Spatial extension as a housing strategy in Kampung Kota: A case study from Kampung Kingkit, central Jakarta

P Kurniasari1, R T Gabe1*, J Adianto1
1 Department of Architecture, Faculty of Engineering, Universitas Indonesia, Kampus Baru UI Depok, West Java, 16424

E-mail: rossa.simatupang@eng.ui.ac.id

Abstract. The massive flood of urbanization implicates the shortage of affordable housing for low-income people in the big cities, especially in Jakarta. To live and survive in Jakarta, the kampung kota becomes the housing solution rather than problems, due to its ability in providing low-cost housing. While it solves the affordability and the proximity to job location issues, this type of settlement is responsible for several wicked problems to its dwellers, such as space scarcity. Additionally, it creates inevitable health and social problems. In order to overcome these ever-growing problems, the dwellers develop an adaptable social system, which takes form as a spatial extension in the alley for domestic and social activities. This paper takes Gang Kingkit (Central Jakarta) as one of the high-density kampung kota settlements to examine the type of spatial extension and how dwellers produce it. Through in-depth interview and direct observation, we discover that there is a social system which allows several types of spatial extension to emerge simultaneously or reciprocally in public space. The social systems are embedded and manifested in the distintive spatial system, which effectively minimizes the problems of living in kampung kota.

1. Introduction
In a living time, low-income people have their own preference in choosing a dwelling. However, in many cases, they are unable to meet all of their preferences due to the limitation of choices. In the end, it is not uncommon for low-income people to live in slums to meet their required preferences. This 'slum area' is often called kampung kota. Kampung kota is an area within an unstructured and disorganized urban area [1]. As a kampung kota means that this area is bound to the condition of kota (urban, city, or town) and vice versa [1]. This implies that the existence of kota plays a major role in shaping a kampung kota since it’s a magnetic source of labor. This triggers the massive flood of urbanization. Consequently, kampung kota becomes a limited land area and thus not comparable with the kampung kota society. Limited and narrow land is one of the main reasons that motivated kampung kota society in implementing co-residence as a living strategy.

For kampung kota society, sharing a house (co-residence) may be a shortcut in getting a place to live. In addition to being more efficient, co-residence can be the first step in owning a house and being a mediator to help complement each other among the inhabitants [2]. Co-residence is defined as "multigenerational living arrangement where members of a family, reside together in the same household” [3]. However, in this paper, we will discuss co-residence as a situation where a house is inhabited by two or more adults, whether or not blood-related. The way to meet the need for dwelling

*Corresponding author: rossa.simatupang@eng.ui.ac.id
with a co-residence, in various cases, will cause new problems which the inhabitants must manage all the household concern in a limited land. This can trigger a transformation due to the mismatch between the dwelling conditions with the inhabitant needs that must be met [4], one of which is to extend the housing activities out. The extended housing activities is usually a non-private activity, such as cooking and washing clothes, where interaction is started and indirectly increase the level of interaction between neighbors.

The discussed issues in this paper include dwelling extensions that occur due to spatial strategies attempted by kampung kota society in response to their condition. The extensions can be done by extending the dwelling space into public spaces, such as terraces and alleys, or in the form of an extension to other residential units. The expected results from this study are to find out why and how kampung kota society do the sharing process, including co-residence, as well as why and how the extension is done related to the relationship between the inhabitants and the neighborhood.

2. Extension as a Spatial Strategy in Kampung Kota

Dwelling transformation is not unfamiliar to the kampung kota society. They tend to do this as there is a lack of options in choosing a dwelling due to their limitations, that they are forced to adapt their preferences. Many factors influence the dwelling transformation. According to Reckless (1973) about control theory, "human behavior is not caused by outside stimuli, but by one's internal needs" [4]. The role of human desire to meet their needs is very strong in influencing the occurrence of the dwelling transformation [4].

However, human needs at every stage of life, from childhood, adolescence, adulthood, to old age, are constantly changing [5]. This ever-changing need will stimulate housing gaps. Housing gap is a condition where there is a mismatch between the existing condition and the needed condition of a dwelling [5]. Housing gaps will develop into housing stress because the action to meet the housing needs cannot be done suddenly [4, 5]. But decision making on housing adjustment is also affected by the status of ownership and how much power the inhabitants have to adjust — the greater the inhabitant's control over a dwelling, the more likely for the inhabitants to adjust, and vice versa. Therefore, the choice arises between tolerating the condition and moving out [4]. There are four types of spontaneous transformation, i.e. alteration, addition, extension, and modification of a house, both in physical form and in a functional way [4]. In the case of kampung kota society, the most commonly seen transformation is dwelling extension. Inhabitants in kampung kota tend to extend their housing activities outside due to the urge of limited space and the assumption that the alley is a space that can be used for their activities [6]. The orientation and interaction of the building also affect the way to which the extension is done. In some cases, the orientation pattern and the interaction of buildings that form a communal space will limit the extension on the alley and vice versa [6].

3. Methodology

This paper is using qualitative analysis methods. Observations and interviews will be taken in three houses based on the diversity of inhabitant composition, occupancy status, and the uniqueness of the interaction with the neighborhood. Extension mapping will be made to determine which house best represent the extension on the site with its uniqueness. The scope of the location to be used in the observation is the kampung kota in Jakarta with permanent and/or semi-permanent building and is occupied by two adults or more per unit. The site selected in the case study is Gang Kingkit, Central Jakarta (Figure 1). The site selection is due to its dense surrounding conditions (16,368.76 people/km² in 2016) and not too broad, which is about 0.78 km², so the expected interaction with its neighborhood is stronger. The data of the inhabitants and the relationship between them and their neighborhood is collected to know the connection between the extension and the inhabitant’s condition. Observation of how the inhabitants use their space to perform their activities then used to reinforce the data.
4. An Overview of Inhabitants Composition and Dwelling Condition

The site used as a case study is in Gang Kingkit, Kebon Kelapa, Gambir, Central Jakarta. Gang Kingkit is located close to Juanda Station and surrounded by offices, so the site is quite hidden at least for people who are new in this area. Site selection is based on the number of extensions seen in the alleys. Dwelling extension can be seen in every corner of Gang Kingkit, ranging from cooking and washing to the sleeping area. In Gang Kingkit, cooking activities outside is a normal thing as most inhabitants of Gang Kingkit are food traders. The inhabitants who performed most of their activities outside, usually make their canopies that typically made of stretched tarpaulins or asbestos roof. The road width of Gang Kingkit is also not too small (3 meters) so the inhabitants can easily make the alleys in front of their house as their personal space, especially if there is no façade in front of their house.

There are three houses that serve as case studies in this paper, and each has different inhabitant composition and different dwelling conditions. In case 1, there are four inhabitants (three generations) who live in a house with a habitable area of 14 m². Mrs. JS, one of the inhabitants of case 1, said that the extension is made because of the intervention by the surrounding buildings. The extended housing activity is cooking on the terrace and washing near publicly available water sources. While in the 2nd case there are eleven inhabitants with a habitable area of 71 m². Mrs. ST, Mrs. MR, and Mr. SRP are the 2nd case inhabitants who sell food on the terrace. Due to accessibility need from the kitchen to the trading area, the kitchen located in the back of the house is moved to the terrace, where cooking and washing are carried out as well. In addition, the inhabitants of the 2nd case use MCK (public toilet) also that is located opposite their house.

The 3rd house case is an extreme one as this 29 m² house must be inhabited by ten people. Conditions in case 3 naturally force the inhabitants to do most of their household activities outside rather than inside as the house is only enough for them to rest. Activities such as cooking, washing, and drying are performed in front of the house. Moreover, as the house does not have a terrace, the inhabitants of the case 3 use the alley to do their household activities; they even hang utensils such as pans and refrigerators are also placed on the alley side. The neighborhood in case 3 strongly supports such activities as they are close to the communal space and increasingly triggered by the presence of public TV, seating, and canopy. Some of the neighbors even use the facility to sleep along with case 3 inhabitants.

5. Discussion

5.1. Sharing is Greatly Influenced by The Dwelling Condition

Dwelling condition in question is the physical condition of the house and its inhabitants. In case 1 and 3 the main issue is limited land so the probability of sharing will also be higher. This will affect the relationships between inhabitants. How the share takes place is related to what they want to use or do

Figure 1. The location of each case in Gang Kingkit, Central Jakarta
together, depending on their personal needs, wants, and preferences [2]. Based on observations, the relationships between inhabitants in case 1 and 3 are closer than that of the case 2 for which level of sharing is limited to amongst the inhabitants in the same room (eleven inhabitants divided into four rooms). In addition to being affected by land constraints, sharing is also depending on the urgency faced by each inhabitant to meet their needs. In case 2, the urgency experienced is not so great that the sharing level is also limited. Although they are still sharing the space for selling food, they have separate cooking spaces. However, due to the case 3’s extensive level of urgency, almost all of the household utensils are used collectively. This resulted in naturally higher interactions between the inhabitants, and their relationship becomes more intimate.

5.2. There are Always an Unwritten Rules in Sharing
When we share goods or space with others, there are certain limitations, even though each person has a different tolerance to the limitations. According to Orsi and Doskow (2009), there should be agreement on what items will be used jointly and what is not [2]. This is to prevent violations within specified
limits. This limitation can be done consciously or unconsciously. The unconscious limitation is usually formed by habit. It is also influenced by the objects capability used by inhabitants. As in the case of 1, 2, and 3, they all use wardrobe with many drawers, so that it provides an opportunity for each inhabitant to have personal space in storing clothes or other personal items. Although these wardrobes are shared, there are limitations by the differentiation of storage space. The limitations in sharing are also influenced by the relationships between inhabitants, especially in the case of space sharing. For example, in case 1 and 3, the sleeping positions of the inhabitants who share one room is determined by the relationship closeness and gender. This is seen in case 3 where a room of 12 m² is used as a sleeping room for seven people. The division of sleeping positions in case 3 is generally divided into children (4th generation) and parents (2nd and 3rd generation). A similar case happens in case 2 where the division of the clothesline is based on the closeness of each family members.

5.3. Extension as The Effect of Sharing and Part of Sharing
Despite the background of different conditions, the extension is made due to the mismatch between dwelling conditions and the needs of its inhabitants [4]. The mismatch is triggered by choice to co-reside which is a way to share a dwelling. So in some cases, it can be concluded that extensions are the result of sharing. However, in further observation, it can be seen that the extension is also a way for inhabitants to share on a broader level within the neighborhood. For example, in case 1, 2, and 3, where the occupants use the public water source, this means the inhabitants share the space with neighbors who also use it. In case 3, the sharing level is far-reaching as the inhabitants share not only with the neighbors but also pedestrians and motorists who happen to pass by the alley. The extent of inhabitant's sharing level depends on how far the extension is made in the public space. As part of sharing, extensions also have unwritten rules as they also involve reciprocal relationships with others in the process. For example, in case 1, even though there is no such permanent rule, residents who share the water source have to use these resources at a certain time by their habits. It will form a 'rough schedule' in the use of the resources. In contrast to case 1 where sharing space can only be used by one person at a time, the MCK used by inhabitants of case 2 and 3 has many chambers, so it is not bound by time.

5.4. The Neighborhood Affects How Extension is Done
In the case study, it can be seen that the extension is affected by its physical and social environment. The physical environment can be in the form of resources and the building’s layout. As in case 1, washing activities outside are triggered by the building’s layout in front of their house that blocks the light so that the washing activity cannot be done in the terrace and also influenced by the near public water resources. This also happens in case 2 and 3, namely the existence of water resources and space in MCK. In case 3, the extension is greatly influenced by the building’s layout. The absence of a facade opposite the inhabitant’s house gives an opportunity to make such an extension and very possible to form a communal space because it’s also supported by facilities. The building layout and growing interaction due to the presence of communal space strengthen the sense of belonging of the entire alley so that the extension can be made more freely. This is in line with what had been stated in [6] that in the road space where buildings are not facing each other, a sense of belonging can be formed so that the inhabitants can claim the road space as their private space.

As for the aftermath of doing an extension, the neighborhood is also affected reciprocally. It can be a positive or negative effect on health and social issues. Doing extensions as a part of the alley in case 3 can improve the social interaction of the neighborhood, but it can also trigger safety issues. According to Mr. UD and Mrs. EL who inhabited the house in case 3, they already lost a bunch of household appliances. This is because there is no space left in the house to store all of the appliances so it must be left outside where it is not protected. Another issue triggered by doing extensions is hygiene and physical health. The lack of awareness and facilities can cause troubles such as a clogged gutter and scattered trash. In another example, constantly sleeping crammed in a room with poor ventilation and lighting can cause physical health like sore limbs and inhibit growth in children.
5.5. Tolerate the Dwelling Condition is The Only Option after Extension is Done

Considering inhabitants’ numerous and varied needs in a co-residence, there will be some mismatch that occurs even after the extension is made. In response to those mismatches, the inhabitants must choose between tolerating the dwelling condition and moving out [4]. In this case study, inhabitants choose to tolerate the situation in their way — the diverse responses made by inhabitants in tolerating the dwelling conditions resulted from a different level of tolerance of each member. In case 1, such tolerance is noticed that they spread the bedding only when they want to rest. This is done so that at other times space can be used for other activities such as folding clothes, eating, and receiving guests. While in case 2, when the inhabitants receive guests, they choose to do it on the terrace, so the space inside the house is just for a private matter. In case 3, the inhabitants’ tolerance is very high against the incompatibility of their dwelling, even the extension of the private space such as the rest area is also made in response to extreme conditions of the dwelling.

6. Conclusion

The kampung kota society has their respective preference in living. However, due to their limited choices, most of them had to live on minimal land, and slum areas often called kampung kota. In response to such limited conditions, most kampung kota society puts sharing as their strategy to keep up with their daily needs. The form of sharing performed by kampung kota society can be in the form of co-residence and sharing housing supports. Although it can greatly support the kampung kota society in meeting their needs, co-residence can also lead to a mismatch between dwelling conditions and the needs of its inhabitants. So extension in a functional way is made in response to this situation. By extending the function of the space, the activities can be done anywhere. How far the extension is made depends on the neighborhood, both physical and social environment.

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8. References

[1] Sihombing A 2004 The Transformation of Kampung Kota: Symbiosis between Kampung and Kota, A Case Study from Jakarta (Depok: Universitas Indonesia) Retrieved from: https://www.housingauthority.gov.hk/hdw/ihc/pdf/phhkt.pdf
[2] Orsi A J & Doskow E 2009 The Sharing Solution: How to Save Money, Simplify Your Life & Build Community 1st ed (United States: NOLO) Retrieved from: http://library.uniteddiversity.coop/Money_and_Economics/The_Sharing_Solution.pdf
[3] Keri J S 2008 Co-residence in: Loue S J, Sajatovic M Encyclopedia of Aging and Public Health (Boston, MA: Springer) 237 Retrieved from: https://doi.org/10.1007/978-0-387-33754-8
[4] Khan T H 2014 Living With Transformation (New York: SpringerBriefs in Geography) 21-34 Retrieved from: https://doi.org/10.1007/978-3-319-00720-5
[5] Seek N H 1983 Adjusting Housing Consumption: Improve or Move (England, UK: SAGE) 20 455-469 Retrieved from: https://doi.org/10.1080/00420988320080811
[6] Putera Y A 2014 Ambiguitas Ruang Kampung Pluis dalam Perspektif Privat–Publik. (Bandung: Universitas Katolik Parahyangan) Retrieved from: http://journal.unpar.ac.id/index.php/unpargraduate/article/view/845