# Privacy Mechanism of Communal Housing in Surabaya

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Abstract—Social interaction in housing and settlements affects the achievement of individual privacy need. Social interaction and privacy are two concepts that are equally important in achieving the sustainable housing concept. Moreover, between both must be balanced that daily living activities can be expressed equally. This paper is focused on the analysis of spatial privacy mechanisms in housing with communal culture, where there are high social values. This study is conducted in the natural setting by using qualitative design research. Data collection is used in several tactics. Firstly, using theoritical review, the model of privacy mechanism by Altman (1980) is used as the core of theory. Then, the theory is tested in specific case study, which is using non-participatory observation by observing the activities of participants in several times. Secondly, through participatory observation with in-depth interviews, the perceptions of privacy are explored to reveal specific expression of privacy mechanism in spatial arrangement. This result shows that cultural aspect is closely related to the participant's personality in managing his privacy needs. High social value in communal housing causes individuals to have verbal and non-verbal privacy mechanisms by considering community groups. Then, environmental mechanism obtained by creating a private space in social spaces.

*Keywords*—Privacy Mechanism, Low Income Flats, Communal Culture, Social Home, Housing.

## I. INTRODUCTION

C OCIAL interaction is one of the keys to sustainability in The context of housing and settlements. However, when social interaction is too high, a crowding situation will occur which compromises the desired privacy needs. Crowding is a psychological state of individual or group that shows a feeling lack of privacy needs. This situation is a condition of fulfilling higher social needs by not paying too much attention to privacy needs. According to Altman (1980), the next deviating condition which is related to the imbalance in fulfilling the needs of social space and privacy space is social isolation. The state of social isolation is when social interaction is over limited and higher privacy is achieved. People in these circumstances do not know their neighbors and surrounding communities, and meet their privacy needs through processes that occur independently and in isolation. This situation causes individuals to be separated from the community. Scotthanson (2005) expresses individual needs for the interaction process and privacy space as two important basic needs. According to Altman (1980) a balance is needed in achieving these two needs in order to create a stable and sustainable situation.

According to Toker (2014), the development of a sustainable community in the context of housing and

settlements raises the role of communal housing. In communal housing, the community has social values and norms of life that are mutually agreed upon. Communal housing is referred as housing with residents who are integrated into a community. This creates a safe and friendly sustainable housing environment. A sustainable community can be realized from various factors, namely, economically, environmentally, and socially sustainable by the existence of mutually beneficial community relations (Toker, 2014). Therefore, communal housing is considered to be able to contribute to the development of a sustainable community environment.

Newman in Rajiv C. Shah (2007) state that susceptibility to crime occurs in communal housing due to lack of fulfillment of territorial needs in buildings. Residents cannot mark and defend their territories while in communal housing. Others can freely enter their private territories. In addition, according to Tao (2016), the majority of residents of communal housing experience privacy issues that reduce the quality of comfort in housing. High social activity in communal housing becomes an issue related to residents' privacy needs. Toker (2014) state that woman needs more privacy than a man in a dwelling. In communal housing, women have more activities, both domestic activities inside the unit and non-domestic activities outside the unit. Thus, this study focus on how the mechanism of spatial privacy in social spaces and domestic spaces in communal housing in Surabaya, with female residents as research subjects. This research develops the theory of privacy mechanism by Altman (1980) which is applied in the context of vertical communal settlements in the gender perspective of women.

EBS studies the role of the environment in human behavior. In addition, it was revealed by Moore (2006) that EBS provides an empirical understanding of the mutual interactions between individuals or groups, their culture and environment. According to Dayaratne (2002), individual behavior is considered as a characteristic of someone who comes from the environmental character they occupy. An environment can bring different characters to each individual. Personality characteristics emerge based on the sensitivity or reaction of each individual to the environment they occupy. In the environment, people will give their understanding and assumptions. These assumptions and understandings are manifested in both verbal and non-verbal behavior. The focus research revolves around human aspects, environmental aspects and aspects of the relationship between the process of human interaction and the environment. Aspects of research on EBS include users, the







Figure 1. (a) Facade; (b) Internal Space Grudo Flat; (c) Fixed Plan Unit Grudo.



Figure 2. Activities of Housewives in The Grudo Flats in The Morning in The First Floor Communal Room.

environment, as well as aspects of the reciprocal relationship between the two. Privacy is one of the results of the process of interaction between humans and their environment.

One of the behaviors that arise from a causal relationship between the physical environment and users is privacy (Lang, 1987b). Regulating privacy means someone managing social relationships with others. Privacy is defined as controlling one's boundaries in deciding actions to avoid or approach interactions within a certain time. Privacy settings allow someone open or closed to others at various times. Privacy is the state of an individual controlling openness and closeness for interaction. Privacy is also called selective access to self control. Selective control means that each individual or group tries to regulate their interactions with others in an environment (Altman, 1980). In determining the desired level of privacy, each person will choose to increase or decrease the physical distance to another according to their individual needs (Altman, 1980). Managing intimacy relationships is an important goal in privacy settings.

Privacy in the context of architecture is closely related in the object of space. In regulating privacy, a person will determine social distance with others. The use of space in the context of privacy is as a medium to regulate how much privacy is desired. The social distance can be regulated through spatial settings such as layouts to increase or decrease



Figure 3. Religious Activities Communaly in The Grudo Flat.

the level of privacy. Space is a place to accommodate activities. Space as environmental medium is used by users to produce a reciprocal relationship. One interrelationships between space and users is the need for privacy. Components of space include physical elements and space functions that affect the human behavior (Dayaratne, 2002). According to Rapoport (2000), human activity referred to activity setting as one of the basic elements of understanding the pattern of use of space. Privacy in the context of housing and settlements is an important factor in determining the level of satisfaction and psychological comfort of individuals or groups. In fact, sometimes privacy becomes a important factor that influences home buyers to consider home choice.

Altman (1980) revealed that a person can realize an open or closed stated to others through verbal behavior in the form of words. In addition, how to behave to others such as body movements, eye sight, and facial expressions are nonverbal behaviors that can convey the level of accessibility. The environment is an area object that represents our existence to others. In environment, each person has a power of attorney or what is called the territory (Altman, 1980). The last aspect of privacy mechanism according to Altman (1980) is cultural practice. Every culture has a variety of rules and norms that affect a person in regulating his privacy. This shows that



Figure 4. (a) Facilities Gate; (b) Security Post; (c) Entrance.





Figure 5. (a) The corridor room in front of the F; (b) The corridor room in front of the G participant units.

everyone will have their own ways that are adapted to certain culture to regulate their privacy (Altman, 1980).

Living in communal housing means living in a particular community with a different ownership structure. The ownership structure makes them have a private ownership that controls their personal space and controls what they have personally. Communal housing is a type of housing in which the community seeks to realize a social society. In communal housing there are daily activities that are carried out together in shared spaces or what is referred to as public spaces. According to Said (2017), public space in communal housing can be used and utilized by all residents both individually and in groups. Highrise housing or flat in Indonesia is usually intended for people who come from landed housing or urban villages with inadequate conditions. In communal housing,

government regulates a limited room size with standard facilities, good sanitation, and housing infrastructure. Available social space is used as a medium of interaction between residents.

### II. METHOD

In conducting research, various methods and research designs are used in accordance with the objectives of the study, the nature of the problem addressed and the various alternatives used. The research method is basically a scientific way to get data with specific purposes and uses. This study uses naturalistic paradigm, a paradigm that focuses on natural settings (Linda Groat, 2013). In privacy research, participants have different concepts in interpreting their



Figure 6. Storage of goods in the kitchen of the participant unit F.

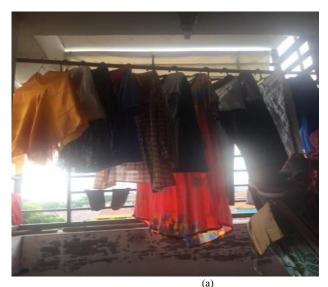




Figure 7. (a) Drying clothes on the balcony of participant unit H; (b) Drying clothes on the corridor of participant unit I.

privacy needs. Thus, the interpretation and meaning of the concept of privacy are examined within kualitative research. Naturalistic research observes the situation without any deliberate element and there is direct involvement with the environment and participants. In this case the research conducted participatory observation by observing activities related to the concept of privacy. Sampling tactics in qualitative research in this study is purposive sample. Grouping participants based on their occupation to facilitate analysis. Participants are grouped into working women and housewife in the analysis of privacy needs. Thus, this study discusses the concept of privacy from the perspective of working women and housewife on a scale of communal housing. There are 12 participants selected with five of them are housewives and seven are working women.

The number of participants in qualitative research is not determined. The number of participants is only to enrich the information that is entered in the research data (snowball sampling). When the incoming data is deemed to have

fulfilled the research analysis process, the research sample will cease (Creswell, 2013). The method used to collect qualitative research data based on phenomenology is by observing the behavior of residents, observing physical footprints, and in-depth interviews. Then, a descriptive analysis is performed as a conclusion. Qualitative research are used in the analysis of social behavior that cannot be measured with definite results (Sugiyono, 2018).

# III. RESULT AND DISCUSSION

The case in this study is Rusunawa Grudo which is located in Kelurahan Dr. Soetomo, Tegalsari, Central Surabaya. Grudo's apartment building was established in 2012, previously this apartment was two horizontal houses with the majority occupants working as cleaning staff in the City of Surabaya.

The building characteristics of Grudo Flats is twin block space design, can seen in Figure 1. Two blocks building with



Figure 8. Kitchen Unit Participant J.





Figure 9. (a) Condition of Participant Unit Window K; (b) Condition of Participant Unit Window L.

two single loaded corridors facing to each other separated by internal outer space. Each block in the flat consists of five floors. The unit characteristic is fixed plan unit with several fixed rooms in one unit. One unit consists of five permanent rooms, room A, bedroom, kitchen, bathroom, and balcony room with individual service.

A. Privacy Mechanism of Communal Activities in The Outer Space of The Grudo Rusunawa Unit.

Verbal behavior is also illustrated in the efforts of privacy mechanisms in communal spaces such as outside spaces and the entrances. Verbal behavior is seen in the activity of housewife in the morning when they are buying vegetables in the entrance of flat. Verbal behavior can be seen from the closeness of housewife in the same circle with mutual sharing, sometimes even confiding about each other's lives. However, some housewife tries to pull away by saying that they do not want to take part in social activities if they are not within their social circle. Non-verbal behavior depicted in this space is when in a social group, housewife will chat with several touches with each other such as embracing each other, holding each other's hands, etc. Thus, the distance between individuals is considered into the category of intimate distance which ranges from 0 to 0.5 meters. However, if they are not in the social circle that they are familiar with, housewife will make efforts to increase privacy by providing a distance of between 1 and 2 meters, view Figure 2.

The cultural-based privacy arrangement seen in the communal space of female residents is the selection of seats with participans from the same area. Migrant residents will choose to stay away from natives. They will keep their distance or choose not to participate in the communal activity with polite reason verbaly. In addition, working women also rarely participate in social activity because of the their limited time. Working women will seek their privacy trough verbal behavior with saying that they are tired. In addition, cultural norms-based privacy arrangements can also be seen in the creation of social groups based on the level of familiarity between participants. In certain social groups shows a low level of privacy with social reactions more open to others in one group and closed with people in different groups. Then, mechanism when religious communal is demonstrated through non-verbal behavior by segregation of seats by gender. Figure 3 show religious activities communaly in the grudo flat.

An environment-based privacy mechanism is pursued through the physical elements that exist from building complex level. Large entrance and front yard are used as a place for interaction between housewifes. The design of Grudo Flats uses a fence as a barrier on the front, back and sides of building. This is important to protect privacy from activities in the outside. There is a main gate at the front of the flats yard which has a curfew, as well as security post guard facilities. In accordance with the theory by Shahab



Figure 10. Domestic activities caring for children in communal spaces by housewives on the 4th floor.

Abbaszadeh (2015) regarding the determination of the theory using Threshold supply, it can be implemented by providing facilities at the entrance in the form of a fence or guard post. Design the front gate by presenting the concept of personalized residents. Figure 4(a), Figure 4(b), and Figure 4(c) show the facilities gate, security post, and entrance, respectively.

To overcome the noise, working women participants make efforts by showing their attitude to not be disturbed through verbal and non verbal behavior mechanism. When the first floor gets too noisy, non-verbal mechanism is applied by pouring water from higher level to park area in ground floor. Verbal mechanism is applied by reprimanding with shouting from the top floor. This is consistent with the statement set forth by Participant A, residents of the fourth floor flat.

"When playing football, the sound of kicking the ball against the wall sometimes sounds up. So annoying, I negated it by splashing water from the fourth floor to the first floor. If they have been hit by a splash of water, the children will be silenced themselves" (Working women, Participant A, 12.00. 15 February 2020).

The privacy mechanism created is different from the privacy mechanism of housewives in responding to noise in communal spaces. The majority of housewives will take action by allowing the crowd to occur. Sometimes if they are disturbed, then housewives will make efforts to privacy mechanism through the mechanism of non-verbal behavior by closing the door. This is consistent with the statement by Participants C, and D.

"The crowding is disturbed when my child sleep. If the children can not be calm, i will close the door of my room. I never reprimand. I will let them until they mute" (Participant C, 17:00. February 16, 2020).

"I will keep silent when there are hustle from children in the first floor. Because i have many grandchild" (Participant D, 2:00 p.m., 15 February 2020).

Efforts to regulate privacy in the corridor space show an environment-based privacy mechanism. Each family has

their own space in the communal hall corridor. There are invisible boundaries between territorial spaces created between families. In addition, the territories created in this room also function as storage of goods in front of the unit. This is because the residents already feel that the corridor area in front of the unit is their territory. Figure 5(a) and Figure 5(b) show the corridor room in front of the F and the corridor room in front of the G participant units, respectively.

# B. Privacy Mechanism of Domestic Activities in The Room Unit of Rusunawa Grudo

Storage of goods raises privacy mechanisms based on non-verbal and environment behavior. Because if there are a lot of goods in the domestic space, the residents will feel ashamed when foreigners access their domestic space. They will not leave the unit door open so that neighbors can see things that are full and messy in the domestic space. They will choose to close the front room door more often and not allow strangers to enter a domestic space full of savings. Figure 6 show the storage of goods in the kitchen of the participant unit F.

Clothes drying activity is sometimes done in the corridor. Drying clothes in the corridor is usually done by housewives because they have a lot of time in the flat. If there is an inspection from the management regarding order regulations, then they will immediately remove the clothes in the corridor. While working mothers, more often do this activity in the morning in the balcony room that is more private than the corridor. Balcony located in domestic space where level privacy higher than corridor in communal space. Figure 7(a) and Figure 7(b) show the drying clothes on the balcony of participant unit H and the drying clothes on the corridor of participant unit I, respectively.

Cooking activities occur in the kitchen space, some working women consider this activity as a private activity. The kitchen is only used by each owner for cooking everyday. There are privacy settings for cooking activities carried out together based on cultural mechanism. Housewives will cook together with another residents who have a high level of familiarity. The level of closeness between participant produce the same culture such as the individual characteristic. The level of familiarity is determined by the length of stay and location of the unit that created a particular community. They will only carry out these activities with close neighbors and have known each other for a long time. Figure 8 show the kitchen unit participant J.

For domestic activity eating there is a cultural-based privacy mechanisms. Housewife eating activities occur in a communal or domestic sphere with the efforts of cultural-based privacy mechanisms. When in a social space, there are several privacy mechanisms in eating activities. Participants housewives will often do eating activities in groups in a communal space based on their level of closeness. Whereas the working mothers, will only carry out eating activities in the domestic sphere. The participants claimed that there is no privacy when eating in the unit with family members. When dining activities in the front room, participants will work on the level of privacy using non-verbal and environment behavior by closing the unit door so that it is not visible to outsiders.

The next domestic activity is sleeping and resting. There is a privacy mechanism for sleeping and resting activities based on environmental behavior obtained through physical elements such as ventilation. Based on field observations, the majority of residents on the first floor of the Grudo Flats provide window coverings or curtains to protect privacy when resting. Residents in Grudo Flats on the first floor are visually disturbed caused by the large number of service workers from the Kelurahan Office and the Fire Department (PMK) who pass the corridor. Whereas residents of floors 2 and 3 more often close it only during the day because people from the parking area of the village office or the backyard area of the east flats still can clearly see the activity of midday rest in the back room through the window. Figure 9(a) and Figure 9(b) show the condition of participant unit window K and the condition of participant unit window L, respectively.

The next domestic activity is watching TV. The majority of housewives who have a lot of time in the flat, put their TV in the front room. While watching Tv, they open the unit door to greet the neighbors. Sometimes they also invite neighbors to watch TV together. In the front room the occupant feels open to others at certain hours when he wants to interact. However, in working women, the windows and doors in the front room are more often closed during the day or night. This is because the majority of participants on this floor are workers who work morning to evening. In the afternoon they only want to rest in the unit and have more privacy. They feel that watching TV activity need privacy without any visual vision from the outside.

For caring activities, working women will use non-verbal behavior such as moving to a quiet space by residents. In addition, when wanting to put the baby to sleep, participants will make an effort to get peace with non-verbal behavior of the language laden to others which implies that do not too noisy, because the child is sleeping. However, participants housewives more often do activities caring for children in communal spaces when they are open and want to socialize. The non-verbal privacy mechanism is seen in the sitting position of participants who are somewhat distant from others so that the activity of caring for children is not disturbed. Figure 10 show domestic activities caring for children in communal spaces by housewives on the 4th floor.

#### IV. CONCLUSION

This result shows that cultural aspect like occupation is closely related to the participant's personality in managing his

privacy needs. Based on Altman's theory (1980), privacy needs can be achieved through four mechanisms namely, verbal behavior, non-verbal behavior, cultural practices, and environmental behavior. The results of this study indicate that these 4 mechanisms are spread out in communal and domestic activities which are distinguished from the individual's personal culture including his work. Cultural mechanisms explain the way an individual or group conducts behavior that explains privacy in accordance with the norms of the rules (Altman, 1980). Working women have a greater effort to increase their privacy needs in the communal space when compared to housewives. Housewives will make an effort only if they experience privacy that cannot be tolerated only through non-verbal behavior. In the domestic sphere, domestic activities are carried out privately for working women. Whereas for housewives, sometimes domestic activities are carried out in communal spaces with a low level of privacy or with the regulation of privacy mechanisms based on cultural groups.

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