

Study of Behavioral Architectural Concepts in Kampung Susun Produktif Tumbuh Cakung, East Jakarta

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ABSTRACT

The development of Vertical Kampung has begun to be seen being built and inaugurated by the government in Indonesia. Several settlements were originally horizontal Kampung that have turned into Vertical Kampung. The existence of this Vertical Kampung development can make it one of the suitable residential solutions for areas that are already densely populated or where land is starting to be limited. The purpose of this research is to identify the behavior of residents and understand the needs of residents in Vertical Kampung. The method used in this study is descriptive qualitative narrative variables in the form of interviews, direct observation, and analysis of personal documents, which are illustrative, describing things as they are and the data collected is in the form of words or reasoning, pictures, and not those are the numbers. This Kampung Susun Produktif Tumbuh Cakung only meets 3 principles of the four principles of the concept of behavioral architecture according to the theory of Weinstein & David (1987).



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1. Introduction

Several settlements were originally horizontal Kampung turned into Vertical Kampung. The transformation of the change of horizontal Kampung into Vertical Kampung is one of the causes is the impact of government insurance. Slums in urban areas are also one of the problems that we often encounter in big cities. Slums can also cause various problems and impacts, both in terms of social, government, health, environmental aspects, and so on. It appears the city has become visibly deteriorating and dirty [1]. The development of this Vertical Kampung can make one of the residential solutions suitable for areas that have begun to be densely populated or land that is starting to be limited. In the transformation of housing from a horizontal Kampung to a Vertical Kampung, of course, several things will change, starting from the activities and habits of residents who are used to horizontal Kampung. A Vertical Kampung is a horizontal Kampung transformation where the transformation does not eliminate local character, shape, color, wealth, material, volume, skylight, economic potential, the creativity of residents, and so on [2]. Vertical Kampung also need a public facility to help their residents [3]. Physically, the Kampung is usually synonymous with its irregularity,

which is a characteristic of the Kampung itself that is usually grown naturally [4].

The circulation in Vertical Kampung buildings is usually connected by passages that are usually not only for circulation areas but also areas for them to socialize or trade. The typology of vertical occupancy also influences other factors such as the social, economic, and cultural factors of its inhabitants [5]. Several factors influence human behavior, namely, Attitude is the level of a person's enjoyment of a behavior, Heredity (Genetics), and finally a social norm that affects social pressure [6]. Human beings can be directed to be better if the environment has positive values in it or from architectural forms that can shape a person's personality and behavior to become more positive [7].

Before conducting an analysis using the principles of behavior architecture, the definition of behavior, and the relationship between behavior and habits must be known first. As an example, it is clear that a person's behavior will be good if the environment is good, and vice versa, someone's behavior may not be good if the environment is not good. These habits with behavior have a relationship that is related to each other, as Drucker said in that a

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mental habit with a person's attitude towards behavior is influenced by the person's physical environment [8].

Five variables affect human behavior including space, size and shape, furniture and arrangement, color, and sound [9]. The principles of architecture that will be used as the main theory in this analysis are the principles in the behavioral architecture approach having 4 specific principles including [10]:

- a. Able to communicate with humans and the environment.
- b. Can accommodate the activities of its residents who can provide comfort and also fun.
- c. Meets an aesthetic value.
- d. Pay attention to the wearer's or occupants' conditions and behavior.

As for several factors that influence internal spatial planning, namely as follows [11]:

a. Light Planning

With the planning of light in the room, the occupants can carry out their activities comfortably. If the lighting planning is not carried out, it can cause the users of the room to feel uncomfortable because there is no light when they are active in it.

b. Color Planning

In planning, color is one of the most important things, especially this color can affect feelings and improve the mood in the room if the color is planned according to your wishes or needs.

c. Air Planning

Activities in the room will certainly feel comfortable if the air circulation in the room is good enough, in contrast to rooms with poor air circulation which can cause discomfort to the occupants. So, try to air can flow smoothly in it.

d. Sound Planning

Sound can also affect user activity and comfort in space. If there is noise, of course, it can disturb the concentration of the occupants of the house in carrying out an activity, therefore it is also very important in sound planning to be free from disturbing sounds.

The following are some of the literature reviews in this study, including the following:

A review of the literature on the concept of behavioral architecture includes Laurens, J. M. [9] in the book *Arsitektur dan Perilaku Manusia* explains that habits and behavior have different meanings but are interrelated where good behavior is formed by a good physical

environment. The same is true for research Nizar and Setyowati [7] entitled *Pengaruh Perilaku Pengunjung Terhadap Personal Space di Masjid Al-Haddad Pamanukan pada Masa Pandemi Covid 2019*, whose research results explain that the positive influence of personal space can affect the behavior of visitors to the Al-Haddad Mosque during the co-19 pandemic. In research Tandali and Egam [8] entitled *Arsitektur berwawasan perilaku (behaviorisme)* also explains that architecture and behavior have a close relationship. It can be seen in an aspect that forms human behavior due to the environment or architectural forms and vice versa. Pada *Penataan Kawasan Zona 4 Pekojan Kota Tua Jakarta* explains the use of a behavioral architectural concept to create a place or space that is appropriate and optimal with the behavior of its users [12].

Studi model rancangan hunian vertikal berdasarkan bentuk interaksi warga di bantaran sungai Winogo Yogyakarta It can be underlined that Kampungers do not want to live in flats provided by the government because this formal and rigid vertical housing model is feared to make residents lack togetherness and interaction between communities [13]. Because they are used to social interactions such as communal spaces in horizontal residences. Konsep Kampung Vertikal Pada Kampung Admiralty Singapura explained that vertical housing has not been able to overcome a problem regarding the culture of a (Kampung) brought by migrants who come from a Kampung [14]. So, with this vertical Kampung there is to be able to overcome problems regarding population density as well as accommodate a thick Kampung culture with togetherness.

2. Method

This research was conducted using qualitative data. Qualitative data in research problems are temporary and can develop or change if the researcher is already in the field [15]. that descriptive qualitative is a method that is usually used to analyze data by describing data through a written or oral form of words from people and their behavior that has been observed [16].

This type of research approach is a narrative qualitative descriptive approach with variable methods in the form of interviews, direct observation, and analysis of personal documents, which are described, describe things as they are and the data collected is in the form of words or reasoning, images, and not a number. This research method will also be made based on the environmental planning research process (RPL) that has been proposed

by Cherulink [17] with adjustments in data processing to the needs of the object being studied.

3. Results and Discussion

Exploration of community behavior in this Vertical Kampung is carried out on three occupants of the house and one space for social interaction of the community which will be used as a sample. The shape of this stacking Kampung plan can be seen in Figure 1.

The size and shape of the space of each residential unit is uniform. All residential units apply the concept of growth by adding a mezzanine space. The living room of each residential unit can be used as a productive space, such as for selling. The total area per residential unit is 36 m². The

number of rooms available in this residential unit has 2, namely those below and those on the mezzanine. The location of the bathroom is next to the kitchen. The height of the mezzanine space in residential units varies, for example, the residential units on the ground floor look quite low compared to the heights of the residential units on the upper floors.

The color selection for each residential unit is all white, giving the impression that it is not narrow or wide and looks clean. Conditions for ventilation and lighting in each residential unit are quite good because there are many sources of natural light from windows and ventilation. For noise in residential units, it is still quite good because it is quite far from the city center or highway.

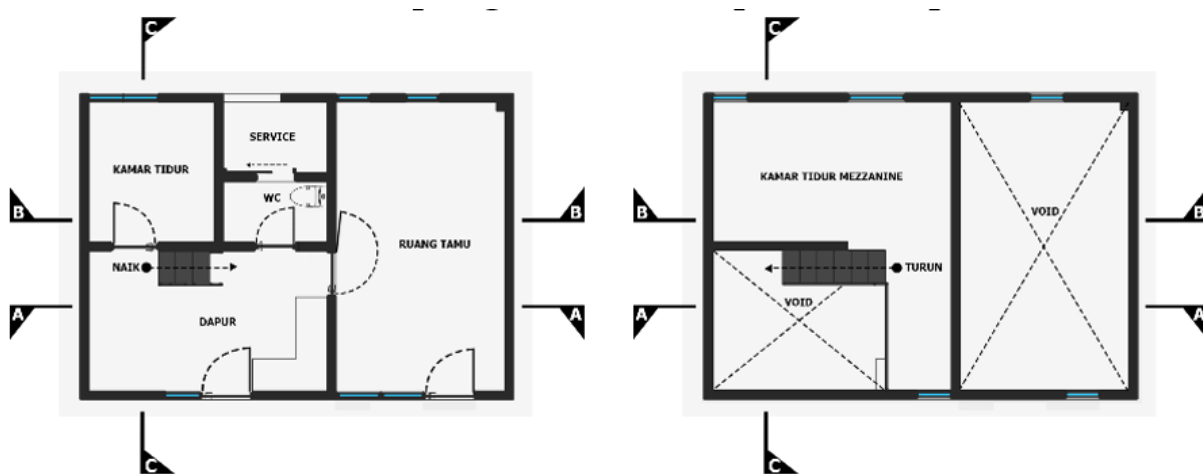


Figure 1. Residential Plan of Kampung Susun Produktif Tumbuh Cakung Ground Floor with Mezzanine Floor.

Table 1. Sanadi's Family Data

1	Head of Family	Sanadi
2	Number of Occupants of the House / Family Members	5 people Sanadi (55 Years old) Sri Lestari (47 Years old) The first child: Ibnu (19 Years old) second child: Arifin (15 Years old) The third child: Ali (10 Years old)
3	Residential unit block	Block 2 B No.17
4	Jobs	Mr. Sanadi and his wife are ketoprak traders. The location of the place to sell is in the Bukit Duri area. Ibnu works in a hotel in the Kampung Melayu area Arifin is still studying at SMK Karya Guna Ali still attends an elementary school in the Bukit Duri area

a. Residential Unit Owner 1 (Sanadi's family)

The Sanadi's family data presented in Table 1. Some of the documentation of the inner room of Mr. Sanadi's family can be seen in Figure 2.

The placement of the furniture in Mr. Sanadi's family residential unit, namely in the living room, kitchen, and rooms above the mezzanine, is still flexible because the

size of the room is quite narrow with a large amount of furniture. The mezzanine at the top is used as storage for goods such as warehouses. The upper room of the Mezzanine is used as a place to play and store toys. For the bathroom, the furniture that is stored is still flexible, such as the placement of the soap basket that is placed in the sink. Only the downstairs room has fixed furniture such as a bed.

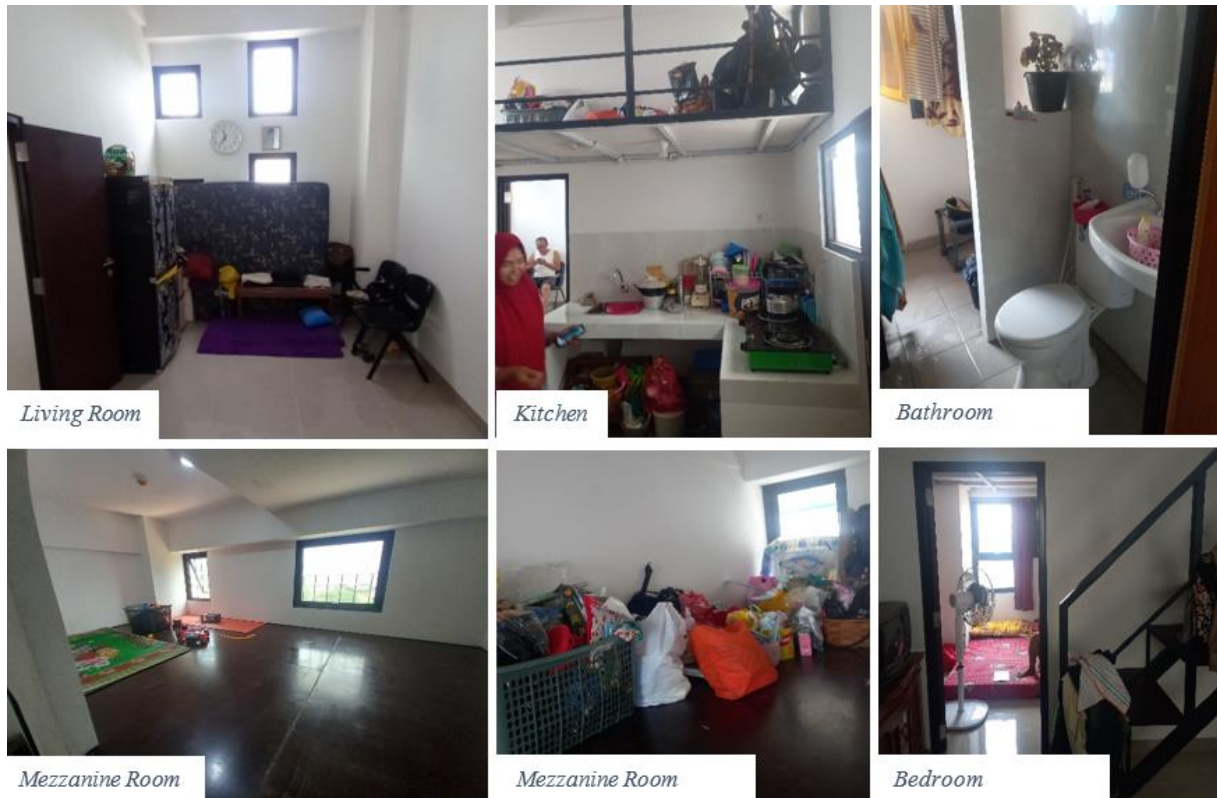


Figure 2. The room in Mr. Sanadi's family residential unit

Table 2. Description of Mr. Sanadi's Family Behavior

Description of Mr. Sanadi's Family Behavior
Resident Activity Patterns
The occupants of the house here are rarely at home. Once he was at home, what he did was relax in the living room reading newspapers and chatting together. Because the room is quite narrow, several functions of space have been changed, such as the living room which is used as a guest area and can be used as a place of business. back so that you are free to move as previously described.
Privacy/Territory
The occupants of the house have one room that is considered a privacy zone, namely in the lower bedroom. Why only the lower bedroom is because the upper mezzanine is more often used as a children's playground and becomes a semi-public/private area. The living room here is more of a public zone because access from the entrance goes directly into the living room. The kitchen room is a semi-private zone because the position of the kitchen here is one of the spaces that must be passed to enter the mezzanine. The bathroom is a service zone
Home Terrace Social Activities
The terrace of the house here is used as a place for socializing by residents of one house and the other. Because from the terrace of this house, you can face each other directly with the house in front of it and beside it and make the atmosphere of kinship and togetherness with neighbors closer

b. Residential Unit Owner 2 (Mrs. Tasih's family)
 The Tasih's family data presented in Table 3. Some of the documentation of the inner chambers of the Tasih family can be seen in Figure 3.

Based on Figure 3 the placement of the furniture in the living room is still visible, there is only a table and chairs with a basket under the table which functions as a cat cage. Kitchen furniture in the form of furniture and necessities

for cooking on the kitchen table and under the kitchen table. The room above the mezzanine is still flexible, usually used as a cat's playground and a place to store clothes in a plastic cupboard. The mezzanine at the top of the kitchen is more used as a storage area for goods such as a warehouse, only for furniture that is rarely used. The bathroom, it's just a soap basket and is usually used by cats as a place for them to defecate. The lower room only has a mattress as a bed.

Table 3. Tasih Family Data

1	Head of the family	Tasih
2	Number of Occupants of the House / Family Members	3 people Tasih (± 45 Years old) Husband (deceased) The first child: Leni (20 Years old) Second child: Tari (± 17 Years old)
3	Residential unit block	Block 2 B No.12
4	Jobs	Previously, Mrs. Tasih worked as a dishwasher. Since filling up the residential unit in this Vertical Kampung, Ibu Tasih has not had a job Leni is currently studying at a university in Jakarta while working on the side making toys with her friends in the Pasar Rebo area. Leni only works when orders come in. Tari is still studying at a high school in the Manggarai area.

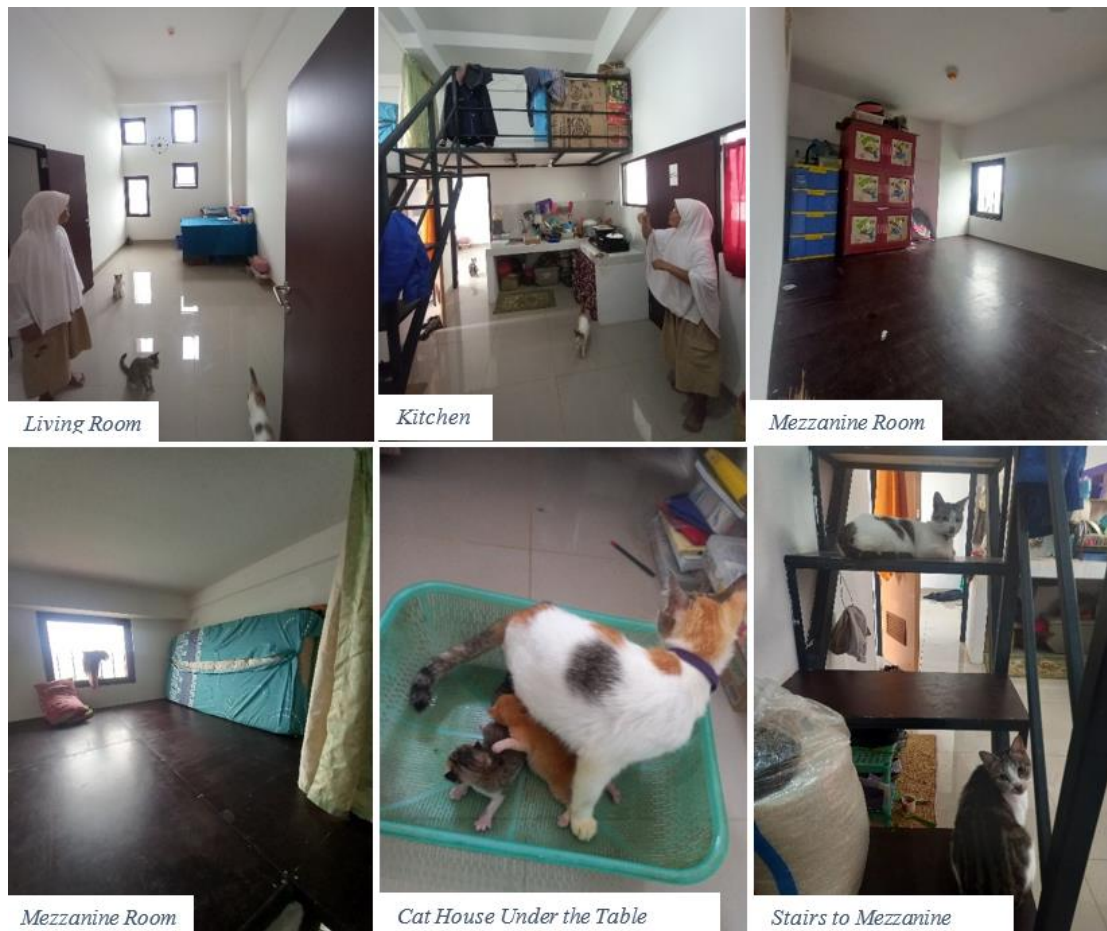


Figure 3. The room in Mrs. Tasih's family residential unit

Table 4. Description of Mrs. Tasih's Family behavior

Description of Mrs. Tasih's Family Behavior	
Resident Activity Patterns	
<p>The occupant of the house here who is often at home is Ibu Tasih, Ibu Tasih does not have a job, so her daily activities include watering the garden in the front yard of the kampung susun every morning. During the day Ibu Tasih feeds her pet cat because the residents of this house also keep many cats. Ibu Tasih feeds the cats on the front porch of the house and inside because 2 types of cats are usually fed, namely cats that often play outside and cats that never leave the house. When she cooks meals, her daughter, Leni, brings the ingredients for her cooking. Every evening sometimes Ibu Tasih stands on the front porch of the house. While standing, if there were neighbors, Ibu Tasih used to chat with neighbors who were across the street because they were on different blocks. Leni usually comes home in the afternoon or evening, the same goes for Tari who usually comes home in the afternoon. Dance activities after returning home used to play with cats in the living room.</p>	
Privacy/Territories	
<p>The privacy section of this house is in the downstairs bedroom. This bedroom is used as the main bed because it does not require going up and down stairs like the one above the Mezzanine.</p>	
Home Terrace Social Activities	
<p>The terrace of the house here is used as a place for socializing by residents of the house with neighbors. Because there weren't many residents, Ibu Tasih used to socialize with her neighbors who were on the other side or in a different block that was in front of her house.</p>	

c. Residential Unit Owner 3 (Mr. Mulyadi's Family)
 The Mulyadi's family data presented in [Table 5](#). Some of the documentation of the inner chambers of Pak Mulyadi's family can be seen in [Figure 4](#).

Based on [Figure 4](#) the placement of furniture for Mr. Mulyadi's family, that is, in the living room still looks empty, there is only a television and carpet. Kitchen furniture in the form of furniture and necessities for

cooking on the kitchen table and under the kitchen table. The room above the mezzanine is placed according to its function, namely a bedroom which contains a mattress to sleep with pillows. The mezzanine at the top of the kitchen is used as a place to store goods and store clothes, namely a plastic cupboard. The bathroom is the same as the other houses in the form of a sitting closet and showers for bathing. The lower room only has a mattress as a bed.

Table 5. Mr. Mulyadi's family data

1	Head of Family	Mulyadi
	Number of Occupants of the House / Family Members	5 people Hartih (40 Years old) Mulyadi (48 Years old) The first child: Dea (22 Years old) Second child: Iqbal (16 Years old) The third child: Balqis (8 Years old)
3	Residential unit block	Block 2 B is the top floor
4	Jobs	Before moving to the Flats Kampung, Pak Mulyadi was the head of the RT in Bukit Duri Kampung from 2004. After moving to the Flats Kampung, Mulyadi still doesn't have a permanent job, for now, he only helps residents who have just moved to the Flats Kampung every day. Hartih's mother also doesn't have a job, only a housewife, her daily life is just cleaning the house and cooking. Dea is the first child and now Dea works at Tanjung Barat Home Credit Iqbal is currently pursuing Vocational High School Education at Psiangan Vocational High School Balqis is also currently pursuing education, a namely elementary school in grade 3 at Bukit Duri

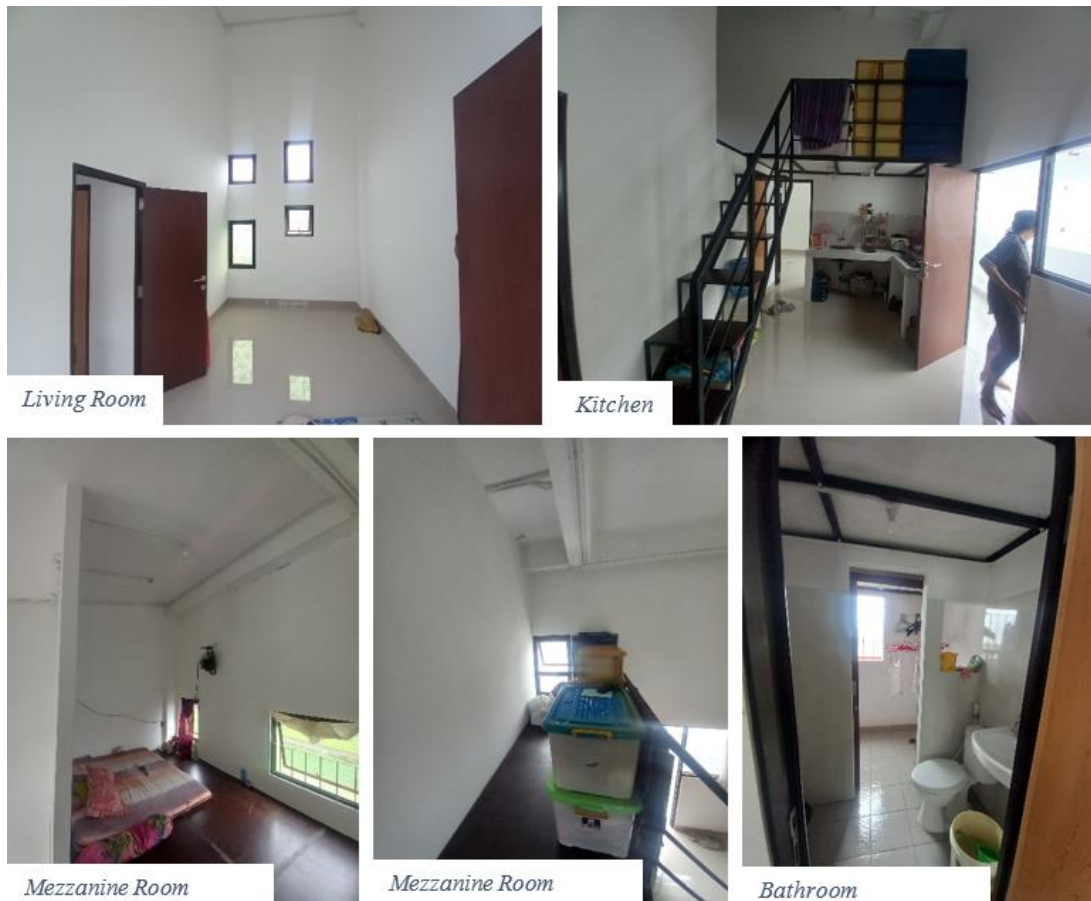


Figure 4. The room in Mr. Mulyadi's residential unit

Table 6. Description of Mr. Mulyadi's Family behavior

Description of Mr. Mulyadi's Family Behavior	
Resident Activity Patterns	
<p>Mr. Mulyadi and his wife (Mrs. Hartih) are at home every day because they don't have a steady job. Every morning Mr. Mulyadi takes his first child (Dea) to work every 5 am to the station. Meanwhile, Mrs. Hartih prepared food for breakfast starting in the morning in the kitchen. The second and third children also go to school every morning. Dea returns home every afternoon around 3 o'clock and is picked up by Mr. Mulyadi at the station as well. Iqbal, who goes to vocational school, sometimes sleeps in a flats Kampung and sometimes sleeps on a hill of thorns at an Islamic boarding school. Mr. Mulyadi with his wife and last child (Bilqis) sleeps in the Mezzanine room every night while Dea sleeps in the downstairs room. Pak Mulyadi's family gathers every evening in the living room.</p>	
Privacy/Territory	
<p>The privacy room of this house is the lower and upper bedrooms because they function as bedrooms. That too is one of the reasons the researchers did not get any documentation of the bedroom which is at the bottom of Mr. Mulyadi's house.</p>	
Home Terrace Social Activities	
<p>Everyday social activities on this terrace are usually talking or chatting with neighbors, if there are activities at the Studio, sometimes Mrs. Hartih watches her activities from the terrace because her house is directly opposite the Studio in the Susun Kampung.</p>	

d. Social Interaction Room (Sanggar Ciliwung)

There is also a plan for the room where the community is socialized, namely the multipurpose room/studio. It can be

seen in [Figure 5](#). Some documentation from the space in the studio can be seen in [Figure 6](#).

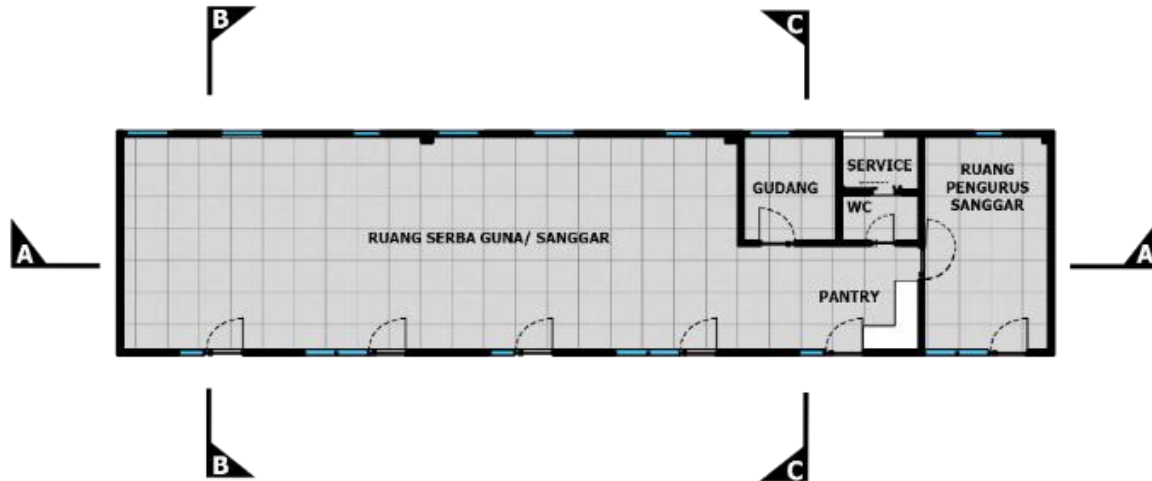


Figure 5. Multipurpose Room Plan/Sanggar Kampung Susun Produktif Tumbuh Cakung.

Table 7. Room data of sanggar Ciliwung

1	Workshop Manager	Muiz (36 Years old)
2	Room occupants	Vertical Kampung community ranging from children to adults
3	Residential Unit Blocks	Block 2 B is the top floor
4	Activity	Mr. Muiz, one of the studio administrators, when interviewed, was carrying out cleaning activities ranging from musical instruments and others. Because it is still in transition from the studio which was originally located in Bukit Duri to now in the Kampung of Susun. The activities that are usually held in this studio are usually in the form of cultural arts activities, storytelling, learning English, learning mathematics, and other activities. The instructors for these activities are usually residents of Bukit Duri themselves, sometimes there are volunteers from outside as well. For now, these activities cannot be carried out optimally because not all Bukit Duri residents have moved to the Flat Kampung and the residents' work time and free time have not been adjusted, no data is definitely still making adjustments.



Figure 6. Space in the Workshop

Table 8. Description of Behavior in the Studio Room

Description of Behavior in the Studio Room
Activity Pattern of Studio Residents
Based on the results of an interview with one of the administrators (Mr. Muiz) that the usual activities carried out in this studio are cultural arts, storytelling, learning English, learning mathematics, and other activities. Apart from being used for these activities, this studio was used as a meeting room and socialization for the residents of the Flats Kampung, because the area is quite large, the residents made it also a meeting room.
Privacy/Territory
The private room of this studio is the administrator's room which is next to the kitchen. That part of the room is a part that is specifically for administrators only.

3.1 Analysis of the Principles of Behavioral Architecture

Analysis of the Principles of Behavioral Architecture according to (Weinstein & David 1987) at Kampung Susun Produktif Tumbuh Cakung.

a. Able to communicate with humans and the environment.

- *Mirroring the function of the building*

The function of this productive bunk Kampung building is in the form of residential housing as well as productive space because it has many spaces that function as a place of business. However, in this case, still doesn't look like the function of this is productive. Because the business space on the ground floor, which is a productive place, has not been seen.

- *The right scale and proportions and be enjoyed by users*

At this point, it still cannot be said to be appropriate and can be enjoyed, because based on the survey results, all the facilities that have been provided and the business space that has been provided still cannot be enjoyed by users.

b. Can accommodate the activities of its residents who can provide comfort and also fun.

Based on the results of direct observation with interviews, it can be seen that this principle has been fulfilled. One example is that the residents of this bunk Kampung have a studio, where this studio is a forum for residents' activities to socialize and develop their creativity. Not only that, the occupancy of each unit has also met the comfort based on the results of an interview with one of the residents saying that the residence they live in even though the size is not too large but quite comfortable even though up to 5 residents do not feel cramped.

The following are some examples of illustrations of spaces that can accommodate the activities of its residents,

namely the multipurpose room/studio can be seen in [Figure 7](#), [Figure 8](#), and [Figure 9](#).



Figure 7. Piece A-A multipurpose room/studio

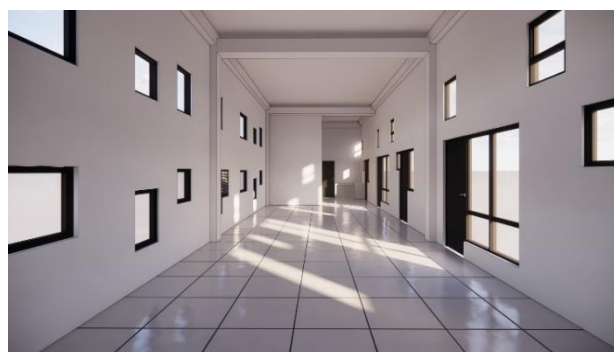


Figure 8. Inner space effectiveness view of the B-B cut direction

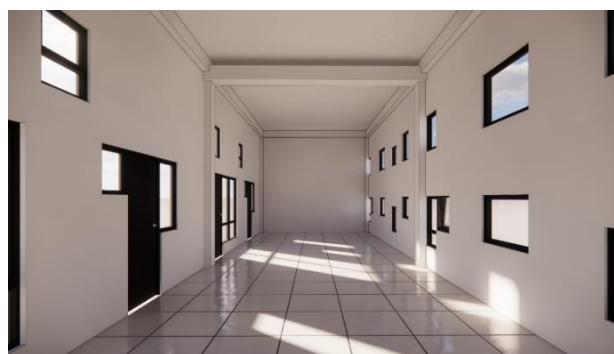


Figure 9. Inner space effectiveness view of the C-C cut direction

An illustrative example of one of the comfort factors in a residential unit is that there are many openings can be seen in [Figure 10](#), [Figure 11](#), and [Figure 12](#).



Figure 10. Opening details on the A-A Cut



Figure 11. Opening details on the B-B Cut

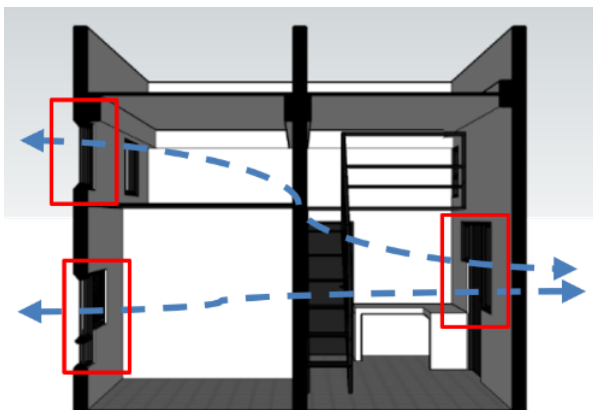


Figure 12. Air circulation at openings in C-C pieces

Information: Openings
- - - - - Air Circulation

c. Meets an aesthetic value.

In this principle based on the results of observations, the shape of this building has an aesthetic value visible from the striking and attractive shape of the façade. It can be seen on the outside of the dwelling that the shape of the façade has special elements as in Figure 13.



Figure 13. Fasad dwelling form

d. Pay attention to the wearer's or occupants' conditions and behavior.

Based on the results of observations, it can be seen that this bunk Kampung has fulfilled the 4th principle. One example is the arrangement of residential units classified by age. For young residents, it is placed at the top while the old ones are placed in the bottom residential unit. The entrance to the bottom residence also has universal access in the form of RAMP which makes it easy to enter for wheelchair users.

The following illustrated image of RAMP entry access from the ground floor can be seen in Figure 14.



Figure 14. RAMP line entry

The following is a table of analysis results from the principles used. It can be seen in Table 9. Based on the analysis table we can identify that the Cakung Growing Productive Stacking Kampung has fulfilled 3 principles of 4 architectural principles using the theory from Weinsten & David 1987.

Table 9. Analysis of the principles of behavioral architecture

No	Principles of Behavioral Architecture (Weinstein & David 1987)	×/√
1	Able to communicate with humans and the environment.	×
2	Can accommodate the activities of its residents who can provide comfort and also fun.	√
3	Meets an aesthetic value.	√
4	Pay attention to the conditions and behavior of the wearer or occupants	√

4. Conclusions

Based on the results of the analysis, Kampung Susun Produktif Tumbuh Cakung has fulfilled 3 of the 4 principles of behavioral architecture from the theory used in this study. In terms of the facilities needed to support the socio-cultural life of the village, this pilgrim village already has supporting facilities except for health facilities. The results of this analysis will continue to develop and the results of the analysis in this study are temporary. Because of the results of observations made by Kampung Susun, not all residents of the former Bukit Duri occupy this Kampung Susun. In terms of the function of this vertical kampung space, it already has spaces that function for the running of the economy as well as communal spaces that are made for citizen interaction as usual in a horizontal village. Spaces that can accommodate social interaction in this vertical kampung are like multipurpose rooms or cultural centers. This studio has been provided for residents to carry out activities and community meetings. Not only space for social interaction but on the ground floor there is also productive space or business space provided as a place to build the residents' economy such as selling. It's the same as the productive space in each residential unit that can be used as a place to sell in the residential unit.

However, it is a pity that the productive space on the ground floor in this vertical kampung cannot be fully realized according to its function. Due to several factors, one of which is that the residents are still comfortable or have not been able to switch their main economic location, which was previously in the Bukit Duri village, but has not been able to fully switch to this vertical village. One reason why the residents are not brave is that the existing business space in this vertical kampung does not meet the needs of the residents to carry out their main economy. It can be seen that in the residential area which still looks new, there are not many people and there is no road close enough to this vertical kampung because the area is still in the process of developing the area. It can be concluded that

this vertical kampung has made every effort in planning its design so that it can meet needs and provide a place for residents to be able to carry out economic activities and social interactions as usual. However, due to other supporting factors that have not met the needs of the residents, the spaces that were previously functioning cannot be used optimally.

References

- [1] Riogilang. H., "Identifikasi dan Pendampingan Untuk mengatasi Masalah Saitasi Pada Pemukiman Kumuh di Kampung Sanger Dario Manado", *Jurnal LPPM Bidang Sains dan Teknologi*, 2016, pp. 55..
- [2] Jarot Andi Saputra, "PERANCANGAN KAMPUNG VERTIKAL DI KAMPUNG DUPAK," Surabaya, 2021.
- [3] A. Sutantio and L. Prayogi, "KAJIAN KONSEP KAMPUNG VERTIKAL PADA KAMPUNG ADMIRALTY SINGAPURA."
- [4] S. Pramudito, A. L. T. W. Praptantya, and D. J. Nasir, "A Study of Vertical Dwelling Design Model Based on Community Interaction in Winongo Riverbank Yogyakarta," *ARTEKS: Jurnal Teknik Arsitektur*, vol. 3, no. 2, pp. 171–186, Jun. 2019, doi: 10.30822/arteks.v3i2.68.
- [5] H. Mulyandari, D. Muhammad, Y. Bhayusukma, and J. R. Utara, "PROSPEK PUBLIC SPACE PADA KAMPUNG SUSUN SEBAGAI RUANG INTERAKSI SOSIAL, EKONOMI DAN PENGEMBANGAN ILMU DI AREA BANTARAN SUNGAI," Yogyakarta, 2015.
- [6] W. Gunawan and A. W. Purwantiasning, "KAJIAN TIPOLOGI POLA RUANG HUNIAN VERTIKAL DI JAKARTA," *BORDER*, vol. 3, no. 1, pp. 31–46, Jun. 2021, doi: 10.33005/border.v3i1.75.
- [7] F. Nizar and E. Setyowati, "under a Creative Commons Attribution-ShareAlike 4.0 International License[CC BY SA] PENGARUH PERILAKU PENGUNJUNG TERHADAP PERSONAL SPACE DI MASJID AL HADDAD PAMANUKAN PADA MASA PANDEMI COVID 19," 2021. [Online]. Available: www.who.int
- [8] Anthonius N. Tandal; I Pingkan P.Egam, "Arsitektur Berwawasan Perilaku (Behaviorisme)," *Media Matrasain*, vol. 8, p. 66, May 2011.
- [9] J. M. Laurens, *Arsitektur dan Perilaku Manusia*. Grasindo, 2005.

- [10] A. C. Wijayanti, T. Iswati, and M. A. Nirawati, "PENERAPAN PENDEKATAN ARSITEKTUR PERILAKU PADA TAMAN INKLUSIF DI SURAKARTA," *Jurnal SENTHONG*, p. 628, 2019.
- [11] H. Y. K. S. Ishmah Afifah, "PENERAPAN ARSITEKTUR PERILAKU PADA PENGEMBANGAN KHADIJAH BUSINESS SCHOOL PONDOK PRENEUR INDONESIA DI SURAKARTA," *Jurnal SENTHONG*, Jun. 02, 2018. <https://docplayer.info/136455749-Penerapan-arsitektur-perilaku-pada-pengembangan-khadijah-business-school-pondok-preneur-indonesia-di-surakarta.html> (accessed May 31, 2023).
- [12] P. Konsep Arsitektur Perilaku pada Penataan Kawasan Zona, P. Kota Tua Yoyok Agustina, A. P. Widyati, L. Prayogi, and Y. Agustina Ari Widyati Purwantiasning Lutfi Prayogi, "PENERAPAN KONSEP ARSITEKTUR PERILAKU PADA PENATAAN KAWASAN ZONA 4 PEKOJAN KOTA TUA JAKARTA," Jakarta, Sep. 2018.
- [13] S. Pramudito, A. L. Tegar W. P., and D. J. Nasir, "STUDI MODEL RANCANGAN HUNIAN VERTIKAL BERDASARKAN BENTUK INTERAKSI WARGA DI BANTARAN SUNGAI WINONGO YOGYAKARTA (A Study of Vertical Dwelling Design Model Based on Community Interaction in Winongo Riverbank Yogyakarta)," *ARTEKS Jurnal Teknik Arsitektur*, vol. 3, no. 2, p. 171, Jun. 2019, doi: 10.30822/artk.v3i2.156.
- [14] A. Sutantio and L. Prayogi, "KAJIAN KONSEP KAMPUNG VERTIKAL PADA KAMPUNG ADMIRALTY SINGAPURA," Jakarta, Mar. 2021.
- [15] E. P. PUSPITASARI, A. P. Wulandari, and A. W. Purwantiasning, "Kajian Tipologi Pola Ruang Hunian Vertikal Untuk Mahasiswa Di Margonda Depok, Studi Kasus: Apartemen Taman Melati Margonda 2 Depok," *Journal of Architectural Design and Development (JAD)*, vol. 3, no. 1, pp. 67–78, Jun. 2022, doi: 10.37253/JAD.V3I1.6307.
- [16] Imam Gunawan, "Metode Penelitian Kualitatif: Teori dan Praktik," *PT Bumi Aksara*, 2013. <http://igun.blog.um.ac.id/2022/07/01/metode-penelitian-kualitatif-teori-dan-praktik/> (accessed May 31, 2023).
- [17] Istikomah and Rohmah, "Pembinaan keagamaan bagi para modeling: Studi kasus di Queen Mozza Muslimah Modelling School Malang," *Doctoral dissertation*, vol. 11, no. 2–3, pp. 47–210, Jun. 2016, doi: 10.2752/136270407X202754.