
House Privacy in Densely Populated Settlements

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Abstract. The phenomenon of houses without road access has been happening a lot lately, especially in densely populated settlements. This happens because neighbors block access or are unwilling to provide a road. In contrast to this phenomenon, one of the residents in the densely populated settlement of Leuwigajah Village, Cimahi City allowed part of his land to be used as a road for his neighbors who have houses without access. However, this condition has an impact on territory, privacy and the hijab in the residence. The aim of this research is to examine the application of a house privacy in a densely populated settlement. The research method used is qualitative with a descriptive analytical approach. Primary data was obtained through field observations and interviews, while secondary data was obtained from literature studies. Data is collected, analyzed and summarized to reach conclusions. The results of the research show that the house studied still maintains privacy even though the terrace of the house is used as an area for public access. This is intended as part of the homeowner's tolerance for neighbors who do not have access from the road to their residence

Keywords: Islam, tolerance, hijab, territory, privacy, settlement, house

1. Introduction

The increase in population in urban areas has an impact on the high demand for land, especially land for settlements (Pratama, 2019). The high demand for residential land is not followed by land availability, resulting in the emergence of densely populated residential areas.

As the time and technology progress, humans become more individualistic and selfish so that neighborly values fade (Lismayana & Akib, 2019). This is what causes some residents in densely populated settlements to carry out development based on personal interests and not paying attention to the impact on their neighbors. Therefore, the phenomenon of houses without road access occurs because neighbors are unwilling to help provide road access, even though receiving assistance is a neighbor's right that needs to be protected according to Islamic teachings.

Based on data compiled by the Badan Pusat Statistik (BPS) West Java, Cimahi City is the city with the highest population density in Indonesia, namely 15,643 people/ km². Therefore, densely populated settlements are spread across the Cimahi City area. One of the densely populated residential areas in Cimahi City is located in Leuwigajah Village. Leuwigajah Village is an industrial area with many factories and warehouses. This is an attraction for people to live and work there. This condition has an impact on the growth of unstructured settlements and causes density (Prastawa & Hindersah, 2017).

The entry of other people into land or buildings that are already privately owned often disturbs the privacy of the house's occupants. Several studies on privacy and territory have been carried out, including regarding the meaning of privacy, politeness, and friendliness in Muslim homes, which concluded that the separation of public and private life is influenced by local cultural factors, climate, and topography while maintaining principles. Privacy is divided into 3, namely visual privacy, audiographic privacy (sound), and olfactory privacy (smell/odor) (Othman et al., 2015). Azizah (2015) explains that privacy/hijab in urban homes consists of (1) physical privacy/hijab in the form of a spatial layout that separates public and private zones, and (2) non-physical privacy/non-physical hijab in the form of visiting behavior or etiquette that applies culture. Islam. The weakness of this concept of privacy is in considering aspects of social interaction in a shared space between public and private behavior (Astuti, 2018). As a scientific field, Islamic architecture should always be guided by Islamic values contained in the Al-Qur'an and Hadith (Edrees, 2012). Islamic architecture is a variety of architecture whose function and form are inspired by Islamic teachings (Omer, 2008). According to (Sativa, 2011), there are 4 aspects of Islamic architectural principles that need attention, one of which is privacy. Privacy in Islam is related to the intimate parts (*aurat*) and hijab. Hijab means barrier or covering of the private parts.

Meanwhile, the visual privacy aspect in the Islamic perspective or Muslim Visual Privacy (MVP) in landed houses requires a balance between visualization openings and visual access (Manaf et al., 2019). From the research above, maintaining privacy is everyone's right. There has been no discussion regarding the importance of maintaining privacy for residents of houses in densely populated settlements who have to pass through the homeowner's area. This is very interesting to study further, such as the case in Leuwigajah Village.

At the Rukun Tetangga (RT) level, some residents in densely populated settlements RT 05, RW 05, Leuwigajah Subdistrict gave up part of their land to be used as a public road. Mr. Subadri, as one of the house owners there, allowed part of his land to be shared with his neighbors who have houses without road access. In fact, this situation has an impact on the territory and privacy of the house. However, private areas such as residences are usually equipped with clear boundaries. These barriers can be physical barriers or non-physical barriers (Sarihati, 2017). Based on Islamic architecture, this barrier is referred to as the hijab (Sativa, 2011). The hijab or barrier is useful for marking and protecting the owner's territory and privacy from interference from other people (Sarihati, 2017).

2. Methods

The research method used is qualitative method with descriptive analytical approach. Primary data was collected using field observations and interviews, while secondary data was obtained from literature studies. Data was collected and analyzed based on its suitability to the theory of privacy, territory and the concept of the *hijab*, then the common thread was taken to obtain conclusions regarding the application of the theory of privacy, territory and the concept of the *hijab* in residential homes in densely populated settlements

3. Findings and Discussion

Macro Analysis

Mr Subadri's house borders neighboring houses to the north, east and west. The southern part borders a neighborhood alley and is opposite neighboring houses. The neighboring house to the north does not have its own road access to enter and exit the area of the house. Therefore, the neighbor had to pass through the terrace area of Mr. Subadri's house to access his house. The addition of the terrace function as a public way shows the tolerance of space between Mr. Subadri's family and his neighbors.

Tolerance in space between Mr. Subadri and his neighbors can occur because there is an awareness of sharing and helping each other in accordance with the Islamic values adhered to in neighborly life. "The best friend next to Allah is the one who is kindest to his friends. And the best neighbor in the sight of Allah is the one who is kindest to his neighbor." (HR. Tirmidhi).

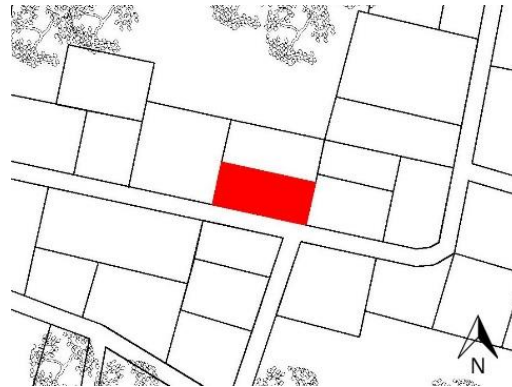


Figure 3.1. Site Plan for Research Locations
Source: Personal Document, 2022

1. Hijab

a. Physical Hijab

Based on field observations, the physical *hijab* that separates Mr. Subadri's house from neighboring houses and the neighborhood alley is in the form of a permanent *hijab*, namely walls, windows and doors. The physical *hijab* in Mr. Subadri's house functions as a physical territorial boundary marker as well as protecting the privacy of the house from neighboring houses and the surrounding roads.

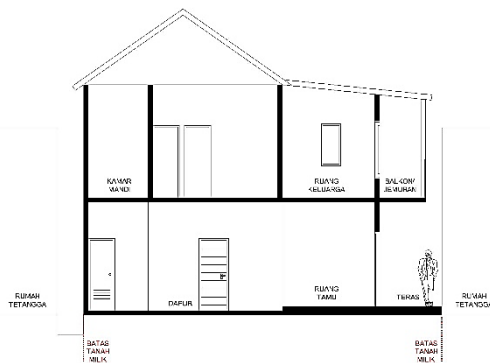


Figure 3.2. Physical Barrier Section 1
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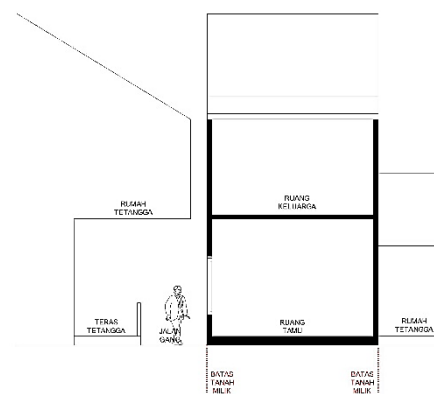


Figure 3.3. Physical Barrier Section 2
Source: Personal Document, 2022

b. Non-physical Hijab

Non-physical hijab can be an agreement (Hasan et al., 2021). This agreement can be in the form of a legality agreement which is realized in the form of a Land Certificate issued by the Badan Pertanahan Nasional.

A land certificate is a form of legality agreement to avoid conflicts or land disputes (Bur & Apriani, 2017). With a legal agreement, the terrace area can be used by the public without reducing the homeowner's land ownership.

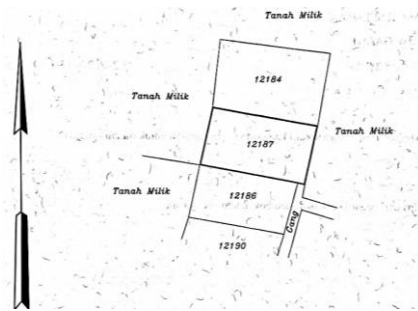


Figure 3.4. Land Boundaries
Source: Land Certificate, 2017

2. Adaptation of Territory

The spatial tolerance given by Mr. Subadri to his neighbors resulted in the formation of adaptation. Based on the adaptation actions proposed by Bell (in Ratnasari et al., 2020), the adaptation actions taken by Mr. Subadri and his family were reactions, namely changes in behavior to reduce conflict. The presence of neighbors passing through the terrace area requires the occupants of the house to adapt to changes in behavior to become more open with other people. These changes triggered a shift in territory (Ratnasari et al., 2020).

Based on the theory of territorial shift according to Habraken (in Susanti et al., 2018), the territorial shift that occurs is an increase in territorial structure, namely change by creating shared public space using some of the existing private space. The shared space in Mr. Subadri's house is a terrace area that is shared with his neighbors. In a residential environment, all legal areas of a house are primary territory, including the terrace. Public territory includes neighborhood streets or alleys around the house. A shift in territory occurs in the terrace area from primary territory to public territory because territory that should be used exclusively for the home owner and his family and cannot be used by just anyone can be used by other people.

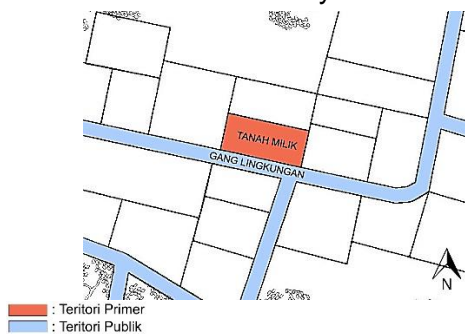


Figure 3.5. Territory Before Shift
Source: Personal Document, 2022

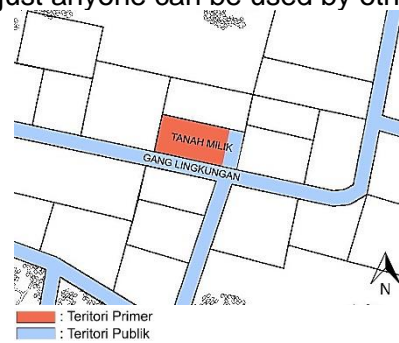


Figure 3.6. Territory After Shift
Source: Personal Document, 2022

Mr. Subadri's terrace, which is also used by his neighbors, does not reduce the owner's control. Mr. Subadri gives tolerance to his neighbors in using their territory by agreement, namely helping each other to keep it clean.

3. Privacy

1. Visual Privacy

The condition of the houses being close together resulted in optimizing the openings in the house to follow the building orientation. Mr. Subadri's house does not face the neighborhood alley, but the neighbor's house to the east. The orientation of the neighbor's house which borders on the east faces north so that the entrance to Mr Subadri's house is not directly facing the neighbor's door.



Figure 3.7. House Orientation
Source: Personal Document, 2022

2. Acoustic Privacy

Mr. Subadri's house borders the alley and the neighboring houses are not limited by a fence so noise from inside the building can be heard outside. However, building openings on the side bordering the road are minimized so that sound entering and leaving the house can be reduced. The wall attached to the neighboring house is a double wall so it is thicker. This condition means that sound from inside the house does not leak to neighboring houses.

3. Olfactory Privacy

The smoke and the aroma of cooking from Mr. Subadri's kitchen could be smelled out and could be felt by his neighbors. Therefore, Mr. Subadri's family often shares food with neighbors. In Islamic teachings, the Prophet encouraged Muslims to share food with their neighbors. From Abu Dzarr, he said: Rasullullah SAW said: "O Abu Dzarr, when you cook food with gravy, increase the gravy and pay attention to your neighbors." (HR. Muslim).

Micro Analysis

Hijab

a. Physical Hijab

1. Barrier or separator

The terrace and guest room are separated by a wall and the main door is a two-leaf swing door. If one doorleaf is opened, the level of privacy obtained is better than by opening both doors at once. The door only opens with one leaf for occupants to enter and leave the house. The two-leaf door is only opened when entering a motorbike or large items into the house.

The guest room is a room that can be accessed by male guests who are not *mahram*, while the kitchen is a room for women. The guest room is located next to the kitchen. The two spaces are separated by a wall with a connecting door that is not equipped with a divider. So, the guest room and kitchen are not completely closed.

The main bedroom is for parents and is limited by walls and doors, while the children's bedroom is limited by walls and curtains. The use of curtains is also applied to wide windows in the house to limit the view into the house.



Figure 3.8. Barriers on the House
Source: Personal Document, 2022

5. Wall Material

The walls of the house are made of cemented and painted brick. Bricks have a massive surface so they can protect visual privacy. Apart from that, bricks with cement on both sides can reduce sound by 48 dB (Mediastika, 2009).

6. Differences in Entrances

The house does not have another entrance because of limited land so it is not possible to have an entrance in another area.

b. Non-physical Hijab

The non-physical hijab is realized with a spatial agreement that non-mahram male guests can only access the guest room. Male guests can access the bathroom and family room to pray with the permission of the house owner, but the house owner will tell other family members to wear the hijab or stay in the bedroom first before allowing the non-mahram male guest to access other rooms.

Territory

a. Public Territory

The public area in the house of Mr. Subadri and his family is the terrace. This area can be used or entered by anyone by observing the rules or agreements imposed by the homeowner, namely maintaining the cleanliness of the terrace area.

b. Secondary Territory

The secondary territory in Mr. Subadri's house includes semi-public and semi-private spaces. This territory is shared by each family member. The semi-public spaces consist of the guest room, while the semi-private spaces consist of the family room, kitchen, bathroom and balcony. Secondary territory is marked by the presence of furniture that becomes the identity of a space. For example, a semi-public guest room is characterized by the presence of a sofa. People who enter the guest room from the terrace can tell that the territory has changed from public territory to secondary territory. Secondary territories can also be marked by the presence of certain activities, such as cooking activities in the kitchen. Semi-public spaces are territories that can be accessed by male guests who are not *mahram*, while semi-private spaces can be accessed by female guests. Male guests who are not *mahram* can also access semi-private spaces for prayer or to go to the bathroom, but must have permission from the home owner.

c. Primary Territory

The primary territory agreed upon by Mr. Subadri and his family includes private spaces, namely the bedroom. This territory is owned specifically by each family member. The bedrooms are equipped with doors or curtains to mark the primary territory or bedroom. Therefore, the space cannot be entered without the permission of the room owner. Apart from that, doors and curtains play a role in limiting the bedroom from outside views. The main bedroom is separated by a door, while the children's rooms are separated by curtains.



Figure 3.11. House Territory
Source: Personal Document, 2022

Privacy

1. Visual Privacy

1. Guest Room

The entrance in the guest room does not face directly onto the neighborhood alley and does not face the neighbor's door. However, the door faces the terrace of the house which is also passed by neighbors. The entrance to Mr. Subadri's house uses a two-doorleaves model with a small window made of ribbed glass so it is not too transparent.

When the door is opened one way, neighbors passing through the terrace can see the guest room area and part of the kitchen area. However, the view will be wider when the door is opened twice. The door to the kitchen that is not partitioned will be visible from outside the house. The main door of Mr. Subadri's house does not protect the visual privacy of the house to the maximum. Therefore, the door is only opened as necessary. The door is opened with two leaves only when you want to enter a motorbike or goods that require a large opening. If you only need to enter and leave the house, the door can only be opened with one door.

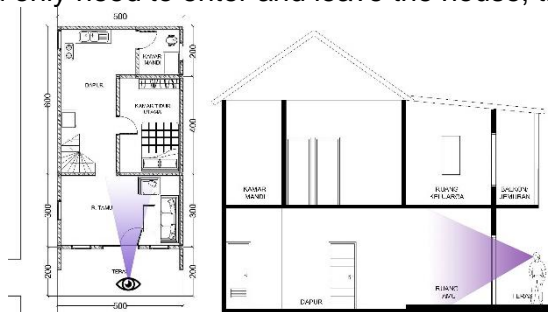


Figure 3.12. Visual Privacy One Door Leaf Opened
 Source: Personal Document, 2022

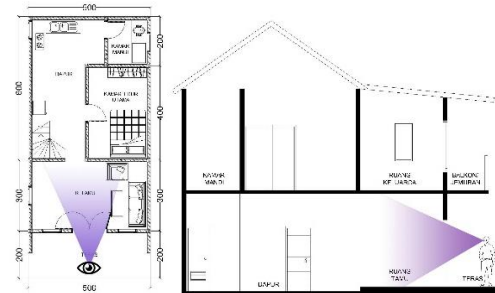


Figure 3.13. Visual Privacy Two Doors Open
 Source: Personal Document, 2022

The guest room also has windows that are directly adjacent to the neighborhood alley. The use of ribbon glass as a window material is quite effective in reducing the visibility of the room from the outside when the guest room lights are turned off. However, if the guest room lights are turned on, the inside room is still visible from the outside and vice versa. The windows in the guest room are equipped with curtains so that the curtains are used as visual privacy when the guest room lights are turned on.

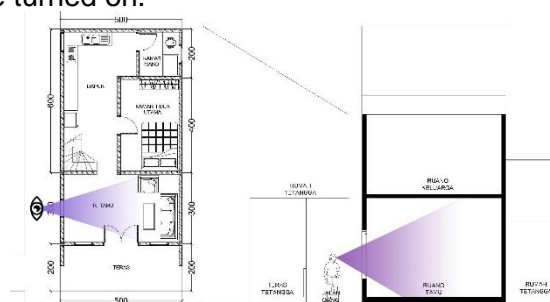


Figure 3.14. Side Window Visual Privacy
 Source: Personal Document, 2022

2. Kitchen

The location of the kitchen borders a neighborhood alley. The kitchen is equipped with a small window which is placed higher than the human head. Neighbors passing through the neighborhood alley cannot see into the kitchen because their line of sight is lower than the existing window. These windows are able to protect the visual privacy of the inside of the house.

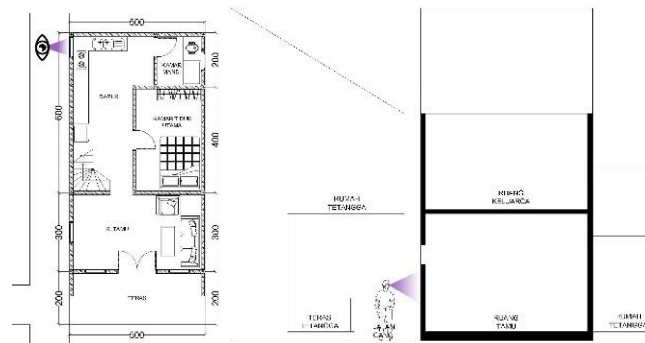


Figure 3.15. Visual Privacy of Kitchen Window
Source: Personal Document, 2022

2. Acoustic Privacy

The walls of the house use brick material. Based on sound absorption coefficient data by Egan (in Makainas et al., 2016), bricks have a sound absorption coefficient of 0.05. The entire floor of the house uses ceramic tiles and the ceiling of the house uses plywood. The absorption coefficient of ceramic tiles is 0.02. Plywood material has a minimum sound absorption coefficient value of 0.15 and a maximum of 0.605 (Istikhomah et al., 2021). So, the soundproofing in Mr. Subadri's house is at least 0.22 or 22%. Sound transmission from inside to outside the house is minimized by covering the openings with curtains or placing carpets in the room.

3. Olfactory Privacy

The kitchen has a window for ventilation which causes the aroma of cooking to waft outside the house. Therefore, Mr. Subadri's family has a habit of sharing or exchanging food with their neighbors. From Abu Dzarr, he said: Rasulullah SAW said: "O Abu Dzarr, when you cook food with gravy, increase the gravy and pay attention to your neighbors." (HR. Muslim).

The aroma of cooking from the kitchen wafts into the guest room because the door between the kitchen and guest room is not separated. However, the kitchen is always cleaned immediately after use so that the food aroma does not linger in the kitchen for long. Mop the house at least once a week so that the house always smells good. Before entering the house, everyone is required to take off their shoes to maintain the aroma of the house.

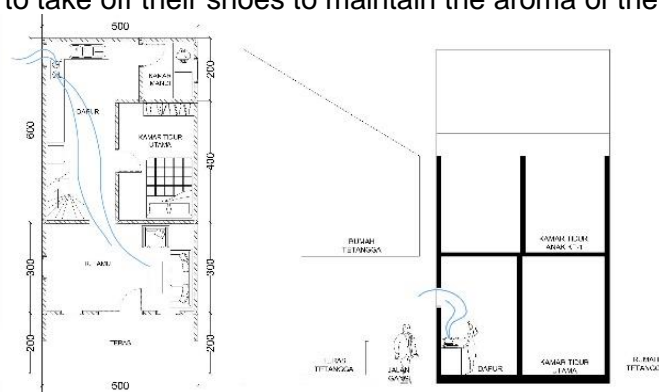


Figure 3.16. Olfactory Privacy
Source: Personal Document, 2022

4. Conclusion

Based on the discussion that has been carried out, the following conclusions are obtained:

1. Territories formed between home owners and their neighbors, namely primary territories and public territories. Primary territory covers the entire legal area of a house, while public territory includes neighborhood roads or alleys around the house.

2. The presence of neighbors passing through the home territory creates shared space in the existing private space, thereby triggering a shift in territory from primary territory to secondary territory. This condition occurs because the terrace area as part of the primary territory which should be used exclusively for the home owner and his family and cannot be used by just anyone has changed to being used by the public. Privacy tolerance is expressed by wearing the hijab.
3. On a macro scale, the physical hijab takes the form of walls, windows and doors to protect the privacy of residents, while the non-physical hijab takes the form of a legal agreement which is realized in the form of a Land Certificate to mark territorial boundaries. On a micro scale, physical *hijab* is applied through barriers, transition spaces, zoning, wall materials, and height adjustments to building elements, while non-physical *hijab* takes the form of space agreements between male guests who are not *mahram* and female residents of the house.

Several aspects of privacy are still not implemented optimally, such as visual privacy between the guest room and kitchen and olfactory privacy in the kitchen. The connecting door between the guest room and kitchen should be separated by a door or curtain so that the privacy of the kitchen area is protected from outside the house when the main door is opened and from non-*mahram* male guests in the guest room. One way to overcome the problem of kitchen smoke being thrown out directly through ventilation is to use an exhaust fan. Audiographic privacy can be increased by adding vertical plants to the walls as a noise barrier so that it does not go directly to the face of the building. Vertical plant barriers do not require a large area of land.

5. Novelty

In this research new values were found regarding the value of tolerance in society which allows other people to pass through their property while maintaining the privacy of the house's occupants and paying attention to the size of the building ownership.

6. Suggestion

Further research is needed to see the extent of tolerance values in society on a broader scale, especially regarding spaces shaped by privacy and the territory of property owners and the general public who use them.

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