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# CREATIVE SPACES ON AFFORDABLE VERTICAL HOUSING (RUSUN): A SHARING EXPERIENCE

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## ABSTRACT

*Nowadays, affordable vertical housing is being built in many city locations in Indonesia. This affordable vertical housing, or rusun, is developed as alternative solution for housing the community. In this 'urban' situation, spaces are formed vertically, in which formerly they were shaped horizontally. The interesting fact is that there is also a shifting experience for community in using this 'vertical' building and formed 'places' as their interactive space from past habit. Previously, communities use the horizontal space, such as yard and garden, as their open space in daily life. But, in this limited situation in rusun, in which there is no proper open space, the situation will be much different. In the other condition, this phenomenon can be compared with similar situation in vertical office in many urban locations, but of course, in better form.*

*Based on above reality, it is interesting to study what kind of community interaction and what space is created in accommodating the social need. This paper will compare what kind of creative spaces is formed in cases of affordable vertical housing or rusun. As comparison, the study case of vertical housing in Semarang (such as Rusun Pekunden) and in Yogyakarta (such as Rusun Code riverbank) will be explored. The spatial or space typology is expected to become interesting discussion as forming component of urban creative space.*

**Keywords:** *vertical housing, creative space, social interaction*

## 1. INTRODUCTION

Nowadays, affordable vertical housing is being built in many city locations in Indonesia. This affordable vertical housing, or rumah susun / rusun, is developed as alternative solution for housing the community. In this 'urban' situation, spaces are formed vertically, in which formerly they were shaped horizontally. The interesting fact is that there is also a shifting experience for community in using this 'vertical' building and formed 'places' as their interactive space from past habit. Previously, communities use the horizontal space, such as yard and garden, as their open space in daily life. But, in this limited situation in rusun, in which there is no proper open space, the situation will be much different. It is interesting to see what is the factual condition of such creative spaces within the daily life of vertical housing and then to discuss the lessons learned.

## 2. DEFINITION AND CONSIDERATION OF RUSUN

By definition, vertical housing or rumah susun (rusun) is a multi storey building, which is built in such an environment. This rusun consist of units that functionally structured both horizontally and vertically. These units can be owned and lived separately by respective user / resident and equipped with sharing (social) unit, land and infrastructure.



Fig.1, Creative space for community to interact near Rusun Code, Yogyakarta (Left) & Creative space for children to play in Rusun Pekunden, Semarang (Right)

Generally, classification and consideration of vertical housing can be described as follows.

### A. Classification of rusun based on types

1. Type of rusun based on height of the building. This type of vertical housing can be classified into low rise building (less than 6 floor), moderate rise building (6 to 9 floor) and high rise vertical housing (more than 9 floor)
2. Type of rusun based on vertical accessibility. This type of vertical housing can be classified into stairs-use vertical housing (usually the floor is not more than 4 floor), and other typical use of vertical access, such as elevator (for vertical housing with more of 4 floor)
3. Type of rusun based on quality. This type of vertical housing can be classified into fully furnished units (usually equipped with elevator, air conditioner, and other comfortability), moderate furnished or moderate cost (for specific purpose) and low cost vertical housing (mainly concern with economic consideration)
4. Type of rusun based on orientation. This type of vertical housing can be classified into one direction/orientation, two directions and three directions.
5. Type of rusun based on income classification. This type of vertical housing can be classified into rusun for “more than moderate” income people, moderate income and low income people.
6. Type of rusun based on circulation system. This type of vertical housing can be classified into inner corridor type, single corridor type, court type, twin corridor type, and stair case type.

### B. Considerations of rusun

These below considerations are delineated from the pyramid diagram and concept of Abraham Maslow, which are survival / physiological need, safety, social, ego and self actualization need.

1. Comfortability  
Comfortability means a circumstance that provides happiness, calmness and pleasure. The variety of comfortability is visual comfort, temperature and acoustic / audio comfort.
2. Privacy  
Privacy within rusun can be created by implementing following consideration:
  - ◆ Hierarchy of space, such as private, semi private/public and public
  - ◆ Arrangement of zone, as delineation of hierarchy of space, such as residential, circulation / service, and commercial area
3. Safety  
Related to this safety issue, there is various potential 'disturbance' of living within the rusun, such as inner disturbance (related with social interaction among resident), outer threat (such as potential of criminality) and technical problem (related with the physical condition of rusun).
4. Identity  
The need of identity can be described as a need of feeling unique, ego / individuality and self esteem / behavior. Such a house, primarily appears from its external appearance, is the

main media to express someone's identity. This concept of identity can easily be seen in individual house, for instance by looking at its façade. Within the rusun, the expression of someone's identity is not simple, since the communal expression is 'dominating' the whole appearance. Since that, the planning and design of vertical housing should provide flexibility of space that give possibility to change, for instance, the interior or wall partition within the unit, based on respective resident needs in expressing their identity.

#### 5. Flexibility (of units)

This flexibility issue is delineated from and become part of above concept of identity. The concept of flexibility provides possibility to change function of space, interior, dimension and multiple use of space and its function. However, this flexibility concept should also be limited in order to maintain and meet communal concern. If this limitation is not applied, for example the addition or expansion of size, it may overlie other's right and cause social gap / problem.

### C. General guideline of rusun

The guideline of vertical housing is related with its function as communal building for people in which they can live in daily life and do many various activities in 'vertical' connection. Usually, there are also many kind of people characteristics that color the relationship.

In general, the guidelines of vertical housing can be explained as follows:

- ◆ The rusun lies in an area that provide easy access for its resident, mainly connection to surrounding infrastructure
- ◆ The rusun should have enough dimension for living, both size and environment
- ◆ There is such an area that can be occupied for economic activity (commercial use), for example in lower floor or in other specific area within the complex
- ◆ The limitation of size then insist flexibility of units in accommodating the resident needs
- ◆ There is also requirement of space for doing social activity, such as in form of praying room, mini shop / kiosk / warung, playground, garden, and others
- ◆ Usually, the design and planning of vertical housing should consider the usual habitat (behavior) of its target (need and demand of potential resident), for instance:
  - ◆ Behavior of doing daily activity
  - ◆ Need of doing communal (social) concern
  - ◆ Need of doing economic activity
  - ◆ Behavior of the family member in doing outdoor activity (for instance, children like to play with their friends, mothers like to chat with other, and so on)

### 3. CASES: A SHARING EXPERIENCE

A. Rumah Susun Pekunden, Pekunden Sub District, Semarang Tengah District, Semarang City  
The rusun of Pekunden is the first vertical housing in Semarang, that become also the initiation project of vertical housing, which then is followed by other vertical housing in Semarang. This rusun of Pekunden is a following project of Semarang riverfront consolidation that uses the approach of urban renewal. Like other vertical housing objective in other region, this rusun of Pekunden, which formally opened on 2nd May 1992, was built to renew and rearrange slum area in Semarang. The policy of Pekunden vertical housing is implemented by minimalizing social cost ("to built but not to demolish" or "membangun tanpa menggusur"). The rusun of Pekunden lies in state-owned land with size of 5.224 m<sup>2</sup> and total floor of 3.867 m<sup>2</sup>. The construction phase was in 1991-1992. During its construction, the targeted resident (the people of the slum area) was given some amount, based on number of the family and existing units, for renting temporary houses in Karangroto area or in surrounding location of Pekunden.

This rusun of Pekunden consist of 5 blocks of the building, with height of respective blocks is 4 floor. The total number of housing unit is 88 that consist of following types:

- Type 27 is 73 units
- Type 54 is 10 units
- Type 81 is 5 units

Table of Housing Unit in Rumah Susun Pekunden

Type of unit	UNIT			Total
	2 <sup>nd</sup> floor	3 <sup>rd</sup> floor	4 <sup>th</sup> floor	
Type 27	23	25	25	73
Type 54	2	4	4	10
Type 81	3	1	1	5
<b>Total</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>88</b>

Source: Field survey (5th September 2007), taken from Anonymous, Study of Debt Swap Scheme Policy for Housing Development Budget, Ministry of Public Housing, Jakarta, Centre of Studies for Transportation and Logistic, Gadjah Mada University, 2007

By looking its position within Semarang city, the rusun of Pekunden lies in strategic location since it is located close to Semarang downtown and behind the Semarang city hall. Thus, range to other city infrastructure is very easy. Based on its history, the resident of Pekunden are 'native' people that were included in urban renewal project for Semarang riverfront. Because of that, the relationship among its resident is very strong and quite active since they have known each other already, before living in rusun. This strong relationship is described by routine communal dialogue that is conducted monthly in multiple use room. To follow the communal regulation or consensus, there is one leader of the community or Pak/Bu RT in every floor, which hold responsibility to the community and to the 'manager' of rusun. This manager is in form of such an association and is created by the resident with the name "Paguyuban Penghuni Rumah Susun Pekunden" (PPRSP). This association has significant role in initiating many maintenance activities and socio-economic enhancing program for Pekunden resident. The rusun of Pekunden is equipped also with social infrastructure, such as praying room, badminton



Fig.2, & Creative space for children to play in Rusun Pekunden, Semarang

playground, volley playground, commercial space, multiple use room, parking area, communal library, physician room, and garden.

Based on field survey (2007), people of rusun Pekunden have no difficulties in doing various social activities. Children can play in wide corridor on 2nd or 3rd floor, whilst mother can chat in front of her units, and so do father who may play table tennis in provided playground. The communal dialogue is also effective in maintaining social relationship. From these examples, it may be concluded that people of rusun Pekunden have already adapted with their environment, which shift from horizontal situation to vertical.

### **B. Rumah Susun Cokrodirjan, Cokrodirjan Sub District (Code), Yogyakarta City**

The rusun of Cokrodirjan is erected above local government-owned land in Code riverfront. The existing location was used for education facility (elementary school). The rusun become pilot-project of vertical housing in Yogyakarta. This rusun, which formally opened on 4th October 2004, was built to renew and rearrange riverfront area (Code River) in Yogyakarta.

The rusun of Cokrodirjan consists of 'only' 1 type of unit (21 m<sup>2</sup>), with total of 72 units and has 4 floor. The 1st floor is occupied for public use, service and social facility, while the 3 other floor is occupied for residential. The targeted resident for rusun of Cokrodirjan is people who live nearby (around the riverfront) and have occupation in private sector. Some of them work in informal sector (Pedagang Kaki Lima / PKL) in Malioboro. The orientation of the building is 'organically' facing the river, in which the entrance can be accessed through narrow path (gang) and river zone way. The renting system is conducted as the approach, while the amount of rent can be seen as follows.

Table of Housing Rent in Rumah Susun Cokrodirjan

Type of unit	Rent (in rupiah) per month
2 <sup>nd</sup> floor	85.000
3 <sup>rd</sup> floor	80.000
4 <sup>th</sup> floor	75.000

Source: Wulansari, Maulina, Low Cost Vertical Housing in Yogyakarta: Integration between Residential and Commercial Area, 2006

The rusun of Cokrodirjan is equipped with many public facilities, such as multiple use room, parking area, communal bathroom (Mandi Cuci Kakus / MCK), community office (RT / RW) and commercial space with the rent of Rp. 55.000 (occupying unit of 3x3 m2 with non permanent partition). The manager of the rusun is also work and 'live' there, to controll the maintenance of the building day to day.

Based on identification, there are some spaces for doing communal activity such as playing 'table coin billiard' (karambol). The resident said that there is strong communal relationship and interaction among them. One per week, the resident do voluntary work for cleaning the



Fig.3, Creative space for community to interact near Rusun Code, Yogyakarta

Code River. As a result, that can be seen barely, the river environment in front of the rusun is cleaner than that in surrounding riverfront settlement (kampung). One of the advantages of living in the riverfront vertical housing is the river itself. People may use this river to do social activity. There was one time of fishing competition took place, in which people 'shut' the river temporary.

From above situation, it may be concluded that people of rusun Cokrodirjan have already adapted with their environment, which shift from densely irregular houses to regular / planned unit. In general, they have no difficulties in doing social activities.

### C. Rumah Susun Klender, Klender Sub District, Duren Sawit District, East Jakarta City

The rusun of Klender consists of 2 types of units, which is classified by the size. The first type is 54 m2 that become the largest type within the complex and the total number is 64 units, which occupy 4 blocks. Each block has 4 floor and each floor consist of 4 units of type 54 m2. Each unit consists of 3 bedrooms, 1 family room and 1 bathroom. The second type is 36 m2 with the total number is 74 blocks, and has 2 types: inner stairs (48 blocks with total 768 units) and outdoor stairs (26 blocks with total 416 units).

This rusun of Klender was formally opened on 3rd September 1985, and become one of the initiation project / pilot-project of vertical housing in Jakarta (together with the rusun of Kemayoran). The development of Klender vertical housing was conducted altogether for all blocks by private sector, which was appointed by the government, while part of the finance was subsidized. The marketing effort was done through credit, and was managed by State Saving Bank (Bank Tabungan Negara / BTN). The targeted resident for rusun of Klender is people of Jakarta who can afford to buy, and it is not aiming specific community.

The occupancy rate of Klender vertical housing is quite high, with total percentage of more than 90%. In fact, the ownership is 100%, but some units are not occupied by its owner, which remains 'empty'. At this moment, rusun of Klender is managed by association with the name "Perhimpunan Penghuni Rumah Susun Klender" (PPRSK). This association has legal form and the member is the representative of each blocks that is also the resident. The responsibility of

PPRSK is to maintain safety, maintain clearness (by employing person to collect waste and dispose it to Tempat Pembuangan Akhir / TPA), to fix and to take care the quality of the building and infrastructure (sharing facility) and become the 'jug' of aspiration of the community in solving the communal problem.

In general, the physical appearance within the environment of Klender vertical housing is quite good. There is almost no dispersed garbage and the environment is relatively clean. However, the sharing facility such as stair looks dirty. This situation is influenced by unawareness of the resident in taking care that thing. Sometimes, space under the stair and its surrounding is used for keeping unneeded and unnecessary thing. This condition make this rusun looks dirty and tends to 'slum'. In addition, the building is getting 'older' and some parts, such as wood and wall cover, tends to deteriorate, even it is still relatively safe for living. Some residents initiatively fix



Fig.4, Multiple use building in Rusun Klender, Jakarta  
Source: Study of Debt Swap Scheme Policy  
for Housing Development Budget, 2007

the condition, although the responsibility is in the hand of PPRSK. On the contrary, the situation inside the units / house / room is relatively cleaner than outside (corridor, stair). Many units look well off, contradicted with the general image of rusun resident, which are labeled 'poor'. Parts of the unit, such as kitchen and bathroom, are relatively clean and in a good condition. The rusun of Klender is equipped with public facility, such as mosque and praying room, playground, multiple use room, gazebo, parking area, and garden. There is some illegal expansion of unit, especially by resident living in 1st floor. This expansion is occupying communal space that might cause social gap among the residents.

Based on field survey (2007), the resident activity within the rusun mainly happens in the morning and at night, since in the mid day, most of the resident work or do the activity outside the rusun. However, people likely to do their activity inside the units. This condition occur because the corridor is quite narrow, and so does the other communal space. There is only a few people chat during the mid day. However, the resident said that they have strong relationship among others. In some specific moments, such as voluntary work (kerja bakti), there are active involvement of the resident, for instance in cleaning the environment, during the bazaar and competition of Independence Day and in conducting internal meetings. Based on their opinion, the key factor of living in rusun is tolerance. They said that living within attached wall can cause small thing turns to big problem. Every person should behave respectful for not bothering others. The social problem tendency within the rusun is quite complicated since the resident came from various backgrounds and have plural and respective characteristic. In addition, they live within the same 'roof' that urge to respect communal value.

From above situations, it may be concluded that people of rusun Klender have already adapted with their environment, which shift from single living situation / environment to plural. In general, they have no difficulties in doing various social activities. Tolerance and communal dialogue is effective in maintaining social relationship.

#### **D. Rumah Susun Pulogadung, Pulogadung Sub District, Pulogadung District, East Jakarta City**

The rusun of Pulogadung consists of 2 blocks, which lie side by side. Each block has 4 floor and each floor consists of 10 to 11 units. Total number of unit in each block is 41, thus the total number of 2 blocks is 82 units. The type of sizes in each floor is different and so does the number of room in each unit. However, there is always 1 bathroom and 1 kitchen in every unit.

This rusun of Pulogadung was built in 1990-1991, and 'only' consist of 2 blocks in realization from 4 planned blocks. The targeted resident for rusun of Pulogadung is people whose house located in riverfront nearby the building. Those houses were traded off with the unit of rusun. The



size of the provided unit of rusun is based on the size of existing houses in the riverfront. Most of 'former' people still live within the rusun, while the others choose to move or lend their units. Thus, the resident is quite various at this moment. There is no such an association like in rusun of Klender. However, as a manager, the leader of the community (Rukun Tetangga / RT) is chosen for those two blocks.

Looking at physical appearance, this rusun is relatively unclean, compared to that in rusun of Klender. There is temporary spilled water in drainage, while the garbage disposal located too near to the units and odor smelly. The wall appears dirty and some of the resident complain about their leak roof. The inside center corridor looks dark since there is not enough natural lighting. In the other hand, the situation inside the units is relatively clean.

Many of the 1st floor resident 'expand' their units from one to 'two' floor inside, by adding wooden stair between the ground (floor) and concrete upper floor / awning. Thus, the units seems to have such 'loft', which is usually occupied for bedroom. Like that in rusun of Klender, there are also some illegal expansion of unit, especially by resident living in 1st floor. This expansion is occupying communal space as well. The existence of communal space in Pulogadung vertical housing is quite limited. Usually, people use center corridor for interaction, mainly in small shop /



Fig.5, Communal space in Rusun Pulogadung, Jakarta  
Source: Study of Debt Swap Scheme Policy for Housing Development Budget, 2007

kiosk (warung) that is located in the end of the corridor. There is praying room in every floor, parking area in 1st floor corridor and 'only' 1 small playground.

Based on field survey (2007), the resident activity within the rusun mainly happens in the morning and at night like that in rusun of Klender, since in the mid day, most of the resident work or study. The relationship among the community is quite well, since there is no big conflict. Although there is no existence of such an association, the activity within the community (Rukun Tetangga / RT) is still well coordinated for communal concern and for conducting specific moments.

From above situations, it may be concluded that people of rusun Pulogadung have already adapted with their environment, which shift from homogeneous situation / background to heterogeneous / plural. In general, they have no difficulties in doing various social activities although the spaces is quite limited. Communal concern is still above individual ego.

#### 4. DISCUSSION AND CONCLUSION

Based on explained story of 4 examples of vertical housing, the creative action in treating such a limited space in rumah susun can be discussed as follows.

##### 1. Expansion of the unit

Some people expand their unit size as a strategy of solving limited space. This action occur mainly in 1st floor and sometimes in other floor by 'hijacking' the corridor or terrace in front of their units. The use of different texture, for replacing existing material to express his identity and or territory and even give such a non permanent partition, occur in some units.

##### 2. Dividing the unit both horizontally and vertically

Many people divide their unit horizontally into various function based on their needs. Some people do 'divide' also vertically in creating such a mezzanine / loft for bedroom. This action occurs by giving horizontal and vertical partition within the units.

##### 3. Creating consensus space for doing communal activity

There is always a consensus space for doing communal activity in every rusun. Usually, every of them has 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 behavior.

4. Utilizing “open space” / “left over” space

Beside above consensus space for doing communal activity, some people also utilize such a 'no man's space', like in the end of the corridor and surrounding the space under the stair. This action usually related with the behavior of keeping unneeded or unnecessary thing. As a result, sometimes this space looks very dirty and tends to slum. For people living in such 'wide' environment, for example living in riverfront, the existence of river can be created to support social activity.

5. Shifting period of using communal space

Sometimes, there is a shifting period of using communal space. For instance, in the morning, while children go to school and fathers work, mothers may occupy the space. In the mid day, it becomes the turn for the children, whilst in the afternoon, the young person occupy the communal space. Then at night, it is the fathers who do so.

Above it all, the concept of “living under the same roof” and the shifting way of thought from “individual to togetherness” is the main lesson learned from the sharing experience of living in vertical housing. In addition of above creative action, there are also community values that determine the success and sustainability of make use of communal space, which can be written below.

1. The need of sharing / communal awareness, consensus and responsibility
2. The need of tolerance / living in harmony within limitation and heterogenousity
3. The need of communal dialogue that should be conducted regularly
4. The existence of association and leadership in coordinating social activity

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