

The Creation of Social Interaction in Flats Housing: Between Formal Space and Kampong Habits

Deva Fosterharoldas Swasto¹

¹ Lecturer and Researcher
Department of Architecture and Planning
Faculty of Engineering, Gadjah Mada University,
Yogyakarta, INDONESIA

Abstract

Flats housing has been built in many cities in Indonesia. This kind of building is used usually to rehouse people from low-rise housing or urban kampong. The flats are equipped with facilities to accommodate people's needs. Although the room size is relatively small, there are standardised facility, good sanitation utility and related-housing infrastructure, such as social space. This social space is provided to be used as interaction media among the residents and with surrounding neighbours. However, the provision of this facility is not used as always as it is intended. Sometimes, certain formal social spaces, as provided by the builders, remain unused because the residents do not utilise it. On the other hand, people create and use 'informal-communal' space as alternative to the former, which is not planned from the beginning.

Based on this situation, it is interesting to discuss what kind of social space that is used or created by the flats' residents. This paper would like to explore this curiosity. The background argument is that people will adapt or adjust their circumstance in living in flats housing. In addition, they cannot release their experience from previous situation. If they live in a kampong before, the same expectance or condition will also follow. The characteristic of the residents will also affect this social space or the social dynamics. The discussion is brought to the neighbourhood level in the walk-up flat development in Yogyakarta as a case study. The descriptive-qualitative approach was used. The findings are expected will be useful to understanding people's needs towards flats facility and providing better alternative options for the flats provider.

Keywords: social interaction, flats housing, formal-informal social space, kampong habits

1. Background

Along with cities development, it is a fact that there is inadequate housing supply compared to its demand. In addition, many people cannot afford to purchase or even just to rent decent houses. As a consequence, usually they just live in a sub-standard accommodation. In Indonesia, there is a housing policy such as slum upgrading and urban renewal for improving this kind of condition. Many approaches have been taken in this framework, such as kampong improvement program (KIP), walk-up flats housing, and so on.

Generally, living in vertical situation is merely an option in Indonesia. There are still many housing units offered in form of landed house or low-rise building.

The high price of land in urban situation, due to its limitation, is tricked by expanding the housing development to sub-urban areas. In addition, in many big cities, apartment unit is built by private developer and targeted to middle-higher income people. Parallel to that, the government provides alternative to accommodate urban low-income group in form of walk-up flats housing. The government considers that the sub-urban landed house will be insufficient to house people and unaffordable related to its high cost for transportation. While apartment provision has its own market-based circumstances, the walk-up flat has its own challenge, in which the target has financial limitation. Therefore, if there is almost no difficulty for potential middle-higher income resident to live in apartment situation (and they have option to do so or not), the challenge faced by prospective dweller from low-income group in walk-up flat is relatively greater. These people are used to live in low-rise housing although in relatively sub standard situation. Thus, this landed house culture, particularly in kampong situation must now be adjusted when people move to

Deva Fosterharoldas Swasto
Department of Architecture and Planning
Faculty of Engineering, Gadjah Mada University,
Jalan Grafika 2 Yogyakarta, 55281 INDONESIA
e-mail: devafswasto@yahoo.com

vertical or walk-up flat housing.

It can be said that in this flats' situation, spaces are formed vertically, which were formerly horizontal. As a consequence, the residents must adapt with this new experience. In low-rise situation, people use horizontal space for their activity, such as in the yard or garden. In the flats, the circumstance is different. There are inadequate spaces compared to living in previous low-rise situation.

In addition, although the flats buildings are equipped with related facilities to accommodate people' needs, the size of the room is relatively small. Related to these inadequate spaces in the flats, the same situation also applies for the open space. This social space is provided to be used as interaction media among the residents and with surrounding neighbours. However, the provision of the social space is not as always as it is expected. Sometimes, certain formal social spaces, as provided by the builders, remain unused because people do not utilise it. On the other hand, people create and use 'informal-communal' space, which is not planned from the beginning as alternative to the former.

2. Method

Based on previous background, it is interesting to discuss the kind of social spaces which are created to conduct social activity as the lessons from walk-up flats housing in Yogyakarta. Generally, this paper is developing the findings of 'creative spaces' by the community, taken from bottom-up view in several flats (Swasto, 2008 and 2010). The research was developed by exploring the daily situation of walk-up flat cases in Yogyakarta Special Province, by looking at three flats along Code Riverbank in Yogyakarta City (Cokrodirjan / Code, Jogoyudan / Gowongan and Juminahan / Tegalpanggung walk-up flats), and other three flats in Sleman Regency (Gemawang, Mranggen and Dabag / Pringwulung / Condongcatur / Seturan walk-up flats).

The case study research approach was used to narrow down its focus (Yin, 2003), in which qualitative method became the main tool (Tashakkori and Teddlie, 1998). This paper also limits itself in focusing on the aspect of social activity and social spaces in walk-up flats housing.

3. Conceptual Framework

3.1. Walk-up flats housing as a new living experience

Living in different circumstance does also mean having different experience. This situation also occurs in walk-up flats housing. People, who are considered low-income and usually live in a low-rise situation or landed house and equipped with a quite minimum infrastructure, now move to vertical housing with different standard, both physical and social. This new situation also endorses their habit to adapt to the new situation of occupancy and dwelling process. There is

also a concept of people adaptation and housing adjustment or modification.

McCallum and Benjamin (1985) summarised that housing is a composite good that provides a heterogeneous mix of services. They quoted further from Grimes (1976) that housing covered more than living space and shelter, since its nature and value are determined by various services it offers, such as neighbourhood amenities, access to education and health facilities, and security. In addition, Bratt (2002) stated that housing is critical to family well-being even if the house they live in is not owned by the resident themselves. The same issue also applies in walk-up flats housing.

In later developments, although the walk-up flats housing has several positive sides, not all parts of the community do like or wants to live in this housing unit (Yudohusodo et al, 1991: 352). Most people still prefer to live in ordinary landed or low-rise houses for various psychological and socio-cultural reasons. They still want to live in a landed house that directly connect with the ground or garden to grow crops, nurture pets, and to play with kids. They need to be close with the yard surrounding the house. In addition, they also do not like to be bounded too much by several rules that apply for living in flats.

3.2. Formal and informal social spaces: planned and unplanned

The term 'formal' social spaces is characterised by its existence which is designed or planned from the beginning by the builder or provider and constructed along with the development of flats housing. On the other hand, the term 'informal' social spaces is characterised by its unplanned creation. It can be produced by the residents themselves or even just utilised as the 'social spaces' for conducting social activity. This space can be generated after the completion of the flats building or being continuously utilised from previous usage, such as by using existing kampong infrastructure.

The formal social spaces can be in a form of space which is open (yard, garden, outdoor sports activity, and so on) or closed (multi-purpose unit, indoor sports area, and so on). In flats housing, the general outdoor social spaces provided by the builder is in the form of yard or garden which is also constructed along with other infrastructure such as parking area. The indoor social space is for example multi-purpose unit, which is usually located in the ground floor. This space can be used for conducting a meeting (among the residents or for religious purpose), as an educational facility (for pre-school lessons learning) or even for sports activity (i.e. table tennis, *karambol* or table-coin billiard and others). Both these outdoor and indoor spaces are mainly dedicated for the flats' residents. However, the surrounding neighbourhood, mainly in kampong area, can also use it by asking flat's manager permission or at least acknowledged by the residents

during its usage.

The informal social spaces can be in a form of any places which are utilised by the residents as a social media among them or with surrounding neighbourhood. The common characteristics of this space are 'agreed' by the residents to be used as social interaction place, generally utilised frequently, and the residents felt convenient in using it. In addition, this kind of space is not necessarily large or sophisticated.

3.3. Kampong habits

Kampong in Indonesia can be described as a landed area in which people gradually build their house and become a neighbourhood area. The characteristic of kampong can be seen from the densely situation, narrow alleys, the blended of private and social space, and so on. The spirit of living in kampong is a spirit of togetherness or to live in harmony. In walk-up flats housing, it is assumed that 'kampong value' is still being used by people while moving in as the spirit to 'survive' as well as to live in a harmony. The big difference between living in horizontal and vertical situation conform to kampong spirit to be 'adaptable' and vice versa, the kampong spirit adjust the social norms.

3.4. The connection between residents and dwelling process

In order to examine residents' experience in dwelling the walk-up flats housing, there are several concepts that can be used. Riemer (1943) pioneered the idea by distinguishing two approaches of architectural means and social ends. In architectural aspect, he pointed out the limited economic means which lead to compromise between privacy versus space, distance versus proximity and equipment versus total space. In social aspect, he stated the formulation of variety housing needs based on time (for example everyday life and special occasions, weekly and daily rhythm of home activities, seasonal fluctuations and social change) and family type and composition (for instance family cycle, social status, personal traits, and patterns of dominance).

Based on concept and standard by Bratt (2002), there are at least three ways in which housing may have impact to family well-being, particularly in improved housing from deprivation conditions. The similar issue also occur in walk-up flats situation due to enhancement objective (by the government) and new life-practice faced by the residents while shifting from horizontal (low-rise building or landed house) experience to vertical housing. Firstly, it is through its physical attributes and availability, including quality and safety. Secondly, it is through the way in which it relates to its occupants, such as whether it provides sufficient space (so that the family is not overcrowded), whether it is affordable, whether it provides opportunities to create a positive sense of self and empowerment, and whether it is stable and

secure, as well as its tenure situation (whether the unit is owned or rented). The third key attribute of housing is neighbourhood conditions, including the safety and quality of the neighbourhood in which the housing is located and the accessibility it provides to employment, school opportunities, and other services.

3.5. Adaptation and adjustment

According to Berry (1976), the term of adaptation implies to a relationship between behaviour changes with the environment that usually leads to a reduction of dissonance (mismatch) in a/an (environment) system to enhance the harmony of a series of variables that interact. Basically, the process of individual 'suitability' to the environment occurs in two directions which are adaptation and adjustment. Bell (2001) stated that the suitability process between the individual and his environment is known as adaptation. In this condition, a person changes his behaviour to suit with circumstance conditions (especially social situation). On the other hand, the process of suiting environmental conditions on the individual is known as adjustment. In this situation, a person tries to change his physical environment.

Soemarwoto (2001: 45) argued that adaptation is an effort by organism to adjust his living with the environment. In addition, he argued that adaptability have survival value. The definition of adaptation, according to Wohlwill in Sarwono (1992: 63), is the adjustment of the response to stimuli. The adjustment made in the adaptation is aimed to change behaviour in order to fit to the environment. Furthermore, according to Wohlwill in Sukmana (2003: 46), adaptation is a change of quantity in the distribution of assessment or ratings or effective response to the unity of the stimulus, as a function of continuous stimulation. Based on above understanding, it can be concluded that adaptation is an adjustment effort upon living in the environment by changing behaviour, based on responses to a stimuli. The adjustment itself is distinguished from 'adaptation' as external conformation, which is related to physical modification towards surrounding environment as argued by Berry (1976). He stated that the mechanism or action taken by individuals in efforts to reduce dissonance can be divided into 3 types of adaptation, which are: (1) adaptation by adjustment (an action to reduce 'conflict' by doing self-adjusting in order to achieve harmony between the individuals and environment), (2) adaptation by reaction (an action to reject or resist toward the environment by making changes to the physical environment in order to enhance harmony between individuals with the physical environment), and (3) adaptation by withdrawal (an action to reduce environmental pressures by doing migration or moving to another place). The behavioural adjustment of residents on such a settlement environment is an effort to reduce discrepancy in an environmental system, to add better

harmony or achieve homeostasis condition, as said further by Berry (1976).

4. Setting

4.1. Urban vertical housing in Indonesia

The initiation of vertical housing in Indonesia dates back in the 1950s by building 4 floors flat in Jakarta (Yudohusodo, 1991: 345). The form of this residential unit is a low-cost apartment or walk-up flats which is formerly known as flats. Nowadays, the flat can be distinguished by its ownership into owned walk-up flat or walk-up flat for sale and rental walk-up flat or rental public housing. The target group of the flat for sale is the middle class society, while rental public housing is targeted for low-income people.

The development of flat was then recognized to be provided by National Housing Enterprise, appointed by Central Government, in the 1990s. The developments were located in many big cities in Indonesia. In the era of the 2000s, the walk-up flat development was constructed by Ministry of Public Works and Ministry of Public Housing, which then become the main actors of the provision of vertical public housing.

4.2. Characteristic of the flats housing for low-income people in Indonesia

The flats for low-income people or walk-up flats can be described as a multi-storey building, which consists of units that can be dwelled separately by respective resident and equipped with sharing social unit, land and infrastructure. The characteristic of walk-up flat can be distinguished from other typical multi-storey houses of not having vertical movement equipment except stairs or there is no lift. This condition is arranged to press the tight budget by having optimal outcome. The height of walk-up flat is four to five storeys which may up to 6 floors, considering humanity concern or easiness factor of walking up and down regularly as well as affordability issue for the potential occupants. The delivery of walk-up flat is quite advantageous regarding the reason of low maintenance, especially in avoiding energy cost for operating elevator.

The renting system is conducted as the current approach, while the amount of rent per month is various. Usually, the higher the floor, the cheaper the rent is. The maximum period of occupation or renting is only short term, i.e. 3 years. Based on renting regulation, this period can only be extended to another 3 years. The renters or tenants are encouraged to improve their capacity in finding better accommodation or follow-on housing.

4.3. Flats housing in Yogyakarta

Yogyakarta Special Province has an area with size about 3,185.80 km², and inhabited by more than 3 million people (greater Yogyakarta). The urban-rural situation blended in (urban) kampong situation in

Yogyakarta City, as well as in the other regencies although with different intensity. There are not so many tall (or even medium-rise) building in Yogyakarta Special Province, in which the maximum height is 7-8 floors, considering its Adisucipto International Airport location, situated within the Yogyakarta City. The land limitation, particularly in the city (Yogyakarta City) in the centre, causes the development to be expanded to surrounding regencies or to be constructed to vertical situation. However, the existence of medium-rise building for residential purpose is only a few and most of the vertical buildings have been built within 2-3 floors (low-rise building). Only currently do the medium-rise buildings become trend in Yogyakarta, with the development of hotels.

The development of walk-up flat in Yogyakarta was initiated in 2004 by constructing the Cokrodirjan or Code walk-up flats in Code riverbank. Within the year 2004 - 2012, the Provincial Government of Yogyakarta has built 26 low-cost vertical housing or walk-up flats that consist of 13 units for low-income people and 13 units for students (more popular with the term dormitory). These low-cost vertical housings are spread located in Sleman Regency (12 units in 5 locations), in Bantul Regency (6 units in 4 locations), in the City of Yogyakarta (6 units in 6 locations and in Kulon Progo regency (2 units in 1 location). Only Gunungkidul Regency has not built walk-up flat due to several reasons such as location, demand and availability of land. The total number of unit is 2,306, in which 1 building (twin block) usually consist of 68-96 unit respectively. All of the walk-up flat is developed by Ministry of Public Works and Ministry of Public Housing.

The walk-up flats in Yogyakarta City were built along Code River as part of upgrading program, considering this area as the most densely populated neighbourhood, compared to other two riverbanks (Winongo and Gadjahwong). There was also a reason of finding the most suitable land and 'idle space' for constructing the walk-up flat building, while social acceptance also became important consideration. Almost similar reason of finding 'idle space' was the walk-up flats development in Sleman Regency. The village saving land (or *tanah kas desa*) became the most possible and affordable option for doing construction. However, different to Yogyakarta City walk-up flats cases, the walk-up flats development in Sleman Regency was not 'strongly' focused on 'upgrading' program or dedicated to surrounding area (like those cases in Code riverbank). As a consequence, the (potential) walk-up flat residents in Sleman cases come from various places as well as their characteristic backgrounds, unlike those in the Yogyakarta City (except in Juminahan or Tegalpanggung walk-up flat).

5. Findings

Generally, the walk-up flats housing in Yogyakarta Province were built in a strategic location near city centre or accessible from main city roads. Additionally, the range to other city infrastructure is very easy. Based on its occupancy, the residents of walk-up flats are usually mixed of 'native' people (from the existing kampong residents) and non-native people (from outside kampong) that were included in the project. Because of that, the relationship among its resident is relatively quite dynamic.

In addition, usually the walk-up flats housing can be accessed easily from local alley within the kampong. As a result, there is no difficulty in doing social interaction between the surrounding neighbourhood and the flats residents, since they can pass each other and chat at anytime.

Based on exploration in walk-up flats housing in Yogyakarta, the creation of social interaction can be discussed as follows.

5.1. Formal spaces for conducting social activity in individual unit

This social activity space is generally located in front of each resident's unit or in terrace. However, the term 'individual' is not clearly defined since the terrace is also functioned as a public corridor. There are flats housing which specifically designate this terrace such as in the Dabag flats, while the others only provide a relatively wider corridor, without specific function. This corridor can be functioned as a multi-purpose space. Beside as a movement path, the residents usually use this hallway as a place to dry their clothes, as a narrow playground and as a chatting place among neighbours.



Figure 1. Social space in front of individual unit in the Cokrodirjan flats (previous figure) and the Dabag flats (latter figure)

This social space is also used by individuals as a strategy to expand the unit. This condition occurs because the residents consider that their unit is relatively small (between 21-27m²). Therefore, the residents decide to usually host their guest outside their unit or in this terrace or corridor. In addition, the residents generally place temporary furniture such as plastic chair, bamboo bench, or even sofa bench to this terrace, along with other amenities such as plants pot and rack. This action becomes also a strategy to express their identity of unit ownership.

5.2. Formal spaces for conducting social activity in the blocks of flat

This social activity space is generally located in the ground floor of walk-up flats building. However, there can be also formal space which is designed in every floor and dedicated for communal purpose. This space is usually in form of open or relatively wide space and situated in the centre or end of the corridor, or together with the stairs. The formal spaces for conducting social activity in the blocks of flats housing in Yogyakarta can be found in a form of multi-purpose unit, yard or sport yard, garden, and open space.



Figure 2. Social interaction in planned space (multi-purpose unit) in the Mranggen flats (previous figure) and in the yard in the Jogoyudan flats (latter figure)

The use of formal social spaces in flats housing in Yogyakarta is quite dynamic. It can be said that not all of this facility is utilised by the residents. There is certain formal space which is frequently used, but there is also rare utilisation in the others. The reason for this occurrence is various. For the frequently used formal social space, the obvious reason is because the residents require it and the space conform to their need. In order to take turn in using this facility, the residents usually create an agreeing time-table. For example, in a certain time, the children will use it as a learning facility while at the other time the teenagers will use it as a meeting or sports facility (such as table tennis). However, this action is not necessarily formalised.

On the other hand, the rarely used formal social space is not utilised since the residents do not feel enjoy in using it. In addition, there is also a reason of finding other alternative or more convenient space as a replacement for this formal one. As a consequence, the use of this formal space is not optimal and sometimes it is just ignored by the residents or shifted to other purpose such as a communal storage.

5.3. Informal spaces for conducting social activity within the buildings of flat

Within the buildings of flat, the social activity space can be located in any places, such as in the ground floor or in other floors. In the ground floor, the social activity usually occupies space which is close to the entrance, around individuals' unit or close to other communal facility, such as an indoor parking area. It can also use certain area in which the characteristic is open and does not belong to individual unit.



Figure 3. Unplanned social space located in the ground floor (for gym activity) in the Gemawang flats (previous figure) and in the end of the corridor in the Dabag flats (latter figure)

In the other floor, the social activity usually occupies space in the end of the corridor, around the stairs and even on the resting step of stairs. The characteristic of this area is the same with the space in the ground floor which is open and does not belong to individual unit. In order to use this place, the residents usually put certain removable furniture such as a plastic chair, light table and even sofa bench.

It can be said that this informal or unplanned social space is created by the residents as a consensus space for doing communal activity. This action is conducted

since the formal social space is considered not enough in accommodating residents' social interaction. The further reason can be because it is not convenient or enjoyable, too far or tiring (i.e. because the residents have to walk up and down through the stairs) or even too sophisticated.

5.4. Informal spaces for conducting social activity outside the buildings of flat

Outside the buildings of flat, the social activity space can also be located in any places. It is not necessarily a space which is close to the entrance or other communal facility (i.e. parking area). Sometimes, it is a place which has been utilised before the flats construction or it belongs to kampong facility, such as guard post (*pos ronda*). On the other hand, it can be a merely temporary meeting or chatting space or a location between buildings.



Figure 4. Temporary social space created by the residents (previous figure) and social interaction in unplanned space (spaces between buildings) in the Cokrodirjan flats (latter figure)

The characteristic of this area is that it is agreed by the residents to be a social activity place and they enjoy in using it. Therefore, it is not necessarily an open or closed space.

There is also a reason of cohesiveness, in which the cause of the creation of this informal space is not because the formal facility is not suitable for the residents. It is the characteristic of the residents which determine the use of this social space. If the flats housing is located in the existing or same kampong as the potential residents, people tend to continuously use the existing facility that has been used frequently. The residents are relatively attached with the existing social space facility from the beginning. In addition, the residents originated from the same kampong or have similar interest also tends to have more dynamics social activity because they are attached to each other.

This situation shows that there is a creation of mutual benefit between the flats' residents and the surrounding neighbourhood. As a consequence, there is a pushing factor to have good interaction between the two communities. It can be seen that the residents and surrounding blend together in doing many social activities. The survey tells that the blended social activity can be in form of chatting, playing game (i.e. chess) and sports.

6. Conclusion

From the findings, it can be summarised that living in vertical situation do not obstruct the residents' social activity. People have created their way in adapting the new situation which has shifted from low-rise houses to vertical unit or from horizontal situation to vertical. In general, they have no difficulty in doing social activities in relatively limited size and situation.

However, the use of formal social spaces is quite various. The utilisation depends on the residents preferences whether they enjoy using the facility. The creation of informal social spaces occurs when the residents consider that they require having it instead of the formal facility. This informal social spaces or consensus spaces can be created in any places, depends on residents agreement.

In this research, there are 4 phenomena with regards to the creation of social interaction in the flats housing in Yogyakarta:

a) Formal spaces for conducting social activity in individual unit

This social space is used by individuals as a strategy to expand the unit because they consider that their unit is not large enough. This action becomes also a strategy to express their identity of ownership.

b) Formal spaces for conducting social activity in the blocks of flat

The use of these formal social spaces is quite dynamic. The reason for the frequently used formal social space is because the residents require it and the space conform to their need. On the opposite, the rarely used formal social space is because the residents do not feel enjoy in using it, while there is also a reason of finding other alternative or more convenient space.

c) Informal spaces for conducting social activity within the buildings of flat

The characteristic of this space is open and does not belong to individual unit. This informal or unplanned social space is created as a consensus space for doing communal activity, due to the reason that the formal social space is considered not enough in accommodating residents' social interaction. There is also a reason that the existing or formal facility is not convenient or enjoyable, and sometimes also considered too sophisticated.

d) Informal spaces for conducting social activity outside the buildings of flat

The characteristic of this area is that it is agreed by the residents and they enjoy in using it as a social activity place. There is also a reason of cohesiveness, in which the cause of the creation is the characteristic of the residents that determine the use of this social space.

It can be said that generally there is always a consensus space for doing communal activity in every walk-up flats housing. Usually, every flat have other 'informal' communal space in addition to the formal one. This action is conducted since the formal communal space sometimes is considered not enough in accommodating resident social interaction. The use of wide corridor, parking area, resting step of stairs, and so on, for chatting and or playing is commonly happen. This communal space can be located both indoor and outdoor, mainly based on resident need and behaviour. In addition, there is also an action of taking turns in using social or communal space in flats housing.

References

- 1) Anonymous (2007) Law / Undang-undang Republik Indonesia Number 16 Year 1985 concerning *Vertical Housing (Rumah Susun)*, Transmedia Pustaka, Jakarta
- 2) Anonymous (2007) Law / Undang-undang Republik Indonesia Number 4 Year 1992 concerning *Housing and Human Settlement (Perumahan dan Permukiman)*, Transmedia Pustaka, Jakarta
- 3) Anonymous (2007) *Rumah Susun*, I-Arch Indonesia Architecture Magazine 9th issue 2007, PT. Grasindo Mediatama, Jakarta
- 4) Bell, Paul A., Thomas C. Greene, et al. (2001, 5th Edition) *Environmental Psychology*, Thomson Wadsworth.
- 5) Berry, John W. (1976) *Human Ecology and Cognitive Style: Comparative Studies in Cultural and Psychological Adaptation*, New York Sage Publications
- 6) Bratt, Rachel G. (2002). "Housing and Family Well-being" *Housing Studies* 17(1): 13-26.
- 7) Grimes, Orville F. (1976) *Housing for Low-Income Urban Families: Economics and Policy in the Developing World*, Washington, World Bank Research Publication.
- 8) Herlinawati, Nurwi (2010) *Code of Conducts at Rusunawa Jogoyudan, Gowongan, Jetis Subdistrict, Yogyakarta*, Thesis post graduate planning program, Department of Architecture and Planning, Gadjah Mada University, Yogyakarta, Indonesia
- 9) Komarudin (1997) *Menelusuri Pembangunan Perumahan dan Permukiman*, Yayasan Realestat Indonesia - PT. Rakasindo.
- 10) Kuswahyono, Imam (2004) *Vertical Housing Law: Introduction (Hukum Rumah Susun: Suatu Bekal Pengantar Pemahaman)*, Bayumedia, Malang

- 11) Kuswartojo, Tjuk (2005), *Housing and Human Settlement in Indonesia: Effort for Sustainable Living Development (Perumahan dan Permukiman di Indonesia: Upaya membuat Perkembangan Kehidupan yang Berkelanjutan)*, Penerbit ITB, Bandung
- 12) Mccallum, Douglas And Stan Benjamin (1985) "Low-Income Urban Housing in the Third World: Broadening the Economic Perspective" *Urban Studies* 22: 277-287.
- 13) Morris, Earl W. And Mary Winter (1975) "A Theory of Family Housing Adjustment" *Journal of Marriage and the Family* 37(1): 79-88.
- 14) Riemer, Svend (1943) "Sociological Theory of Home Adjustment" *American Sociological Review* 8(3): 272-278
- 15) Rosadi, Meta G.M. (2010) *The Effectiveness of Affordable Vertical Housing in Enhancing Slum Area: Case Studies of Rusunawa Gemawang, Jogoyudan and Cokrodirjan (Efektivitas Pembangunan Rusunawa dalam Penanganan Lingkungan Permukiman Kumuh)*, thesis, post graduate planning program, Department of Architecture and Planning, Gadjah Mada University, Yogyakarta, Indonesia
- 16) Sarwono, Sarlito W. (1992) *Psikologi Lingkungan*, Jakarta, Gramedia Widiasarana
- 17) Seek, N. H. (1983) "Adjusting Housing Consumption: Improve or Move" *Urban Studies* 20: 455-469
- 18) Soemarwoto, Otto (2001) *Ekologi, Lingkungan Hidup dan Pembangunan*, Jakarta, Djambatan
- 19) Sukmana, Oman (2003) *Dasar-dasar Psikologi Lingkungan*, Malang, Banyu Media dan UMM press.
- 20) Swasto, Deva F. (2008) *Creative Spaces on Affordable Vertical Housing (Rusun): A Sharing Experience*, Proceeding of International Seminar "Artepolis 2", Bandung Institute of Technology (ITB), Bandung, August 8-9
- 21) Swasto, Deva F. (2010) *Adaptability and Creation of Creative Spaces on Affordable Vertical Housing (Rusun) and Its Surrounding: Case of Yogyakarta*, Proceeding of International Seminar "Artepolis 3", Bandung Institute of Technology (ITB), Bandung, July 22-24, 2010
- 22) Swasto, Deva F. (2012) *Towards Sustainability: The Creativity of Managing Rental Walk-Up Flats in Yogyakarta, Indonesia*, Proceeding of International Seminar "Artepolis 4", Bandung Institute of Technology (ITB), Bandung, July 5-7, 2012
- 23) Tashakkori, Abbas And Charles Teddlie (1998) *Mixed Methodology: Combining Qualitative and Quantitative Approaches*, California, SAGE Publications.
- 24) Towers, Graham (2000) *Shelter Is Not Enough: Transforming Multi-Storey Housing*, The Policy Press.
- 25) Wulansari, Maulina (2006) *Low Cost Vertical Housing in Yogyakarta: Integration between Residential and Commercial Area (Rumah Susun Sederhana di Yogyakarta: Integrasi antara Hunian dengan Area Komerisial)*, thesis, under graduate architecture program, Department of Architecture and Planning, Gadjah Mada University, Yogyakarta, Indonesia
- 26) Yin, Robert K. (2003, 3rd edition) *Case Studies Research: Design and Methods*, Sage Publications, Inc.
- 27) Yudohusodo, Siswono (1991) *Housing for All (Rumah untuk Seluruh Rakyat)*, (INKOPPOL)