

Privacy and Housing Modifications among Malay Urban Dwellers in Selangor

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ABSTRACT

This research examined the privacy needs of the Urban Malays in Malaysia and focuses on the medium cost two-storey terrace housing typology. The literature review indicated that low priority was given for privacy in the traditional Malay society which emphasises more on community intimacy, which subsequently influences their housing design. The National Economic Policy in the 1970s encouraged the rural-urban migration among the rural Malays, which indirectly changed their way of lives and their housing environment, especially when many of these new migrants lived in terrace housing. An earlier study indicated that the earlier generations have maintained their cultural values, while there are studies which show that neighbourhood ties among the urban Malays are weakening and family privacy has become more important. This study involved 401 respondents, selected at random from among heads of households living in Selangor, Malaysia. Two areas involved in this study, namely Gombak and Kajang in the district of Hulu Langat, were selected at random. The survey method using questionnaire and in-depth interview with selected respondents were employed to examine the meaning of privacy and the influence of privacy on housing modifications. The findings indicated that the meanings of privacy were influenced by their cultural norms and religious belief, which were unlike what was being practiced by the traditional society and in the village housing setting. The study also revealed that the privacy provided by the original designs was not sufficient and that the need to provide privacy is one of the main reasons for housing modifications.

Keywords: Privacy, culture, urban Malay, housing modifications

INTRODUCTION

Privacy is a two-way process involving the permeability of boundaries between oneself and others. It is an on-going process which involves the process of regulation. Successful regulation is important in the process of achieving privacy. Two types of privacy, regulating mechanisms as posited by Altman (1977), are behavioural and environmental mechanisms. Behavioural mechanisms include verbal and non-verbal

behaviour and they are influenced by socio-cultural factors. People in all cultures engage in the regulation of social interaction through behavioural mechanisms by which accessibility is controlled and is probably unique to the particular physical, psychological and social circumstances of a culture (Ahmad Hariza and Zaiton, 2008).

There are three environmental mechanisms, namely, territoriality, clothing, and personal space, as described by Altman (1977). There are

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three types of territory, depending to how central a territory is to a person or a group or how close it is to their everyday lives, namely primary, secondary, and the public. Primary territories are owned and used exclusively by individuals or groups, and these can be clearly identified as theirs by others, are controlled on a relatively permanent basis, and are central to the day-to-day lives of the occupants. The exclusivity of the primary territory is emphasised by Brower (1965) who refers to it as personal territory. In Altman's (1977) framework, primary territories are powerful privacy-regulation mechanisms. Here, privacy has a string of environmental components in it, where space preferences, expectation and satisfaction, can be influenced by the physical environment (Gifford, 2008). Within the context of housing, privacy is seen in relation to the family (self), the house (environment) and interaction between the two. As a primary territory, a house provides the desired privacy to a family but how much privacy it provides is influenced by the physical characteristics or architectural components of the house, as well as the physical elements and external factors within the neighbourhood.

Privacy in the house is needed at different interpersonal interaction that forms socialization in the house and it is part of the daily primary activities in the house, in concert with other needs to help us adjust emotionally to daily life with other people. Despres (1991) commented that the psychological need for privacy is among the most powerful theoretical concepts that have been used to explain the meaning of home as a refuge. Privacy is needed at two levels, public privacy and private privacy. Public privacy concerns with privacy from the external, between the family and outsiders. It is seen in relation to public distance, or visual privacy at which observation can be effective, in relation to the street and neighbours looking into their garden, and internal spaces of the house. In addition, private privacy concerns with the privacy within the house, as well as between and among family members and their interacting behaviour in the house. Fahey (1995) stated that house is a haven for privacy and the manner in which different

spaces laid out in a house may facilitate or hinder the attainment of a desired degree of privacy (Kaitilla, 1998). The design and arrangement of spaces can concentrate, diffuse, segregate or localise information. Depending on the physical environment, individuals may be visually conspicuous to others or not. Meanwhile, physical elements such as windows, walls, and doors and line of sight created by how spaces are organised are some of the features which hinder or promote visibility.

Meanwhile, the definition of privacy varies not only between but also within cultures (Fahey, 1995). In fact, privacy varies between and within cultures, even within a small social group due to the many influences such as privacy behaviour, values, preferences, needs, and expectations that originate from the differences in personal characteristics, social situations, physical settings, and culture. Attitude towards gender and shame, and possibly the feeling of personal worth, territoriality as well as the place of individual may also affect the attitude towards privacy (Rapoport, 1969). These attitudes vary between cultures and influence privacy behaviour, which is based on one's norms and beliefs. The interpretation of privacy is not only culturally specific, but it may also differ significantly within a given juridical structure (Boling, 1994). It is a subjective response which varies according to individual preferences and various social settings (Margulis, 2003).

Privacy is one of the important cultural factors which influences house forms (Rapoport, 1969). Some cultures have a stronger preference for privacy and more privacy needs and gradients than others (Altman and Chemers, 1980). Abu-Gazeh (1996) stated that the use of space is not isomorphic among the cultures, whereby each culture has specific variables that influence its use of space. Some cultures may appear to have little privacy by the Western standards. Canter and Canter (1971) argued that this could probably be due to the traditional view of privacy as a solely physical-environment process and not a complex behavioural system that draws on many levels of functioning. The need for privacy is universal and it occurs in all

cultures, but the regulating mechanisms utilized can vary considerably across cultures (Fahey, 1995). Thus, privacy can be regulated through behavioural mechanisms such as rules, manners and hierarchies, psychological means such as internal withdrawal and depersonalisation, as well as behavioural cues by structuring activities in time, spatial separation, and the act of using physical elements (Gifford, 2008).

In Islam, the need for modesty is the same in both men and women, but based on the differentiation of the sexes in nature, temperament, and social life, a greater amount of privacy is required for women than for men, especially in the matter of dressing. The subject of sex ethics and manners is the determining factor in the segregation of males and females in the Islamic society. Therefore, the concept of privacy is introduced, perceived, and judged accordingly. In sum, privacy in the house is needed for the concealment of inter-family life from strangers, separation between men and women in sitting arrangement during social interaction, but not for those of the same family, separate sleeping areas for male and female family members and for parents, as well as for daily basic activities. Subsequently, at the public level, the house should provide visual privacy from outsiders and strangers. At the private level, the provision of bedrooms for parents and children of different genders and arrangement of spaces with clear division of public and private spaces are required to ensure privacy for family members during social interaction.

TRADITIONAL MALAY PERSPECTIVE ON PRIVACY

In the traditional Malay society, privacy was not given a high priority compared to community intimacy (Ahmad Hariza, Harlina and Asnarulkhadi, 2009). Meanwhile, the climatic factor and low priority for privacy have shaped the traditional Malay houses, providing comfortable houses which support the activity system of the inhabitants (Zulkifli, 1996; Lim, 1987). The concept of privacy in the traditional Malay society was clearly different from the

western concept. Individual and family privacy did not rate highly in the traditional Malay culture (Vlatseas, 1990). Privacy needs in the Malay society is related to their beliefs, values and norms, which are largely supported by the Islamic family codes, and to a large extent coterminous with the traditions (Zainal, 1995).

The Malay society regards behavioural norms as important privacy regulating mechanisms. The traditional values of *budi* (etiquette) and *bahasa* (language) regulate the behaviour in the close-knit traditional Malay society. The term *budi bahasa* sums up the kind of proper behaviour an individual should display both in the privacy of family life and in public, such as not prying into the private matters of others, giving the salutation and asking for permission before one enters other people's house, not looking into other people's houses, as well as the rules on clothing and interaction. The observation of the accepted behavioural patterns indirectly provides privacy to the community at large. These norms are much in line with morality in Islamic teachings and to this extent, the Malay customs and Islam are in complete agreement (Zainal, 1995). Privacy is very important in Islam and the right to privacy is one of the most precious freedoms, the most comprehensive of rights and the most valued by Islam (Berween, 2002). In the Holy *Qur'an*, it is stated very clearly that one's privacy is one's own right and no one should intervene in it without one's permission. In Islam, privacy and good manners in public contribute to the highest virtues, and are parts of a Muslim's duties. As stated earlier, the subject of sex ethics and manners is the determining factor in the segregation of males and females in the Islamic society. Therefore, the concept of privacy is introduced, perceived, and judged accordingly. In physical terms, privacy refers to the personal clothing and the private domain of the house (Besim, 1986). In the context of housing, providing visual privacy and family intimacy is required for the concealment of inter-family life from strangers, separation between men and women in sitting arrangements during social interaction but not for those of the

same family, separate sleeping areas for male and female family members, for parents and children, and for normal functioning of daily activities. Apparently, the architectural, social, and psychological dimensions of privacy are fundamental to the daily life of Muslim. In order to control privacy in the built environment, architectural and behavioural variables must operate in tandem so as to satisfy psychological needs (Abu-Gazzeh, 1996). Privacy in a Muslim house is directed towards the insulation of the household from outside and non-kin exposure (Tentokali and Howell, 1988).

CHARACTERISTICS OF SPACE ORGANISATION IN THE TRADITIONAL MALAY HOUSE

Space organisation in the traditional Malay house is based on the socio-religious requirement, and with the traditional flexible open-plan solution, various forms of physical and symbolic barriers or boundary is necessary (Mohd Taib, 1997). Spaces are organised into distinctive zonings,

guest zone (public domain with a clear male domain at the front, and the family zone (private domain), which is usually the female domain. The core house, which is the male domain, is always at the front and the kitchen at the back. Other spaces are secondary spaces connecting the core house and the kitchen. The arrangement of spaces provides the convenience for daily activities of the inhabitants, providing the privacy and separation within the household, as well as during social interaction. *Fig. 1* illustrates the layout of a traditional Malay house.

The spaces in the traditional Malay house are always arranged along a linear path, with a clear understanding of how, what and when activities are performed and the importance of the spaces. The sequence of the spaces and their flexible uses complemented and supported the traditional Malay lifestyle. The open plan layout was an expression of the Malay traditional culture and tradition, in which strong family bond, respect for the elderly and defined position of women in the houses (Lim, 1987).

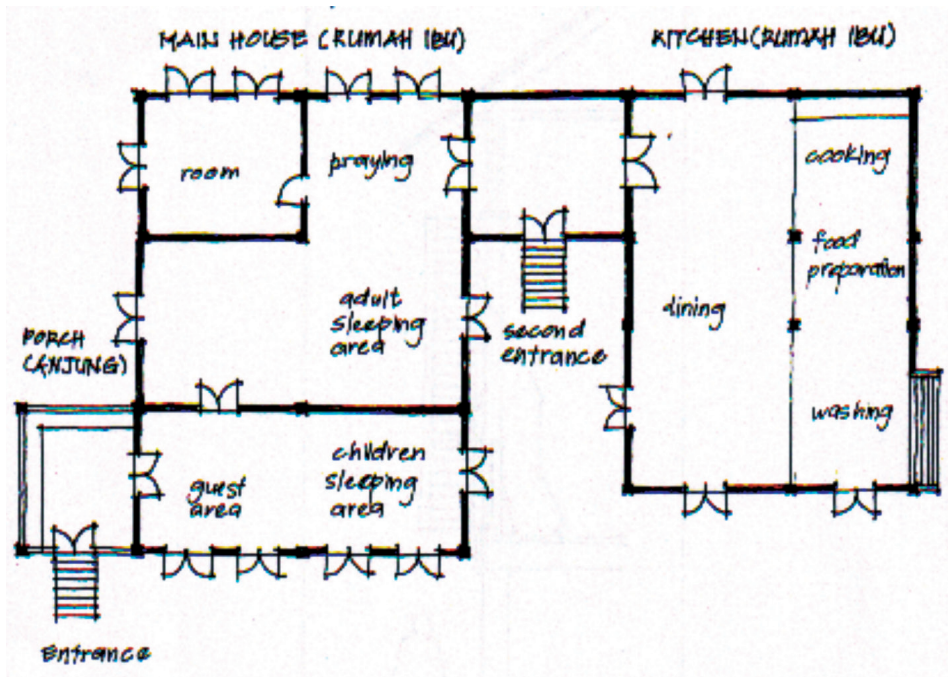


Fig. 1: The layout of a traditional Malay house (Lim, 1987)

On the contrary, the territory of the traditional Malay house is not strictly defined, where external spaces are shared, and trespassing is allowed. In fact, territory is loosely defined by trees and hedges and there is no strict rule on trespassing. Sharing of external spaces encourages interactions among the communities as these spaces act as the social place for meeting and interaction among the people, which eventually strengthens community bond. Within the accessibility and permeability of the traditional Malay house and setting, the privacy of a family is provided within the individual house, and this is supported by accepted privacy behaviour. The lack of a defined territory should not be seen as a lack of privacy, as privacy in the traditional Malay society is not bounded by their physical environment, but more importantly shared societal values, which governed the privacy behaviour among the homogeneous society.

Meanwhile, spaces are arranged to provide convenience and consideration on other cultural aspects such as privacy, separation and social interaction and position of women are parts of the considerations in the design and were translated into the space organisation and the house form in general. Spaces in the traditional Malay house are not defined or specialised for a certain usage, but are multi-purpose. The open interior allows the spaces to be used interchangeably for different purposes at different times of the day and year. The living room is used for sleeping at night with a mat laid out and stored in the morning. The same space is also used for sitting, praying, reading, sewing, entertaining guests and many other activities, as well as occasional activities such as wedding ceremony and gatherings. Eating is normally done on the floor in an area next to the kitchen. The use of furniture is minimal in the traditional Malay house. The staircases in the traditional Malay house signify the entrance point. The main stair located at the front of the house leading to the covered porch is the formal entrance, while the second stair is normally used for the ladies. The stair has a social significance as a sitting place for

informal gatherings among female neighbours and friends. Some houses have a third stair from the kitchen area. Rooms in the traditional Malay houses are limited in numbers, due to the low priority given to individual privacy as compared to family privacy. Moreover, there is no specific rule on the separation of the female and male members in the family in the traditional Malay culture, as promoted by Islam. It is common for young children to sleep with adult members of the family in the living area. Bathing and toilet activities are carried out outside the house, as there is no provision of toilet or bath within the perimeter of the house. A bathing area, which is also where washing takes place, is normally located behind the house, formed by coconut leaves or simple wood walls for visual privacy. Toilet is located at a safe distance from the house and sheltered by a simple structure. The scenario mentioned above is a common housing layout in the village even in the eighties. However, due to development and modernization process, this scenario has changed whereby many have started to adopt the modern housing design and one of it is having toilet and bathroom inside the house.

The National Economic Policy (NEP), introduced in 1971 by the government to solve economic, ethnic, and regional imbalances among the multiracial Malaysians, resulted in rural-urban migration among the Malays. By the late 1970s, the Malays formed the majority (68.3%) of the urban migrants (Malaysia, 1979). Urbanisation has resulted in changes in the way of life of the Malays and housing environment. The housing design in Malaysia, especially in the urban area, has significantly changed from the late 1960s with the introduction of mass housing in the form of terrace housing, which is influenced by the British housing design and typology, where to some extent, there are houses built with chimney. Terrace housing was developed based on the 'efficient' use of setbacks and building-to-building distances for the purpose of natural lighting, wind flow, firebreaks and sanitary services, without much consideration of the local culture (Mohamad Tajuddin, 2003). By the 1970s, terrace housing

became a common sight in the urban areas that were made up of rows and rows of identical terrace houses along the rigid lines of the gridiron.

Unlike the traditional houses, which are located randomly in the village, the monotonous terrace housing units are arranged close to each other in rows without much consideration for both climatic and culture requirements. The residents are confined within the defined boundary of their fenced housing units. The concept of life in a community, as an extension of the family prevalent in the Asian societies, gave way to the anonymous living of housing estates, which still persists until the present day. As housing designs are not in tandem with the changes in lifestyles of the people, housing modification became common and accepted as a Malaysian culture (Ministry of Housing and Local Government, 2004). Due to the high price in land value in the urban area, terrace housing is preferred and demanded as compared to other types of compact housing such as high-rise apartment as it allows room for modification. People modify their houses for many reasons. Some authors have suggested that failure to include cultural consideration, including privacy in the design process, resulted in housing units being modified (Brolin, 1976; Correa, 1989). One of the reasons for housing modification is to achieve privacy as indicated in the studies of Ozaki (2001), Zaiton (2000), Abu Gازه (1996) and Al-Khodmany (1999). One of the weaknesses in the housing design introduced is the lack of social and cultural considerations including privacy. As also pointed out by Salama (2006), in the case of providing affordable housing in Saudi Arabia, Saudi environmental and socio-cultural contexts demand that affordable housing should not merely aim at providing affordable shelters, it should also offer design solutions that are sensitive to the local contexts. Instead, issues such as privacy, social cohesion, and perceptions on residential density, preferences, and the lifestyles of the target populations should be considered in providing desirable, affordable, and sustainable housing.

Therefore, this paper examined how the urban Malays defined privacy and the influence of privacy in housing modifications made to the house that they owned.

OBJECTIVES

The general objectives of this study were to examine on the meaning of privacy from the perspective of urban Malays and to study the relationship between the needs for privacy and housing modification. The specific objectives are:

1. To understand the meaning of privacy in relation to the family (self) and the environment (the house).
2. To identify the building elements affecting the privacy of the Malay families living in medium cost two-storey terrace housing.
3. To examine the influence of privacy on housing modification.

METHODOLOGY

The methods used for the study include interview survey and in-depth interviews. Appropriate sampling of the subjects is of particular concern in the study of privacy as there are many factors that can influence privacy. The subjects were randomly selected from 401 Malay heads of the households in three medium cost two-storey housing locations in Selangor. The two different sizes of housing designs from the two areas, namely Gombak and Kajang, located in Hulu Langat were involved, with the smallest (14' x 55') in Gombak and the bigger units (18' x 70') in Kajang. The two areas were selected at random from the list of districts available in Selangor. Meanwhile, survey mapping was also carried out to identify Malay families who owned and lived in medium cost terrace housing units before selecting the respondents for the study. The Statistical Package for Social Science was used to analyse the data. In-depth interviews involved 12 subjects, who were identified during the survey interviewed and selected based on their willingness to participate in the study.

TABLE 1
Definitions of privacy

Definitions	Privacy perceived by respondents	%
The self	Condition of yourself/ family members to be alone	27.2
	Attitude to control information in the house about oneself, family and property	15.4
	Process of being alone	3.3
Interaction between the self and the environment	Situation or interaction between the house and oneself/ family	30.1
The environment	Condition of the house that allows for you/family members to be alone	24.0
Total N=374		100.0

A set of questionnaire was employed for the household survey. The initial questions included socio-economic variables, such as age, sex, income, education level, as well as the number and age of children, period of residency, and location of unit. The second part of the questionnaire focused on the perception on the definition of privacy, housing design and modification, identifying building elements, which affected their privacy and involved in housing modification.

FINDINGS

There were 401 respondents from three housing areas identified. The male subjects comprised of 40.9% of the total respondents, while the females made up 59.1%. Their ages ranged from 22 to 70 years old, with 74.5% of the subjects aged between 31-50 years old. Meanwhile, the number of children in the families ranged from 1 to 14, with 60.3% of the households had 1 to 3 children and 2.4% others had more than 7 children.

Data gathered from the survey interview indicated that 30.1% of the respondents defined privacy in relation to the interaction between the self and space, followed by the condition of self to be alone (27.2%), and the condition of space

(24.0%), respectively. Privacy is defined as the attitude to control information in the house about oneself, family and property (15.4% of the respondents) and as a process of being alone (3.3% of the respondents).

For a more precise and meaningful definitions, three of the answers, which defined privacy in relation to the self are combined due to the relatively small percentage of the response for an answer. Three of the responses, namely condition of self, attitude of controlling information and process of being alone, represent the definition of privacy in relation to self. Collectively, these responses comprised 45.9% of the responses, as shown in Table 1. Meanwhile, the results from in-depth interview explain the everyday meaning of privacy, which is more relevant to most people and its relation to the self, house, and the interaction between the two. These results are consistent with findings from the survey interview. Even though privacy is seen more in relation to the self, the findings strongly indicate the inclusion of the environmental component in its meaning. Three common definitions of privacy are privacy as control of access from being seen or observed, control of access from being disturbed and the condition of peaceful and quietness within the confinement of the house as the boundary and

TABLE 2
Building elements affecting privacy

Building elements	n	Yes %	No %
Proximity of living and kitchen	400	67.2	32.8
Open plan layout of living, dining and kitchen	400	66.7	33.3
Design and location of the main window in the living are directly facing the main window of front housing unit	398	57.5	42.5
Location of main door directly facing the main door of front housing unit	400	56.5	43.5
Kitchen door directly facing kitchen door of housing unit at the rear	401	54.4	45.6
Proximity of bedrooms	398	37.9	62.1
Position of bedroom doors directly facing each other	400	32.0	68.0

setting for privacy. Control of access involves a range of sensory avenues such as visual, informational, and audio. In general, not being seen, not being disturbed, and the condition of the house were used interchangeably by most respondents to define privacy. Combinations of more than one sensory avenue or conditions were commonly used in defining privacy.

Unlike visual access or social interaction, which can be controlled, noise and smell is difficult to control. The survey interview indicated that noise is a major hindrance of privacy at home, as indicated by 81.7% of the respondents, followed by smell (50.0%) and visual (38.2%), respectively. The in-depth interviews indicate that this type of privacy is hard to achieve due to the close proximity of the housing units in relation to other housing units and external factors. The tolerance attitude of the Malays towards noise from the neighbourhood, especially from children, could be seen where most respondents indicated that they could accept it as a condition, in which they have to live with when living in a housing area.

In terms of housing design, 62.1% of the subjects generally felt that the design of their present housing units does not emphasize privacy. The number of children in the family do not significantly influenced the perception on the lack of privacy, with a chi-square of 1.71, $df = 2$, and a significance level of 0.63. Similarly,

the size of housing units does not significantly influence the perception on the lack of privacy in the housing designs. The majority of the subjects indicated that five of the listed building elements affected the privacy of the subjects, as shown in Table 2. However, higher percentages (67.2% and 66.7%) of the subjects felt that the proximity of living and kitchen as well as the open plan of the ground floor affected their privacy. A low percentage of the subjects felt that their privacy are affected by the position of bedroom doors that are directly facing each other (32.0%) and the proximity of their bedrooms (37.9%).

The findings from the interview indicated personal privacy is not seen as important, therefore the proximity of bedrooms and location of bedroom door facing each other is not seen as affecting family privacy. However, they felt that the arrangement of the existing doors and windows in their housing units affected their privacy and they regulated privacy by closing the door and used curtains to provide visual privacy to the family (see Ahmad Hariza *et al.*, 2006). Most of the respondents having units with louver windows in the bedrooms and kitchen area are satisfied with this type of window as it provides good ventilation, natural lighting and visual privacy.

Majority of the respondents involved in this study have modified their houses (64.3%). However, 76.1% of the subjects (including both

TABLE 3
Building elements involved in housing modification

Housing modifications	n	Yes %	No %
Changing the main door to avoid direct view into the house	400	34.3	75.7
Separating living and kitchen/dining area	401	61.8	38.2
Addition of bedroom	401	52.1	47.9
Change window/sliding in the living area door to avoid direct view into the house	401	40.4	59.6
Changing the windows to avoid direct view into the house	401	30.2	69.8
Changing the fencing around the house	401	48.9	51.1

who have modified or will modify their houses) agreed that privacy is one of the main reasons for modifying their houses. The results indicate only two out of the seven building elements listed in the questionnaires scored higher than 50% (see Table 3). The two elements are separating the kitchen from the living area (61.8%) and the need to add more rooms (52.1%). Even though the location of main door and windows was found to affect privacy, only 34.3% of the respondents changed the main doors, while 30.2% others changed the windows. This is explained by the fact that the subjects regulate their visual privacy by the use of curtains and closing the main door most of the time.

The data from the in-depth interviews indicated that housing modification was heavily influenced by the economic factor, separating the kitchen from the living area, therefore allowing the family (particularly the female members) to do their activities in privacy even during the presence of guests. It is also important that the kitchen, which is a private area and the 'back region' where a lot of daily activities take place, is concealed and not visible from the living area which is considered as the public area of the house. The second modification normally involves extending the living area to provide a comfortable space where a degree of separation between male and female during social interaction is provided, even within the same living area. In some cases, extending the living area provides a new guest area, where

guests are entertained and restricted to, and therefore freeing the existing living for family activity. The third modification normally involves addition of family area for multi-purpose use and bedroom on the first floor.

The third bedroom is usually very small. In cases where it is located on the ground floor, it is normally not used for sleeping. Young children normally sleep in the parents' bedroom. Another bedroom is added on the first floor when the children reach adolescent to provide separate sleeping area for daughters and sons. However, in family with only daughters or sons, the need to have additional room does not arise.

Windows and sliding door are normally left opened for ventilation and lighting purposes. Most houses have steel grille on their windows and doors for security reason; therefore, the windows are left open during the day. Visual privacy is achieved by the use of light curtain. The needs for ventilation and visual privacy are considered when houses are modified. The existing windows are normally changed to tinted glass casement window or sliding door. This type of window allows view out but not in. At the same time, tinted glass reduces direct sunlight into the house. Most of the subjects felt that louver window is good for ventilation and therefore, the existing louver windows in the kitchen and bedrooms are maintained.

CONCLUSIONS

Privacy, in relation to housing among the Malays living in terrace houses, is seen in relation to the self or family more than anything else. However, there is a strong emphasis on the environmental component of the house as privacy setting and boundary within which family privacy is afforded. Privacy is seen within the internal and external boundary of the housing units (the house and the external space). Unlike the traditional setting, privacy boundary is well-defined (within the external boundary of the house) due to the housing setting of the terrace housing, which defines the territory of the housing unit by physical boundary of fencing. This finding indirectly suggests the influence of the built environment on the changes in the definition of privacy in the Malay culture.

The emphasis on family in the definition of privacy indicates a change of attitude towards privacy that was seen in the traditional society, which emphasised on community intimacy. While definition of privacy among the Malays living in the housing areas is subjective, shared meanings are consistent with religious belief and cultural norms. The influences of Islam and cultural norms could clearly be seen on the rules of clothing or dressing in defining visual privacy, neighbourhood ties and tolerance towards the neighbours, which influence privacy as not being disturbed, and condition for privacy. Meanwhile, the behavioural norms, both inside and outside the house, provide privacy at private and public levels and promote family privacy within a community. The fact that neighbours are not considered as a hindrance of privacy indirectly suggests that the community still has a strong influence in defining privacy in the present Malay society.

The findings from the study indicated that the design of terrace housing affects the privacy of the Malay family more at the public level than at the private level. Even though visual privacy is affected by the design of windows and doors, the ability to regulate privacy by the use of physical elements, such as curtain and behavioural mechanism of closing the door most of the time, provides the needed privacy.

The arrangement of spaces, which disregards the need to clearly separate public and private spaces, affects privacy in the house during the presence of outsiders but not within the family. The importance of separating kitchen, which is a private area, from the living or the public area of the house, can be seen from housing modification.

Housing designs should consider social and cultural needs of the residents, including privacy, which have always been important considerations in the traditional house forms. A clear understanding of the division between the public and private spaces should be taken as parts of the design considerations, which would minimise housing modifications. Meanwhile, the design of windows should include provision for ventilation as well as privacy to the residents, such as the use of tinted glass windows, adjustable louver window, etc. and careful positioning of windows. While house units can be arranged in rows, mirror image arrangement should be avoided. More units can be arranged around open spaces rather than facing each other.

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