

# AN ANALYSIS OF VISUAL PRIVACY FROM ISLAMIC PERSPECTIVE OF MODERN TERRACE HOUSING DESIGN IN MALAYSIA

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## Abstract

*Reviews of past literature indicate lack of visual privacy in the design of terrace housing in Malaysia, especially for urban Malay occupants with regulations and principles governing the privacy and modesty of self, family and house. However, previous studies did not specifically elaborate about the characteristics of visual privacy from Islamic perspective found lacking in the designs. The aim of this study is to examine how the current terrace housing design affects behavioural and daily life of urban Malay family, with regards to visual privacy and visual access satisfaction. The study, utilizes method in-depth interview and space syntax analyses. Findings indicates specific design aspect which effects the visual privacy satisfaction of Malay family. In addition, data highlight discrepancy of urf' (customs) and design, resulting in lack of use of certain spaces and elements provided in the design.*

*Keywords: terrace housing, urban Malay family, visual privacy, space syntax*

## INTRODUCTION

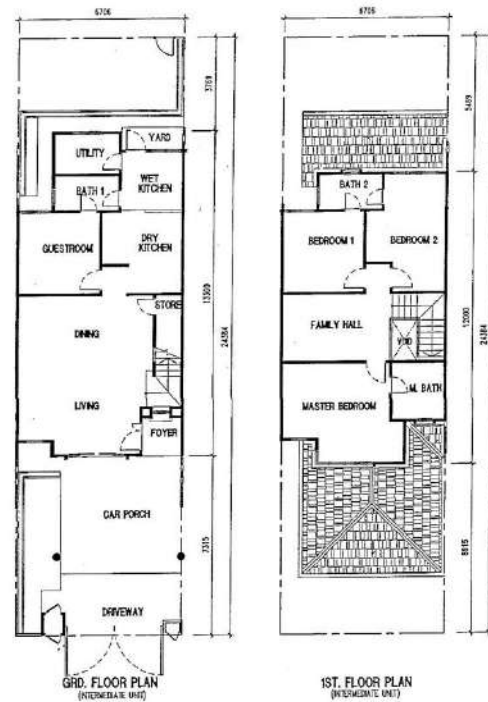
Privacy is seen as one of the most important consideration in the Muslim houses (Besim, 1986; Spahic, 2010). The primary function of the house; as in the revelation of the holy Qur'an (Al-Nahl, 80), "It is Allah who made your homes of rest and quiet for you..." is to provide a sanctuary and haven for the true believers, and is Allah's will as a physical and mental refuge from the outside world. The revelation emphasises the importance of the house as a primary setting for privacy. A house is more than just a structural shelter, instead it is an institution of great significance to cultural and family development (Rapoport, 1969; Spahic, 2010). The importance of visual privacy is highlighted in the Qur'an, the Muslim holy book and the sayings of the Prophet Muhammad (P.B.U.H.). Islam considers all types of privacy in its jurisprudence, however visual privacy takes precedence when it comes to build environment (Besim, 1986). Besim (1986), Asiah (2008), Hisham (2003), Spahic (2010) and Zulkeplee, Buys, & Aird (2014) emphasize the importance of visual privacy in the design of Muslim housing. Given its importance, prioritisation for visual privacy in the house design according to Islamic principle and culture is important to provide the optimum level of visual privacy for the family. In the context of the Muslims, visual privacy is influenced by both cultural and religious requirements (Besim, 1986; Hisham, 2003; Zaiton, 2015).

Privacy as a whole is one of the most important characteristics of a Muslim's house and plays a dominant role in establishing the form, layout and functioning of the house (Asiah, 2008; Besim, 1986; Hisham, 2003; Spahic, 2010; Zulkeplee et al., 2014). The lack of consideration for visual privacy and other housing needs in the design will result in the inability to achieve the level of visual privacy needed and cause behavioural adaptation which may have negative consequences on the life of the occupants. The need for visual privacy also resulted in the hierarchy of spaces and design of entrances and openings such as seen in the traditional Muslim houses (Abdel-moniem, 2010; Spahic, 2011).

## RESEARCH BACKGROUND

According to Zulkeplee et al. (2014) and Abdel-moniem (2010) although Muslim houses may come in a variety of forms and designs based on local cultural influences, there should be similar architectural design language unifying them in order to fulfil the same religious needs. This is the role of *urf'* or local customs which are to unify and diversify Muslim housings (Besim, 1994). The design of urban housing today should be instilled with the same sensitivity to religious and cultural needs as the traditional Malay house, thus reflecting the continuity of *urf'* which is an integral aspect of a component of an Islamic built environment. The terrace housing today is a step backwards, as it totally disregards the socio-cultural factors indicated by the needs of Islam as a religion, and Malay as a culture.

Terrace housing is one of the most popular housing type (Nangkula & Nurhananie, 2011; Noor Hanita, 2009; Salehaton et al., 2012) and one of the densest housing typologies in Malaysia, hence fulfilling its main purpose of accommodating the masses (Nangkula & Nurhananie, 2011). The terrace house, also known as 'row house' or 'link house,' is identified by its long narrow form and arranged in rows along a grid pattern divided by streets and narrow back lanes. Figure 1 shows an example of an early terrace housing area in Malaysia, while Figure 2 shows an example of a typical plan layout of a terrace house. According to Mohamad Tajuddin (2009), the main factor affecting the terrace housing layout is the maximum utilisation of land-based on setback requirements and distances between buildings to accommodate wind flow, firebreaks, and sanitations.



(a)

(b)

**FIGURE 1.** (a) Example of terrace housing development in Malaysia (Source: <https://www.iproperty.com.my/>), (b) Typical layout of a terrace house in Selangor, Malaysia (Source: Valuation and Property Department, MPKj, 2017)

Furthermore, Ryung Ju & Saari (2011) stated that each row of terrace houses is only allowed to be built up to a height of 96 metres due to fire regulations. Terrace housing on the current market has a width ranging between 4.27 metres (14 ft) to 6.7 metres (22 ft), and length between 55 ft to 75 ft. However, the length for recent designs is more likely between 16.76 m (65 ft), 21.34 m (70 ft), or 22.9 m (75 ft). Besides, this housing type varies in terms of its levels (single storey to two or three-storey units), price, design, and build-up area. The design typically comprised of a porch area, living area, dining area, kitchen, and a bathroom on the ground floor, and in some cases, a small room for the maid, a master bedroom with an attached bathroom, a family space, two bedrooms, and a toilet located on the upper floor. Figure 3 shows a typical layout of a terrace house, with perimeter boundaries clearly defined using a chain-linked fence, low brick walls, or the main gate of the house.

Past studies highlighted the serious issue of lack of visual privacy endured by Malay occupants of terrace housing (Asiaah, 2008; Zaiton & Ahmad Hariza, 2008; Farah, 2010; Tajuddin, 2003). The level of visual privacy is normally measured against the compliancy to *Shariah*, thus it appears that the terrace housing design and overall development planning is being insensitive to the Malay Muslim families' religious requirements. Erdayu, Esmawee and Masran (2010, 2012) pointed out that conflicts

arising between the home environment and cultural norms may adversely affect the occupants psychologically, inducing "housing stress". The occurrence of housing stress will ultimately lead to changes of behavioural norms and abandonment of required religious and cultural values (Ahmad Hariza and Zaiton, 2008; Farah; 2010). Observation indicated a lack of visual privacy for Malay Muslim families living in terrace housing. The incongruence between religious and cultural needs and house design pertaining to visual privacy may lead to negative changes in lifestyle and discomfort, such as neglect of religious requirements and sacrificing freedom of visual access and openness. To turn one's back against basic spatial requirement of the users of the space, may ultimately impact their comfort level and quality of life within the space, hence, the spaces will not be used optimally.

Objective: To investigate the ability of terrace housing design in fulfilling visual privacy needs from Islamic perspective for Malay Muslim families.

Question: To what extent is the terrace housing design able to fulfil visual privacy needs from Islamic perspective of Malay Muslim families.

## **METHODOLOGY**

Based on a study by Amini and Adibzadeh (2020), visual preferences are an important aspect in the research of built environment and people's preferred views or scenes. The study sought for a more exploratory approach, via in-depth interview method, due to the more explorative nature of the study. The in-depth interview method allows a better understanding of the relationship between human preference and the characteristics of privacy related to the visual sight. Furthermore, Ahmad Hariza & Zaiton (2008) insist the appropriateness of the in-depth interview method in a study such as this as it encourages a more fluid interaction between people and allows a more detail analysis on aspects of privacy of the house and its effects on the occupants and family members. Therefore, in this study, 10 respondents living in two-storey terrace housing in two locations in Selangor were interviewed. Their selection was based on the willingness to participate in the study. Each interview lasted between 50 to 60 minutes and is unstructured but based on a list of prepared questions. Respondents were coded A1 to A5 to indicate samples from more earlier terrace housing area and B1 to B5 for respondents from more recent terrace housing area (more modern design).

In addition, space syntax analysis was also carried out on the ground floor plans of the 10 respondents' house. The output of the space syntax analysis is in the form of isovist diagram which shaded area indicates visual penetration into the area of the house from a selected point of view.

## RESULTS AND DISCUSSION

The results from in-depth interview clearly shows that 6 out of 10 participants were not satisfied with visual privacy provided by the terrace housing design (participants A1, A2, A4, B2, B4, B5). There were a few common issues raised by participants. Firstly, the position and orientation of the main entrance door that may be problematic when it opens directly towards the kitchen area (participant A2) or bedroom door on the ground floor (participant B2). The direct line of sight from outside (public) to the more private space inside such as kitchen and bedroom when doors are opened resulted in the feeling of insecurity and discomfort for the participants. Secondly, participants A1 & B2 both indicated they were not happy with provision of sliding door at living area. Both participants have removed the sliding door during modifications. Participant A3 have replaced standard windows with sliding doors during her house modification, and was unhappy with that decision as it needs to be kept closed all the time.

Open planning concept is also an issue with a few respondents from the more recently built terrace housings (participants B2 & B5). They informed that the open-plan concept, although providing the feeling of spaciousness, can sometimes be inappropriate in terms of protection of *awrat* because visitors are able to see all the way to the kitchen when they enter the house. The lack of internal barrier or partition within the space was found to be an issue. Participants B2, B4 and B5 also indicated that the existing gate design provided by the developer was too open, allowing visual intrusion to occur too easily into the porch area and interior of the house. A number of the participants also highlighted that even if they did not like the existing design of the house, they had no choice but to choose the house as it was the only one that they can afford at the time (participants A4, A5 & B1). This finding from the in-depth interview analysis is in line with studies by Asiah (2008), Farah (2010), Mohamad Tajuddin (2009) and Zaiton's (2007), highlighting issues with existing terrace housing design which lacks sensitivity to the Malay family's privacy needs and religious requirements.

"I am satisfied with the ability of the design to block views from the outside. However, in terms of the interior design, I was not satisfied with the privacy levels in the house. As you can see, the existing front door opened directly straight to the kitchen. This here (indicating the room of the interview) was previously the kitchen. I was unhappy with that." (Participant A2)

"Yes, I do like the open planning concept. It is easier to manage and furnish. However, regarding protection of *awrat*, people can easily see you due to the open concept and it can be quite inappropriate at times. It is because there is no divider or partitions." (Participant B5)

The findings from isovist diagrams highlighted that for majority of the cases for in-depth interviews (70%), private areas for female family members and circulation paths for them to move in the house (kitchen, staircase and door to bedroom) are within the isovist (grey shaded) area. Figure 2 shows an example of isovist diagram from the house of respondent A3. This suggests that when non-mahram visitors are in the living room, female family members are constrained in terms of movement in the house. This was confirmed by the responses from the in-depth interview which highlights their dissatisfaction of the design elements and position of main door, entrance to staircase and bedroom door position. Furthermore, respondents also complained of lack of internal partition within the house in the case of house with open-planned concept.

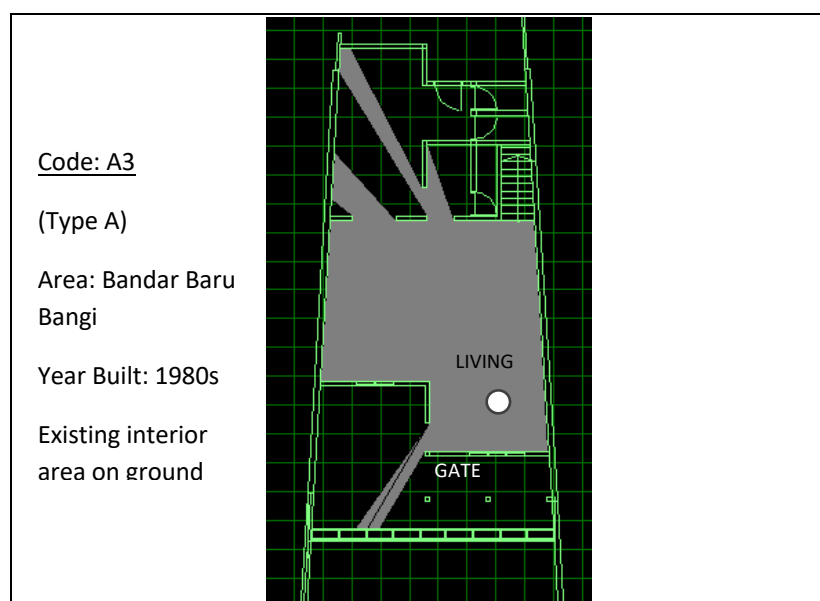
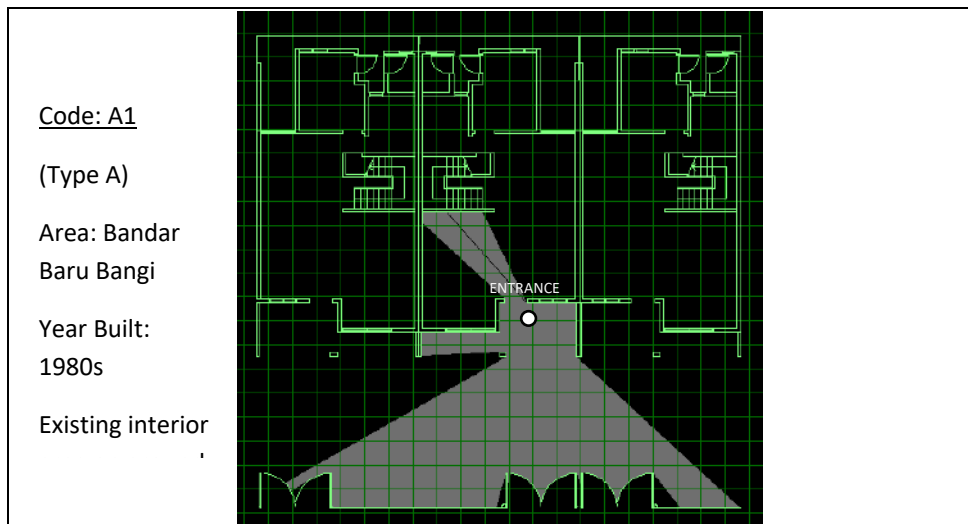
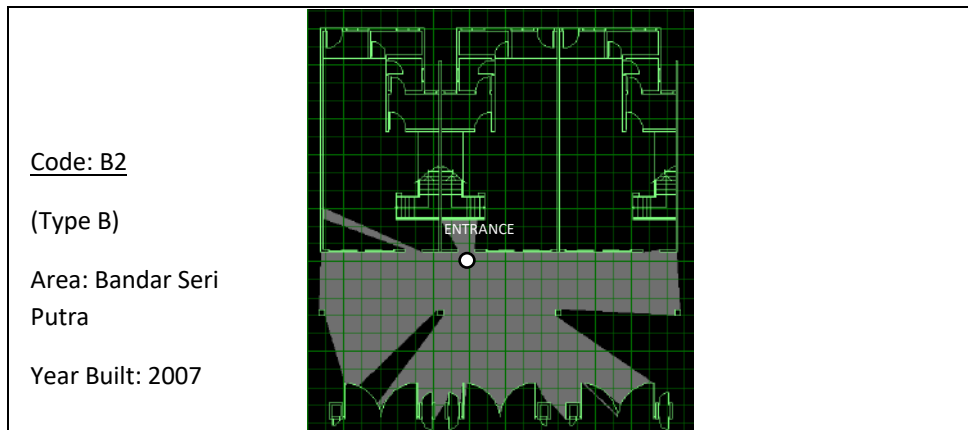


FIGURE 2. Isovist field on ground floor plan of Case A3

The study concludes that in terms of providing adequate MVP level for Malay families; 1) the position of the main door, 2) the design of the entrance area, and 3) the design and materiality of the side boundary wall and main gate are very important to not only maintain visual privacy of the family, but also visual privacy of neighbouring houses. The space syntax analysis highlights the importance of the design of external elements and outdoor areas of the house to maintain MVP of Malay families in terrace housing. Due to the proximity of the houses, there appears to be a need to design external areas in terrace housing scheme with equal care and attention as a designer would design interior spaces of the house. Proper design of the physical elements protects Malay families from visual exposure as per Islamic requirement, and still allows visual access for security needs.



**FIGURE 3.** Isovist field on external area of Case A1



**FIGURE 4.** Isovist field on external area of Case B2 shows visual penetration into neighbouring houses area due to low side boundary wall at porch area.

The findings also show the importance of the overall planning and design elements of the terrace house towards providing the required optimum visual privacy for Malay families living in terrace housing. Samples of more recent terrace housing design, completed in 2015, shows that the mirror-concept planning contributed immensely to visual intrusion into the houses due to position of doors and windows facing each door on front and back. Responses from in-depth interviews from the two house-owners of the cases informed that tinted windows were imperative in achieving visual privacy level required. They also found opening the main door is discomforting due to the present design where the door is directly facing the gate.

The issue became more critical as most openings are located to 'veiled' spaces most habituated by women which are the master bedroom and bedrooms on first floor, and kitchen and living area on ground floor. While the frontage is afforded extra ration of visual privacy due to the setback from the street, the visual privacy from Islamic perspective for the back of house areas however is highly compromised due to close proximity and narrowness of the back lane and the house being on same street level.

This allowed direct view from one house into another, as well as strangers into the kitchen area.

## CONCLUSION

In summary, the findings of this study highlights important aspects of the design element of current terrace house in Malaysia which are impacting the visual privacy level of Malay families; 1) the position of the main door and visual corridor created from one house to the other, 2) the mirror planning of terrace houses, 3) the close proximity between main entrances, 4) the height, material and design of the gate and side boundary wall, as well as, 5) outdoor elements such as road, trees and hedges, have profound effect on the overall visual privacy level of the terrace house and impacted on occupants' satisfaction. The characteristics of physical elements from traditional Islamic housing for example requirements of window heights (i.e. window sill clears eye level) as outlined by Besim (1986) may not be applicable in terrace housing context as the internalised courtyard design is a rarity to terrace housing development in Malaysia, and adequate window openings are important for lighting and ventilation of the long internal space. In conclusion, the study found that it is imperative for designers to be more sensitive to religious needs in terms of protection of visual privacy especially in areas at the perimeter of boundary of the house; porch, entry areas and kitchen. In providing appropriate visual privacy in line with Islamic requirement, occupants will enjoy higher degree of freedom in their house and may use all spaces optimally.

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