

**Research Article**

## **VOLUMETRIC-PLAN STRUCTURE "RESIDENTIAL UNIT FOR WIDE MINIMUM FAMILY" (WITH EMPHASIS ON THE PERFORMANCE OF SPACES)**

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### **ABSTRACT**

A common pattern of residential houses does not fit the lifestyle of many families. Despite the significance of kinship relations and wide family life ("Extended family" is a family based on the relative proportion of family and marriage, including a group of blood and marriage. They are replaced by their children, after their marriage, and thus, may take several generations to live in a shared house. The main features of the extended family are a fundamental component of the "originality plural and collective benefit" (Soltani, 2011), these units are designed to fit the nuclear family ("Nuclear family" is made up of parents and children, durability and continuity in time, is limited to the generation and third generation, no living connection with the first generation (Sadeghi & Erfanmanesh, 2013). The purpose of this study is to clarify the characteristics of housing units, for a minimum extended family ("Minimum extended family", is the extended family which is composed of parents, children and grandparents, to suit modern conditions, at a minimum figure (Authors)). This study is analytical, and data collection was performed, using the library, field survey and interview. Tehran was selected for this survey and sample, as always, it is the first and most effects appear to have resulted from changes in the nation's capital. Because, extended families living minimum, in appropriate units, is not effective in reducing the problems of transmission of cultural values, inter-generational, emotional, mental, social and economic problems of the people, in this research, the unit residential properties to minimize the extended family were identified the most important features related to performance spaces, such as the design of the spaces within the unit, to facilitate the groundwork for establishing a controlled connection, while maintaining the independence and privacy of family.

**Keywords:** Residential Units, Extended Family Minima, Multi-Functional Space, Intergenerational Communication

### **INTRODUCTION**

Before the arrival of Modernism in Iran for many centuries, was slowly changing in all aspects of life. Extended family, the first cell of society, which includes a man, or a woman and several children, older members of the family, and other members of the family, lived in it or near it. (Ghobadian, 2002), but during the Qajar dynasty, and the reign of Reza Shah, the process of modernization, has accelerated. The family was also attacked during the second side of the Pahlavis.

With the beginning of the modern era, the family dramatically changed (Sadeghi & Erfanmanesh, 2003) Just like the Western models, The Iranian families changed and their structure transformed from minima to the nuclear mass (Bernardes, 2002). However, there are fundamental differences between the Iranian model of the nuclear family and the Western model. Families in this country are changing, descriptions of their modern form, with common phrases, such as "nuclear family" or "extended family" does not reveal how it exactly is (Behnam, 1968), but it can be said, that despite the importance of kinship ties the Iranian families are a part of "extended family minima".

### **Expressed Concern**

Iran's contemporary patterns of housing units are an imitation of the nuclear family home - and are not in harmony with the style of the extended family living minimum. While; the house is a cultural

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phenomenon (Rappaport, 2013) Therefore, there must be coordination between the home and family life. Minimum extended families are experiencing problems with living in contemporary residential units, including the different opinions, beliefs, interests, needs, and behavior patterns between different generations, their lives together, the challenges involved for all three generations that can lead to the weakening of the extended family structure. Lack of independence and proper privacy of residential units, is a major part of these issues.

The answers we seek in this survey include:

- What are the architectural features of housing units for extended family living minimum?
- Why are contemporary residential units, the extended family not accountable for the minimum requirements?
- What are the benefits of good design and construction of residential units to minimize the extended family for individuals' families and society?

### **Importance**

The diminishing structure of the extended family, leads to some difficulties such as weakened and vulnerable families, as children grow older, damaging their communication with other family members, lack of respect for parents, overlooking the culture and traditions (preparing the groundwork for a cultural invasion) (Sirfianpour, 2011); also, children's emotional problems and their parents' occupations, children and elderly parents, feelings of disappointment, boredom and loneliness of grandparents.

Living with extended family structure minimal, is very beneficial for the individual and society, including the labor and experience of an aging population, responding to their needs in terms of life, emotional, psychological and social problems, etc., To benefit children and grandparents of our company, increasing the security of residential neighborhoods, reducing the cost associated with the preparation and maintenance of the home, child care expenses, hiring nurses for children or the elderly at home.

### **Literature**

A similar case was not found abroad. The only related ones were the design for large families in the newly independent states bordering the Caspian Sea (the life of a tribe), and the Persian Gulf countries (with polygamy structure), are noteworthy. Recently in Germany and Japan, a research on the design of the centers in the city, on the coexistence of children and teenagers with the elderly during the day was carried out in some of the city centers, the results of which confirmed the benefits of the relationship between the generations. The following four articles, are studies, in conjunction with the extended family, and the need to communicate with children of past generations, and has emphasized in their usefulness in this regard to children, adults, and the community.

1. Stephanie Brown, Don Cohon, Rachel Wheeler, African American Extended Families, and Kinship Care: How relevant is the foster care model for kinship care?
2. Patricia T. Castiglia, PhD, APN, PNP, FAAN, "Extended Families: Social Support Systems for children"
3. Hayley A. Hamilton, Ph.D. "Extended families and adolescent well-being"
4. Martina Smorti, Reinhard Tschiesner, Alessandra Farneti, "Grandparents-grandchildren relationship"

In Iran, little research has been done in the field of rehabilitation and re-definition of the extended family, including: Mohammad Hosein Saraei, the paper reviews the impact of the housing crisis, the majority of its restructuring, from a family of Apartments (Saraei, 2012). Mostafa Sirfianpour stated in an article in today's society, there is an interruption between the family (nuclear) and the community, which is missing from the extended family (Sirfianpour, 2011).

### **Assumptions**

- Locating the correct space, controlled proximity with internal and external spaces, Proper and efficient skylight Zoning in architectural design of residential units, can turn it into a good home for a large family minimum.
- Accurate knowledge, and arrangement of needs arising from the habitation of the Iranian-Islamic culture, and providing independence and privacy, could lead to the design of residential units, corresponding to a minimum extended family lifestyle.

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### **Goals**

The purpose of this study is to elucidate the features of the architecture suitable housing units for extended family living minimum. Additionally:

- Providing a flexible and receptive space, which is responsive to the needs of residents over time; That somehow may lead to increasing the efficiency of residential units.
- Designing residential units, consistent with the lifestyle of a large sector of the population.
- The possibility of having a home office, leasing rooms to students and so on, without unsettling the family.

## **MATERIALS AND METHODS**

### **Methods**

In this paper, first, theoretical foundations, architecture, sociology, psychology and religious background, family structure and its evolution in relation to Iran, the benefits and risks of nuclear and extended family, etc.

Were collected, by using library books, articles and websites. In the next step, the minimum requirements of the extended family, the cross-sectional approach, by identifying the structural strengths and weaknesses of every nuclear and extended family was explained.

The required data was collected by field surveys and interviews with a number of service companies and a number of residential Tehran plans for estimating the cost of living in housing units, suitable for large families minimized were studied.

After a review of traditional and contemporary architectural features, we have expounded the minimum qualifications for the extended family dwelling unit.

The results are practical, the purpose of which is to develop knowledge of housing units, in order to achieve an Iranian house, which is responsive to the lifestyles of the residents.

To recognize the current situation in the family, it is necessary to examine the basis for the conversion the traditional extended family.

### **Change in Family**

Following the developments in the Qajar era, traditional Iranian society, was influenced in all areas by modernity (Ghobadian, 2013) during the reign of Reza Shah the process of modernization was further accelerated, once again during the second Pahlavi, the family was attacked.

This institution, the East (especially Iran), was developed under the influence of the patriarchal system, and was based on respect for elders, was questioned (Foyoozat, 1996).

At the beginning of the modern era, the change in the family was enormous (Sadeghi & Erfanmanesh, 2013).

Despite all values, the traditional extended family lost its standing in society over time. Liberation of women from various restraints, the division of labor (which was the result of the Industrial Revolution), and household crafts decline, caused the collapse and the transfer of the old large family, and parts of its functions, such as religion, education, economy, jobs, etc.

Be community organizations (Behnam, 1973).

However, under the new circumstances, the traditional extended family, was no longer responsive to the necessities of the times, and would inevitably have to change. However, instead of gradual change, the sudden change in the extended family, created an interruption in society.

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### The Extended Family and the Nuclear Family

**Table 1: Comparison of extended families (traditional) and nuclear families, the characteristics of the family structure and residential homes**

Wide (Traditional)	Nuclear	Family structure Strengths
<ul style="list-style-type: none"> <li>• Political and social power</li> <li>• Defense and military power</li> <li>• Support from other family members</li> <li>• Less stress for children in case of problems in family relations</li> <li>• Protection of the Elderly</li> <li>• intergenerational communication</li> <li>• Training of social relations, in dealing with family</li> <li>• Transmission of cultural values, traditions</li> <li>• More time and increased security presence in the house</li> </ul>	<ul style="list-style-type: none"> <li>• Independence from other family members</li> <li>• Respect the privacy and personal space and independence of family members</li> <li>• Infrastructure of fewer residential units (fewer members)</li> <li>• Distance between the two generations younger and more</li> <li>• Monitoring of recreational areas and facilities within the residential unit</li> </ul>	

Source: authors

### Traditional Housing and Modern Housing

**Table 2: General characteristics of traditional houses and changes in contemporary homes**

• Maintain the authenticity of the collective, collective benefit, and is not considered individual identity in space	General characteristics of Iranian traditional house
<ul style="list-style-type: none"> <li>• Privacy family and zoning within the spaces</li> <li>• Different levels of privacy and the private sphere in the backyard</li> <li>• Smooth, non-fragmented spaces and no special name, and polyvalent spaces</li> <li>• Independence approximate spatial organization of home furniture</li> <li>• Various functions and components of the interstitial spaces</li> <li>• Ability to combine and expand spaces</li> <li>• Naming specific and limited function spaces</li> <li>• The identity of the home spaces, objects and make them</li> <li>• Less attention to zoning and privacy debate</li> <li>• The negligence or omission in the interstitial spaces, and small spaces</li> <li>• Due to the independence of the family, and their identity and privacy requirements in areas</li> </ul>	Created differences in contemporary homes

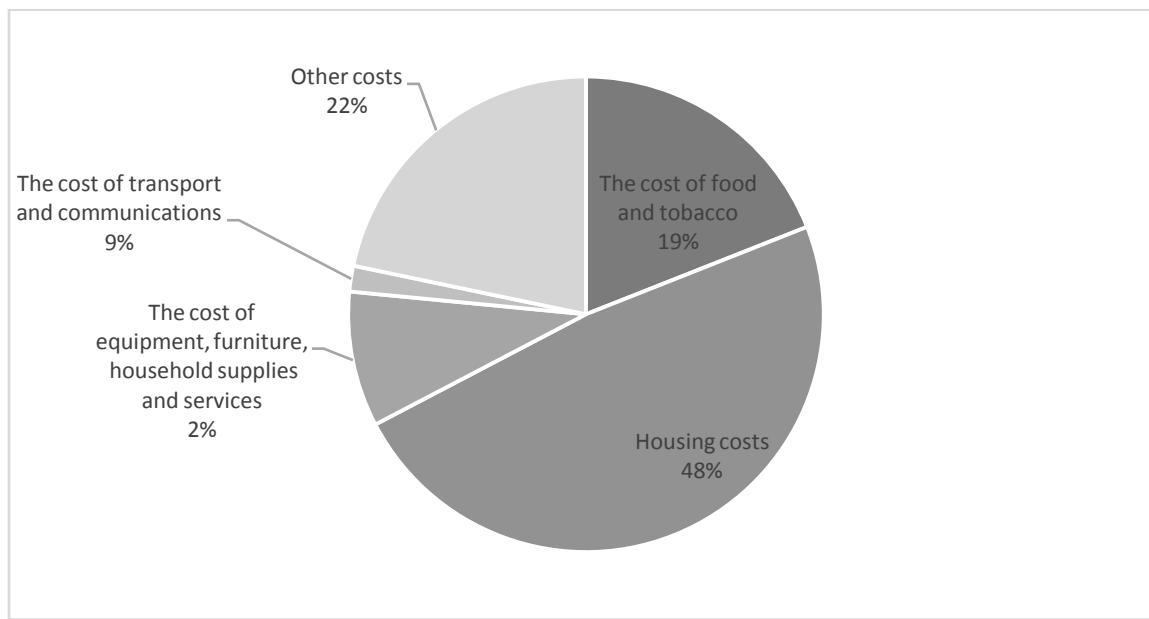
Source: authors (Adapted from "The lessons that can be learned from traditional architecture" by engineer Bill of Rights Gisoo Ghaem and book accommodation)

### Living in Minimum Extended Families

According to Table 1, shows the retrieving and combining the positive elements of the extended family and the nuclear family, extended family as a minimum, the answer to many problems in society, including the issue of generational breaches, and families distancing themselves from each other (Tavakkoli, 2007). In addition, the benefits of living with extended family structure minima are as follows:

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- Improve communication between generations, and the shift of cultural, religious values, and so on;
- Reduce the vulnerability of youth against cultural aggression;
- Raising children with love and grandparents' experience at home and their daily conversation (Alexander has argued, the elderly and young people need to associate with each other, in standard patterns in architecture (Alexander, 1977));
- The benefit of using the elder workforce and their vast experience by the society;
- Maintaining the identity, independence, wellbeing and safety for the elderly, children and people with physical and mental disabilities;
- Shift nursing home approaches from lifetime care centers to medical, recreational and temporary ones;
- Long-term placement of family in a housing unit, with its changing needs which will lead to the physical stability of the structure and its surroundings, and cultural and social sustainability, economic sustainability, environmental protection and increase in neighborhood safety (Ghasemi, 2011). This has mutual impact on promoting quality of housing.
- Save in cost such as:
  - ✓ Save money on daycare (According to the State Welfare Organization Act (17 Septembr2014)), child care or elder care (Based on the rate of nursing home care companies, the Internet (November 2014) and the author of a telephone interview, the cost of elderly nursing home, with a company approved by the Welfare Organization in Tehran (Authors)).
  - ✓ Reduction in maintenance costs, with extended family living minimum, in suitable units, instead of living in two separate homes where the required infrastructure, will decrease by 56.31%. According to Figure 1, based on the 48.32% share of housing cost among annual net cost of a family in Tehran (2012) a large sum could be saved.



**Figure 1: Average annual net cost of an urban family in Tehran, 2012**

Source: Statistical Yearbook of Tehran

Besides the benefits mentioned for the extended family minimal contemporary residential units are not harmonious lifestyle. We explain the suitable space characteristics of residential units, to minimize the extended family, through the study of traditional and contemporary homes.

In Table 3, we have compared, the main areas of contemporary residential units, with the equivalent of a traditional home, and we describe each of the residential units are suggested for extended family living minimum:

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**Table 3: Comparison of traditional and contemporary spaces of the house**

Space's name	Traditional Home	Contemporary residential units	Suggested residential units
Entrance Space division	Defined as a hierarchy Combined with input	Lower performance, less defined and no hierarchy	Defined and privacy capabilities Home In connection with the Input or Input
Kitchen	Hidden from public view in the house Kenji	The most open and exposed	In a place protected from the public and with the family circle
Seat	Three-door, five-door and on various occasions, as living	Usually part of the reception area, with separate furniture	With the ability to customize the space for the family, to each person attending the gathering, not disturb other activities, he should not disturb others in connection with a kitchen and private zones
Living-room	Five-door, etc. Predominantly with dignity and decorations	Part of the living space includes a separate furniture	In Basic Zone Home
Bedroom	Almost advantage of all places, in different seasons	Clear and specific (usually family members)	Personal space for each family member, to meet the need for privacy, sleep, work and...
Workroom	In the outer parts of the house, belonging to a man (in accordance with man's job)	One of the houses (some houses)	In the public sector, with separate access from Input the house or outdoors, with the ability to separate or accession to the interior and rent
Toilet and bathroom	In a corner of the yard or basement	Next to the living room and bedrooms (more than one)	Given the number of required standards, in the right place
Store	In the basement, around the corner of the yard or house	Room in the garage, basement or Zyrplh	Use spaces of houses that have no direct sunlight, or in a parking lot
Yard	Vast and lush as the heart of the house, the site of much of Activities	Shared by all residents, often with unsatisfactory performance	Green space, play space for children, family and community for all residents
Parking lot	_____	The pilot or underground	Designing efficient, and convenient access to the unit
Balcony and terrace	Half-closed and has various functions, especially in spring and summer	Exposed and almost useless	With proper design, and reduced visibility, for various activities

Source: authors

## RESULTS AND DISCUSSION

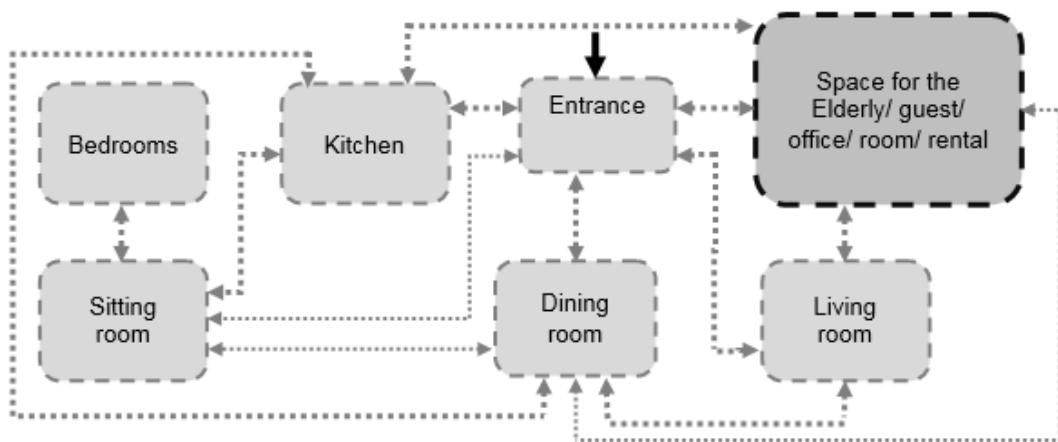
Iranian house, are a direct reflection of the traditional culture and spiritual values of life. Present-day promoting of traditional values, has led to an outlandish construction projects, which have little relevance-or relationship-with culture and our past (Ardalan *et al.*, 1976). We know "method of living has the strongest links with cultural characteristics and lifestyles of the people" (Saraei, 2012). Thus, we need to explain the characteristics of housing units, according to an Iranian family lifestyle.

Based on what has been expressed, we have tried to provide personal fulfillment and Private Space, for every family, in a residential unit for the harmonious life, and extended family residential units minimum, until living along one another, and having the necessary connection for independence and privacy. Therefore, the main architectural features of the housing unit, would be perfect for extended family at least the following:

- Appropriate zoning in housing unit plans and distinction between them;
- Designing a relatively independent space, with access to the kitchen, in relation to the control of public and private space, separate bathroom, and the ability to separate or accession to the interior, as potential

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space, it is possible to rent to students, office, guest room, elderly room, etc., At different times. According to Figure 2;



**Figure 2: How to connect the specified space for the elderly...? Or The main areas of residential units**

Source: authors

- Designing Flexible spaces;
  - Multi-valence spaces designed for maximum use;
  - Ability to combine and expand spaces;
  - Use multi-tasking appliance and furniture, to make better use of space (such as a sofa bed);
- Combining the spaces with the mentioned features, can lead to a variety of residential units Also, using material and methods of construction, to facilitate the change of interior spaces, the spaces during differentiation and integration;
- In this study, we only discussed the minimum housing units for extended family, in the future, there is a possibility of working residential complex and building levels.

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