



**UNIVERSITI PUTRA MALAYSIA**

***ENHANCING PRIVACY THROUGH SPATIAL DESIGN FOR TEENAGE  
GIRLS IN ORPHANAGES IN MASHHAD, IRAN***

**NAZANIN SALEHI MILANI**

**FRSB 2014 3**



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**By**

**NAZANIN SALEHI MILANI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy.**

**September 2014**

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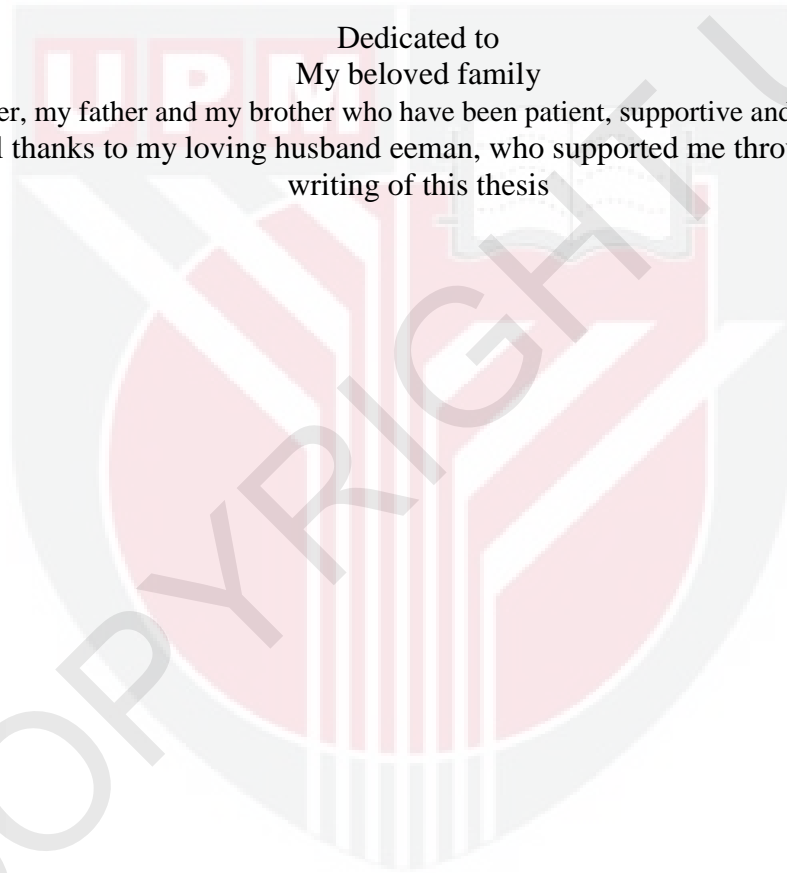
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## DEDICATION

Dedicated to  
My beloved family  
my mother, my father and my brother who have been patient, supportive and caring and a  
special thanks to my loving husband eeman, who supported me throughout the  
writing of this thesis



Abstract of thesis presented to the senate Universiti Putra Malaysia in fulfilment of the requirements for the degree of Doctor of Philosophy

**ENHANCING PRIVACY THROUGH SPATIAL DESIGN FOR TEENAGE GIRLS IN ORPHANAGES IN MASHHAD, IRAN**

By

**NAZANIN SALEHI MILANI**

**September 2014**

**Chairman: Assoc Prof. Ar Azizah Salim Syed salim, PhD**  
**Faculty: Design and Architecture**

The institutional child care design for teenage girls of Mashhad, Iran was studied. Since 1980, the beginning of the Iran-Iraq war, the number of orphaned children has increased dramatically and currently there are around 21000 individual orphans in Iran. One of the most important aspects in caring for unaccompanied teenage girls successfully is the environment of the institutions they are housed in. Architectural design of institutional care has a prominent role regarding successful caring of unaccompanied teenage girls. Unfortunately, the majority of the buildings in Mashhad have not been designed basically for the purpose of orphanages, which contributes to unsuccessful institutional care of children. Lack of privacy is one of the most important factors for teenage girls as a result of overcrowding in child care institutions in Mashhad. In addition, the main organization, Behzisti of Iran, does not follow their own rules in building institutions and only economical issues are considered as a criterion for building institutions. A few previous studies are examined in terms of its contribution to understand teenage girls' needs and to improve orphanage design. However, there are no specific rules for living space for orphaned teenage girls' aged (between the ages of 12 and 18) where their privacy preferences are considered. This study identified the most important orphaned teenage girls' privacy preferences for their own space and also the suitable measurement and size of the places for them in terms of privacy. Mixed quantitative and qualitative approach was employed to study the teenage girl's privacy in order to find appropriate size of places at institution for teenage girls with respect to teenage girl's privacy preference. Five institutions were selected. Sixty-eight orphaned teenage girls were accommodated in the 5 selected institutions and requested to answer to questionnaire. The findings of this study verified that the participants' backgrounds especially their age which became a critical issue and gave an impact on their visual preferences. The results of the present study showed that a large number of respondents unsatisfied regarding to spatial privacy towards interior spaces and location of their institution. Undoubtedly, the condition of the existing location and interior spaces at institutions in Mashhad need to be improved and enhanced in order to offer a better designing with great consideration given to the development of spatial configuration elements and space area preferred by teenage girls. Design recommendations evaluate architectural design in terms of privacy

according teenage girls preferences and economical factors and standards in two levels such as individual and group. Furthermore, this study recommended standards and investigated proper design information such as Interpersonal boundary for teenage girls, size of the study bedroom, the Number of window, the location of bedroom, the size of closet, the number of teenage girls in the study bedroom, the number of washroom and bathroom, spatial privacy in the yard, spatial privacy in a living room, the view of the window, the color of the bedroom, the number of teenage girls in the dormitory and also location of the residential care and neighborhoods.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**MENINGKATKAN PRIVASI MELALUI REKABENTUK THE SPATIAL DI  
PUSAT JAGAAN ANAK REMAJA PEREMPUAN YATIM DI MASHHAD,  
IRAN**

Oleh

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**September 2014**

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**Fakulti: Rekabentuk dan Senibina**

Kajian ini memfokuskan kepada rekabentuk pusat jagaan anak yatim bagi remaja perempuan di Mashhad, Iran. Sejak bermulanya perang Iran-Iraq pada tahun 1980, bilangan anak yatim bertambah secara drastik dan pada masa ini ianya merupakan 21000 di Iran. Salah satu aspek yang paling penting dalam menentukan kejayaan dalam penjagaan remaja perempuan yatim ialah persekitaran pusat jagaan yang menempatkan mereka. Reka bentuk seni bina pusat jagaan pula, memainkan peranan yang amat penting dalam menentukan kejayaan ini. Malangnya, kebanyakan bangunan pusat jagaan anak yatim di Mashhad pada asasnya tidak direkabentuk untuk tujuan penjagaan anak yatim dan akhirnya ia akan menyebabkan pusat-pusat tersebut gagal berfungsi sepenuhnya. Kekurangan privasi akibat daripada kepadatan penghuni di sesebuah pusat jagaan anak yatim di Mashhad adalah salah satu faktor yang utama yang dihadapi oleh remaja perempuan tersebut. Tambahan pula, Behzisti iaitu organisasi utama di Iran tidak mematuhi peraturan yang diciptanya dalam pembinaan pusat jagaan dan mereka hanya menitikberatkan isu-isu ekonomi sebagai satu kriteria dalam pembinaan pusat jagaan tersebut. Beberapa kajian lepas telah diteliti dan dikenalpasti sumbangannya untuk memahami kehendak remaja perempuan dan meningkatkan lagi reka bentuk pusat jagaan anak yatim. Bagaimanapun, tiada peraturan yang spesifik bagi ruang untuk hidup bagi remaja perempuan yatim (berumur antara 12 hingga 18 tahun) yang menekankan keutamaan mereka kepada ruang privasi. Pendekatan kuantitatif digunakan dalam kajian ini bagi mengkaji privasi gadis remaja bagi tujuan untuk mengenalpasti saiz tempat yang sesuai di pusat jagaan berkaitan dengan privasi yang digemari oleh remaja perempuan. Lima pusat jagaan telah dipilih. Enam puluh lapan remaja perempuan yang ditempatkan di pusat jagaan terpilih telah diminta menjawab soal selidik. Dapatan kajian mengesahkan latar belakang responden terutamanya umur menjadi isu yang kritikal dan memberikan impak terhadap pilihan visual yang diutamakan. Kajian ini telah mengenalpasti ruang privasi yang diutamakan oleh remaja perempuan untuk dirinya sendiri dan juga ukuran dan saiz tempat yang bersesuaian bagi mereka dari segi privasi. Hasil kajian juga menunjukkan sebilangan besar responden tidak berpuashati berkenaan ruang privasi dalaman dan juga lokasi pusat jagaan mereka. Tidak dinafikan, keadaan lokasi sedia ada dan ruang dalaman pusat jagaan di Mashhad perlu diperbaiki dan ditingkatkan dalam menghasilkan reka bentuk

yang lebih bersesuaian dengan menekankan pembangunan unsur-unsur konfigurasi ruang dan ruang kawasan yang diutamakan oleh remaja perempuan. Cadangan reka bentuk menilai reka bentuk seni bina dalam aspek berkaitan privasi bergantung kepada aspek yang disukai oleh remaja perempuan dan faktor ekonomi dan ianya dikelaskan kepada dua peringkat iaitu individu dan kumpulan. Tambahan pula, kajian ini mencadangkan piawai dan menyiasat maklumat reka bentuk yang betul seperti sempadan Interpersonal untuk gadis-gadis remaja, saiz bilik tidur kajian, Bilangan tingkap, lokasi bilik tidur, saiz almari, bilangan remaja perempuan di dalam bilik tidur kajian, bilangan privasi bilik air dan bilik mandi, ruang di kawasan itu, privasi ruang dalam ruang tamu, paparan tettingkap, warna bilik tidur, bilangan remaja perempuan dalam dormitory and juga lokasi penjagaan kejurangan dan kediaman.





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© Thank you for everything.

I certify that a Thesis Examination Committee has met on 27 September 2013 to conduct the final examination of Nazanin Salehi Milani on her thesis entitled "Enhancing Privacy Through Spatial Design for Teenage Girls in Orphanages in Mashhad, Iran" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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## LIST OF ABBREVIATIONS

ICRC International Committee of the Red Crescent

NGO Non- Governmental Organization

I.V Independent Variable

D.V Dependent Variable

R.Q Research Question



## CHAPTER 1

### AN INTRODUCTION TO THE STUDY

#### 1.1. Introduction

Through the ages, human communities in different parts of the world have been faced with children who have been deprived of their parents permanently or temporarily. Children are considered as the future of the population, and, obviously the future of the community is one of the most important issues for people. Nations, according to their own beliefs and the facilities which have been provided for their communities have found a solution to keep unaccompanied children regardless of their condition. One of the most important aspects in caring for unaccompanied children successfully is the place where they are kept. Therefore, architectural design of institutional care has a prominent role regarding successful caring of unaccompanied children.

Care for orphans is highly recommended in Islam. In Iran however, this matter did not receive attention. Generally, the number of scientific studies on orphanages in different countries, and particularly only a few studies in Islamic countries have examined. Moreover, it is not fully studied in terms of architecture. Joghatayi (2001) discussed on unaccompanied children institutions and informed one of the most important factors in structure of institutions is the level of similarities between institutions and the real homes. Furthermore, Binesh (2001) declared that overcrowding satisfaction in institutions is one of the most essential issues that affect children. Staying in crowded areas would make unaccompanied children suffer from agitation, fear and anxiety and causing some of the children to show harsh behaviours to show off.

An increase in the number of unaccompanied children has been experienced in Iran. This is because of various reasons such as poverty, corruption and increase of drug addiction.

In fact, privacy is one of the most important factors for orphaned teenage girls' ages between 12-18 years. The existing level of privacy in designing orphanages in Iran will be evaluated and the recommendations will be given accordingly.

#### 1.2 Background of the study

UNICEF (2005) mentioned, Institutional care is listed last among the care options which should be available, implying that this type of care should be a last resort. Indeed, studies have shown that long-term institutional care is potentially damaging children's development, especially for children who are placed when they are very young. In fact, child care institutions are the real house for unaccompanied teenage girls. Therefore, all requirements of house standards should be considered in designing child care institutions. This research is seeking to study spatial privacy in houses for orphaned teenage girls to promote their engagement and increase their satisfaction in terms of privacy at their institutional care.

In actual fact, orphaned children become victims of society which not only deprives them of their parents and the warm family circle, in other words, of a normal life but also look up on them as a stigmatisation (Joghatayi, 2001). If people consider that there is nothing to compensate for the lack of family, they must provide living circumstances in such a way that unaccompanied children regard themselves as a part of a bigger family i.e., society.

This study intends to provide one piece of information to improve size of the living spaces in terms of spatial privacy for teenage girls in Mashhad, Iran. As Frost (2004) mentioned, institutional children's home must meet regulations about specifying how many square feet of living space are required, how many children are allowed in each bedroom, and how many staff with various credentials must be hired for each child in care.

"Orphanage" is the place which refers to as any form of institutional care such as hospital wards, nurseries, foundling homes, or boarding homes. Their common denominators are the fact that children live together in groups and have limited access, if any, to their relatives. Today, the term orphanage has negative connotations. Other alternative names are group home, child care institutions, children's home, and rehabilitation centre and youth treatment centre.

The first major orphanage to be opened in Iran situated in Mashhad, and managed by the Christian nuns, on 12<sup>th</sup> of March 1942. The children who lived here were predominantly transported over the border from Ashkabad by trucks (Antolak, 2004). Since then, many places and buildings in Mashhad have been constructed and dedicated to orphanages, but a few of them have been designed basically for this purpose which have resulted in unsuccessful institutional care of children who are deprived of parental care.

Orphans constitute a tiny minority of population in Iran (12000 children) but still the quality of their home spaces is less than their needs. As Sepehr (2001) mentioned that children in residential care in Mashhad include: Children of parents who are substance abusers, children of parents who are missed for whatever reason (Unaccompanied children, orphaned or semi-orphaned by war, natural disasters, accident or death), children of divorce and family breakdown where a single parent is unable to cope financially and has little or no support, children whose parents feel unable to cope (have abandoned or rejected them), or who are considered to be too poor to look after them.

Furthermore, several aspects of Iran's social system have contributed to the yearly increase in the number of orphaned children. This is because of various reasons such as lack of financial provisions for the families, high number of family members in poor families, increasing addiction and poverty in Iran. Because of these, the family simply cannot afford to feed another person.

In addition, Noosh Abadi (1998) mentioned that both the public and private agencies in Iran do not pay attention enough to this issue and unfortunately their architects design the buildings only based on economic issues.

As Binesh (2001) found in her research the main problem in Mashhad and Iran is the lack of private places for orphans in orphanages (usually large numbers of orphans

live in one place). Some of the studies mentioned about the problems of unaccompanied children in Iran. For instance, one of the researchers who studies about orphan girls in orphanages in Iran, Noosh Abadi (1998) mentioned that orphaned teenage girls encountered heavy level of depression, agitation, fear, and lacking of social compatibility compared to children of the same age in normal families. Therefore, the girls resulted into have greater tendencies to suicide, self-threat and attack thinking compared to the boys. The girls have mental agitation, less intelligence and lack of self-confidence in comparison with boys.

Pasha (2000), the other Iranian researcher, studied about unaccompanied children's problem in orphanages in Iran. Orphaned children threat 2 kinds of problems: personality problem (arising from being away from normal life and lack of family), and social problem (arising from being away from people and living in orphanages which have limited facilities and make them suffer from hardship).

Generally, two kinds of organizations are supporting children orphans in Iran (government and non-government). The example of governmental organizations are Behzisti organization (the main organization for protecting orphaned children in Iran) and Emam Emdad committee (the other organization for helping children in Iran). In addition, there are non-government organizations in Mashhad which look after orphaned children from people's donations. The International Committee of the Red Crescent (ICRC) and NGOs are institutions as the private spheres with the main goal of participation in improving the life of the society and helping some limited and defined groups as per their constitutions. These organizations may be categorized as non-governmental organizations that used to help the needy people including the patients, foreigners, orphans, single women. All these "government & non-government" organizations are supervised by Behzisti organization as the main institution for taking care of children.

Vaziri (2005) mentioned that the first NGO was established in 1859 under the name of the Society to Establish National School in Iran that later changed its name to the Education Society. The society was established with the help and through the efforts of a group of politicians and academicians of the time that collected money from the rich and the tradesmen.

Unfortunately, in Iran, the main governmental organization (Behzisti) does not pay much money to the governmental institutions. Then, the orphanages which are supported by the government have bad condition (The poor physical state of building and high number of orphans in the orphanages). Children in the non- governmental institutions have better situation of feeding and caring in comparison with the governmental institutions. However, to date, a few of these orphanages (governmental and nongovernmental) have been designed for this purpose.

### **1.3 Problem statement**

Binesh (2001) stated that through the years, some places and buildings in Mashhad have been constructed or specified by main organization or private sphere as institutional child cares, but majority of them have not been designed basically for this purpose which resulting in unsuccessful institutional care of children who are



deprived of parental care. For instance, in Mashhad just 3 institutions (government and non-government) out of 11 (for girls) were designed for the purpose of institutional child care (Ali Asghar nursery, Shokoofehaye Iman nursery and Khaneye Freshtegan orphanage). Furthermore, the regulations of main organization for protecting children could not improve the unaccompanied children requirements in terms of privacy. In addition, the main organizations of Iran do not follow their own rules and standards to build child care institutions and only economical issues are considered as a criterion for building orphanages. Binesh (2001) mentioned that lack of spatial privacy as one of the most important factors arises from the overcrowding in orphanages in Iran.



**Figure 1-1 Orphaned children in orphanages in Iran**

In fact, the guidelines for orphanage construction, which proposed by Behzisti organization are not described precisely. The size and the other specifications of orphanages in regard to spatial privacy are not included in these guidelines. Therefore, there is no official accepted standard for spatial privacy for orphanage construction. The lack of appropriate standard for teenage girls leads to keep teenage girls along with kids below 12 years old. Consequently, this atmosphere is unpleasant for teenage girls. Most of the teenage girls complain about the noisiness of the orphanage. Moreover, teenage girls suffer from lack of spatial privacy.

In this research, teenage girl's (12-18 years old) spatial privacy requirements based on their spatial privacy preferences are investigated. Then, the guidelines for spatial privacy for teenage girls are recommended. For clarification of this research, the problem statement is categorized with two main issue which is derived from research questions.

### **1.3.1 Spatial privacy**

Research issue 1 includes studying 5 orphanages in Mashhad, Iran, to enhance privacy through the spatial design for teenage girls. In fact, there are some rules for orphaned children in terms of spatial privacy in the world. However, there is not any rules for enhance spatial privacy for orphanage teenage girls who live in Islamic countries. The point of departure of this study is to investigate and recommend strategies to improve the spatial privacy for teenage girls in Iran and also Islamic countries. Besides, members of various cultural groups differ in spatial habits. Norms

and customs of different ethnic and cultural groups are reflected in their use of space, home configuration and design, and even in distances and analysis of orientation that people maintain from one another. For instance; Hall (1966) studied that Germans are much more sensitive for intrusion, have larger personal space bubbles and more concerned with physical separation than American; they go considerable lengths to maintain privacy by means of doors and physical layout. Hall explains that the English are also private people, but manage their psychological distance from others via verbal and nonverbal means; such as voice characteristics and eye contact, rather than by physical and environmental means. In effect, Islamic countries, particularly in South-East Asia (Iran, Arab Emarate, Qatar, Bahrein, Malaysia, and Indonesia) have many similarities in spatial privacies due to Islamic rules. In these countries, the most valuable and the only uncompromisable cultural heritage is religion, Islam. Abu- Gazzah (2001) studied that Gender roles, and in turn, the segregation of space by gender, have been linked to social, political and economic domination of male over female. For example; in Saudi Arabia, as socio-religious complexity increases the use of boundaries and partitioned spaces. Kotnik (2005) studied about Yemen as the other Islamic country that social space is separated into men's exterior and women's interior space. The relation between these spaces, however, cannot be described accurately by oppositions such as public-private and privileged-deprived. These opposites are based on Western thinking: a binary tree-like logic of hierarchical division, resulting in an understanding of space as an absolute entity that can be cleanly subdivided into parts. In Yemen, the concept of space is inherently connected to the continuous balancing of honor, thus space is fluid and relational. Men's exterior and women's interior space are both relational spaces, and they are of equal importance in the affirmation of honor.

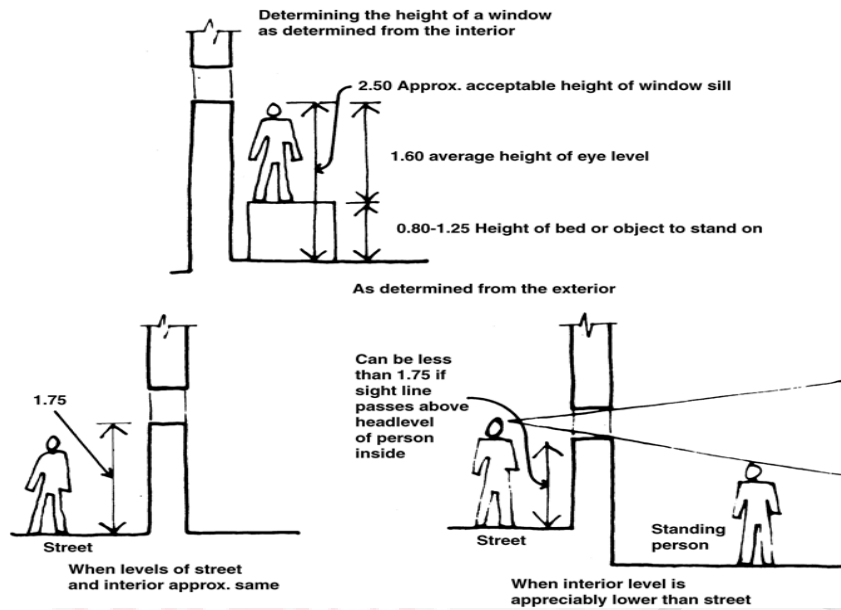
Besides, during the last sixty years, nomads have settled in different parts of Iran. Memarian et.al (1992) studied that the permanent houses in Iran show some aspects of tents. They have altered the position of the guests and women's area. The opposite side of the entrance is devoted to guests and men and the space close to the entrance is designated as the women area. In another type of Dawar in the Ilam region, in the west and south-west of Iran, the entrance is positioned on the long side. Here the left side is devoted to the women's area and the right side belongs to the guests and men's activities. Filberg (1989) mentioned that in all cases the women's area which is used for such activities as cooking and children's playing, is covered with felt, while the guests' area has small carpets. The third class of dwelling is common in certain regions of Iran. Examples are the tents used by Kurds in the north-west and those of the Papis in the Luristan region in the west of the country. Filberg (1992) studied the typical Kurdish tent in Iran is a long quadrangle structure in plan. The upper-class tent is divided into two main areas, one for men and reception and the other for women's activities and female guests. The male reception area has its own entrance and is smaller than women's area. A straw curtain separates the two areas. The same solution applies in the papitent, the Dawar, which is likewise divided into two by a straw partition or a curtain. Finally, the Ilam region in the south-west of Iran, Provides an interesting example of the complete separation of private and reception areas, an arrangement more normally associated with the urban houses. While the 'living' tent, the Dawar, may be used for short meetings, the main reception in this case takes place in a special tent, called the Diwa Khan, which is shared by all members of the tribe. This tent, which is larger than the others, has an interior arrangement based on the partitioning of women's and men's areas. The entrance of

the tent is on the long side, with the men's area to the right and the women's to the left. In the centre are the hearth and a place for putting the carpets and other materials. The three areas are divided from one another by straw curtains or partitions calls Chit. As a result, due to some similarities in terms of privacy among Iran and the other Islamic countries in South- East Asia, it might be generalized in some variables from Iran to the other Islamic countries. Besides, according to aforementioned before about respecting women privacy, the orphanages in Iran have many problems to design in terms of spatial privacy.

### **1.3.2 Privacy within neighbourhood**

Research issue 2 is studying neighbourhood context of the orphanage institutions to enhance privacy for teenage girls in Mashhad, Iran. There are some problems for neighbouring of orphanages in Mashhad, Iran, which would be clarified in this research. In fact, the orphanages are the real houses for orphaned children. Because, they spend most of their time at the orphanages together. In view of fact, in Iran, to cater for separation and privacy of two neighboring spaces which serve different functions, geometrical shape and internal structure of the spaces have been designed in such way that all visual, acoustic, or even aromatic factors could be controlled. Moreover, privacy for every home is relative to neighboring home and also the distance between the two spaces is dependent on the functions, social relations and family customs. Memarian et.al (2011) studied that privacy in neighboring in Iran is as follow:

- Entrance proceeding: A vestibule space and blocking visibility from outside.
- Reception area: this place has been separated from others due to the observance of behavior patterns which mentioned in Islam religion.
- Public and private yards: Muslims usually use two yards, one inside and one outside.
- Entrance to alley: The roofs are usually separated from those of neighboring by walls. There are no windows facing public ways except some opaque ones located at a high position.



**Figure 1-2. The height of windows in Islamic culture**

- The private and public parts: The dining room and children rooms are separated from the other rooms.

As result, in some Islamic countries such as Iran various kinds of mechanisms are used to regulate social interaction in cultural context in neighbourhood. These mechanisms are: first, there is a dialectical process involving changes in the degree of accessibility and separation from other persons; second, gender relation calls for a process of controlling social interaction; third, distinction between the desirable and actual level of privacy requires on autonomy or isolation.

## 1.4 Objectives

### 1.4.1 Main objective

To establish the appropriate sizes, spatial organization and programming and neighbourhood context of the orphanage institutions to enhance privacy for teenage girls in Mashhad, Iran.

### 1.4.2 Specific objectives

The research aim is subdivided into several detailed objectives:

- To obtain the most important orphaned teenage girls' privacy preferences for their own space in child care institutions in Mashhad.
- To evaluate the proper space size in terms of spatial privacy according to teenage girls' preferences, international standards and Behzisti organization rules in Mashhad.

iii) To establish proper neighbourhood context of the orphanage institutions to enhance privacy for teenage girls in Mashhad.

## **1.5 Research questions**

### **1.5.1 Main question**

What are the appropriate sizes, spatial organization or programming and neighbourhood context that can enhance the privacy of teenage girls in orphanage institutions based on the studies undertaken?

### **1.5.2 Sub questions**

- i) What are the design characteristic of privacy preferences for teenage girls' in the selected orphanages in Mashhad?
- ii) What are the differences between selected child care institutes in Mashhad based on the orphaned teenage girls' privacy expectations?
- iii) What are proper neighbourhood context of the orphanage institutions in terms of teenage girls' preferences to enhance privacy for teenage girls in Mashhad?

## **1.6 Significance of the research**

In the world, few studies have focused on suitable designing of orphanages. Thus, this study can establish a basis for developing special solutions, which the future research needs. Research on orphanages can help to understand the problems and preferences of unaccompanied teenage girl in designing institutions. As such, the objective of this study is to evaluate the proper space size according to teenage girls' preferences, international standards and Behzisti organization rules in Mashhad. In order to have a successful child care institutions project, decision makers and authorities need to take into account teenage girls' preferences and level of expectation from the design of institutions in Mashhad. Therefore, this research intends to help the designers and planners to make effective decisions to provide base line needed information about the teenage girls' satisfaction with the perceptions of staff and professionals in child care institutions and orphanages.

In view of the fact that the main problem of Mashhad and Iran is the lack of private places for orphans in orphanages (because high number of orphans are staying in one place), and also according to the literature in this research, the most important issue for teenage girls is the privacy. Therefore, the study on the privacy in orphanages in Iran can improve the most important factor of teenage girls' preferences in designing orphanages in Iran.

In summary, this research will:

- i) Analyses the number of the existing child care institutions (five institutions) in Mashhad and make recommendations for improving the sizes of the places according to teenage girls' preferences in terms of spatial privacy in Mashhad, Iran.
- ii) Identify and provide baseline data pertaining to orphans' (unaccompanied teenage girls) needs regarding creation appropriate size in terms of privacy in designing child care institutions and orphanages in Mashhad.
- iii) Provide the needed understanding of the problems that influence teenage girls' preferences in orphanages as well as the architecture.
- iv) Provide an information base to develop better planning and design procedure for teenage girls' live (unaccompanied teenage girls) according to their preferences (spatial privacy in institutions) in Iran.
- v) The attempt to establish the appropriate sizes, spatial privacy and neighborhood context can be expanded into building guidelines in the Middle East specifically.

This study inspires architects to design their projects based on orphaned teenage girls' needs. Certainly, those of the organizations who want to build institutions for unaccompanied teenage girls will notice it. Therefore, it is vital to understand the varying desires of teenage girls at institutions to be evaluated upon roles, tasks and activities in order to make their institutions compatible with their needs and abilities.

Evaluation of spatial criteria is complicated at child care institutions. It must satisfy several goals simultaneously which are dependent on each other. In this study, the critical objects to be considered in designing institutions for teenage girls in terms of privacy are extracted from the literature.

Furthermore, this study provides suggestions in architectural design for the lives of unaccompanied teenage girls in Mashhad and Iran. This study focuses on the issue related to the orphanage design in Mashhad according to unaccompanied teenage girls' problems between ages 12 to 18.

### **1.7 Main assumption**

The appropriate sizes, spatial organization or programming and neighborhood context can be established from the study on the teenage girls' preferences and comparison with the international standards in Mashhad to increase privacy in the orphanages.

### **1.8 Motivation for study**

The current research project is a fusion of the author's identities as a Muslim and researcher. It began when she visited orphanages in Mashhad and found unsatisfactory conditions there. One of the staff encouraged her to select a

dissertation topic that could extend beyond the findings of the time to satisfy a doctoral research. In view of the fact that unaccompanied children are a part of the community, they should be provided with appropriate living conditions and standards.

### **1.9 Scope and limitation of the research**

This study was conducted at selected institutional child care in Mashhad to identify the unaccompanied teenage girls' preferences towards the existing privacy at their institutions.

i) This study focuses on the issue related to the orphanage design in Mashhad according to orphans' problems and unaccompanied children girls between ages 12 to 18; it does not study the layout of other kinds of residential care.

ii) In addition, this study limited to the comparison and provision of appropriate privacy at unaccompanied teenage girls' own rooms, institutions and neighbourhoods and circumstances in district.

iii) According to official records from Behzisti organization in Mashhad, 856 orphans are being kept in 26 institutional care canters in Mashhad from which 9 centers are run by the government and hold about 132 teenagers (between ages 12-18). The other institutions are run by the private sector or NGOs and hold about 108 individual teenagers (12-18) in Mashhad. 5 of 9 governmental institutions and 6 of 17 (non-government) are belongings to girls.

### **1.10 Organization of the dissertation**

This dissertation comprises of seven chapters. Chapter one provides an introduction of the study, which includes general introduction, the problem background, problem statement, objectives, research questions, the significance of the study, main assumption, motivation for study, point of departure of the research and scope and limitations, as well as the organization of the dissertation. Chapter two provides a review of the literature and theoretical frame work of the study. Chapter three, describes architectural standards and design guidelines in the world and Mashhad. Chapter four explains the research plan involved in the study in detail, how it was conducted and also the technique used to analyse the data. Chapter five describes physical characteristic of current selected institutions in Mashhad. Results and discussion appeared in Chapter six. Chapter seven, the final chapter, includes summary of study, key points of findings, their implications and the suggestions to improve the existing institutions for living teenage girls and enhance the development of new architectural design, in relation to the findings of the previous studies and the theoretical framework.

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