

A Qualitative Study of New Public Spaces Among the Commuter Line Stations

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Abstract—Traffic jam problems and auto-dependency have become two of the main problems in Jabodetabek. Today, the main transportation system that connects the buffer cities and the City of Jakarta is the Commuter Line railway system. Soon, commuting by train will start to become part of the common urban culture in Jabodetabek and aligns with the automobile culture that has already dominated the city for years. This cultural change is causing the stations to become nodes where “railway-oriented activities” intersect with “car-oriented activities.” Additionally, the urban elements around the stations such as flyovers begin to develop. As the main aim of the flyovers are to avoid the railway crossing, they are not purposely provide shades beneath for places, but the shades have become new spots for people’s activities. People have begun to use the residual space beneath the flyover. As a result, different types of “rooms” or areas formed within the public spaces near the stations and produced a hierarchy from private to public that is similar to a “house”—but in urban context. This paper maps and analyzes the formation of the public spaces around the stations with a focus on the presence of the flyovers based on the field observations that were linked with theories.

Keywords—activities, commuter line’s surrounding area, public spaces, residual space

I. INTRODUCTION

The basic form of a city is determined by the figure-ground relationship (Trancik, 1986), which comprises solid (buildings) and void (open spaces and streets). The city structure is clarified by establishing a hierarchy of spaces of different sizes that are individually enclosed but ordered directionally in relation to each other. The relation between the city elements and humans has become a topic of concern for some scholars, such as E.N Bacon (1974), who stated that city is a space articulation that provides a certain feeling to its users, and Winston Churchill (1943), who famously said, “We shape our buildings, and they shape us.”

The combination of the solid and void elements creates a public space. UNESCO (2017) defined public space is an area or place that is open and accessible to all people, regardless of gender, race, ethnicity, age, or socioeconomic level. The certain spatial form of a public space within the city provides a certain experience for the people who use the space. The Project for Public Space (2009) mentioned that a satisfactory public space should have a high level of liveliness to support certain positive activities and easy access as well as be clean and secure.

The number of traffic jams and amount of air pollution have been increasing; thus, the new understanding of urban development has created a new concept that is expected to reduce automobile use and prioritize access for pedestrians. This new understanding has led to the development of transit places, such as stations and bus terminals, and the pedestrian access around them. Notably, the development of the transit nodes encourages the development of the urban elements around them. This paper discusses how the presence of urban elements and people’s activities form the public spaces around the stations.

A. Commuter Line Jabodetabek System

Commuter Line is an electric train system that connects the cities of Jakarta, Bogor, Depok, Tangerang, Bekasi, and Cikarang and carries up to 960,000 passengers daily (Kompas, 2017). The passengers reside in the buffer cities (i.e., Bogor, Depok, Tangerang, and Bekasi) and commute to downtown Jakarta, and home again. Bogor-Jakarta Kota is the busiest line and carries 69.95% of the total passengers that ride the Commuter Line. According to Beritasatu (2018), the total passengers were 1.065.522 people in June 2017. The rush hours of the train are typical; in the morning and in the evening on Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays. During the peak times in the morning, the train to Jakarta is very crowded as it carries most of the passengers to their workplaces in Jakarta. In the evening, the train to the buffer cities is very crowded because most of the passengers are returning home after work.

This study investigated two stations on the Bogor-Jakarta Kota Line: Duren Kalibata and Tebet. The three stations have a notably similar characteristic: the presence of a flyover proximal to the station that provides space to accommodate people’s activities beneath. Other similar characteristics include the following; the stations are located in the transitional area between the buffer city and downtown.

B. Humans and their environment

Humans and the environment combine to become an inseparable entity that contributes to each other. Notably, individuals are not detached from their needs, which are divided into biological and psychological needs (comfort), safety needs, love and belongingness needs (social interaction), esteem needs (achievements), and self-actualization needs or expression (Maslow, 1987). To fulfill those needs, individuals attempt to build a comfortable

environment. The built environment shapes the individuals' behavior and character who use that environment.

According to Laurens (2004), individuals' are the center of the environment and part of the environment. The uniqueness of each of the individual affects the environment, and the uniqueness of the environment affects the individual; this occurs because an environment is a space for individuals to conduct activities and has also become an integral part of individuals' behavior pattern. Four factors affect how the environment affects human behavior: An environment can determine an individual's activities, invite individuals into the space and determine their responses, shape their identity, and affect their image.

In the urban context, the diversity of the people forms a compound environment, which makes the reciprocal relation between individuals' and their environment more complex. Imagine how the diverse elements of the environment affect the behavior of the diverse users. There will be many "invisible lines" that show how one element influences one individual.

1) *Transit Area as the Public Space*

The public defined as "of, relating to, or affecting a population or a community as a whole," and space is defined as "the unlimited or incalculably great three-dimensional realm or expanse in which all material objects are located and all events occur (Dictionary.com, 2017)" Thus, public space is an area or place open and accessible to all people, regardless of gender, race, ethnicity, age, or socioeconomic level (UNESCO, 2017). A public place is a place for people to conduct their activities, for example, people can circulate, interact, and fulfill necessities. Regarding the function of a public place, an ideal public place should comply with the people's needs, as discussed in the previous subchapter, and be a place where people can feel comfortable, secure, and happy. To fulfill those needs and create those feelings, the Project for Public Space (PPS) (2009) proposed the following definition: A great place should have four criteria, namely, sociability, uses and activities, access and linkage, and comfort. Sociability means that the public space provides a certain space for people to engage in social interactions. Uses and activities mean that people are invited to conduct certain activities there. If a public space is empty, there must be something wrong with the space. Access and linkage mean that people can easily access the public space. Comfort means that people feel safe while conducting their activities within the public space.

Transit means a conveyance or transportation, especially local public transportation, from one place to another, for example, of people or goods (Dictionary.com, 2017). Hence, a transit area is an area people pass by to access the transportation nodes, such as a train station or bus terminal. To reduce automobile dependency and air pollution, there is a new understanding of the urban transit system, that is, to juxtapose the transit nodes with ideal pedestrian access and proximal mixed-use function buildings. Therefore, urban residents are expected to leave their cars and walk to their activity places, including the transit nodes.

Current city development emerges as a concept in which the activity area is located within walking distance to the transit nodes. Calthorpe (1993) defined the concept as a mixed-use community within an average 2,000-foot walking distance from a transit stop and core commercial area. A mix

of residential, retail, office, open, and public spaces are located within the walkable environment from the transit nodes, which encourages the residents to leave their automobile and home and walk or cycle to their destination.

2) *Messiness within the Public Space*

The presence of messiness has become a familiar subject in city planning and design. Manish Chalana and Jeffrey Hou, in their book "Messy Urbanism: Understanding the Other Cities of Asia" (2016), stated that messiness is defined as a condition of an unruly, irregular, or anarchic environment. The literature on urban development history has noted that within the 19th century, in European and North American cities, messiness was associated with congestion, disease, fire, and social unrest. The roots of the term urban messiness are the meetings of different types of actors within the urban environment. The types of actors can be summarized into two main actors: the city government and the people not involved in the city government (e.g., pedestrians, street vendors). Hou (2016) stated that with the interweaving of different interests, the space becomes insurgent when citizens undertake actions and challenge conventional views on how urban areas are defined and used. Wherever there is a public space, there are conflicts and confrontations, and some public spaces are witness to constant *guerilla wars* (Siu, 2007).

A particular theory that reveals the stages of how the messiness occurred is known as "the equilibrium theory" (Chalana and Hou, 2016). According to the theory, the equilibrium level is divided into three parts: stable, unstable, and neutral equilibrium. In a stable equilibrium, a small deviation of the body from this state leads to the emergence of forces or moments of force that tend to return the body to the state of equilibrium. In an unstable equilibrium, a small deviation of the body from the equilibrium state results in forces that tend to increase this deviation. In a neutral equilibrium, the body remains in equilibrium despite small deviations (Chalana and Hou, 2016). In general, city governments have rules to establish a stable equilibrium to avoid messiness created by residents. However, because the users of the public space have many different interests, they develop tactics against the policy and create an unstable equilibrium. Each of the stakeholders actually attempts to maintain a balance between the rules and their interests to avoid escalation of the conflict. Thus, the public space is set to be in the neutral equilibrium to keep the messiness in a controllable range. Many urban and social researchers have indicated that the interactions and activities of several actors within the public space provide meanings to the space itself. People develop their own methods, for example, reconstruction, reterritorialization, rebuilding, re-establishing, reordering, to increase the livability of the place (Siu, 2013).

C. *The occupation of the Residual Space within the Urban Environment*

Lyn H. Lofland, in her book "A World of Strangers" (1973) stated that the ideal of the modern city is similar to the ideal of a well-ordered home: a place for everything and everything in its place. In a house, the place for an item, person, or activities might be in several areas; such as in rooms, on a floor, or in a section of a room. Some of the areas might be appropriate to accommodate several activities, for example, a recreation room, and some of the

areas might be limited, such as a mother's bedroom where kids or pets can neither enter nor play. Similar to a house, a city comprises different types of environments occupied by different types of actors with a more complex spatial distribution of people and activities.

In the dense urban environment, where the entire open area has become a concrete jungle, residual spaces become the potential places to be occupied and are evaluated through the consideration of certain spatial qualities. According to Dictionary.com (2017), residual means pertaining to or constituting a residue or remainder; remaining; leftover. Hence, residual space under the flyover is the new space remains beneath the flyover after the construction of the flyover.

Over the years, the emergence of these spontaneous open public spaces has been discussed by many experts. Kevin Lynch (1975) asserted that an area should have the flexibility to anticipate possible events that might occur in the upcoming future. A number of spatial qualities have been studied: easy accessibility, security level, site boundaries, site topography, uniformity of form, area of the site, sites location, neighboring facilities, and a site's proximity to heavy circulation routes (Weththasinghe, A., & Wijesundara, J., 2017). Location and site accessibility are highlighted as two main factors that can invite people to use the space. The best location invites occupants from different backgrounds and is usually located in an area with diverse land use (Edmond, 2010). In the case of residual space, location is a critical aspect because, as explained by Arnold (1972) in Djauhari (1998), in a space, various components have the power as a magnet in the course of an activity function (Permadi, 2018). The Project for Public Space (2009) mentioned that good accessibility means that the place should have both a visual and physical connection to the surrounding. People should be able to get to and get through, and the location should be visible from a distance and up close.

II. METHODS AND THE CONDUCTED OBSERVATION

This study applied the qualitative method by conducting visual observations within the observed locations on several days. The authors went to the observed locations to document the activities beneath the flyovers. Single Lens Reflex camera and a cellphone camera were used as tools for the documentation. The observations were also conducted through Google Maps to obtain an aerial view and Google Street View to obtain the current condition of the road. Next, those visual data were translated into the three-dimensional digital model by using Sketchup software. The three-dimensional digital model was created to provide a spatial perception and correlation regarding the arrangement of the building mass and street as well as make it easy for the readers to understand the site's context.

A transit area and its elements are similar to a set of interacting organisms. Every place in the transit area has been built by humans, and the places will influence the humans who use the place. That is the fundamental theory of architecture: to show the relationship between humans and their environment. The Commuter Line stations that spanned from Bogor to Jakarta Kota increased the development in the surrounding area of each station. Every station has a different type of environment and a different set of spatial qualities. The analysis of the paper was conducted within the stations' surroundings that had a similar appearance to an urban element: the flyover.

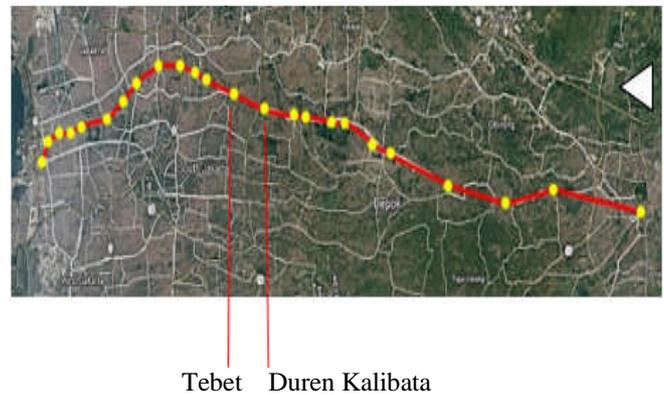


Fig. 1. Map of the Bogor-Kota Line

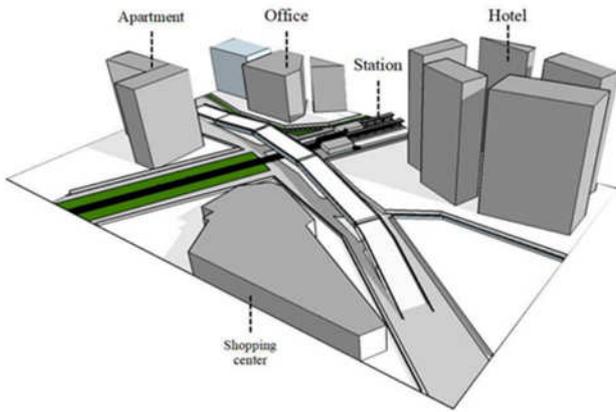
This paper investigated two locations: the area surrounding Duren Kalibata Station and the area surrounding Tebet Station. The locations were selected because both have the same context; notably, differences were also observed. The similarity is the dominant building functions: housing, offices, hawkers, services, and transportation nodes. The differences are based on the shape and the arrangement of the building masses. In the area surrounding Duren Kalibata, the arrangement of the building masses tended to be centered, and each was defined within fence boundaries as a shopping center, hotel, and apartment buildings. This arrangement has caused the formation of large open spaces that functioned as parking lots. Additionally, the buildings are formed into big and high masses, for example, a high-rise building. Notably, the building density is higher than the area surrounding Tebet Station, and this can be observed based on the following: the overspread building mass arrangement and that few opened spaces have been created. Also, the shapes of the building masses are small and have a maximum level of four stories.

A. Duren Kalibata Station

Duren Kalibata Station is located within the region of South Jakarta. Its surrounding area has four kinds of building functions: apartments, government offices, a shopping center, and a hotel. Duren Kalibata Station has become the final destination of office employees and other residents. The flyover is located in between the station, shopping center, hotel, apartment buildings, and offices. Thus, the space beneath the flyover is occupied by pedestrians in transit to their destinations.

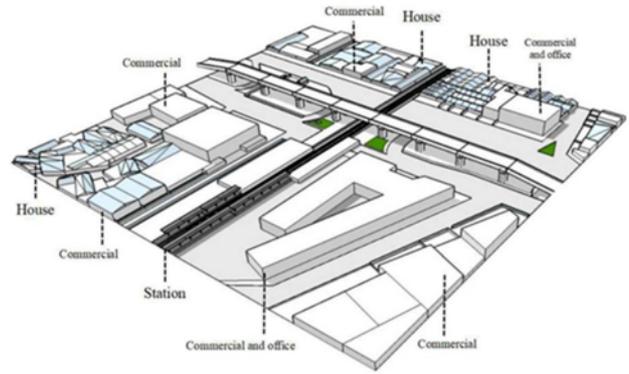
B. Tebet Station

Compared with Duren Kalibata, the area surrounding Tebet Station shows mixed types of building functions, and the buildings are denser. During rush hour, most of the Commuter Line passengers stop at Tebet Station and transfer to another transportation mode, such as Transjakarta, to reach their destination in the Kuningan Business District. The highest level of activities was found on the west side because that side is the closest area to the Kuningan Business District. Similar to the condition in Kalibata, the flyover is located in between the buildings and the station. Notably, the difference is that the number of occupants beneath the Tebet flyover is higher than in Kalibata. This difference can be observed from the area near the west station entrance that looks similar to a market and is occupied by hawkers.



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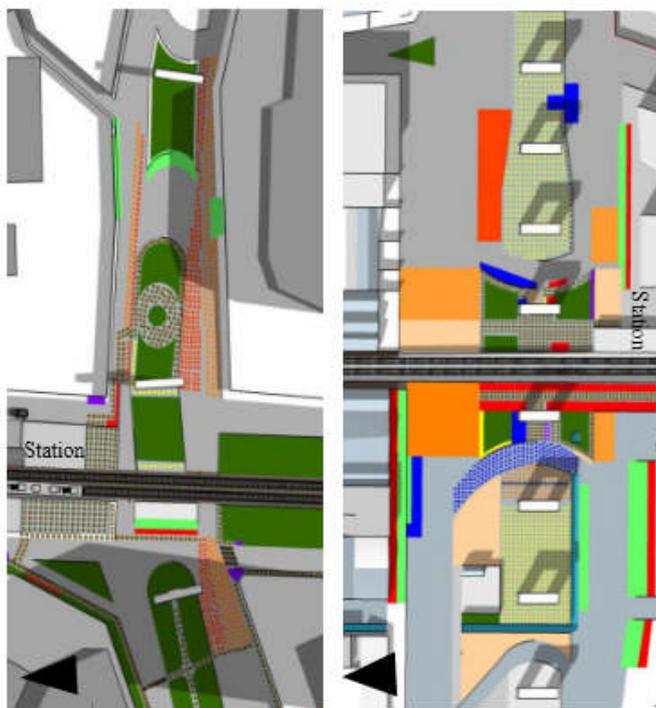
Fig. 2. Map of Duren Kalibata Surrounding Station



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Fig. 3. Map of Area Surrounding Tebet Station

III. RESULTS



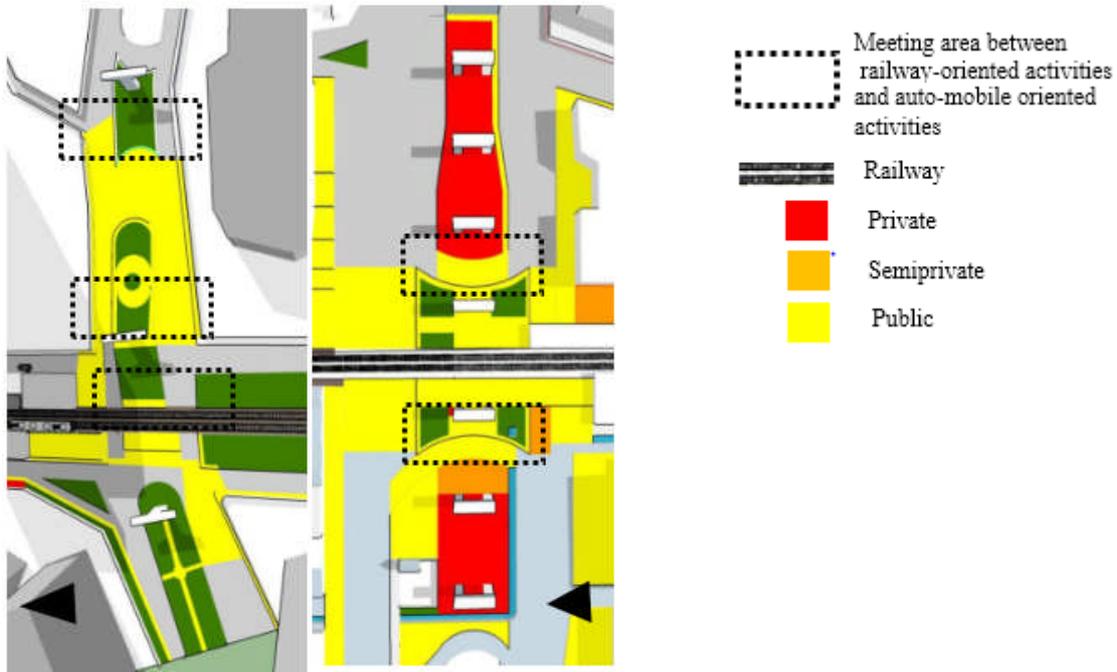
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- Pedestrian
- Hawkers
- Transjakarta
- Regular bus
- Angkot*
- Bajaj*
- Motorcycle
- Online *ojek*
- Regular *ojek*
- Others
- Green area

Fig. 4. Map of the Area Surrounding Duren Kalibata (Left) and Tebet (Right) Station Based on the Area Occupants

Regarding the findings, the authors divided the space occupants into three groups: the main actors or people who are supposed to occupy the space, (i.e., the pedestrians), the supporting actors (people who support or take advantage of the pedestrians, e.g., hawkers, *ojek* (bike taxi), *angkot* (paratransit), and Transjakarta drivers, and the other actors who have no relation to the main and supporting actors e.g., street musicians and people who are homeless). In the observed areas, the space division refers to the public and the semiprivate and private hierarchy. Public area means that the pedestrians (the main actors) are dominant. Semiprivate means that the area is occupied by the supporting actors with fewer or no pedestrians but is still

accessible to them. Private means that the area is already privatized by the supporting actors, and no single pedestrian aims to access it. In the space beneath the flyovers in both areas, the public areas are concentrated within the nearest area to the stations, where most of the commuters pass by. Within the mentioned public area, many supporting actors were taking advantage of the presence of pedestrians, such as the hawkers, *ojek* drivers, and Transjakarta crews. The public area is located on the pavement and extends until the edge of the street where the online *ojek*, *angkot*, and buses wait for their customers. There, the aforementioned areas become the transitional area where “railway-oriented activities” and “automobile-oriented activities” intersect.



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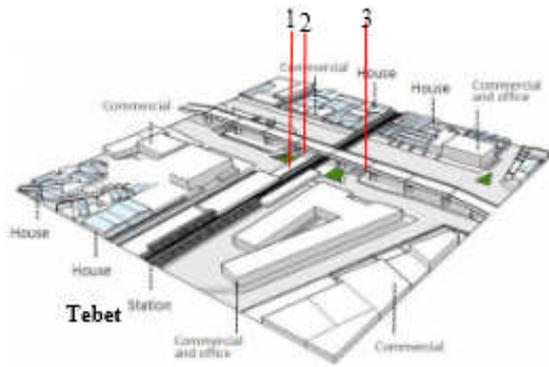
Fig. 5. Map of the Area Surrounding Duren Kalibata (Left) and Tebet (Right) Station Based on the Hierarchy of the Area



Source: Author's documentation

Fig. 6. Public Area Beneath the Duren Kalibata and Tebet Flyover

- (1) Pedestrian area (main public area) that was surrounded by the hawkers.
- (2) Area for Transjakarta passengers to buy tickets.
- (3, 4, 6) Transjakarta, angkot, and ojeg parked to wait for their passengers.
- (5) The public area that mixed with the semiprivate and private area where the pedestrian area also became the resting area.

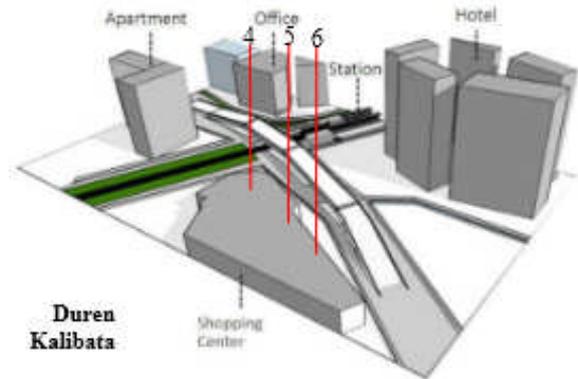


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Fig. 7. Map of the Area Surrounding Tebet Station

The presence of the semiprivate area is observed beneath the flyover in front of Tebet Station where *angkots* are parked. To discover deeper into the definition of the semiprivate room, observers went into that area and did not find any pedestrians. This phenomenon occurs because pedestrians have no necessities there because the place functioned to park the *angkot*. Several *angkot* drivers are seen having a conversation. Additionally, the private area is established further from the public area. On the west side of the station, the private area is established on the back side of the aforementioned *angkot* parking area (semiprivate area). The private areas are occupied by the supporting actors (i.e.,

ojek drivers, *angkot* drivers, and Transjakarta crews) for their leisure activities such as sitting together and having conversations, laying down, and even playing chess. They also put their belongings there, such as bags and jackets. In other words, they consider the area their “private room” where they can freely conduct several private activities. Additionally, beneath the Kalibata flyover, the borders of the semiprivate and private area seems to be blurred and mixed with the public area. This phenomenon is caused by the location of the flyover, in the middle of the street, where pedestrians have no other choice but to pass through the area while crossing the street.



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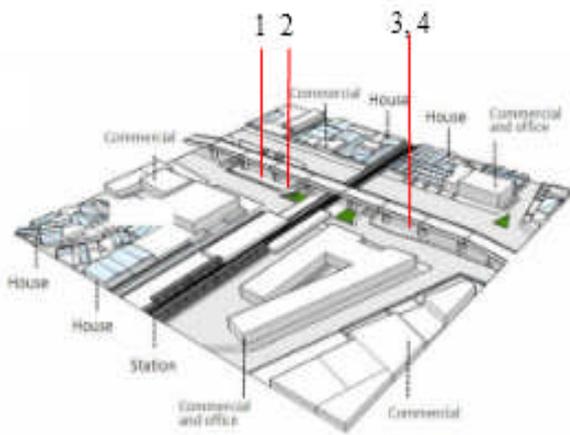
Fig. 8. Map of the Area Surrounding Duren Kalibata Station



Source: Author's documentation

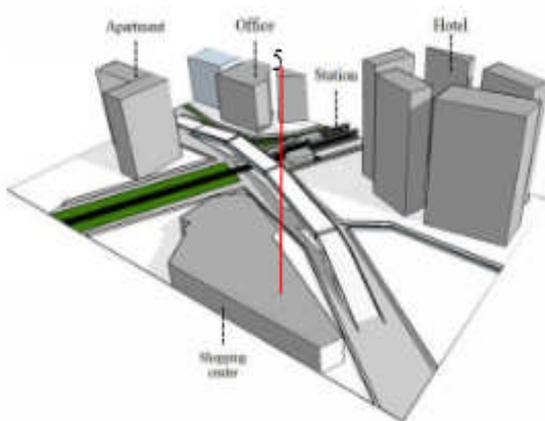
Fig. 9. Semi Public and Private Area beneath the Duren Kalibata and Tebet flyover

- (1) Private area occupied for playing chess.
- (2) Semi-private area for *angkot* parking.
- (3) Transjakarta crews privatize the area by putting a base for them to take rest.
- (4) People who are homeless are spotted laying down, makes the place become their private area.
- (5) *Ojek* drivers seem to privatize the space as their area to wait for the passengers.



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Fig. 10. Map of Area Surrounding the Tebet Station



Source: Reproduced by Author

Fig. 11. Map of the Area Surrounding Duren Kalibata Station

IV. DISCUSSIONS

A. Space Division Below the Observed Flyovers

The presence of space beneath the flyovers in front of Duren Kalibata and Tebet Station has the potential to be used by several actors who have their own roles. In this context, the main actor of the space occupation is the pedestrians who are mostly Commuter Line passengers. The presence of the pedestrians are considered the tempting potential market by the supporting actors, such as the hawkers, *ojek* drivers, *angkot* drivers, and Transjakarta crews: thus, they begin to occupy the spaces around the space occupied by the pedestrians and establish their “office.” Finally, the supporting actors begin to occupy the spaces around their “offices” as their resting space. In other words, there is a diversion of space from an urban space that is supposed to be able to accessed by the public as a private space for them. Clearly, there is a territory division, created either consciously or unconsciously, by the actors. This kind of territory division confirms a statement by Lyn H. Lofland, in her book “A World of Strangers” (1973), who stated that the ideal of the modern city is similar to the ideal of a well-ordered home. That is, the house comprises several rooms and sides that can be occupied by its stuff or its users: the public room that guests can occupy (e.g., a main living room); semiprivate rooms where guests can go, although it

is not common (e.g., a kitchen); and private rooms occupied by only the residents (e.g., a bedroom).

There is a notable distinction regarding the area hierarchy division within a house and within an urban environment. In a house, the room hierarchy definitions (i.e., public, semiprivate, and private) are determined by the spatial elements, such as walls and partitions that have a role to limit the movement of the users. Thus, a guest will not enter a private bedroom because she or he knows it is a private bedroom on the basis of the appearance of the wall that surrounds it. In the urban environment, in this case, the residual space beneath the flyover, the existing room is not sectioned by wall or partition. Every person can freely access the area, and the area is also based on the entire urban area (in this case the transit area) being a public area. In the urban environment, the area hierarchy division is more based on the activities conducted by the actors that occupy the space. This hierarchy division is in line with many urban and social researchers who have indicated that the interactions and activities of several actors within the public space provide meanings to the space itself (Hou, 2016). In the space beneath Tebet and Duren Kalibata flyovers, the public area is formed based on the place where the pedestrians walk (marked with red color). Then, their passing by activities shape the public perception that the area can be freely accessed by the public. That condition triggers the other supporting actors, such as hawkers, *ojek* drivers, *angkot* drivers, and Transjakarta crews, to occupy the surrounding space and conduct their activities there. As a result, the semiprivate area formed, similar to what occurred in Tebet. The function of the semiprivate area is directly related to the actors within the public area, that is, to support the *angkot*'s operation to provide transportation for the pedestrians. Then, the supporting actors establish a private area in between the mentioned area as their resting place. The activities within the private area are considered private because they do not have any relation with the actors within the public area, such as sitting and having a conversation, eating, laying down, and playing chess. The privatization activities results in the public perception that the area is not accessible by the public, which prevents pedestrians from occupying it. From this phenomenon, an observation is that a residual space beneath the flyover can actually be divided into more residual space, depending on how the public can access it. Afterward, the supporting actors consider those ‘untouched spaces’ as a potential space to be occupied.

B. Factors of Space Occupancy

The residual space beneath the flyovers is not planned. However, with the presence of the stations nearby, those spaces appear as if they are created to accommodate the actors. Consciously or unconsciously, the perception within the human mind determines their decision to occupy that space. In the observed area, the entirety of flyovers is located in front of the stations. This location shows that the main reason for the space occupation is the close distance to the station, and the wide form of the flyovers, which are made of concrete and can provide shade from sunlight and rain. This observation aligned with the theory from Kevin Lynch, in his book “The Image of the City” (1975), who stated that the two main factors that influence humans to occupy residual space within a city are accessibility and location. The Project for Public Space (2009) defined ideal accessibility as having visual connectivity with the surroundings and that people can go to and pass through. In

this case, the space beneath the observed flyovers are placed within the strategic locations of the station and can be clearly observed from the station exit. Additionally, the opposite is true, both stations within the observed locations can also be clearly seen from the flyovers. In addition, the residual spaces beneath the flyovers are located in the

middle of the main street; thus, the pedestrians can easily see the surrounding environment, such as the street, sidewalk, and buildings. It is easy for the pedestrians to determine their next destination. Thus, the visual connectivity of those spaces within the other context makes people feel invited to walk there (Gehl, 1971).

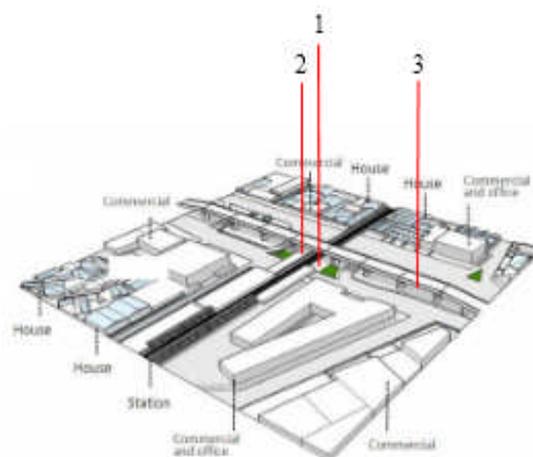


Source: Author's documentation

Fig. 12. Privatization Beneath Duren Kalibata and Tebet Flyover

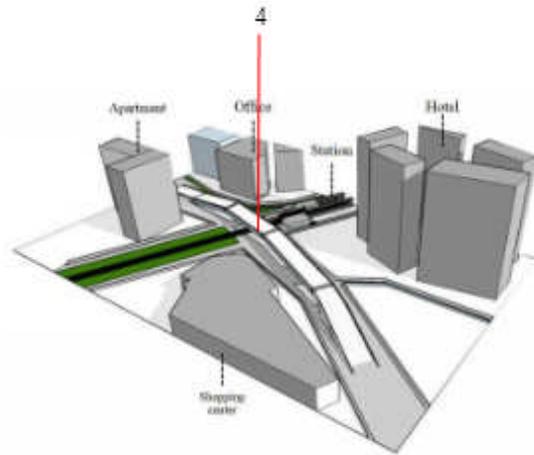
- (1) Hawkers putting their wares behind their vendor areas.
- (2) Transjakarta crews use the existing flyover column as their private area to take a rest.
- (3) Transjakarta crews privatize the area by hanging their jackets and bags on the fence.
- (4) People use the unused railway pads to take a rest.

The residual space beneath the observed flyovers is occupied by pedestrians and the supporting actors, such as hawkers, *ojek* drivers, *angkot* drivers, and Transjakarta crews. Conscious or unconsciously, they already define the area hierarchy into public, semiprivate, and private. An observation is that the supporting actors have conducted privatization within the area, and they have chosen the area that seemed to be alienated, where people could not easily access them. In the picture 12 number 2, the Transjakarta crews choose the space beside the flyover's column as their territory, and they seem to establish the column as the partition that limits their personal space with the public space. Another observation from the picture 12 is that the supporting actors also use the other urban elements to mark their territories, such as the fence and stack of unused railway pads; additionally, they even use the fence to hang their personal items, such as bags and jackets. This demonstrates that the other factors that influence their occupancy are the site boundaries that formed from urban elements such as flyover columns and fences (Lynch, 1975).



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Fig. 13. Map of the Area Surrounding Tebet Station



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Fig. 14. Map of the Area Surrounding Duren Kalibata Station

C. Messiness within the Residual Space Beneath the Flyover

The messiness within the space beneath the observed flyovers can be observed based on the amount of the occupied space within the area despite the prohibition, for example, the hawkers that occupy part of the pedestrian area and part of the street to sell their wares, motorcycles parked on the edge of the street, and the space privatization for sitting and laying down. Those kind of occupation phenomena is aligned with the theory from Manish Chalana and Jeffrey Hou, from their book “Messy Urbanism: Understanding the Other Cities of Asia” (2016), who stated that the messiness within the public space originates from the meeting and conflict from different types of stakeholders, and there are two main stakeholders: the government and citizenry. This conflict can be interpreted as a physical conflict, such as fight, and the conflict of interest of each stakeholder. In this case, the conflict of interest occurs when each stakeholder struggles to establish rules and spaces to fulfill their livelihood. The struggle can be in the form of, for example, reconstruction, re-territorialization, rebuilding, re-establishing, and reordering (Siu, 2013).

Actually, the Government of DKI Jakarta has established rules to limit the pedestrian area to pedestrians. In practice, because of “working for a livelihood,” the pedestrian area is also occupied by the other aforementioned actors. However, the supporting actors within the observed area are not supposed to arbitrarily occupy the pedestrian area, because they also provide space for them to walk. In the space beneath the Tebet flyover, the hawkers uniformly occupy the edge of the pedestrian area, leaving a space in the middle for pedestrian circulation. Furthermore, many street musicians sit on the sidewalk but still provide space in front of them for the pedestrians. Based on the picture 15 number 3, people who park their motorcycles seem to park them in order, that is, tight, close to the edge of the sidewalk, and with a space behind them. The same observations were noted in Kalibata, where online *ojek* drivers park their motorcycles in order within the edge of the street.

Those phenomena are in line with the equilibrium theory stated in “Messy Urbanism: Understanding the Other Cities of Asia” (2016). In the observed area, the local government and the actors are struggling to achieve their interests. Based

on the aforementioned rules, the Government of DKI Jakarta wants to create an ordered urban environment. In the equilibrium theory, the Government of DKI Jakarta wants to create a stable equilibrium. By contrast, the actors within the residual space attempt to create an unstable equilibrium by creating something that contradicts the government’s rules, that is, occupy the pedestrian area. However, to avoid greater conflict, the actors attempt to compromise with the government by ordering their occupation; thus, there still sufficient space that can be used according to its original function, that is, to accommodate the pedestrians. One observation is based on how the actors place themselves within a uniformed area, as aforementioned mentioned. Additionally, the government attempts to compromise with the involved actors by not evicting them as long as their presence does not disturb the pedestrians. Moreover, the government finally intervened by making Transjakarta stopping spots to support the pedestrians. Finally, the government and the involved actors attempt to create a neutral equilibrium to prevent greater conflict (Hou, 2016).



Source: Author’s documentation

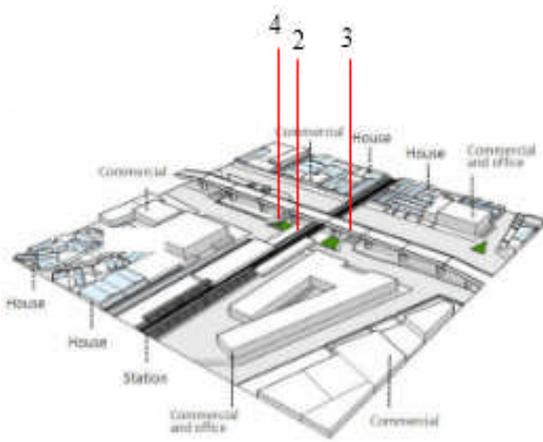
Fig. 15. Ordered Messiness Beneath the Duren Kalibata and Tebet Flyover

- (1) *Ojek* drivers tidily park their motorcycles on the street.
- (2) Hawkers still provide sufficient space for pedestrians.
- (3) Motorcycles are tidily parked beneath the Tebet flyover, by providing sufficient space on the backside for circulation.
- (4) Street musicians still provide a little space for pedestrian circulation.



Source: Reproduced by Author

Fig. 16. Map of the Area Surrounding Duren Kalibata Station



Source: Reproduced by Author

Fig. 17. Map of the Area Surrounding Tebet Station

D. Activities Beneath the Flyovers

The emergence of various actors that occupy the space beneath the flyovers causes the spaces to become a “public space” where many people conduct their activities and interact, in accordance with the definition of the public space by UNESCO (2017). Compared with the public space criteria by the PPS (2009), the most fulfilled aspect within the area of the study case is the “access and linkage,” and it is caused by the context of the area as the transit area. As pedestrians occupy the space beneath the flyovers because of the strategic and easy access, the second fulfilled aspect is “uses and activities” because the space “succeeded” in inviting the pedestrians to conduct their activities, such as walking, waiting, eating, and transactions. Additionally, the “sociability” and “comfort” aspects are not fulfilled because the emergence of those residual spaces was not planned. The reason for the people’s activities is because they must go there, to catch the transportation modes that carry them to their destinations. According to their definitions, the “sociability” and “comfort” aspects refer to the place that is sufficient comfortable for people to have social interactions and take a rest. In other words, people choose to go there, although they do not need to go there.

Each of the location creates a different perception for the actors that supports the pedestrians (e.g., hawkers, *ojek* drivers). The reason for occupying the space beneath the flyover is to benefit from the presence of the pedestrians, or in the other words, for the actors to earn their livelihood. The actors already consider the place their “office,” or second home. Soon, they began to feel comfortable there. An observation is that the privatized spots are used for conducting social activities among the supporting actors, or even for releasing their fatigue by laying down. From the perspective of the supporting actors with its link to the ideal public space criteria by the Project for Public Space (2009), the most fulfilled criteria are comfort, sociability, uses, and activities. In the early stage, the incoming potential from the pedestrians and the spatial quality created by the flyovers (e.g., shade and cool) invited the supporting actors and made them feel comfortable there. Then, after the supporting actors had already “gathered,” social interactions formed between them. Thus, the “uses and activities” were also

fulfilled because the place “succeeded” in inviting the supporting actors to perform their activities there.

From the observations on Duren Kalibata and Tebet, several significant differences emerged regarding how people occupied the space beneath the flyovers. In terms of the level of occupancy by the supporting actors, the residual space in Tebet seems to be more occupied than that in Duren Kalibata. As a result, the level of liveliness beneath the Tebet flyover is higher than in Kalibata. An observation is that from the area near the station entrance on the west side where almost the entire area of the pedestrian area is occupied by the hawkers, it is similar to a market. Not far from there is a waiting area for Transjakarta users to continue their journey to Kuningan. Additionally, beneath Duren Kalibata flyover, the level of liveliness is relatively low. This observation is based on the presence of many unoccupied spaces. The supporting actors, such as online *ojek* drivers and the hawkers, can be sighted in only several spots. The other actors are people who are homeless and street musicians, who are not included in the supporting actor group.

In terms of the formed space hierarchy, the phenomena can be clearly observed because beneath the Tebet flyover. The public spaces are formed in the area around the entrance of the station where most of the pedestrians pass by. The semipublic spaces are formed next to the public area, and the private area is located furthest from the public area. There also private areas located next to the public area (the resting area for Transjakarta crews on the west side), but it is bordered by the column of the flyover that makes the place inaccessible through direct physical and visual access by the pedestrians. As described in Figure 18, generally, the zoning of the space hierarchy forms a concentric pattern where the public area is located in the center and influences the formation of the semi-public and private area. Additionally, beneath the Duren Kalibata flyover, the hierarchy of the spaces are not clearly defined. This observation is based on the resting spaces of the people who are homeless and street musicians, which mixed with the spaces where pedestrians pass by.

Overall, the residual space below the Tebet flyover is more inviting to people to conduct their activities, compared with Kalibata. Based on the conducted observation, there are two major reasons that cause the phenomena to occur. The first reason is the context of the location. Tebet is a region located close to Jakarta’s central business district, Kuningan. Tebet Station is the closest access for Commuter Line users from the buffer cities, such as Bogor and Depok, to their work places in Kuningan. From the station, they can directly access Transjakarta to access the central business district. Thus, the station becomes very crowded in during the rush hours. Additionally, Duren Kalibata is located in South Jakarta and not a business district area. The second reason is based on the spatial condition around the station. Previously, below Tebet flyover, there was a railroad crossing that connects street from Casablanka to Kampung Melayu. In 2016, the railroad crossing closed. As a result, the area in front of the former railroad crossing became a new space for the supporting actors, such as *angkot* and *bajaj* drivers. That situation causes the area around Tebet Station to become more crowded and encourages the occupation of the residual space below the flyover. The high rate of the occupancy level is also caused by the presence of the urban elements. The presence of the fence along the

railways provides space for the hawkers to put their private belongings and sell their wares. In addition, the wide surface of the flyover's column is also used by Transjakarta crews as a partition to limit their rest area. Different from Tebet, the railroad crossing below Duren Kalibata flyover is still in

use, and not causing any emergence of residual spaces. Additionally, many green areas beneath the flyover result in people being unable to occupy the space. The limited number of urban elements such as fences also prevents privatization.

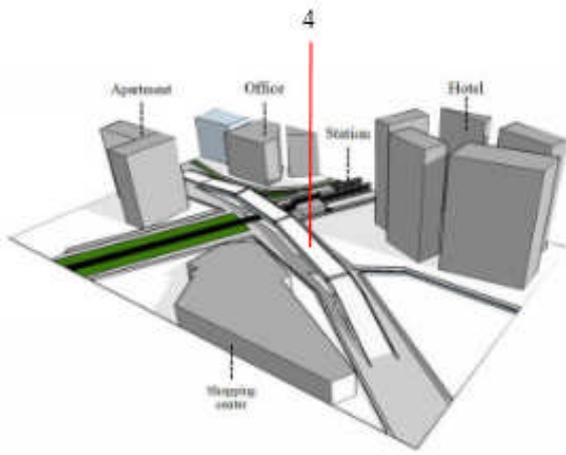


Fig. 18. Map of the Area Surrounding Tebet Station



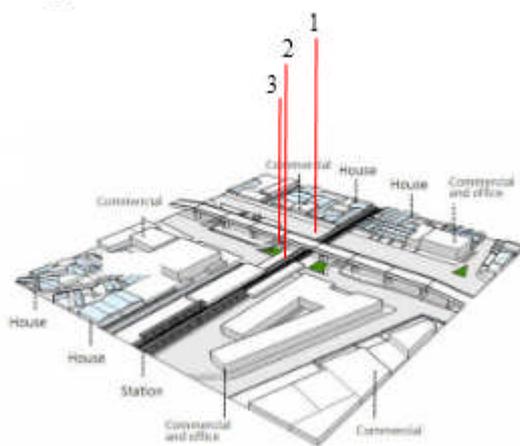
Fig. 19. Map of the Area Surrounding Tebet Station

- (1) Residual space in front of the former railroad crossing access used for angkot parking.
- (2) The fence along the railway provides space for the hawkers to put their belongings.
- (3) The Transjakarta crew rest in the area enclosed by the column of the flyover.
- (4) Area beneath Duren Kalibata flyover that functioned as a green area.



Source: Reproduced by Author

Fig. 20. Map of the Area Surrounding Duren Kalibata Station



Source: Reproduced by Author

Fig. 21. Map of the Area Surrounding Tebet Station

The notable phenomenon from the observations in both locations is that the supporting actors take the most important role in bringing liveliness within the space by engaging in optional and social activities (Gehl, 1971). This observation is based on the supporting actors such as Transjakarta crews and *angkot* drivers who have social interactions within the privatized area. Additionally, the main actors or the pedestrians are only conducting necessary activities within their occupation, such as walking, standing, and sitting (Gehl, 1971). By contrast, in the cities within the developed countries, such as in Europe, the people that have a big role in activating the space are the main actors, who are the pedestrians or people that intentionally came to enjoy the atmosphere.

V. CONCLUSION

The residual space occupancy and its messiness within the big cities such as Jakarta cannot be avoided because open space is increasingly rare because the population continues to increase rapidly, and the population has different types of social backgrounds and a high rate of job demand. Moreover, in the last five years, the Government of DKI Jakarta began to change people's mobility from automobile-oriented to

transit-oriented by adding and upgrading the quality of transit nodes. As a result, the increasing numbers of pedestrians were established as the tempting market demand, and the trigger was the presence of the actors that support them, such as hawkers, *ojek* drivers, *angkot* drivers, and Transjakarta crews. Because of the presence of the flyovers near the stations, the actors are provided shade that can make them feel comfortable to perform their activities beneath them.

The unique factor is that at the moment when the government considered the area to be a "messy" area, the actors seemed to enjoy the "messiness." This observation is based on the several areas privatized by the supporting actors for taking a rest and having social interactions. Additionally, the main actors (pedestrians) benefit from the presence of the supporting actors. The confusion regarding the "comfortability" term occurs due to its different interpretation, depending on the stakeholder who defines it and their interests. Thus, based on the observation and analysis that has been performed, this paper is expected to open each of stakeholder's minds to reduce or dismiss the confusion regarding the definition of the term "comfortability;" thus, the further arrangement of the public spaces (especially the transit nodes) can be optimized and result in bring for all stakeholders.

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