SUMMARY OF CONCLUSIONS

Every body needs shelter. However it is not available, of the same type, to every one everywhere and every time. Housing is as important a basic need as food and cloth. Among all the man-made structures on earth, houses occupy the largest space. The share of house in land use of every country is on rise. The population is rising so is the rise in house. But population of the world is getting concentrated in urban areas hence housing need of urban areas in almost every country is the biggest concern of urban planners.

The task of writing this dissertation began with the objective of presenting a geographical analysis of urban housing in Iran with a focus on its second largest city Mashhad. It attempted to answer the following questions:

- What are the national, regional and local housing processes that find expression on urban space?
- What are the locational policies and programs that have been initiated for urban housing during the plan periods?
- Has the situation of a holy place (Holy shrine of Imam Reza) in Mashhad influenced the concentration and rental values of housing around it?
- What are the different patterns of housing emerging within the city and what changes have occurred over time?
- What are the location and housing type specific problems emerging in the city?
- Is housing within the city presenting a visible expression of the social and cultural categories spatially?

Hypotheses:

Following hypotheses were proposed for empirical examination:

- Housing in newly developed areas reflects a marked social and economic segregation as compared to the older evolved and unplanned parts.
• The concept that different ethnic groups have a tendency to concentrate in specific ethnic housing has evolved over the years in different parts of Mashhad.

• Housing around the holy place is specifically developed for particular social groups and housing heterogeneity increases as we travel away from it.

• Housing near the holy place is older, more crowded and has higher rental value than the peripheral areas.

Methodology and Data Sources:

Given the nature of the present study, data was acquired from different published and unpublished sources. A detailed questionnaire was also prepared to collect data from sampled Mohallas of different sectors.

The annual publication of the Statistical Centre of Iran and Central Bank of Iran was consulted for national, provincial and city level spatial pattern of housing. The information on housing was first collected in 1956 census. However this data is not comparable with the subsequent censuses. The province level data since 1966 were available as well as comparable. The Central Bank of Iran has been publishing information about private construction in urban areas since 1965. In addition Reports of Management & Planning Organization (Plan and Budget Organization, Tehran), and census related information were consulted.

The journal on ‘Housing Economics’ published by the Ministry of Housing and Urban Development, Iran, was consulted. In addition, two reports in Urban Housing for the second and third Five Year Plan of the post Revolution period were consulted, and the Housing Foundation of Islamic Revolution, Mashhad, were also visited for collecting the information on plans and programs related to urban housing. Concerned publications of these institutions were gleaned for relevant information.

The study relates to the post Revolution plan period i.e. 1979. However, the sequence of historical events particularly political was also presented. In doing so the total planning era of Iran was divided into two phases: the pre revolution and the post revolution. The pre revolution phase is further divided in two parts: period of Seven-
Year Plans from 1948-1962 and Five Year Plans from 1962 -1979. There were two Seven Year Plans and four Five-Year Plans during pre revolution planned period. The post revolution period has completed three Five-Year Plans and the fourth Five-Year Plan of the post revolution period started in 2005. In all, Iran has seen two Seven-Year Plans and Seven Five-Year Plans since 1948.

The geographical landscape was discussed to understand its influence on urban housing. The process of urbanisation was presented in detail so that linkage between urban housing and urbanisation are established. Suitable cartographic and statistical techniques were used for mapping and drawing inferences respectively. Visible expressions have also been captured photographically.

**The Geographical and Historical Background**

It was considered necessary to begin with the geographical and historical background of Iran. It was further realized that the political processes also influence the urban housing. It was therefore discussed in brief. A similar discussion on Mashhad city was essential. In brief, following conclusions were drawn:

- Iran has not changed territorially in the last one hundred years however its inclusion in any specific macro world regions remained inconsistent among scholars.

- The history of Iran is replete with phases of successes and failures. It remained undecided in selecting between modernization and the clergy dictated Islamic way of development.

- The country has seen phases of promoting and discouraging population growth. The reduction in age of marriage for males from 21 to 18 and for females from 15 to 13 were population promoting steps. The adoption of family planning measures is a step however for controlling population.

- Iran became an urban majority country in late 1970s due to large scale socio-economic structural reforms accompanied by oil nationalization, industrialization, land reforms, modernization and Islamic revolution.
• Rail and road network initiated by Reza Khan proved a catalyst in the process of urbanisation and urban housing.

• The land reforms promoted rural-urban migration in a big way. The rural exodus was so rampant that urban centers were unable to manage hence leading to slum like situations in many places.

• Refugees across the borders of Iran such as Iraq and Afghanistan and from war zones along borders changed the settlement landscape. The population in provinces having international borders showed a tendency of concentration in urban centers. On the other hand the urban centers spatially spread and attracted population from rural areas.

**Urban Housing In Iran: An Overview**

**Urbanization**

• The history of urban housing in Iran is 5500 years old. It is as old as the history of Silak Kashan, Isfahan. The building codes were developed 3500 years back by an Iranian Hammorabi. The codes were engraved on a block of black basalt and were unearthed as Susa, Khuzestan, Iran. French archaeologists reported Susa in Iraq (in 1901-02) since it was then known to be located in Araq, Iraq.

• The presence of municipality in a settlement having a population of 5000 persons in the guiding principle for declaring urban centers. Delinking the population size with municipality at the time of 1986-91 census gave birth to as many as 83 urban centers with population size smaller than 5000 persons. All these urban centers were having a municipality. Rapid urbanization in Iran is linked to oil nationalization, industrialization, land reform and Islamic Revolution.

• Urban centers increased from 166 in 1956 to 612 in 1996 recording a three fold increase. During the same period urban population increased from 5999 thousand persons in 1956 to 36818 thousand persons in 1996 and recorded a six fold increase.
• Urbanization processes operating in eighties internalized the urban population in general thereby avoiding the fragile peripheral provinces. After the end of war with Iraq evidences suggest that population in western provinces bordering Iraq are more concentrated in urban centers than rural areas.

• Urbanization has spatially spread during 1956-96 period. There were 18 out of 28 urban majority provinces in 1996 against just two out of 28 in 1956. Qazvin, Tehran, and Qom remained urban majority during 1956-96 period.

• The western Iran is crowded with most of the major urban centers. The housing in urban centers of western Iran would require more attention of planners since a large number of urban centers in this part emerged during 1956-96 period.

• The level of urbanization with respect to national average remained higher in provinces which are located in the interior. These are non-bordering provinces. Only exception was Kermanshah.

• Agriculturally fertile lands mostly along south coast of Caspian sea (Gilan, Mazandaran, Golestan, Ardabil), Zanjan, and Hamadan, tribal areas of Chaharmahal & Bakhtiari, and Kohgiluyeh & Boyerahmad, and arid lands of Hormozgan and Sistan & Baluchestan are yet rural majority.

• The level of urbanization higher than national average was recorded in 5 out of 28 provinces in 1956 which increased to 7 out of 28 provinces in 1996. Qazvin, Tehran, Qom, and Isfahan recorded level of urbanization higher than national average both in 1956 and 1996. Khuzestan and Fars which were above the national average in 1956 recorded their level below the national average in 1996. Kermanshah, Semnan, and Yazd which were below the national average in 1956 recorded themselves above the national average in 1996. Other 19 provinces out of 28 remained below the national average both in 1956 and 1996.

• The average population size of urban centers increased from 30145 persons in 1956 to 60160 persons in 1996.
• The average spacing of urban centers decreased from 102 kms in 1956 to 58 kms in 1996. In simple words, after every 58 kms, there is one urban center.

• The urban density increased from 3.7 persons/sq km in 1956 to 22.6 persons/sq km in 1996. It multiplied by more than six times.

• The Gini concentration ratio increased from 0.67 to 0.76 implying that a few large urban centers are disproportionately large and growing faster than others.

• The largest five cities with more than 1 million population shared one-third of the total urban population. Half of the total urban population was living in 18 out of 612 urban centers in 1996.

• Urban centers at the province level are spatially distributed from a maximum of 59 in Isfahan province to a minimum of one in Qom province.

• In 1996, there were 59 urban centers recording a population of 100 thousand each against 9 in 1956. In other words, ninety per cent or 553 urban centers in 1996 were having a population size smaller than 100 thousand persons. Spatially the eastern Iran was dried but western Iran was overcrowded with urban centers.

• The percentage of urban population increased from 31.4 per cent in 1956 to 61.3 per cent in 1996 thus making Iran, as urban majority country. At the province level, the largest urban population in 1956 was recorded in Tehran and the smallest in Kohgiluyeh & Boyerahmad. Tehran had a location quotient of 7.86 and Kohgiluyeh & Boyerahmad 0.01. The value changed to 7.19 and 0.16 in 1996. The decline in Tehran was result of reorganization of Tehran.

**Urban Housing**

• Housing like other activities is centrally regulated in Iran. Ministry of Housing and Urban Development was established in 1943. All guidelines on urban housing are issued from time to time by this ministry.

• The total number of urban housing units in 1966 were 1.29 million and it changed to 6.91 million in 1996 registering a more than five fold increase.
• The proportion of urban housing units to total housing units increased from 34 per cent in 1966 to 64.2 per cent in 1996. Iran is therefore a country where the majority of its housing units are located in urban areas.

• Urban households remained higher than urban housing units denoting a shortage of houses. The ratio between urban houses to total urban households improved from 1:1.5 in 1966 to 1:1.4 in 1996.

• Housing ownership changed during 1956-96 period. Individual owners shared 67 per cent of the total households in 1996 against 51 per cent in 1956. The proportion of tenants declined from 35 per cent in 1956 to 21 per cent in 1996.

• The decline in various housing indices during 1966-96, such as household per house, person per room, person per house and person per household denote an improvement in urban housing.

• People in Iran have a tendency to live in a single housing unit as a household. This tendency has grown stronger in the last four decades.

• The evidence suggests that people in general have a preference for three to four room dwelling units. It means housing units with at least three or four rooms may be planned in the future.

• 70 per cent of the total housing units were used as one household. In other words, majority of the housing units were occupied by single households.

• The demand for urban housing was so high that a large number of construction agencies emerged and huge construction activities were started with the support of the government.

• The buildings with metal skeleton frame recorded an unprecedented increase from 5 per cent of the total houses in 1966 to 19 per cent in 1996. The share of reinforced concrete structures increased from 2 per cent of all urban buildings in 1966 to 9 per cent in 1996. The preference of very strong houses over weak houses is evident since 21 per cent of the total houses recorded in 1996 had
either reinforced concrete or metal skeleton structure. These houses can withstand the earthquakes measuring 7 on Richter Scale.

- An increasing tendency of owning a house was recorded during 1966-86 when the proportion of household owners rose from 56 per cent in 1966 to 69 per cent in 1986. A marginal decrease in 1996 was recorded.

- The urban landscape of Iran is young in terms of age of building as three-fourth of its total buildings in urban areas were recorded to be less than twenty years old in 1996.

- There is a general improvement in electricity, telephone, piped gas and toilet facility since 1966. The urban houses in terms of piped water and electricity are as good as any advanced country. Nearly half of the urban houses recorded availability of piped gas and telephone in 1996.

- Housing in Iran has been influenced by geographical setting. The traditional and conventional housing suit the local requirements. The coastal housing is on a raised platform leaving an empty space underground that saves the building from the underground moisture. The lower part of the building of mountainous areas is constructed under the ground. In case of housing in desert, open space is important around which rooms are constructed. Instances of having a pool are common.

Policies and Programmes

- The concern for the urban housing found place in the very first Seven Year Plan (1948-55), however public sector intervention began only during the first Five Year Plan (1962-68) when the Ministry of Development and Housing was created and low price houses constructed.

- The material to be used in the construction of houses prior to the plan periods was free from government interference. This led to the emergence of poor quality, weak housing in different parts of the country. Such a practice was checked for
the first time through regulations. The quality of the building materials were specified and strictly regulated. Secondly, guidelines for renovating old cities also became a part of the new policy initiatives of the plan.

- Private sector construction of houses dominated over the public sector during the second plan. Housing for low income, government personnel and slum dwellers received attention during second plan. Housing unit size and standards were emphasized. Housing for industrial workers was promoted near factory sites by increasing the annual budget of the housing bank.

- Large number of residential units were constructed during the second Five Year Plan. These were for defense personnel in border areas and for economically weaker sections.

- Government intervened during the third Five Year Plan of the pre-Islamic Revolution to check the quality of material used in the construction and from then on standards were set.

- The private sector investment in urban housing remained higher than the public sector in all plan periods. The share of private sector investment in urban housing increased to the extent that public sector investment reduced to less than 2 per cent of the total investment during the third Five Year Plan (2000-04).

- During the first Plan Holiday (1979-88), the new urban land by-laws were prepared. A huge sum was distributed for housing as loan. The National Bank of Iran alone allocated 115 billion RIs for housing in 1979.

- Cooperative housing which began during the third Plan of Pre-Revolution period got strengthened in the first Five Year Plan of the Post-Islamic Revolution period. Rehabilitation of earthquake, flood, and war-affected people was done through this type of housing.
MASHHAD: A Case Study

Housing Types: Patterns and Trends

- The population of Mashhad city grew more than 4.6 times from 409 thousand persons in 1956 to 1887 thousand persons in 1996 and raised its status to a million city. However the city experienced spatial expansion also from a total area of 45 sq km in 1956 to 225 sq km in 1996, thus registering a five-fold increase. Consequent to it, registered decline in density of population, unlike other urban centers, from 9103 persons / sq km in 1956 to 8388 persons / sq km.

- The spatial planing for Mashhad started in 1971 however there existed a municipality before 1971 also. The city had in all 10 municipalities, one each for every sector (Mantagheh). The total number of housing units increased from 50 thousand in 1966 to 345 thousand in 1996. It therefore registered almost seven-fold increase in a period of thirty years.

- Location of numerous mosques, large number of commercial activities and huge concentration of pilgrims around the Holy Shrine are sufficient evidence that the housing around the holy place is specifically developed for particular social group and housing heterogeneity increases as we travel away from it, hence our hypotheses number three is proved.

- The urban households were recorded always higher than houses thus denoting shortage of houses. During 1966-96 households multiplied by 4.6 times from 87 thousand in 1966 to 407 thousand in 1996.

- The shortage of houses multiplied by 1.6 times. There were more than 62 thousand housing units registered in 1996 to match the households.

- The emergence of apartment houses added a very strong vertical dimension to urban housing. These were recorded in the peripheral sectors.

- Residential units constructed with strong building material had a slower growth in Mashhad.
• Sector 1 and 5 are two extremes in Mashhad in terms of proportion of houses having metal skeleton or reinforced concrete. The former recorded the highest and the latter the lowest proportion.

• Among the ten sectors (Manataghah), the proportion of metal skeleton houses to total houses ranged from a maximum of 26.63 per cent in sector 1 to a minimum of 2 per cent in sector 5.

• The eastern sectors of Mashhad recorded a high proportion of houses in the age group of 10-20 years.

• The houses in Mashhad recorded almost cent per coverage in terms of piped water, electricity, piped gas, kitchen and water closet in 1996. The telephone connection was available in about two-fifth of the household.

• About 43 per cent household have cooler but central heating system was limited to only 7 per cent houses.

• A substantial increase in the proportion of residential units with metal skeleton was recorded during 1966-96 period. The percentage of metal skeleton increased from 5 per cent in 1966 to 11.1 per cent in 1996. The proportion of brick & iron houses was the highest in sector 5 and the lowest in sector 1. The use of brick & iron indicates its popularity among middle and low-income groups people.

• The dominant material for urban housing in Iran during the study period was either a combination of brick & iron or stone & iron.

• In Mashhad, eight houses out of every ten were constructed using brick and iron or stone and iron against six in the country as a whole.

• The use of wood with brick or stone was replaced by iron in the new construction. The share of brick-wood or stone wood houses declined from 19.3 per cent before 1966 to only 5.5 per cent during 1986-96 period.

• The proportion of house ownership in Mashhad increased from 36.3 per cent in 1956 to 63 per cent in 1996. Against this, tenants have declined from 45.6 per cent to 26 per cent.
Housing Problems: Patterns and Trends

- In the absence of adequate government initiatives, the private construction activities increased alarmingly to an extent that 98.6 per cent of the total investment during 2000-04 was shared by the private sector alone.

- The exploration of oil in Iran put the urban areas in core and rural areas on periphery in terms of housing development.

- Natural disasters, mainly earthquake, have destroyed 800 thousand houses in Iran during 1982-2000 period. One third of the total houses destroyed were from Gilan and Khorasan province only.

- Provision of housing to refugees, both external and internal, remained a great challenge.

- Iran is one of the major refugee recipient country in the world. Around 2.6 million refugees were recorded in 1986 census of which 2.3 million were from Afghanistan.

- The declining share of government investment in total investment for housing was of great concern. It decreased from 5.1 per cent in 1990 to 1.1 per cent in 2002. Contrary to it, the private sector investment increased from 94.9 per cent in 1990 to 98.9 per cent in 2002.

- Flash flood damaged 250 houses in Mashhad in 2002. The city is prone to earthquake as well as flash flood.

- Refugees from across the border and war zones were settled in Mashhad. The northern and northeastern part of the city received large number of refugees.

- The rising price of houses always remained higher than the housing loans. The cost of one sq. meter of roofed area in 1992 was 201 thousand Rls, which increased to 1983 thousand Rls in 2002. It is almost five-time increase. However the cost of one unit of house in 1992 was 16583 thousand Rls it
increased to 163598 thousand Rls in 2002 which means almost 10 times. Compared to it, the loan amount multiplied by less than five times.

- Space for parking and rise in general sound due to absence of non sound-proof walls were other reported problems of residents.

- The urban housing in Mashhad recorded general decline in available space for drying clothes, and for balconies.

- The resident in Mashhad reported that the apartment houses restrict the view of open space.

- The illegal constructions due to weak legal supervision in the beginning of Revolution period on unauthorized and forbidden lands was challenged in recent years and house demolition drive was in vogue.

- The rising cost of iron, low supplies of concrete and shortage of skilled workers were reported as another problem.

**Future Research Agenda**

The studies on urban housing shall emerge as a dominant theme of study in almost every country in general and rapidly urbanising countries in particular in near future. The comparative study of urban housing within a country and among countries may reveal the variations, and similarities in terms of successes and failures. The micro level studies on single Mohalla may unfold the ground realities in detail.

The studies on impact of declining space and vertical rise in urban housing on human beings may be significant. The studies on the old dilapidated structures and their varying use within a city may attract the attention of future researchers.