

UTILIZATION OF EMPTY SPACE UNDER FLY OVER AS AN OPEN PUBLIC SPACE

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Abstract

The development of transportation facilities is also important to accommodate the mobility of city residents both by private vehicles and by public transportation. One way to break up the transportation complications is to build an overpass or commonly known as a fly over, and this effort is usually quite successful. However, there is another side that often escapes the government's fly over planning, namely the creation of new spaces under the overpass that are not clearly utilized, so that spontaneously, the spaces that are formed are used "at will" by the community. The purpose of this study is to obtain a variety of shapes and dimensions, as well as where the location of residual space under the fly over, Obtaining community use of residual space under the fly over, Obtaining community behavior in utilizing the residual space under the fly over

Keywords: Utilization; Residue space; Fly over

INTRODUCTION

Development of transportation facilities in urban areas is increasingly increasing, this is an absolute thing because the population and its vehicles are also increasing. The development of transportation facilities is also important to accommodate the mobility of city residents both by private vehicles and by public transportation. One way to break up the transportation complications is to build an overpass or commonly known as a fly over, and this effort is usually quite

successful. However, there is another side that often escapes the government's fly over planning, namely the creation of new spaces under the overpass that are not clearly utilized, so that spontaneously, the spaces that are formed are used "at will" by the community.

Unclear spaces like this in Urban Design theory are often called residual spaces. Open and closed spaces are formed unplanned from a planning or development activity are residual spaces so it can be concluded that the city residual space or residual space is a plot of land or land that cannot be utilized optimally as a result of planning and development. (Heryanto and Ayudya, 2019).

Because the use of space under a fly over occurs spontaneously and without planning, the forms of utilization are also very diverse, there are uses that make these spaces positive and some make these spaces negative.

As happened in the space under the fly over in Cullinan, where in this room instead became a place of overflow of markets that were being renovated, even after the market was finished in renovation even the traders were still reluctant to move from under the fly over. It is different with what happened in Karawang, here the space under the fly over is arranged in such a way as a beautiful park that gives a beautiful view to the eyes of road users. The phenomenon of the diversity of the use of space under the fly over in several cities in West Java is interesting to study because it can be an additional input for the government and practitioners of urban design in planning transportation routes and public spaces that can not be separated from it.

From the phenomena under the overpass, the writer has the following research questions:

1. What are the various shapes and dimensions, and where are the residual spaces below the fly over?
2. How does the community use the residual space under the fly over?

3. What is the behavior of the community in utilizing residual space in under the fly over?

LITERATURE STUDY

Public Space

Public space is a space that is formed or designed in such a way so that the space can accommodate a large number of people (public) in carrying out activities that are public in accordance with the function of the public space. public spaces that can function optimally for public activities for communities and individuals in general, have characteristics - among others: a busy / strategic location, has good visual and physical access, space which is part of a road (circulation path), has a seat such as stairs and park benches (Carr in Samosir 2018)

Meanwhile according to Hariz, the criteria for the success of public open spaces are as follows:

a. Accessibility,

Project for Public Spaces in Hariz stated that access is important in the success of public open space, namely the ease of public open space to be visited and easily seen. Carr in Hariz stated that public open space must be democratic, the space can be accessed by all groups, easily accessed physically and visually. Miller in Hariz, stated that the space is safe, which is marked by the ease of vision from the outside or into the park, easily visited, open.

b. Pleasure and attract users

Carr in Hariz stated that public space must be responsive, that is, it can answer the needs of users in this case active and passive activities that can provide pleasure. Project for Public Spaces in Hariz stated that making activities and uses become the criteria of successful public open space, of course with the activity, the space can provide fun and will attract users. Miller in Hariz stated that the space can meet the needs of visitors in activities that can provide fun.

c. Safety and comfort,

Miller in Hariz, public space must be safe, with a safe space so that space can continue to be visited and functioning properly. Carr in Hariz stated that public space must be responsive, that is, it can provide comfort to the community. Project for Public Spaces in Hariz, making comfort an important criterion for any space, comfortable space is characterized by a clean and safe space.

d. Bind the community,

Carr in Hariz, stated that public space must have meaning and relevance to the community, meaningful space and attachment will be marked by a sense of concern from the community in the space. Project for Public Spaces in Hariz stated that

hospitality is important in public open spaces that are marked by the people's attachment to the public space.

Stephen Carr, et al (1995: 79) in his book Public Space suggests that there are 11 Typologies of Urban Open Space namely:

1. Public Parks
2. Square and Plazas
3. Memorial
4. Markets
5. Streets
6. Playground
7. Community Open Space
8. Greenways and Greenways and Parkways
9. Atrium / Indoor Market Place
10. Found / Neighborhood Spaces
11. Waterfront

From the explanation above it can be seen that the road and all its types are public spaces of the city including the overpass with all its fliers including the space under the overpass

Fly Over

According to the Indonesian dictionary, highway overpasses are built on piles, a few meters above the ordinary road. (<https://kbbi.web.id/> accessed 12-18-2019)

Overpasses are built to overcome the problem of congested traffic with road conditions that cannot be widened, avoiding multiple intersections at once, passing slums / markets or passing valleys, swampy areas that are always submerged in water with soil conditions that make it impossible to build roads with conventional way. (Boru, 2013)

According to Permen PU number 19 of 2011 Overpass is one of the complementary buildings that function as a traffic lane

Overpasses must be equipped with:

- a. drainage system; and
- b. utility installation.

On both sides of the road body on the overpass, sidewalks must be provided for pedestrians in an emergency and for access to maintenance personnel with a width of at least 0.5 (zero point five) meters. The width of the body of the road on the overpass is at least 8 (eight) meters. The height of the vertical free space of the elevated road is at least 5.1 (five point one) meters from the pavement surface.

The height of free space for all arterial and collector roads in the upper, lower, highways and tunnels at least 5 (five) meters, as well as the depth of free space in accordance with the need for construction security.

Rumaja (road benefit space) under the underpass can be used to park vehicles, green open spaces, sports fields, and road operations offices, with the condition

that it does not interfere with the safety, smooth traffic, and construction security.

Utilization of Rumaja under the overpass as referred to above must obtain permission from the road operator.

The space at the bottom of the bridge / bridge is the space created by the bridge / bridge. In accordance with government regulations, spaces under flyovers / bridges are generally included in the RTNH (Non-Green Open Space Category), especially in locations with hardened surfaces or not covered with plants. (Laksono 2018)

Residual Space

However, there is another side that often escapes the government's fly over planning, namely the creation of new spaces under the overpass that are not clearly utilized, so that spontaneously, the spaces that are formed are used "at will" by the community.

Unclear spaces like this in Urban Design theory are often called residual spaces. Open and closed spaces are formed unplanned from a planning or development activity are residual spaces so it can be concluded that the city residual space or residual space is a plot of land or land that cannot be utilized optimally as a result of planning and development. (Heryanto and Ayudya, 2019).

Residual space is also sometimes defined by left over space, namely space of uncertainty (Muller in the 2012 era), the area under the bridge is defined as unspent residual space (Selcen Özgül Özkan in the 2012 era)

Residual space can occur as a side effect of a planned development; or along and under highways and trains that are always visible but it is unclear who the owner is whether it is publicly owned or does not belong to anyone; land set aside for reforestation but not developed; or abandoned old building yards and shipyards (2012 era)

According to Trancik, there is a positive space that is useful space or found space, but those that are negative are space that is not "useful" or lost space. The negative nature of the residual space, other than in the form of space or plots of vacant land can be in the form of built-up space, either open or closed that is abandoned, not maintained, and has no or unclear functions (Azhar et al in Heryanto)

On the one hand, they are not wanted because their presence does not contribute to the activities of people's lives. On the other hand, residual space has the potential to contribute its role to the needs and lives of urban communities. Its existence offers an opportunity to be utilized for the needs of human life by re-planning activities (revitalization), filling activities and community facilities that have been improved. (Heryanto and Ayudya, 2019)

So it can be concluded that the residual space under this flyover can be positive as well as utilized, but can also be negative if not utilized.

MATERIAL AND METHOD

Location

This research took place in two cities in West Java, Karawang and Bogor, both locations were taken because they were considered to represent the use of different underpasses.

The first location is in the area of the overpass that is in the area of Cullinan Bogor Regency, which is a meeting of the flow of vehicles from the direction of Bekasi, Bogor, Jakarta, and from the direction of Bandung. This area is located in the village of Cileungsi, Kecamatan Cileungsi, Bogor Regency, West Java



Figure 1. first research location (Author, 2020)

The second location of this research is in the skatepark kolong fly over Pasar Rebo (see figure 2) and the third is Slipi area. Those Locations are area below the overpass that still actively being used by people. The Cileungsi area is located in West Java, while Pasar Rebo and Slipi area is located on Jakarta. Even though the object location is not in the city, even province, the objects are still the same situation as under flyover and residue area that developed into space for people activities.



Figure 2. second research location Pasar Rebo skatepark (Author, 2020)



Figure 3.third research location Slipi skatepark (Author, 2020)

Method

The method used is descriptive qualitative method. The aim is to make a systematic, factual and accurate description, description or painting of facts, the nature and relationship between the phenomena under study. (Groat and Wang in Laksono).

ANALYSIS OR EXPLANATION

Table 1. the planned and unplaned space analysis (Author, 2020)

	Planned space under Fly Over	Unplanned space under Fly Over
Kinds and types of use	Because it was planned, the space under this fly over has a specific function, namely for skateboarding and BMX only	Space under Cileungsi fly over used for : 1. a market place that is a place to trade vegetables besides that here there are also hawkers and street vendors 2. shelters for drivers of both public transport and large vehicles such as trucks 3. waiting place or public transportation waiting for passengers 4. shelter for the homeless
Facility	Likewise with the existing facilities, all of which are specific for skateboarding and BMX facilities	Because it was not planned, the space under the Cileungsi flyover almost did not have any facilities, but there were benches available, and only pedestrians and guardrails.
Time of use	In normal conditions, as a public space the skatepark under the flyover is open all the time, so it can be visited on the way home from work and whenever it is free time, and respondents spend 2-4 hours here. And because here is the space under the fly over, it doesn't matter if the respondent visits at 12 noon, because the skatepark will still be shaded and comfortable to play skateboarding.	So it can be seen according to the respondents that the space under of the Cileungsi flyover is used 24 hours a day, it's just that its use has changed, for example buying and selling vegetables in the early hours, waiting for the angkot at 07.00 to go to work or school. And the respondents spend this place for a few minutes to 1 hour.
Reason of Use	The respondent like the skatepark under this fly over, because they like to play skateboarding, but unfortunately the quality of the skatepark streets at	Respondents revealed the reason for the down fly over Cileungsi because it was close to home, to wait for an angkot and shop for cheap and complete vegetables, but actually they felt uncomfortable and didn't like

	FO Slipi skatepark is not good so it has begun to break down and disturbs the user's comfort.	doing activities here, it's just because the strategic accessibility of the Cileungsi flyover basement keeps them doing activities here.
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The table above was mentioned the documentation of three location of under flyover area. The basic classification of unplanned and planned are can be obtained from this research. The planned area is represented by Jakarta under area of flyover in Pasar Rebo and Slipi that being used as skatepark, while unplanned is Cileungsi.

However Trancik theory of positive space that related to the usage rather than planned-unplanned explain the phenomenon of Jakarta below flyover might be unwanted by the people, eventhough being planned. The Cileungsi as functional space of market and shelters become more positive space. The time of usage also show that those residual space could be vitalized by the people demand toward the space.

The specific criteria of area brought specific users, while organic area might filled according to the users. The specific or planned become more special function and unplanned become more flexible to be used as the people need.

CONCLUSSION

For the planned space under fly over, the types and uses are very specific, in this case it is especially for young skateboard enthusiasts. As for the space under the fly over which is not planned, its use is very multi-functional, there are no restrictions to use, everyone can use it even the homeless

For the planned space under flyover, the facilities are very specific, in this case, the facilities for skateboarding and BMX. As for the space under the fly over which is not planned, there is almost no means whatsoever

Under normal conditions, these two types of flyover basement operate throughout the day, 24 hours. But during this pandemic all the skateparks under this flyover were closed. Meanwhile, those under the Cileungsi flyover continued to operate as usual. And in the lower room of the Cileungsi flyover, its flexible usage can vary in the morning, afternoon and evening.

For the skatepark under this fly over, it does provide comfort for its users even though there are facilities that are of poor quality. Meanwhile, for those under the Cileungsi flyover because it is not planned, the comfort is very lacking, but the community continues to use it because of the ease of access, especially for the surrounding community.

Broadly speaking, the residual space under the flyover is proven to have great potential, when this space is utilized organically or unplanned, this space has flexibility, whereas when this space is used in a planned

manner, it offers comfort. This comfort comes from the physical form of the wide shade, and its accessibility.

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