

AN ANALYSIS ON HOUSING'S QUANTITATIVE AND QUALITATIVE INDICATORS TEXTURE WORN  
CASE STUDY: MASHHAD NO-DARREH DISTRICT

Baratali Khakpoor<sup>1</sup>, Zahra Sayahi<sup>2\*</sup>, Akram Mehrvarz<sup>2</sup>

1- Lecturer Of Ferdowsi University Of Mashhad

2- PhD Student In Field Geography And Urban Planning Ferdowsi University International Of Mashhad

**ABSTRACT:** The smallest and least physical embodiment of the interaction between humans and the environment. And crystallization of human habitation in space-critical functions essential role, he is In this paper we analyze some qualitative and quantitative indicators of housing in the old texture Mashhad Valley neighborhood has been no A little after 7 on 7 indicators and qualitative indicators were considered in the main objective of housing characteristics, past and present situation of the historical context To achieve favorable settlements in the future. Two types of questionnaires (social and physical) designed In the household questionnaire, the number of households in 2006, Cochran based on 320 households were selected by random sampling without replacement And the physical inventory information, all within the context of the old neighborhood was not included in Mashhad Valley Between the sample and the distribution has been completed. Cronbach's alpha coefficients for the two questionnaires, 706/0 of Indicates the validity of the questionnaire is relatively high. The questionnaires were analyzed with software SPSS, ARC GIS has been done. The results show that the number of residential units from 25,437 units to 66,074 units, an increase of 9. The average annual increase in its tenth percent Size of population density in the area of housing, 36/5 in 1375 to 72/3 in 1385 is reduced. Average number of households per residential unit is about 13/1. Household of 79/4 in 1375 to 71/3 in the fall of 1385, followed by a lower density compared to previous years shows the housing units. Average room in the dwelling unit is about 81/1 is Relative contribution of residential units in steel and reinforced concrete Within about 8/41 percent is The relative share of housing units in the area of brick and iron 4/56 percent. Failure to observe the technical supervision of the construction of buildings of this type of feature is despite the use of materials acceptable to have poor structures. Ranged from 0 to 10 in 5/23% of the parts are new 9th District That means a total of 6547 pieces is part of Veterans Park, Hashemite, Samaniyeh and Pearl City High has new parts.

**KEYWORDS:** Indicator, Housing, Worn Texture, No-Darreh Of Mashhad.

### INTRODUCTION

Sometimes the housing subject has been a under attention due to economic, social and political reasons issues ([Darkoush, 1985](#)). In its environmental concept, housing is not only considered as a shelter, but also as a device that has to have all the services and facilities necessary for the welfare of the connection between the household life and the environment ([Habib, 2004](#)). Housing is one of the fundamental needs of a household. The lack of any request or need in a building causes crisis and heterogeneity in the whole social system the lack of which is an obstacle for the healthy formation and growth of the household. Housing includes the entire necessary services and facilities for the welfare of the household and the individuals' employment, training and hygiene schemes. In fact housing includes the entire housing environment ([Pour Mohammadi, 2006](#)). The results of this study determine the spatial

structure of cities and residential neighborhoods. One of the best ways of understanding different ways of living is to emphasize the type of housing and its indicators and conditions ([Hatami et al., 2006](#)).

Mashhad is the center of Razavi Khorasan Province and the center of Mashhad city. In the 1385 population census, Mashhad's 9th District was the home to over 250 thousand people. The studied area, with an area of 1/4010 acres, includes net urban lands with an area of 5/2732 hectares and a proportion of 68.4 percent and urban gross lands with a non-net area of 1986/1898 hectares and a proportion of 31.86 percent. During the decade 1996 to 2006, the size of households in housing density was decreased from 1.18 to 1.09 in the entire city of Mashhad and the size of the housing density decreased from 5/5 to 4.1. Based on the available data, the size of households in housing density in 9<sup>th</sup> district was 1.12 in 1996 that

decreased to 1.02 in 1385. In terms of the citizens' access to civilian applications, the Noo Dara district is faced with severe shortages that could be one of the most important factors in textures aging.

#### THE EXPRESSION AND SIGNIFICANCE OF RESEARCH

Housing is included as one of the most basic and most critical parts of the economic and social development plan ([Azizi, 2004](#)). It is the smallest form of the physical embodiment of the interaction between the human and the environment and the spatial manifestation of the vital functions of human settlement in his roles. Appropriate and affordable housing is a critical element in determining the quality of life. In its environmental concept, housing is not only considered as a shelter, but also as a device that has to have all the services and facilities necessary for the welfare of the connection between the household life and the environment ([Habib, 2004](#)). In 1987, the United Nation declared that having a shelter for the people without house is one of the fundamental needs ([Gallent, 2009](#)). Low-income people have difficulties providing houses in cities from the first step, i.e. selection of the location of living to the size of the home, the type of construction materials, obtaining the construction permit and also the use of governmental funds and loans ([Hatami et al., 2006](#)). One of the Iranian cities with old and worn texture is Mashhad. The No-darreh Valley neighborhood is located in the 9<sup>th</sup> district of Mashhad. During the last three decades, No-darreh lands have attracted many of the urban low-income groups who need housing besides low-income immigrants. These groups have a low socioeconomic status. Therefore they have started to construct in a non-standard manner regardless of the rules and regulations without the supervision of the authorized parties that lack the urban body and shape. Non-permitted construction has led to the problem that the required residents' services have not been fully provided by urban servicing companies and the municipality. Therefore this neighborhood is severely poor in terms of usages and servicing spaces such as training, treatment, police, etc. (though due to social pressures or prevention from unpermitted usage of servicing networks and facilities, services such as the issuance of the ownership document through acts No. 147 and 148 besides the provision of water and electricity. In this regard, this study seeks to answer the following questions:

- Is the number of housing units with the household dimension in a good condition in the worn texture of No-darreh neighborhood?
- In terms of the durability of building materials and the average houses units' lifespan in the context of residential neighborhoods, is there a better situation in the texture of No-darreh district?

#### RESEARCH HISTORY

In this paper, we will refer only to a limited number of studies: In a research by Hasan Hekmatniya showed that there has been a growing trend towards urban area in 1979-96 and it has a better condition than other urban cities in quantitative terms, while in qualitative terms, it was located on a lower situation. In another study by [Ziyari and Zarafshan, \(2006\)](#) showed that while Maragheh has had a growing trend in terms of quality and physical conditions, it had a lower condition than the province and the country's urban districts. In addition, the supply and demand status of housing in this city showed a decreasing trend such that the household growth to household units ratio increased from 1.09 in 1355-1365 to 1.23 in 1986-96 which represented a decrease of housing supply during this decade. In addition, in a research by Aref Agha Safari showed that qualitative and quantitative features of housing in the historical texture are different from the overall city. Household dimension, density and per capita in the historical texture are lower than the entire city. Also the mud and brick buildings, buildings with a life of 60 years or more, damaged buildings and monuments with non-personal properties have a higher percentage. It is also important to mention that there has been no article on the intervention in the historic/old texture of the old town of Shooshtar so far. This study was therefore decided to study. In another study by Mir Najaf Mousavi findings and results reveal that according to the low level of social awareness in GhaemShahr and the ignorance of the residents to the household planning policies, the natural population growth rate was high in the district. The elevated household dimension in this town has increased the dependence and possession. The standard level of housing indicators in the Ghaem town neighborhood indicated a lower level than the city of Qom. In a research by [Ziyari and Zarafshan, \(2006\)](#) indicated that these indicators have improved in Babol and the urban points of the country during the 2006-1986 period, but it suggested by the department of housing and urban areas of the city of Babylon compared to the normal city conditions, although the size of many communities beyond

the control of many aspects of the favorable conditions, the conditions are not favorable.

### RESEARCH METHOD

The research method was descriptive - analytical. According to the available purposes and facilities, the existing situation of the neighborhood and the wear indicators as well as the causes of wear was identified. In the socio-economical study performed on the neighborhood level to reach the housing qualitative and quantitative indicators in the historical texture, two questionnaires were designed (social (household) and physical) was designed and developed according to the local population of 253,210 people according to Cochran methodology, a sample size of 320 patients were evaluated for the range under study. For data collection, a 19-item questionnaire was used by using the techniques of observation, and interview. The questionnaire data were analyzed by Software inventory data with SPSS, version 16. The Cronbach's Alpha of 0.769 indicates the rather high reliability of the questionnaire.

$$n = \frac{\frac{t_{pq}^2}{d^2}}{1 + \frac{1}{N} \left( \frac{t_{pq}^2}{d^2} - 1 \right)}$$

$$N = \frac{\frac{(1.96)^2 (0.7)(0.3)}{(0.05)^2}}{1 + \frac{1}{253210} \left( \frac{(1.96)^2 (0.7)(0.3)}{(0.05)^2} - 1 \right)} = 320$$

#### 4.1. Theoretical Basics

Housing indicators are the most important tools in housing planning ([Ziyari and Zarafshan, 2006](#)). Housing indicators can be classified into four major categories as below:

##### 4.1.1. Demand and welfare indicators

Indicators that fall into this category include single household residential, density indicator, the indicator of housing per person, per room, share housing estate, housing values relative to household income and the share of household income on rent.

##### 4.1.2. Indicators of supply and housing investment

The most important investment and offer measures are indicators of the national capital's share of total housing finance, housing share of GDP, the average time to complete the housing construction, housing starts, finished housing investment, housing investment, GDP growth and average size of existing and newly constructed housing units, residential building permits issued and development (physical and monetary value), etc.

##### 4.1.3. Housing economic market indicators

The indicators that fall into this category include the housing share of total banking facilities, housing rent/price and their growth, the number of housing transactions and their growth, the average price of a square meter of land, the share of tax housing share of the total state tax on the total income housing subsidies paid by the government.

##### 4.1.4. Performance and evaluation indicators

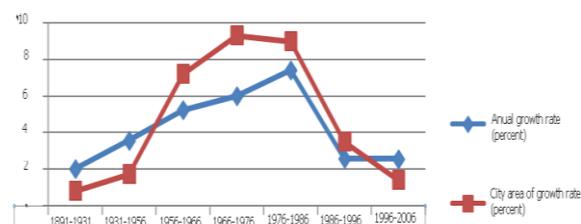
The government subsidy payments, the housing share of the state budget, the share of credits to GDP growth, added value and the role of subsidies on housing prices, fixed or variable mortgage interest rates ([Gholizdeh, 2008](#)). Recently, according to the United Nations, a healthy housing exists where the density of people per room would not be more than one person ([Hatami, 2006](#)). The most important factor affecting the satisfaction of living in a neighborhood is the housing and environmental conditions ([Westaway, 2006](#)). The most important indicator to relate the population density to a nervous/mental illness in humans is the indicator of the number of people per room, while the indicators of the number of households per housing unit and the number of households per hectare are rather less important ones ([Azizi, 2004](#)). Today, the relationship between the number of household members and the number of rooms possessed by them has been identified as a marker of development, i.e. the reasonable average number of people per room is identified as a health indicator. According to United Nations standards, a healthy housing exists where the density of people per room would not be more than one person ([Hatami, 2006](#)). In most old residential areas, there are spaces such as kitchens, storage rooms and porches which are not needed anymore due to the changes in the type/patterns of living. Thus an old traditional housing does not meet the immediate and future needs of the residents ([Shamaei and Ahmad, 2010](#)). In terms of physical status (exhaustion), discount structures and building blocks and the end of life (depreciation) are a natural inevitable phenomenon. Therefore the revitalization of urban centers should have a more stable economy in terms of culture and feeds the idea of sustainable development and planning.

##### 4.2. An introduction to the area under study

Mashhad is the center of Razavi Khorasan Province and the center of the Mashhad city. Mashhad is located in North latitude 36 degrees 16 minutes and longitude 59 degrees 38 minutes East lies" ([Shahmohammadi, 2007](#)). About the population and household in the city of

Mashhad, according to the Census 1956, 1966, 1976, 1986 1996 and 2006, the population of the city of Mashhad was 241 , 409 , 716 , 1463 , 1887 and 2427 thousands of people and the area of these zones were 16, 32 , 78 , 185 , 261 , 300 square kilometers, respectively, which shows that the city of Mashhad has increases as much as 1.69, 1.75, 2.04, 1.28 and 1.28 times, respectively in the period 2006-1956, while the area of the city has increased as much as 2, 2.43, 1.41 and 1.41 times, respectively. There are different statistics for Mashhad's are. For instance, some references declared Mashhad's area as 220 km<sup>2</sup> in 1986. In addition, in 2006, 275 and 295 km<sup>2</sup> were mentioned ([Hatami et al., 2006](#)). The area under study is located in Mashhad 9th District .This district is 6<sup>th</sup> Shaghayegh, 18<sup>th</sup> and 19<sup>th</sup> Banafsheh st. to the North, Shahrestani st. to the West North, Ab o Bargh facilities and the district's highlands to the South and the water and sewage refinery No.1 to the West as well as a segment restricted to a valley and highlands in the vicinity of the earthquake grid ([Tash Consulting Engineers, 2007](#)). In the 1385 census, the population of the area under study was over 250 thousand people. In the regional segmentation, the 9<sup>th</sup> region was divided into three areas with a population of 53,223 people in the 1<sup>st</sup> region of 84,089 people

in the 2<sup>nd</sup> region and 115,898 people in the 3<sup>rd</sup> one ([Kamalipour, 2009](#)).



**Figure 1:** Percentage of population growth and area of Mashhad in different periods ([MohammadZadeh, 2010](#)).

In 2006, the population density of Mashhad was 119.4 people per hectare and the household density was equal to 31.4 households per hectare. In regions 1, 2, 3, 4 and 6 there were more than 120 people, i.e. over 32 households that are above average of Mashhad In the Census in 2006, the population of Mashhad's 9th District was over 250 thousand of people, while it was 140,300 people in 1375. In the regions segmentation, the 9th region, the area was divided into three separate areas with a population of 53,223 people in the 1<sup>st</sup> region, 84,089 people in the 2<sup>nd</sup> region and 115898 people in the 3<sup>rd</sup> one ([Kamalipour, 2009](#)).

**Table 1:** The tabular population of the 9<sup>th</sup> district in 2006

Population density	females	males	Household dimension	Households percentage	Number of households	population	zones
115	27287	25936	3.94	19.81	13503	53223	Zone 1
97	41632	42457	3.74	32.95	22463	84089	Zone 2
126	57621	58277	3.6	47.24	32207	115898	Zone 3
113	126540	126670	3.71	100	68173	253210	Zone 9

4.3. State of land use of the area under study

District 9, with an area of 4010.1 hectares include net urban land area of 2732.5 hectares and proportion of 68.4 percent as well as gross urban land area of 1277.65 hectares and proportion of 31.86 percent. The net land area includes urban residential area of 1063.94 hectares and proportion of 38.94 percent, service uses with the area of 860.07 hectares and proportion of 31.48 percent and a linking network with the area of 808.45 hectares and proportion of 29.59 per cent. In this area, the existence of higher education centers, Ferdowsi University of Mashhad and the university of

Medical Sciences along with some other major application areas including security, Khorasan Regional Electric Company storage, Pars Hotel, Misaq Hotel, etc. Have led to a high level and consequently a large percent of servicing uses, in case of decreasing the level of which from the regional servicing uses, the extent of services of this district are severely reduced and therefore it needs a new planning in this field ([Piravash consulting engineers, 2009](#)). Among the net urban uses, residential uses, roads, educational uses and security ones constitute the highest levels of the area, respectively.

**Table 2:** Land Use of the 9<sup>th</sup> District of Mashhad in 2008

Explanations		Percent of the filled texture	Percentage of the total area	Surface area (m <sup>2</sup> )
Filled texture	residential	38.94	26.53	10639354
	servicing	31.48	21.45	8600727
	roads	29.59	20.16	8084436
Total		100	68.14	27324517
Other uses			31.86	12776455
Total area			100	40100972

Source: [Piravash Consulting Engineers, \(2009\)](#)

According to the tabular status of the worn urban texture uses, it is observed that the No-Darreh district is severely faced with a lack of resources in relation to the citizens' access to the required uses that may be a very important factor in the texture wear. The zero per capita of official, security, cultural, sports, health and treatment uses shows this weakness. The dominant use of the region housing that constitutes more than 18 percent of the texture area.

### QUESTIONNAIRE RESULTS

In the range under study of 61.25% of respondents were males and 38.75% of them were females. The biggest percent of the respondents were constituted by the group 19 to 29 years old (the youth) and the lowest in 60 years old (the elderly). The educational level of about 90 percent of the respondents was from elementary to diploma levels. A lot of people had low literacy levels. The birth place of 2.5 percent of the respondents was the same neighborhood and 16.87 percent of them were from other areas of Mashhad. This figure clearly shows the migration of the people residing within the No-Darreh valley. It should be noted that 75.31% of the whole respondents men and 93.70% of the immigrants outside the city of Mashhad were born in the cities of the province. According to the investigations of these respondents, most of the immigrants were from the Quchan- Shirvan region the ethnic origin of Kordish followed by the regions of Neyshabor and Torbat-e-Heydariyeh as well as other cities of Khorasan province. Meanwhile, about 5.31 % of the different cities are outside the province. Most of them are non-Iranian (Afghani). Most residents of the region have been living there for less than 10 years that constitutes 66.55 %. Now we can say that the indicators of place of birth and the length of residence represents a more heterogeneous social composition and reflects the less dependence/interest of the residence to reside in the region under study (that may be due to obligatory factors). Most of the texture's residents declared their reason of residence as affordable housing. Thus 55.93 % of the population declared their reason of residence as because affordable housing, 20.93 percent the proximity to work, 14.37% percent proximity to their household and relatives and 2.5 percent their attachment. Overall, about 16 percent of the sample population were unemployed and 84 percent of them were employed which reflects the high percentage of unemployment. 18.12 percent of them were students, 30% were self-employed and 33% were housewives. Studies

indicate that self-employed people were mostly simple-employed people and workers as well as daily-paid workers. Also most of the women were housewives considered employed as the General Population and Housing Census. Accordingly, this factor has increased the percentage of the employed population to a great extent. The income level of the residents of this region is very low such that approximately 45 percent of the residents had monthly incomes less than 100,000 tomans, 40.5% between 100.000 and 200.000 tomans, 9% between 200.000 and 300.000 tomans and 6% more than 300.000 tomans.

#### 5.1. The number of housing units

The developmental trend of some quantitative indicators of housing on the basis of statistical data in 1996 and 2006 are available. The number of housing units, households' number and dimension, population, individuals and households density per housing unit, etc. Are included these indicators that show the housing development trend and direction. During this decade, the number of residential units in Mashhad increased from 345,167 to 585,739 units with an average annual growth rate of 3.6 percent. The number of residential units of the 9<sup>th</sup> district increased from 25,437 to 66,074 units with average annual growth of 10.1 percent. During the decade 1996 to 2006, in the entire city of Mashhad, the size of households density decreased from 1.18 to 1.09 and the size of the housing density decreased from 5/5 to 4.1 has. Based on the available data, the size of housing density in the 9<sup>th</sup> district was 1.12 in 1996 that decreased in 2006 to 1.92. Similarly, the size of the housing population density in this area decreased from 5.36 in 1375 to 3.72 in 2006.

**Table 3:** Evolution of the housing density indicators in the city of Mashhad and the 9<sup>th</sup> district in 1375 and 1385

9 <sup>th</sup> district	Mashhad city	indicator	year
136459	1886603	population	1996
28504	407975	Number of households	
4.79	4.62	Household dimension	
25437	345167	Number of housing units	
1.12	1.18	Density of households per housing units	
5.36	5.47	Density of individuals per housing units	
249530	2427316	population	

67177	637427	housing units	2006
3.71	3.81	Household dimension	
66074	585739	Number of housing units	
1.02	1.09	Density of households per housing units	
3.78	4.14	Density of individuals per housing units	

Source: [Piravash Consulting Engineers, \(2009\)](#)

The dividing the population density of the city's area and population density by dividing the net residential area of residential land is obtained (in hectares). The available data show that in 2006, out of the total occupied housing units of the 9<sup>th</sup> units, about 22.3 percent had a foundation of 75 m<sup>2</sup> and less, 27.7 percent had a foundation of 76 to 100 m<sup>2</sup>, 33.6 percent from 101 to 105 m<sup>2</sup>, 10.1 percent of from 151 to 200 m<sup>2</sup> and 6.3% more than 200 m<sup>2</sup>. The average foundation area of every residential unit is about 115 m<sup>2</sup> in District 9, which is significantly higher than the average per-unit residential building in the area of the city of Mashhad (100 m<sup>2</sup>).

### 5.2. Residential lands area

**Table 4:** Estimation of distribution based on area residential building in the city of Mashhad 9th District in 2006

is obtained	percent		Number		Residential unit foundation
	Mashhad	9 <sup>th</sup> district	Mashhad city		
100	100	66074	585739		Total residential unit
4.9	13.4	3245	78652		50 m <sup>2</sup> and less
17.4	23.1	11474	135081		51-75 m <sup>2</sup>
7	8.7	4629	50878		76-80 m <sup>2</sup>
20.7	18.4	13660	108102		81-100 m <sup>2</sup>
33.6	23.7	22211	138753		101-150 m <sup>2</sup>
10.1	8.1	6702	47222		151-200 m <sup>2</sup>
4.7	3.4	3085	20223		201-300 m <sup>2</sup>
1.3	1	850	5626		301 -500 m <sup>2</sup>
0.3	0.2	218	1200		More than 500 m <sup>2</sup>

Source: [Population and Housing Census, \(2006\)](#)

According to Table 6, the residential units area within the No-darreh valley is such that the residential units smaller than 50 m<sup>2</sup> constitute about 7.5 %, units from 50 to 100 square meters about 50% and units bigger than 100 square meters close to 42.5 percent of the total area of the residential units.

### 5.3. Households density in the residential unit

One of the major indicators of the cognition of housing status and the determination of its shortage is the household density indicator in the residential unit. The nearer to 1, the better conditions it shows in terms of household density in the residential unit ([Vossoughi, 1998](#)). The so-called indicator obtained by the division of the number of households to the housing units is only a quantitative measure to indicate the average number of households living in residential units such that if it is equal to 1, it would mean that there are 100 residential units for every 100 households and so no household lacks housing. On the other hand, the more the value of this indicator is higher than 1, the more it shows the households density in the residential unit.

**Table 5:** Number of households in the residential unit

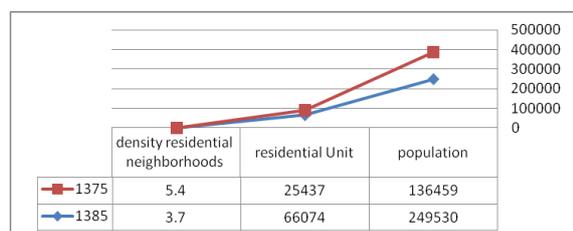
Integrated percent	Relative percent	abundance	Number of households
79.37	79.37	254	1
97.8	18.43	59	2
100	2.18	7	3
	100	320	total

The application of this indicator in different periods may determine the rate of population and housing units in a community. Based on the resultant findings, about 80 percent of the residential units have 1 household in the region under study, however sometimes more than 1 household lives per unit such that the average number of households per residential unit is about 1.13.

### 5.4. Individuals density in a residential Unit

One of the quantitative housing indicators is the individual density per residential unit that is obtained by the population to the residential unit available ratio that is another indicator of the number of households per residential unit including the household dimension. The individual density per residential unit is one of the major indicators of the measurement of the living level ([Ziyari and Zarafshan, 2006](#)). According to United Nations standards, a healthy housing exists where the density of people per

room would not be more than one person (Hatami et al., 2006). The more numbers of the users of the residential unit, the less its relative welfare. The ratio of the living population to the number of the residential unit may be used to identify the relative extent of the residents' welfare in a residential unit. This indicator equals 5.4 people per residential unit in the worn context in 1996. During the next years, this indicator decreased such that it reached 3.7 people in 1385 that indicates the lower individuals' density in the residential units of the worn texture of No-Darreh district that is justified according to the households dimension during these years.



**Figure 2:** Indicator of the worn texture density residential neighborhoods in Mashhad Valley nine years from 2006 to 1996.

**Table 6:** Descriptive statistics for the number of rooms in the unit

Reliability distance (95% of the average) (percent)	Standard deviation (percent)	Average (percent)	Number of room per room
(1.6 -12.01)	0.94	1.81	

### 5.6. Status of property

The existence of ownership or lack of it makes many socio-economical classes sensible. According to the status of residents in the district under study where the land does not belong to the residents, while is indeed a possession whose segments are built by the residents or are being rented, a possessed housing refers to segments for which the owner has declared that he/she has purchased the location with a documents and to rent refers to items for which the party had declared a monthly fee as rent or a mortgage and pay rent. Expect 6 people, the rest of the respondents reported that they have been document by Article 147 and 148 and the rest of the residents have no document in the area of civil infrastructure systems.

**Table 7:** Type of housing units owned by the residents

Integrated percent	Relative percent	abundance	Type of possession
38.75	38.75	124	rented
98.12	59.37	190	Possessed (documented)
100	1.87	6	documented
		320	total

As the above table shows, the household reduced from 4.79 in 1375 to 3.71 in 2006 followed by a lower density compared to previous years for the housing units.

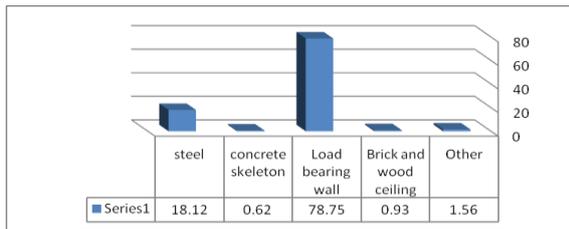
### 5.5. Density residential rooms

The indicator of the number of rooms per residential unit is used in terms of density of housing units per household or individual contribution of separated spaces living spaces housing developments. The density of rooms in the residential units was 8.6 rooms in 1966 that dropped to 8.5 in 1986. During the next year, it still decreased such that it was still a reduction in the figure to 3.5 rooms in 1385. In terms of number of rooms, a room for more housing units (about 43 percent), and about 5/77, less than two percent of the housing units are two-bedroom units, which indicates whether an area is low. Results show that average residential single room for about 81/1.

### 5.7. Building materials

Although the type of building materials used in construction has a physical dimension, but also deserves investigation from social and cultural aspects and also has a great impact on the physical quality and the physical stability of the building. From the social aspect, this indicator reflects the households' access to a reasonable durable housing from the standpoint of materials. The results of a sampling indicate that the relative share of housing units have steel and reinforced concrete skeleton that is approximately 41.8 percent in the 9<sup>th</sup> district, while the relative share of housing units with bearing and built with brick and iron in this area is about 56.4 percent. Most of the buildings in the No-Darreh area are compounds with metal frame and bearing walls. It should be noted that there seems to be a very high percentage of buildings (about 97 percent) built with bearing walls and metallic construction does not mean the resistance and robustness of the construction or lawful construction. In most illegally constructed buildings, metallic materials were used for faster construction. The lack of supervision of construction and failure to observe the technical characteristics of this type

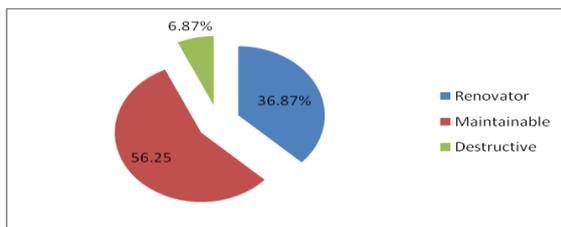
of buildings have made poor structures despite the use of acceptable materials.



**Figure 3:** Building Materials Mashhad Valley neighborhood rather than the nine municipalities.

**5.8. Buildings Quality**

Quality of housing, in terms of the impact on health, safety and good environmental conditions, puts a substantial direct effect on people's well-being. As the chart below details the total renovation of the 9<sup>th</sup> district, the share of renewing in the past five years has been high. In the range of 0 to 10 years, in 23.5% of the entire parts are renewed in the 9<sup>th</sup> district pieces that mean 6547 segments out of the total pieces. Janbazan town, Hashemiyeh, Samaniyeh and Morvarid town have the highest number of renewed parts.



**Figure 4:** Quality of Buildings in No-Darreh district in Mashhad.

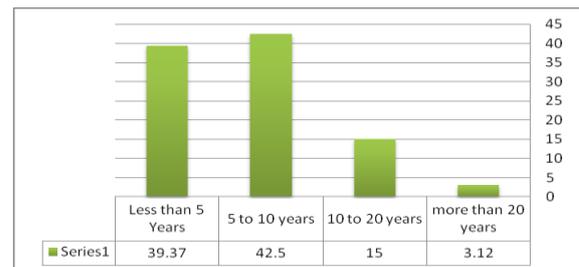
In District 9, the largest residential and commercial construction - residential buildings is for 3-floor buildings that include 25% of residential buildings. 4 and 5-storey buildings are next in the rank. Not within No-Darreh district, as can be seen in Table 8, 36.87 % of the plaques are new-built that represent a wide range of construction projects. They are not built strong enough to withstand the strength.

**5.9. Number of floors**

According to Table, it can be seen that the maximum number of structure textures, i.e. about 71 % of the buildings are a class of point one of the general characteristics of texture aging is due to the materials used in buildings and also the amount of revenue depends there. Also, nearly 29 percent of the buildings are two and three stories. Usually two or three-storey buildings, the buildings are a few that are new.

**5.10. Building history**

Old buildings can be ignored in determining the quality of physical pain is generally an inverse relationship between indirect indicators of quality old buildings and existing buildings. Not within the valley can be seen in Table, 37/39 % of the buildings have less than 5 years, 5/42 percent between 5 to 10 years old, and 18.12 percent have more than 10 years old. Texture expression of the life of the building is younger than 10 years.



**Figure 5:** the old neighborhood is not in Mashhad Valley. Field Harvest – 2011

**DISCUSSION AND CONCLUSION**

to get the form and the healthy development of the households. District 9, with an area of 1/4010 acres of net land area of town 2732.5 hectares and proportion 68.4 percent of the gross land area of a city of 1898.65 hectares and proportion 31.86 percent are. The size of households in housing density in area 9 in 1996 with a 1.12 in 1385 to 02.1, No-Darreh households reduced range of applications in relation to citizens' access to needed with the lack of very strong faces this can be one of the crucial factors in aging textures. The population density in the study area is 113. Zero per user for administrative, disciplinary, cultural, sports, health shows weakness. Username dominant region, where more than 18 percent of the area is residential user's texture is formed. Of total occupied housing units, households living in District 9, about 3/22 square meters and less than 75 percent of its infrastructure, 7/27 % of the building 76 to 100 sqm, 6/33 from 101 to 105 percent of the infrastructure m, 1/10 of a 151 to 200 square meters of infrastructure and 3/6 % of the building is 200 square meters. Finally, in 2006 the numbers of households within the 5366 to 5883 housing units were households. Most units have a room (about 43 percent ), and about 5/77 , less than two percent of the housing units are two-bedroom units , which indicates whether an area is low . Relative contribution of residential units in the area of brick and iron was 4/56 percent. Most of the buildings in the valley area, not compounds with metal frame and the wall is load bearing. It

should be noted that there seems to be a very high percentage of buildings (about 97 percent) that have bearing walls with steel or a combination of metal and construction meaning and robustness of construction is of essential in. Modernization of the region's share of total 9 pieces in the past five years has been high, and 87/36 % of which are new plaques represent a wide range of construction projects. Up to about 71% of the texture structures are one-story buildings that feature general point is worn texture. This is due to the materials used in buildings and also depends on the amount of revenue. Total housing units that are located within 1/27 of a lifetime of 13 to 21 years, 9/19 percent have lived 22 to 31 years and 5/1 percent are over the age of 31 years.

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