FAMILY PARTICIPATION IN HOUSE DESIGN OF IRAN

MOHAMMAD GHOMESHI

A thesis submitted in fulfillment of the requirements for the award of the degree of Master of Architecture

Faculty of Built Environment
Universiti Teknologi Malaysia

August 2009
I would like to dedicate this thesis to my beloved wife Parisa, who has put more than her share of life during my study. I would like to also thank my father and mother for their support and believe of me.
ACKNOWLEDGMENT

In preparing this thesis, I was in contact with many people, researchers, academicians, and practitioners. They have contributed towards my understanding and thoughts. In particular, I wish to express my sincere appreciation to my thesis supervisor, Dr. Mahmud Bin Mohd Jusan, for encouragement, guidance, critics and friendship. I am also very thankful to my best friend Sadjad Jamshidian who was a great host during my study.
Contemporary roles of family have transformed from conventional to unconventional family types. These and the changes in gender ideologies have given rise to family participation in house modification. The conventional housing design fails to accommodate contemporary families’ spatial needs in their houses. Although researches have shown that families’ gender ideologies have influenced house design for housework, research into spatial needs of the different family members in housing has been limited. This study is an attempt to understand family participation and its influences on housing unit design. This study employed a qualitative methodology based on a multiple case studies. Interviews and visual documentation of the houses were the methods of data collection employed. Data from the interviews were analysed using content analysis techniques. Respondents in this case study were residents of family housing in an area in the city of Ahvaz in Iran. This study reveals that the traditional patriarchal decision making approach has been replaced by family decision-making. Not only the husbands decided the changes, the wife and the children also have played bigger roles in changing the houses design. Housewives have changed the design of the house especially kitchen, by replacing a counter instead of the wall and having an open space kitchen and the living rooms, by placing a permanent place for a dining room. The children have also been involved in the decision-making process but the participation of children was limited only to their bedrooms and not in all the spaces. The study also shows that family income has a great influence on the husband in their participation in house modification. The most common factor that influenced the children was the variation in family size that implicates the need for extra bedrooms. This study shows that involving different family members in the design process not only help families to have suitable spaces in their houses but it could also help architects to understand family needs in house design process.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECLARATION</td>
<td></td>
<td>ii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td></td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td></td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td></td>
<td>v</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td></td>
<td>vi</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td></td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td></td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td></td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td></td>
<td>xvii</td>
</tr>
</tbody>
</table>

1 INTRODUCTION 1

1.2 Problem Statement 1
1.3 Research Aim 5
1.5 Research Questions 5
1.5.1 Research Objectives 6
1.6 Research Methodology 6
1.7 Research Scope 7
1.8 Structure of thesis 8

2 LITERATURE REVIEW 11
### 2.0 Introduction: Stage of Family Transition In Iran

#### 2.0.1 The ancient Iran

#### 2.0.2 Islamic Civilization Period

#### 2.0.3 The new stage

### 2.1 Characteristics of family in contemporary Iran

#### 2.1.2 The Size of Family

#### 2.1.3 Children in Iranian families

#### 2.1.4 Changing roles of women in Iranian family

### 2.2 User Participation

#### 2.2.1 Definition, Forms and Functions of User Participation

#### 2.2.2 Family Decision Making in Iran

#### 2.2.3 Case Examples from Other Countries

### 2.3 Family Influences on house design

#### 2.3.1 Characteristics of house and family values

#### 2.3.2 Organization of space

##### 2-3-2.1 Historical Perspective

##### 2-3-2.2 Contemporary perspective

#### 2.3.3 Influences of the Gender

### 3 METHODOLOGY

#### 3.1 Research Methodology

#### 3.2 Determining context and scope of the study

#### 3.3 Selecting The Cases

#### 3.4 Method of data collection

##### 3.4.1 Interview

###### 3.4.1.1 Data collection procedure

##### 3.4.2 Interview techniques

##### 3.4.3 Other techniques used

##### 3.4.4 Visual data

#### 3.5 Method of Analysis

##### 3.5.1 Content analysis
3.5.1.1 The process of content analysis 51
3.5.2 Interpretation 53
3.5.3 Limitation 54
3.5.4 Comparing the relations 55
3.6 Reliability and validity 55
3.7 Ahvaz 57

4 FAMILY PARTICIPATION IN HOME MAKING 59
4.1 Approaches to decision making in Ahvaz 59
4.1.2 Example: house number two 71
4.2 Conclusion 74

5 THE INFLUENCE OF FAMILY ON HOUSE DESIGN 75
5.1 The Impact of House wives participation on house design 75
5.1.1 The Kitchen 75
5.1.2 The Living room 80
5.1.3 The Dining rooms 85
5.1.4 The Bed rooms 88
5.1.5 The Void 91
5.2 The Impact Of Husband’s Participation On House Design 93
5.2.1 The Parking Area 94
5.2.2 The Stairs 98
5.2.3 The Stores 100
5.2.4 The Garden and Toilet 104
5.3 The Impact of Children’s Participation On The Bedroom 108
5.3.1 The Bed room 109
5.4 Other Space Modifications 113
5.4.1 Open Space House 119
5.5 Conclusion 115
## 6 CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Family Participation in house design</td>
<td>116</td>
</tr>
<tr>
<td>6.2 The Effects of Family Participation on House Design</td>
<td>119</td>
</tr>
<tr>
<td>6.3 Research Recommendations</td>
<td>120</td>
</tr>
<tr>
<td>6.4 Suggestions for Further Research</td>
<td>121</td>
</tr>
</tbody>
</table>

## BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>124</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE NO</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Family decision making mentioned</td>
<td>60</td>
</tr>
<tr>
<td>4.1.1</td>
<td>Family influences on the decision making</td>
<td>61</td>
</tr>
<tr>
<td>4.2</td>
<td>Frequency of mention</td>
<td>65</td>
</tr>
<tr>
<td>4.3</td>
<td>Frequency of mention by the members</td>
<td>65</td>
</tr>
<tr>
<td>4.4</td>
<td>Decision making process involving the housewives</td>
<td>66</td>
</tr>
<tr>
<td>4.5</td>
<td>Children Suggesting to Parents</td>
<td>68</td>
</tr>
<tr>
<td>4.6</td>
<td>Family Discussion (a family meeting to solve the problems)</td>
<td>69</td>
</tr>
<tr>
<td>4.7</td>
<td>Husbands self decision making in the house</td>
<td>70</td>
</tr>
<tr>
<td>5.1</td>
<td>the external influence on wife</td>
<td>76</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Factors influencing housewife on the Living room</td>
<td>81</td>
</tr>
<tr>
<td>5.1.3</td>
<td>Factors influencing housewife on the Dining room</td>
<td>86</td>
</tr>
<tr>
<td>5.1.4</td>
<td>Factors influencing housewife on the Bedroom</td>
<td>88</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Factors influencing housewife on the Void</td>
<td>92</td>
</tr>
<tr>
<td>5.3</td>
<td>The external influence on husband</td>
<td>94</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Factors influencing husband on the Parking area</td>
<td>95</td>
</tr>
<tr>
<td>5.3.2</td>
<td>Factors influencing husband on the Stairs</td>
<td>99</td>
</tr>
<tr>
<td>5.3.3</td>
<td>Factors influencing husband on the Stores</td>
<td>100</td>
</tr>
<tr>
<td>5.3.4</td>
<td>Factors influencing husband on the toilet</td>
<td>104</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Factors influencing husband on the Garden</td>
<td>106</td>
</tr>
<tr>
<td>5.4</td>
<td>The external influence on children</td>
<td>109</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE NO.</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Research Structure</td>
<td>10</td>
</tr>
<tr>
<td>3.1</td>
<td>Family participation and its effects on house design</td>
<td>39</td>
</tr>
<tr>
<td>3.2</td>
<td>Ahvaz</td>
<td>57</td>
</tr>
<tr>
<td>4.1</td>
<td>An example of wife suggesting to husband for having a counter instead of wall</td>
<td>62</td>
</tr>
<tr>
<td>4.2</td>
<td>An example of children suggesting to parents about having a separated bedroom. Parents decide</td>
<td>63</td>
</tr>
<tr>
<td>4.3</td>
<td>An example of family discussion for having an opened space house and the idea of removing the extra wall and doors and</td>
<td>64</td>
</tr>
<tr>
<td>4.4</td>
<td>An example of husband self decision making about Extending the parking area without discussing with the family</td>
<td>64</td>
</tr>
<tr>
<td>4.5</td>
<td>An example of wife suggesting to the husband and also Wife being the final decision maker in blanking the window</td>
<td>67</td>
</tr>
<tr>
<td>4.6</td>
<td>House number 2 kitchen and bedroom layouts before and after the changes</td>
<td>72</td>
</tr>
<tr>
<td>4.7</td>
<td>Minimizing the bedroom to have the space for the additional bed room</td>
<td>73</td>
</tr>
</tbody>
</table>
4.8 Using family discussion to close the veranda and add an extra bedroom, a dining room and a store for the house

5.1 House number 1 before and after the changes

5.2 Extra door that has been blanked

5.3 Counter between the kitchen and living room

5.4 Kitchen layout of house number one before and after the changes

5.5 Opened space kitchen

5.6 Opened space kitchen

5.7 House number 14 before and after the changes

5.8 Guest room

5.9 TV room

5.10 House number 14 layouts

5.11 TV room

5.12 TV room

5.13 Place for the dining table

5.14 Place for the dining table

5.16 Dining space

5.17 Dining space

5.18 Dining room layout, house number 18

5.19 House number 8 before and after the changes

5.20 House number 8 layouts

5.21 Back yard

5.22 Bedroom extension

5.23 House number 8, void layout
5.24  Void has been removed
5.25  Window of void has removed
5.26  Arch has been placed in the void
5.27  Void has been removed
5.28  House number 9 before and after changes
5.29  Additional parking roof
5.30  Additional parking roof
5.30  Parking layout
5.31  Additional parking roof
5.32  Additional stairs
5.33  Additional stairs
5.34  Stair layout
5.35  Additional stairs
5.36  Additional stairs
5.37  House number 19 before and after changes
5.38  Store layout
5.39  Store function
5.40  W.C layouts
5.41  Additional W.C
5.42  Additional W.C
5.43  Garden layout
5.44  Garden style
5.45  Garden has been removed
5.46  Additional bedroom
5.47  Additional bedroom
5.48: House number 19 before and after the changes 111
5.49: Additional bedroom in the kitchen 111
5.50: Bedroom layouts 112
5.51: Opened space area 113
5.52: Doors have been removed 113
5.53: House number 2 before and after the changes 114
# LIST OF APPENDICES

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>TITLE</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Interview Questions</td>
<td>135</td>
</tr>
<tr>
<td>B</td>
<td>The changes in each place of the house</td>
<td>138</td>
</tr>
<tr>
<td>C</td>
<td>Changes in each house</td>
<td>139</td>
</tr>
<tr>
<td>D</td>
<td>House spaces after and before the changes</td>
<td>142</td>
</tr>
<tr>
<td>E</td>
<td>Examples of interview results</td>
<td>145</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

1.1 Introduction

This research investigates family participation and its effects on house design in the city of Ahvaz, Iran. It is an attempt to understand the relationship between expectations of each family member and their consequences on house design. This was done by studying selected renovated houses in the city. This chapter discusses the framework of the research, which includes the problems addressed, the aim and objective, and instrumentation applied for the research. The structure of this report would be explained at the end of this chapter.

1.2 Problem Statement

Adaption of shelters by their residents to suit their varying needs has always been a part of human habitation (Edwards, 2005). When societies were nomadic, the ability to adapt was relatively easy, since the dwelling carried by the dweller from site to site was light and simple. When more space was needed, it was easy to construct another tent of
hut, then dismantle it and move on. When people settled, however, dwelling conditions naturally changed. Permanent walls could not easily be altered; adaptability took on a slower pace. In addition, extended families in both eastern and western societies commonly shared space. A single dwelling was commonly a residence for several households. Homes were inhabited and used by generations of the same family. They often doubled as living and work spaces either on one or two levels. Gradual modifications happened over a long period. When a member of the family died, his or her place in the home was taken by another. Physical changes such as the demolition of the partition wall or the addition of another level were limited to the constraints of the dwelling itself, the available space, and the skills of the builder regulations (Edwards, 2005).

Despite the new housing scenario discussed above, it is a common practice in any design process of a house the spaces created on the drawings are simply indicated as, master bedroom, bedroom, kitchen etc. Architects also draw furniture to provide a so-called. However, it can be argued that this design and construction process tends to ignore the family’s evolving needs and because of that, the occupants are forced to change the design of the houses through renovation.

Family is the most influential institution in the life of individuals in Iran. There is rarely any major decision-making and action of individual through life-course, which is not discussed and evaluated within the network of the extended family (Aghajanian, 1988).

A study by Toker and Torker (2003) on the transformation of Turkish house plans from the late nineteenth century, early twentieth century and late twentieth century has discovered that the transformations in spatial configuration in these three periods are
interpreted through their relationships to family structure represented by household compositions and women’s status.

The nuclear family structure became dominant. The household size has decreased, suggesting a higher number of independent household formations upon marriage, which supports more equal gender roles. Moreover, women’s education level and proportion of the paid labour force has increased following the institutional improvements. These transformations have been related to variations in the spatial configuration of cases as follows (Toker and Torker, 2003). The need for a “main room” was no longer sustained upon the disappearance of the patriarch from the family structure.

However, Toker and Torker (2003) have not described is the role of different family members particularly the children in shaping the spaces. Contribution of the children in the houses has not been identified.

Another important fact about house design as discussed by Petherbridge (1987) is the dominant emphasis of the Muslim house on the “privacy” and “the seclusion and segregation” of women. These two are parallel design elements of a Muslim house, although he did not describe the spatial configuration of the seclusion and segregate on of female members.

Despite the huge amount of urbanization (Iran Statistical Center, 1997), which has influenced the residential aspect of the extended family, the social and economic interaction among extended family members has remained. The patriarchal line of authority is continuing to protect the fame and status of the family through guidance and decision making to control the younger generation. The Islamic values, which have shaped the way of life in the Iranian society for many centuries, is continuing to support the patriarchal family framework for family decision-making, and individual behaviour and action. According to Aghajanian (1988), also marriage is continuing to be a marked
transitional stage in the life of the individual and the family is having primacy in mate selection.

However, the effects of this social change have not been seen in the context of family house design. For example, suitability of the current house design can be assumed as being affected by the change in women’s role in a family, but no studies have been done to investigate this phenomena in Iran.

Currently there are no studies done in Iran on the changes in family structure and role of each family member on house design. Aspects of user participation in the current literature do not take into consideration participation of each member i.e. the wives, husbands, and children. Whereas interactive relationship between space and society suggest that, each individual is an active agent, who is not restricted with the limitations of larger contexts (Spain, 1992). It can be argued that patterns of housework, use, perception, and privacy are consequences of individual interpretations of the family member’s floor plans, decoration, furniture, etc are implicitly related to the idea of each family member. Therefore, this research is attempting to address two notable gaps, namely participation of each family member’s in house design, and the effects of the participation in shaping the house design.

Johnson (2007) makes clear, migrant women to Australia over the 1940s and 1950s made and remade their kitchens—securing in the process some measure of autonomy and sense of home-making—but they also did so within the principles of scientific management as part of their social and cultural adaptation to their new country.

As a summery, it has to be mentioned that there should be a fit between residents’ design expectations characteristics of houses. There is a need for new look at the designing of housing units. Rapid changes in the family are also taking place in countries, which are currently undergoing industrialization and modernization. Some of
these changes may be less apparent and less perceptible than those of the advanced industrial countries may, but may also be quite radical.

1.3 Research Aim

The aim of this research is to investigate family participation and its influences on the contemporary Iranian urban family houses.

The prevailing idea of this research is to have a link between two issues: the interaction of design expectations of each family member and the influences of their participation in the design of their housing environment. This study argues that the link between housing and its cultural use cannot be understood without considering the end users: "when culture is not a factor of creation of the built environment. The result is a social disorder and a loss of identity" (Hamdi, 1991).

The ultimate purpose of this study is to develop insights into future housing requirements to accommodate family’s changing roles in households. Since related literature supports the view that the family variations have changed due to the gender ideological changes, this study aims to point out that these changes affect and are affected by the spatial organization in houses and by the spatial characteristics of housing types.

1.5 Research questions

The thesis is set to address the following research questions:

1. How do the family members in Ahvaz city participate in the decision making of house design?
2. What are the roles of each member of the family in shaping the spaces?
3. How does the design of a house influenced by participations of each family member influences?
1.5.1 **Research objectives**

The objectives of this research are:

1- To identify approaches of decision making in house design.

2- To determine the roles of each family member in shaping the spaces in urban housings.

3- To investigate the effect of each family member participation on house design.

1.6 **Research Methodology**

This research employs a case study research approach to investigate the influence of family influences in house design. The study was carried out on personalized (renovated) houses in the city of Ahvaz that is located in southwestern Iran. It is a qualitative research using semi structured interview as a method of data collection.

Thirty houses were randomly selected from several locations in the city. The selected cases were from the educated, middle class families in the city.

Data collection method used was semi-structured interview. The verbal data was supported by visual data, which was obtained from photos, and recorded house plans before and after the renovation. Researcher also took written notes during the interviews and recorded field notes after the interviews completed. All the interviews were recorded with a tape recorder.

The qualitative method was employed because this research is going to study human behaviour and its influence. Because of the nature of this type of research, investigations were often connected with methods such as in-depth interviewing and the collection of relevant documents.
The importance of visual data in this research was to clarify and make a richer meaning of the design not only from the plan, but also from the areas and spaces that could not be verbally described. For example, the color of the spaces and the decoration element designed to suite the taste of each person in the house and the meaning of each space for them after the changes. The photos were taken from the entrance of each house progressively until to the back yard of the houses.

Measured drawings (floor plans, sections and elevation) were used to make the research rich and powerful. In this research, the buildings have been documented prior to the interview.

Content analysis was used to analyze interview transcripts in order to reveal or model people’s information related behaviours and thoughts. This technique was used to analyze verbal data that were obtained during the interview. After recording the interviews, the data was transformed into written text format before analysis started. The analysis process followed the following sequence: (1) all questions of the interview were transcribed; (2) the recorded verbal data were transcribed literally; (3) in the observations during the interview, sounds, pause, as well as audible behaviour were not transferred and instead the photos that have been taken were collected.

Due to the different meanings of each word in Persian, the research used sentence as coding unit in which the researcher looked for the expressions of an idea (Minichiello, et al., 1990). Thus, codes were assigned to a chunk of message of any size as far as they together represent a theme or issue of interest to the researcher.

1.7 Scope of Study

This research concerns with Iranian housing, focusing on the contemporary single-family houses in the city Ahvaz. It identifies various factors influencing the single-family houses by limiting the house that younger than 50 years old. The owners’ houses are investigated to search for changes made in the life span of the buildings
(rental houses were not included in this research, since normally they are not allowed to undertake such alterations).

In addition, the research investigated the influence in term of changes to look for the pattern of changes. The research is limited within individual family houses and does not cover aspects of neighbourhood.

Respondents were selected among the middle income of the families in Ahvaz, which are more educated and exposed to foreign influences. Most of the selected families have children over 12 years old, so data could be collected by interviewing the children of the family and their questions about the house from their point of view.

Ahvaz was selected because it was the researcher’s hometown and the researcher was familiar with the neighborhoods and districts of the city. Secondly, Ahvaz is the second widest city in Iran; hence, families in Ahvaz preferred to stay in single family houses instead of living in apartments.

1.8 Structure of Thesis

As it is shown in Figure 1.1, the thesis is structured in the following pattern: The first chapter is the introduction, outlining the framework of the thesis. The second chapter is the literature review, which aims to present and clarify the core theme of this research. The complexity of housing and the type of family variations that influence Iranian families would be explained and historical context, where a brief history of settlements in Iran would be presented in this part.

The issue of user participation process and its impact on the house changes is taken. The user participation process is explored first in a global sense, as an introduction to explore the case of Iran.
In order to develop a rational understanding about the housing issues related to the Ahvaz city, the literature review is supplemented by a site visits and interviews to cover the broad set of aspects involved in the Ahvaz domestic environments. These physical surveys involved daily visit, interviews, preparation of measured drawings, slides, photographs and some observational notes.

The third chapter discusses research methodology employed in the study.

Finally, in the light of the theoretical and historical background, and the field survey, the fourth and fifth chapter deals with the general findings of the research and concludes by recommending some valuable ideas in relation to the arguments of this thesis.
Figure 1.1 Research Structure