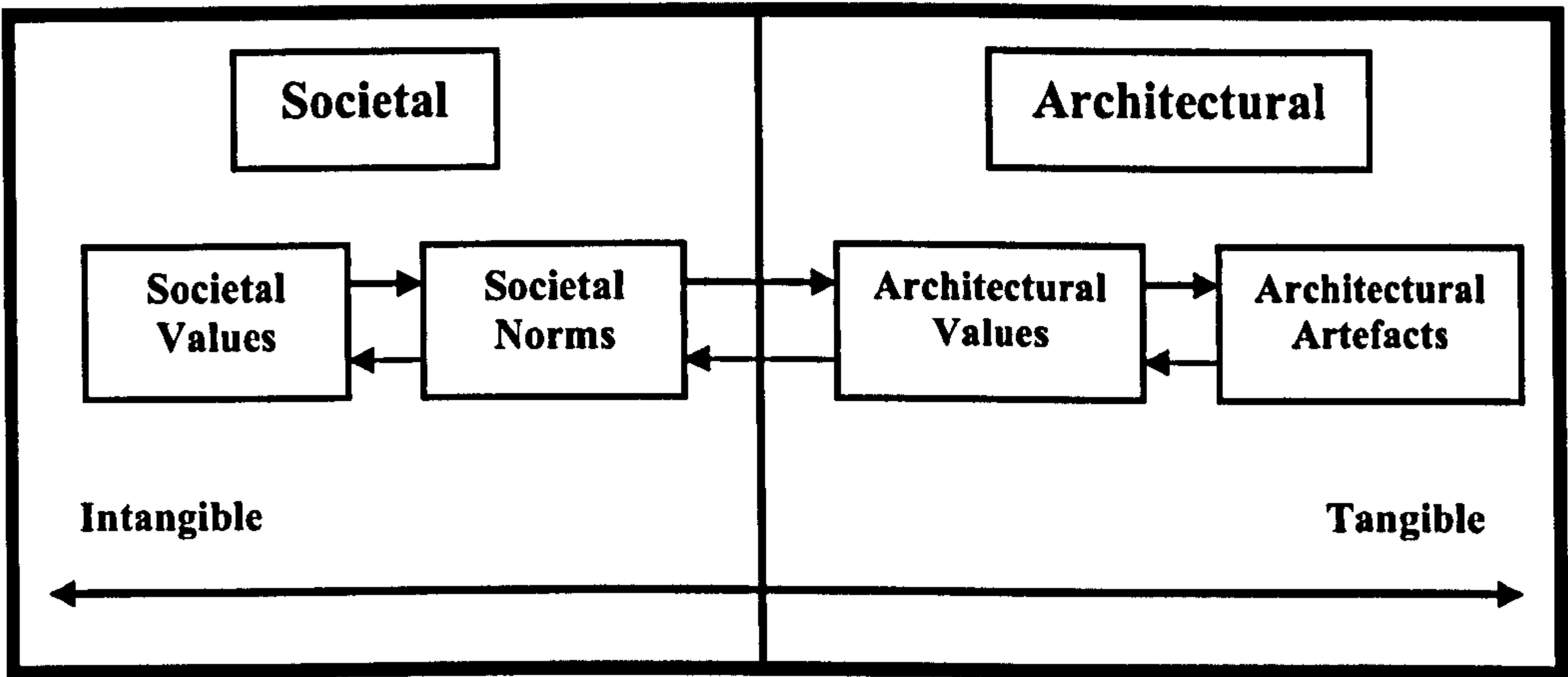


Fig 4.6 Model of the relationship between societal values and architecture, (Mazumdar & Mazumdar, 1994).

Mazumdar & Mazumdar’s empirical study features four major societal values of extended families, marriage and the number of women, status of women and men, and concealment of women. The primary societal norms that developed out of societal values were the requirements for privacy at several levels, first the distinction between public and private, and second privacy between men and women within the house, particularly of women from men. Need for privacy at both levels to fulfil societal values needs to be translated into certain requirements. This has been translated into the requirement that inside the house and its activities be kept private from outsiders and also within the house

<sup>4</sup> - Societal values are the deep-seated convictions, shared beliefs and ideas held by the culture and include general ideas held by a society about society and people’s role in it. They provide general guidance and ideas about life and the role of individual members.  
- Societal norms are the code of conduct of a society and include formal rules and norms as well as informal conventions regarding social relations, rituals, preferred modes of behaviour, restrictions and taboos.  
- Architectural values are definitive preferences that enable and support the intangible and abstract societal norms and societal values through ideas about physical forms. They are those values and preferences, which affect choice of architectural elements.  
- Architectural artefacts are elements and components of building including forms, shapes, sizes, materials of construction, structural system, and objects inside the building including their design and layout (Mazumdar & Mazumdar, 1994: 69-70).



views of the inside from every direction are to be prevented, the sexes could be separated, and women's areas could be screened visually. Therefore the above values were physically manifest and led to the development of the house on two levels. On one level, a high wall with minimal fenestration around the house maintained the public-private separation and visual privacy. On the second level, the division of the house into *Andarouni*, the female and family section of a traditional house, and *Birouni*, the non-family section of a traditional house protected the privacy of women inside it (Figure 4.7).

By looking at the same four elements in the Pahlavi period, Mazumdar & Mazumdar attempt to demonstrate how architecture and values changed over time and in what way. All four societal values underwent changes, particularly in the urban areas. Subsequently, the societal norm of privacy was modified in response to changes in societal values and affected preferences for architectural elements. The changing societal and architectural values reflected in architectural artefacts such as some of the older elements (e.g. blank wall around the house) were discontinued and some new ones (e.g. openings and windows) were introduced and some elements were modified (Figure 4.8).

#### **4.5.3 Gender specified space: a study of three residential houses**

In this respect, in a comparative study of three traditional wealthy, traditional average and modern housing types, Khatib-Chahidi (1993) investigates the allocation of space for men and women in the Iranian household (Figure 4.9). House A, which is virtually two houses in one, for which the owner must be affluent enough (the typical house of wealthier people in the past), not only the *mahram - nâ-mahram* rule was imposed but also any kind of visual contact toward family and women was restricted. It was in this kind of house that women were frequently more secluded than their less wealthy counterparts living in similar areas.



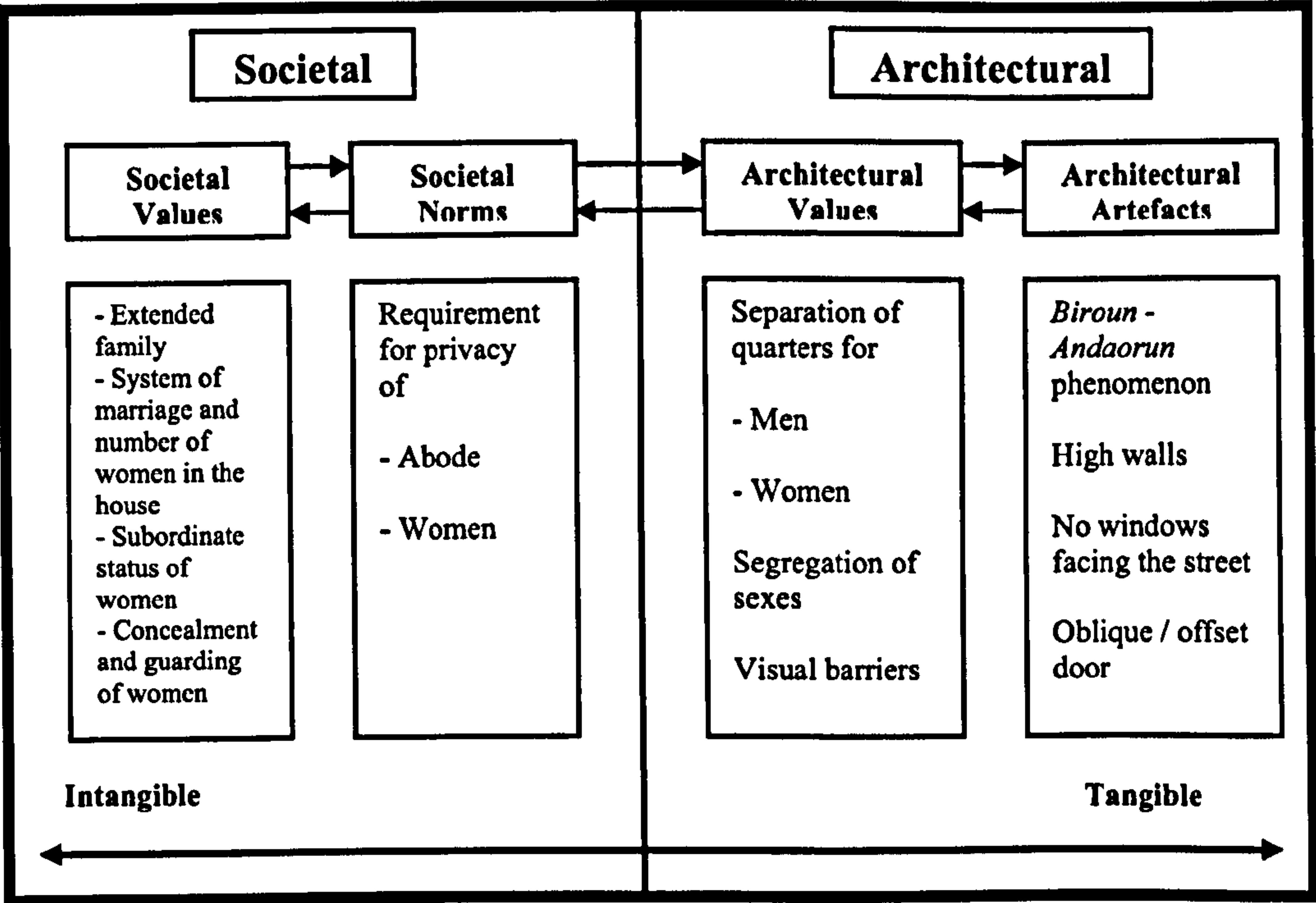


Fig 4.7 The relationship between societal values and architecture in the Islamic house in pre-Pahlavi Iran, (Mazumdar & Mazumdar, 1994).

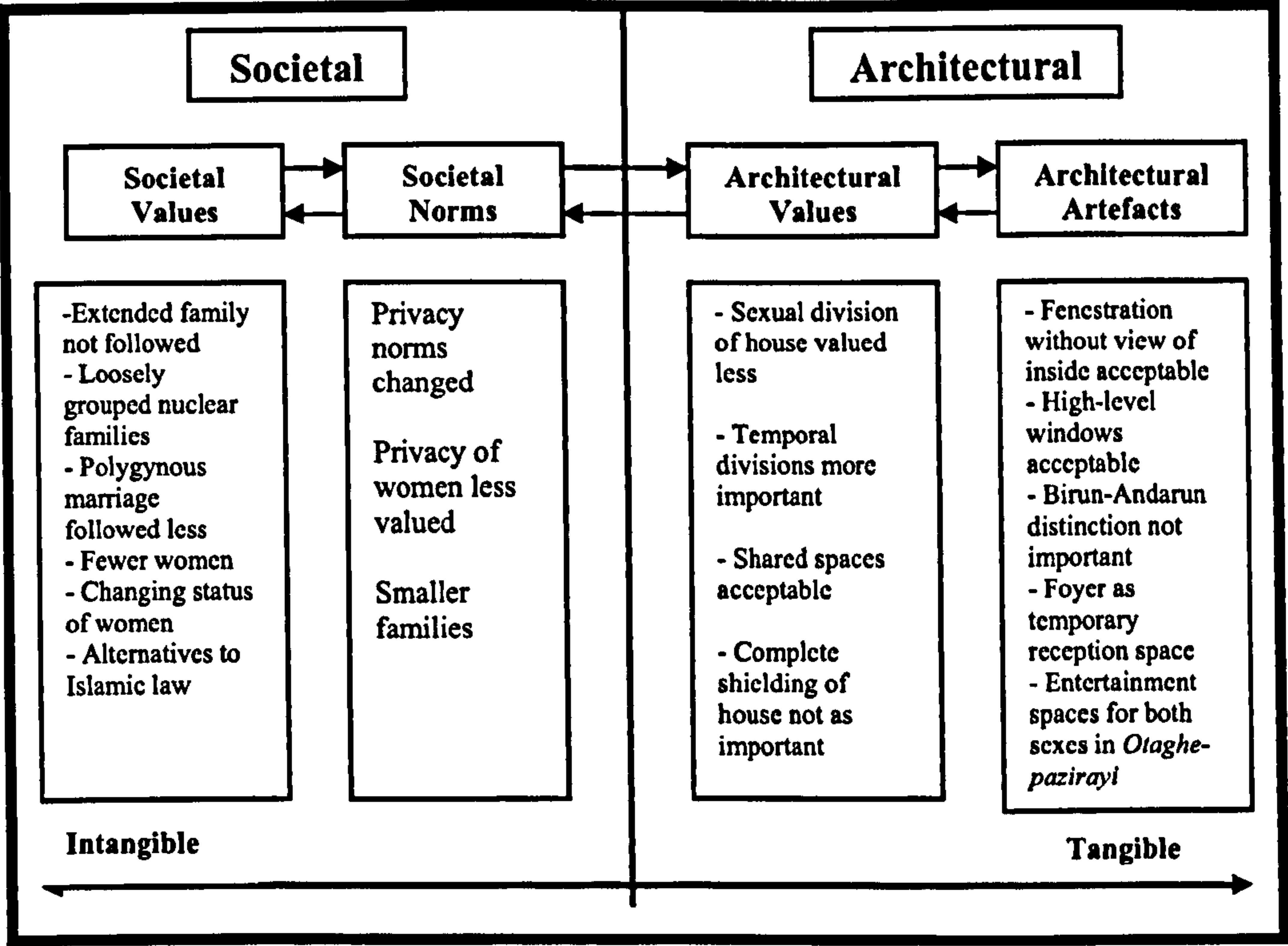


Fig 4.8 The relationship between societal values and architecture in the Islamic house in Pahlavi Iran, (Mazumdar & Mazumdar, 1994).



House B, a more modest plan that is typical of many old houses still in existence in the provinces and in the older quarters of Tehran, shows the separation of the family and the entertaining area which were used for *nâ-mahram* male visitors, although the women of the family might use it when they were entertaining larger numbers of female visitors who were *nâ-mahram* to the men of the household. As can be seen in house C, the traditional division of spaces is not altogether absent in the modern flat. "... the necessary more limited physical space of the flat still reflects traditional ways of living. It also exhibits the weakening of the prohibitions over the sharing of space between *nâ-mahram* men and women since, whereas the courtyard enabled the family to see the visitor to the house without the visitor seeing them, the family living-area of the hall means the seeing is reciprocal" (Khatib-Chahidi, 1993:123).

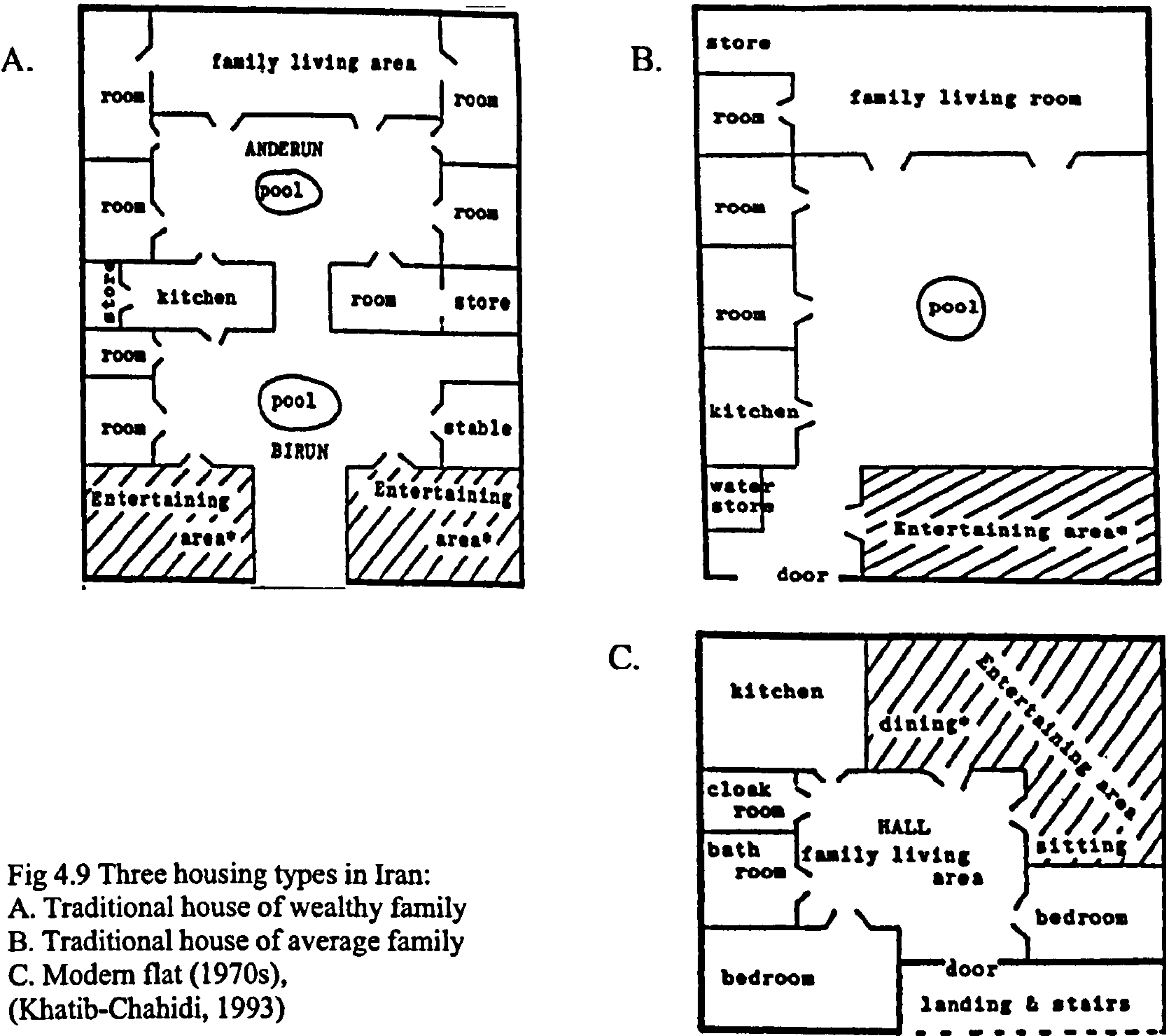


Fig 4.9 Three housing types in Iran:  
A. Traditional house of wealthy family  
B. Traditional house of average family  
C. Modern flat (1970s),  
(Khatib-Chahidi, 1993)



## **4.6 Physical and conceptual analysis of the implementation of privacy in the traditional and modern Iranian house**

Amos Rapoport in his book *House form and culture* indicates, “The house form is not simply the result of physical forces or any single causal factor, but is the consequence of a whole range of socio-cultural factors seen in their broadest terms” (Rapoport, 1967:47). This statement is hard to be examined in the case of Iran due to the broad diversity in all Rapoport’s primary (religious beliefs, family and clan structure, social organization, way of gaining a livelihood, and social relations between individuals), and secondary (climate, physical environment, methods of construction, materials, technology) forces that decides the form of a dwelling, and moulds the spaces and their relationships.

The plan of the house or *Khaneh* in Iran is different depending on elements of topology, climate, people’s lifestyle and method of settling; urban, rural, nomad. The traditional dwellings include a wide range of houses. Temporary and permanent tents and huts belonging to nomads or *Ashayer*-tribes, whose life is still based on seasonal movement from one location to another to feed their animals, are spread throughout the country from north to south and from east to west. *Turkoman*, *Bakhtiari*, *lur* and *kurd* tents, each have specific characteristics, however are common in terms of nomadic life. Rural houses, regardless of the size, are mainly divided into rural mountainous houses, houses in plain areas, and houses in forests and coastal areas of northern Iran. Urban dwellings also comprise different types of houses from totally closed, inward looking to open, outward looking plan, and from small, single nucleus to large, multi nucleus types.

The traditional Iranian house, however, is one that has been adapted, physically and symbolically, to serve two inseparable functions: first serving as a shelter, providing the inhabitants with adequate protection against unfavourable outside conditions (climate); second, as a habitat *maskan*, one in which the inhabitants



could comfortably satisfy their physical and emotional needs (culture). Despite the wide variety of habitat in Iran, two main types of urban houses, inward looking and outward looking, are the concern of this study. In this context a brief indication of some other types is inevitable. The following sections analyse and examine the pattern and concept of privacy in the physical form of the above-mentioned houses in Iran.

#### **4.6.1 Inward-looking traditional residential house**

What has been known in most literature as the traditional Iranian house so far refers to the inward looking courtyard house with distinguished sections of *Birouni* and *Andarouni* for family privacy and male-female separation (Mazumdar & Mazumdar, 1997; 2001; Khatib-Chahidi, 1993; Manzoor, 1989). This is a widespread type of house throughout the country, wherever it has been allowed by a region's topology and climate, although it is native to the hot-arid central parts of Iran as a response to the environmental issues.

The background of the courtyard house in Iran goes back eight thousand years. It has also been seen in many ancient residential settlements. Basam Behsh (1993) has drawn a picture of the history of the courtyard house started from the early civilisations of Sumer, Assure, and Babylon. The courtyard house *Domas* (Schoenauer, 1994) and the wall around the house contained a metaphysical concept in ancient Greece. The house in the land of the Gods was a sacred place belonging to the family's Gods; hence it should be kept away from strangers' access. The courtyard house or *Demus* (Memarian, 1996a) in ancient Rome mostly belonged to the aristocrats, and was very similar in plan and elements to an Iranian courtyard house. This type of plan was being constructed throughout the Middle East, Turkey, Arabian countries and Islamic African countries, although the cultural meaning behind their spatial divisions (Memarian, 1996a) might not be the same in different countries.



It is believed that the inward looking concept has been derived to architecture from ethics and Theo-Sufism (Memarian, 1996a) with interpretations like introversion, to be reserved, abstinence to exposure of inner states. This concept has been practised in traditional residential architecture by using plain facades and mud brick walls from outside, but a world of subtle combination of beauty, colour and mastership inside.

#### 4.6.1.1 Courtyard

The actual courtyard or *Hayât* is an inseparable part of an inward looking house. In addition, a) having no direct visual connection between inner spaces and the outer urban areas, and b) organisation of inner spaces in a way that every space has an opening to the courtyard are the main specifications of the house (Figure 4.10). The visual disconnection to the outer world, which was usually accompanied by exterior simplicity and modesty, has two environmental and cultural explanations. As mentioned in the previous section, the climatic conditions of Iran are widely diverse. A large part of the country, mainly the central areas, are arid, hot and dry with little annual rain and local sand storms.

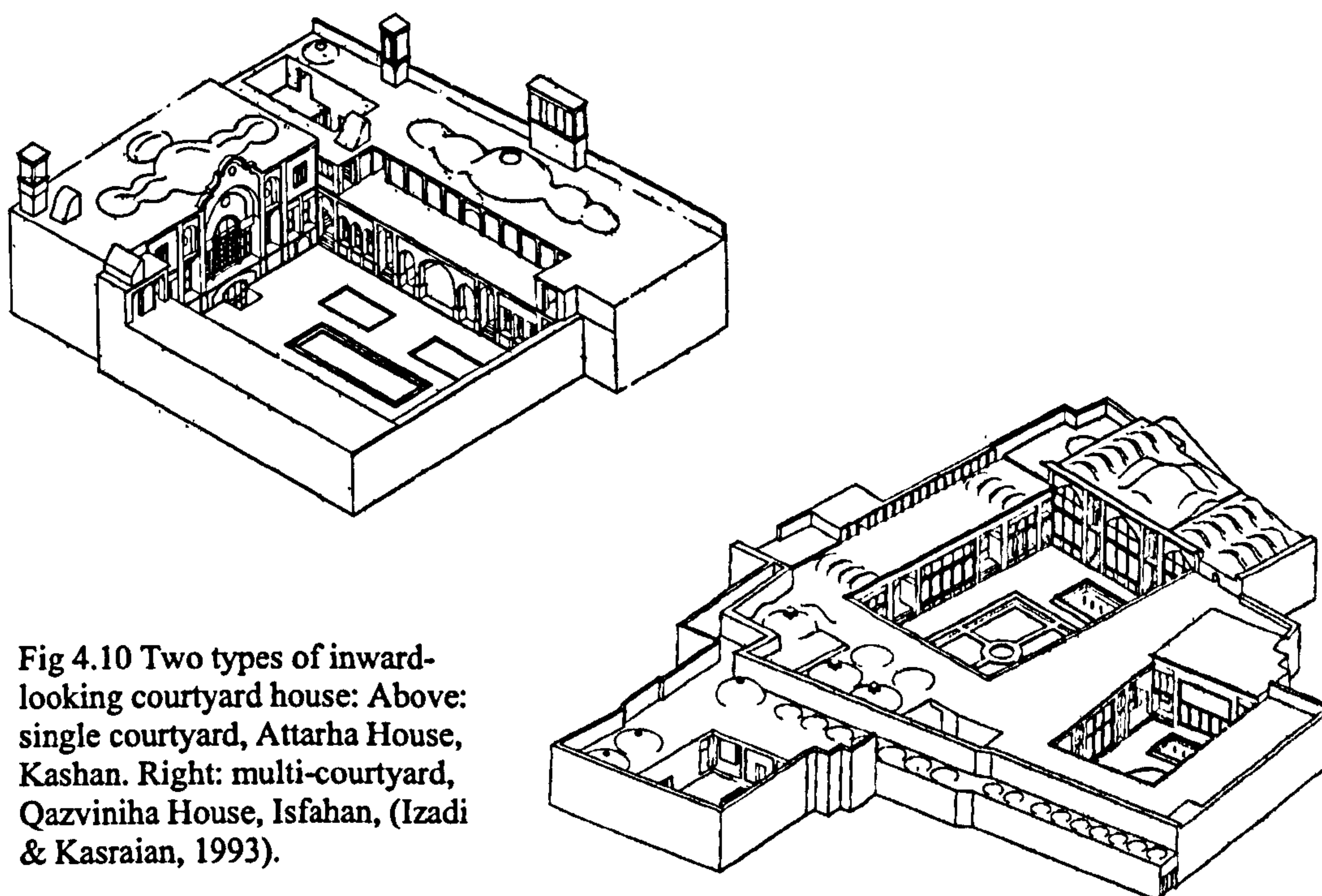


Fig 4.10 Two types of inward-looking courtyard house: Above: single courtyard, Attarha House, Kashan. Right: multi-courtyard, Qazviniha House, Isfahan, (Izadi & Kasraian, 1993).



#### **4.6.1.2 Wall around the house**

One of the solutions to protect the house and the household from the harm of environmental conditions and to provide a pleasant place to live was constructing a high walled, closed boundary with no opening or direct connection to the outside. Also, a courtyard at the centre of the house with a pond brings green space, vegetation and water inside. The exterior modesty of the house in cities with moderate climatic conditions like Tehran has other explanations.



Fig 4.11 High-plain walls would enclose inward-looking traditional houses. A small, simple entrance door was the only access to the house, (Izadi & Kasraian, 1993)

The sense of religious equality before God, as proclaimed by Islam, has

given rise to a demand for modesty as a sign of respect to fellow Muslims by preventing disclosure of the economic affluence or prestigious social status of the owners (Madanipour, 1998; Mortada, 2003). The other reason for this type of residential architecture can be traced to the socio-political situation of the country. Iran was a country exposed to regular invasions. The use of high, plain walls around the house was a way to protect the house and household against the threat of invaders (Memarian, 1998; Soltan-Zadeh, 1986) (Figure 4.11). This impact was mainly on the appearance of the house from outside, not exactly on the spatial hierarchy of internal spaces. The French traveller, Sharden, who was living in Isfahan for many years during the Safavid period, describes a jeweller's house:

'The entrance door is very small and simple, though you cannot imagine such a big and beautiful house is behind this door. The house is divided into two parts of *Andarouni*, which I was not



allowed to enter but I imagine how beautiful it is, and two other buildings...' (Soltan-Zadeh, 1986).

#### **4.6.1.3 Entrance**

By approaching the main entrance door, the first sign of privacy is manifested. Traditionally, two kinds of knockers were recognizable on the door, one metal ring with a quieter sound would be used for female visitors, and the other, a large metal hammer with louder sound was used by men. If the visitor was male, the women would withdraw or adjust their veils; if female, then the men would move out of sight. This was a common element in many traditional houses. To reinforce further privacy, great attention was given to the arrangement of the entrance. The intention of the arrangement was always to prevent direct sight of the interior. Thus the corridor from the main door of the house to the courtyard was planned in different ways to keep the privacy. Even if the corridor was straight, it usually led into one corner of the courtyard, where there were no household activities. Another important element, the vestibule or *Hashti*, played a role as an intermediate space between outer and inner world; temporary reception for those who did not need to enter the house; and was given access to different sections of the house (in larger houses). *Hashti* means outstanding and refers to the only section of the enclosed boundary of the house which had a connection to the outside world, providing a space to pause or wait, or a special division (Pirnia, 2001). The traditional Iranian vestibule usually contains an opening in each angle to the main entrance, roof, courtyard or courtyards, in addition of two or three niches for people to sit in. Thus, through the vestibule, visitors were directed to the exact intended place without intrusion into the private section of the house. In smaller houses, the vestibule was in the form of square, rectangular or other polygonal shapes (Memarian, 1998).

#### **4.6.1.4 Reception**

The relation between entrance and reception room was very distinct in single courtyard houses. The reception room was always located in the nearest



position to the entrance. There were two ways of access to the reception room; there was a direct opening from the entrance corridor to the reception room, or the access was from the courtyard immediately next to the entrance corridor. Multi-courtyard houses, however, had completely separate access routes to the private and reception areas. In many parts of Iran, where the traditional courtyard house was seen, the above arrangement of spaces was also visible due to cultural issues. In other words, when the climate did not have a determining role in the plan of the house, very similar arrangements for the family's privacy applied. Apart from the hot regions of central Iran, in other regions with a moderate climate or even in some parts of northern Iran, many examples of traditional courtyard houses exist (Izadi & Kasraian, 1993; Memarian, 1998). It is clear, however, that two privacy patterns of B and C, of Memarian's (1998) model of privacy, constantly occurred within courtyard houses.

#### **4.6.1.5 Visual and physical gender disconnection**

The introversion of the Iranian house was due to cultural factors too. Patterns of allocation of distinct areas within the house have been found in the remains of ancient buildings (Memarian, 1998) and also through documents about the social status of women in pre-Islamic Iran (Mutahari, 1975). Memarian, by referring to Pirnia (1990), illustrates this segregation by giving the example of the Palace of Persepolis:

‘The reception areas of the Palace are positioned on the western side, where there are large columned halls and other spaces. On the eastern side, at a lower level, lays the women's area- the harem. It is not possible to see directly into this space from the reception areas. This separation of private and reception areas on different levels is repeated in later periods and in vernacular buildings in most parts of Iran’ (Memarian, 1998).



In their comparative study of Muslim and Zoroastrian houses in the city of Yazd, Mazumdar & Mazumdar (1997) illustrate the effect of imposed restrictions for women who are not allowed to socialize and were disallowed from performing regular everyday routine activities during their menstrual periods. This restriction led to the arrangement of a separate space “*ganza-i-punidun*” (Mazumdar & Mazumdar, 1997:189) for women within the Zoroastrian house.

By the penetration of Islam and its rapid spread throughout the country, the pre-Islamic pattern of women’s segregation was intensified by Islamic culture. Islam views the family as a sacred institution. This ideological belief had a great impact on the organisation of spaces of inward looking house (Figure 4.12). In fact, the quantity and quality of the visual and physical relationship between men and women was an important aspect of the design for privacy. Immediately striking features were in the arrangement of the entrance, different floor levels and ceiling heights, location of reception area and its position towards the private area, and more radically, use of more than one court in multi-courtyard houses.

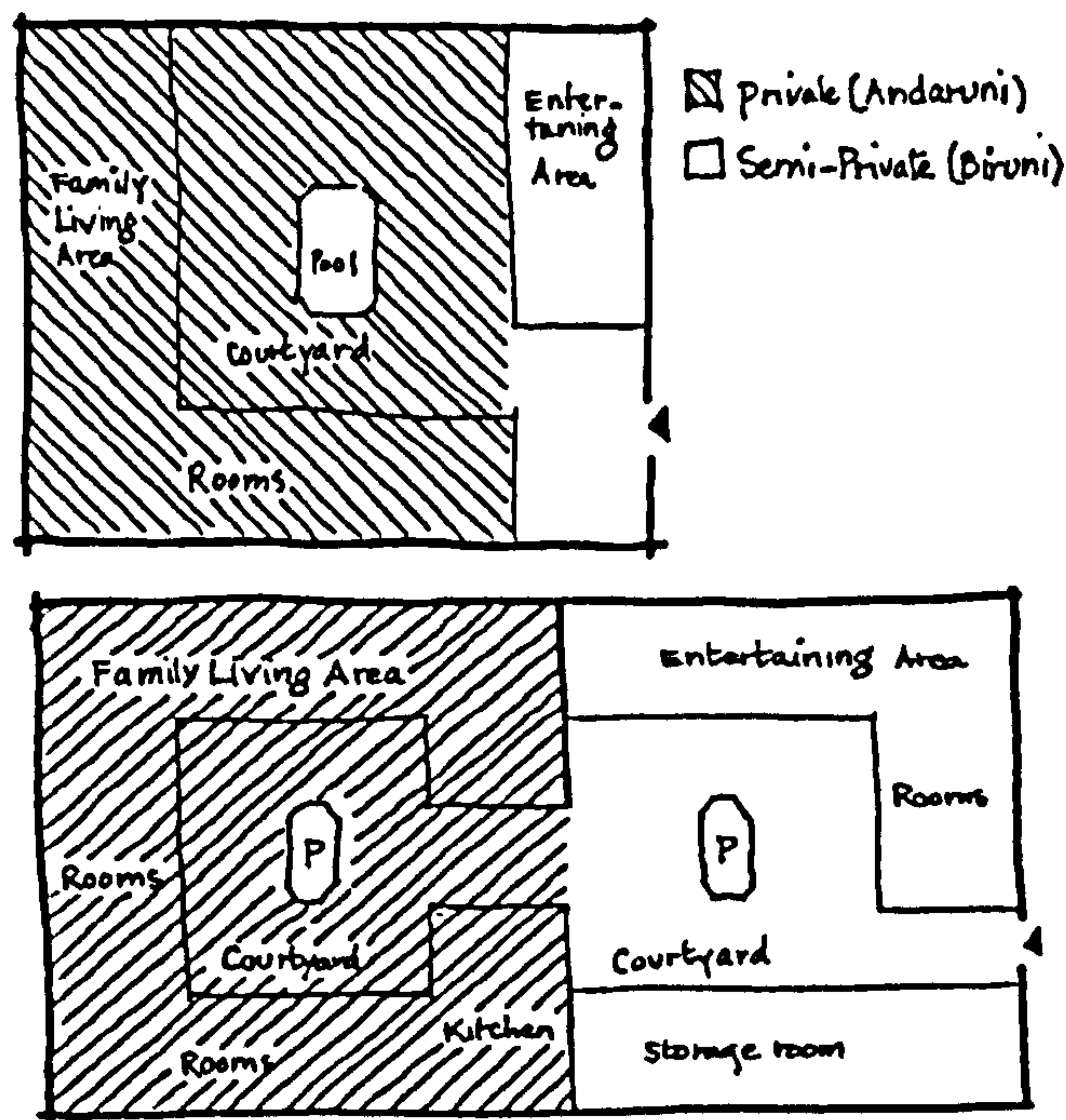


Fig 4.12 Simple plan of a single and a multi courtyard, inward looking house in Iran. Arrangement of private and semi-private areas is indicated, (Manzoor, 1989).



#### **4.6.2 Outward looking residential house**

Outward looking buildings are the type which are in direct relationship with outer urban spaces and elements such as paths and roads. These include both public buildings and residential houses which have been constructed throughout the country. The main differential element between the two inward looking and outward looking types, especially in buildings in central parts of Iran, is the *Hayât* or courtyard and its position and relation to other parts of the house. The courtyard, in the inward looking house, functions as the connection and organizer for different spaces, as well as bringing the outer space inside. This function in outward looking houses has been abandoned for other elements such as stairs, corridors or pathways.

Topology and climate in many parts of Iran prevent courtyard houses, so outward looking houses have been shaped with different construction materials, plans and sizes, depending on environmental and socio-cultural factors of sub-culture, life method, lifestyle, and economic and social status of the household. Many examples are seen in coastal parts of north and south Iran, mountainous areas of the northeast, northwest, west and southwest, and many other parts of the country.

With respect to privacy, it is more difficult to illustrate the patterns of privacy in this type of house. Many distinctive physical elements such as entrance arrangement, visual disconnection and even separate sections of *Birouni* and *Andarouni* are hardly seen in the plan of the outward looking house. Another significant difference is in the interpretation of privacy by people. As mentioned before, the concept of privacy is closely related to the concept of *Hejâb*. In the northern coastal areas of *Gilân* and *Mâzandaran*, particularly rural areas, women's covering method is distinguishably different from those living in other areas. Perhaps the main reason can be traced to women's daily outdoor activity and their role in the household's economy. This issue has led not only to a certain type of personal covering but also to the arrangement of spaces inside the house. The other issue lies in people's trend of social



integration and economic life. This happens especially in rural areas, where a number of families work together like members of one family. They regard each other as next of kin because of this close daily cooperation. Thus in social gatherings they sit together, eat together and socialize together in one place.<sup>4</sup> However, the privacy arrangement still applies. In the above case the 'unseen privacy'<sup>5</sup> (Bromberger, 1989) is more visible.

By considering the specific interpretation of *Mahramiyat* and women's covering by people due to their sub-culture, lifestyle and life method, and by considering the size of the house in different regions, different patterns for privacy are practised.

#### **4.6.2.1 Nomad tents**

Most tents belonging to nomads or *Ashâyer* of Iran comprise one main area in which basic activities and also some services take place. However, there is an invisible partitioning within the tent based on segregation of genders and activities (Figure 4.13). As discussed in chapter three, cultural rules play an important role in guiding behaviour and activities within settings and are communicated by cues. Thus, a number of different activities happen within a single setting of the nomad tent.

Some other tents are separated into two sections. The black tent (*ciyah châdor*) of *Ilam* province tribes has sections for *Lâzenoon*, a place for women and their related domestic daily activities such as cooking, child caring and storage; and *Lâmerdoon*, the men's section allocated to activities such as resting, treating and entertaining guests and sleeping at night (Soltan-Zadeh, 1986).

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<sup>4</sup> The information is extracted from my interview (2004), with a family originally from *Lahijan*, a northern medium-sized city.

<sup>5</sup> The 'unseen privacy' solution refers to the sitting order of family members and guests at mealtime in one room but in specific places. The guest sits on the upper side of the cloth, the owner (man) is adjacent to the guest (man), and the wife and daughters sit close to the owner. The order of sitting might be different but in any case it is impossible that *mahram* and *na-mahram* sit next to each other.



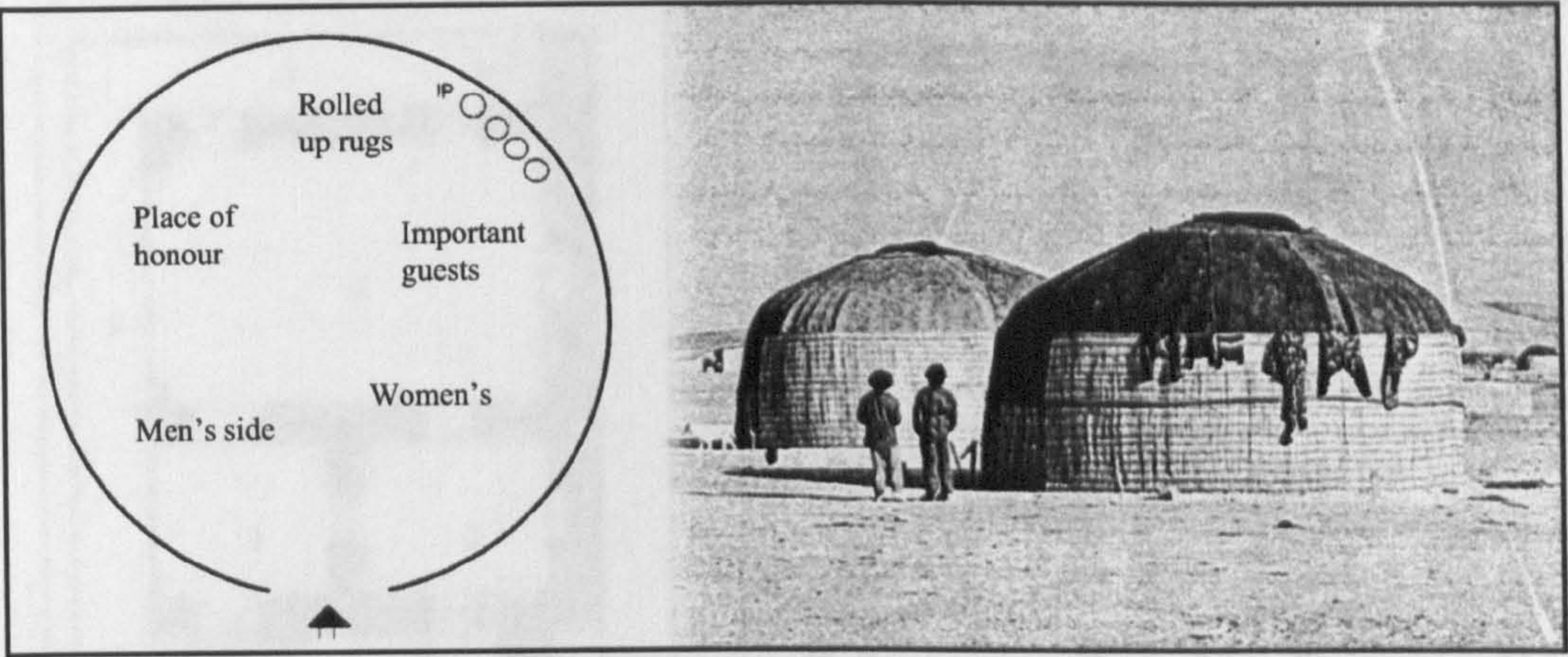


Fig 4.13 Invisible partitioning in the arrangement of interior space of a Turkmen's tent, (Memarian. 1998).

In all kinds of tents, regardless of size and form, men and women, in all cases, occupy distinct sections of the tent, especially while entertaining guests. Although gender segregation applies within the tent in terms of sitting and activity places, women are visible in their daily outdoor activities or when helping men during seasonal migrations while using traditional costumes as normal covering.

4.6.2.2 Rural house

Outward looking rural houses range from small one room to multi-room and large houses. The design of several entrances from different directions to the rooms in many one-storey small houses of *Gilân* province maintain the family's privacy while guests or visitors are present (Figure 4.14,A). In larger, two storey rural houses, the second floor is normally used during spring and summer. Figure 4.14,B shows a two storey rural house with separate access routes and two staircases from opposite sides of the house, which facilitate privacy for the family and comfort for guests. Despite climatic differences, a very similar plan of house is seen at both *Mâsooleh*, in the north, and *Abyâneh*, in the desert region. The two villages are located in a mountainous area. The gradient of land has meant that most houses rise vertically in two or three storeys and spread in width. The element of *Hayât* is totally ignored, thus the



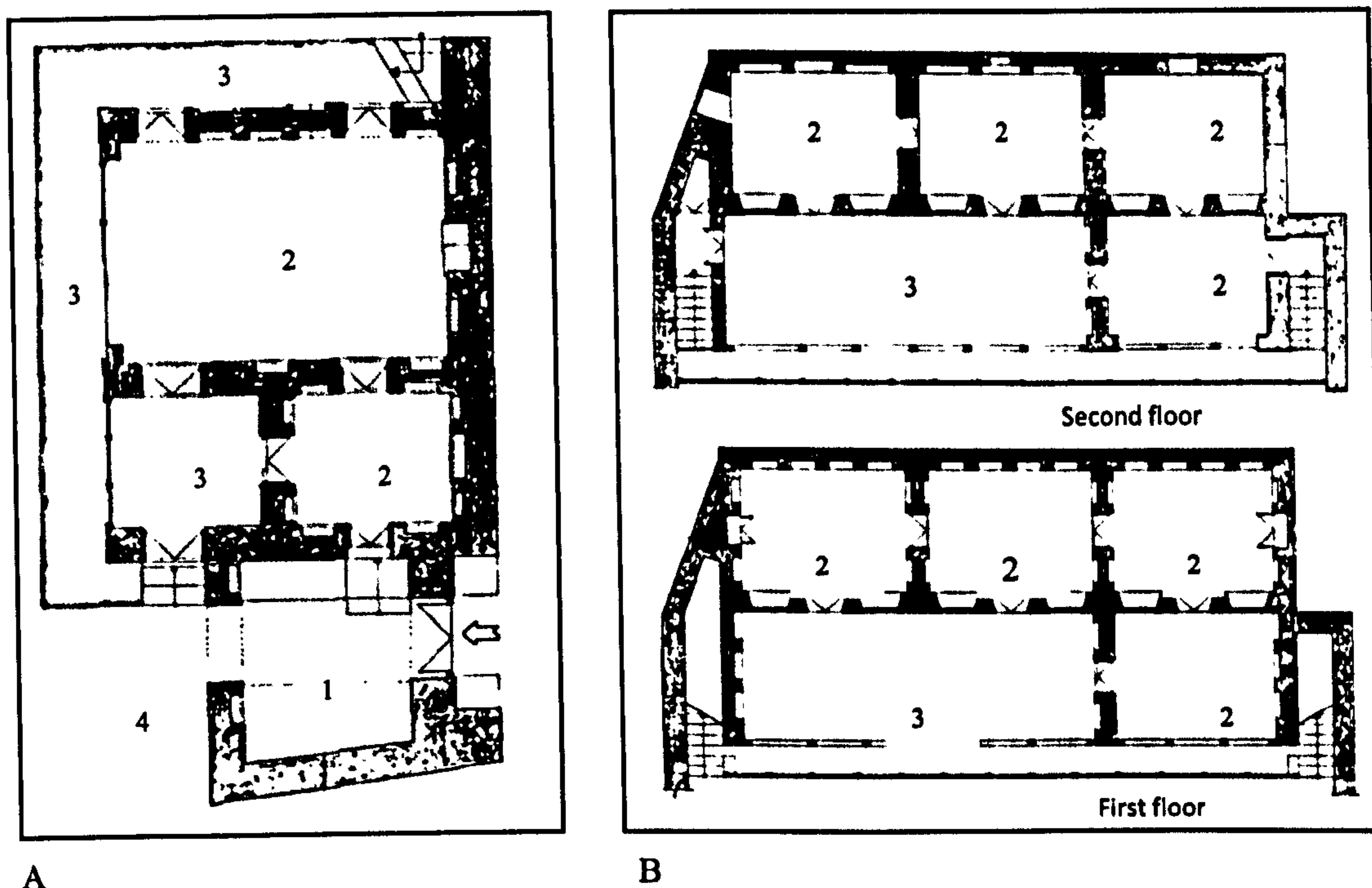


Fig 4.14 Two type of rural house in *Gilan*, (Ghobadian, 1998).

A. Several openings to family room facilitate private access. B. Separation of family and guest access routes by using two staircases. 1. Vestibule 2. Room 3. Veranda 4. Yard.

entrance door opens directly inside the actual building. The ground floor is allocated to the services and storage, and the rooms are located on the upper floors (Figure 4.15). Removing the main family's activity place from the nearby public passageway and placing them at a height is another way to protect internal privacy. Use of a separate room for guests in houses with more rooms, or use of the same room by family and guest at one time, but in distinct parts of the room, are the methods used for privacy in most rural houses. It is necessary to point out that in small villages or rural spaces, certain public places in the centre of the village or neighbourhood act as a place for male socialization. These are usually teahouses for social gatherings, mosques for decision-making, and bazaars for business contacts between males. This is a case that considerably decreases the amount of coming and going of male guests inside the houses.

In the village of *Doshman Ziara*, a division of the *Mamasani* tribal group, in south west Iran, the walls around the house were low, so that the building was



quiet visible from the outside. Almost all houses, even a two-room house, have allocated one separate room for guests in the most nearest place to the entrance.

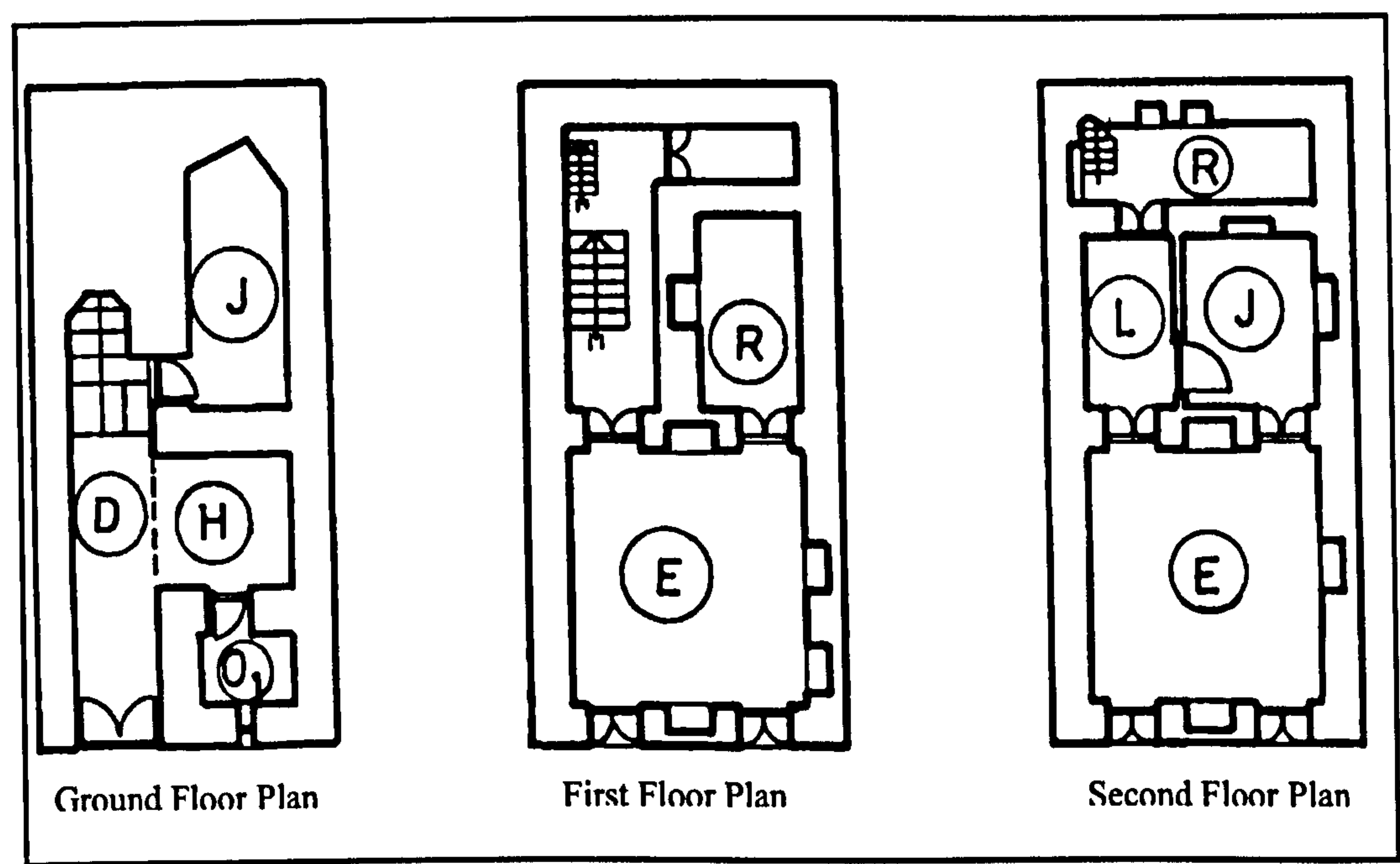


Fig 4.15 Rural house in *Masooleh*; rooms and family area are located on the upper floors, (Izadi & Kasraian, 1993). D: Lobby. E: Room. H: Bath. J: Storeroom. L: Corridor. O: Toilet. R: Storage.

In a two-storey house, the services were placed on the ground floor and rooms on the first floor. A separate corridor, which branched from the stairwell, ended in the reception room. The normal covering of women was traditional costumes within the home arena. A headscarf was used almost at all times and a printed *Châdor* was worn when a woman moved beyond the village.<sup>6</sup> In her fieldwork (*Doshman Ziara*) conducted between 1974 and 1976, Wright (1993), indicates that the space a woman considered home, within the village, shifted diurnally.

‘During daylight, when men were outside the village working in isolation on agricultural or herding activities, and women were in contact with their neighbours, the *Châdor* was only worn to visit a distant part of the village. After dark, when men met in each other’s

<sup>6</sup> The information was gathered from my interview (2004) with an original *Doshman Ziara* family.



houses to discuss and decide village affairs, and women were in domestic isolation, a *Châdor* was worn whenever an emergency forced them to call on a neighbour' (Wright, 1993:136) .

The village was severely damaged by an earthquake, so people relocated to nearby areas and the village gradually became empty of residents. Today, more recent plans of houses and patterns of life are being seen among the new-built houses for the people of *Doshman Ziara*.

#### **4.6.2.3 Urban house**

Diversity in building forms and use of physical elements and methods to achieve privacy is more visible in houses in urban areas. Except in certain cities, in which climate is highly influential in the plan of the house, e.g. central regions, one or two storey courtyard shaped houses dominated in the other urban areas. More distinguishable separation of private and reception areas is an arrangement usually associated with the urban house (Memarian, 1998). Almost all the houses with two or more rooms allocate one room for guests and visitors. If the house is small, the room could be used as both family room and guest room at different times, while in medium size houses the guest or reception room could be used only when a guest arrives and left unused for the rest of the time; or there would be a section within the house for guests separate from the private section in larger houses. In the provinces of *Khuzestan* and *Hurmozgan*, a room called *Muzif* functions as the reception room. Allocation of one separate room called *otaghe-e pazirae* or *mehman-khaneh* as the guest room in almost every Iranian house is part of Iranians' hospitality manner. The best room of the house and best carpet and furniture are chosen for the guest room. The use of a separate guest room also depends on the degree of familiarity. Kin guests and close friends are sometimes treated informally in the family area. The common point between all kinds of houses, rural or urban, is having a particular place to treat guest either in the form of a section within the family room or a separate room or section within the house. This consideration makes it necessary to add and/or give weight to the pattern



of hospitality, which is of great importance in Iranian culture. A separate guest area or room within almost all Iranian houses maintains both privacy and hospitality. Also, and as discussed earlier, other types of temporary and permanent visual barriers such as curtains and stained glass windows are used in urban houses to maintain privacy (Figures 4.16 and 4.17).

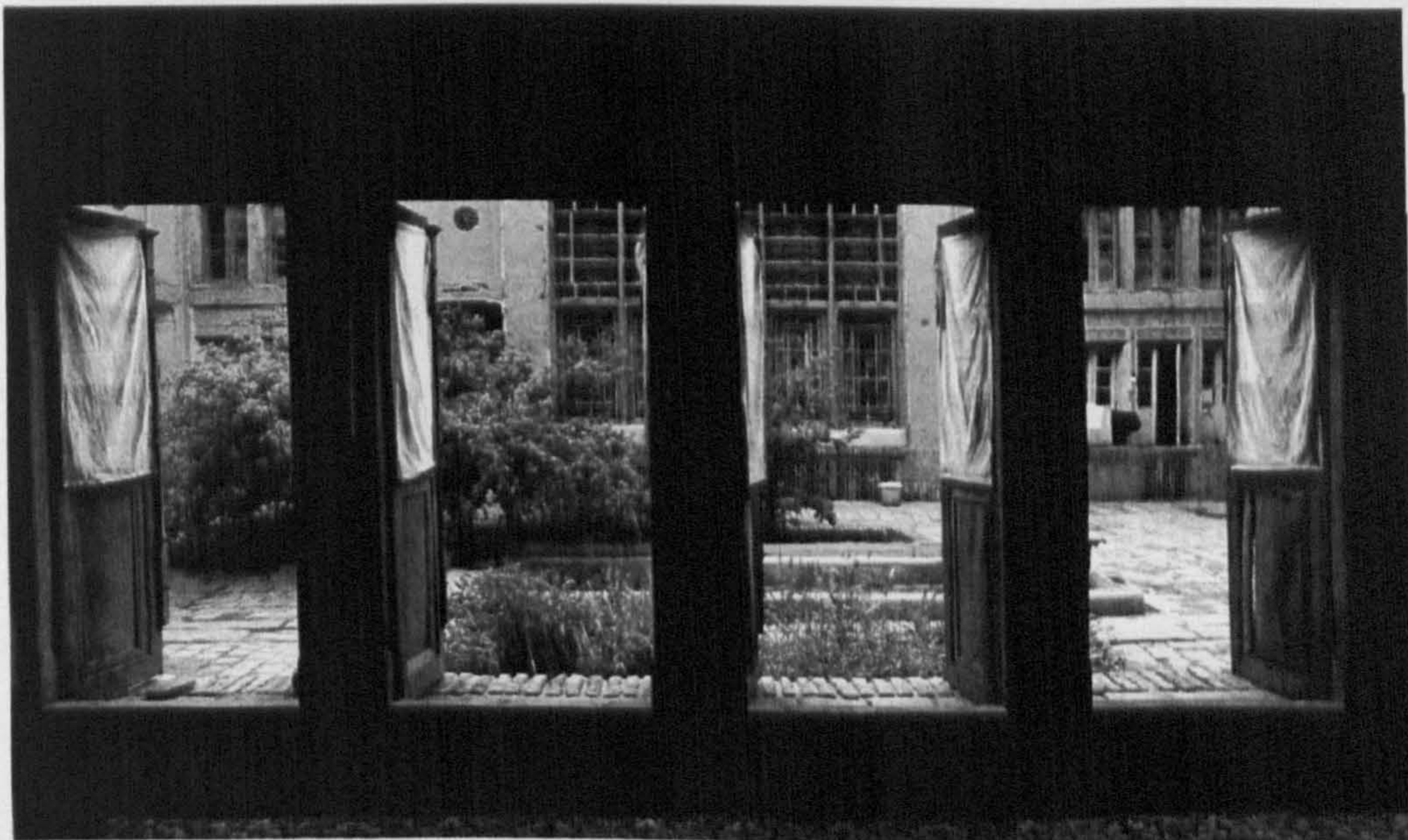


Fig 4.16 The use of visual barriers in front of windows, (Izadi & Kasraian, 1993).

Above: Glass part of doors are covered by cotton curtains, Malek-Al-Tojjar House, Yazd.

Right: Doors and windows are covered by *Hasir*, a type of blind made locally using straw, Taqavi Complex, Gorgan.



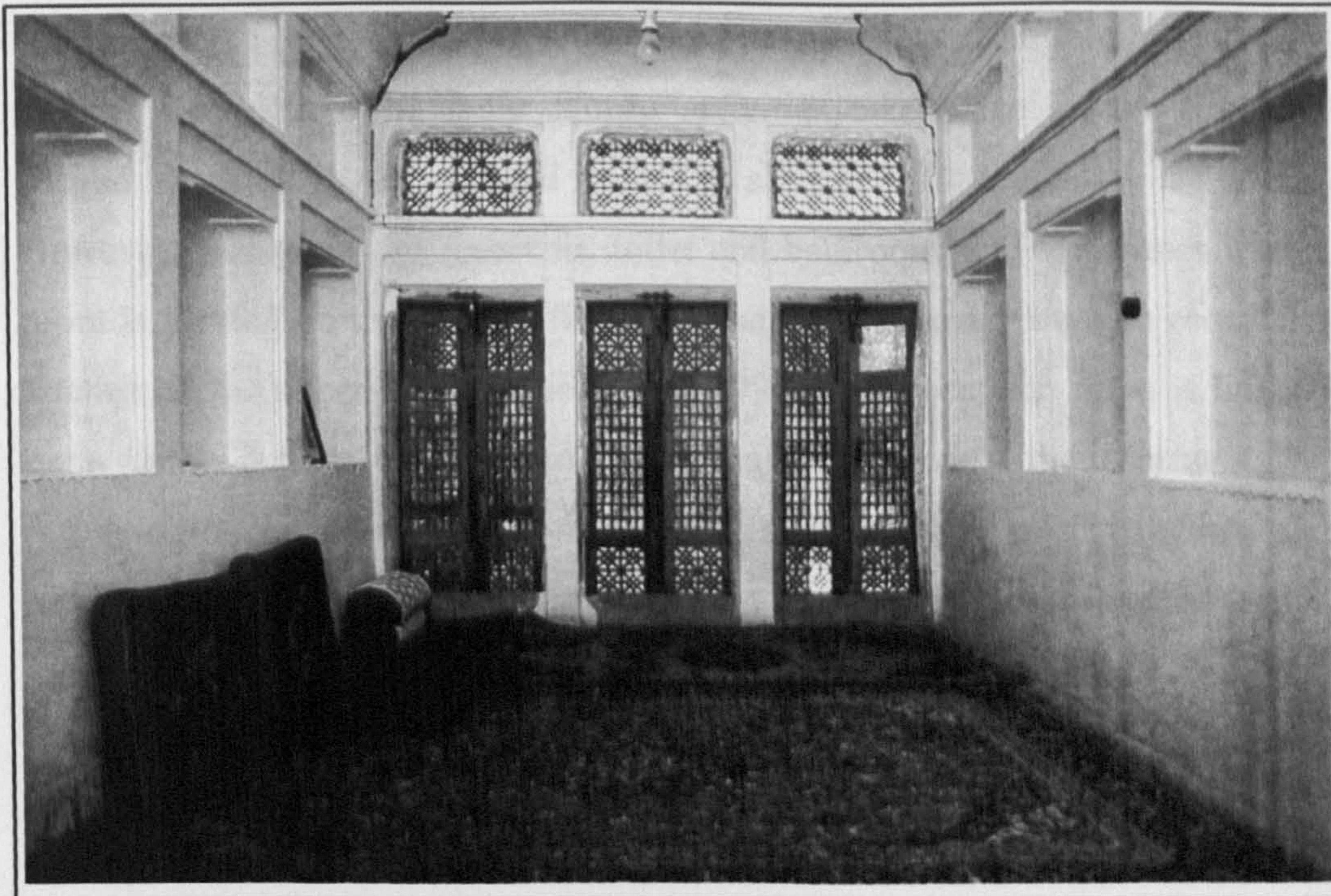
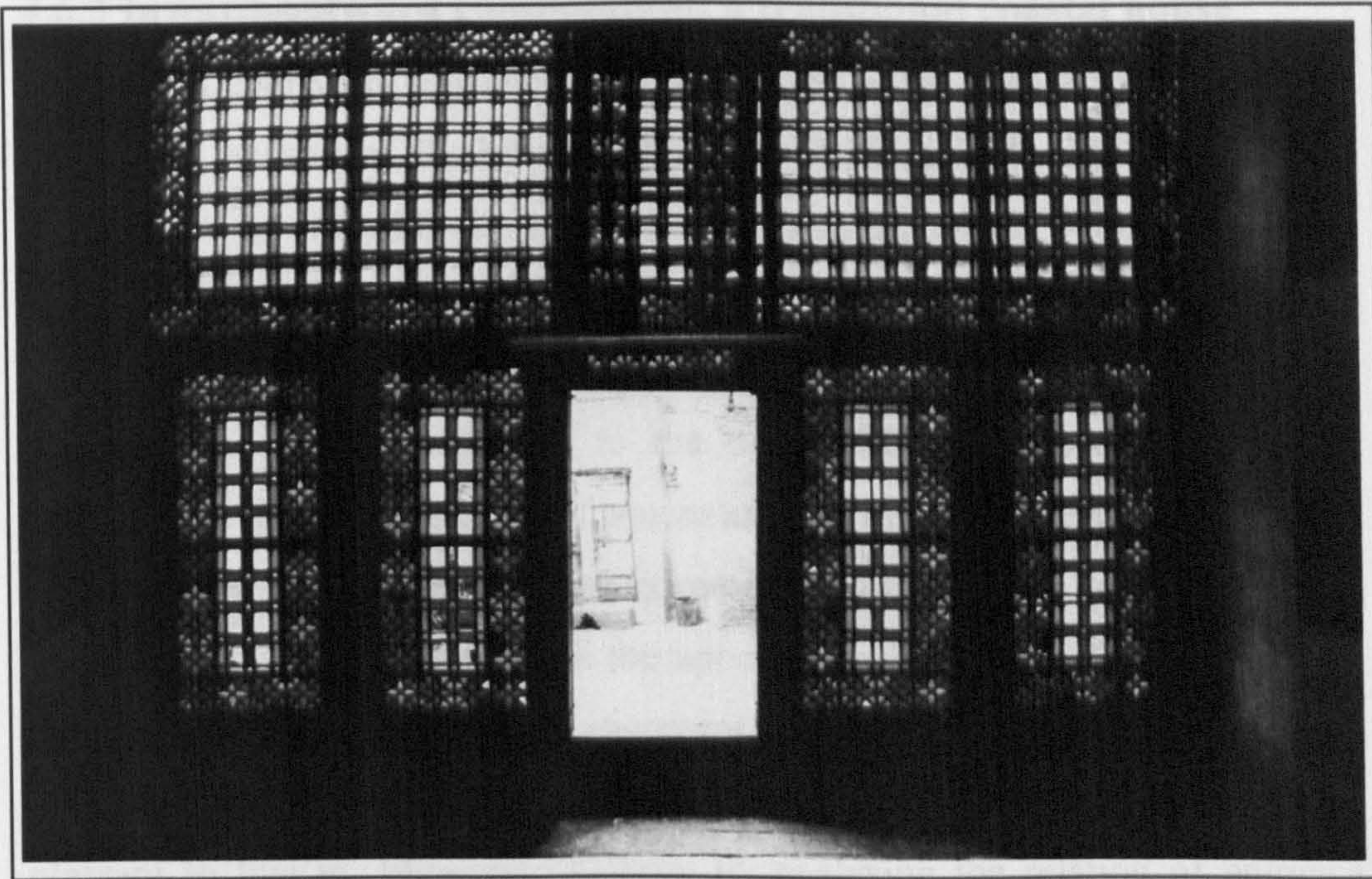


Fig 4.17 Use of patterned doors and stained glass windows to mediate visual contact, (Izadi & Kasraian, 1993). Above: Khorasani House, Gorgan. Below: Ansari House, Bam.



### **4.6.3 Inward-outward combination: a traditional coastal house**

The central courtyard, however, was not always equal to inward looking. The traditional house in *Bushehr*, a Persian Gulf coastal city, manifests a combination of inward looking and outward looking houses. While a courtyard – a specific element of the inward looking house – has been used, the number of storeys, visual connection to urban areas, use of balcony, and the entrance arrangement shows similarities to the outward-looking house. The house, including its plan, arrangement of spaces and use of physical elements is highly influenced by the region's hot and extremely humid climate. Several openings and large windows, especially on the upper floors, the connection of openings to the courtyard and linear arrangement of entrance corridor let the wind coming from the sea circulate throughout the house and make it cool and pleasant to live in. Memarian (1998), by analysing the relation of entrance arrangement and privacy, argues that the linear entrance passageway diminishes the degree of privacy in the house. However, the family's privacy applies differently. The main family activities take place on the first and second floors and the ground floor is allocated to secondary activities. However, storage, water reservoir, toilet and bathroom, and sometimes winter room is located on the ground floor and the main rooms, reception room and kitchen on the upper floors (Ghobadian, 1998). The reception room is located immediately next to the stairs so visitors enter the room without intruding on the family's privacy. Outside visual connection through large windows and balconies is mediated by using wooden latticed screens, locally called *Shanâshil*. This remedy allows the air to infiltrate the house, while the household is safe from outsiders' view (Figure 4.18). This type of arrangement of house has been used in urban houses of northern Iran too (Figure 4.19).



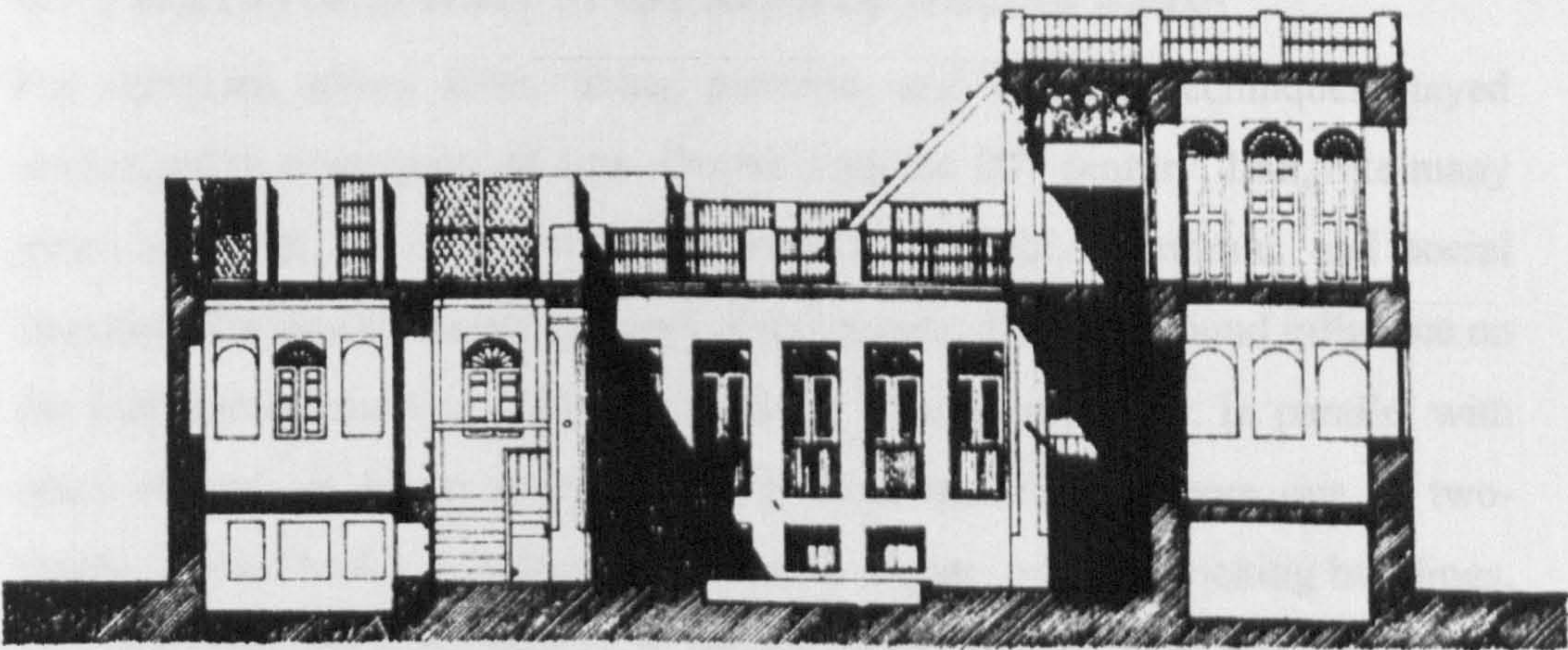


Fig 4.18 Interior and exterior view of traditional house in *Bushehr*.

Above: Rooms on the first and second floor have different heights. The ground floor has a domestic function and the first and second floors are residential, (Ghobadian, 1998).

Right: The few windows on the ground floor are located at a height. The first floor patterned windows and also lattice fence around the roof maintain privacy for the family to live and sleep. Rashidi House, (Izadi & Kasraian, 1993).

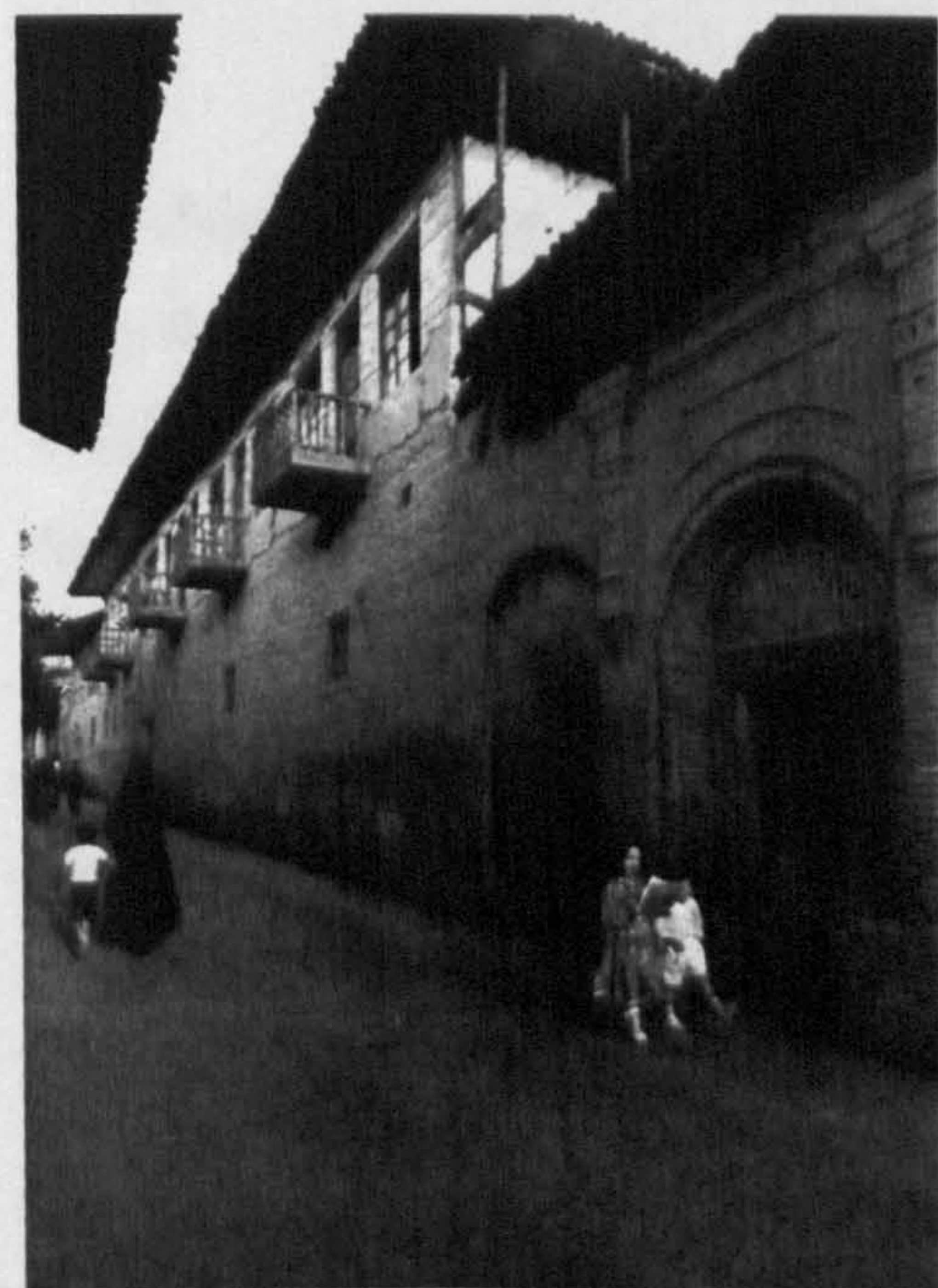
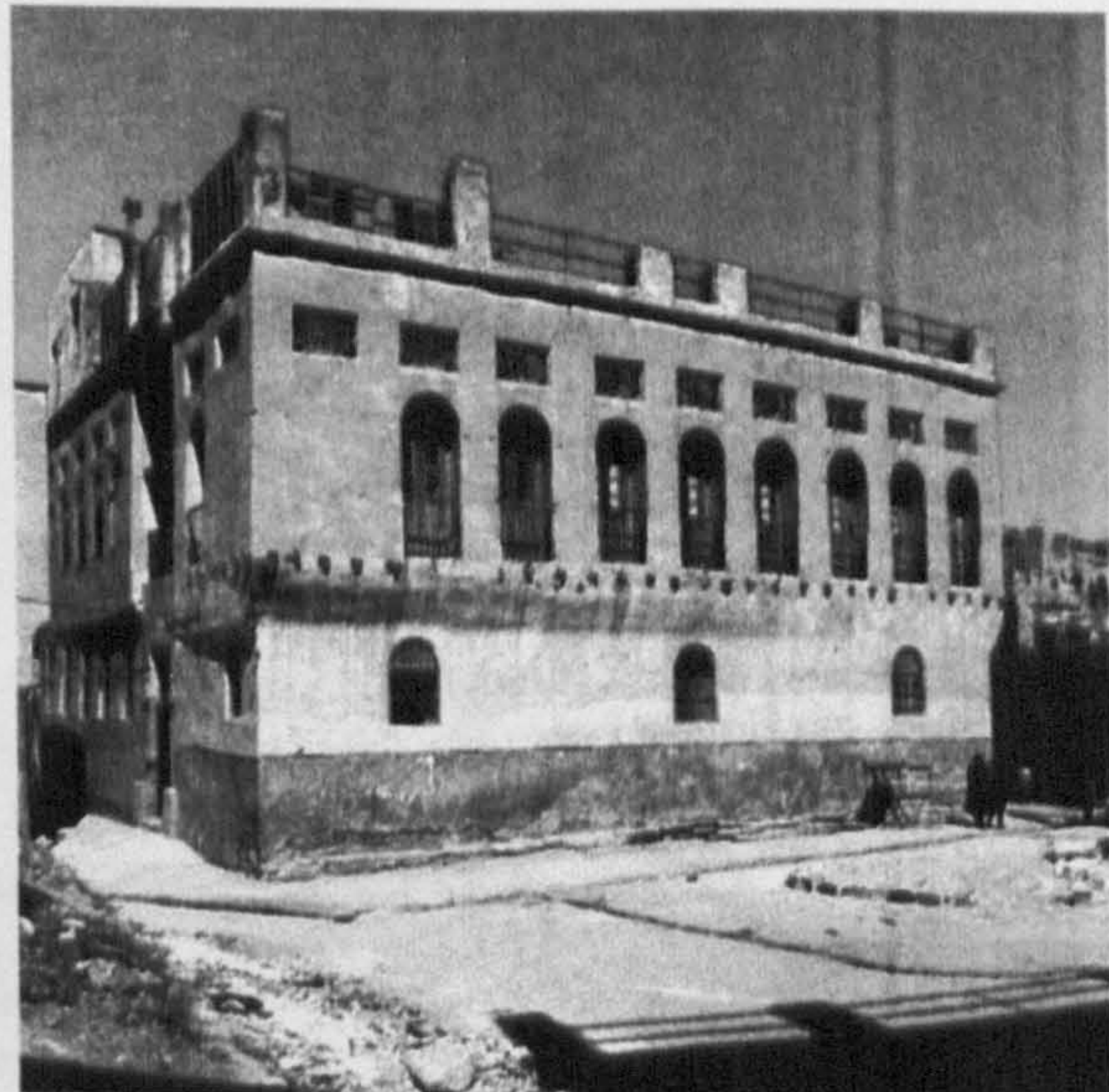


Fig 4.19 Use of large windows on the upper floors of multi-storey urban houses in coastal cities of north Iran to a) maintain privacy from public paths, and b) facilitate air circulation throughout the house. Baqeri Complex, *Gorgan*, (Izadi & Kasraian, 1993)



## **4.7 Patterns of privacy in the modern Iranian house**

For centuries, house form, living patterns, and building techniques stayed unchanged in many parts of Iran. On entering the 20<sup>th</sup> century, Iran, like many other countries, was involved with radical political, economic, and social changes. The modernisation process of the country had a profound influence on the built environment generally, and house form particularly. In parallel with other changes in urban space, building form transformed from one or two-storey, inward looking courtyard houses, to higher, outward-looking buildings, although still enclosed within a walled courtyard, to high-rise apartments (Madanipour, 1998) (Figure 4.20).

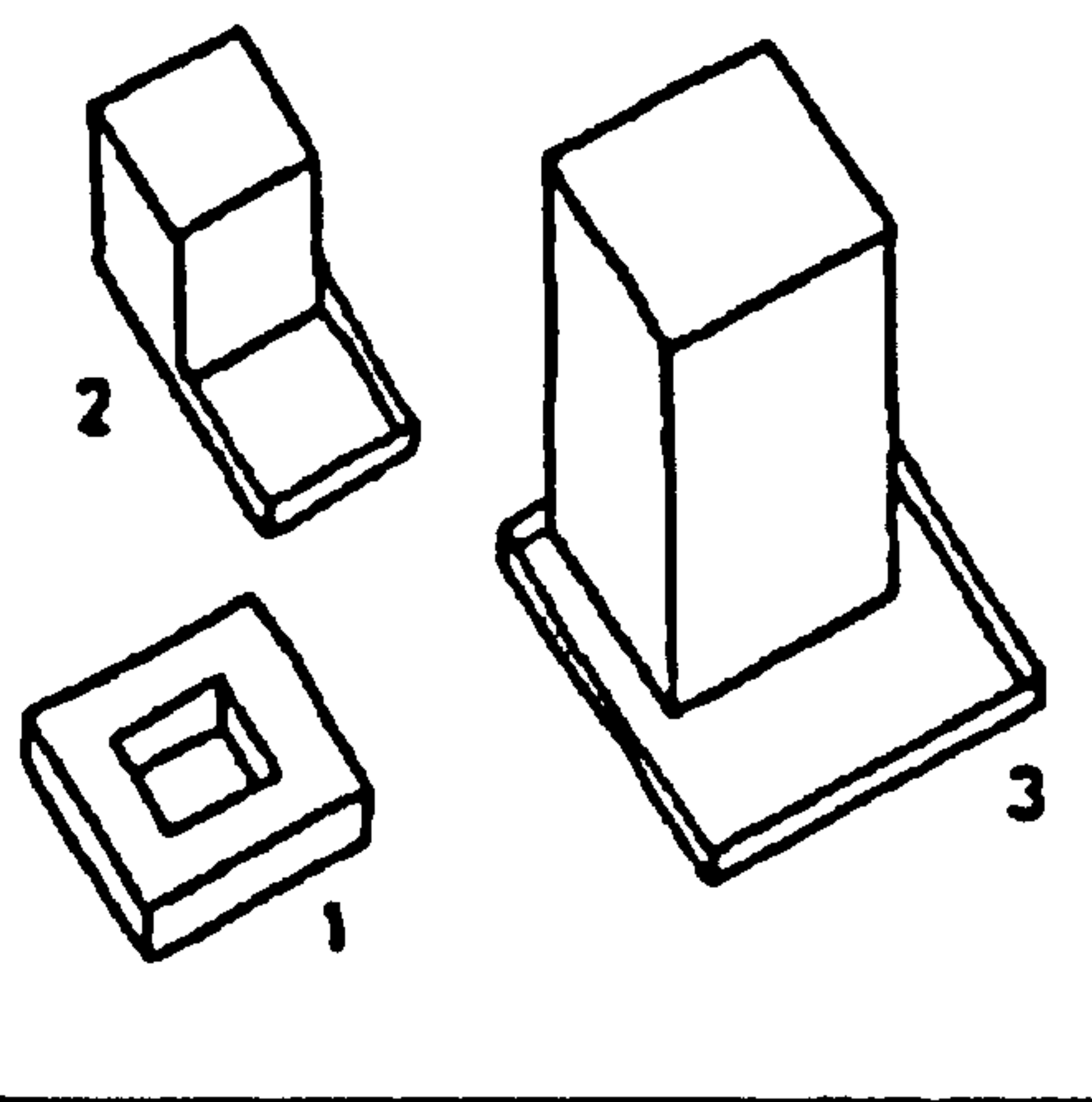


Fig 4.20 The changing pattern of building form in Tehran from 1. an inward looking, low-rise courtyard house, to 2. an outward looking, medium-rise house, to 3. high-rise apartment buildings, (Madanipour, 1998).

The change was not limited to the exterior, but the interior plan of the house was also changed from a closed, hierarchical plan to an open plan (Figure 4.21). As many western patterns of life and architectural plans spread, distinctive radical patterns of privacy started to fade, first in Tehran and larger urban areas and later in smaller cities and villages. The new houses opened their windows onto the streets, the pattern of a central courtyard was abandoned, the old low rise houses were overlooked by the new high rise apartments, and the new fashion of open reception and kitchen spaces used by a new generation of educated architects.



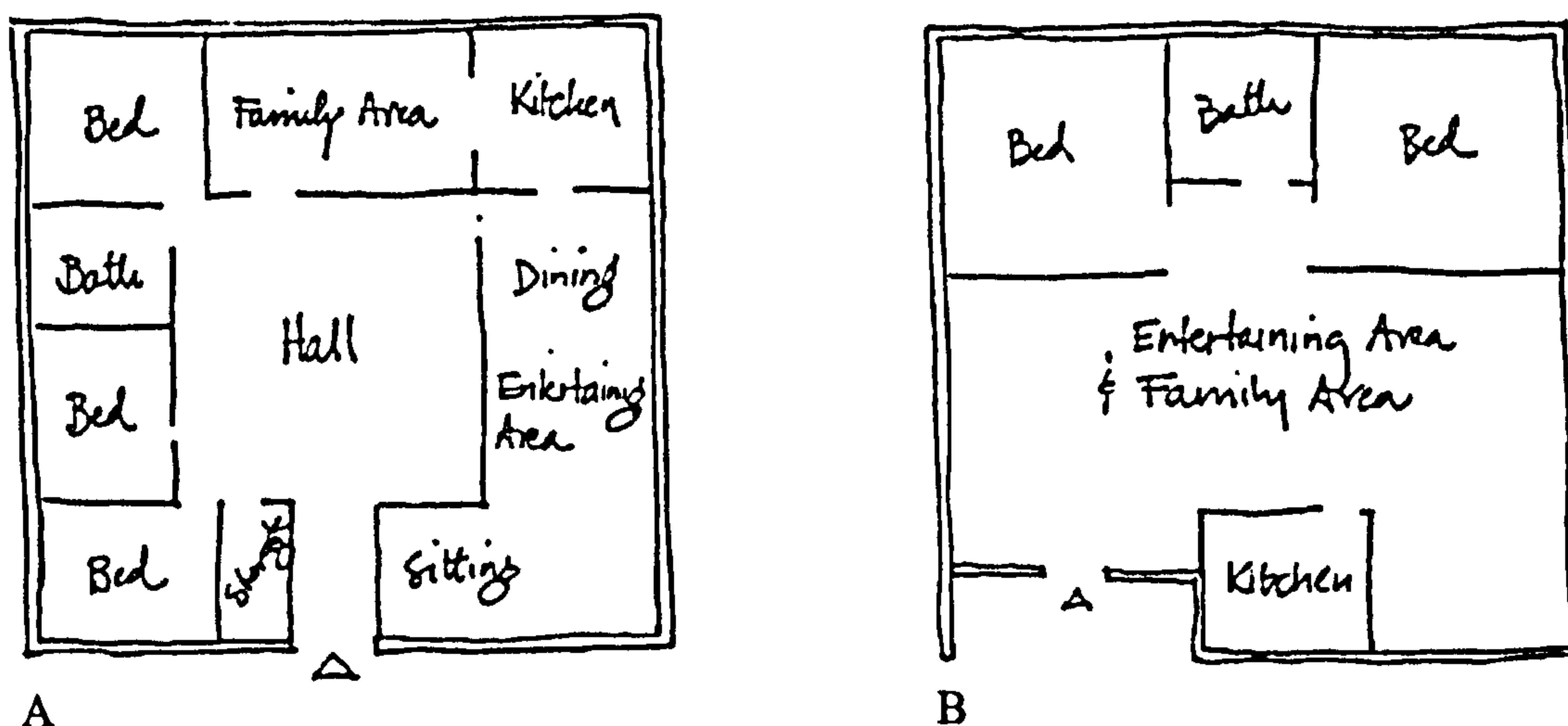


Fig 4.21 Plan of two modern apartments in Tehran, (Manzoor, 1989).

A. Similar plan to a courtyard with closed reception area. B. Open plan modern apartment

Many social changes also helped the transformation. Increasingly, participation of women in social activities blurred the sharp boundaries of this section of society from the male section. The process of westernisation, which easily became the dominant culture of intellectuals and upper class of society, transferred to the middle class too. The urbanisation process and rural-urban migration, rapid population growth, decline of extended families and demand for housing by young couples and nuclear families on one hand, and housing problems for low income families on the other hand, was simultaneous to the development of modern architecture and construction methods. The boundaries within the house were removed one after another and the pattern spread not only into the houses of all sections of society in large urban areas, but also to smaller cities. Contemporary Tehran, for example, is a mixture of both the recent forms of modern house and apartments and people from all backgrounds adapted to modern patterns and plans.

According to Mazumdar & Mazumdar's (1994) societal values and architecture model, the prevalence of a type of architectural artefact in a society has a reciprocal cause and effect relationship between architecture and social values. This has a very clear manifestation in modern Iranian architecture in terms of the open plan kitchen as a distinctive element in many recently constructed



houses or apartments in Iran. Although it was introduced and seen in Iranian buildings from the early 70s, the prevailing movement began in the mid-80s starting from private, high-value, modern apartments in Tehran and gradually opening out to every newly built house and apartment throughout the country. In this scenario, the new generation of architects, public media, especially TV programs, and modern social trends and lifestyle among people all played a part.

As privacy is found less and less in recent buildings, people in many cases mediate the house and maintain their privacy in different ways; windows to the street are mostly covered with thick curtains; immediate opening of entrance door inside the apartment is mediated by a removable partition or wooden shelves; balconies are left unutilised or added to the room. Enclosing the house within high walls still functions in single one- or two-storey houses to manifest a boundary for the house. In many areas, even the entrance door is covered by a curtain from inside. The reception room is still an important element in the Iranian house, although a separate room is replaced by an unseen pattern of privacy.

In the smaller urban areas and villages, traditional patterns of privacy are still visible. Open plan houses are less common and the use of separate reception room is still in practice. In large cities, the case is more complicated. While lack of privacy in recently built houses and apartments is unsatisfactory for a group of people, another group demands the more fashionable, open interior plans. A desired level of privacy is achieved for both groups through either permanent alterations or temporary remedies. One popular element is the 'curtain', which provides a visual barrier as well as separate spaces. It is used in different places as a visual disconnection between the interior and exterior of the house, in front of windows and entrance door, and also as a temporary means for space division – to separate men and women - inside the house. Removable wooden partitions and sliding doors are more fashionable instances. For many people who want to take advantage of both modern



lifestyle and balance it with the traditional pattern of privacy, a curtain provides a visual barrier for the female household in the open plan kitchen whenever necessary.

In some modern apartments a variety of privacy regulating architectural elements are designed on the plan; elements such as L shaped, or twisted living and reception rooms; positioning of a wall opposite the entrance door to cut the view; floor level differentiation of interior spaces; clustering of bedrooms and family area around one common corridor; locating the reception area at the nearest place to the entrance door; two toilets and bathrooms, one for family use and the other near the reception area.

#### **4.8 Summary**

Theories concerning privacy presented in the chapter agree that privacy as a boundary-regulating process has different implications within cultural contexts. Three states of solitude, reserve, and seclusion (Westin, 1967; Marshal, 1974) are presented to be the closest situation in both Iranian traditional houses and modern apartments through permanent, i.e. space, divisions and physical barriers, as well as temporary and unseen means of privacy, i.e. behaviour, personal space, dress code and territoriality. The need for privacy is culturally universal, but the ways it is met and regulated varies in different sub-cultural contexts.

Privacy, in the Iranian – Islamic context, traditionally functions to establish a physical and visual boundary between two separate ethical realms of *mahram* and *na-mahram*. The physical manifestation of privacy in the Iranian house is seen in *Andarouni*, the female and family section of a traditional house; *Lazenoona* - a section of a nomad tent allocated to women and their activities; and/or a sofa set or part of the reception room in a modern apartment. *Hejab* – most Iranian women's dress code – has a uniquely important position in regulating privacy, both in the traditional house and modern apartment.



Visual privacy and keeping a clear separation between public and private has been the principle of Islamic traditional architecture and urban design. In the sphere of a house, the ultimate in privacy is to provide a secure environment for the comfort of the family, particularly females, without being, or the fear of being, observed. Environment, as an architectural entity, which evokes or sustains a privacy experience, therefore, is one important factor which is central to the study of privacy. Investigation into different types of Iranian houses, and their architectural design in relation to privacy, shows a direct relationship between the physical form of privacy, topology, sub-cultural variations and beliefs, values, attitudes and preferences of individual people.



# ***Chapter Five***

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***Organisation and Methodology of Research***



## **5.1 Introduction**

This chapter establishes the methodology of the social research advanced for the purpose of this study. It begins with a theoretical description of the existing philosophical approaches in the literature towards social research and follows by identification of the research methodology and strategy of inquiry based on the purpose of study, research question and key variables of the research. The chapter continues with illustration of various stages of the study's social research including selection of the study setting, sampling, data collection methods, and data analysis.

## **5.2 Developing an appropriate research design**

In the process of designing social research, three elements of inquiry are combined to form the research, a) knowledge claim, b) strategies, and c) methods (Creswell, 2003). These are aspects that inform the choice of approach, ranging from the broad assumptions that are brought to a project to the more practical decisions made about how to collect and analyse data. Knowledge claims might be called paradigms (Tashakkori & Teddlie, 1998; Lincoln & Guba, 2000); philosophical approaches (Bryman, 2004); or broadly conceived research methodologies (Neuman, 2000). Stating a knowledge claim, according to Creswell (2003), means that researchers start a project with certain assumptions about how they will learn and what they will learn during their inquiry.

‘philosophically, researchers make claims about what is knowledge (ontology), how we know it (epistemology), what values go into it (axiology), how we write about it (rhetoric), and the processes for studying it (methodology)’ (Creswell, 2003:6).

Knowledge claim or philosophical viewpoint becomes important in terms of choosing research methods. While the number of philosophical approaches to social research has diversified during the last few decades (Creswell, 2003),



two main social science approaches are still at the centre of literature debates. These two models are known as the *positivist/empiricist* approach and the *constructivist/phenomenological* orientation (Tashakkori & Teddlie, 1998). The positivist approach underlies what are called quantitative methods, while the constructivist approach underlies qualitative methods (Creswell, 1994; Tashakkori & Teddlie, 1998; Bryman, 2004). To understand the assumptions of each paradigm they are contrasted in terms of ontological, epistemological, axiological, rhetorical, and methodological dimensions.

Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond (Bryman, 2004). It comes from an empiricist tradition established by such authorities as Comte, Mill, Durkheim, Newton, and Locke (Smith, 1983 in Creswell, 1994). Positivism reflects a deterministic philosophy and basis knowledge solely on observable facts and rejects speculation about 'ultimate origins' (Tashakkori & Teddlie, 1998; Creswell, 2003). Tashakkori & Teddlie (1998) have identified several axioms to positivism which are shared by other writers (Lincoln & Guba, 1985; Creswell, 1994). The positivist approach, according to these writers, believes that reality is single and objective; the knower (researcher) and known (researched) are independent; inquiry is value-free; time and context-free generalization is possible; causes are temporally precedent to or simultaneous with effects; and there is an emphasis on a priori hypotheses (or theory) or deductive process.

Constructivism (also known as interpretivism and naturalism), however, has a contrasting view to positivism. Constructivist writers believe that the subject matter of social sciences – people and their institutions – is fundamentally different from that of the natural sciences. The study of the social world therefore requires a different logic of research procedure, one that reflects the distinctiveness of humans as against the natural order (Bryman, 2004). Referring back to the axioms of positivism described above, Lincoln & Guba (1985) have posited the following axioms of the constructivist paradigm.



Constructivists believe that there are multiple, constructed realities; the knower (researcher) and the known (researched) are inseparable; inquiry is value-bound; time and context-free generalisations are not possible; it is impossible to distinguish causes from effects; and there is an emphasis on grounded theory or inductive process (Creswell, 1994; Tashakkori & Teddlie, 1998). In summary, and as Bryman (2004) states, while positivists place emphasis on an 'explanation' of human behaviour, the chief ingredient of the constructivist approach to the social sciences is the 'understanding' of human behaviour.

The positivist and constructivist paradigms which collaborate the quantitative and qualitative approaches are the two major opposing points of view in social research. Several philosophical approaches or paradigms, such as post-positivism, realism, modernism and post-constructivism have tried to challenge the above claims of knowledge and use, to some extent, the opposing method of inquiry to strengthen their weakness in the area of social research. Yet, some groups of researchers who emerged during the 1980s and 1990s, felt that the existing approaches did not fit and adequately address the issues of marginalized individuals or groups in society (Creswell, 2003). These advocacy/participatory writers, as Creswell (2003) calls them, have integrated theoretical perspectives, e.g. a feminism perspective and critical theory, to the philosophical assumptions to address some important issues of the day including empowerment, inequality and oppression and advance an action agenda for change.

Pragmatism, another position about claims on knowledge, constitutes an approach which suggests a bridge between the two philosophical extremes and research strategies. In the literature, the roots of pragmatism have been traced to such American scholars as C.S. Pierce, William James and John Dewey, with more contemporary theorists including W.V.O. Quine, Richard Rorty and Donald Davidson. For pragmatists, the concern is with application – what works – and solutions to problems, “instead of searching for metaphysical truths, pragmatists consider truth to be ‘what works’” (Tashakkori & Teddlie,



1998:12). “Instead of methods being important, the problem is most important, and researchers use all approaches to understand the problem” (Creswell, 2003:11). Thus, pragmatically oriented theorists and researchers refer to mixed methods, which contain elements of both the quantitative and qualitative approaches. Tashakkori & Teddlie (1998) and Patton (1990), also using this approach as a philosophical underpinning for mixed method studies, convey the importance of focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem.

Having identified the three elements of inquiry, examined the main strategies of inquiry and their underlying philosophy, the study has been able to advance the methodology of its social research. Denscombe (1998) indicates, that “in a social research, approaches are selected because they are appropriate for specific aspect of investigation and specific kinds of problems” (Denscombe, 1998:3). Drawing on Denscombe’s statement, the study proceeds with a mixed method inquiry which employs both quantitative and qualitative strategies in the process of research as the most appropriate strategy. The process and stages of the inquiry will be discussed in detail in the following sections, starting with the purpose of study, the research question, and the key variables and indicators.

### **5.2.1 Purpose of the study**

As was discussed in chapter one, the roots of the modern housing problem, both in developed and in developing countries, must be traced back to the nineteenth century urbanization process. In Iran the urbanisation process and rapid population growth coincided with modernisation of the country and has led to an increasing housing problem and emergence of the modern residential apartments. Less than four decades ago, following the 1950/1960s radical political, social and economic transformation and modernisation trend in Iran (Madanipour, 1998), apartment blocks and residential high-rise buildings appeared and became widespread. Apartment housing has attracted much



criticism relating to its compatibility to cultural living patterns of inhabitants (Michelson, 1977; Hurd, 1983; Shepherd, 1985; Carter, 1995). This type of housing in Iran, backed by the governments' housing policies both before and after the Islamic Revolution, has become more widespread in large cities, especially in Tehran, as the capital of urbanisation. The early high rise developments had been targeted to the upper and emerging middle class urban residents. Apartments nowadays are the main housing source for every Iranian family regardless of social-economic status, life cycle and family size.

*The purpose of this study is 'to analyse the relationship between the physical environment of modern apartments and people's lifestyle and behaviour in the context of Iranian culture'. For this reason, 'privacy' and 'social interaction', the most important traditional patterns of Iranian culture, are examined in the environment of modern apartments in Iran. The implication of the socioeconomic status of the household and physical plan of modern apartments on the application of the pattern of privacy and social interaction will be investigated.*

For this purpose, the methodology of the study was advanced at two levels:

- a- Establishing a historical and a theoretical background for the study
- b- Application of a sequential mixed method social research

Once the study problem, the modern apartment, the cause of the problem, the urbanisation and modernisation process, and the purpose of study, the relationship between the physical environment of modern apartments and Iranian lifestyle were identified, the study sought a definition of the problem in the existing literature. Two theoretical frameworks of a) man and environment relations, discussed in chapter 3, and b) privacy in general and in the context of Iranian culture, discussed in chapter 4, were investigated to construct a theoretical context for the study. The study has also examined the physical and



behavioural patterns of privacy within the context of different forms of traditional and modern Iranian houses (see chapter 3).

Once the theoretical background was established, the study proceeded to a further social research level. The intention for this two-phase, sequential mixed-method social research (see 5.2.4) was to obtain statistical, quantitative results from a sample and then follow up with a few individuals to probe or explore those results in more depth. In the first quantitative phase of the social research, factual and attitudinal information was collected from a sample population of households living in *Ekbatan Town*. The factual information included the population's social-cultural background, economic status, life cycle, housing choice, and the attitudes, opinions and behaviours regarding privacy and social interaction. In the second phase of the social research, qualitative interviews and observations have been adopted to investigate in depth the relationship between the internal layout of the apartment, the extent of the alteration and its implication on the pattern of privacy and social interaction with reference to the principle of gender segregation and the Iranian traditional lifestyle. For this stage, aspects of the physical and behavioural patterns of privacy and social interaction, and the impact of modernism on this process were investigated in a number of selected apartments which have had alterations. The strategy of the social research, the case study, and methods of data collection and analysis will be discussed later in this chapter.

### **5.2.2 Research question**

A research to be carried out through its study plan needs to be signposted in different places, one of which is the research question. The research question “provide[s] a specific restatement and clarification of the purpose statement” (Creswell 1994:69). The current study on the relationship between the physical space of modern apartments and the Iranian lifestyle is a response to the following question:



*‘How significant are traditional socio-cultural living patterns in the design of modern apartments?’*

**5.2.3 Key variables and indicators**

Creswell (2002) describes a variable as “a characteristic or attribute of an individual or an organisation that can be measured or observed and that varies among the people or organisation being studied” (Creswell, 2002, in Creswell, 2003:93). The variables which can be referred to, to measure the relationship in question are different in nature but might have a causal relationship. Variables that have a causal impact on the outcome are independent variables and the outcome of the influence of the independent variable is a dependent variable (Bryman, 2004; Creswell, 2003). In the context of the study, the plan of modern apartments and the socioeconomic status of their residents affect the pattern of privacy and social interaction. Sometimes an “intervening variable” (Creswell, 2003:94) stands between the independent and dependent variables, and they mediate the effects of the independent variable on the dependent variable. The influence of modernism on every aspect of the Iranian way of life is an important issue which must be considered during the research. The different variables selected for the purpose of the study and their relationship has been visualised in Figure 5.1 .

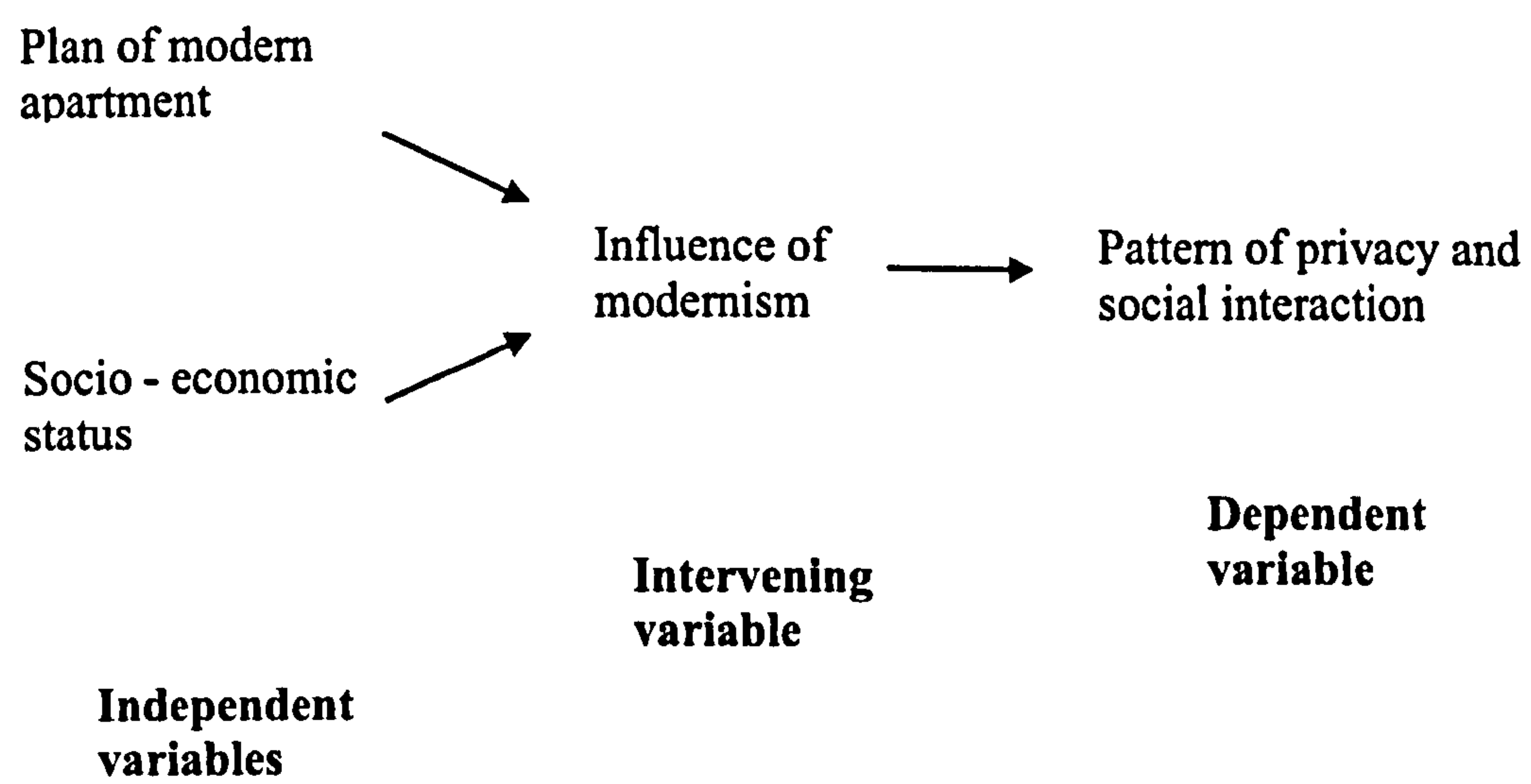


Fig 5.1 Variables selected for the study and their relationships



A series of questions has been raised in the context of the research and in relation to the variables. The study’s variables have been measured through the sequential two-phase quantitative and qualitative research and by means of the questionnaire and the follow up interviews. Table 5.1 shows the questions raised for each variable and where in the survey they have been addressed.

Table 5.1 Questions raised for each variable and their location in the survey

Variable	Research question	Item on survey
Independent variable: socioeconomic status	<i>Quantitative:</i> What is the implication of the population’s socioeconomic status on the application of privacy and social interaction in modern apartments?	Questionnaire: Section 1. Qs 3 – 9
	<i>Qualitative:</i> What is the implication of socioeconomic status on the extent of alteration?	Interview
Independent variable: plan of the apartment	<i>Quantitative:</i> What difference does the plan of the apartment have on the application of the pattern of privacy and social interaction?	Questionnaire: Section 3. Qs 20 - 34 Section 4. Qs 41 – 43, 46
	<i>Qualitative:</i> How much can the plan of an apartment be altered to accommodate a pattern of privacy and social interaction?	Interview
Intervening variable: influence of modernism	<i>Quantitative:</i> How has modernism influenced the Iranian people’s housing choice?	Questionnaire: Section 2. Qs 13 – 17 Section 3. Qs 24 – 26, 29 - 31
	<i>Qualitative:</i> How influential has modernism been on the traditional pattern of privacy and social interaction?	Interview
Dependent variable: privacy and social interaction	How congruent is the modern apartment with the traditional pattern of privacy and social interaction?	Questionnaire: Sections 3,4, and 5  Semi-structured interview



#### 5.2.4 Research methodology and strategy of inquiry

The two main quantitative and qualitative research strategies, the mixed method strategy and their underlying philosophical assumptions, were discussed in section 5.2. Also, a mixed method strategy was considered as most appropriate for the purpose of this study. There are a number of available strategies of inquiry which can be employed for a mixed method research (Bryman, 2004; Creswell, 2003; Tashakkori & Teddlie, 1998). The choice of strategy for a mixed method study, according to Creswell (2003), is determined by four factors of implementation, priority, integration and theoretical perspective<sup>1</sup>. Based on these factors and from the variety of mixed method research strategies, the *sequential explanatory strategy* (Creswell, 2003) has been adopted for the present research. The relationship between modern apartments and privacy is investigated through the sequential explanatory approach as “it [is] better suite[d] to explaining and interpreting relationships” (Creswell, 2003:215). The sequential explanatory strategy is implemented by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data. Priority is given to the quantitative data, and the two methods are integrated during the interpretation phase of the study (Figure 5.2). A mixed method theoretical perspective discussed in 5.2 is used in the study. Different aspects of the adopted strategy and stages of the study will be discussed in detail in sections 5.4, 5.5, and 5.6 of this chapter. But before that, in order to put the strategy into practice, a setting for the study must be identified, which will be discussed in the following section.

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<sup>1</sup> He asserts that “four decisions go into selecting a mixed methods strategy of inquiry:

1. What is the implementation sequence of the quantitative and qualitative data collection in the proposed study?
2. What priority will be given to the quantitative and qualitative data collection and analysis?
3. At what stage in the research project will the quantitative and qualitative data and findings be integrated?
4. Will an overall theoretical perspective (e.g. gender, race/ethnicity, lifestyle, class) be used in the study?” (Creswell, 2003:211)



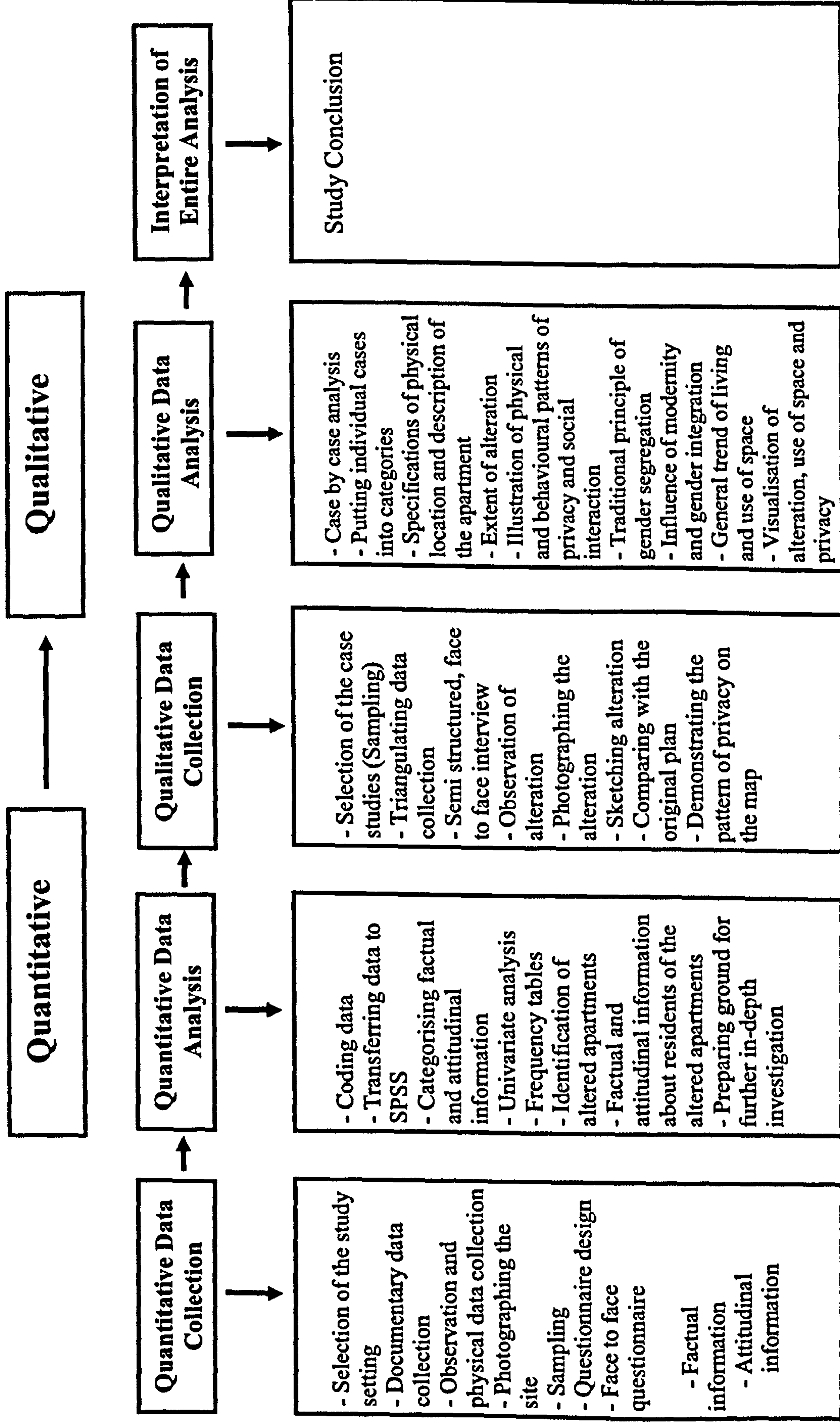


Figure 5.2 A summary of the research strategy; sequential quantitative-qualitative research



### **5.3 Case study approach**

Due to the complexities of the issues and variables under investigation in the current study and to provide sufficient in depth results, adoption of a case study was seen as the most appropriate approach. One of the strengths of the case study approach, as Denscombe (1998) argues, is that it allows the researcher to use a variety of sources, a variety of types of data and a variety of research methods as part of the investigation. Following the argument, Hakim (1987) also asserts that case studies are typically based on two or more methods of data collection, "... the use of multiple sources of evidence [...] makes the case study one of the most powerful research designs" (Hakim, 1987:63). In summary, and according to Merriam (1988), Yin (1989) and Creswell (1994), case study is a setting in which the researcher explores a single entity or phenomenon (the case) bounded by time and activity (a program, event, process, institution or social group) and collects detailed information by using a variety of data collection procedures during a sustained period of time. Focusing on one or a few instances "allows the researcher to deal with the subtleties and intricacies of complex social situations. In particular, it enables the researcher to grapple with relationships and social processes" (Denscombe, 1998:39) in a holistic way.

#### **5.3.1 Selection of the study setting**

A good case study, as Denscombe (1998) argues, requires the researcher to defend the decision by arguing that the particular case selected is suitable for the purposes of the research. The selection of specific setting to conduct research has to also be done based on the site characteristics that make it appropriate for the research purpose (Wiersma, 2000). Since this study seeks to investigate the implementation of privacy in the modern apartments and the impact of modernism on this process, it was essential to carry out the investigation in a setting that could reflect the above areas. *Ekbatan Town*, a purpose built modern apartment complex in Tehran, was selected as the most suitable place for the study's use due to its particular physical, social, and



demographic characteristics. These specifications and characteristics will be discussed in the following section.

### 5.3.1.1 Specifications of the selected site

*Ekbatan Town* or '*Shahrake Ekbatan*' is one of the largest modern residential apartment complexes in Iran. It is located in the western part of Tehran. The position of *Ekbatan Town* is between two outer-city highways to the West, adjacent to Tehran International Airport to the south, *Azadi Square* to the east, and the air industry and further industrial sites to the west (Figure 5.3). Construction of the 220-hectare site, which was for the purpose of mass housing, started in 1974 by American-Iranian private developers; development was carried out at several stages before and after the Islamic Revolution, and was completed in 1994. Completed blocks were gradually sold during this period of time in the form of pre-purchasing in instalments and a fifteen year mortgage. *Ekbatan Town* was developed in the form of three sets of buildings called phases (Phase 1, Phase 2 and Phase 3), and in each phase there were independent buildings called blocks (Figure 5.4). The whole complex includes a total of 14,739 apartments<sup>2</sup> which are located in thirty-three blocks (Figure 5.4a). All blocks are similar in appearance: pilot base, multi-wing, concrete and monotonous. The architecture of the blocks in Phase 1 and Phase 3 are alike but different from Phase 2. The exterior structure of each block of Phase 1 or Phase 3, when looked at from the side, has three major steps. There are 5 floors in the first step, 9 in the second and 12 in the third step.

The blocks of Phase 2, however, are made of huge box-shaped parts. Each block includes a few of these box-shaped parts, joining together at an angle (Figure 5.5). Each part is called a Branch and all have 12 floors. Another difference between Phase 1 and Phase 3 with Phase 2 is in the plans of the apartments. All the apartments in Phase 1 and Phase 3 are single floored. Phase 2 apartment units are mostly on two floors – duplex - usually having reception,

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<sup>2</sup> Since the completion of the investigation, the number of apartments has increased to 15, 500 due to construction of two new blocks in Phase 2.



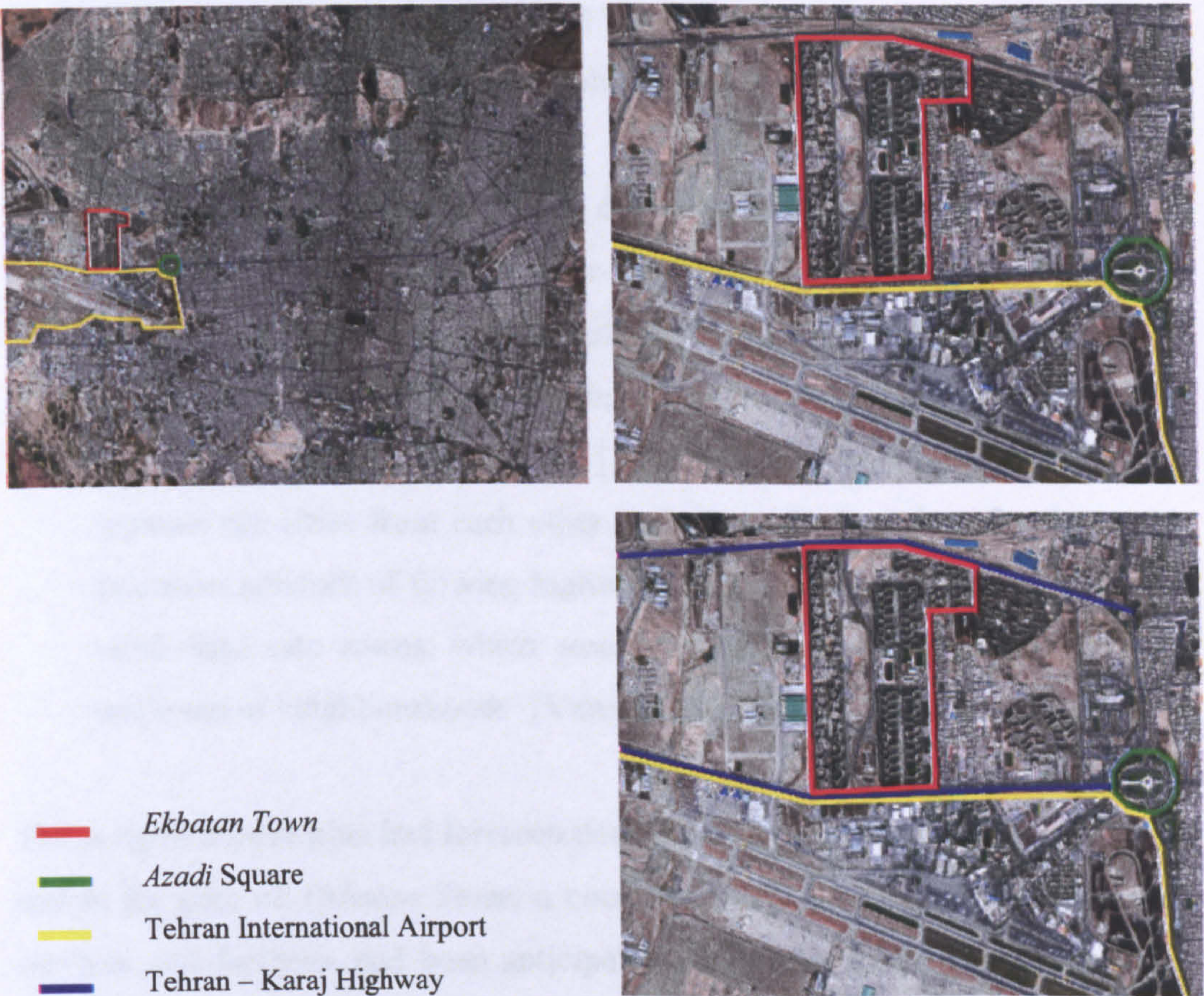


Fig 5.3 Satellite pictures of the location of Ekbatan Town in the west of Tehran, (maps from Googlemaps, 2009).

kitchen, etc. on the first floor and bedrooms on the second floor. In all three phases, apartments are from 1 to 4 bedrooms that begin from about 50 m<sup>2</sup> to 240 m<sup>2</sup>.

The initial plan and development of *Ekbatan Town* can be traced back to the first master plan of Tehran which was developed between 1965-69 in a joint venture between the American Victor Gruen Associates and the Iranian A.A. Farmanfarmaian & Partners Consulting Engineers (Tehran Municipality, 2008). The Master Plan was modelled on the planning applied to American middle sized cities. The spatial planning was for satellite towns, apartment complexes, office buildings, parks, palaces, highways, road systems and other



facilities which were built in and around Tehran between the middle sixties and the Islamic Revolution of 1979 (Vanstiphout, 2006).

‘Gruen’s plan for Tehran can be described as the diagram of the ideal metropolis stretched out over the city of Tehran and pulled in a western direction along the foothills of the Alborz Mountains, thereby forming something between a central city and a linear one. ... it was built up of ten cities; [...] the green landscape would separate the cities from each other and create the backdrop for the extensive network of flowing highways. And ... the cities would be subdivided into towns, which would be built up of communities, made out of neighbourhoods’ (Vanstiphout, 2006).

The comprehensive plan had foreseen detailed management of the towns. Thus, and in the case of *Ekbatan Town*, a complete range of infrastructures, public services and facilities had been anticipated due to the initial plan. Blocks in Phases 1 and 2 are double rows and spaces between the blocks consist of park and green space, open car parking, pedestrian routes and shopping centres. The town has its own sports stadium, swimming pool, nursery, primary, secondary and higher education schools and institutions, police station, medical centre and social, religious and cultural centres. Despite many changes and deficits from its original plan, today *Ekbatan Town* is considered one of Tehran's famous neighbourhoods.

A wide spectrum of people from different socio-cultural and economic backgrounds live in the town. This is due to a number of factors, such as period of development, location of the site, method of selling and major buyers. As was discussed earlier, the development of *Ekbatan Town* started before the Islamic revolution for the purpose of mass housing and had targeted the urban middle class civil servants. With the Islamic revolution, only a few blocks of Phase 1 had been completed and had been sold. The construction activity which had been discontinued for a while after the revolution and early years of



the Iran-Iraq war, were resumed under new management and with new targets. Economic stagnation of the country, housing shortages, the urbanisation process, mass in-migration from peripheral provinces and war-affected cities to Tehran, population growth, and re-definition of social class (see chapter two) were some of the reasons which had an impact on the type of residents attracted to the town. The long term construction development of the site was progressing along with the above mentioned processes occurring in Tehran. Affordable housing shortages for low income civil servants led many government organisations to set up housing facilities for their staff. The Ekbatan Construction Company was one of the places which could offer its apartments at a reasonable price in installments and with a long term mortgage. This was the case particularly for the apartments in Phase 2 of *Ekbatan Town* where people would buy them either to move in or as an investment. Phase 3 which was the last part of the development and was allocated to a range of different people including middle class university lecturers, members of parliament, government managers and deputy managers. Therefore a wide range of people from different social backgrounds gradually moved into the apartments as either the owner or a tenant. Another reason for the diversity of people was the location of the site at the western gate of Tehran, which made the town the arrival and first settlement point for many migrants to Tehran. In addition to that, the lower price for the apartments to buy or to rent compared to other parts of the city and also the modern status of the apartments and the town and its social environment attracted many families from the inner city to *Ekbatan Town*.





Fig 5.4 Satellite picture of Phase 1, Phase 2, and Phase 3, *Ekbatan Town*, (maps from Googlemaps, 2009).



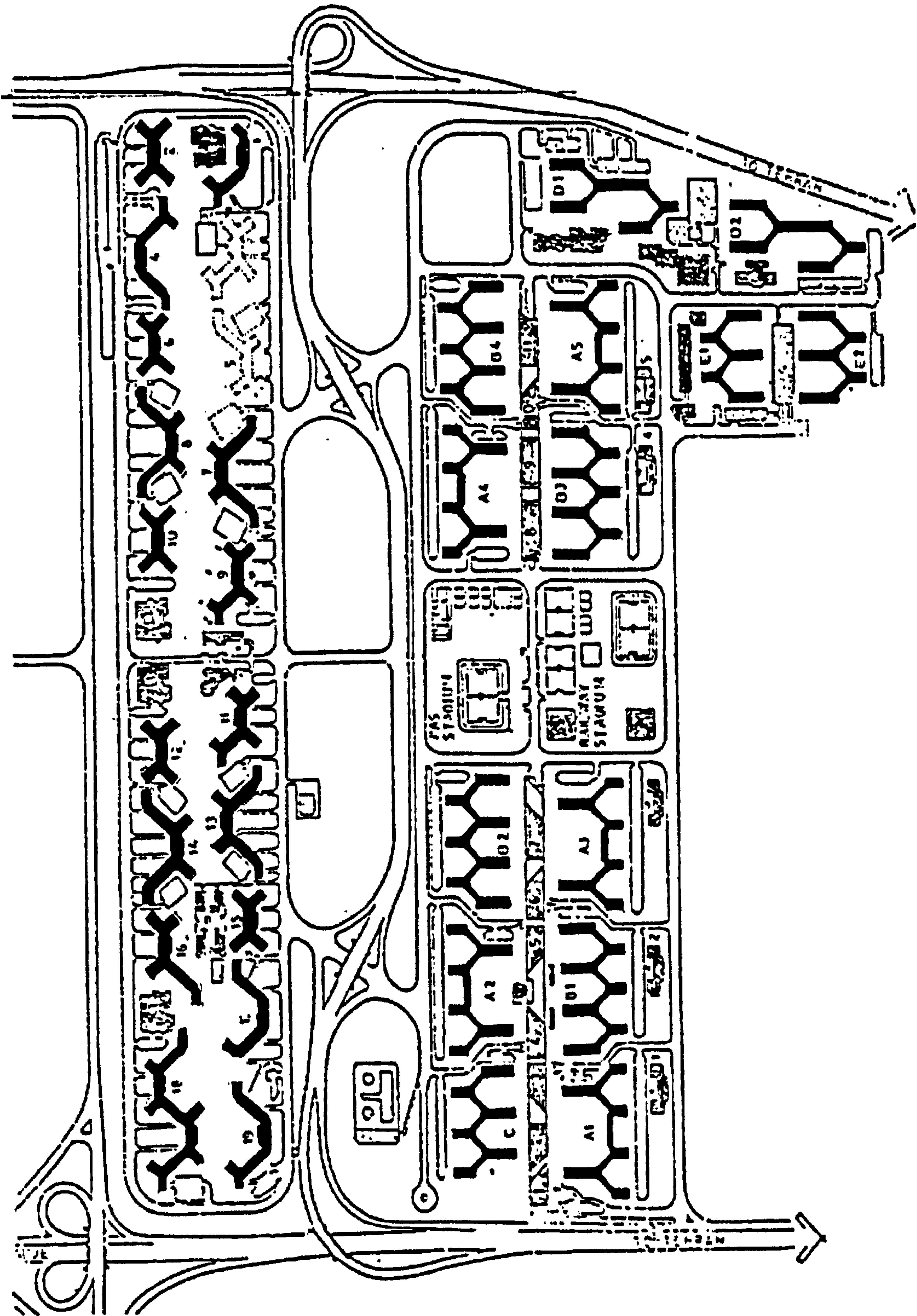


Fig 5.4a Plan of Ekbatan Town, (Tehran Civil & Renovation Company, 1985).



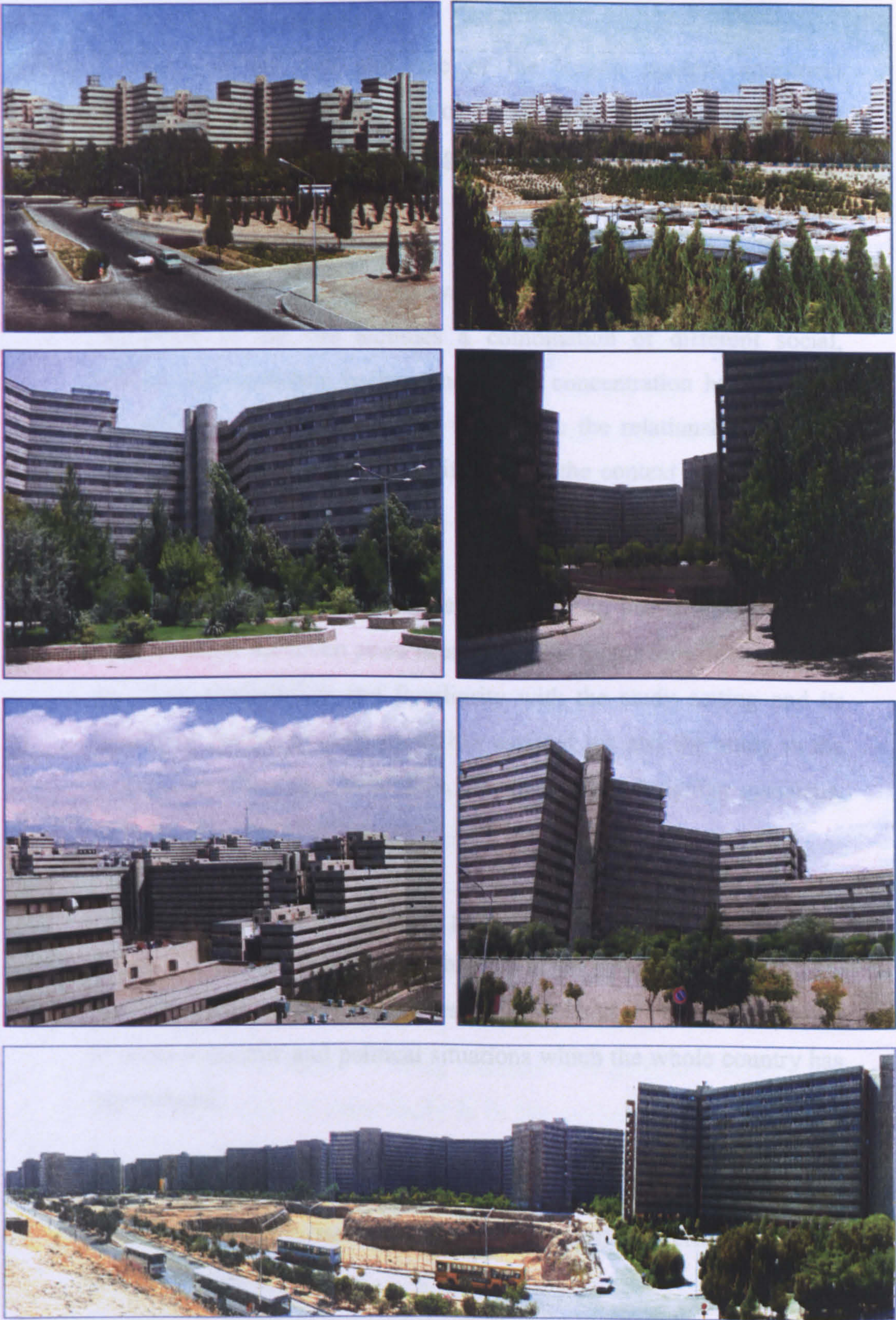


Fig 5.5 Pictures of *Ekbatan Town* in Tehran



### **5.3.1.2 Criteria for the selection**

*Ekbatan Town* was the first and one of the largest modern apartment complexes in the country. The selection of the site was considered as the most appropriate setting for the study according to the following criteria:

- *Ekbatan Town* is a demographic representation of the whole country concentrated in one place. As was discussed in 5.3.1.1, the resident population of the site includes a combination of different social, cultural and economic backgrounds. This concentration has provided the opportunity for the study to investigate the relationship between modern apartments and Iranian lifestyle in the context of a variety of Iranian sub-cultures.
- My personal experiences as a resident living in one of apartments in *Ekbatan Town* for seven years is an important factor for selection of the site. This accessibility and familiarity with the study setting and its social and physical environment has assisted me and the study in the areas of sampling, data collection, documentation, designing questions, analysis and interpretations (see 5.5.4).
- The physical setting, the primary plan and the development process of the site have undergone major changes at the completion point. This provides a study setting for the research which contains a combination of socio-economic and political situations which the whole country has experienced.
- The combination of the modern status of the site and its population status, mentioned in bullet point one, is a significant criterion for the purpose of this study.



## 5.4 Sampling the target group

In this study, sampling was concerned with a segment of the people living in the *Ekbatan Town* apartments, who had to be selected from larger populations in conducting the investigation. Usually in any type of research, researchers are unable to study the totality of a population of individuals. Even if the population is small, only a certain portion of it is typically accessible for a research project (Tashakkori & Teddlie, 1998). Different techniques can be adopted to select a sample that can be considered representative of the entire population. The technique adopted for sampling and the size of the sample selected are often influenced by the structure of the study setting (plan of apartments) and characteristics of the target population (socio-economic, demographic) from which a representative sample can be selected. Added to this, such a procedure is also influenced by the type of data – quantitative or qualitative- to be collected and analysed.

### 5.4.1 Sampling techniques

Basically, there are two typical kinds of sampling techniques that are used by social researchers. The first is known as ‘probability sampling’ and the second as ‘non-probability sampling’. The main difference between these two sampling methods is that while the former uses simple or stratified random sampling, the latter does not and is sometimes called ‘purposive sampling’ (Denscombe, 1998; Bryman, 2004). Random sampling is widely used by quantitative researchers for social surveys due to the fact that each unit in the population has a known chance of being selected. It is generally assumed that “a *representative sample*<sup>3</sup> is more likely to be the outcome when this method of selection from the population is employed” (Bryman, 2004:87). Stratified sampling, while continuing to adhere to the underlying principle of randomness, adds some boundaries to the process of selection and applies the principle of randomness within these boundaries. Denscombe (1998) supports this by stating that “the social researcher can assert some control over the

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<sup>3</sup> ‘A *representative sample* is a sample that reflects the population accurately so that it is a microcosm of the population’ (Bryman, 2004:87)



selection of the sample in order to guarantee that crucial people or crucial factors are covered by it" (Denscombe, 1998:13). As for purposive sampling, the term is applied to those situations where the researcher already knows something about the specific people or events and deliberately selects particular ones because they are seen as instances that are likely to produce the most valuable data. "In fact, they are selected with a specific purpose in mind, and that purpose reflects the particular qualities of the people or events chosen and their relevance to the topic of the investigation" (Denscombe, 1998:15).

There are however, possibilities for mixing probability sampling with purposive sampling strategies. As for the current study, a mixed method research, there is the option of mixing multiple sampling techniques. Tashakkori & Teddlie (1998) support this by indicating that

'... there is no single type of sample, or sampling procedure, that is suitable for all research questions/objectives. ... distinction between sampling strategies should be made more on the basis of the nature of the question than on the basis of qualitative-quantitative approach' (Tashakkori & Teddlie, 1998:74).

#### **5.4.1.1 Sampling techniques and sample size for the quantitative data**

Once the sampling strategy was known, a general investigation started through the study setting to identify the major characteristics of the site for sampling purposes to represent the correct portion of the population. A number of factors and variables (see 5.2.3) had to be considered in the process of sampling, including the number of apartments in each phase, plan of the apartments, the period of development and the socio-economic background of the population. The investigation revealed that an estimated eighty thousand people are living in the total number of 14,739 apartments in three different phases and thirty-three blocks. The most important criterion in the sampling process which is directly related to the question of research was type of apartments in terms of internal plan and organisation of space. There were more than 60 types of



apartments identified in the three phases. To make the sampling process manageable for the researcher, apartments had to be grouped into categories; each category consisted of apartments with similar plans. Thus, eighteen categories of plans were compiled; six major types of apartments in Phase 1 and 3, and twelve major types of apartments in Phase 2. Based on this fact, the use of stratified random sampling was seen as the most appropriate method to ensure the representation of all eighteen categories in the total sample. This decision is consistent with Nachmias (1992), who states:

‘Stratified sampling is used to insure that the different groups of the population are adequately represented in the sample so that the level of accuracy in estimating parameters is increased. The underlying idea in stratified sampling is that available information on the population is used to divide it into groups such that the elements within each group are more alike’ (Nachmias & Nachmias, 1992:179).

Another issue which had to be considered in the sampling process was related to the socio-economic background of the residents in different blocks in different phases. As was discussed in 5.3.1.1 and 5.3.1.2, Ekbatan Town has attracted residents from a wide socio-economic spectrum during the thirty years of development and existence. This variance of people has created different social environments in each phase and in different blocks within each phase. After considering all possible issues and variables, and through a stratified random sampling process, a total sample of 90 apartments was selected within the range of thirty-three blocks. The total sample contained 23 apartments in phase one; 46 apartments in phase two; and 21 apartments in phase three (Table 5.2). Although Phase 1 and 3 share the same major types of apartments, sampling was from both phases due to dissimilarity in the social environment of the two phases.



Table 5.2 Distribution of samples in the study setting for the quantitative research

Phase	No. of Blocks	No. of apartments	Types of apartments	Category of apartments	Sample size
Phase 1	10	5619	16	6	23
Phase 2	17	7063	37	12	46
Phase 3	4	2057	12	6*	21
Total	31	14739	65	18	90

\* Phases 1 and 3 share the same types of apartments except some types in phase 1 which have balconies

5.4.1.2 Sampling techniques and sample size for the qualitative data

As a mixed method research in this study, different types of quantitative and qualitative approaches were employed in the process of sampling and collection of data. In the first stage, quantitative data – through questionnaires- were derived from the pilot sample of apartment residents. For the qualitative stage, the technique adopted to select a sample of interviewees from the owners of apartments in the selected pilot sample was based on purposive sampling strategy. This technique is recommended by Tashakkori & Teddlie (1998) to select the sample (individual case study interviews) non-randomly, based on information the researcher already has about these cases. As for the qualitative sampling process, Denscombe (1998) also indicates:

‘Qualitative research tends to adopt an approach to sampling which is based on *sequential discovery of instances* to be studied and which emphasises the inclusion of *special instances* more than is generally the case with quantitative research. These two features tend to lead qualitative researchers toward non-probability sampling strategies such as ‘purposive sampling’... rather than strategies based on principles of randomness and probability’ (Denscombe, 1998:26).



Purposive sampling can concentrate on instances which will display a wide variety, possibly even with a focus on extreme cases, to illuminate the research question at hand (Creswell, 2003; Denscombe, 1998). The adoption of this strategy for the research was due to its capability to allow the researcher to identify the most suitable instances in terms of adoptability with the research question and also the amount of information they hold. This will increase the reliability of the extracted information from the sample. A discussion about participants and site might include four aspects identified by Miles and Huberman (1994): the setting (apartments), the actors (residents), the events (alterations), and the process (privacy) (Creswell, 2003). Therefore for the purpose of qualitative sampling and research, 16 apartments in which alterations had been undertaken were selected from the pilot quantitative research. The selection was mainly based on the criteria of level of alteration, socio-economic background of the family, and location and type of the apartment. This was in order for residents to be interviewed on the implementation and process of privacy in the apartment.

### **5.5 Data collection methods**

Many researchers collect quantitative and qualitative data in a single study. This multiple approach to data collection “often provide(s) new and uncharted information about the person or the setting of study. ... combining the two approaches provides richer data than either approach” (Tashakkori & Teddlie, 1998:95). Multiple measures might be also used in the same measurement format, as Tashakkori & Teddlie bring the example of using open-ended and closed-ended question in an interview. The adoption of a mixed-method approach for the research design in this study allowed the researcher to employ multiple types of data collection methods and multiple measures. In this respect, Hakim (1987) indicates:

‘The form and quantity of data collected and analysed can vary enormously, and one of the objectives of a pilot study would be to



ascertain the nature of any available records, documents, descriptive material and other sources of evidence that might be drawn upon in addition to information created by new data collection exercises such as interview surveys, informant interviews and observation' (Hakim, 1987:73).

Thus, different types of data collection methods including questionnaire, interview, observation, documents and visual materials (Creswell, 2003; Tashakkori & Teddlie, 1998) were employed in the process of data collection.

### **5.5.1 Documentary data**

All investigations that lay claim to being research should start off with documentary data to provide background information which is used as a platform for a research project (Bryman, 2004:158-159). Documentary data can be collected from documentary sources including books and journals; web site pages and the internet; newspapers and magazines; records; government publications and official statistics. The use of documentary data could be helpful in offering more insights and in-depth information about issues under investigation and could enhance the process of interpretation of the study's findings (Creswell, 1994). In this study, documentary data were gathered at macro and micro levels; at the macro level, all available published and unpublished documents concerned with Iran in the areas of the urbanisation process, the development of the modern housing sector and particularly the development of apartment housing, the country's demographic specifications, socio-economic changes, architectural specification of traditional Iranian houses, and cultural living patterns, particularly privacy. This information was obtained from academic publications, national and international organisations and establishments such as Statistical Centre of Iran (SCI), Central Bank of Iran (CBI), Ministry of Housing and Urban Planning, Budget and Planning Organisation (BPO), and the World Bank.



At the micro level, documentary data and statistics concerned with the Ekbatan Town including development of the site, demographic specifications, structural plan of the blocks, and apartments' specifications were obtained from published and unpublished documents, Ekbatan Renovation and Development Co., Board of Directorates of *Ekbatan Town* Blocks, and Tehran Municipality.

### **5.5.2 Questionnaire**

There are four main categories of information which can be obtained from a survey research (Tashakkori & Teddlie, 1998; Gilbert, 2001):

*'Attributes* include personal or socio-economic characteristics, such as sex, age, marital status, religion and occupation. ... *Behaviour* constitutes what the individual has done, is doing and may possibly do in the future. ... *Attitudes* imply evaluation and are concerned with how people feel about an issue. ... *Beliefs* can usually be assessed by asking whether something is seen as true or false' (Gilbert, 2001:99-101).

Creswell (2003) has also classified the above information in two categories of a) factual information, and b) opinions, attitudes, views, beliefs and preferences. One of the advantages of mixed method research is that the researcher has the option to use different methods of data collection in a study, and a variety of ways can be employed to put questions in a questionnaire. Denscombe (1998) argues that variety has two potential advantages: "first it stops the respondent becoming bored; second, it stops the respondent falling into a 'pattern' of answers" (Denscombe, 1998:100-101). The information in this study was obtained through a face-to-face questionnaire which was the source of the study's quantitative data (see appendix 1). Different types of questions were used in designing the questionnaire. These included closed questions, multiple choice questions, Likert scale questions and open questions. While closed and multiple choice questions are drafted in advance, complete with all the possible answers, ranking scale questions are very valuable when



trying to ascertain the level of importance of a number of the items concerning the attitude, opinion and belief of the respondent.

The criteria for the structure of the questionnaire and design of the questions were based on the purpose of the study, the documentary data gathered from the literature review and the study setting specifications. In designing the questions and measuring their validity and reliability, help was obtained from a number of similar studies (Vaziritabar, 1990; Memarian, 1998; Abdalla, 2007). In this regard, all the questionnaires were completed by either myself or a member of the research team in order to make sure that the respondents would fully understand and that there existed no ambiguity about the questions. Also, many responses to the questions contained additional explanations and details which needed to be noted by the researcher.

The format of the questionnaire (Figure 5.6) was from generic to specific. The questions were set in five sections under two categories, as follows:

**Category one: Factual information:**

- 1- Social – economic and demographic specification of the participants, including: number of people living in the apartment and their relationship; gender; age group; education level, economic status; ownership of the apartment; birth place; and length of residency in Tehran.
- 2- Previous and present housing characteristics of the respondents, including: length of residency in the apartment; previous housing type; level of satisfaction with regard to the past and present housing type; reasons for choosing the apartment; any plans for moving out or staying in the apartment and why.

**Category two: Opinions, attitudes, views, beliefs and preferences:**

- 3- Organisation of internal space of the apartment and the traditional living pattern of privacy, including: differences between the



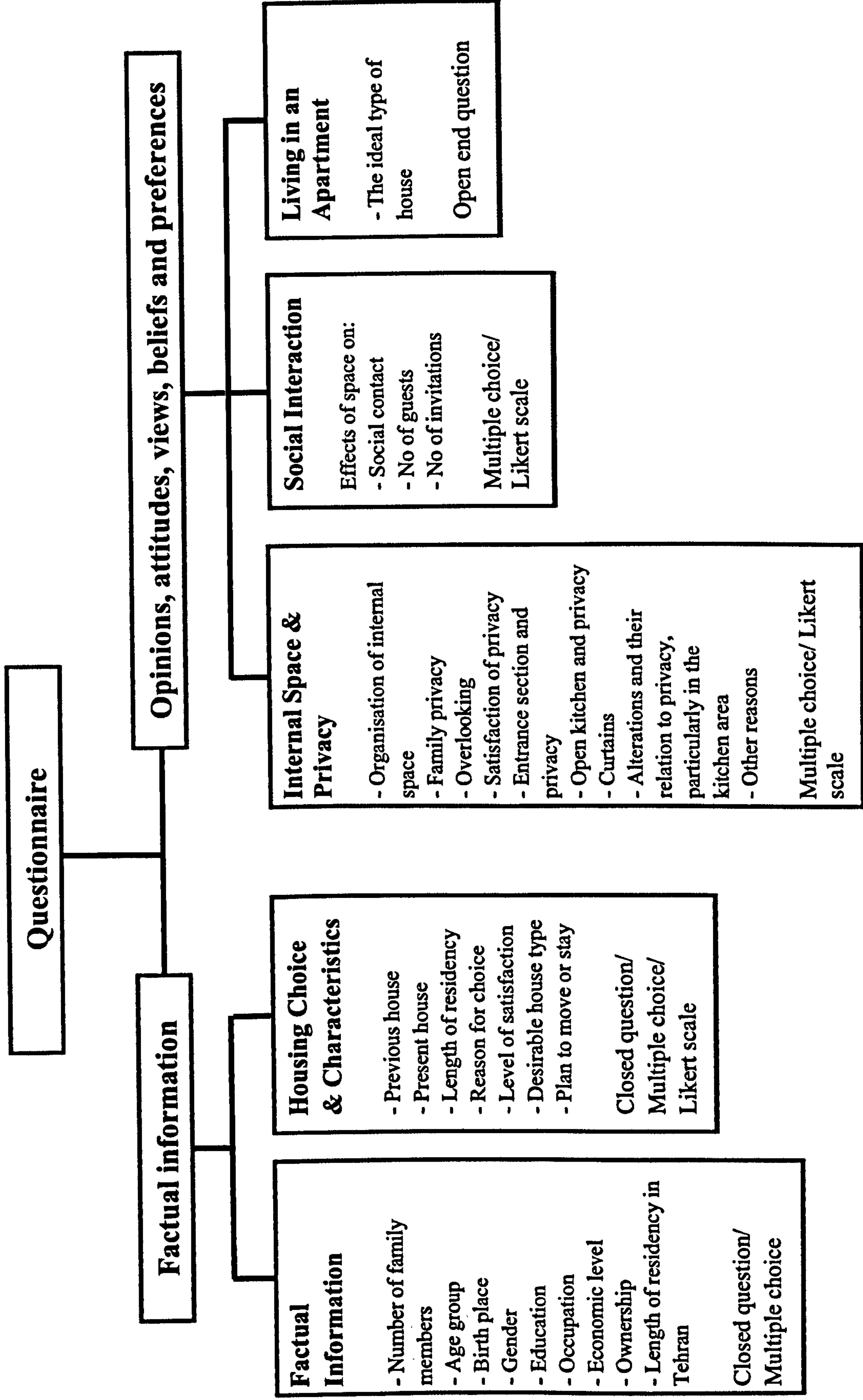


Fig 5.6 Format of the questionnaire, categories of information and type of questions



the respondent's previous house and present apartment in terms of family privacy, overlooking, and the relationship between the internal spaces; alteration in the plan of the apartment and quality of living after alteration; family privacy and in particular women's privacy in relation to the open kitchen, entrance door, living and guest area, position of curtains in different rooms at different times of day and night; and general satisfaction of existing level of privacy.

- 4- respondent's previous house and present apartment in terms of family privacy, overlooking, size, quantity and relationship of the internal spaces, access to outdoor spaces and contact with neighbours; alteration in the plan of the apartment and quality of living after alteration; family privacy and in particular women's privacy in relation to the open kitchen, entrance door, living and guest area, position of curtains in different rooms at different times of day and night; and general satisfaction of existing level of privacy.
- 5- Social interaction, including: effect of the apartment's internal space on number of guests and frequency of invitations and level of apartment's constraint on social contacts.
- 6- The respondent's general idea about their desire to live in what type of housing, apartment or private house.

### **5.5.3 Semi-structured interviews**

A series of face-to-face semi-structured interviews as part of the qualitative source of information was implemented in this study. Once the quantitative part of the research was analysed, it was identified from the pilot study that a number of apartments had undergone alteration by their owners. The alteration ranged from minor changes such as putting a partitioning wall up in front of the entrance door and removing the kitchen door, to major alterations such as adding to or reducing the number of rooms, creating open plan spaces and building a second kitchen on the second floor (see chapter seven). This, as Denscombe (1998) remarks, inspired the researcher to a further investigation to



enquire about 'detailed information'. As an information-gathering tool, interview is frequently used to 'follow-up to a questionnaire'; to pursue the lines of enquiry in greater detail and depth, and to complement the questionnaire data. Interview is also used by way of 'triangulation with other methods', in order to corroborate facts using a different approach (Denscombe, 1998). In the case of this study, detailed information includes: the relationship between physical alteration, the traditional patterns of privacy and social interaction, and how these two are accommodated in the apartment after the alteration.

'The use of interviews normally means that the researcher has reached the decision that, for the purposes of the particular project in mind, the research would be better served by getting materials which provide more of an in-depth insight into the topic, drawing on information provided by fewer informants' (Denscombe, 1998:110).

As was discussed in chapter three, privacy is a culturally-specified, gender-biased issue in the Iranian context. Therefore the focus of the research interviews was first to understand the relationship between alteration and female privacy, and second to map the physical and behavioural pattern of privacy within the apartment after alteration. For this reason a triangulating data sourcing strategy was adopted while conducting each interview. These included surveying and photographing the alteration, and recording the alteration over the original map. These tasks, as Creswell (2003) remarks, helped to check the accuracy of the findings.

The structure of the interview questions was set based on a number of criteria. These included level of alteration, purpose of alteration and its relation to family privacy, physical pattern of privacy after alteration, the issues of gender segregation/integration and their presentation in the apartment and privacy



related behavioural patterns of women in the apartment in social gathering occasions.

#### **5.5.4 Observation and physical data**

Observation and physical data gathering was conducted at two levels of a) personal observation, and b) observation for the purpose of the research. As was discussed in 5.3.1.2, an important criterion in choosing the case study was my personal experience of the location. Living in one of the apartments in *Ekbatan Town* for a number of years provided the opportunity for close observation of the study setting, its social and physical environment, and alterations undertaken by residents. It also provided an insight into people's attitudes, opinions and views toward the town in general and their apartments in particular. Through these personal experiences I became conscious of the advantages, benefits and facilities of this living environment, and also the requirements, restraints and pressures that it might impose on people. In addition to that, being raised within a country's cultural context gives an intimate vision into people's cultural and sub-cultural beliefs, mind-sets and behaviours. All these personal experiences have assisted me throughout the study, from selection of the study setting to conducting the quantitative and qualitative research and analysis. Tashakkori and Teddlie (1998) have also drawn attention to this point, that personal and cultural observations and experiences are used as 'informal' sources of data of research.

'A source of data, which is usually ignored, is your personal knowledge about a culture, a group, or an organisation. Although this knowledge is not systematically measured, it provides an auxiliary source of data that can enrich your collected data' (Tashakkori and Teddlie, 1998:110)

A systematic observation and physical data collection was also conducted for the purpose of this study. This stage of observation was accompanied by



detailed documentation of information. The most important part of observation was to record details of alterations, physically visible and unseen patterns of family privacy, and behavioural patterns of residents toward privacy; and to examine the use of space in the day to day life of residents. In addition, a collection of sketch plans of different types of apartments in the three phases was gathered. Photographs were taken from different parts of the town, different blocks and alterations made in the apartments.

## **5.6 Data analysis strategy**

The data collected from the study setting in separate stages over time including documentary data, questionnaires, interviews, photographs, maps and researcher's notes had to be analysed in order to extract findings of the research. The data analysis was progressed in the following steps.

### **5.6.1 Analysis of the quantitative data**

As discussed earlier, the study's quantitative data was collected through questionnaire. The collected data ranges from factual data e.g. age, gender, education, housing choice, etc. to behaviours, attitudes and opinions of the residents about their apartment and the issue of privacy in the apartment. The process of data analysis was immediately started after completing the questionnaires. For this reason, the computer software Statistical Package for Social Scientists (SPSS) was employed. Through the software, data was transformed and entered into the computer in the form of numerical codes.

As a mixed method research, the aim of the quantitative data was to provide background knowledge for further research, i.e. qualitative research and interviews. The next step of the quantitative analysis was advanced for two purposes. The first reason was to learn and categorise factual and attitudinal information about residents as a collective. The method of analysis at this stage was 'univariate analysis' (Bryman, 2004), when the process of analysis is for one variable at a time. Selection of this method by the researcher was mainly



due to the primary purpose and strategy of the research, for which a research question had been initiated, and not a hypothesis where conventional quantitative analysis and testing would be needed to proceed (Bryman, 2004). The number of people and the percentage belonging to each of the categories for the variable in question is provided by frequency tables, and attitude and behaviour of the people is displayed in diagrams (see chapter six) as “their chief advantage is that they are relatively easy to interpret and understand” (Bryman, 2004:228). All frequency tables and diagrams were presented through the SPSS.

The second purpose of the quantitative research was to identify individual case studies for further in-depth investigation. Quantitative data in the first stage of the analytical process is served as a means of identifying apartments in which alteration has taken place. In addition, background information and attitudes toward privacy in general and relevant to the residents of the apartment in particular is obtained from the first stage. The quantitative research, in fact, facilitated the qualitative research. Bryman (2004) has also supported this as one of the approaches to multi-strategy research, “one of the chief ways in which quantitative research can prepare the ground for qualitative research is through the selection of people to be interviewed” (Bryman, 2004:457).

### **5.6.2 Analysis of the qualitative data**

Analysis of the qualitative data was made case by case. Sixteen interviews were grouped into five categories, each category with a similar type of apartment plan (Table 5.3). Analysis of cases began with physical location and description of the apartment. Then, the extent of alteration was discussed, displayed and compared with the original plan of the apartment. Background information about the family living in the apartment obtained from the quantitative research facilitated the next step of the analysis. Three criteria were analysed in the context of each individual case (see chapter seven):

#### **1. Traditional principle of gender segregation**



- 2. Influence of modernity and gender integration
- 3. General trend of living and use of space

The traditional principle of gender segregation refers to the concept of privacy in the Iranian cultural context, discussed in chapter four. This principle plays a major role not only in the relationship between genders in their social contacts, but also in the arrangement of spaces in the apartment. Display of gender segregated privacy is, however, closely related to the socio-cultural background of the family. The country’s trend toward modernisation and its influence on people’s attitude has had a profound influence on the physical manifestation of privacy and gender segregation. With regard to family privacy, the trend has shown different physical expressions. The most common form in practice is the model of ‘unseen privacy’ (see chapter four), which usually occurs within an open plan gender integrated space. Other means of privacy are also in use by the families according to their particular way of living and use of space.

Table 5.3 Spread of interview case studies

Category	No of cases	Phase
One	7	1 & 3
Two	4	2
Three	2	3
Four	1	2
Five	2	2
Total	16	

Along with analysis of the above criteria for each individual case, the form of privacy practised in the apartment was graphically recorded. Photographs of alteration, use of space and pattern of privacy have also been included in the analysis.



## **5.7 Summary**

This chapter sets out the methodological framework and strategy of inquiry for the study's social research, based on the purpose of study and the question of research. A sequential explanatory mixed method strategy was selected for the research. The selection was due to the complex nature of the inquiry which could not be confined to the philosophical viewpoints of the two most established approaches in the social sciences, i.e. quantitative and qualitative research methods. In addition, adoption of a mixed method strategy for the research offered a flexible framework of investigation to be used in the data collection and analysis. The triangulation of data gathered from different sources has increased the validity of the research findings.

For the operational stage of the fieldwork a study setting was selected based on the criteria of social and physical specifications of the site, followed by stratified random sampling from the population of *Ekbatan Town*. The quantitative data were gathered through face-to-face questionnaires aiming to obtain factual information about residents of the apartments as well as their attitudes, opinions and views about privacy in their apartments. The analysis of the quantitative research led the study to conduct in depth qualitative research on a number of apartments in which alterations had been made. Analysis of the qualitative findings was made by elaboration and illustration of physical and behavioural patterns of privacy and social interaction in the apartments in order to achieve the purpose of the study to understand the relationship between modern apartments and traditional Iranian lifestyle.



# ***Chapter six***

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***Evaluation and Analysis of the Quantitative  
Data***



## 6.1 Introduction

This chapter presents a detailed analysis of the collected data from the case study. The information on Iran's population, education and economic situation presented in chapter two, provides a background for better understanding of the above criteria in relation with the study's Statistical Population (SP)<sup>1</sup>. The first analytical part is related to the factual information of the SP, including age group, education, economic status and socio-cultural background. Having detailed characteristics of the SP, the following section investigates the SP's attitudes, opinions and views, known as attitudinal information, which have been obtained through questions such as how different is your present apartment compared to your former housing type? What are the reasons behind your choice for living in an apartment? How is your general satisfaction with the apartment? And finally, the housing preference of the SP. This part leads to the final and main part of the analysis, which investigates the internal space of the apartment and the existing and desired level of privacy.

## 6.2 Statistical analysis of the case study

Two sets of information were collected through the quantitative research; factual information and attitudinal information (Figure 6.1). This section analyses both sets of information, starting with the factual information related to, and collected from, the case study's SP, followed by the respondents' attitudes and behaviours toward the physical space of their apartments. the reasons behind peoples' choice of living in an apartment; their views about the apartment's advantages and disadvantages in relation to traditional Iranian socio – cultural living patterns; physical and behavioural patterns of *Mahramiyat* and privacy; and peoples' satisfaction of living in an apartment are investigated through analysis of the quantitative data.

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<sup>1</sup> Statistical Population here is the sample population who has been used in the case study. This population will be abbreviated as SP in the text.



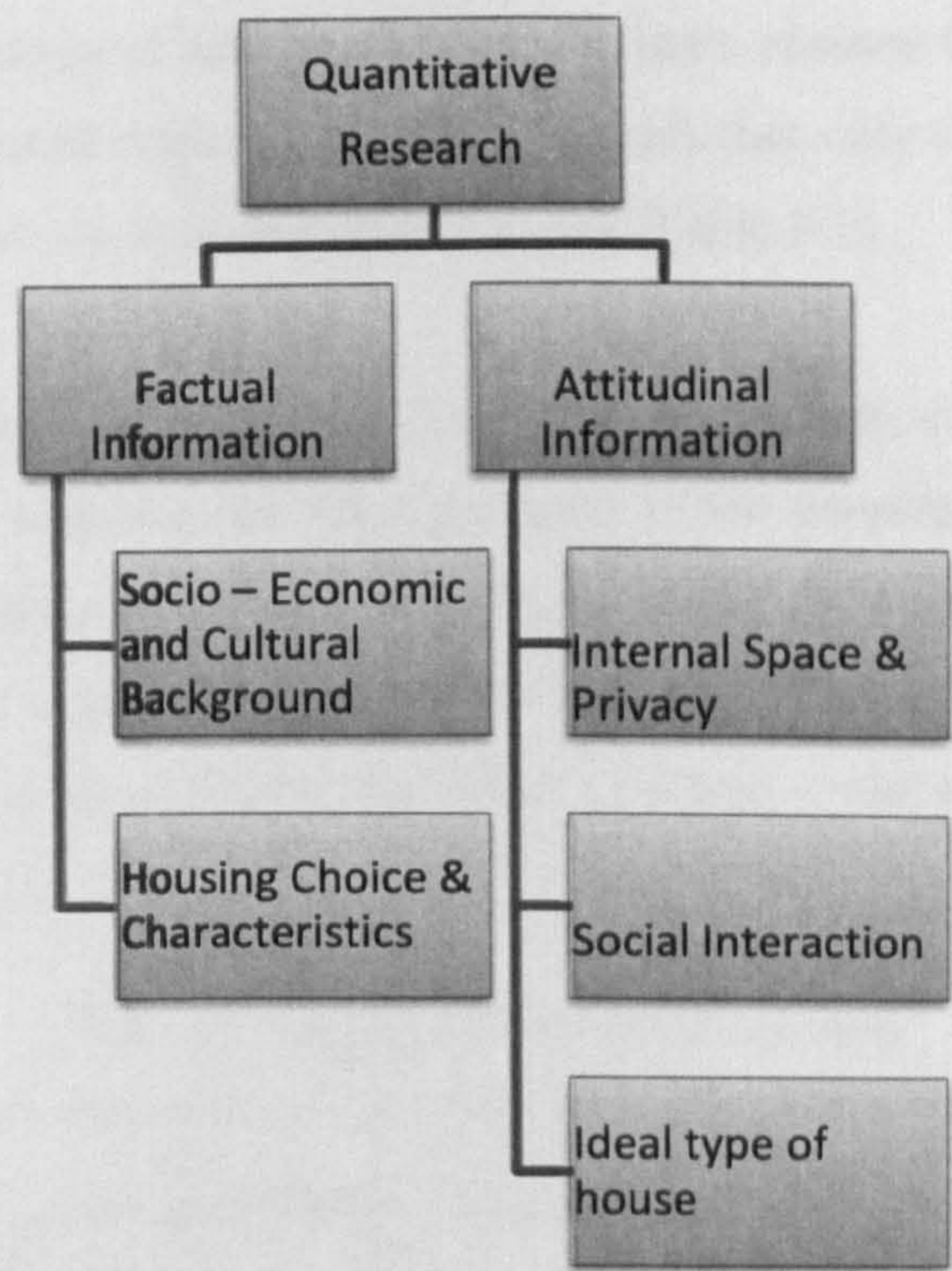


Fig 6.1 Two sets of information collected from the quantitative research

6.2.1 Factual information

6.2.1.1 Socio-economic and cultural background of the population

An overview of the population of Iran and education and the economic status of the Iranian population was provided in chapter two. This background has informed us of the status of Iranian urban households, especially in Tehran, and their relation with housing. In this section the factual information about the study’s sample population will be analysed, such as the population’s age group, education, economic status, tenure status and cultural background.

6.2.1.1.1 Age group and education

Statistical analysis indicates that 73.3 per cent of the population are middle age families. These include families with children between the ages of 10 and 25 years. Young families, including young couples or couples with children under the age of 10, form 20 per cent of the population. In most western countries flats and apartments are a popular type of dwelling among the elderly group.



Security and provision of maintenance are the main reasons for this popularity. The study’s statistical analysis, however, reveals that only 6.7 per cent of the resident population are from the elderly group (Table 6.1).

An important criterion to measure a population’s social status is education. Statistical analysis shows that 44.4 per cent of the population are university graduates. By adding the 18.9 per cent postgraduate population, a total sum of 63.3 per cent of the population are highly educated. The remaining percentage of 36.7 per cent belongs to under diplomas, of whom a vast majority are school students (Table 6.2).

Table 6.1 Age group of the sample population

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Young family	18	20.0	20.0	20.0
	Middle age family	66	73.3	73.3	93.3
	Elderly	6	6.7	6.7	100.0
	Total	90	100.0	100.0	

Table 6.2 Education level of the sample population

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Under diploma	33	36.7	36.7	36.7
	Graduate	40	44.4	44.4	81.1
	Post graduate	17	18.9	18.9	100.0
	Total	90	100.0	100.0	

6.2.1.1.2 Economic status

A number of scales have been used to measure the SP’s economic status, such as number of working people in the family, direct query of economic status and also tenure status of the apartment. Statistical analysis reveals that 40 per cent of population depends on one working person in the family, who is usually husband or father of the family. Families with two working people, usually the couple, occupy another 40 per cent of the population (Table 6.3). It is indicated that 54.4 per cent of the population are economically middle income, 20 per



cent upper middle and 20 per cent good income. Only 5.6 per cent of the population regard themselves as lower middle income (Table 6.4). This figure is confirmed by the fact that 80 per cent of the population are owners of their apartments (Table 6.5).

Table 6.3 Number of working people in each family

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	One person	36	40.0	40.0	40.0
	Two people	36	40.0	40.0	80.0
	Three people	12	13.3	13.3	93.3
	Four people	3	3.3	3.3	96.7
	Five people	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Table 6.4 Economic status of families

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Good	18	20.0	20.0	20.0
	Upper middle	18	20.0	20.0	40.0
	Middle	49	54.4	54.4	94.4
	Lower middle	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Table 6.5 Tenure status of the apartment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Owner	72	80.0	80.0	80.0
	Tenant	18	20.0	20.0	100.0
	Total	90	100.0	100.0	

6.2.1.1.3 Cultural background

Statistical analysis points out that 60 per cent of the population was born in Tehran, 20 per cent in large provinces and 20 per cent in small provinces (Table 6.6). This figure shows that an overall 40 per cent of the population immigrated to the capital from other parts of the country. Meanwhile, 77.8 per cent of the population declares that they have been living in Tehran for more than 20 years. The remaining population is divided into the following



percentages for their length of residency in Tehran: 6.7 per cent for 15 to 20 years, 11.1 per cent for 10 to 15 years and 4.4 per cent for 5 to 10 years (Table 6.7).

Table 6.6 Place of birth of the sample population

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Tehran	54	60.0	60.0	60.0
	Large province	18	20.0	20.0	80.0
	Small province	18	20.0	20.0	100.0
	Total	90	100.0	100.0	

Table 6.7 Length of residency in Tehran

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	5 to 10 years	4	4.4	4.4	4.4
	10 to 15 years	10	11.1	11.1	15.6
	15 to 20 years	6	6.7	6.7	22.2
	20 years plus	70	77.8	77.8	100.0
	Total	90	100.0	100.0	

6.2.1.2 Housing choice and preferences

This section analyses the SP’s factual information in relation to their housing type and specifications, and their level of satisfaction.

6.2.1.2.1 A comparison of former and present housing conditions

Statistical analysis reveals that the highest percentage of 37.8 per cent in relation to length of residency in the apartment belongs to those who have lived there for 5 to 10 years. The second place, 27.8 per cent, goes to residencies of less than 5 years. Longer residencies of 10 to 15 years and more than 15 years occupy a percentage of 22.2 per cent and 12.2 per cent respectively (Table 6.8). It is identified that 35.6 per cent of the population were living in a private house before moving to the apartment (Table 6.9). However, 30.0 per cent of the population were formerly living in a high-rise building. There is an in-movement activity within the complex between apartments and phases for



different reasons. Some who enter the complex as owners from the very beginning exchange their apartment for a better or bigger one. The exchange is more visible between phases, particularly a moving trend from phase two to phase one. Phase one is the oldest and most favourable phase in the complex. This is due to its homogenous socio-cultural environment as well as the plan of the apartments. Tenants have to move from one apartment to another due their tenancy agreement. Some tenants, however, become an owner after a few years of tenancy. Statistics also show that 16.7 per cent of the population have moved from a 2 to 3 storey house to the apartment, 14.4 per cent from low-rise apartments and only 3.3 per cent from a rural house.

Table 6.8 Length of residency in the apartment

	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid Less 5 years	25	27.8	27.8	27.8
5 to 10	34	37.8	37.8	65.6
10 to 15	20	22.2	22.2	87.8
15 years plus	11	12.2	12.2	100.0
Total	90	100.0	100.0	

Table 6.9 Sample population's type of former housing

	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid High-rise apartment	27	30.0	30.0	30.0
Low-rise apartment	13	14.4	14.4	44.4
2 to 3 storey	15	16.7	16.7	61.1
Private house	32	35.6	35.6	96.7
Rural house	3	3.3	3.3	100.0
Total	90	100.0	100.0	

Statistical analysis of the population's satisfaction with their housing choice points out that the majority, 64.4 per cent, of the population like their present apartment more, against 25.6 per cent who are in favour of their previous house, 5.6 per cent declare neither and 4.4 per cent have no preference (Table 6.10).



Table 6.10 Sample population’s satisfaction with housing type

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Previous	23	25.6	25.6	25.6
	Present	58	64.4	64.4	90.0
	Neither	5	5.6	5.6	95.6
	No preference	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

6.2.1.2.2 Reasons for choice: why an apartment?

To identify the reasons for the SP’s choice to live in an apartment, a number of factors were investigated, such as congruency of the internal plan and individual needs, economic ability, house ownership and living close to work or to relatives and friends. Respondents were asked to point out as many of their individual reasons as appropriate, and to highlight a single reason as the main one. Two factors, internal facilities and comfort of the apartment with 31.1 per cent, and security with 15.6 per cent, scored highest (Table 6.11).

Table 6.11 Reasons for choosing apartment for living

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Internal plan/individual needs congruency	14	15.6	15.6	15.6
	Apartment's modern look	2	2.2	2.2	17.8
	Finance	9	10.0	10.0	27.8
	Near to work	4	4.4	4.4	32.2
	Near to relatives/friends	4	4.4	4.4	36.7
	Security	14	15.6	15.6	52.2
	Internal facilities/comfort	28	31.1	31.1	83.3
	Only way of home ownership	9	10.0	10.0	93.3
	To sell and buy a better place	1	1.1	1.1	94.4
	Not finding a better place	1	1.1	1.1	95.6
	No specific reason	1	1.1	1.1	96.7
	Any other	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Other factors in order of importance are as follows: congruency of internal plan and individual needs (15.6 per cent), economic ability (10 per cent), house ownership (10 per cent), living close to work (4.4 per cent), living close to the



relatives and friends (4.4 per cent), modern look of the apartment (2.2 per cent) and any other reason (3.3 per cent).

6.2.1.2.3 Satisfaction with apartment

Statistical analysis reveals that 51.1 per cent of the population has an average level of satisfaction towards their apartments, 47.8 per cent are very satisfied and only 1.1 per cent state low satisfaction (Table 6.12).

Table 6.12 Sample population’s level of satisfaction of apartments

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	High	43	47.8	47.8	47.8
	Average	46	51.1	51.1	98.9
	Low	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Respondents were asked if they were planning to move from their apartments in the near future. Statistical analysis shows that 42.2 per cent of the population declared ‘yes’ and 56.7 per cent said ‘no’ (Table 6.13). Of those who were planning to move from their apartment, buying a private house at 27 per cent and selling the apartment to buy a better place at 24.3 per cent were the main reasons. Other factors include coming to the end of their tenancy agreement (16.2 per cent), lack of space (8.1 per cent), lack of congruency (8.1 per cent), disliking the area (2.7 per cent), difficulty with transportation (2.7 per cent) and any other reasons (10.8 per cent) (Table 6.14). For the 56.7 per cent of the population who are not planning to move, the reasons for staying in the apartment are mainly due to their satisfaction with their apartments (35 per cent) and the apartment’s internal facilities and comfort (27.5 per cent) (Table 6.15). Having good security and financial inability, both with 12.5 per cent, are the next two reasons. Place attachment (5 per cent), being close to relatives and friends (2.5 per cent) and congruency of internal plan to family’s needs (2.5 per cent) are less important factors.



Table 6.13 Sample population’s plans to move from apartment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Yes	38	42.2	42.2	42.2
	No	51	56.7	56.7	98.9
	10.00	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Table 6.14 Reasons for moving from apartment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sell and buy a better place	9	10.0	24.3	24.3
	Transport difficulty	1	1.1	2.7	27.0
	Lack of space	3	3.3	8.1	35.1
	Lack of congruency	3	3.3	8.1	43.2
	Dislike the area	1	1.1	2.7	45.9
	Buy a private house	10	11.1	27.0	73.0
	Tenancy agreement is over	6	6.7	16.2	89.2
	Any other	4	4.4	10.8	100.0
	Total	37	41.1	100.0	
	Missing System	53	58.9		
Total		90	100.0		

Table 6.15 Reasons for not moving from apartment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Financial inability	5	5.6	12.5	12.5
	Like the apartment	2	2.2	5.0	17.5
	Internal facilities/comfort	11	12.2	27.5	45.0
	Satisfaction	14	15.6	35.0	80.0
	Internal plan/family needs congruency	1	1.1	2.5	82.5
	Near to relatives/friends	1	1.1	2.5	85.0
	Good security	5	5.6	12.5	97.5
	Any other	1	1.1	2.5	100.0
	Total	40	44.4	100.0	
	Missing System	50	55.6		
Total		90	100.0		

6.2.1.2.4 Housing preference

Statistical analysis identifies that the population scored both private house and high-rise apartment equally at 43.3 per cent as their housing preference (Table



6.16). Other types of 2 to 3 storey house and low-rise apartments are less favourable, with scores of 10 per cent and 3.3 per cent.

Table 6.16 Sample population’s type of housing preference

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	High-rise apartment	39	43.3	43.3	43.3
	Low-rise apartment	3	3.3	3.3	46.7
	2 to 3 storey house	9	10.0	10.0	56.7
	Private house	39	43.3	43.3	100.0
	Total	90	100.0	100.0	

6.2.2 Attitudinal information

6.2.2.1 Internal organisation and private space of apartment

This section analyses the sample population’s attitudes and opinions about their apartment and its different areas, including entrance, living area and kitchen, with regard to privacy.

6.2.2.1.1 Entrance section

Statistical analysis reveals that in 58.9per cent of the apartments the entrance door opens directly into the living room (Table 6.17). This situation is different in 41.1per cent of the remaining apartments, as a space between the apartment’s entrance door and living area acts as a mediator to separate the two sections. The mediator could be in shape of a small hallway, staircase, curved wall or just a partition in front of the apartment’s main door.

The importance of having an area in front the apartment door as a mediator is high for 58.9 per cent, average for 22.2 per cent and low for 7.8 per cent of the sample population (Table 6.18). No importance for having a mediator space was seen among 11.1 per cent of respondents.

Statistical analysis shows that the importance of a mediator space in front the apartment door is mainly due to the two inter-linked reasons of a) being secure from outsiders’ and strangers’ view, with 37.8 per cent, and b) maintaining



internal privacy, with 20 per cent (Table 6.19). Other factors include having a place for outdoor clothes and shoes (18.9 per cent), any other reason (12.2 per cent), and all the above issues (11.1 per cent).

Table 6.17 Direct opening of the apartments' entrance door into the living room

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Yes	53	58.9	58.9	58.9
	No	37	41.1	41.1	100.0
	Total	90	100.0	100.0	

Table 6.18 The importance of a mediator space in front of the entrance door

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly agree	53	58.9	58.9	58.9
	Agree	20	22.2	22.2	81.1
	Partly agree	7	7.8	7.8	88.9
	No difference	10	11.1	11.1	100.0
	Total	90	100.0	100.0	

Table 6.19 Reasons for importance of a mediator space in front of the entrance door

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Secure from strangers' view	34	37.8	37.8	37.8
	Internal privacy	18	20.0	20.0	57.8
	Place for outdoor clothes & shoes	17	18.9	18.9	76.7
	Any other	11	12.2	12.2	88.9
	All above issues	10	11.1	11.1	100.0
	Total	90	100.0	100.0	

6.2.2.1.2 Family and guest sections

The enquiry concerning if the apartment's family area is protected from guests' or visitors' direct view shows that 71.1 per cent of respondents believe that their apartments' family area is completely secure from visual access (Table 6.20), 20 per cent declare almost secure, 3.3 per cent declare not very secure



and 5.6 per cent declare that the family section is not secure at all from visitors’ view.

Statistical analysis shows that 77.8 per cent of the sample population strongly believe that the private family area has to be separated from the guest and visitors’ area (Table 6.21). The average level of agreement for the above issue is 13.3per cent, the low level is 3.3per cent and no difference is 4.4 per cent.

Table 6.20 How secure is the family section from visitors and guests view

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Completely	64	71.1	71.1	71.1
	Almost	18	20.0	20.0	91.1
	Not very secure	3	3.3	3.3	94.4
	Not secure	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Table 6.21 Preference of separate family area from the guest area

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	High	70	77.8	77.8	77.8
	Average	12	13.3	13.3	91.1
	Low	3	3.3	3.3	94.4
	No difference	4	4.4	4.4	98.9
	Missing	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

6.2.2.1.3 Kitchen section

One of the issues relating to internal privacy is the issue of open plan and how comfortable it is to be in an open plan kitchen while visitors are around. Statistical analysis identifies the following levels of comfort of respondents (Table 6.22): 22.2 per cent very comfortable, 26.6 per cent comfortable, 14.4 per cent less comfortable and 36.7 per cent no difference.



Table 6.22 Level of comfort in an open plan kitchen

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Very comfortable	20	22.2	22.2	22.2
	Comfortable	24	26.7	26.7	48.9
	Less comfortable	13	14.4	14.4	63.3
	No difference	33	36.7	36.7	100.0
	Total	90	100.0	100.0	

6.2.2.1.4 Overlooking and outside-inside privacy

One criterion to estimate how families intend to maintain their privacy from outsiders’ view is overlooking. If the design of a house prevents it from not being overlooked, the main device in Iranian culture to maintain privacy of their house is a curtain. The study has put this as a criterion to measure how important overlooking is for Iranian families and how much they think their privacy will be intruded upon.

Statistical analysis reveals that the bulk of respondents (83.3 per cent) feel very uncomfortable if they are situated in an overlooked position (Table 6.23). The figure shows that 8.9 per cent are less uncomfortable and 7.8 per cent choose no difference. Respondents were investigated about the situation of the curtains in different sections of the apartment; when and why they are closed. The results for the times when curtains are closed in each section of the apartments are:

Kitchen: 14.4 per cent never, 15.6 per cent sometimes, 24.4 per cent all the time, 6.7 per cent at night, and 38.9 per cent declare there is no curtain in the kitchen (Table 6.24).

Living room: 2.2 per cent never, 22.2 per cent sometimes, 46.7 per cent all the time, 22.2 per cent at night, and 6.7 per cent declare there is no curtain in the living room (Table 6.25).

Guest room: 2.2 per cent never, 25.6 per cent sometimes, 46.7per cent all the time, and 25.6 per cent at night (Table 6.26).



Bedrooms: 14.4 per cent sometimes, 61.1 per cent all the time, and 24.4 percent at night (Table 6.27).

Table 6.23 Level of comfort of being overlooked

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Very uncomfortable	75	83.3	83.3	83.3
	Not very uncomfortable	8	8.9	8.9	92.2
	No difference	7	7.8	7.8	100.0
	Total	90	100.0	100.0	

Table 6.24 When curtains are closed in the kitchen

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Never	13	14.4	14.4	14.4
	Sometimes	14	15.6	15.6	30.0
	All the time	22	24.4	24.4	54.4
	At night	6	6.7	6.7	61.1
	No curtains	35	38.9	38.9	100.0
	Total	90	100.0	100.0	

Table 6.25 When curtains are closed in the living room

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Never	2	2.2	2.2	2.2
	Sometimes	20	22.2	22.2	24.4
	All the time	42	46.7	46.7	71.1
	At night	20	22.2	22.2	93.3
	No curtains	6	6.7	6.7	100.0
	Total	90	100.0	100.0	

Table 6.26 When curtains are closed in the reception area

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Never	2	2.2	2.2	2.2
	Sometimes	23	25.6	25.6	27.8
	All the time	42	46.7	46.7	74.4
	At night	23	25.6	25.6	100.0
	Total	90	100.0	100.0	



Table 6.27 When curtains are closed in bedrooms

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sometimes	13	14.4	14.4	14.4
	All the time	55	61.1	61.1	75.6
	At night	22	24.4	24.4	100.0
	Total	90	100.0	100.0	

To find out whether curtains being closed in each section of the apartment is related to the issue of overlooking and privacy, a number of factors i.e. sun, overlooking, and heat and cold are examined. Respondents declare that curtains are closed in the following places due to:

Kitchen: 2.2 per cent sun, 40 per cent overlooking, 3.3 per cent heat and cold, and 54.4 per cent any other reasons (Table 6.28).

Living room: 15.6 per cent sun, 71.1 per cent overlooking, 1.1 per cent heat and cold, and 12.2 per cent any other reasons (Table 6.29).

Reception room: 16.7 per cent sun, 74.4 per cent overlooking, 2.2 per cent heat and cold, and 6.7 per cent any other reasons (Table 6.30).

Bedrooms: 7.8 per cent sun, 83.3 per cent overlooking, 4.4 per cent heat and cold, and 4.4 per cent any other reasons (Table 6.31).

Table 6.28 Why curtain is closed in the kitchen

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sun	2	2.2	2.2	2.2
	Overlooking	36	40.0	40.0	42.2
	Heat and cold	3	3.3	3.3	45.6
	Any other	49	54.4	54.4	100.0
	Total	90	100.0	100.0	



Table 6.29 Why curtain is closed in the living room

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sun	14	15.6	15.6	15.6
	Overlooking	64	71.1	71.1	86.7
	Heath and cold	1	1.1	1.1	87.8
	Any other	11	12.2	12.2	100.0
	Total	90	100.0	100.0	

Table 6.30 Why curtain is closed in the reception room

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sun	15	16.7	16.7	16.7
	Overlooking	67	74.4	74.4	91.1
	Heath and cold	2	2.2	2.2	93.3
	Any other	6	6.7	6.7	100.0
	Total	90	100.0	100.0	

Table 6.31 Why curtain is closed in bedrooms

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Sun	7	7.8	7.8	7.8
	Overlooking	75	83.3	83.3	91.1
	Heath and cold	4	4.4	4.4	95.6
	Any other	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

6.2.2.1.5 Overall satisfaction of existing privacy

Statistical analysis reveals that residents’ overall satisfaction with the existing level of privacy in their apartments is relatively high. About 60 per cent of the population declare themselves to be very satisfied and 33.3 per cent are satisfied. 4.4 per cent are less satisfied and only 2.2 per cent say they are not satisfied (Table 6.32).



Table 6.32 Residents’ overall satisfaction with existing level of privacy of their apartments

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Very satisfied	54	60.0	60.0	60.0
	Satisfied	30	33.3	33.3	93.3
	Not very satisfied	4	4.4	4.4	97.8
	Dissatisfied	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

6.2.2.2 Internal organisation and social interaction

Attitudinal information about the population’s trend toward social interaction and its relationship with the physical space of the apartment indicates that 72.2 per cent of the population see themselves as sociable and hospitable people, compared to 22.2 per cent who see their level of hospitability as moderate and only 5.6 per cent as inhospitable (Table 6.33). The effect of the internal layout and space of the apartment on the number of guests and number of invitations was asked. With regard to number of guests, 44.4 per cent of respondents believe number of guests is very effected by the internal layout of the apartment. This compares to 36.7 per cent who believe it has average impact, 7.8 per cent little impact and 11.1per cent no effect (Table 6.34). The impact on the number of invitations shows that while the majority, 35.6 per cent, believe layout of the apartment has an average impact on the frequency of inviting guests into their homes and social interactions, a significant proportion, 26.7 per cent, state there is no effect (Table 6.35).

Table 6.33 Population’s level of hospitality

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Hospitable	65	72.2	72.2	72.2
	Moderately Hospitable	20	22.2	22.2	94.4
	Inhospitable	5	5.6	5.6	100.0
	Total	90	100.0	100.0	



Table 6.34 Effect of internal layout of the apartment on number of guests

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Very much	40	44.4	44.4	44.4
	Average	33	36.7	36.7	81.1
	Not much	7	7.8	7.8	88.9
	No effect	10	11.1	11.1	100.0
	Total	90	100.0	100.0	

Table 6.35 Effect of internal layout of the apartment on number of invitations

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Very much	22	24.4	24.4	24.4
	Average	32	35.6	35.6	60.0
	Not much	12	13.3	13.3	73.3
	No effect	24	26.7	26.7	100.0
	Total	90	100.0	100.0	

6.2.2.3 Opinions on desired type of housing

The last question related to preferred type of housing. All respondents were asked to choose between a modern apartment and a private house as their desired type of housing if they had the ability to choose. Surprisingly, a majority, 50 per cent of the population, chose a private house compared to 43.3 per cent who preferred a modern apartment to live in (Table 6.36). The statistics indicate that despite the overall satisfaction of the sample population of their apartment, a private house is still preferred when it is a matter of choice.

Table 6.36 Population’s preferred type of housing

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Modern apartment	39	43.3	46.4	46.4
	Private house	45	50.0	53.6	100.0
	Total	84	93.3	100.0	
	Missing	6	6.7		
Total		90	100.0		



### **6.3 Summary**

In this chapter, quantitative data, i.e. factual information and attitudinal information collected from the case study, have been analysed. Analysis of the factual information, including the sample population's age group, education, economic status, cultural background, housing choice and preferences indicates that most families a) are in the middle of their life-cycle, b) have a good education level, c) have moderate to good economic status, d) are from diverse cultural backgrounds, but e) have lived in Tehran for many years, f) both private house and high-rise apartment are equally their preferred choice of housing, and g) their level of satisfaction is average.

Analysis of the attitudinal information including the sample population's opinions and approach to privacy and their relationship to different parts of the apartment, shows that most families believe a) having an area in front the apartment door as a mediator is important to prevent visual access from outside and to maintain internal privacy, b) the current plan of their apartment allows for the family area to be protected from guests' or visitors' direct view, c) the open plan of the kitchen does not inhibit their activities in the presence of visitors, but d) they feel very uncomfortable to be overlooked from outside the apartment. Other information related to the effect of apartment plan on social interactions indicates that while the internal layout of the apartment affects the number of guests present at one time, it has less effect on the number of social interaction occasions and frequency of invitations. The majority of population would choose a private house over an apartment as their desired type of housing.



# ***Chapter Seven***

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***Analytical Approach to Application of Privacy in  
the Selected Case Studies***



## **7.1 Introduction**

This chapter analyses the qualitative data collected from sixteen individual case studies which have made alterations inside the apartment. The case studies are selected from the quantitative stage of the research and are analysed on the basis of three criteria:

1. Traditional principle of gender segregation
2. Influence of modernity and gender integration
3. General trend of living and use of space

The case studies are categorised on the basis of the original plan of the apartments. In each apartment, alterations are shown on the original plan of the apartment followed by analytical discussion on the relationship between the alterations and the above criteria. To visualise different patterns of *mahramiyat* and privacy, each individual family's behaviours are illustrated in the apartment. The factual information including the families' socio – cultural background collected from the quantitative stage provides the background to understand its relationship with the type of alteration and pattern of privacy.



## **7.2 Category One Interview Case Studies**

### **7.2.1 Case No. One**

Location: *Ekbatan Town*

Phase: 3

Block: D2

Type of apartment: C

#### **7.2.1.1 Alterations**

This apartment has twice been modified from its original plan (Figure 7.1).

The first alterations had been as follows: the front store room had been converted into a bigger room by extending the walls into the dining area. Two doors had been added to different sections of the apartment to divide the spaces. One door to separate the entrance section of the apartment from the living area and a second door had been placed between the living area and the bedroom area (Figure 7.2).

The second alteration was made by the family who is currently living in the apartment. The two added doors were removed. The front store room, which was turned into a large front room in the first alteration, has now been included in the living area by removing the wall and the door. The door and also the wall between the kitchen and the corridor have been removed and the small storage located at the end of kitchen has been included in the kitchen area. Other alterations have been made in the bedrooms area including the placing in or removing of cupboards from the bedrooms and changing the corridor in front of the bedrooms into a small sitting/study area (Figure 7.3). The apartment has been modernised by fitting new kitchen cabinets, new lighting, decorative arches, decorative wall relief and tiling in the dining and living areas, and ceramic floors.



### **7.2.1.2 Reasons for alterations**

According to the current resident, the first alteration was in response to the traditional principle of gender segregation. The second alteration has been made according to the family's trend of living and also use of space. These reasons will be discussed in the following sections based on the three criteria of traditional principle of gender segregation, influence of modernity and general trend of living.

#### **7.2.1.2.1 Traditional principle of gender segregation**

The first alteration has been based on the traditional principle of gender segregation and the importance of *mahramiyat* – privacy - for the household. As was discussed in chapter four, in the relationship between culture and house planning, in traditional Iranian houses the cultural aspects of gender segregation and privacy were imposed through physical, permanent barriers and creating a one way communication access. The apartment's first alteration had been based on this type of relationship. With this arrangement, a popular design in traditional houses, visitors would have been guided from the entry section to the front room without interfering with or having visual access to other parts of the apartment. Also, the bedroom area was secure from the view of those present in the living area. In fact, by dividing the apartment into three sequential zones, a spatial hierarchy was being observed inside the apartment (Figure 7.4).

The second alteration, however, has been made for reasons other than the issue of privacy.

#### **7.2.1.2.2 Influence of modernity and gender integration**

Contrary to the first alteration, the apartment's second alteration was mainly due to the influence of modernity and gender integration. According to the family, open access between different sections of the apartment is important for them. This access is significant, particularly between the female (mother)-domain of kitchen and the family domain of the dining and living areas (Figure



7.5). This integrated pattern is influenced by the family’s modern trends. The pattern of privacy apply through the dressing code of female members of the family. It is also seen in the arrangement of the furniture. Two sets of sofas in the open living area accommodate male and female guests separately (Figure 7.9).

7.2.1.2.3 General trend of living and use of space

Creating an open, multi-functional and simultaneously modern space seems to be important for the family in order to enable them to maintain various activities within one space. Easy access to different sections of the apartment which would also facilitate better communication between family members, undertaking an annual religious ceremony for which a large space to fit the people in is needed, and also living a modern lifestyle are different ways of use of space in this apartment (Figures 7.6 – 7.8).

7.2.1.3 Level of satisfaction

The resident’s level of satisfaction is high and the whole family feels very comfortable in this apartment.

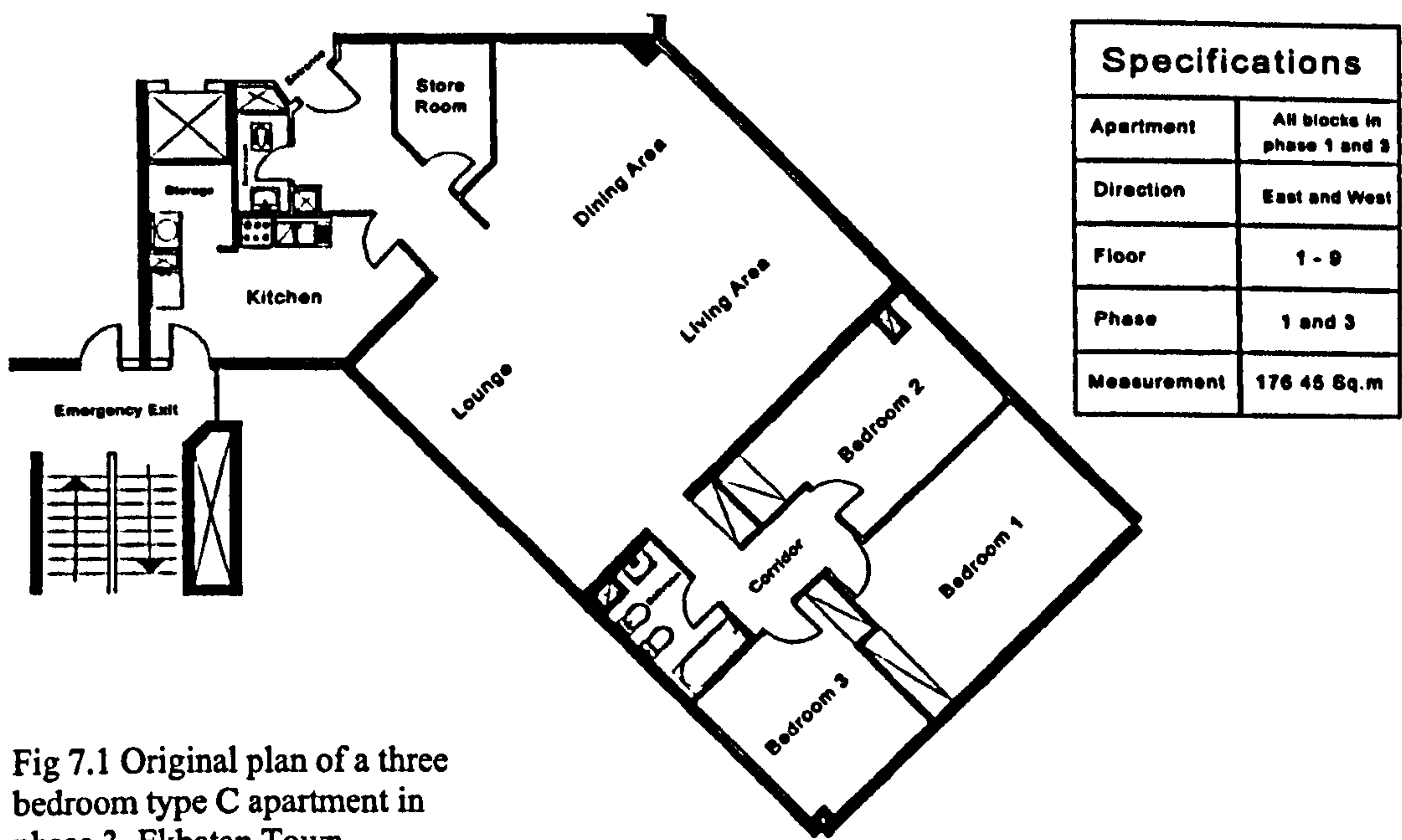


Fig 7.1 Original plan of a three bedroom type C apartment in phase 3, Ekbatan Town



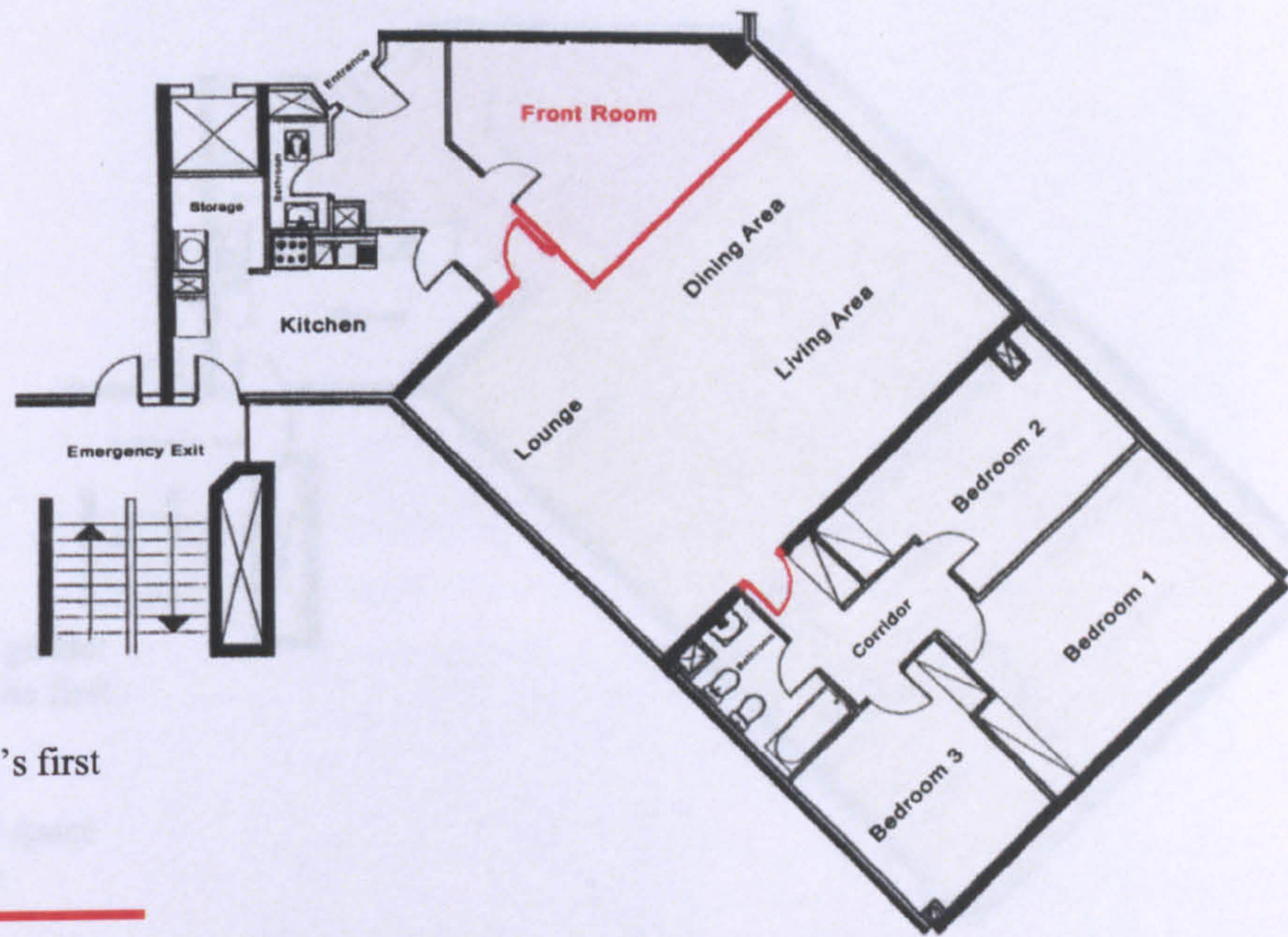


Fig 7.2 Apartment’s first modification

Modified areas

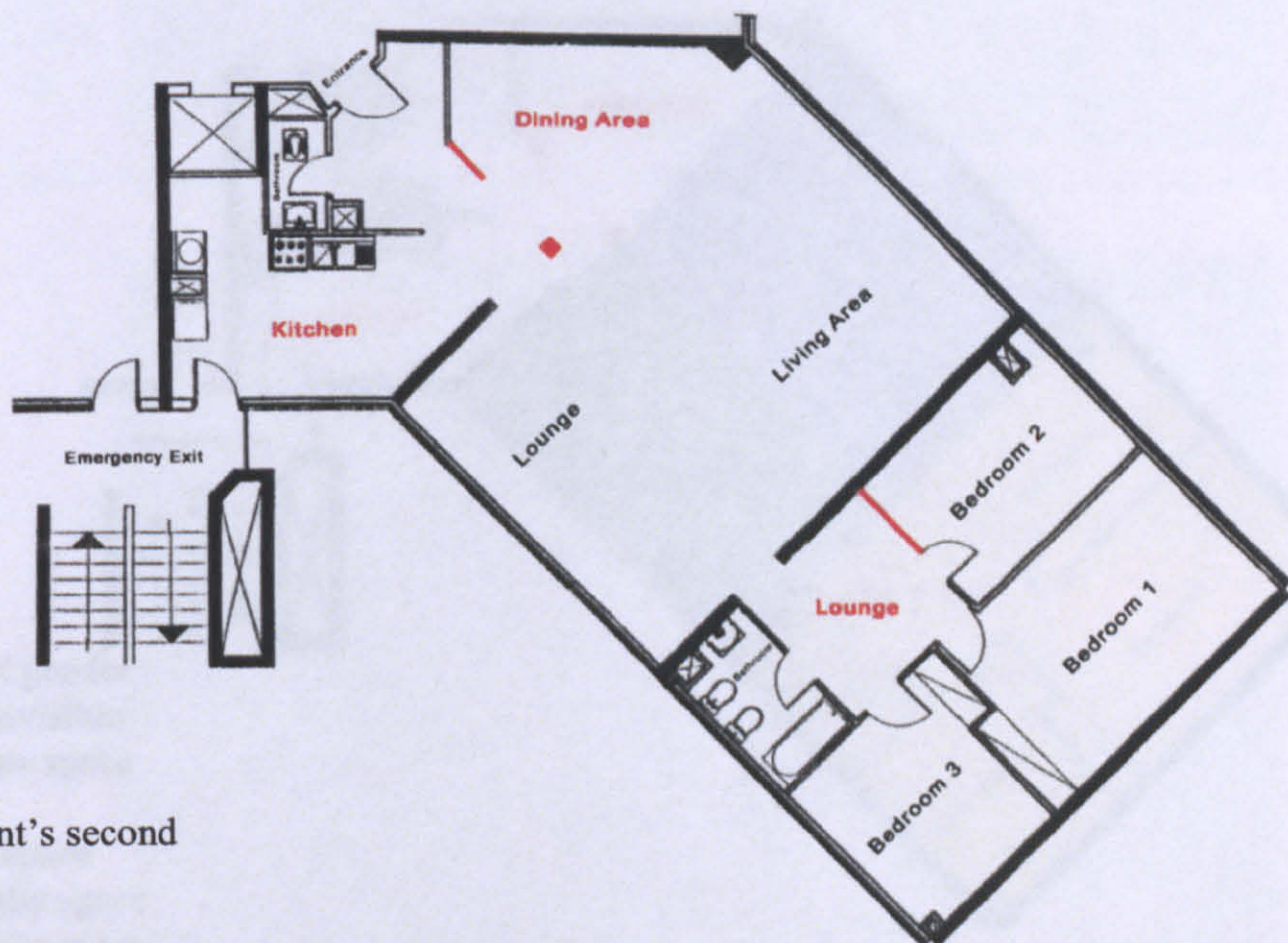


Fig 7.3 Apartment’s second modification

Modified areas



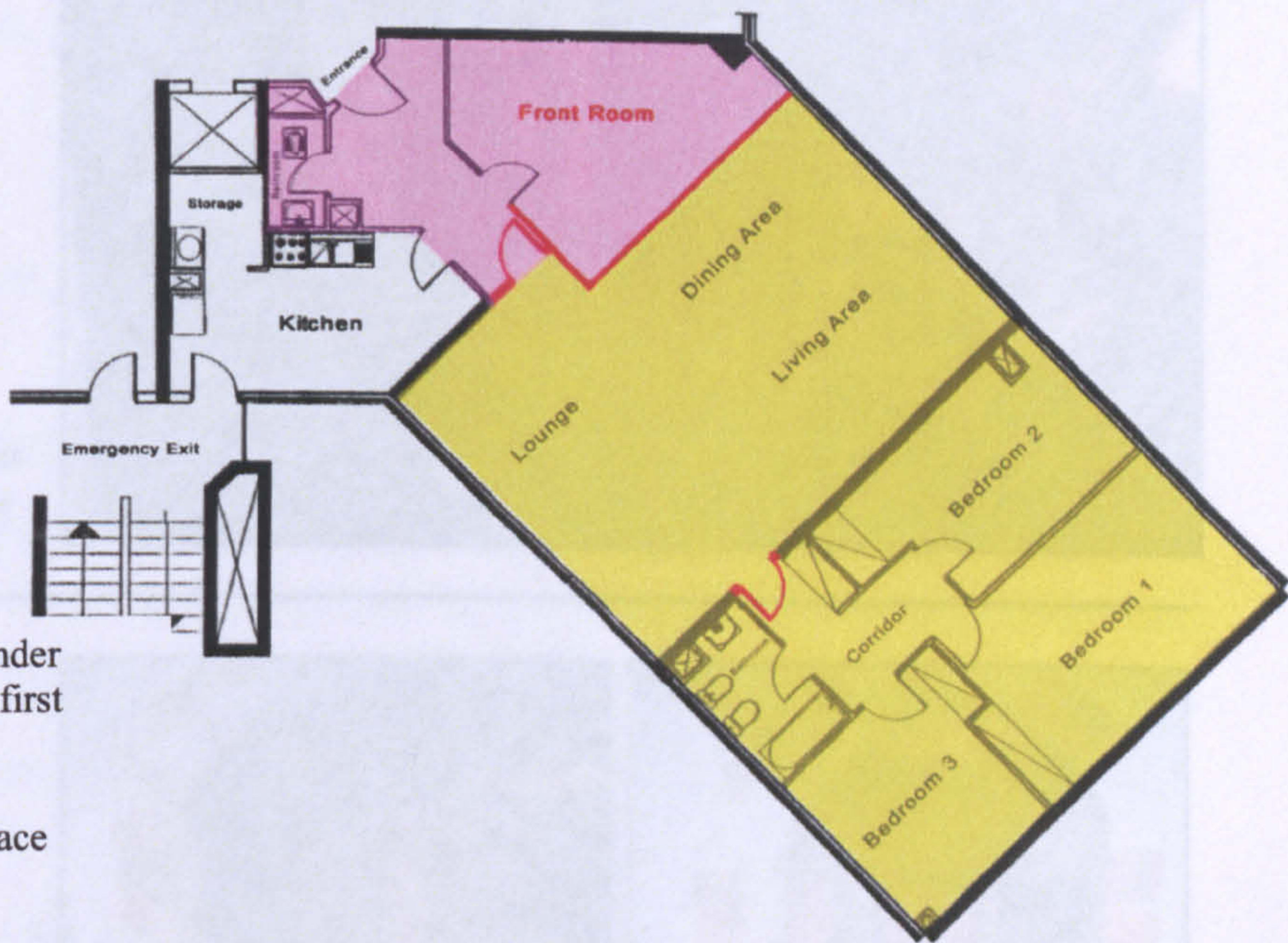


Fig 7.7 Kitchen has been open towards the dining and living areas

Fig 7.8 The corridor in front of the bedrooms has been changed into a small sitting area

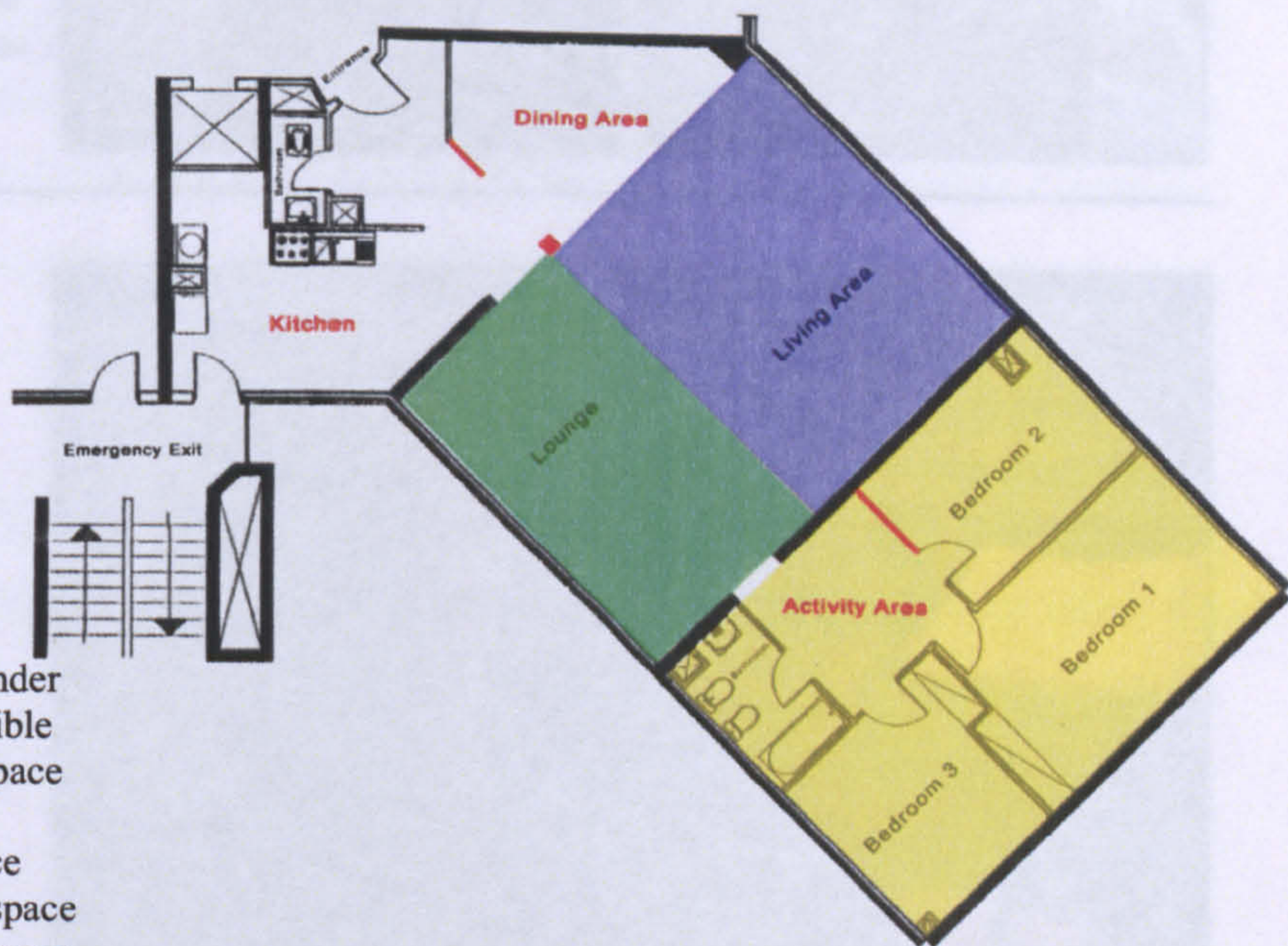






Fig 7.6 Interior layout of the apartment after the second alteration



Fig 7.7 Kitchen has open access to the dining and living areas



Fig 7.8 The corridor in front of the bedrooms has been changed into a small sitting/study area



Fig 7.9 Two sets of sofas are for seating men and women separately. This creates an invisible type of privacy within one space



## **7.2.2 Case No. Two**

Location: *Ekbatan Town*

Phase: 1

Block: B2

Type of apartment: C

### **7.2.2.1 Alterations**

The following alteration has been made in this apartment (Figure 7.10). The store room has been converted into an open kitchen. The separating wall between the new kitchen and the dining area has been replaced with a breakfast bar and the old kitchen has been changed into a front bedroom (Figure 7.11).

### **7.2.2.2 Reasons for alterations**

The main reason for alteration in this apartment is related to the trend of living and use of space.

#### **7.2.2.2.1 Traditional principle of gender segregation**

With the open kitchen-dining and living area the traditional gender segregated area is not present in this apartment. The family feel that they do not need to follow the gender segregation principle due to their personal beliefs. However, they believe that they can adapt the front bedroom or the main bedroom area for this purpose if necessary.

#### **7.2.2.2.2 The influence of modernity and gender integration**

The influence of modernity in this household is high, particularly after the modification. A sense of gender integration is present at any time and the family tend to live a modern life without considering the traditional principles.



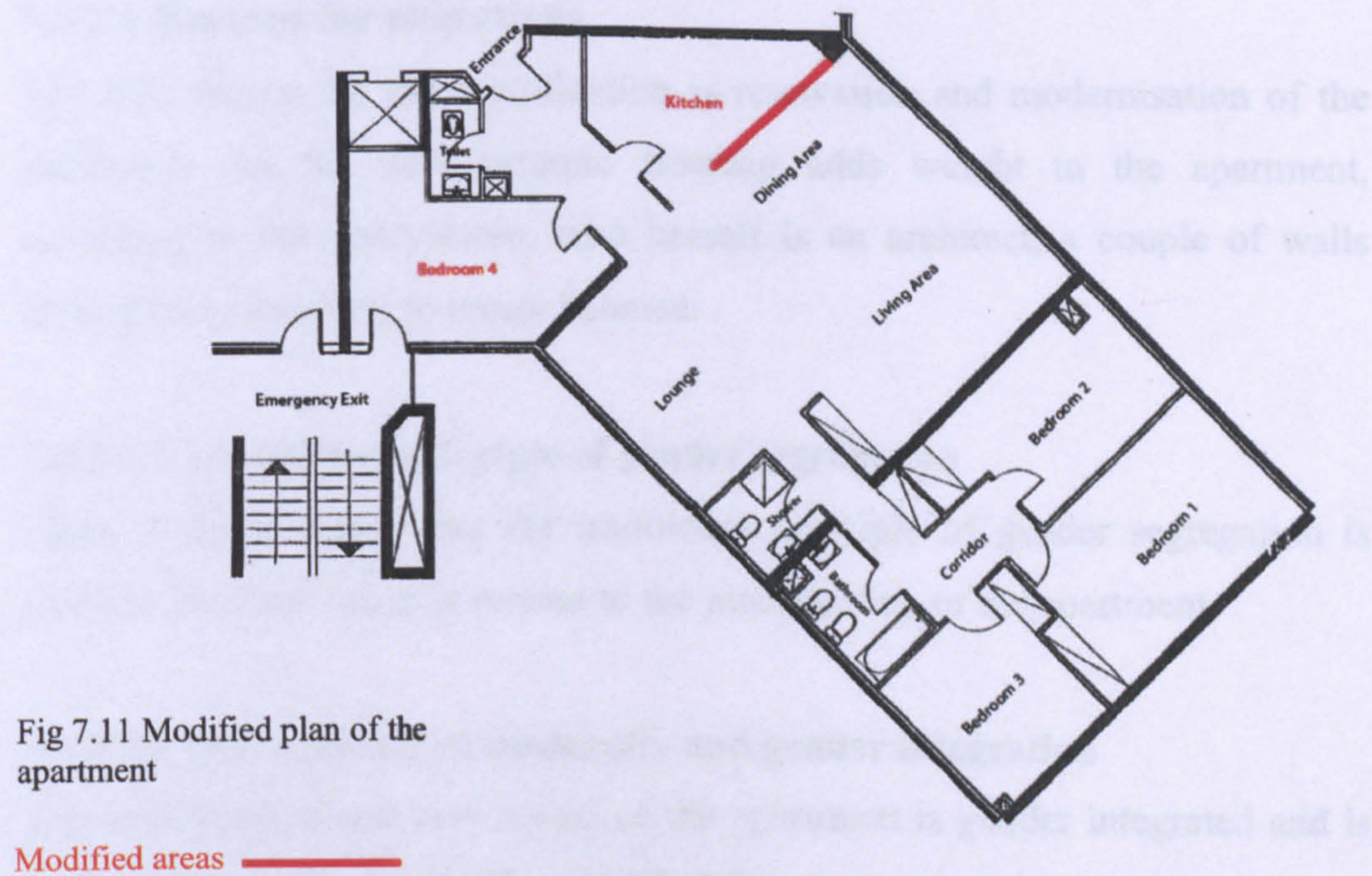
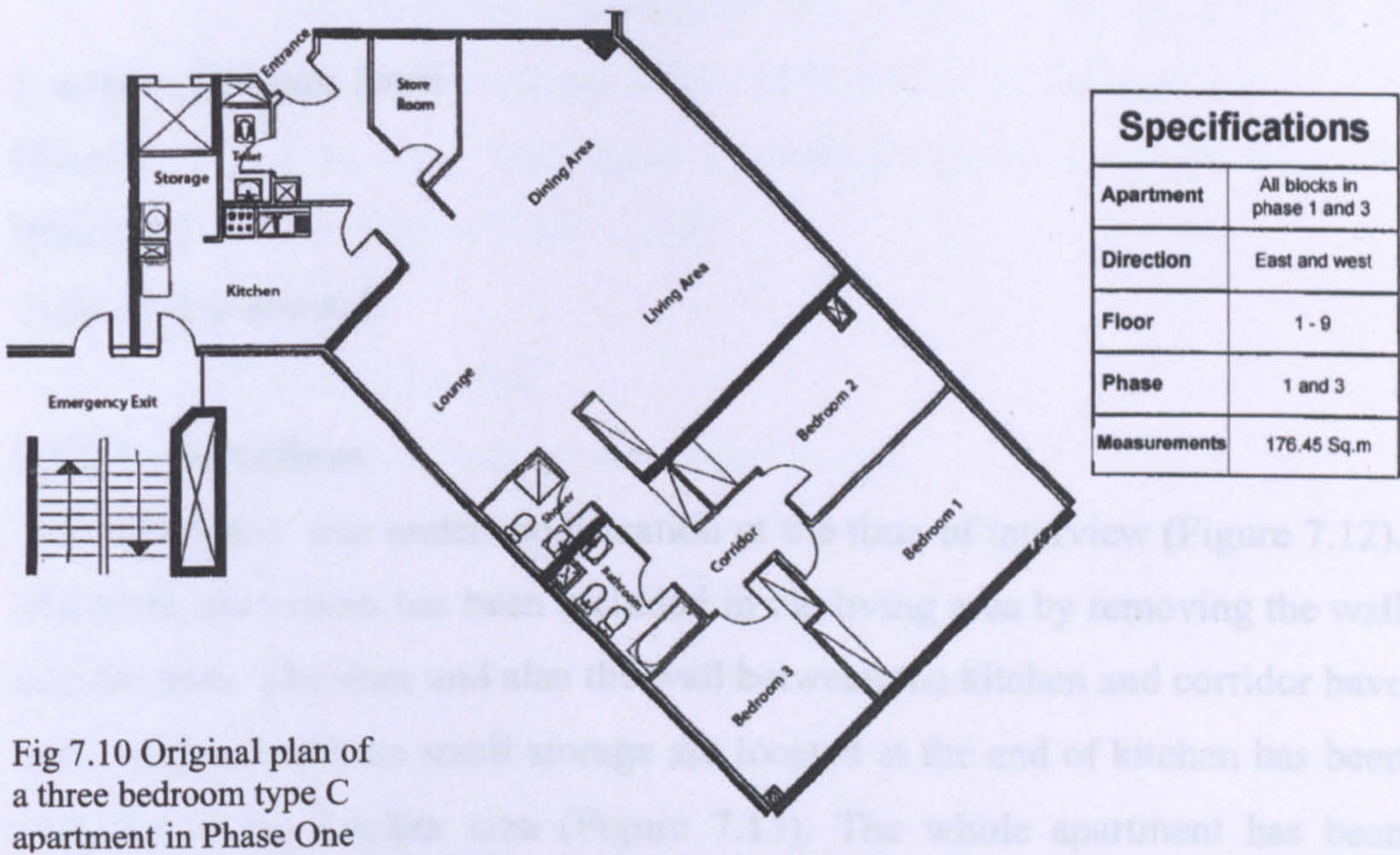
#### **7.2.2.2.3 General trend of living and use of space**

The family feel that they can have a better use of space with the new arrangement. The breakfast bar is being used as the family dining area and the actual dining and living area is kept tidy for guests at all times. The front bedroom has been created due to the need for an extra bedroom.

#### **7.2.2.3 Level of satisfaction**

The resident's level of satisfaction is high.







### **7.2.3 Case No. Three**

Location: *Ekbatan Town*

Phase: 3

Block: D2

Type of apartment: C

#### **7.2.3.1 Alterations**

This apartment was under modification at the time of interview (Figure 7.12). The front store room has been included in the living area by removing the wall and the door. The door and also the wall between the kitchen and corridor have been removed and the small storage area located at the end of kitchen has been included in the kitchen area (Figure 7.13). The whole apartment has been modernised; new kitchen cabinets have been fitted, water pipes and bathroom and toilet services have been changed, and new flooring and lighting have been placed.

#### **7.2.3.2 Reasons for alterations**

The only reason for the modification is renovation and modernisation of the apartment. As the new ceramic flooring adds weight to the apartment, according to the interviewee, who herself is an architect, a couple of walls needed to be removed to create balance.

##### **7.2.3.2.1 Traditional principle of gender segregation**

There is no evidence that the traditional principle of gender segregation is likely to be observed or is related to the modification of the apartment.

##### **7.2.3.2.2 The influence of modernity and gender integration**

The modification and new layout of the apartment is gender integrated and is well adapted to the modern Iranian lifestyle.



#### **7.2.3.2.3 General trend of living and use of space**

The division of space in the original plan was not functional and a “waste of space in some areas”, according to the interviewee. In the new layout, the family believes, the open plan space provides flexibility in use of space for different purposes (Figures 7.14 - 7.16).

#### **7.2.3.3 Level of satisfaction**

The resident thinks that level of satisfaction is high.



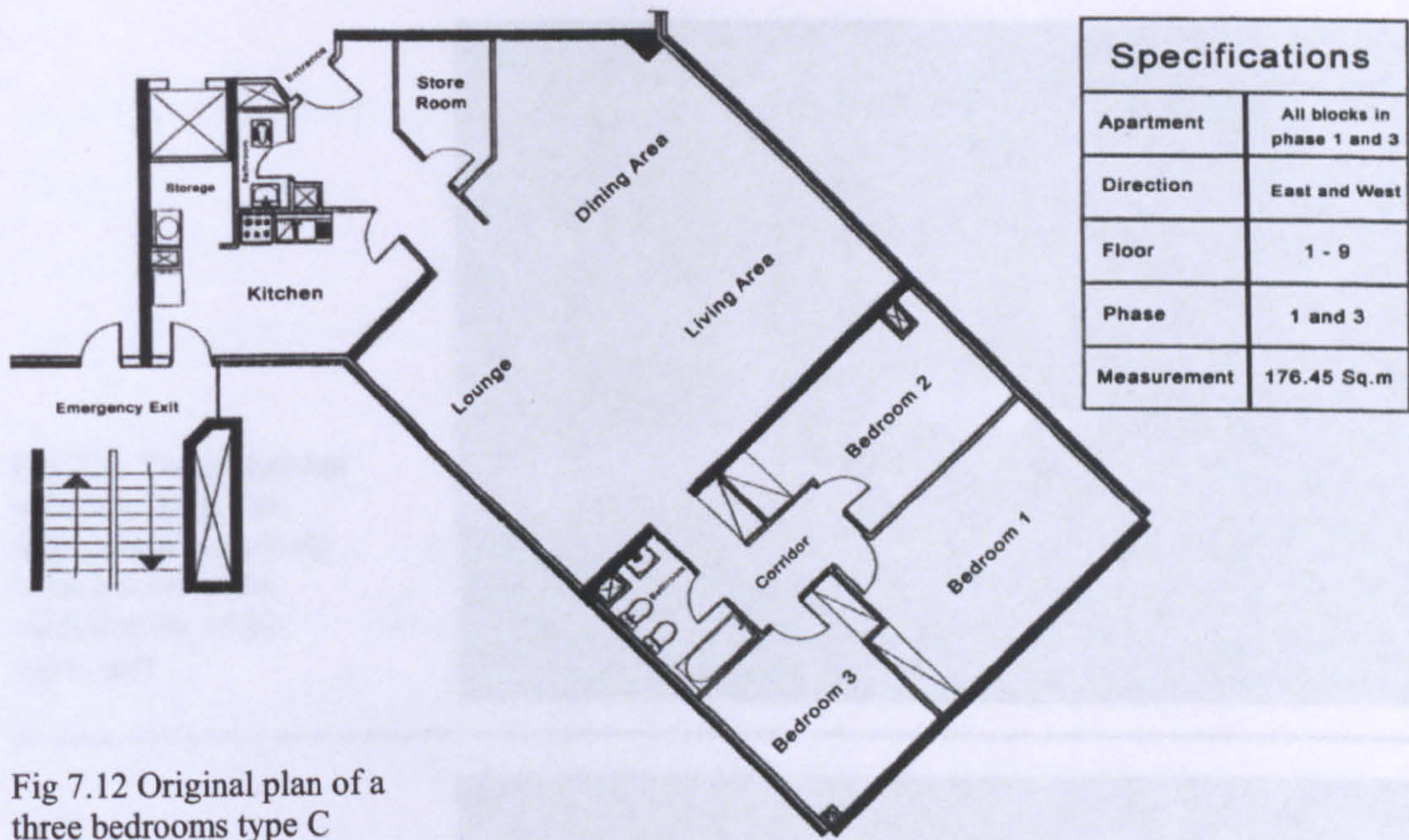


Fig 7.12 Original plan of a three bedrooms type C apartment in Phase 3

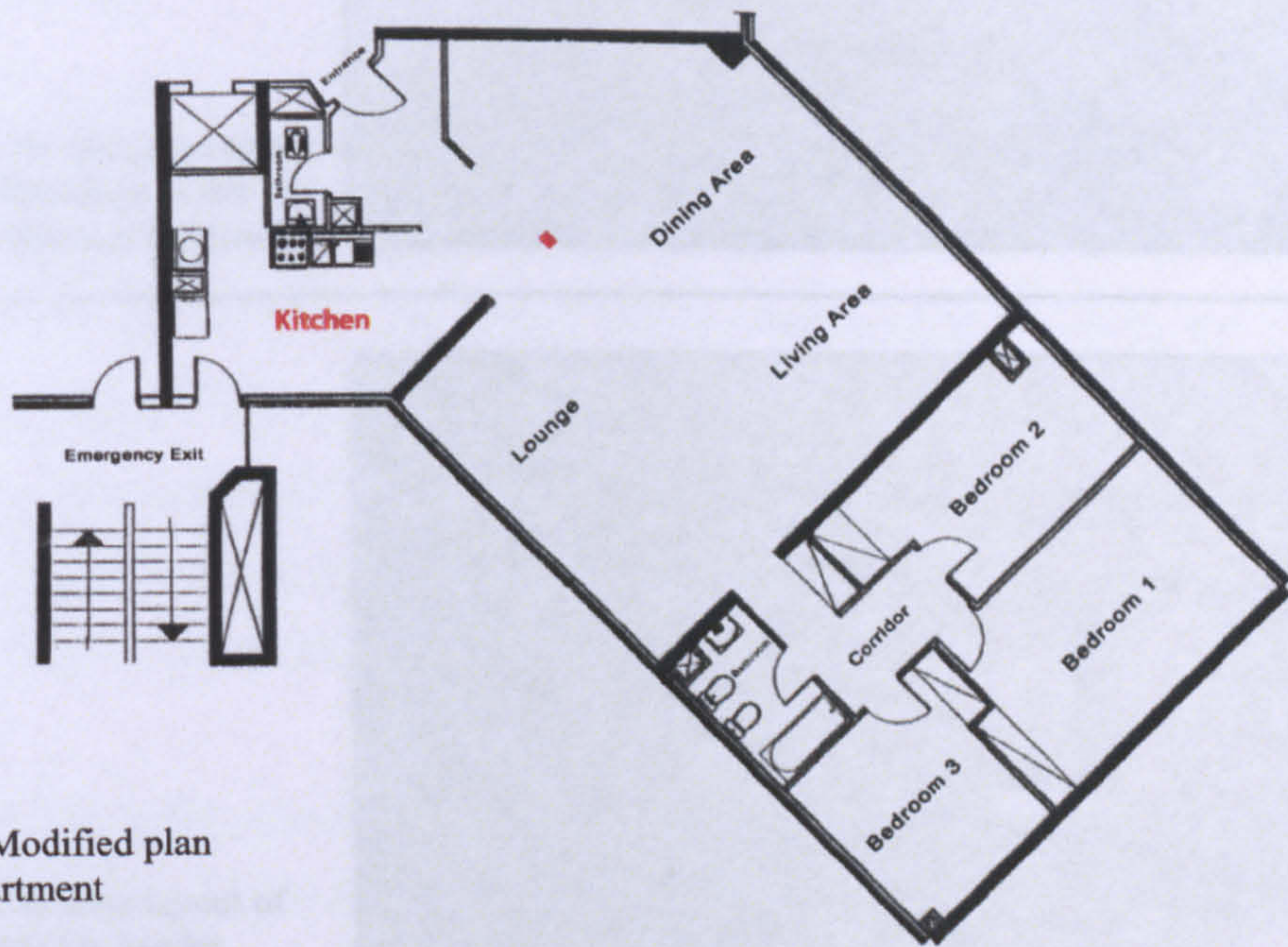


Fig 7.13 Modified plan of the apartment

Modified areas —



Fig 7.14 The traditional principle of gender segregation is unlikely to be related to the modification of the apartment



Fig 7.15 The open plan space provides flexibility in use of space for different purposes



Fig 7.16 The new layout of the apartment is gender integrated and is well adapted to the modern Iranian lifestyle





#### **7.2.4 Case No. Four**

Location: *Ekbatan Town*

Phase: 3

Block: D1

Type of apartment: C

##### **7.2.4.1 Alterations**

This apartment has been modified from its original plan (Figure 7.17) as follows. The front store room has been opened to the living area and converted into a dining room. The room's door and wall have been replaced by a decorative wall with openings and arches. Also, the kitchen has been opened into the corridor by removing the door and the wall (Figure 7.18).

##### **7.2.4.2 Reasons for alterations**

According to the interviewee, alteration was due to use of space inside the apartment: to create a bigger space, to have more light, and to eliminate the unusable space.

###### **7.2.4.2.1 Traditional principle of gender segregation**

The traditional principle of gender segregation is applied in this apartment to some extent and on some occasions. While interviewing the wife, she stated that in the presence of a male guest - a *na-mahram*- such as a colleague of her husband, she would stay in the bedroom. Also the family's eldest son's friends would stay with him in his bedroom. On other occasions, she would observe the dress code - *hejab* (Figure 7.19).

###### **7.2.4.2.2 The influence of modernity and gender integration**

The interviewee declared that they would have fully opened the kitchen into the lounge if the wall facing the lounge had not been a structural wall. Considering this and also the fact that the new modified plan of the apartment



is an open plan, the modern trend of gender integration is demonstrable in this household.

7.2.4.2.3 General trend of living and use of space

The modification has basically been due to the family’s need for more space. By converting the front store room into a dining room, the family have more space in the living area for different activities to take place, especially a play area for the family’s three children.

7.2.4.3 Level of satisfaction

The resident’s level of satisfaction after modification is very high.

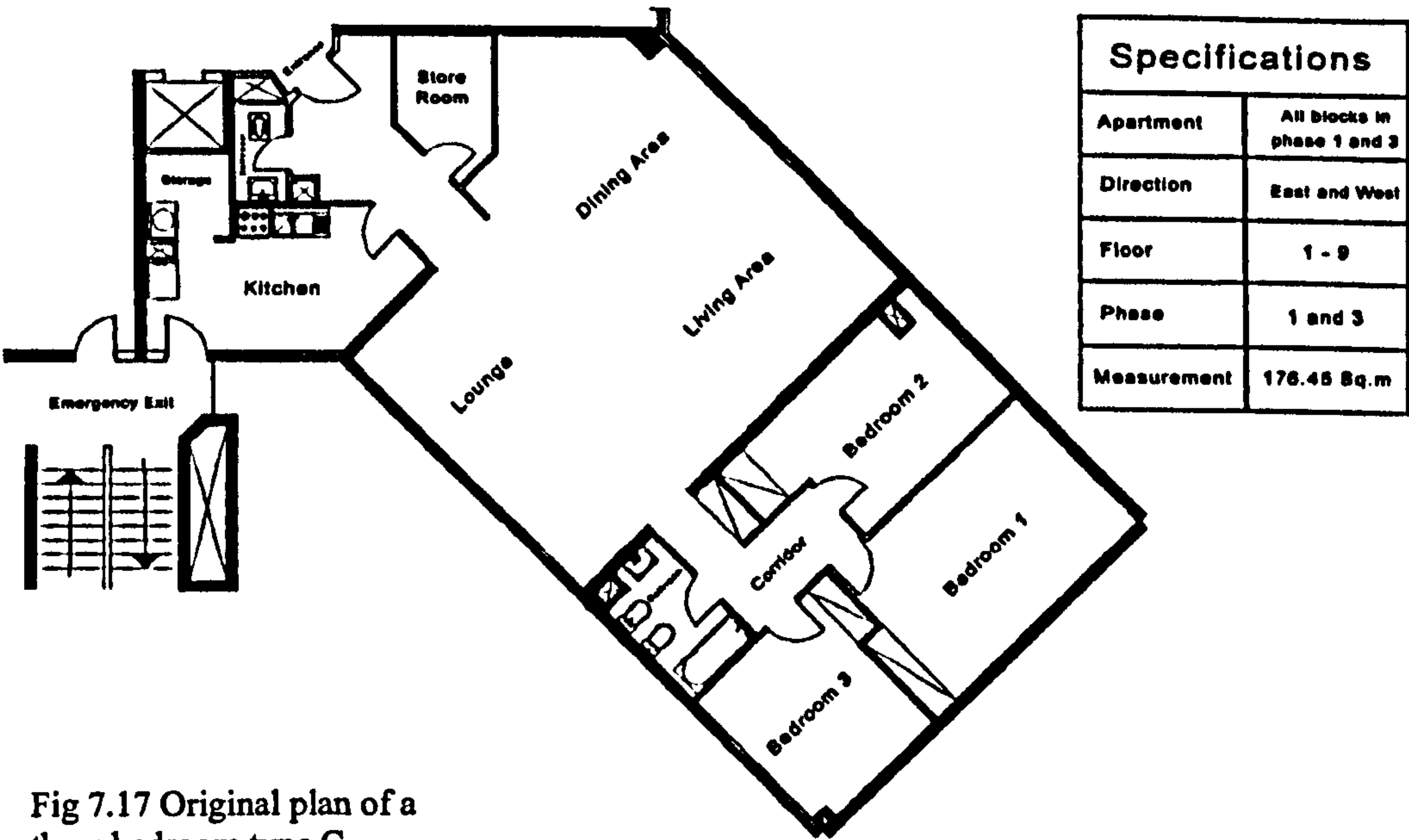


Fig 7.17 Original plan of a three bedroom type C apartment in Phase 3



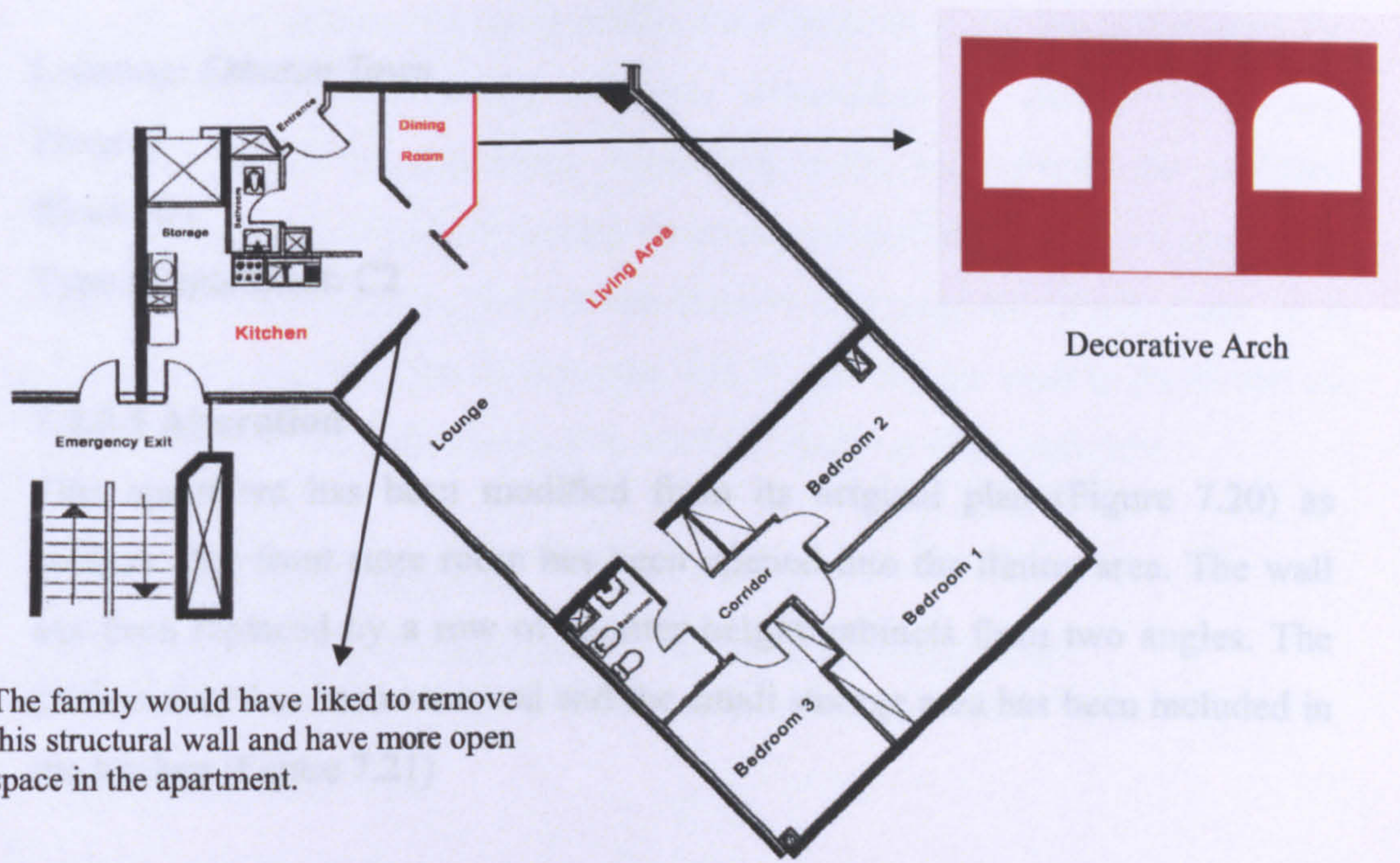


Fig 7.18 Modified plan of the apartment

Modified areas

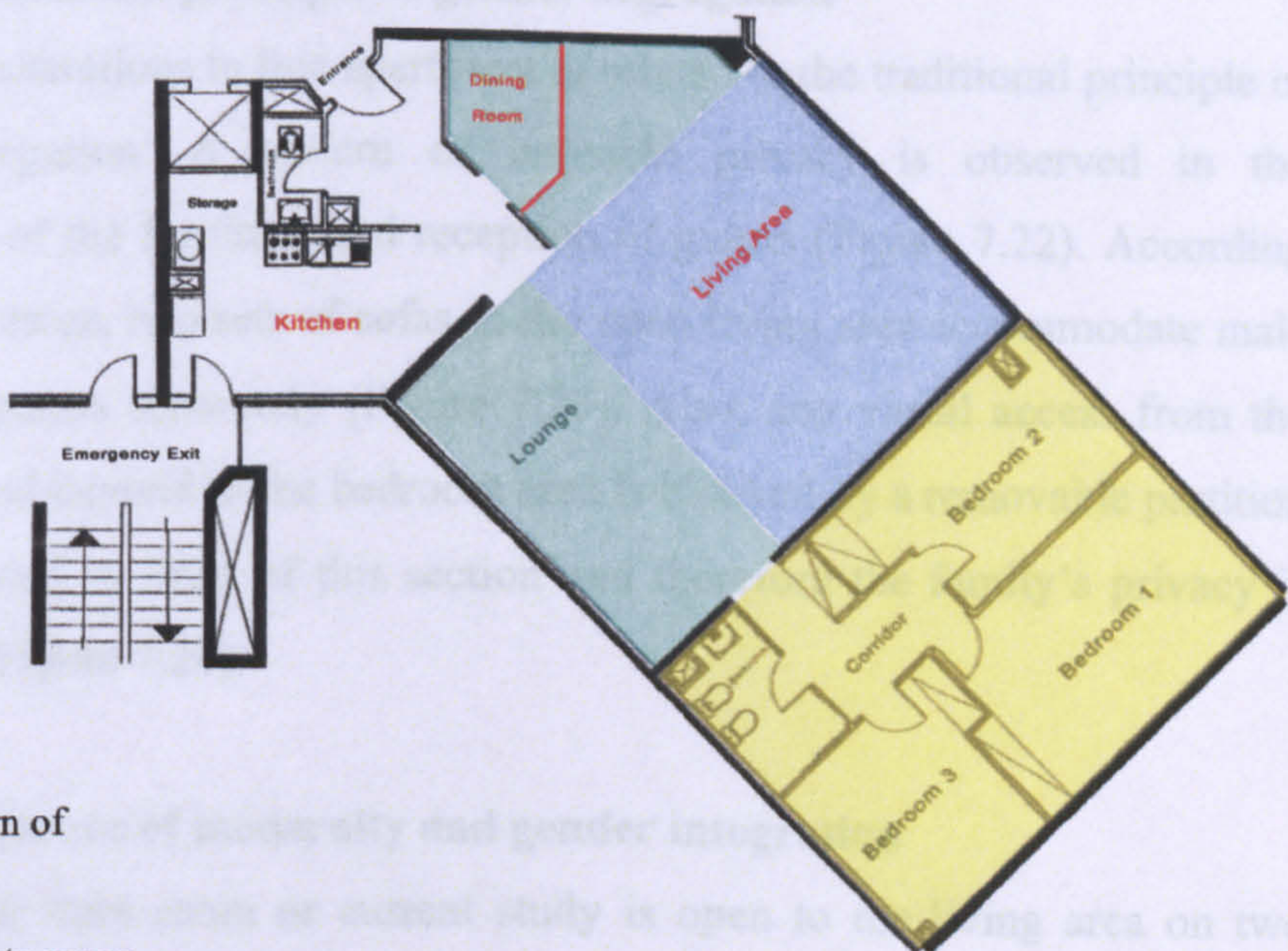


Fig 7.19 The pattern of privacy inside the apartment



### **7.2.5 Case No. Five**

Location: *Ekbatan Town*

Phase: 3

Block: D1

Type of apartment: C2

#### **7.2.5.1 Alteration**

This apartment has been modified from its original plan (Figure 7.20) as follows. The front store room has been opened into the dining area. The wall has been replaced by a row of counter height cabinets from two angles. The kitchen door has been removed and the small storage area has been included in the kitchen (Figure 7.21)

#### **7.2.5.2 Reason for alteration**

The main reason for the alterations is related to use of space.

##### **7.2.5.2.1 Traditional principle of gender segregation**

None of the alterations in this apartment is related to the traditional principle of gender segregation. A pattern of invisible privacy is observed in the arrangement of the furniture and reception of guests (Figure 7.22). According to the interviewee, two sets of sofas in the open living area accommodate male and female guests separately (Figure 7.23). Also, any visual access from the living area and beyond to the bedroom area is blocked by a removable partition which is placed in front of this section and therefore the family's privacy is maintained (Figure 7.24).

##### **7.2.5.2.2 Influence of modernity and gender integration**

The modified store room or current study is open to the living area on two sides, separated by a row of counter height cabinets (Fig 7.25). This section is used mainly when entertaining guests as an extra integrated space, therefore the influence of modernity and pattern of gender integration is clearly visible.



#### **7.2.5.2.3 General trend of living and use of space**

As mentioned earlier, the main reason for alteration is related to the need for extra space for this family of four, elimination of unused space and modernisation of the apartment. According to the interviewee, the modified store room or current study mainly functions when the family have guests for dinner; either some activity from the kitchen is transferred to this room, or it forms an extension to the dining area and is used for the food to be served on the counter. On other occasions it is used for study or other activities.

#### **7.2.5.3 Level of satisfaction**

The resident's level of satisfaction of the modified plan is high.



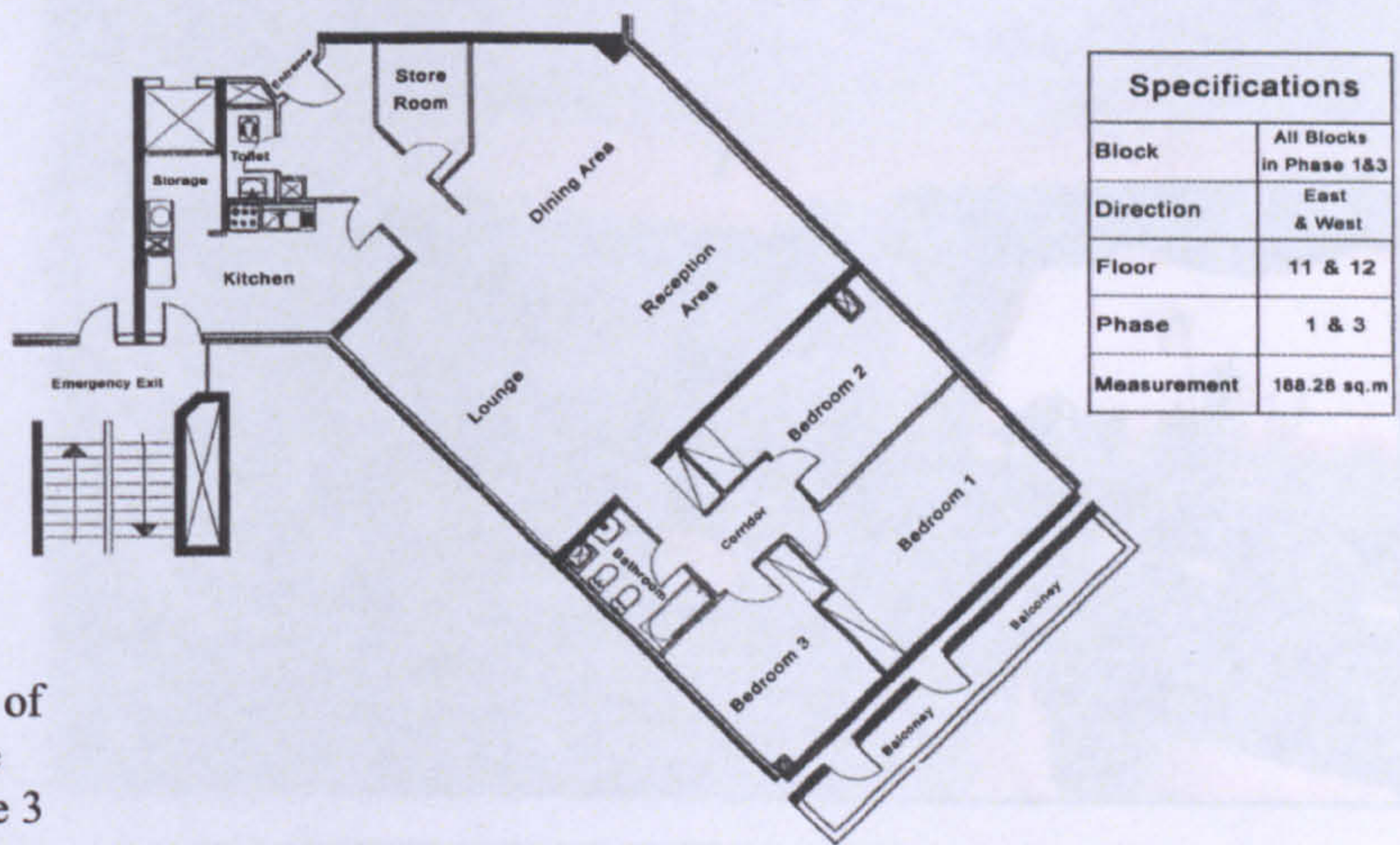


Fig 7.20 original plan of a three bedrooms type C2 apartment in Phase 3

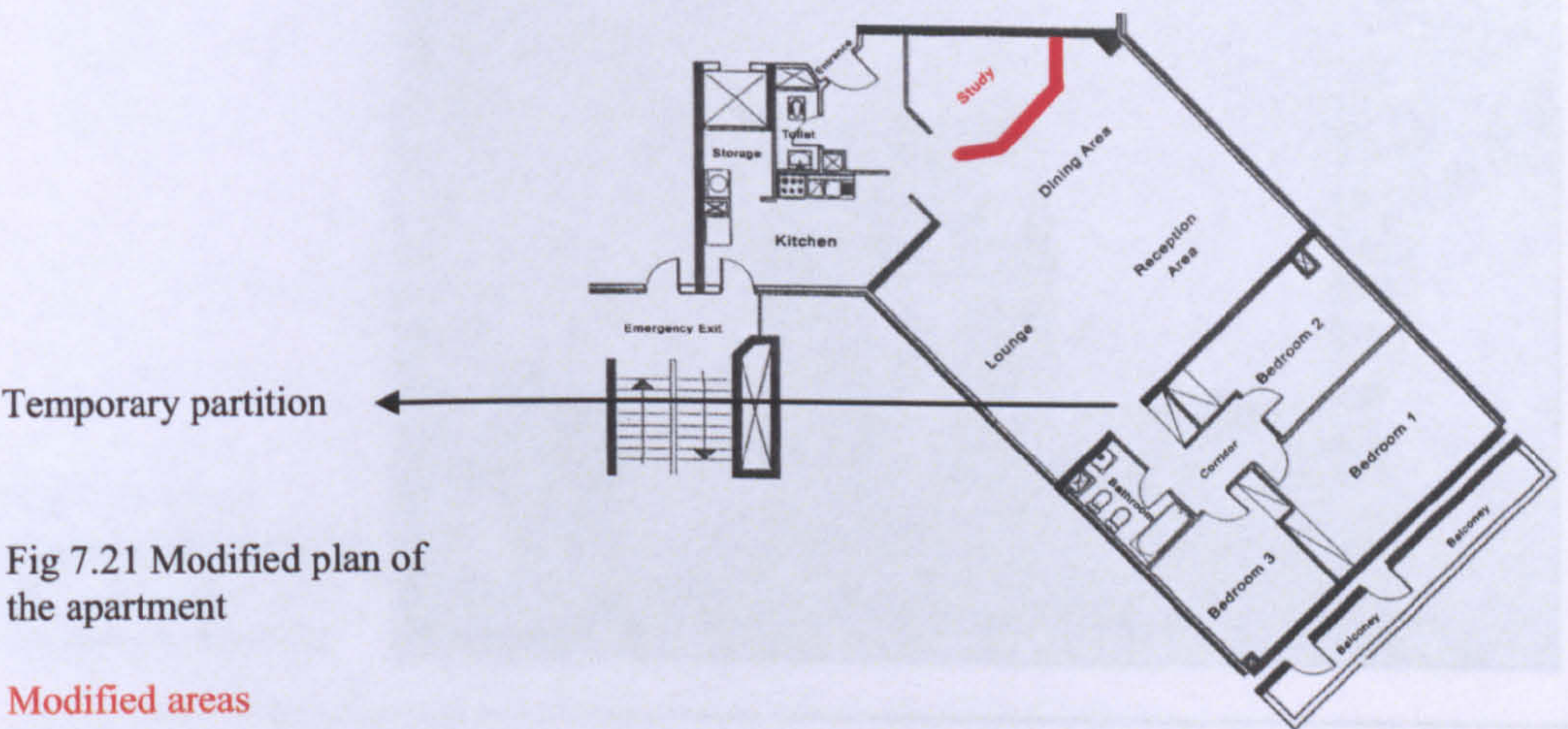


Fig 7.21 Modified plan of the apartment

Modified areas

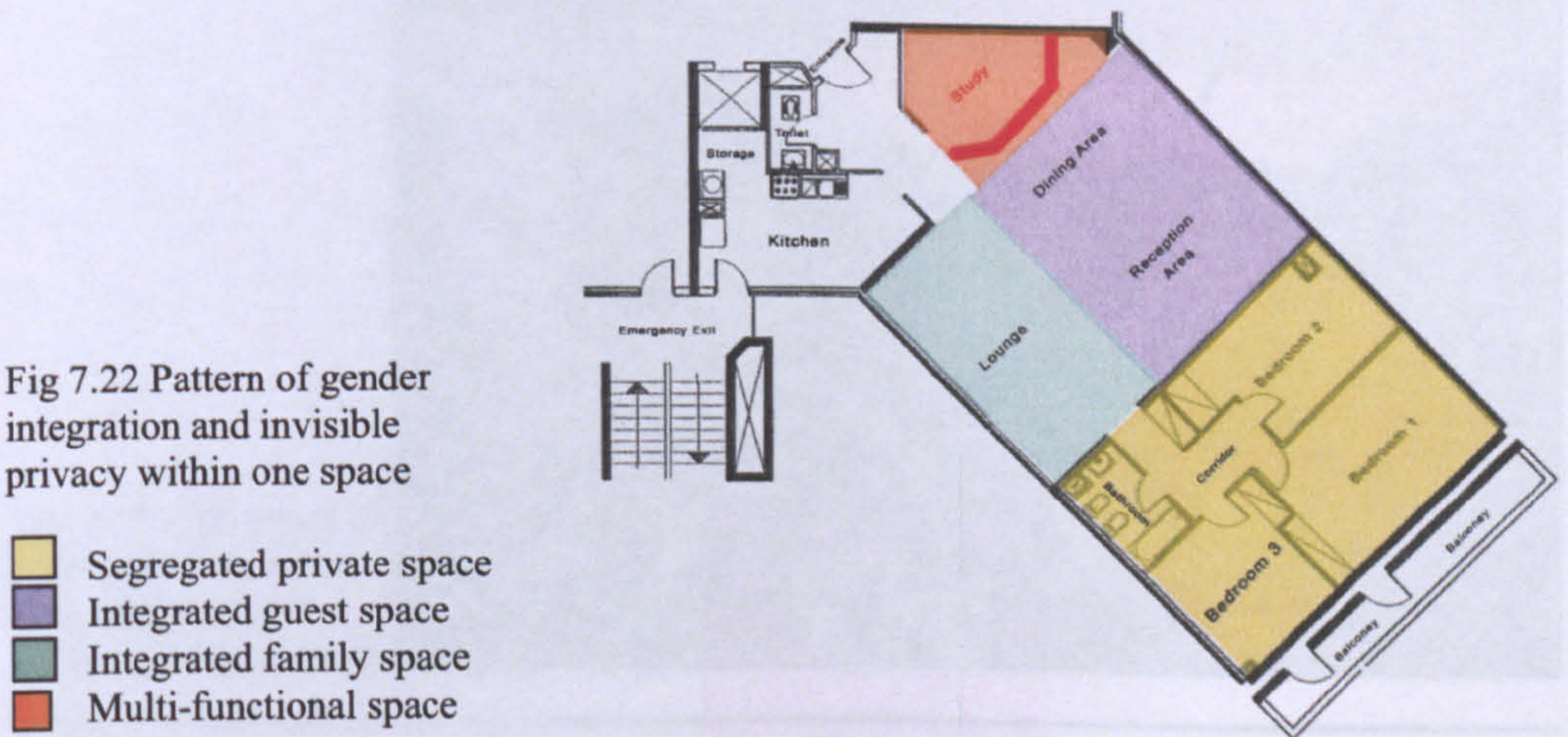


Fig 7.22 Pattern of gender integration and invisible privacy within one space



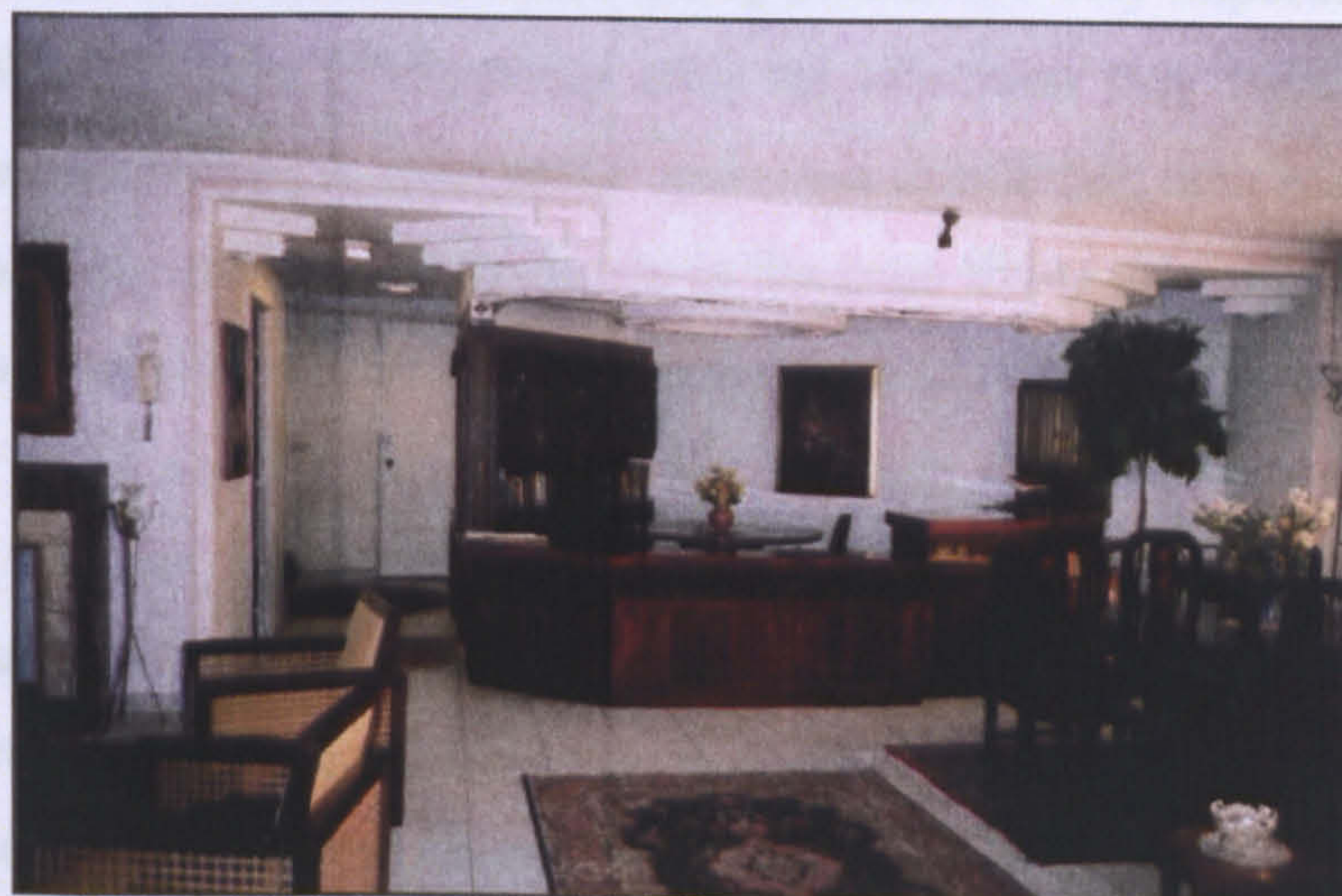
Fig 7.23 Two sets of sofa in the open living area accommodate male and female guests separately



Fig 7.24 Visual access to the bedroom area is blocked by a temporary partition



Fig 7.25 store room is adjoined to the living area and used as a multi-functional space





## **7.2.6 Case No. Six**

Location: *Ekbatan Town*

Phase: 3

Block: D2

Type of apartment: C

### **7.2.6.1 Alterations**

This apartment has been modified from its original plan (Figure 7.26) as follows. The front store room has been turned into a large room by extending the walls into the dining area. A second door has been added to this room where it opens to the corridor at the entrance section of the apartment. Another additional door has been placed in the middle of the corridor separating the entrance section and the main part of the apartment (Figure 7.27).

### **7.2.6.2 Reason for alterations**

Two reasons are behind the alterations, which are very related to each other; first is the traditional principle of gender segregation, and second is the family's general trend of living.

#### **7.2.6.2.1 Traditional principle of gender segregation**

This principle and also its observation inside the apartment are very important for the family. With the new arrangement after the alteration they have a completely independent section in front of the apartment to entertain their male guests, while females are entertained separately in the main living area (Figure 7.28). Male guests or visitors would be guided directly into this room through the second newly fixed door. It is also used for the male guests if they are staying the night. Through this door they would have access to the toilet and also to the way out. When the additional door separating the entrance section from the main section of the apartment is closed, there is no means of access, especially visual access, to the family section (Figures 7.29 – 7.32)



#### **7.2.6.2.2 The influence of modernity and gender integration**

There is no sign of influence of modernity and gender integration with regard to the apartment's modification as it has been more in favour of gender segregation.

#### **7.2.6.2.3 General trend of living and use of space**

The modification has also been due to the family's social status and trend of living. According to the mother of the family, her husband used to be a member of parliament and for this reason, he had many daily visits, mainly by men. This room was created for this purpose, primarily as a male reception area. However, it has remained untouched and has been in constant use by the family even years after he left his position. In addition to being a gender segregated guest room, it has been used for other family purposes. The mother of the family is a religious tutor. She runs workshops and study groups as part of her job. Some of her classes are held in this room. On other occasions this room is used as a study room.

#### **7.2.6.3 Level of satisfaction**

The household has declared a high level of satisfaction with the current layout of the apartment.



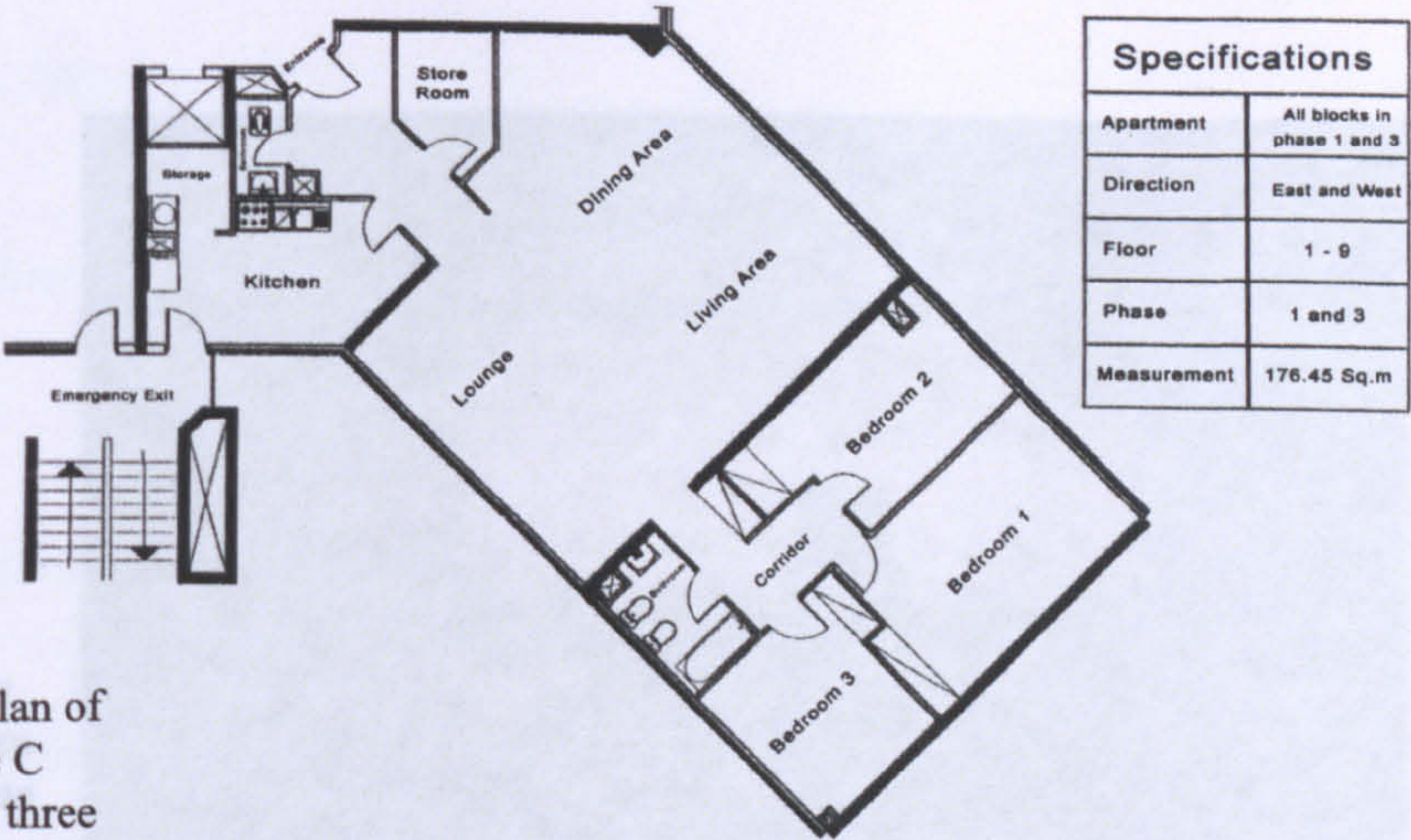


Fig 7.26 Original plan of three bedroom type C apartment in Phase three

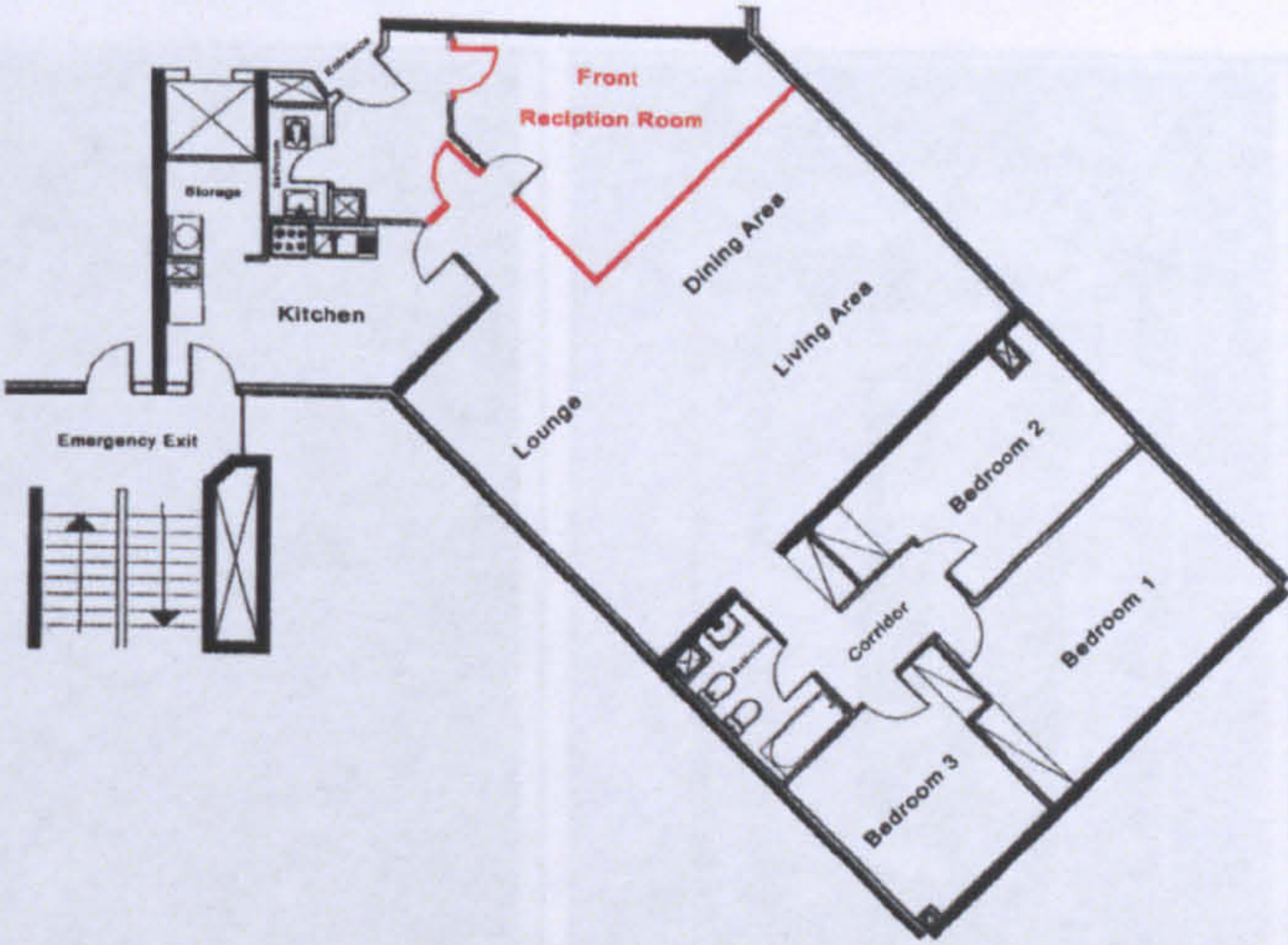


Fig 7.27 Modified plan of the apartment

Modified areas

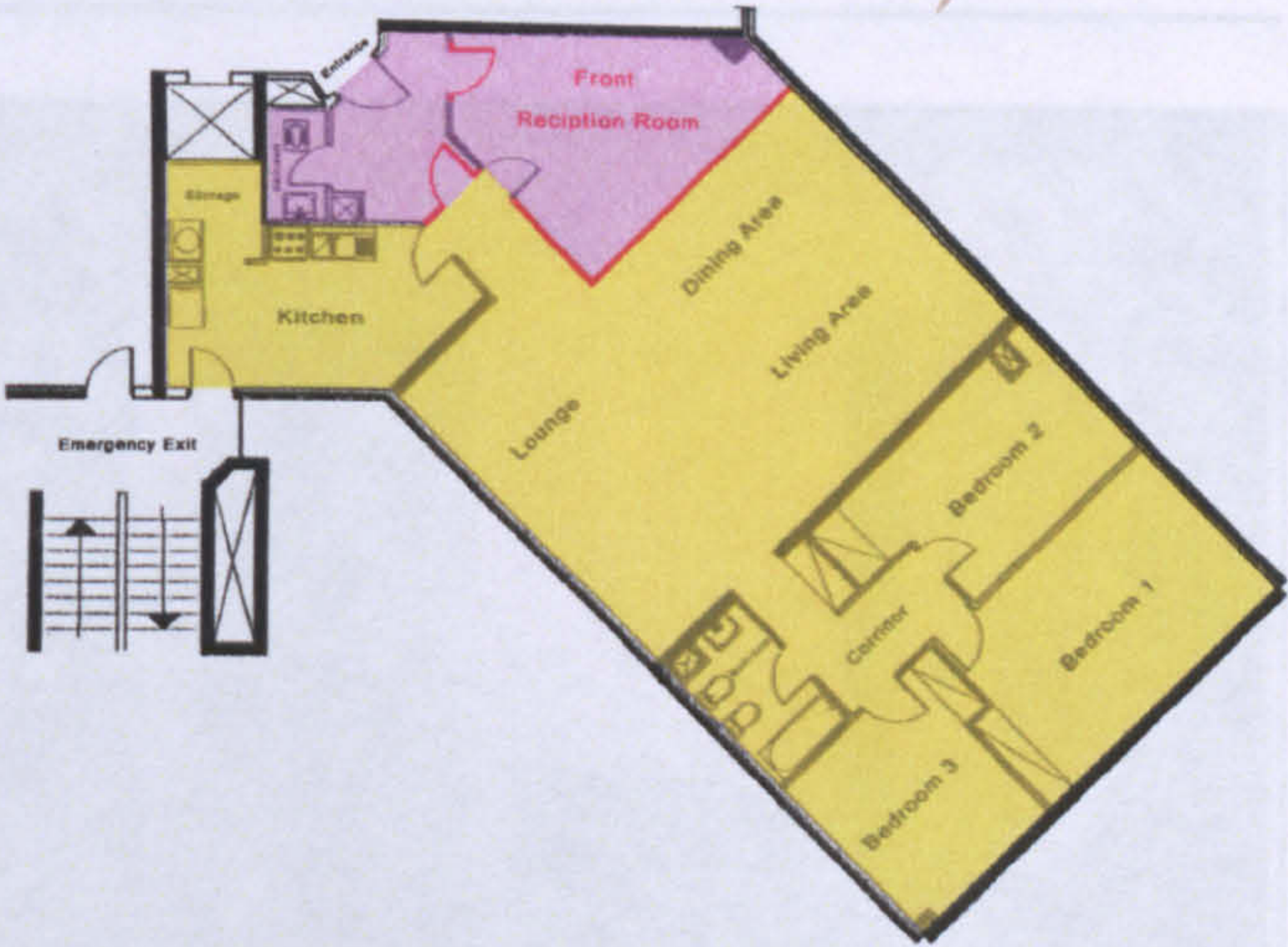


Fig 7.28 Pattern of privacy in the apartment after modification

- Private space
- Semi-private space





Fig 7.29 A separate front reception room has been created due to traditional principle of gender segregation



Fig 7.30 A door has been added immediately after the entrance door to establish physically separate family and non-family areas, pictured from outside the apartment



Fig 7.31 Same door pictured from inside the apartment



Fig 7.32 Two doors open onto the front reception room; one from the entrance section and the other from the family section



### **7.2.7 Case No. Seven**

Location: *Ekbatan Town*

Phase: 1

Block: B4

Type of apartment: C

#### **7.2.7.1 Alterations**

This apartment has been modified from its original plan (Figure 7.33) as follows. The front store room has been included in the living area; the second bathroom has been removed and the kitchen door and wall have been removed and replaced by a breakfast bar (Figure 7.34).

#### **7.2.7.2 Reason for alterations**

According to the interviewee, the main reason for alteration was in order to create a larger multi-functional space in the apartment. Modernisation of the apartment was another reason which had been considered by the household.

##### **7.2.7.2.1 Traditional principle of gender segregation**

As privacy is highly important for the family, the traditional principle of gender segregation in this apartment is implemented both behaviourally and physically. According to the wife, on any occasion when a male visitor *na-mahram* is present, she would fully observe her *hejab*. Sometimes men and women are treated separately in the living area and one of the bedrooms. If guests are staying for night, men usually sleep in the living area and women in the bedrooms.

##### **7.2.7.2.2 The influence of modernity and gender integration**

The wife is an artist, a professional and in regular contact with the outside world. While she has her religious beliefs with regard to *mahramiyat* and *hejab*, she is fond of modernity and gender integration. The modified and



modernised large open living area (Figure 7.35) and also open kitchen (Figure 7.36) maintain the concept of modernity and gender integration. However, she relies on the dress code and behavioural aspect of privacy rather than physical barriers.

#### **7.2.7.2.3 General trend of living and use of space**

The newly created open large area is a multi-functional space used for different purposes such as a studio and family recreation activities (Figure 7.37).

#### **7.2.7.3 Level of satisfaction**

The family is satisfied with the modified internal plan of the apartment.



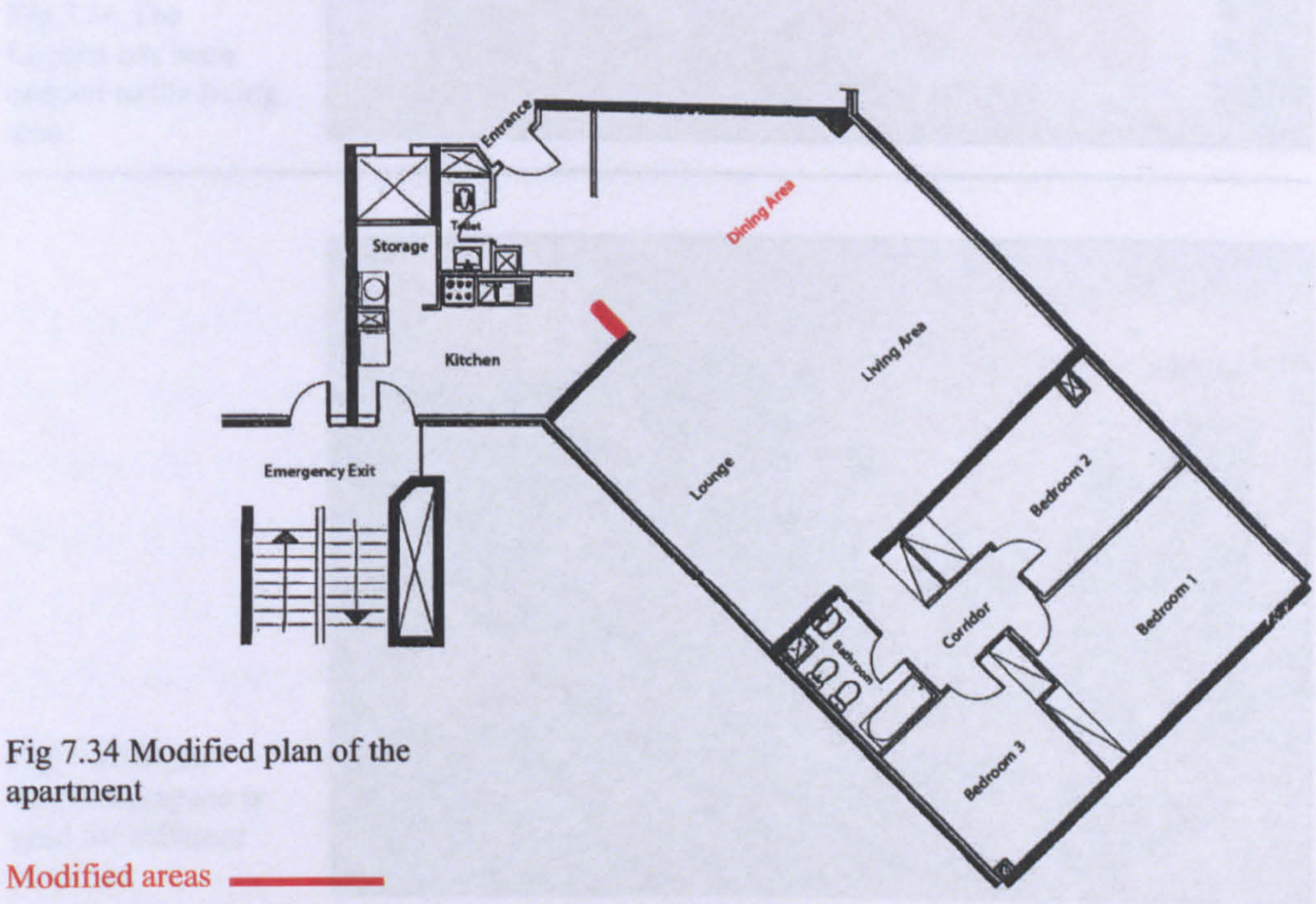
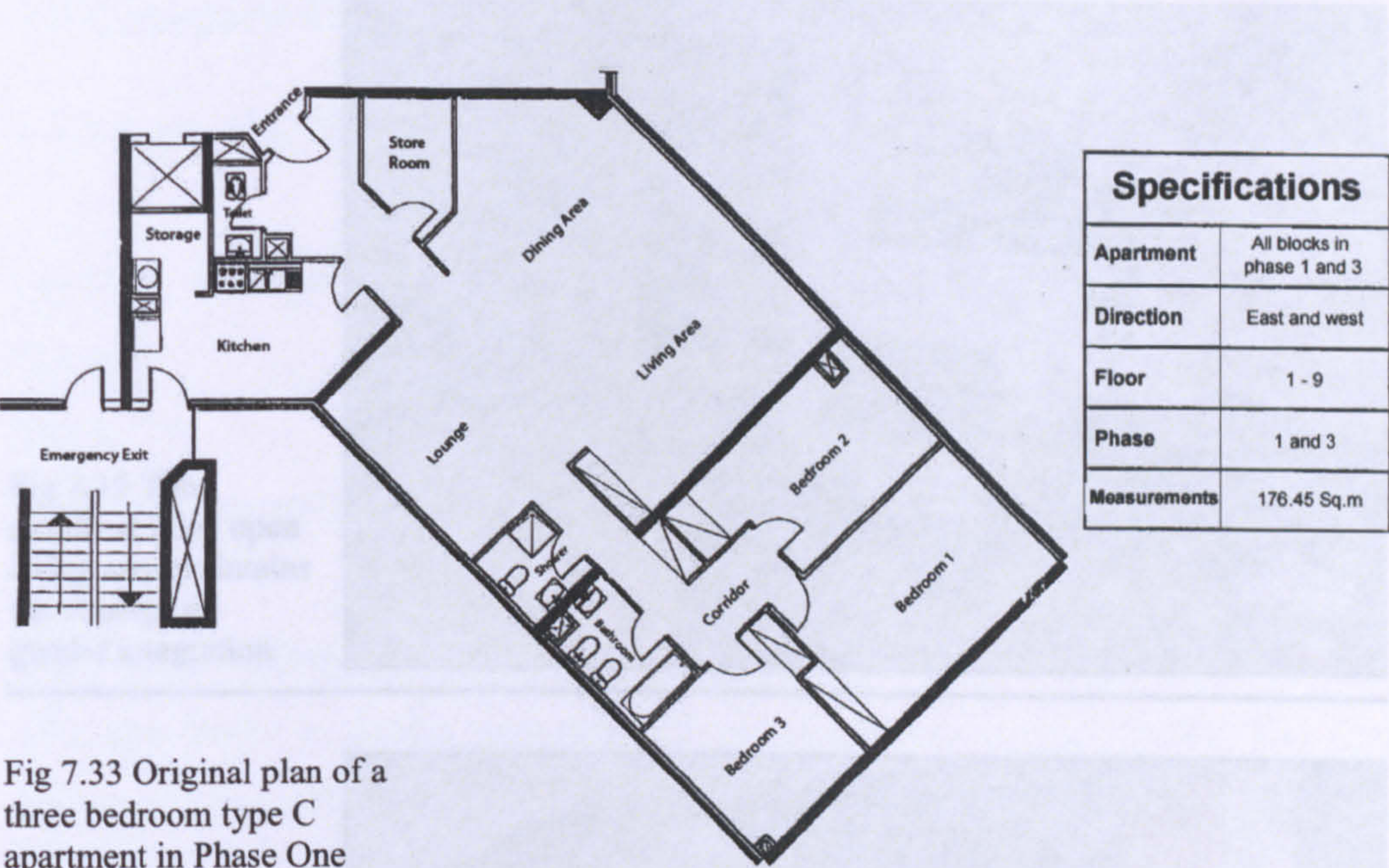






Fig 7.35 The modified large open living area maintains the concept of gender integration



Fig 7.36 The kitchen has been opened to the living area



Fig 7.37 Multi-functional space is used for different purposes



## **7.3 Category Two Interview Case Studies**

### **7.3.1 Case No. Eight**

Location: *Ekbatan Town*

Phase: 2

Block: 15

Type of apartment: H2

#### **7.3.1.1 Alteration**

This apartment is duplex and planned on two floors (Figure 7.38). The first floor consists of the living and dining area, kitchen and toilet. The bedrooms, bathroom and a store room are located on the second floor. Alteration has been made to the kitchen area on the first floor. The kitchen door and also walls surrounding the kitchen have been removed on two sides, the wall facing the dining area and the wall under the staircase. Therefore one large open plan space has been created which consists of kitchen, dining and living areas (Figure 7.39).

#### **7.3.1.2 Reason for alteration**

The main reason for the above alteration is related to the use of space.

##### **7.3.1.2.1 Traditional principle of gender segregation**

As the entire first floor has been converted into one large space, the physical barriers of gender segregation are eliminated. The traditional principle of gender segregation is maintained through the apartment's furniture, i.e. two sets of sofa, and also dress code and behaviour. Seating arrangements and gender segregation is, however, closely related to the household's level of familiarity and closeness with guests and visitors. According to the interviewee, everyone sits together if close family relatives are around. Otherwise, men and women sit separately (Figure 7.40).



#### **7.3.1.2.2 The influence of modernity and gender integration**

The modified open plan kitchen provides the opportunity for gender integration and control over space for women. This modern Iranian trend has become prevalent in most modern Iranian houses. By observing their *hejab* and under the influence of modernity, the female members of the family segregate themselves behaviourally rather than physically.

#### **7.3.1.2.3 General trend of living and use of space**

According to the mother, the level of communication between family members has increased since the apartment's modification, especially at times when she is working in the kitchen. The open plan has created a bigger space for the family's general use. It has also created a better condition for the kitchen in terms of ventilation as it does not get as hot as it used to.

#### **7.3.1.3 Level of satisfaction**

The residents feel comfortable and satisfied with their apartment.



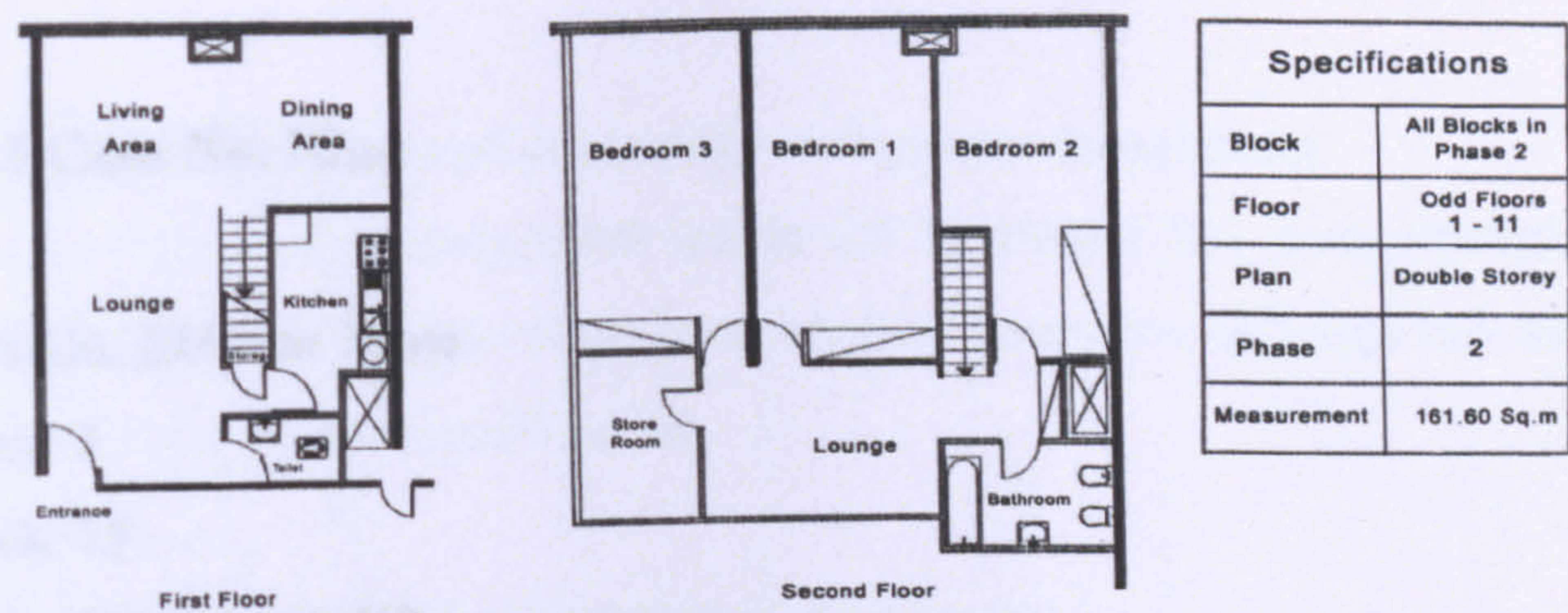


Fig 7.38 Original plan of three bedroom type H2 apartment in phase 2

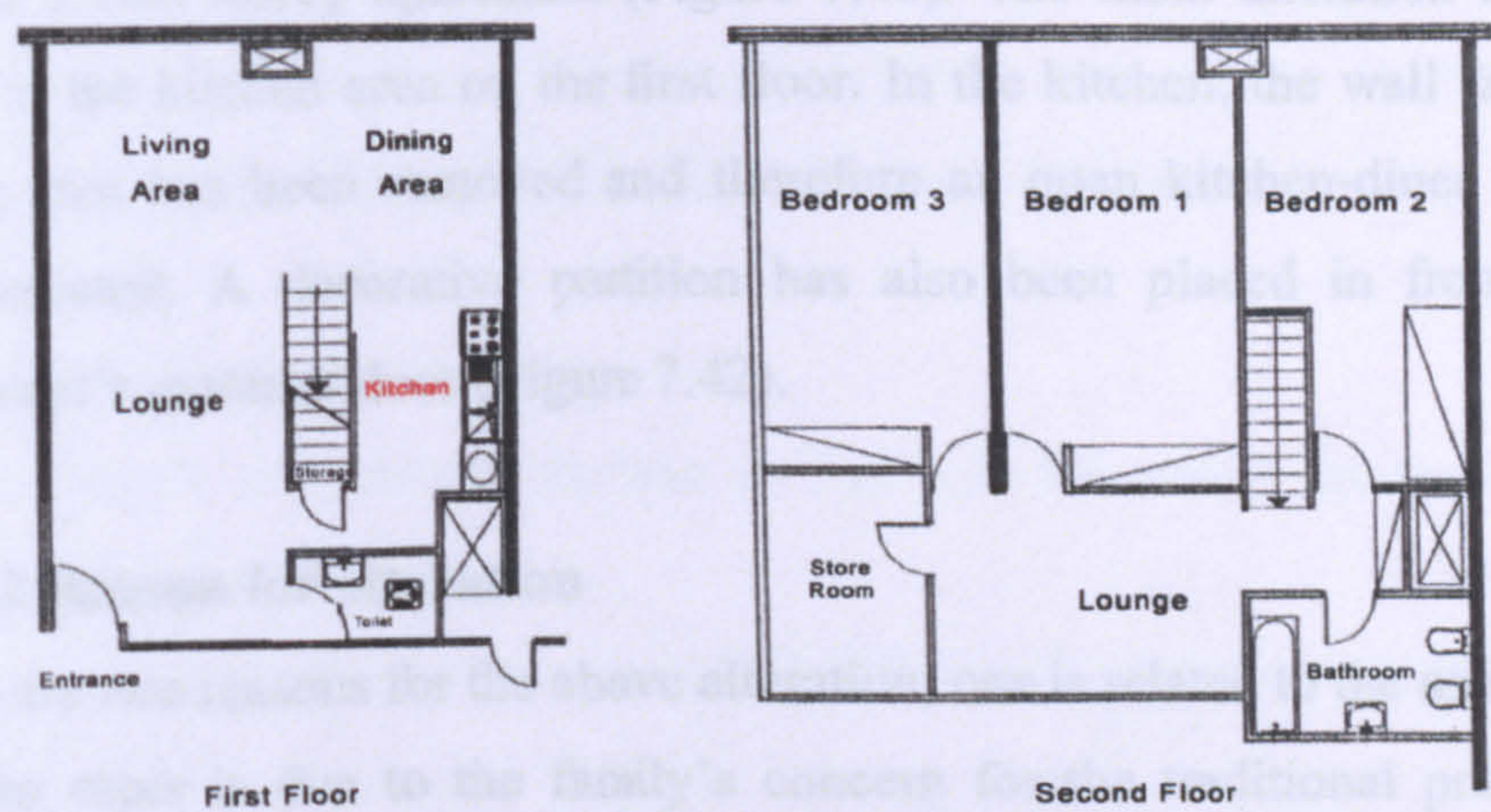


Fig 7.39 Modified plan of the apartment

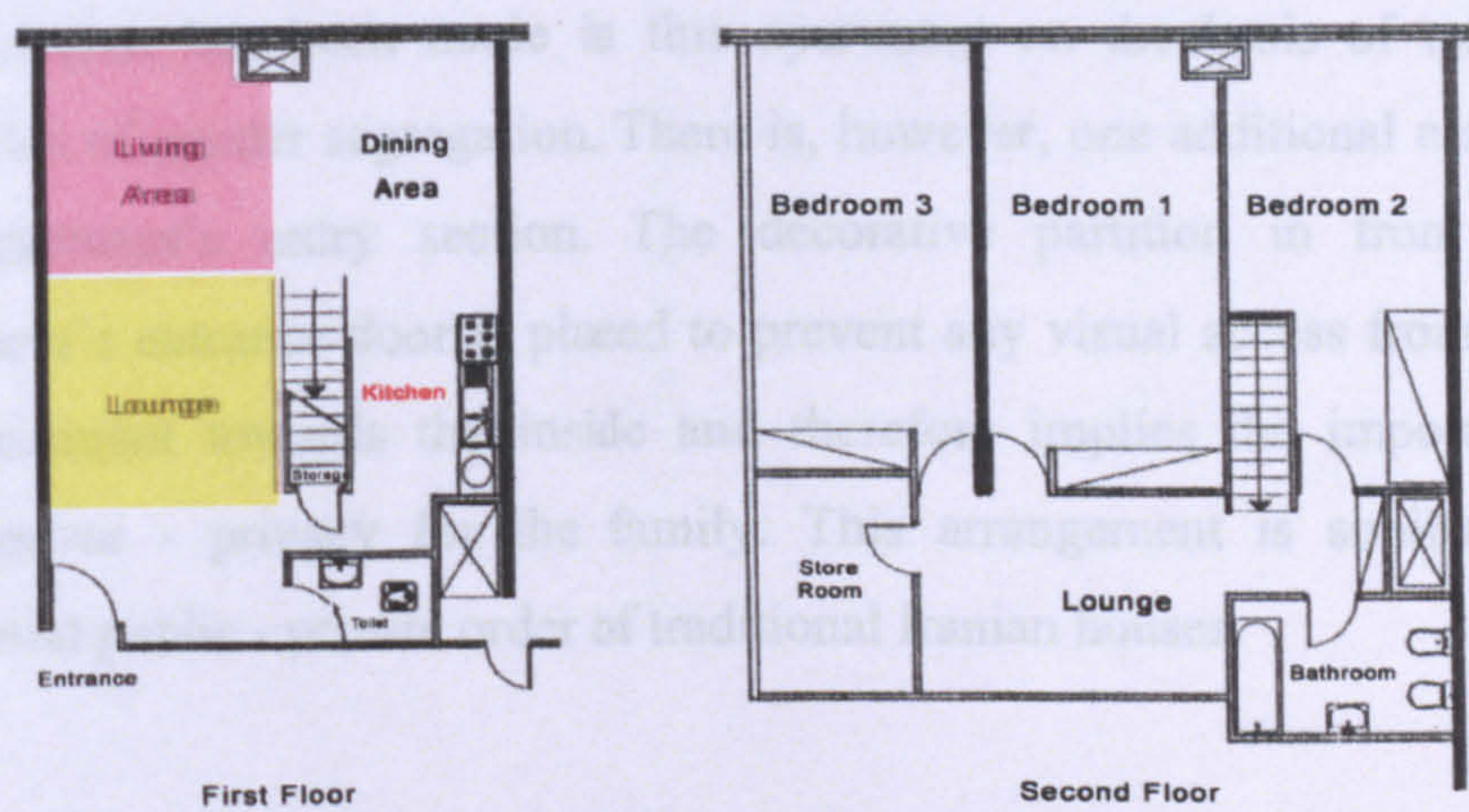


Fig 7.40 Pattern of gender segregation and invisible privacy in one space

Women's sitting space

Men's sitting space



### **7.3.2 Case No. Nine**

Location: *Ekbatan Town*

Phase: 2

Block: 15

Type of apartment: H2

#### **7.3.2.1 Alteration**

This is a two storey apartment (Figure 7.41). The main alteration has been made to the kitchen area on the first floor. In the kitchen, the wall facing the dining area has been removed and therefore an open kitchen-diner area has been created. A decorative partition has also been placed in front of the apartment's entrance door (Figure 7.42).

#### **7.3.2.2 Reason for alteration**

There are two reasons for the above alteration; one is related to the use of space and the other is due to the family's concern for the traditional principle of *mahramiyat* - privacy.

##### **7.3.2.2.1 Traditional principle of gender segregation**

No alteration has been made in this apartment on the basis of traditional principles of gender segregation. There is, however, one additional element to the apartment's entry section. The decorative partition in front of the apartment's entrance door is placed to prevent any visual access from outside the apartment towards the inside and therefore implies the importance of *mahramiyat* - privacy for the family. This arrangement is similar to the sequential public - private order of traditional Iranian houses.



#### **7.3.2.2.2 The influence of modernity and gender integration**

The level of gender integration inside the apartment has been strengthened after modification and due to the open kitchen-diner area, although this was not a reason for the initial modification.

#### **7.3.2.2.3 General trend of living and use of space**

The reason for the kitchen modification was entirely for the use of space. As the original kitchen was small, the wall between the kitchen and the dining area has been removed. According to the family, they not only get more benefit from the new bigger space but also have easier and quicker access to other parts of the apartment, such as the living area and the staircase.

#### **7.3.2.4 Level of satisfaction**

The resident's level of satisfaction is high and the whole family feels very comfortable in this apartment.



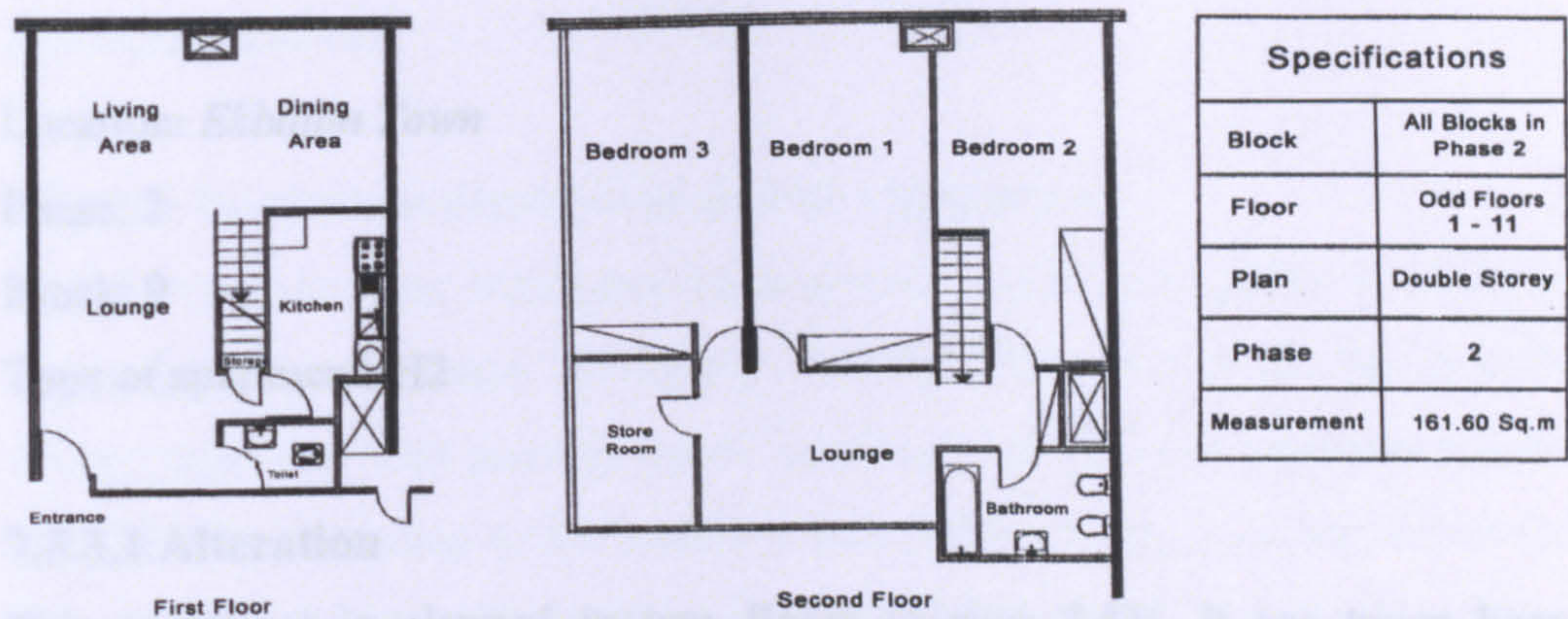


Fig 7.41 Original plan of a three bedroom type H2 apartment in phase 2

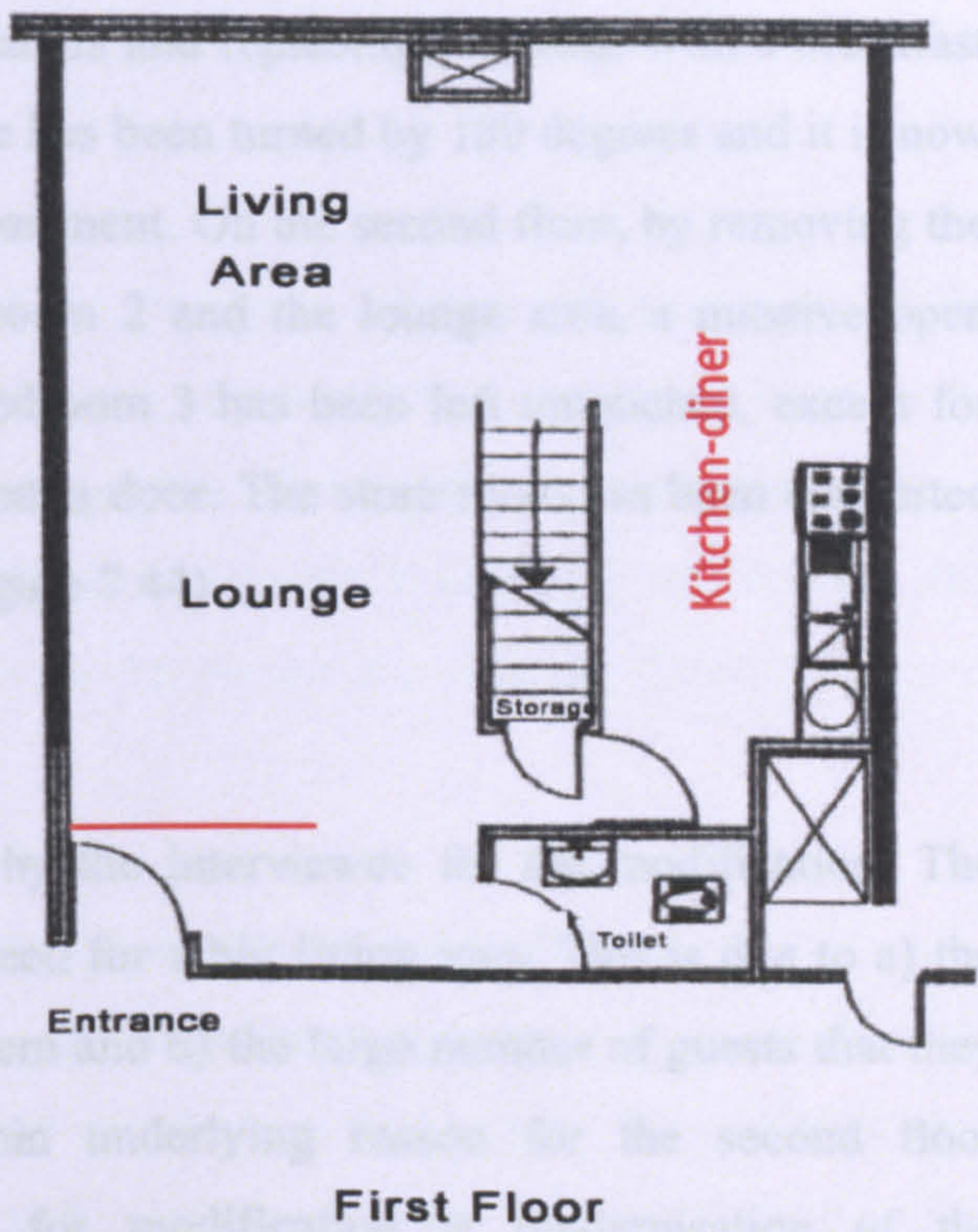


Fig 7.42 First floor plan of the apartment after modification

Modified areas



### **7.3.3 Case No. Ten**

Location: *Ekbatan Town*

Phase: 2

Block: 9

Type of apartment: H2

#### **7.3.3.1 Alteration**

This apartment is planned in two floors (Figure 7.43). It has twice been modified from its original plan. Minor alterations were made by the previous owner of the apartment, mainly adding a partitioning-decorative wall to the entry section of the apartment in front of the door. Both first and second floors have undergone major modification later by the current owner.

On the first floor an open kitchen has been created by removing the two walls facing the dining and the living areas and replacing the walls with a breakfast bar. The direction of the staircase has been turned by 180 degrees and it is now facing the entry section of the apartment. On the second floor, by removing the walls between bedroom 1, bedroom 2 and the lounge area, a massive open living area has been created. Bedroom 3 has been left untouched, except for changing the direction of the room's door. The store room has been converted into a second small bedroom (Figure 7.44).

#### **7.3.3.2 Reason for alteration**

Two reasons have been given by the interviewee for the modification. The main reason was the family's need for a big living area. This is due to a) the family's sub-cultural living pattern and b) the large number of guests that they receive. This need is the main underlying reason for the second floor modification. Another reason for modification is modernisation of the apartment, which can mainly be seen in the first floor alteration. These reasons



will be discussed based on the three identified criteria of the study in the following sections.

#### **7.3.3.2.1 Traditional principle of gender segregation**

Traditionally, in some small provinces in Iran gender segregation is observed behaviourally rather than physically. The modification of the apartment's second floor has been partially made because of the gender segregation issue and partially according to the family's sub-cultural living patterns. While the latter might seem to be the main reason for modification, it cannot be separated from the former reason and has to be seen within its own cultural context. This will be discussed later under the general trend of living section.

The second floor living area is generally used as a gender segregated space on any occasion according to the family's wish. When guests need to take a rest during the day, men usually take the upstairs space and women use the downstairs area. At night, men sleep downstairs and women sleep on the second floor (Figure 7.45).

The first alteration, the decorative partition on the entry section of the apartment, was made by the previous owner. With a similar concept to the hierarchy of space from public to private in the traditional Iranian house, it would have maintained the apartment's internal privacy from overlooking. This section has been removed by the current owner due to their different pattern of privacy.

#### **7.3.3.2.2 The influence of modernity and gender integration**

The modified open plan kitchen provides the opportunity for integration and control over space for the female members of the family. This modern trend has become prevalent in most modern Iranian houses. The first floor furnished living area is the only place for the family's social interaction and entertaining occasional guests. While one integrated space would accommodate both genders together, a number of segregated sets of sofa would separate them



from each other (Figure 7.46). In the other words, an integrated segregation is happening at the same time and in the same space.

#### **7.3.3.2.3 General trend of living and use of space**

As mentioned earlier, the second floor modification has been mainly made due to the family's particular sub-cultural lifestyle. This family originally come from a northern province of Iran. For this family, a large multi-functional space was essential to accommodate the large number of guests – relatives and friends – who travel to Tehran to spend a few days there either as part of their holiday, for business or other purposes. This massive carpeted furniture-less area provides the space for all – men and women - to: a) traditionally sit on the floor and eat at meal times; b) socialise at other times; c) take rest during the day (men); and d) sleep at night (women) (Figure 7.47). Therefore, both the traditional sub-cultural pattern of gender segregation and the modern trend of gender integration have been accommodated by the family in the modified form of the apartment.

#### **7.3.3.3 Level of satisfaction**

The resident's level of satisfaction is high and the whole family feels very comfortable in this apartment.



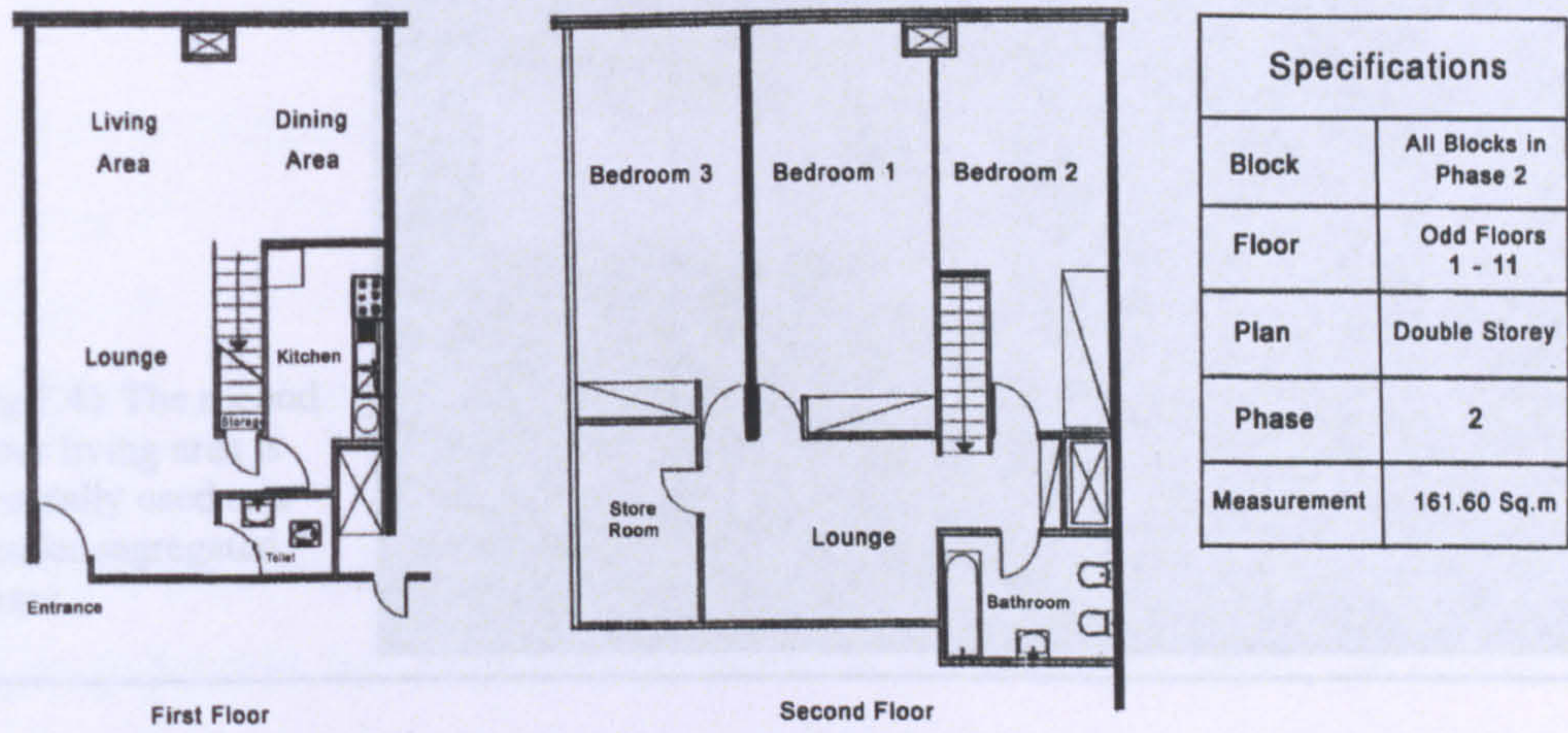


Fig 7.43 Original plan of three bedroom type H2 apartment in phase 2

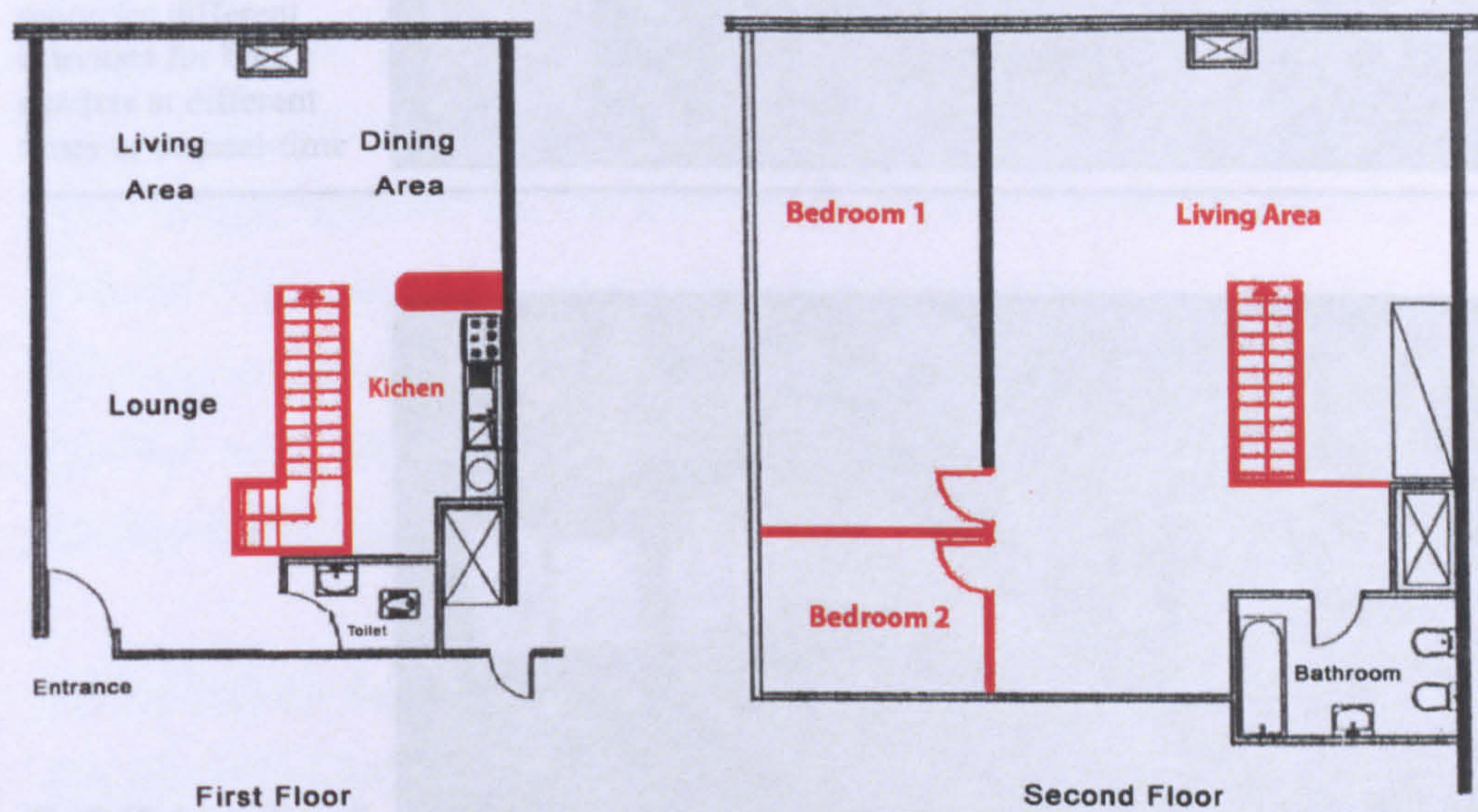


Fig 7.44 Modified plan of the apartment

Modified areas





Fig 7.45 The second floor living area is generally used as a gender segregated space



Fig 7.46 The massive carpeted furniture-less area provides the space for different activities for both genders at different times or at meal-time



Fig 7.47 A number of segregated sets of sofa would accommodate men and women separately



### **7.3.4 Case No. Eleven**

Location: *Ekbatan Town*

Phase: 2

Block: 9

Type of apartment: H2

#### **7.3.4.1 Alterations**

This apartment was originally planned on two floors (Figure 7.48). Both first and second floors have undergone modifications as follows. On the first floor, an open kitchen has been created by removing the dining and the living area wall. The direction of the staircase has been changed by 180 degrees, and is now facing the entry section (Figure 7.49). A partitioning decorative wall has been built in the entrance section of the apartment.

The second floor, however, has seen the most dramatic changes. The upstairs lounge has been converted into a second kitchen. Bedroom 1 (middle bedroom) has been turned into an upstairs second living area by removing the wall between the bedroom and the former lounge. With the new arrangement, an open kitchen, breakfast bar and living area have been created. Some space from bedroom 2 has been taken away and added to the store room; the store room has been turned into a third small bedroom. A window facing the living area has also been added to this newly created bedroom to maintain light. The location and direction of both bedroom doors have been changed.

#### **7.3.4.2 Reason for alterations**

The alterations have been made for a number of reasons. The first and main reason is due to the special needs of the wife. She is a retired nurse and is suffering from arthritis and knee pain. During her routine daily jobs around the house, she would have had to take the stairs repeatedly, which would have been very difficult for her. By creating a second kitchen, dining and living area



on the second floor level to the bedrooms, she is now able to miss out the stairs.

The second reason for the alteration is related to *mahramiyat* and privacy. Finally, modernisation of the apartment was essential from the family's point of view.

#### **7.3.4.2.1 Traditional principle of gender segregation**

The traditional principle of gender segregation can be explicitly seen in the new plan of the apartment after the modification. The internal space of the apartment has been divided into two separate first floor semi-private and second floor private spaces. The hierarchy of space of the two areas at different levels in height within one single space of the apartment is the most applicable model in creating a gender segregated area. While the semi-private first floor maintains the family's concerns over the issue of *mahramiyat*-privacy towards the male guests, the private second floor gives access only to the family and their close relatives. The apartment contains a similar pattern of space to the *Birouni* and *Andarouni* in the traditional Iranian houses (Figure 7.50). In fact, by dividing the apartment into two zones, a spatial hierarchy has been created inside the apartment. This arrangement of space can also be used on the occasion of having both male and female guests, where they would be treated separately on the first and second floors. The access route from outside the apartment to the family area is indirect and hierarchical, similar to the traditional Iranian house.

Overlooking, another aspect of *mahramiyat*-privacy in terms of both public-private and semi-private and private has been addressed in the apartment's new arrangement. A partitioning-decorative wall in the apartment's entry section controls any unwanted views from the external corridor (Figures 7.51; 7.52). Any visual access to the private section of the apartment on the second floor has also been blocked completely.



#### **7.3.4.2.2 Influence of modernity and gender integration**

Although the apartment's new arrangement of space can be closely linked to the principle of gender segregation, the modification is under the influence of modernity too. Both kitchens on the first and the second floors have been changed and built as open kitchen. This kind of modification is a modern inclination among Iranian households as it enhances the modern cultural trend of gender integration. The first floor guest area could also be used for both male and female guests.

#### **7.3.4.2.3 General trend of living and use of space**

The main household activities have been moved to the second floor after the modification. Having a second kitchen and dining-living area on the second floor, on the level of the bedrooms, has made this floor the main space to be used by the family and their close family relations and friends (Figure 7.53). The first floor, however, acts as a self contained guest area which is used occasionally.

According to the mother of the family- the interviewee- the modified situation of the apartment is compatible with every aspect of the family's needs, from traditional cultural patterns to modernity and comfort, as they can adapt the space easily and accordingly. The traditional cultural aspect of gender segregation can be applied simply by using the two physically segregated semi-private and private spaces. In the meantime, a modern open space would allow them to socialise with guests of any gender and have control over the space. The second floor will provide them, and especially the mother, with the comfort of a single storey house.

#### **7.3.4.3 Level of satisfaction**

The resident's level of satisfaction is high and the family feels they will be very comfortable in this apartment.



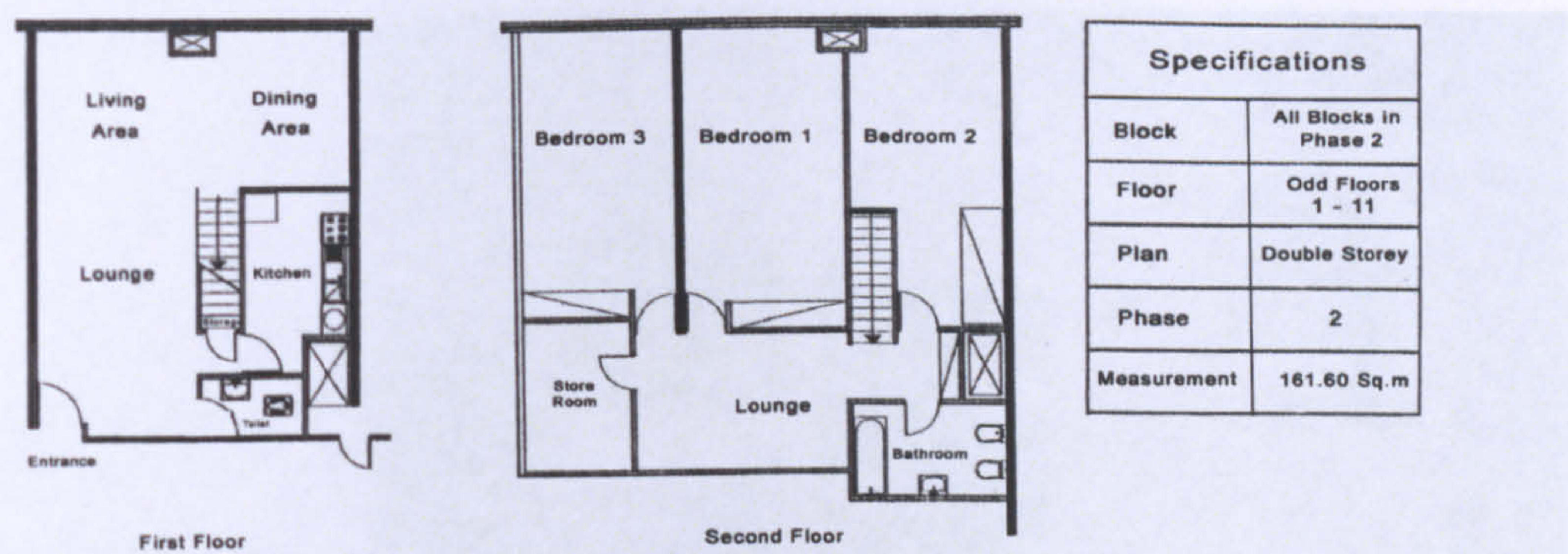


Fig 7.48 Original plan of three bedroom type H2 apartment in phase 2

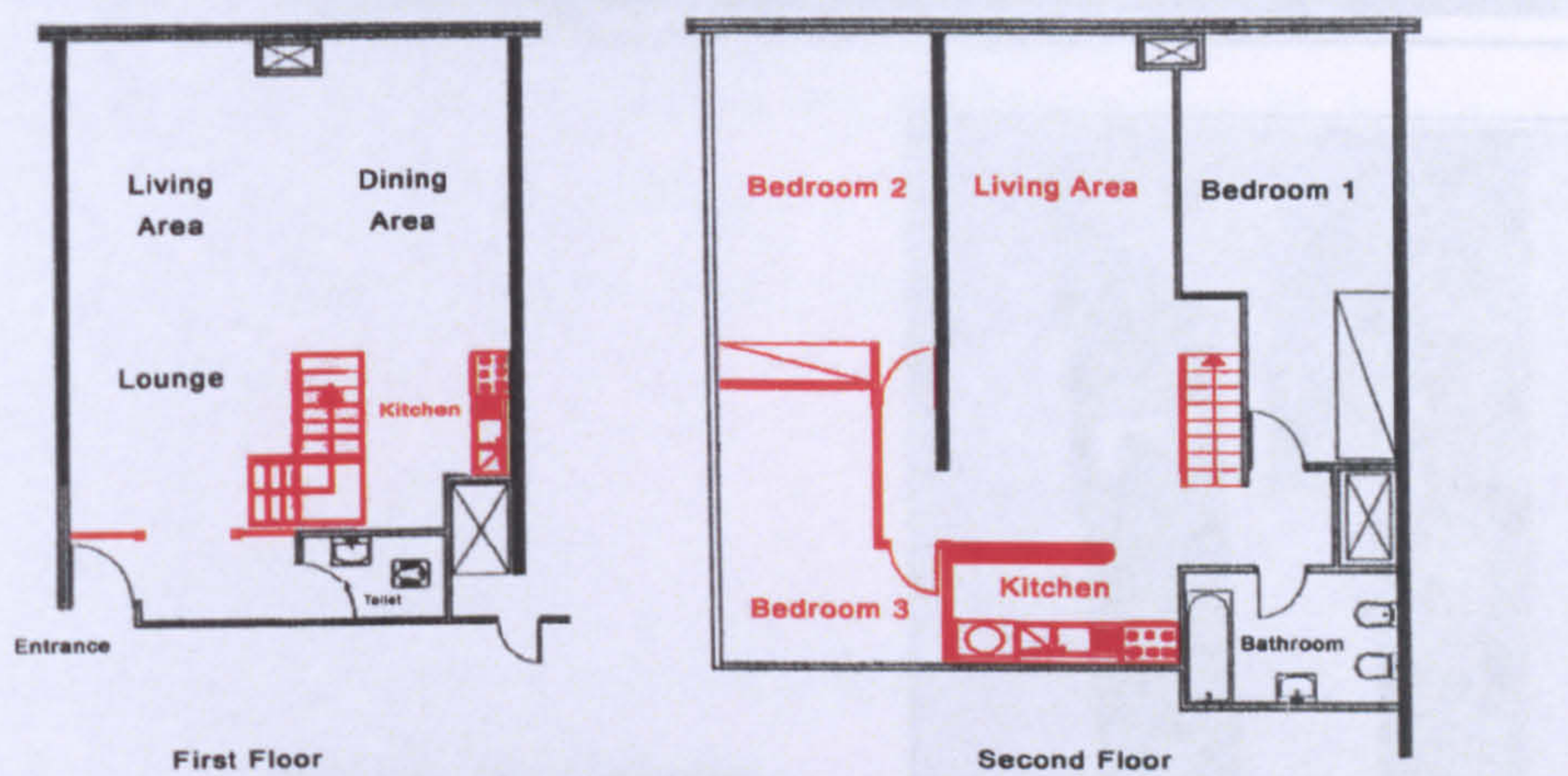


Fig 7.49 Modified areas on the first and second floors

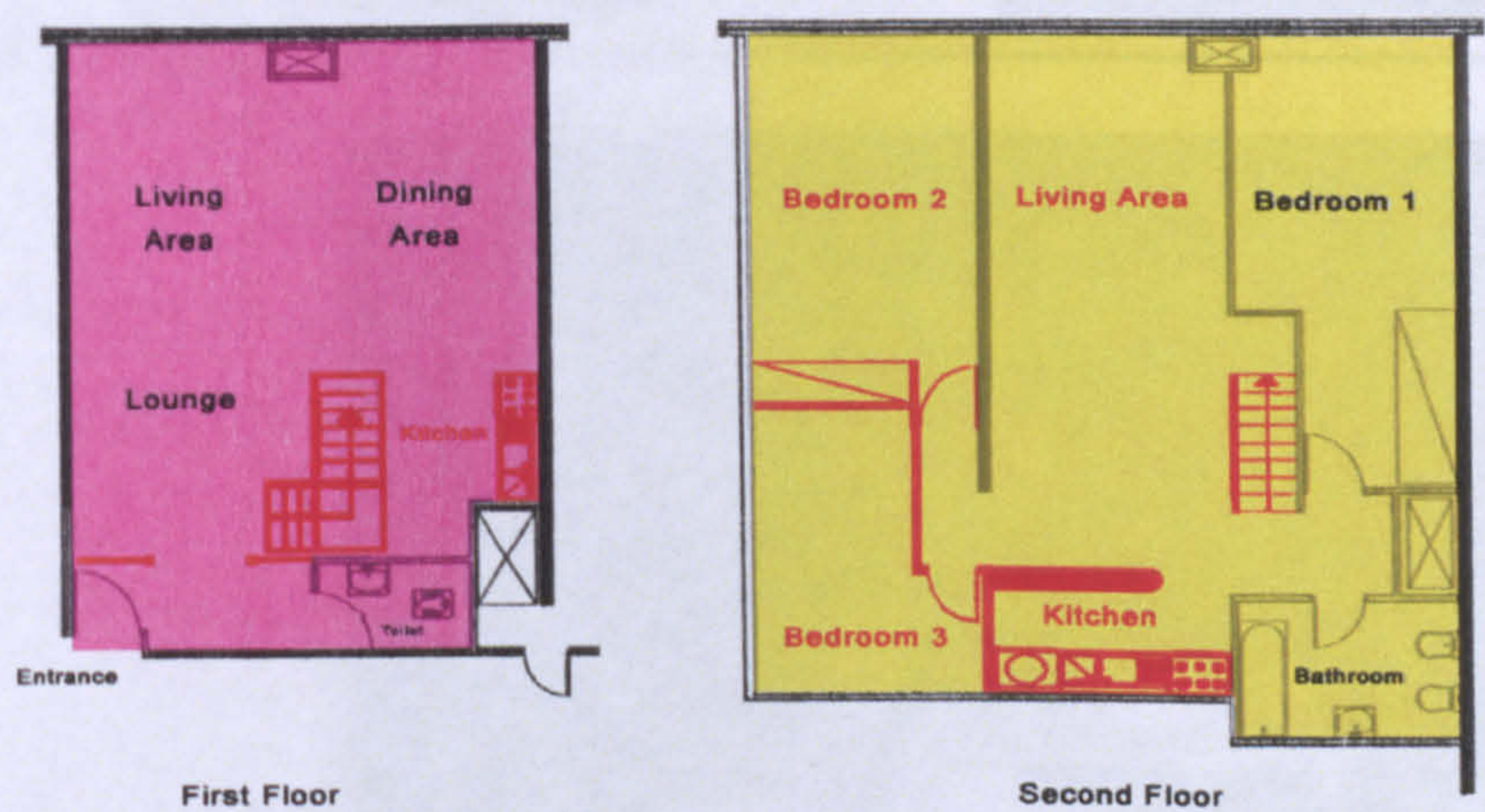


Fig 7.50 Pattern of mahramiyat - privacy

Private family area

Semi – private guest area





Fig 7.51 semi-public  
semi-private area



Fig 7.52 The partitioning-  
decorative wall on the  
entry section of the  
apartment reduces  
overlooking from the  
external corridor



Fig 7.53 Second floor  
under modification



## **7.4 Category Three Interview Case Studies**

### **7.4.1 Case No. Twelve**

Location: *Ekbatan Town*

Phase: 3

Block: D2

Type of apartment: A

#### **7.4.1.1 Alterations**

The following alterations were made to this apartment from its original plan (Figure 7.54). The door of the kitchen has been removed, storage has been included in the kitchen and the entrance section of the apartment has been enlarged (Figure 7.55).

#### **7.4.1.2 Reason for alterations**

The main reason for alteration in this apartment is related to better use of the space.

##### **7.4.1.2.1 Traditional principle of gender segregation**

Although the kitchen door has been removed, a curtain has replaced the door as a temporary barrier (Figure 7.56). This temporary barrier is related to the traditional principle of gender segregation and *mahramiyat* - privacy. The curtain is closed in the presence of *na-mahram* guests or visitors, while it stays open at other times.

##### **7.4.1.2.2 The influence of modernity and gender integration**

The original plan of the apartment includes an open plan reception and living area in the apartment. This has imposed a pattern of gender integration for the family .



#### **7.4.1.2.3 General trend of living and use of space**

Having included the storage in the kitchen, a large kitchen space has been created for the family. The entrance section of the apartment has also been enlarged. According to the family, this was done to have space for a cupboard to put the family's shoes in and keep them out of sight.

#### **7.4.1.3 Level of satisfaction**

The resident's level of satisfaction is high.



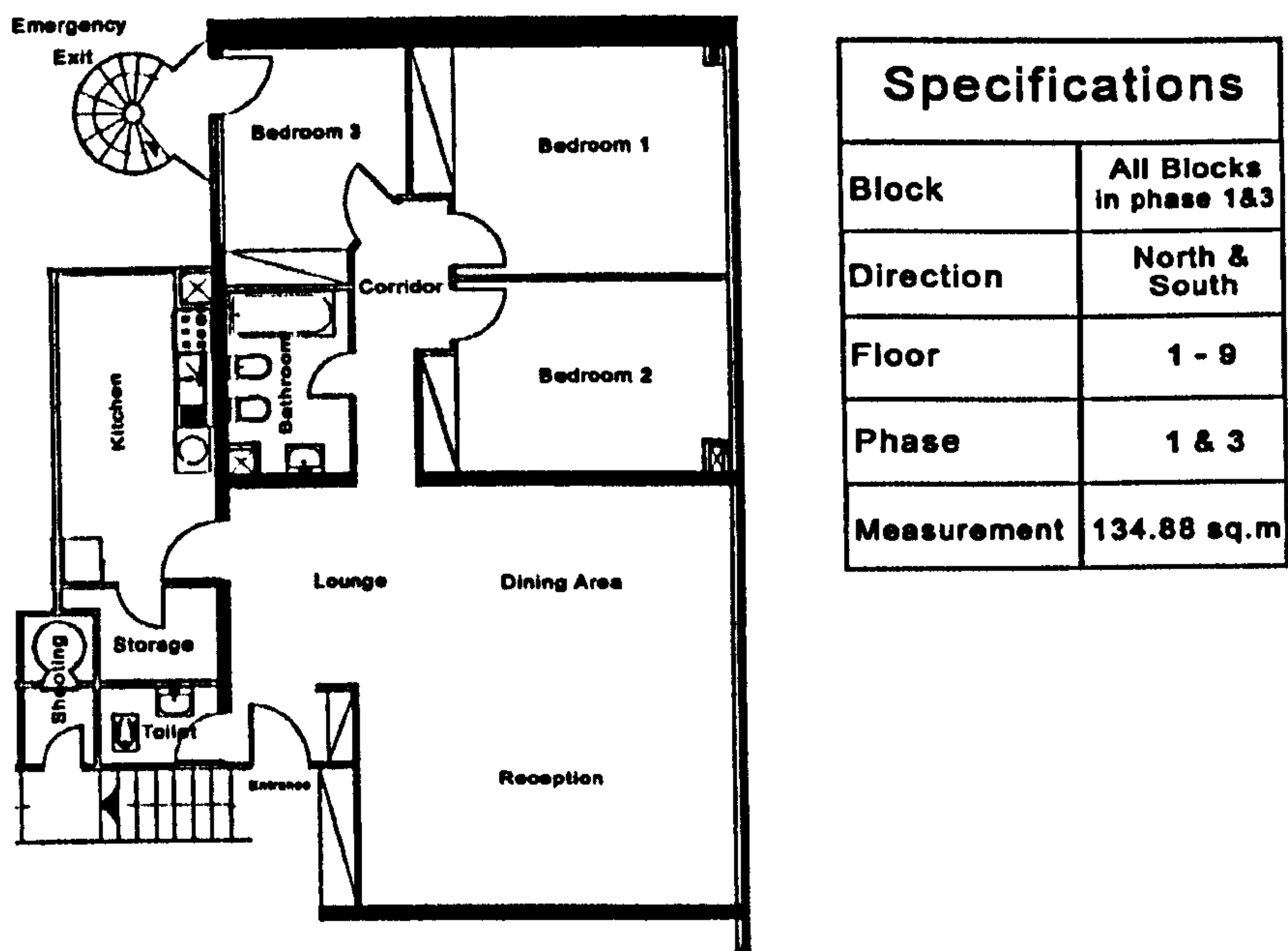


Fig 7.54 Original plan of three bedroom type C apartment in Phase One

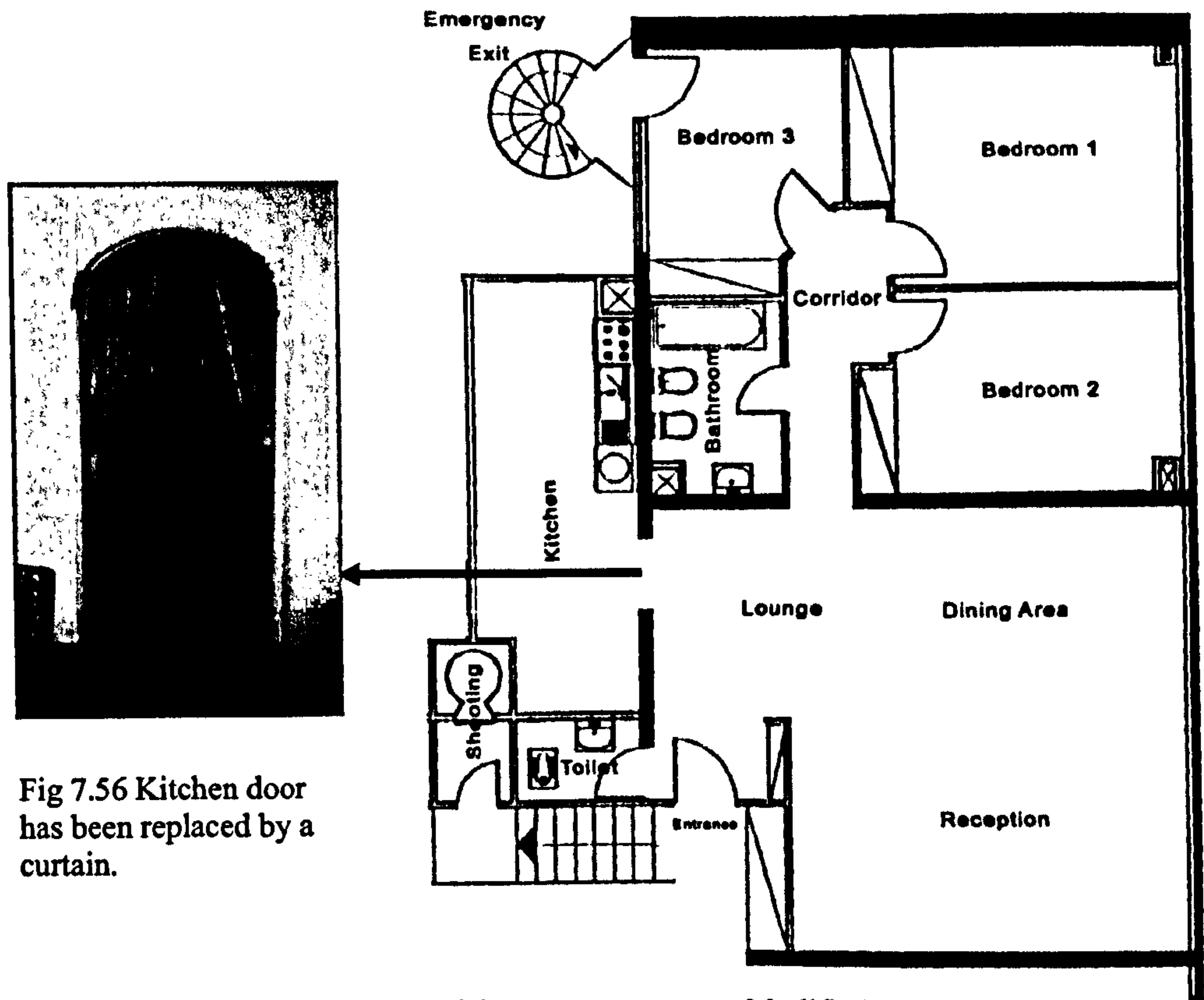


Fig 7.56 Kitchen door has been replaced by a curtain.

Fig 7.55 Modified plan of the apartment

Modified area



## **7.4.2 Case No. Thirteen**

Location: *Ekbatan Town*

Phase: 3

Block: E1

Type of apartment: D

### **7.4.2.1 Alterations**

This apartment has not been permanently modified from its original plan (Figure 7.57). The modification is in the form of a temporary blind which has been installed in the open plan reception and living area to divide the space into two separate areas when necessary (Figure 7.58).

### **7.4.2.2. Reason for alterations**

The main reason for alteration in this apartment is related to the traditional principle of gender segregation.

#### **7.4.2.2.1 Traditional principle of gender segregation**

Due to traditional Iranian lifestyle and the gender segregation issue, the family has installed a temporary solution – a blind - to separate the living area space into two segregated spaces for men and women. Therefore when having guests of both genders, the blind is drawn and the guests sit separately on either side of the blind. On other occasions, the blind stays open and the family uses the whole space. The section behind the blind is also used for male guests if they stay for the night. With this arrangement, according to the mother, the family's usual activities would not be interrupted by the presence of other people, for example the children's private tutor, who carries out his lessons in this segregated space.



Subsequent to this arrangement, the family has decided to install a curtain in front of the apartment's entrance door to control the view from outside towards the inside of the apartment.

#### **7.4.2.2.2 The influence of modernity and gender integration**

While the original layout of the apartment tended to be modern and gender integrated, the influence of modernity has been rejected by the family's temporary arrangement for space division. Therefore the household is more inclined towards the traditional principle of gender segregation than the modern trend of gender integration.

#### **7.4.2.2.3 General trend of living and use of space**

While the whole space of the apartment is used by the family at normal times, the segregated space behind the blind is a convenient place for the family in order to segregate their male guests or visitors, e.g. children's' private tutor.

#### **7.4.2.3 Level of satisfaction**

The household is very satisfied with the space arrangement.



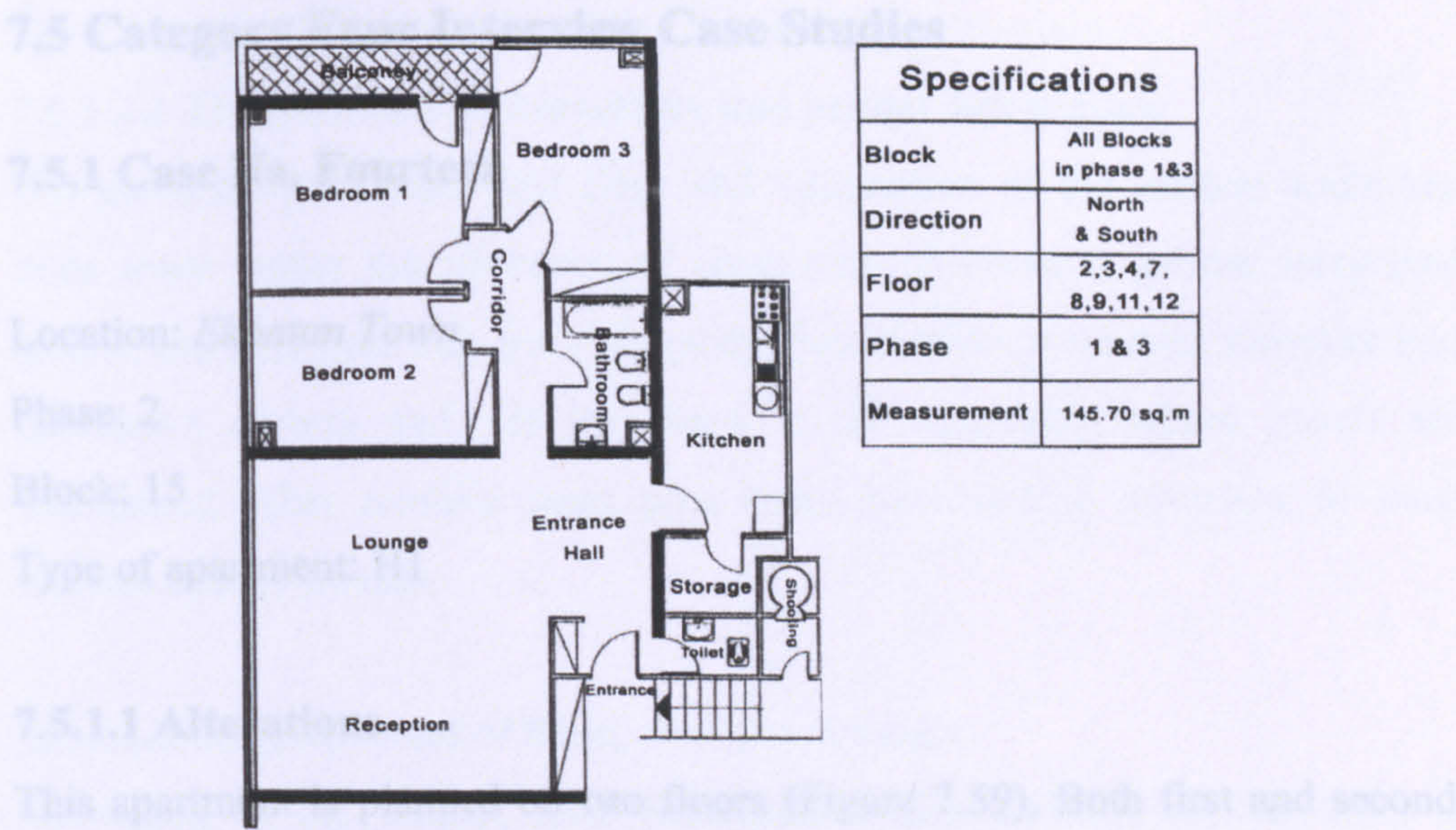


Fig 7.57 Original plan of three bedroom type D apartment in Phase Three

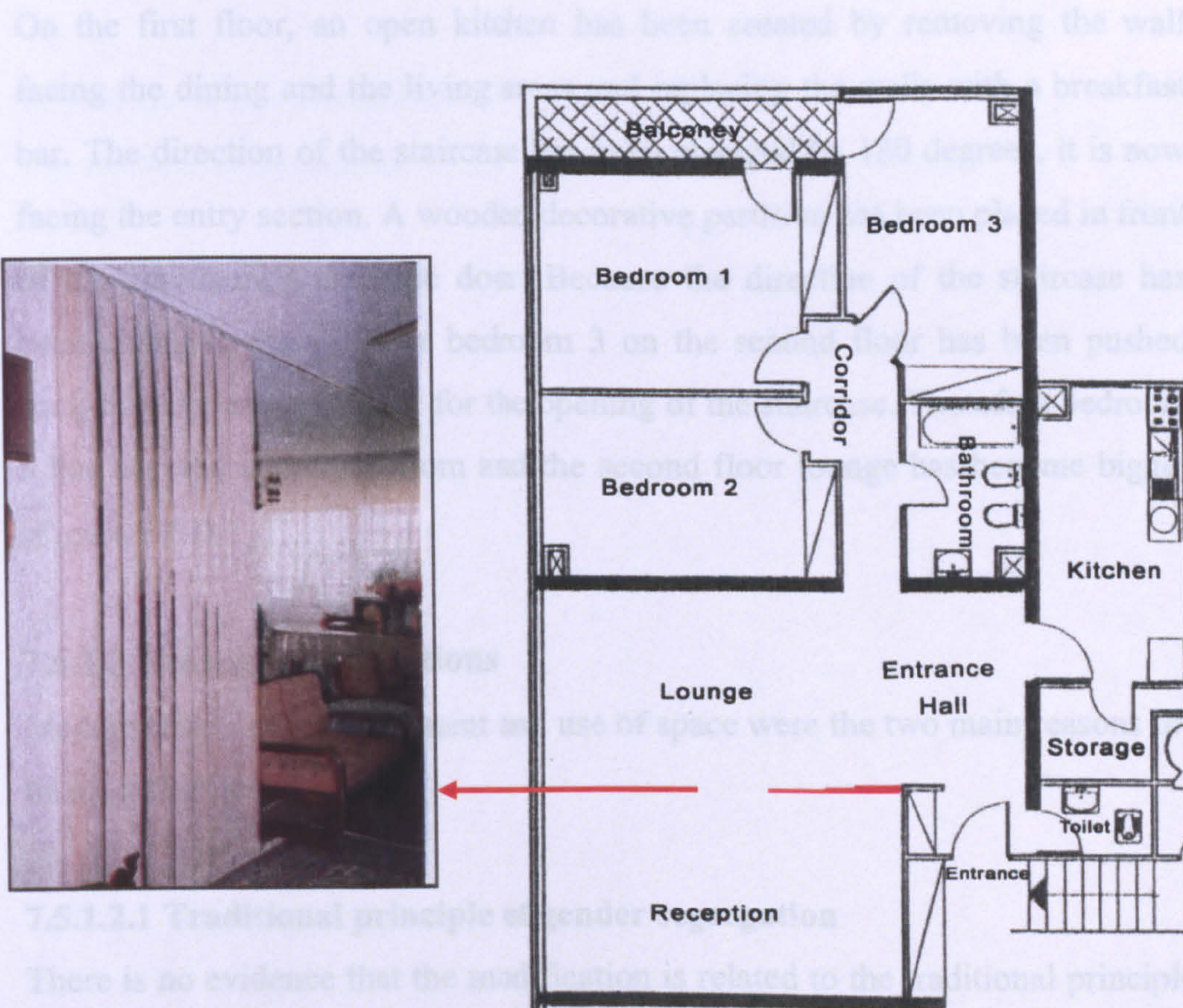


Fig 7.58 Temporary arrangement for gender segregation in the apartment



## **7.5 Category Four Interview Case Studies**

### **7.5.1 Case No. Fourteen**

Location: *Ekbatan Town*

Phase: 2

Block: 15

Type of apartment: H1

#### **7.5.1.1 Alterations**

This apartment is planned on two floors (Figure 7.59). Both first and second floors have undergone modification as follows:

On the first floor, an open kitchen has been created by removing the wall facing the dining and the living areas and replacing the walls with a breakfast bar. The direction of the staircase has been changed by 180 degrees, it is now facing the entry section. A wooden decorative partition has been placed in front of the apartment's entrance door. Because the direction of the staircase has been changed, the wall for bedroom 3 on the second floor has been pushed back to leave enough space for the opening of the staircase. Therefore bedroom 3 has become a smaller room and the second floor lounge has become bigger (Figure 7.60).

#### **7.5.1.2 Reason for alterations**

Modernisation of the apartment and use of space were the two main reasons for its modification.

##### **7.5.1.2.1 Traditional principle of gender segregation**

There is no evidence that the modification is related to the traditional principle of gender segregation. Even the wooden partition in front of the entrance door has been placed there for decorative reasons rather than something related to privacy, according to the interviewee.



#### **7.5.1.2.2 The influence of modernity and gender integration**

The modified open plan first floor and elimination of the kitchen walls has been made under the influence of modernity to create a gender integrated space. The first floor has been elegantly furnished with modern furniture and decorative objects and is the place in the apartment where guests are entertained. This modern open plan trend has become prevalent in most modern Iranian houses.

#### **7.5.1.2.3 General trend of living and use of space**

According to the family, their main reason for modification has been to maximise the internal space of the apartment by eliminating unused areas and elements and turning them into usable space.

#### **7.5.1.4 Level of satisfaction**

The resident feels satisfied with the new layout of the apartment.



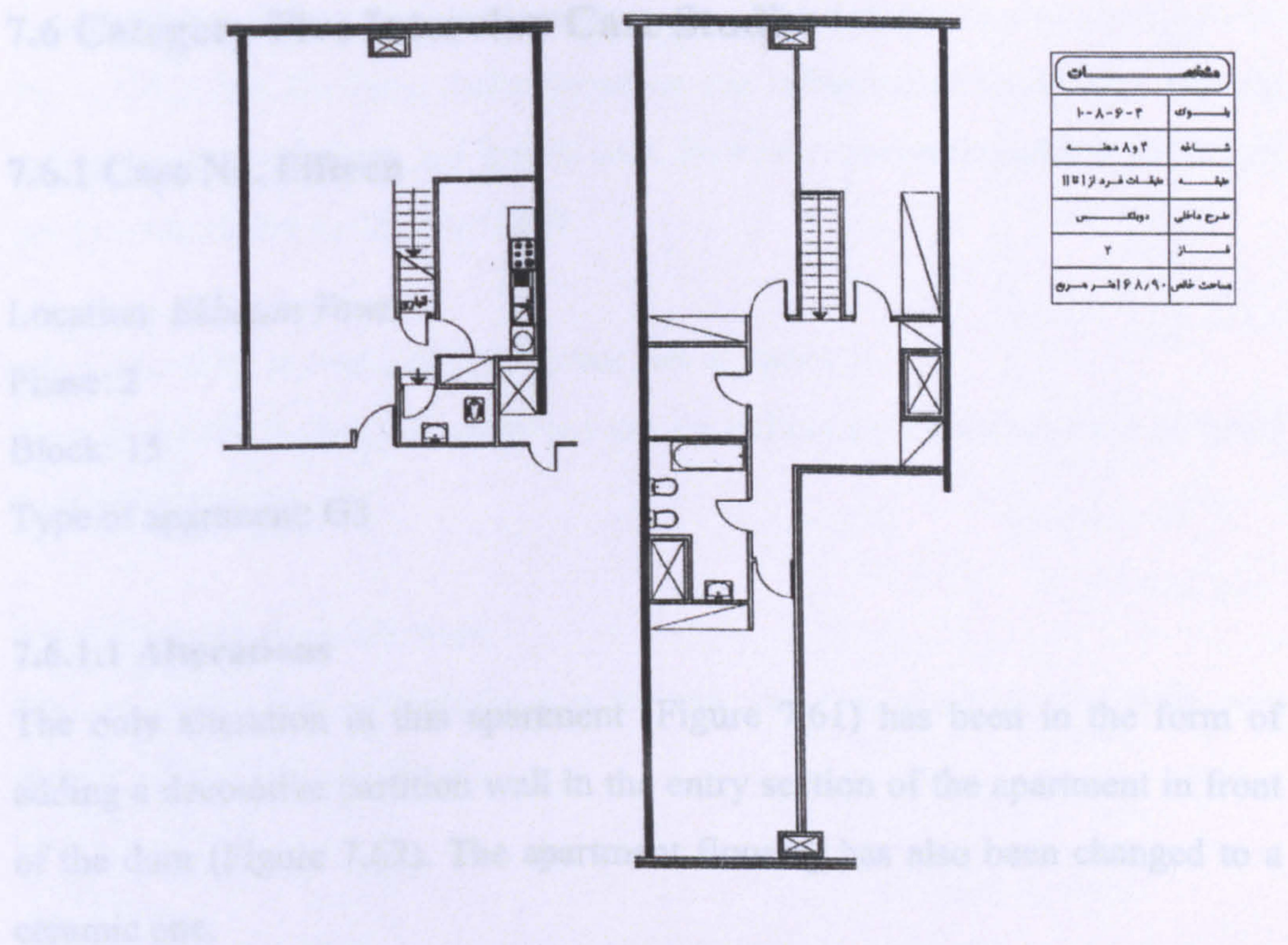


Fig 7.59 Original plan of three bedroom type H1 apartment in phase 2

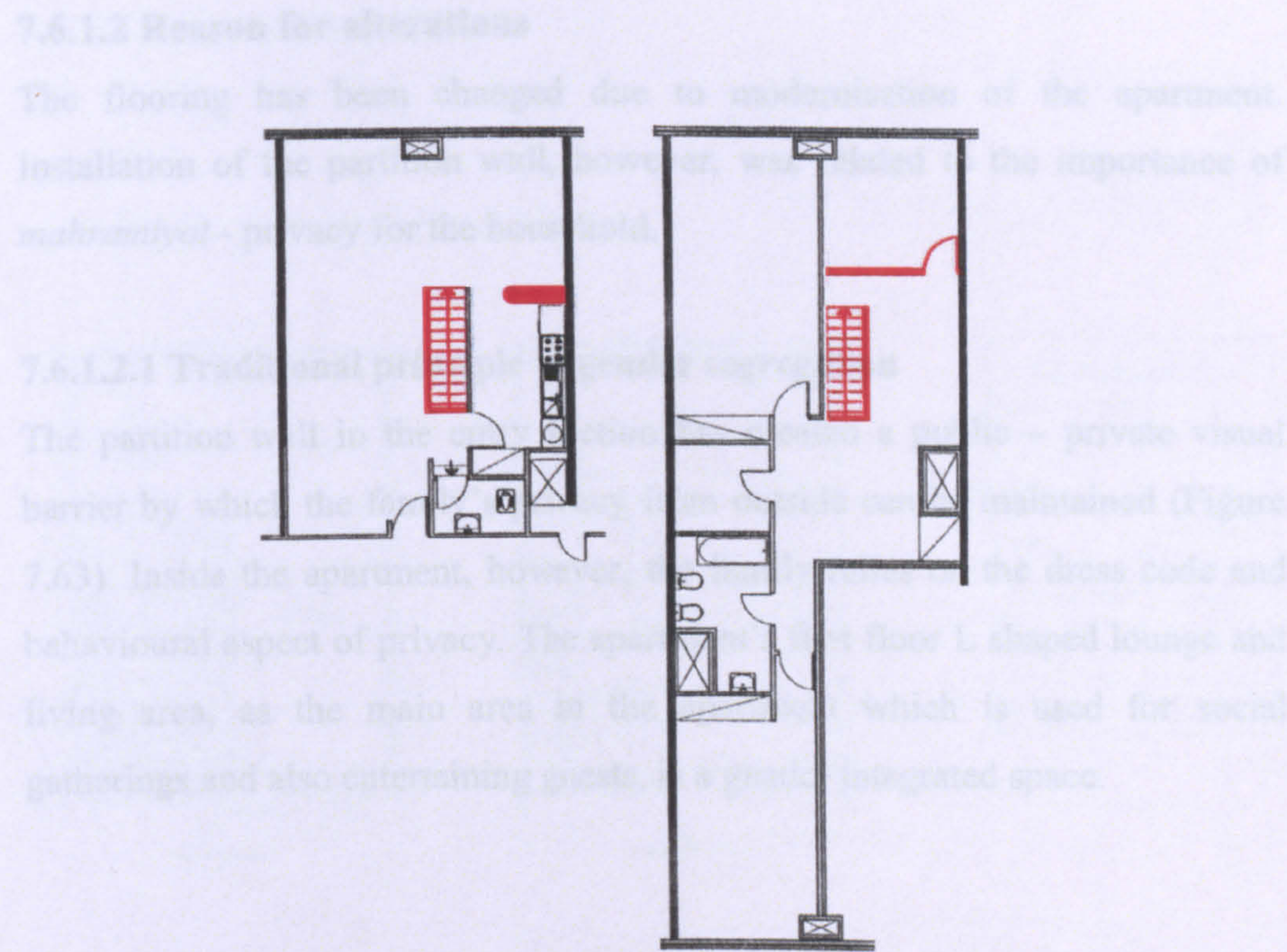


Fig 7.60 Modified plan of the apartment

Modified area



## **7.6 Category Five Interview Case Studies**

### **7.6.1 Case No. Fifteen**

Location: *Ekbatan Town*

Phase: 2

Block: 15

Type of apartment: G3

#### **7.6.1.1 Alterations**

The only alteration in this apartment (Figure 7.61) has been in the form of adding a decorative partition wall in the entry section of the apartment in front of the door (Figure 7.62). The apartment flooring has also been changed to a ceramic one.

#### **7.6.1.2 Reason for alterations**

The flooring has been changed due to modernisation of the apartment. Installation of the partition wall, however, was related to the importance of *mahramiyat* - privacy for the household.

##### **7.6.1.2.1 Traditional principle of gender segregation**

The partition wall in the entry section has created a public – private visual barrier by which the family's privacy from outside can be maintained (Figure 7.63). Inside the apartment, however, the family relies on the dress code and behavioural aspect of privacy. The apartment's first floor L shaped lounge and living area, as the main area in the apartment which is used for social gatherings and also entertaining guests, is a gender integrated space.



7.6.1.2.2 The influence of modernity and gender integration

No modification has been made based on the influence of modernity. Having one integrated reception and living area, however, accommodates a pattern of gender integration in the apartment.

7.6.1.2.3 General trend of living and use of space

There has been no suggestion by the family indicating a particular use of space in the apartment.

7.6.1.4 Level of satisfaction

The resident’s level of satisfaction is high and the whole family feels very comfortable in this apartment.

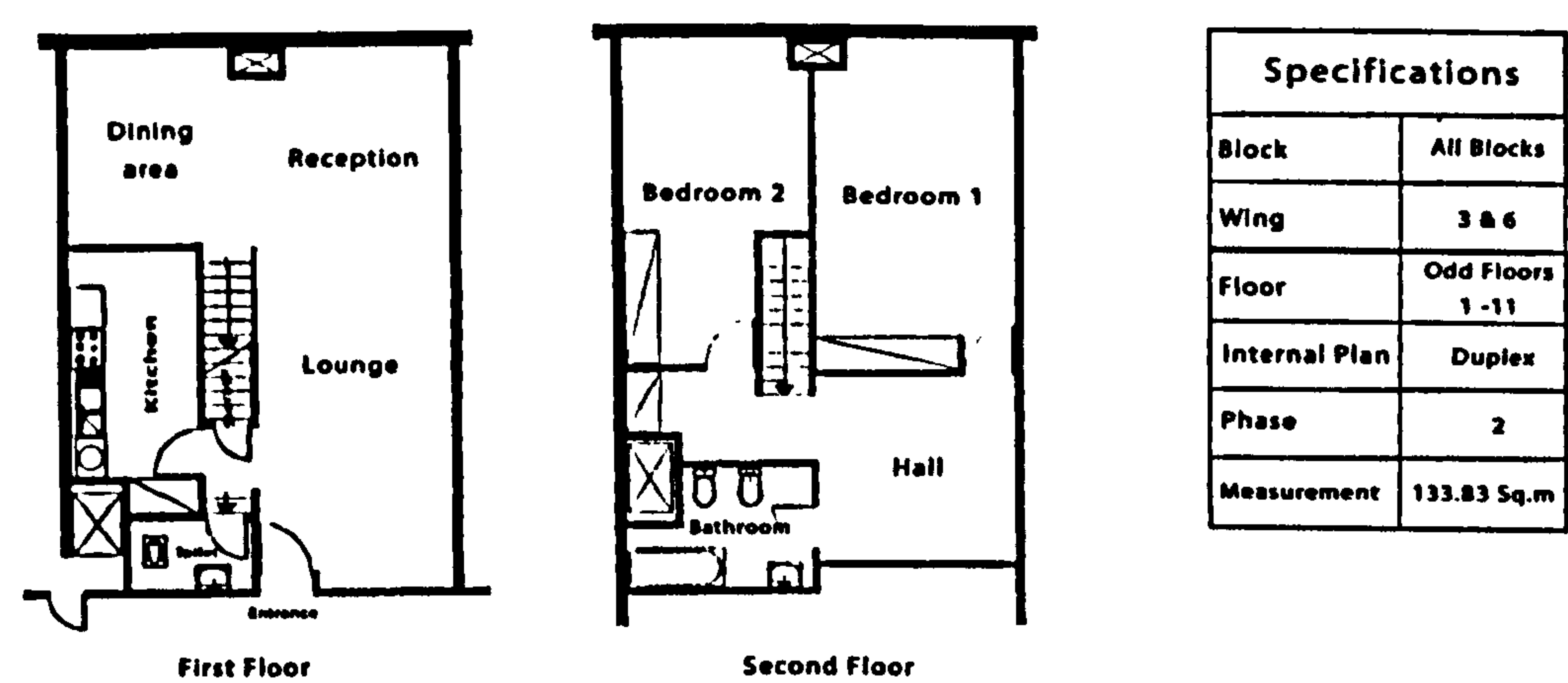


Fig 7.61 Original plan of two bedroom type G1 apartment in phase 2



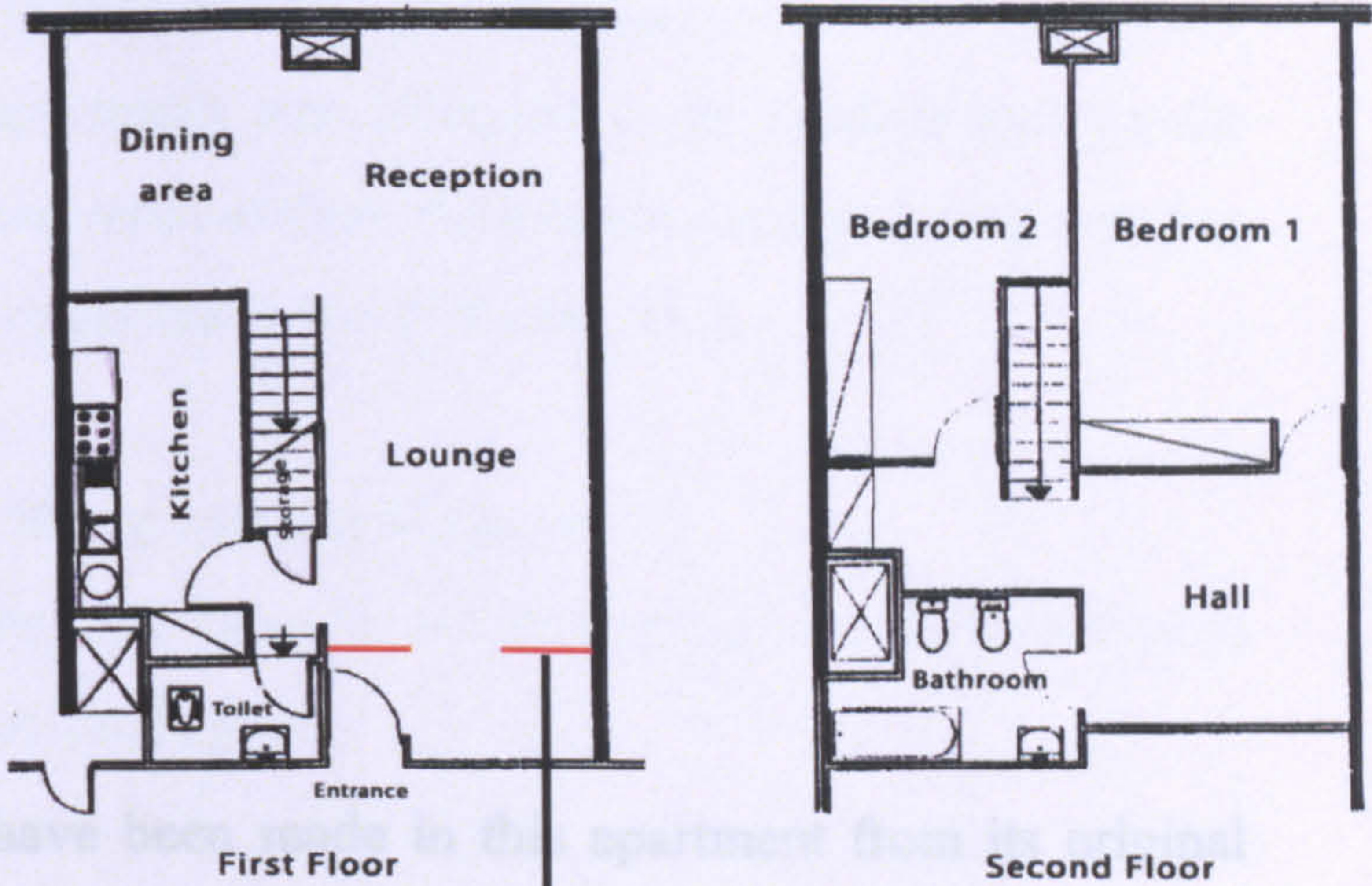
1.6.1 Case No. Sixteen

Location: Ekaterin Town

Phase: 2

Block: 9

Type of apartment: G1



The partition wall in the entry section has created a public – private visual barrier by which the family’s privacy from outside has been maintained

Fig 7.62 Modification inside the apartment

Modified area

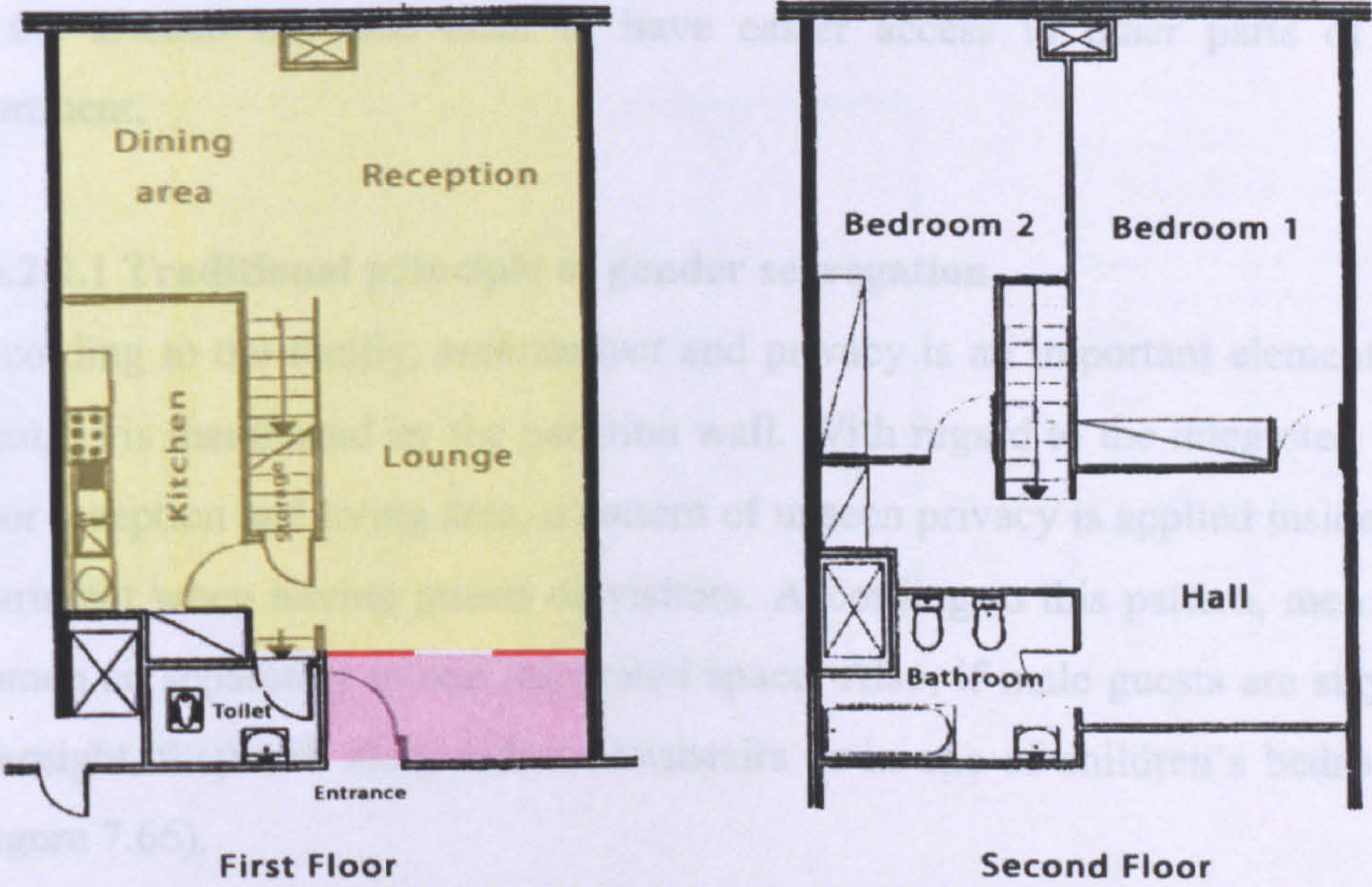


Fig 7.63 The pattern of privacy inside the apartment



## **7.6.2 Case No. Sixteen**

Location: *Ekbatan Town*

Phase: 2

Block: 9

Type of apartment: G1

### **7.6.2.1 Alterations**

The following alterations have been made in this apartment from its original plan (Figure 7.64). A decorative partition wall has been added to the entry section of the apartment in front of the door. The wall between the kitchen and the dining area has also been removed and an open space has been created (Figure 7.65).

### **7.6.2.2 Reason for alterations**

Two reasons explain the partition wall; first to maintain the apartment's privacy from outside by controlling the visual access, and second to create a barrier in front of the toilet and separating it from the reception area. Alteration in the kitchen has also been to have easier access to other parts of the apartment.

#### **7.6.2.2.1 Traditional principle of gender segregation**

According to the family, *mahramiyat* and privacy is an important element for them, as is manifested by the partition wall. With regard to the integrated first floor reception and living area, a pattern of unseen privacy is applied inside the apartment when having guests or visitors. According to this pattern, men and women sit separately in one integrated space. Also, if male guests are staying overnight, they will sleep either downstairs or in one of children's bedrooms (Figure 7.66).



7.6.2.2.2 The influence of modernity and gender integration

The original plan of the apartment was intended to be modern and gender integrated. Elimination of the wall between the kitchen and the dining area has also added another level of openness to the first floor plan.

7.6.2.2.3 General trend of living and use of space

The reason for removing the wall between the kitchen and dining area was to have an open and multi-functional space.

7.6.2.3 Level of satisfaction

The resident’s level of satisfaction is high and the whole family feels very comfortable in this apartment.

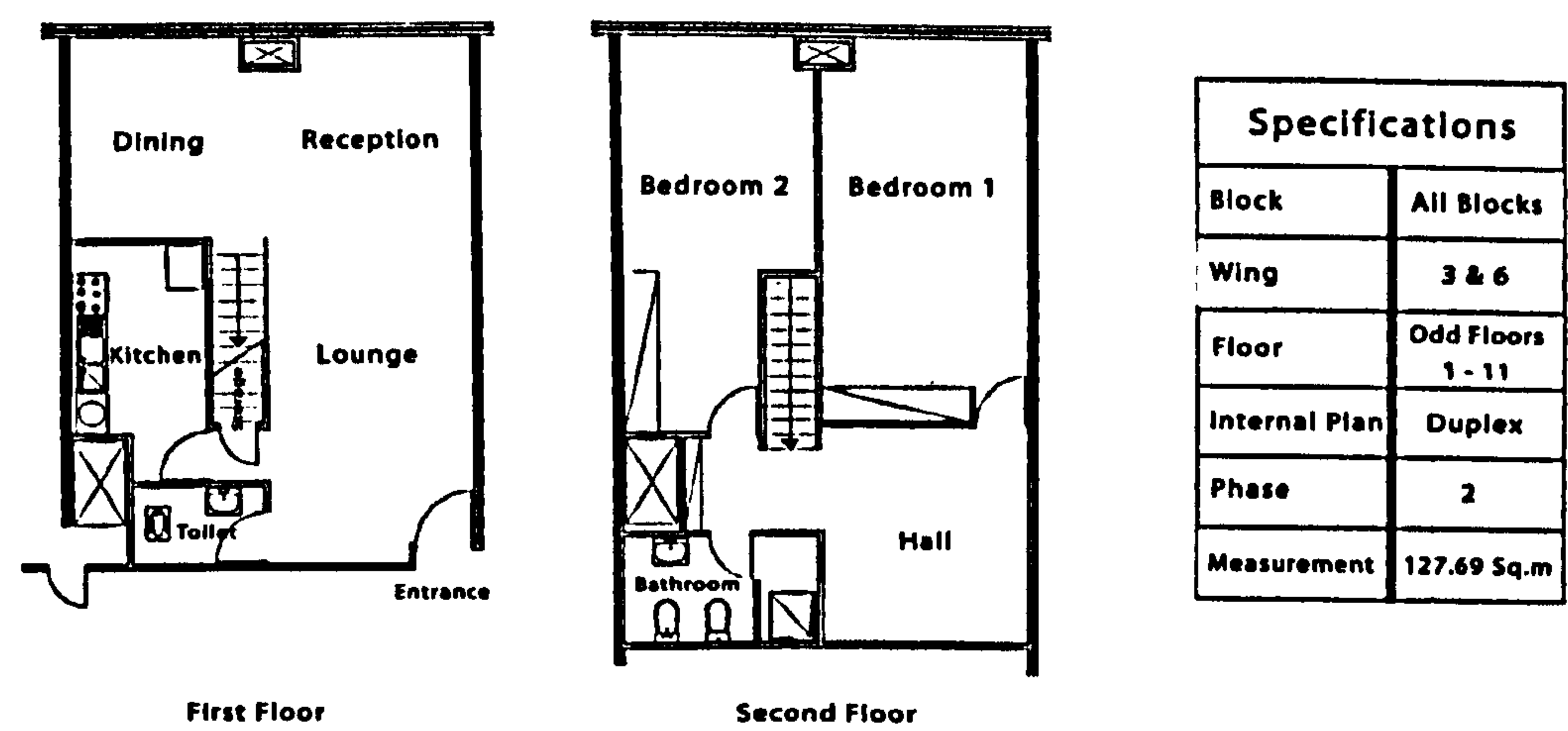


Fig 7.64 Original plan of two bedroom type G1 apartment in phase 2



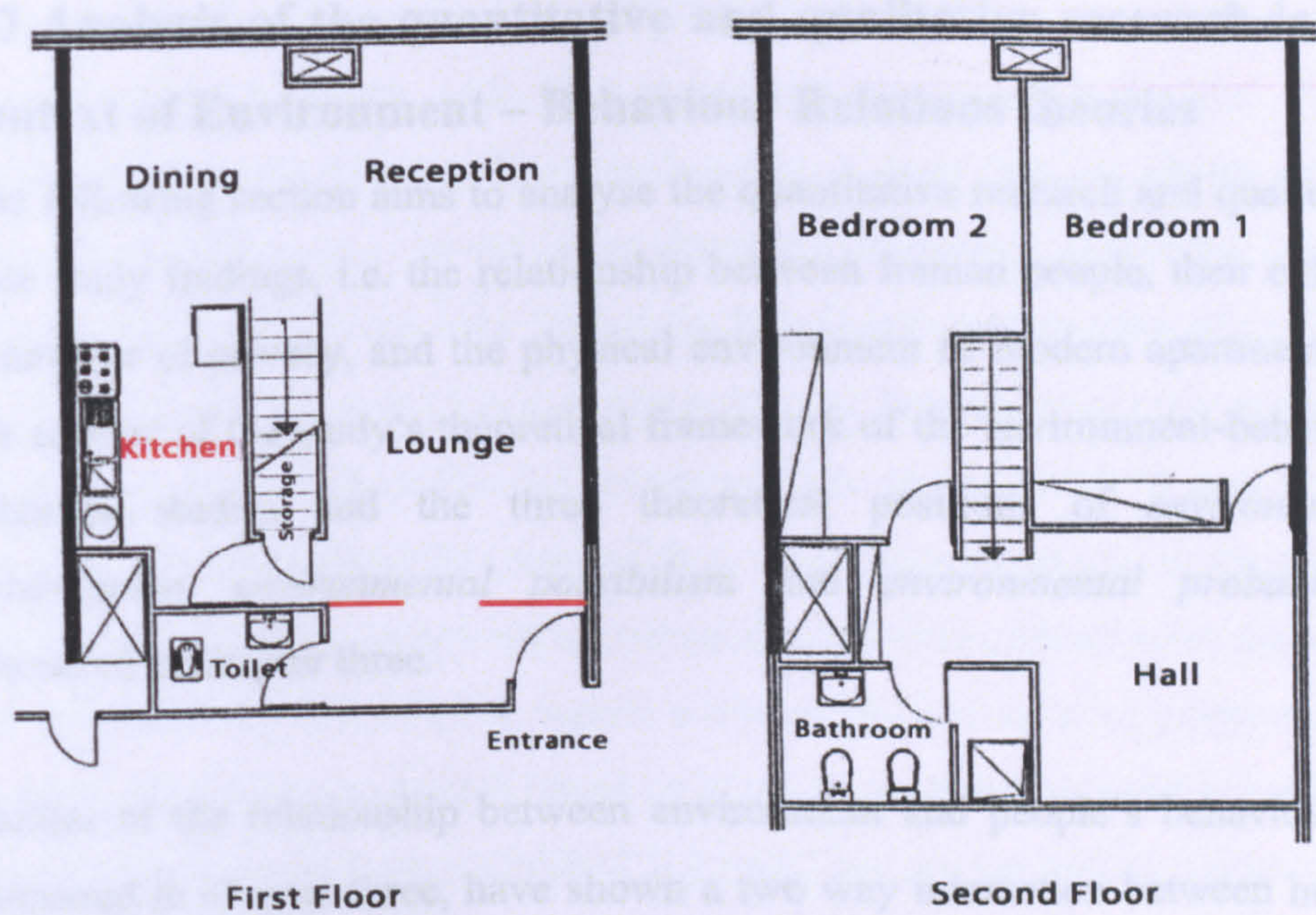


Fig 7.65 Modification inside the apartment

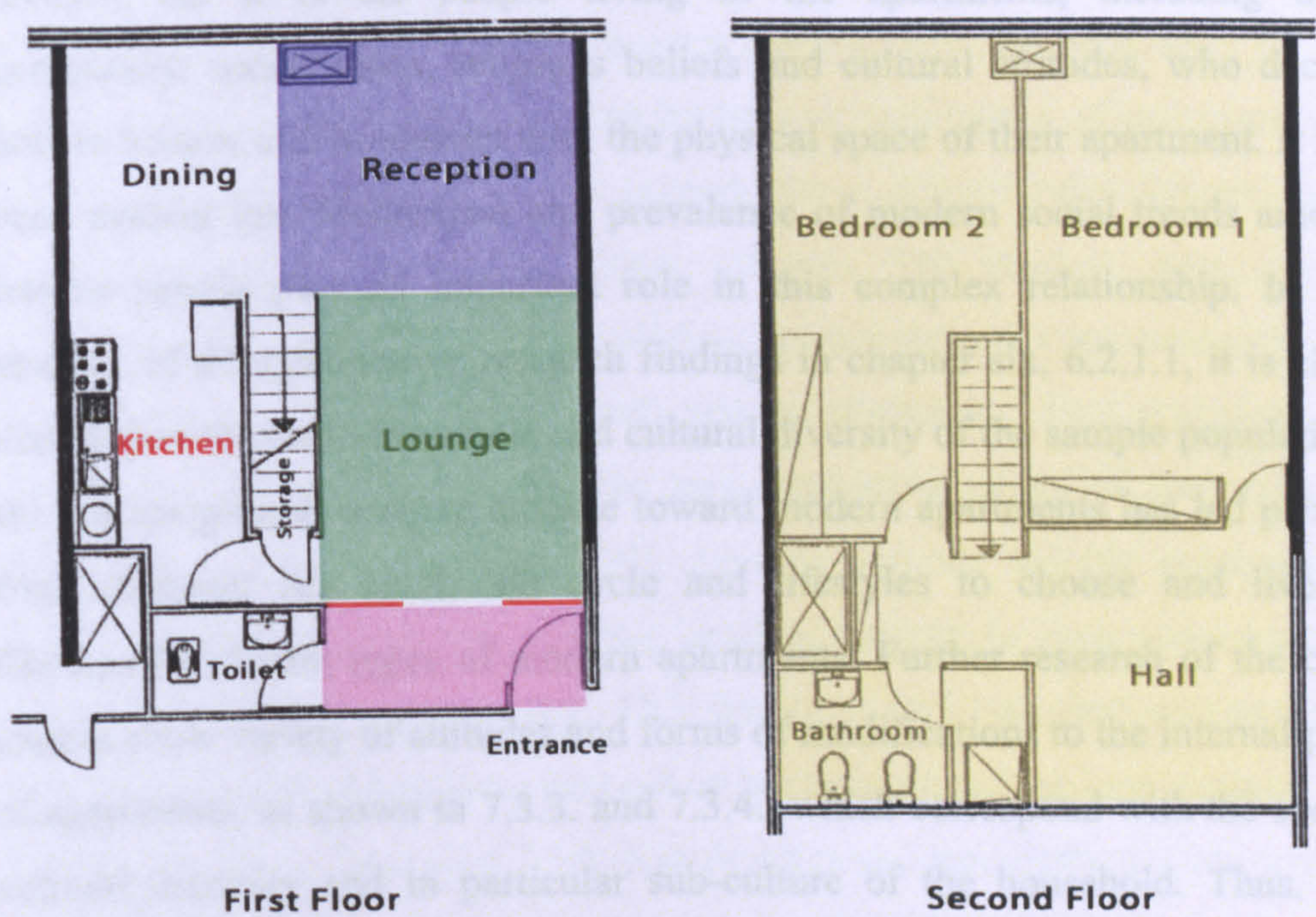


Fig 7.66 Pattern of privacy inside the apartment

Segregated private space	Men’s sitting space
Public-private intermediate space	Women’s sitting space



## **7.7 Analysis of the quantitative and qualitative research in the context of Environment – Behaviour Relations theories**

The following section aims to analyse the quantitative research and qualitative case study findings, i.e. the relationship between Iranian people, their cultural behaviour of privacy, and the physical environment of modern apartments, in the context of the study's theoretical framework of the environment-behaviour relations studies and the three theoretical positions of *environmental determinism*, *environmental possibilism* and *environmental probabilism*, discussed in chapter three.

Studies of the relationship between environment and people's behaviour, as discussed in chapter three, have shown a two way interaction between human behaviour and physical environment. The physical space of the modern apartment, thus, provides possibilities as well as constraints for the pattern of privacy, but it is the people living in the apartments, including their personality, social status, religious beliefs and cultural attitudes, who decide how to behave and to interact with the physical space of their apartment. It has been evident that Modernism and prevalence of modern social trends among Iranian people play an important role in this complex relationship. In the analysis of the quantitative research findings in chapter six, 6.2.1.1, it is clear that despite the socio-economic and cultural diversity of the sample population, the current general positive attitude toward modern apartments has led people from different life level, life cycle and lifestyles to choose and live in Ekbatan's different types of modern apartments. Further research of the case studies show variety of attitudes and forms of modifications to the internal plan of apartments, as shown in 7.3.3. and 7.3.4., which correspond with the socio-cultural diversity and in particular sub-culture of the household. Thus, the concept of privacy and its different behavioural forms for the family from North of Iran and those from North-West of Iran has resulted in different types of modifications.



Environmental determinism, 'the belief that built form, composed of artificial and/or natural elements, will lead to changes in social behaviour' (Lang, 1987:101) (Chapter three, p95), in the context of study findings shows that the plan of the apartments do not determine the behavioural pattern of privacy. They would either facilitate or inhibit the behaviour and activities of residents. Each household, however, has a choice to change their physical environment or adjust their behaviour to their environment. The investigation of case studies show that people modify the plan of their apartments according to their needs and desires. On other occasions, they may modify their cultural rules and adopt new physical and behavioural means until the desired level of congruence is reached. Two extreme cases in terms of physical modifications and behavioural change depicted in the case studies 7.2.1 and 7.2.6 are the best examples of the above argument.

It is argued in chapter three, p96, that culture and cultural rules play an important role in the relationship between environment and behaviour, i.e. the process of people's decision making toward physical space of apartment and their possible behaviours. It is also argued that as cultural rules change, so do the activities appropriate to various settings. The modern plan of the apartments, therefore, has become widely acceptable and congruent with the new cultural patterns of privacy and gender integration. This argument has been tested in both the quantitative and qualitative stages of the research. Quantitative data in 6.2.2.1.5. p199, reveals that the sample population's overall satisfaction with the existing level of privacy in their apartments is relatively high; 60 per cent and 33.3 per cent very satisfied and satisfied respectively. Also, it has been find out in the majority of the case studies, e.g. 7.2.3, 7.2.5, 7.2.7, 7.3.1, and 7.5.1, that families and especially women, except for the family area including bedrooms, would rather choose an open and gender integrated living and kitchen area with no physical barrier than a segregated space. The findings show how the transformation of the traditional cultural pattern of privacy has influenced on people's behaviour and their relationship with the physical space of the apartment. Another example, is the



popularity of the open plan kitchen which has become an acceptable and in many instances a desirable form for the Iranian families (see 6.2.2.1.3).

One important finding of the research is related to the families' desire for adaptable spaces. An adaptable layout, as discussed in chapter three, 3.2.2, in a modern apartment, is an open plan space that affords different standing patterns of behaviour at different times without requiring physical changes. It is evident from the investigated cases, discussed in the earlier sections of this chapter, that use of space has been the main reasons for modifications in the thirteen of the sixteen case studies. It is the people who define different sections of the space and define the relationship between them, create invisible boundaries within the space and define the possible activities and the affordance of that particular part of space. In most of the apartments, thus, male/ female space or family/guest area has been marked and divided by positioning of two sets of sofas within a single setting (see also chapter three, p92).

Since cultural rules and cultural behaviours of Iranian people is heavily influenced by their Muslim beliefs, the concept of privacy as defined by the study is an important issue for most Iranian families (see 6.2.2.1). The physical and behavioural form of privacy and their implementation within the apartment is related to a number of elements, one of which the degree of religiousness. The investigation of the case studies has shown at least three different forms of relationships with regard to privacy among families with similar level of religious beliefs. While this relationship in the case study 7.2.6 is in form of a permanent physical segregation, in the case study 7.4.2 privacy is implemented through temporary barriers at certain times. Case study 7.2.7 however shows an unseen form of privacy where it is implemented through dress code, personal space, territorial behaviour (also see chapter three, p87) or complete withdrawal of women.



## **7.8 Summary**

Analysis of the qualitative data collected from the sixteen individual case study apartments in which physical alterations have been made has investigated the relationship between the alterations and the pattern of privacy and social interaction in the apartments. The investigation was based on three criteria, the traditional principle of gender segregation, the influence of modernity and gender segregation, and the general trend of living and use of space and suggested different approaches to implementation of privacy inside the apartments. A strong attitude to modernisation has observed by families from diverse cultural backgrounds, especially women. This is manifested through the alterations, in the physical context of the apartment, in the form of elimination of extra barriers, especially in the communal areas of reception, living area and kitchen. It is also due to space limitations of the apartments compared to a house and the family's attempt to take advantage of every inch of the apartment. Gender segregated privacy and social interaction, in the meantime, are mediated by dress code, behavioural patterns and unseen privacy rather than physical barriers. Several cases have shown trends to the physical gender segregation pattern, which is related to their strong religious beliefs, sub-cultures as well as social positions.



# ***Chapter Eight***

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***Conclusion***



The idea of the study was based on the personal experience I had during seven years living in a high rise apartment in Iran. I had grown up in a private two storey house, built in the late 1950s in Tehran. My father owned the land and developed it into the family house. Architecturally, the plan of the house was contemporary for the time, a mix of traditional and modern architectural form. Unfortunately, not many of those types of houses can be found in Tehran nowadays as most of them have been demolished and replaced by new multi-storey apartments, as has my childhood house. Having moved into a modern apartment with my own small family, I found myself in a different environment, both physically and socially. I found myself in an environment regulated by a set of new rules, and my relationship with this environment had to be compromised. Coming from a traditional culture heavily influenced by religious rules and practices and watching closely my neighbour's experiences living in their apartments, developed this idea that modern apartments as mass housing might not be a desired type of housing for a country and a culture like Iran.

When I started this study, to investigate the compatibility of Iranian traditional lifestyles and modern apartments, I was expecting to move toward a conclusion close to my primary observations and experiences. Surprisingly, as the study developed further, I started to realise that the outcome would not be in line with what I had initially expected. Modernism has been undeniably influential on every aspect of Iranian lives, way of thinking and cultural practices during the past few decades. Inclusively, modern residential environments, i.e. high-rise and apartment buildings, have become an accepted, and for some people a desired, form of housing in Iran. Most Iranian people, especially those living in large urban areas, have either adjusted their traditional living patterns, and cultural and sub-cultural rules and behaviours with the modern apartments, or have afforded to make modifications in the plan of the apartments and make them compatible with their lifestyle.



For a young family like mine, buying a house in a city like Tehran was almost an impossible matter in the early 1980s. Tehran had become the country's main city, with rapidly increasing population concentration due to a) the ongoing urbanisation process which had started in Iran a few decades earlier and had been accelerating during the 1970s, b) start of the events of the Islamic revolution in 1979 and invasion of Iraq in the summer of that year which led to a massive migration of people from war affected areas to Tehran, c) economic stagnation and massive migration of rural people as well as populations from small towns searching for jobs and economic prosperity in Tehran, d) concentration of the country's political, economic, industrial and social-cultural activities in Tehran and, e) Iran's high fertility rate and natural population increase. The urbanisation process and its interlinked demographic, economic and social aspects, as was discussed in chapter two in the context of both developed and developing countries, led to the situation that affordable housing provision became a significant problem for a large number of families living in urban areas especially in Tehran. In response to the problem of housing shortages and looking for a solution, the Iranian government adapted a mass housing policy to construct modern high-rise residential buildings and apartment complexes; a solution which had been experienced in the already urbanised developed countries. An apartment was therefore the only type of housing that many families, including mine, could have afforded.

Under the modernisation of the country, Tehran changed dramatically. As a pre-revolution born and raised and a post-revolution generation, I have witnessed a day-by-day physical and social transformation of the structure of the city. The housing provision and policies both before and after the revolution were affected by several factors. The study has found that high-rise and apartment construction and living had been targeted mainly for the urban middle and upper classes in the pre-revolution era, in line with the state's modernisation policies. The study has noticed that the post-revolution governments have moved toward a high-rise mass housing approach for all sections of society, including those with lower incomes and rural migrants.



This approach, as has been discussed in chapter two, was suitable for some, but not for all sections of the society.

When I first moved into my new apartment in a newly built block of high-rise apartment, along with some 297 other families, I was fascinated by the cultural diversity of my neighbours. There were families from a variety of social backgrounds, sub-cultures, life-cycles and recently arrived migrants from different parts of the country occupying a limited range of apartments, which had one thing in common: a modern plan. The new apartment for many of those families meant a new way of living. Studies of the relationship between environment and people's behaviour, discussed in chapter three, have shown a two way interaction between human behaviour and physical environment that a) an understanding of behaviour patterns is essential to the understanding of built form, since built form is the physical embodiment of these patterns; and b) forms, once built, affect behaviour and way of life. The study demonstrated that neither determinism nor possibilism, but probabilism is the most realistic approach to the relationship between environment and behaviour. My fellow-residents, therefore, explored the probabilities of their apartments in a variety of ways on the basis of their individual needs, social values and cultural diversity. This process of harmonisation happened in two different ways; those who could afford to started to modify the apartments' internal layout, followed by modifications in their privacy related cultural patterns and behaviours, while others adjusted these cultural behaviours to the existing layout of the apartments.

Theories concerning privacy, presented in the study in chapter four, agree that privacy as a boundary-regulating process has different implications within cultural contexts. The study has demonstrated that privacy, as an important institution in Iranian - Islamic culture, has three ethical, visual and physical aspects of *mahramiyat*, *hejab* and *privacy*, which is reflected in dress, space, architecture and proxemic behaviour, and concerns two core issues of women and family. While personal space and territoriality, as Altman (1975) has



noted, are major regulating mechanisms for attaining privacy, the study has observed the unique important position of *hejab* – most Iranian women's dress code - in this process. The prevalence of new and modern ways of life in Iranian society, along with the popularity of modern apartments, led to an attitudinal change toward traditional patterns of privacy and adoption of alternative behaviours among Iranian families. The physical and visual *mahram* – *na-mahram* boundary, practised in traditional houses, changed into an unseen boundary in the modern apartments by which the two ethical realms were separated via conventional rules where men and women are presented in one space but in two separate settings. Within such space, desire for privacy is communicated through non-verbal communication cues, i.e. body language, dress code, physical distance, visual restraint and cultural practices which are understood by all Iranian people.

At the same time as the social and physical transformation of the city of Tehran was progressing, the increasing presence and participation of Iranian women in all aspects of society, which was due to the grounds discussed in chapters two and four, was central to the change in social and cultural values, and in particular, rules and behaviours with regard to privacy. While strict gender segregation and *hejab* laws are regulated in public spheres by the Iranian government, the concept of *mahramiyat* and privacy and their related behavioural codes and physical manifestations have dramatically changed from absolute gender segregation to one of a more or less relaxed gender integration model. This has been due to a) closing of the gender gap in education and overtaking of women over men in attending universities, b) subsequent increasing participation of women in society during the last few decades especially after the Islamic revolution, which has loosened the strict gender segregation boundaries, c) the feminist movement which had its influences on part of Iranian women's society in the early twentieth century, but was accelerated into a new Islamic feminism model after the Islamic revolution, and d) the modernisation process which has had a profound impact on all aspects of Iranian society. The new privacy values and practices are most



visible within the private domain as well as in the architectural plan of the house. The study demonstrated in chapter four that there is a mutual relationship between societal values and architecture. In modern Iran, as the social values are transformed, so are the architectural values and artefacts. Thus, this new relationship is introduced in Fig 8.1 in the context of modern apartments. The study also demonstrates in Fig 8.2 the traditional and modern socio-cultural values and their physical manifestations in the context of the Iranian traditional house and modern apartment.

Having lived in *Ekbatan Town*, a complex of modern blocks of apartments, the first to be built and the largest modern residential complex in the country, along with a socially and culturally diverse population, and having observed different approaches of my neighbours to their apartments and their changing attitudes and behaviours with regard to privacy, provided an excellent setting

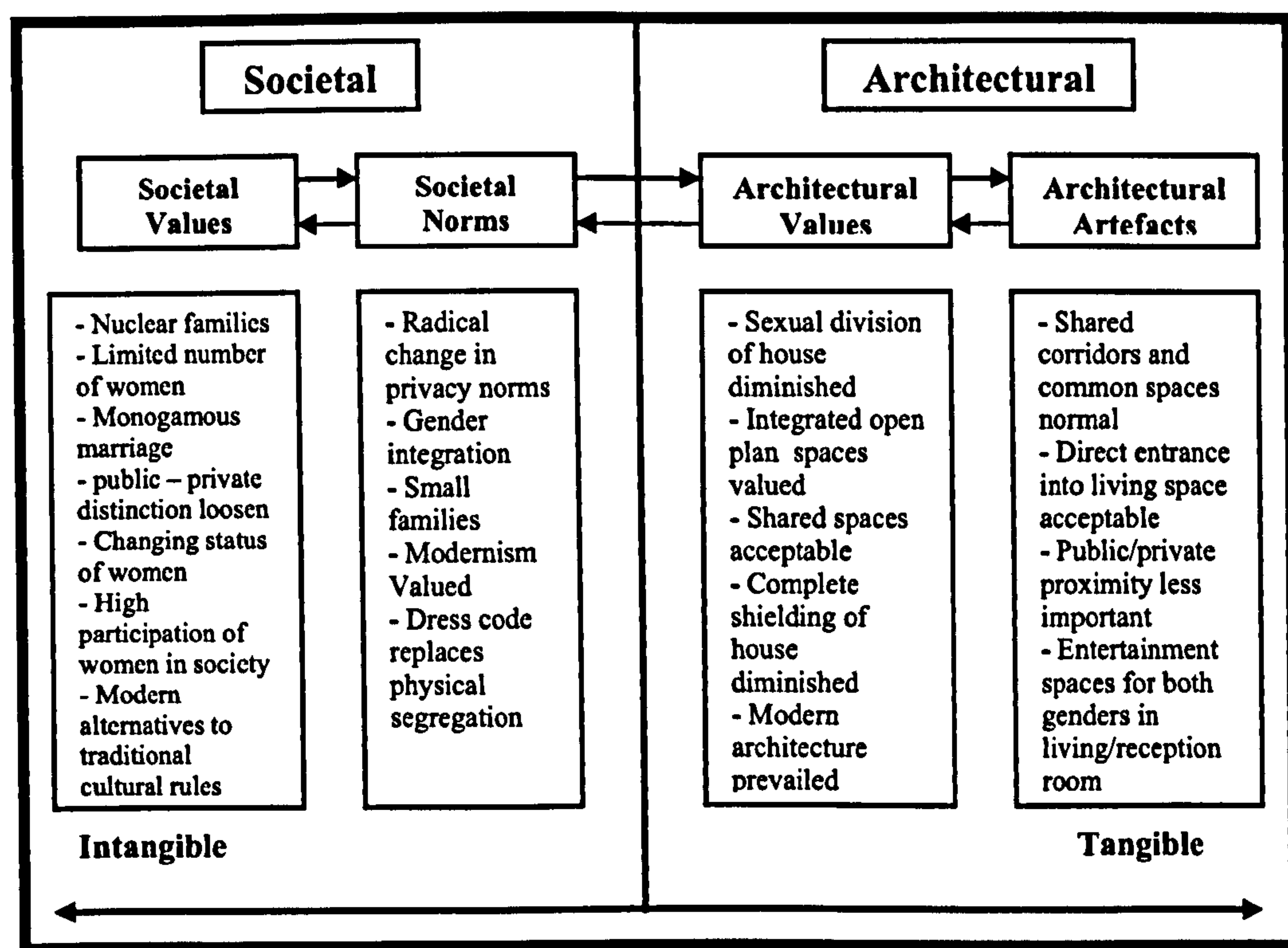


Fig 8.1 The relationship between societal values and architecture in the modern Iranian apartment



	Traditional house				Modern apartment			
	Cultural aspect	Physical aspect	Cultural influence	Type	Cultural aspect	Physical aspect	Cultural influence	Type
House layout	Gender segregation/ Internal privacy/ <i>Mahramiyat</i>	<i>Birouni – Andarouni</i> / Spatial hierarchy/ Uneven surfaces/ Multi-storey house	Strong	Physical/ Permanent/ One way	Gender integration	Open plan space	Weak	Social/ Temporary/ Reciprocal
Gender-oriented privacy	Visual-physical disconnection/ Internal privacy	Vestibule/ Non-linear corridor/ Closed space/Patterned windows/Coloured glasses/ <i>Hasir</i> (knitted straw curtain)	Strong	Physical/ Permanent/ One way	Visual disconnection /Unseen privacy/ <i>Mahramiyat</i>	Thick curtains/ Removable partitions	Moderate	Social-physical/ Temporary/ Reciprocal
Overlooking	Out-in privacy	High walls around the house/ Wooden latticed screens	Strong	Physical/ Permanent/ One way	Visual disconnection/ Out-in privacy	Thick curtains/ Frosted windows	Moderate	Physical/ Permanent/ Reciprocal
Entrance/ Access	Visual-physical disconnection/ Family privacy/ <i>Mahramiyat</i>	Vestibule/ Non-linear corridor/ Gender-identified knockers/ Private, semi-private access route/Direct access from entrance to reception room	Strong	Physical/ Permanent/ One way	Visual disconnection/	Semi-private, semi-public access/ Direct, semi-direct connection	Moderate/ Weak	Physical/ Permanent/ Reciprocal
Kitchen	Function-gender segregation/ Visual-physical disconnection	Enclosed/ Detached	Strong	Physical/ Permanent/ One way	Modernity/ Gender integration/ Control	Open kitchen	Weak	Social-physical/ Permanent/ Reciprocal

Fig 8.2 The relationship between cultural change and house layout in traditional and modern residential spaces



for my case study in which I have examined the research question '*how significant are traditional socio – cultural living patterns in the design of modern apartments?*' Residents of the apartments in all three phases, regardless of their socio-cultural backgrounds, were increasingly likely to make physical modifications to their apartments. This has become not only a fashion as well as a social status for residents, but also a business for some small companies which have been founded and grown from the modification jobs. They have template designs for modifications for different types of apartments, from small changes to complete makeovers, which range in price from a few hundred pounds to thousands of pounds. While some modifications in the older constructed blocks are made to renovate the apartment, the main purpose for all, including apartments in the latest built blocks, is to modernise the layout as well as the fittings of the apartments. The study identified that two variables of 'plan of the modern apartment' and 'socio-economic status of the household' have a causal impact on the 'pattern of privacy and social interaction' practised by the families living in the apartments. The impact, however, is highly influenced by 'modernism trends' which have dominated every aspect of Iranians' lives.

Investigation into the philosophical approaches to social research in chapter five identified a two-phase sequential mixed-method inquiry for the study. For this purpose, statistical quantitative results were obtained from a randomly selected sample population living in a variety of apartments in *Ekbatan Town*'s three phases, and was then followed up by a number of qualitative interviews to explore those results in depth. Analysis of the factual information obtained from the study's quantitative research demonstrated that a) the majority of families living in *Ekbatan Town* are in their middle ages with children aged between 10 and 25, b) their education and economic status are good, a characteristic shared by the majority of population living in Tehran, c) most families have moved from a private house to this apartment in the last 5 to 10 years, and d) their satisfaction with their current apartment is higher due to the three factors of the apartments' facilities and comfort, security and internal



plan. It is viewed through the age range of families and their level of satisfaction of the apartments that modernisation and its associated trends have had an impact on all sections of Iranian society, regardless of life cycle, life level and lifestyle. Modern apartments have become a favourite type of housing even for those who have owned and lived in a private house.

The apartment in which I used to live was a three bedroom duplex apartment, with a standardised first floor plan typical of most types of two bedrooms and above apartments in phase two. As for this plan, the apartment's entrance door opens directly into the living area. One of my main concerns, therefore, was lack of an intermediary space after the apartment's entrance door by which direct visual access from outside could be prevented. Analysis of the quantitative attitudinal information confirmed that half of the families whom I studied, those mainly living in phase two apartments with the standard first floor layout, believed that an intermediary space had to be considered in the design of the apartment in order to maintain their privacy. Other findings in relation to internal organisation of the apartments, family privacy, overlooking, open plan kitchen and alterations in the apartment and their relation to privacy revealed that overlooking and privacy of internal spaces from outside has been a concern for almost all respondents and they feel uncomfortable if situated in an overlooked position. The visual access inside the apartment in the open plan areas and especially the open plan kitchen, however, is not an issue for many families, especially women, mainly due to the fact that they have control over internal spaces and can adjust either their behaviour patterns or dress code, or ultimately withdraw themselves from the social interaction at any time.

Analysis of the qualitative stage of the study in relation to the application of privacy in the selected case studies, discussed in chapter seven, has observed a variety of permanent alterations inside the apartments. From the three criteria of a) the traditional principle of gender segregation, b) the influence of modernity and gender integration, and c) the general trend of living and use of space, the last two criteria have been the main two reasons for alterations in the



majority of cases. The study has observed that although the socio-cultural background of the families, i.e. sub-culture and its related customs and behaviours, are important factors in the form of alteration and how the family's sub-cultural needs must be met, these customs have also been highly influenced by modernism trends. Some modifications have been influenced by the traditional principle of privacy, mainly made by families with stronger religious beliefs. These modifications have been at different levels, from provision of a visual barrier in front of the apartment's entrance door to some dramatic changes in the form of blocking the corridors and confining spaces by a number of doors and walls inside the apartment. The study has concluded that unseen privacy, personal space and dress code are the most practised forms of privacy in modern apartments.

To conclude the study's findings, examination of the independent variable of 'socio-economic status' of families has observed a changing attitude toward a) modern apartments, and b) privacy-related behaviours, among people from a variety of socio-cultural backgrounds. Movement of culturally diverse middle age families from private houses into modern apartments in *Ekbatan Town* during the last five to ten years, and their high level of housing satisfaction, has indicated a changing attitude to and desirability of modern apartments among Iranian people. In the cases where alterations have been made by families, the important factors of a) sub-culture and its related customs and behaviours, and b) degree of religiousness, have been influential in the type of alterations. Economic ability is an important factor which has an impact on all cases.

Examination of the independent variable of 'plan of the apartment' has informed the study that consideration of public-private distinction, i.e. presence of an intermediary space / visual barrier in front of the apartment's entrance door to maintain external-internal privacy, has been an important factor in the plan of apartments. the presence of segregated physical and visual privacy inside the apartment has been insignificant, and in many cases obstructive for families. The privacy rules are managed through organisation of space,



furniture, form of communication and behaviour. The qualitative study has observed a strong tendency to open plan spaces among Iranian families. The reason is due to the adaptability of an open space within which a variety of activities can be accommodated at different times. In my case study apartments, a variety of alterations have been made both in favour of and against the traditional pattern of privacy according to the particular needs of the families living them. Alterations, however, are restrained by the apartment's structural elements.

The intervening variable of 'influence of modernism' has shown that modern values and way of life, among other social influences, are major influential factors on the Iranian people's attitude to housing selection. The influence has been observed in the application of patterns of privacy inside the apartment, where modern patterns, i.e. gender integration and integrated space, have replaced the traditional pattern of gender segregation, hierarchical space and visual disconnection (Fig 8.3).

I started this study by questioning the *significance of traditional socio-cultural living patterns in the design of modern apartments*. The study has found that the concept of privacy and its components of *mahramiyat* and *hejab* have significant importance among most Iranian families. However, the physical manifestation of this concept within the Iranian house, particularly in Tehran, has been changed under the influence of a number of socio-economic and political factors, but most notably by a) the prevalence of modern values and attitudes throughout the country, and b) the integration of Iranian women in all aspects of society. The study observed that gender segregation patterns have faded in the public and private life of many ordinary people due to the complexities of urban life. Nevertheless, it is the usual practice among some sections of society, people with stronger religious beliefs and also in places like small cities and villages which are ruled by traditional cultural institutions.



Variable	Research question	Research finding
<b>Independent variable 1:</b> Socio-economic status	<i>Quantitative:</i> What is the implication of socioeconomic status on application of the pattern of privacy and social interaction in modern apartment?  <i>Qualitative:</i> What is the implication of socioeconomic status on the extent of alteration?	A changing attitude to implementation of privacy has been observed among people from all backgrounds.  Sub-cultures, degree of religiousness and economic ability are important factors on the extent of alteration.
<b>Independent variable 2:</b> Plan of the apartment	<i>Quantitative:</i> What difference does the plan of the apartment make on application of the pattern of privacy and social interaction?  <i>Qualitative:</i> How much can the plan of an apartment be altered to accommodate the pattern of privacy and social interaction?	The most important element is the position of the apartment's entrance door toward inside the apartment. Control of space inside the apartment is in place.  Alterations for and against privacy patterns are made according to residents' needs but limited by the apartment's structural elements.
<b>Intervening variable:</b> Influence of modernism	<i>Quantitative:</i> How has modernism influenced the Iranian people's housing choice?  <i>Qualitative:</i> How influential has modernism been on the traditional pattern of privacy and social interaction?	Modernism has a central role in Iranian people's housing choice.  The fundamental pattern of gender segregation has been transformed to one of gender integration under the influence of modernism.
<b>Dependent variable:</b> Privacy and social interaction	How congruent is the modern apartment with the traditional pattern of privacy and social interaction?	The level of congruency is low. People either change the space or their behaviour to achieve a desired level of privacy.

Fig 8.3 The study's findings with regard to the variables and their related quantitative and qualitative questions.



The choice for modern apartments has not been entirely for the sake of their modern open plan and integrated design. A number of other factors, in particular the socio - economic status of families and increasing growth in housing price in large cities has drawn people's attention to this particular type of housing. Iranian families, in particular women, in their social interactions inside the house, are looking for new, flexible and integrated alternatives to the solid traditional patterns of privacy; patterns which are supple and parallel with their contemporary social life. They would also like to have the choice and the authority to control the space and the way they interact with non-family members and visitors whenever needed.

While the core principles of privacy must always be considered in the design of modern apartments in Iran, adaptable spaces adjustable to the household's social, cultural and religious needs seem to be the most desired ones. This study was started at a time when no other similar studies on this scale had been carried out on modern apartments and their congruency with traditional cultural patterns. As the pace of social and cultural change in societies, and in Iran in this particular case, is being accelerated with the advance of technologies, knowledge, science and especially fast communications, patterns of living are changing accordingly. The study recommends further studies on changing living patterns and their relationship with architectural types of houses and apartments in the context of a variety of sub-cultures. As the construction of blocks of apartments and residential high-rise buildings has been pushed into some medium sized and smaller cities in Iran, and as one size does not fit all, one very important fact which has to be considered by architects and designers is paying attention to the regional sub-cultural institution, customs and behaviours in their design. The study suggests that in the current and future housing plans, both by the public and the private sector, people's behavioural patterns in the use of space and its relationship with cultural values and attitudes must be studied and revised every few years in order to provide alternative plans for a variety of people.



This study could also be a base and an example for other studies here in the UK. The demographic composition of most Western capitals and large urban areas has been transformed, due to the reasons discussed in earlier chapters, to a mixture of people from a variety of nationalities and cultures living in some housing types identical to the host countries. Birmingham is one such large multi-cultural city in which a large population from minority ethnic backgrounds are living in a variety of English terrace, row and semi-detached houses. Although the second and third generation of migrants are aculturalised to the British way of life, concentration of these communities in particular parts of the city demonstrates their different cultural values and attitudes. As the skyline of Birmingham is changing and is becoming more and more diverse, it is suggested that studies, similar to this research, should be initiated to investigate these communities' core cultural values and their relationship with housing. The outcome will inform town planners, housing associations and developers in their development plans where such concentrations exist.

As the study is concluding, it is necessary to mention briefly about the limitations faced by the study, in particular at the stage of the case study survey and during the data collection process. The main restriction was the distance between where the study was progressing, in the UK, and the location of the case study in Tehran. To complete the case study survey, I had to travel to Tehran three times mainly during summer holidays when the temperature is unbearable. Also the difficulty of getting access to the *Ekbatan Town's* residents in order to complete the questionnaires and interviews was another major problem. Survey studies are not usual processes in Iran and therefore all questionnaires had to be completed face to face at residents' apartments. Also for the qualitative research and interviews, I had to be able to have access to the apartments to take photos and draw sketches of the modifications. To get into Each block of apartment and to carry out any activity, it was required to have an official permission from the block's board of directors. The whole process has therefore limited the number of the study's sample population.



# Appendix One

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## *Questionnaire*



# Your House

## How do you assess your apartment?

An investigation into the compatibility of Iranian lifestyle  
and the architectural form of modern apartments

Susan Noori  
November 2002

Location:  
Phase:  
Block:  
Type of apartment:  
Name of interviewer:  
Date:



1. General questions

1- How many individuals are living in this apartment?

2- What is the relationship between individuals living in this apartment? (if a couple use husband and wife)

- ☐ Husband
- ☐ Wife
- ☐ Father
- ☐ Mother
- ☐ Grandfather
- ☐ Grandmother
- ☐ First child
- ☐ Second child
- ☐ Third child
- ☐ Fourth child
- ☐ Any other relative
- ☐ Any other

3- What is the age group and number of individuals living in this apartment?

<u>Age group</u>	<u>Number</u>
Under 10 years	-----
10 to 20 years	-----
20 to 30 years	-----
30 to 40 years	-----
40 to 50 years	-----
50 to 60 years	-----
Over 60 years	-----

4- What is the education level of individuals living in this apartment?

<u>Level of education</u>	<u>Number</u>
School Student	-----
Not finished high school (not studying)	-----
Finished high school	-----
First degree (bachelor)	-----
Master	-----
Doctorate	-----
Any other (please indicate)	-----

5- How many individuals are working in this household?

<u>Number</u>	<u>out of home</u>	<u>from home</u>	<u>not working</u>
1 Person	-----	-----	-----
2 Person	-----	-----	-----
3 Person	-----	-----	-----
4 Person	-----	-----	-----



6- How do you describe your economic status?

- ☐ Good
- ☐ Upper middle
- ☐ Middle
- ☐ Lower middle
- ☐ Low
- Any other (please indicate) -----

7- Where is your birthplace?

- ☐ Tehran
- ☐ Large province (please indicate) -----
- ☐ Small province (please indicate) -----
- ☐ Village

8- For how many years have you been living in Tehran?

- ☐ Less than 2 years
- ☐ 2 to 5 years
- ☐ 5 to 10 years
- ☐ 10 to 15 years
- ☐ 15 to 20 years
- ☐ More than 20 years

9- Are you an owner or a tenant?

- ☐ Owner
- ☐ Tenant

**2. Questions about the housing choice and preference**

10- How many years have you been living in this apartment?

Years -----

11- Before moving to this apartment, in which kind of housing were you living?

- ☐ High-rise apartment block
- ☐ Low-rise apartment block
- ☐ 2 to 3 storey house
- ☐ Private house
- ☐ Rural house
- ☐ Traditional private house
- Any other (please indicate) -----



12- Comparing your previous house and present apartment, which one do you like more?

- ☐ Previous
- ☐ Present
- ☐ Neither

13- For what reason have you chosen to live in this apartment? (Please tick as many as you like but specify the main reason by a star)

- ☐ Congruency between internal plan and individuals' needs
- ☐ Modern look of the apartment
- ☐ Financial reasons
- ☐ Near to work
- ☐ Better security
- ☐ To sell and buy a better place
- ☐ Not finding a better place
- ☐ The only way of home ownership
- ☐ Near to relatives/ friends
- ☐ Internal facilities/ comfort
- ☐ No other choice
- ☐ No specific reasons
- Any other (please specify)

14- What is your level of satisfaction of living in this apartment?

- ☐ High
- ☐ Low
- ☐ Average
- ☐ Not satisfied

15- Are you planning to move from your apartment?

- ☐ Yes
- ☐ No

- If yes, what are the main reasons:
- ☐ Sell and buy a better place
- ☐ Lack of security
- ☐ Lack of comfort
- ☐ Not suitable for children
- ☐ Transport difficulty
- ☐ Dislike the area
- ☐ Lack of space
- ☐ Buy a private house
- ☐ Tenancy agreement is over
- ☐ Lack of congruency between internal plan and family needs
- Any other (please specify)

- If no, what are the main reasons:
- ☐ Lack of financial ability
- ☐ Near to work
- ☐ Like the apartment
- ☐ Near to relatives/friends
- ☐ Internal facilities/comfort
- ☐ Like the area
- ☐ Have good security
- ☐ Satisfaction of living in this apartment
- ☐ Congruency between internal plan and family needs
- Any other (please specify)



16- If you had financial ability, what kind of house would you choose to live in?

- ☐ Apartment in a high-rise block
- ☐ Apartment in a low-rise block
- ☐ 2 to 3 storey house
- ☐ Private house
- Any other (please indicate)

**3. Questions about organisation of internal space and privacy**

17- Does the main entrance door open straight into the living or guest area?

- ☐ Yes
- ☐ No

18- To what extent do you agree that having a separate entrance area after the entrance door is necessary in your apartment?

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ No difference

If it is necessary, what is your main reason? (please tick only one item)

- ☐ Being secure from the view of the passersby and strangers
- ☐ Having privacy inside the apartment
- ☐ Having a space to put outdoor clothes and shoes
- ☐ All cases
- Any other (please indicate)

19- When you have guests or visitors at home, is the private area of the apartment secure from their view?

- ☐ Completely secure
- ☐ Almost secure
- ☐ Not very secure
- ☐ Not secure

20- How much do you prefer the private area of the apartment to be separated from the guest or visitors' area?

- ☐ Very much
- ☐ Average
- ☐ Not much
- ☐ No preference

21- How comfortable are you to be in the open kitchen when a guest or visitor is present?

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Not very comfortable
- ☐ No difference



22- How do you feel if you and the internal spaces of your apartment are overlooked?

- ☐ Very Uncomfortable
- ☐ Quite uncomfortable
- ☐ Comfortable
- ☐ No difference

23- Please indicate when curtains are closed in the following rooms:

	Never	Sometimes	All the time	At night	No curtain
Kitchen	-----	-----	-----	-----	-----
Sitting room	-----	-----	-----	-----	-----
Guest room	-----	-----	-----	-----	-----
Bedrooms	-----	-----	-----	-----	-----

24- If curtains are closed in the following rooms, please specify the reason.  
(tick only one reason)

	Sun	Overlooked	Heat and cold	Any other
Kitchen	-----	-----	-----	-----
Sitting room	-----	-----	-----	-----
Guest room	-----	-----	-----	-----
Bedrooms	-----	-----	-----	-----

25- How satisfied are you about the existing level of privacy of your apartment?

- ☐ Very satisfied
- ☐ Not very satisfied
- ☐ Satisfied
- ☐ Not satisfied

4. Questions about social interaction

26- Are you a hospitable person?

- ☐ Yes
- ☐ Almost
- ☐ No

27- How much effect does the internal space of your apartment have on the number of guests?

- ☐ Very much
- ☐ Not much
- ☐ Average
- ☐ No effect



28- How much effect does the internal space of your apartment have on the number of invitations?

- |                                    |                                    |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> Very much | <input type="checkbox"/> Not much  |
| <input type="checkbox"/> Average   | <input type="checkbox"/> No effect |

**5. Your ideal house**

29- If you had a choice, what kind of house would you prefer to live in?  
Apartment or private house



# Appendix Two

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*Interview*



Interview questions

Location:  
Phase:  
Block:  
Type of apartment:  
Name of interviewer:  
Date:

1- What alteration has been made in this apartment ? Please explain

2- What was the main reason for the alteration?

- For privacy reasons
- For use of space reasons
- For the family

- For guest
- To eliminate unusable spaces
- To modernise the apartment
- Any other

3- If alteration has been made for privacy reasons, what is your level of satisfaction after the alteration?

- Very satisfied

Satisfied
- Not very satisfied

No difference

4- What is your general level of satisfaction with the apartment after alteration?

- Very satisfied

Satisfied
- Not very satisfied

No difference

5- How much has the alteration cost you?



**6- Please explain the alteration, its reason and relation to privacy**

**Mapping of the alteration:**



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