Improving Urban Corridor that Respect to Public Space

W Zahrah*, N Rahmadhani, A D Nasution and I F Pane
Department of Architecture, USU, Jl. Perpustakaan Ged. J.07, Kampus USU Medan 20155

*wahyuni.zahrah@gmail.com

Abstract. The urban corridor is more than just a linear space to circulation. It is a place for community activities. Since the urban area in Indonesia functionates without guidelines, it is necessary to analyze how this space being used by the community. The objective of the research is to explore the problems in utilization of public space in Dr. Mansur corridor in Medan and to propose some recommendation to improve it. The survey was started by mapping the physical situation that based on urban design aspects and the activities occur. Based on the data, the study identified the problems of the public space utilization. Next, study selected several buildings that significant in generating public life. The study interviewed the building's owners and users/customers to get their opinion and perception about the using of urban public space utilization in the corridor in relation to their private function. The study analyzed the problems and opportunity to redesign the buildings that respect to public space. Then, the design ideas were presented to the buildings owners to get their response. The result of the observation shows that the fundamental problem in the corridor is the intervention of the private interest to the street as public space. The study indicates that the majority of the buildings owner was not aware that their buildings had distracted the urban public space. However, they gave a positive respond to the design recommendation. The design offered the solution that provided individual needs without intervention to the public realm. The study can contribute to improving urban corridor by educating the community with architecture and urban design.

1. Introduction

1.1. Background and issues

- Urban corridor as a public space

An urban corridor is a link that connects urban space network. Thus, it is a space for movement. However, as an urban space, it is a place for various activities. Therefore, a corridor is a community area [1]. According to Jones et al (2007), the activities in the urban corridor can be group into two functions: ‘Link’ and ‘Space’ [2]. As a ‘Link,’ the urban street refers to the vehicles users, such as public transportation and private car. A corridor as a ‘Place’ relates to the pedestrians. The sidewalk users not only pass through the path but also spend their time on the street. They did wide variety activities: talking, waiting, shopping, eating, resting, etc. As a Link and Place, an urban corridor is a public space, where people have a free access entering and utilize it. However, as a ‘Place,’ it is a melting pot for communal occupation, which involved many community groups.

The Indonesian cities, which tend to be a street-oriented settlement, generate many commercial corridors. Parallel with the opinion of Project for Public Space (2008) and Jones et al. (2007), the
Indonesian urban corridors become a container of activities mixture: from shopping to hanging out, from cars parking area to buses, from public transportation to trishaw transit. Crossing the street, walking, talking, shopping, waiting, and eating are some activities that take place in the corridor. In a case, there is a ‘shift’ for different activities, as a marketplace in the morning, and after that, as a vehicle circulation path. The interchange of two distinct functions has been going on for years by only an unwritten agreement among user [3]. Problems arise when there is no guidance to utilize the space. Consequently, the community occupies the urban space according to their own interest. The condition can cause conflict between the ‘Link’ users and the ‘Space’ users and make the corridor a discomforting place to live.

- The successful urban corridor
The successful corridors, according to Project for Public Space (2008) should meet some criterions, such as promoting communities’ long-term goals, offering a variety of land use, offering a diverse and connected network of transportation choice; providing community destination; incorporating to the vision of communities. Appleyard (1981) propose the six characters for a livable corridor by providing street as a safe sanctuary; a livable, healthy environment; a neighborly community territory; a place for play and learning; a unique historic space; and a green and pleasant land [4]. Both Project for Public Space (2008) and Appleyard (1981) suggestion should refer to good planning and design. Meanwhile, such ‘formal tradition’ is very rarely in Indonesia. Therefore, it is necessary to ‘examine’ the life in an urban corridor in Indonesia, where there are no Urban design Guidelines.

- Gap of knowledge
The previous studies of urban street and corridors show that people in southeast Asian cities utilize the space differently with those of developed countries [5]. By the absence of urban design guidelines, the urban corridor as public space, grow spontaneously and tends to be ‘user-driven.’ One of the appropriate approaches to explaining the phenomenon is the exploration how the community utilizes the urban space. The study is expected to enrich ‘the vocabulary’ of the way urban community use urban space and to recommend some recommendations to improve the area.

1.2. The Objective
The objective of the study is to investigate the utilization of the urban corridor and explore some ideas to improve the space that respects to public interest.

2. Method
This research is a descriptive-explorative study since it tries to explain the utilization of an urban corridor as a public space. The investigation consisted of two stages. The first was the exploration of problems and needs of the corridor users. The second was the formulation of design ideas to improve the quality of the place. The ‘design exercise’ offered the solution to some commercial buildings that significant in generating public life.

The steps for the first stage were as follows:
- The surveyors walked along the corridor and recorded the activity and physical condition through photographs and sketches
- They redrew the data in some thematic maps, such as land use and building function maps, the distribution of traffic jam and parking area, and the public life generators
- The identification of utilization problems based on the data of activities and function that occupy the urban corridor, including street, sidewalk and building front yard
- Based on the field observation, the study selected several commercial buildings that significant in generating public life
- The surveyors recorded the existing condition of the selected buildings, both physical (design) and functional (activity) aspects
• The chosen building owners and customers were interviewed about their opinion to public space utilization
• The steps for the second stage were as follows:
  • The identification of needs and problems of the building owners in relation to the function of the buildings and the utilization of public space
  • The analysis of the design aspects: landscape and urban space, building spatial layout, and building facade design as part of street wall
  • The drafting of the proposed design
  • The discussion of the proposed design with buildings owner

3. Results and Discussions

3.1. Existing condition and problems

Study area took place in Dr. Mansur corridor, a primary collector road that connected two arterial roads, Jamin Ginting road at the East and Setia Budi road at the West (Figure 1). The main function of the corridor is Universitas Sumatera Utara (USU) Campus. The 100 hectares areas, which have more than 30 thousand population, place four accesses from Dr. Mansur Street. The other buildings are USU Hospital, church, mosque, and housing. The rest are the function that mostly serves students’ daily needs, such as cafes and restaurants, stationery stores, printing house, laboratory equipment store, and computer/internet leasing (Figure 2). The activities occurred either in the buildings as a private territory and in the urban public space: sidewalk and street’s space. Not almost all sidewalks could run as the pedestrian path, because of the poor quality of the path and the intervention of private function. The informal/street-vendors used sidewalk and street as their sales area, so did the motor vehicles’ users. They used sidewalk and street as their vehicles parking lot. The place that Jones (2007) mention about ‘destination’ in this case is a part of the street space and almost the entire pedestrian path. In this space, people spend their times: eating, talking, resting, waiting, etc. The majority of street vendors and commercial buildings users came to the place by motorcycles. Thus, the urban space, street in this case, should accommodate parking area for them. At the same time, pedestrians, private cars, public transports, taxis, trishaws, motorcycles, pass over the same area without segregation.

In this situation, there is no adequate space for pedestrians. Except for the occupation for parking and street vendors, in many parts of the corridor the sidewalk was vanished by the building owners’ self-modification. They changed the level and form of the public space for their private concerns: as the parking area or the extension of their sales area. Since the buildings attract many visitors, they have a significant role in generating public life. Some of the buildings are cafes and restaurants that had until 600 customers per day. The starting point to solve the corridor’s problem was improving these places.

The facts showed that Dr. Mansur Corridor had both ‘Link’ and ‘Space’ functions [2] since space became connector path of urban networking and destination for public activities. This corridor also performed a community space where people did their common interests. Referring to the successful corridor criteria by Project for Public Space [1], there are several characters, such as: (1) they offer a variety of land use; (2) they offer a diverse and connected network of transportation choice; (3) They provide community destination. However, all this function was going on in a discomfort situation, because of the lack of physical quality that could support a livable space [4]. This street could not grant a healthy environment, particularly for the pedestrians, because of the domination and intervention of vehicles and private occupation. However, a number of shady trees were available in some parts of the corridor, but at the same time, the traffic jam produced air pollution and noise.

The mixture of many activities in this area was a reflection of the nature of South East Asian that assumes a public space as living area [6][7]. Babiano and Ieda (2007) argued that the condition related to the tropical forests landscape of South East Asian. Yet, the authors guess that the causes of this situation were the car-oriented urban planning, the weakness of law enforcement, and the social gaps issues. The absence of mass transportation had pushed the community to have privates’ vehicles. Besides, since the place was never designed as a communal area, there was no adequate place for
informal sectors and pedestrians to spend their times on the street. The lack of regulation that controlled the boundary of private and public space triggered a serious intervention to public space.

The study found that the community had a low environment awareness and ethics. The interview with several buildings owners and customers of cafes and restaurants indicated that there was a very low respect to public interest. A restaurant owner in this corridor said that his building did not bother public space, even though he used the sidewalk as his restaurant dining area. The others admitted their mistakes, but “We don't have any idea to handle this.” Thus, the authors recommend improving this corridor by starting it with ‘respect.'

![Figure 1. The location of the study](image1)

![Figure 2. Building function map in Dr. Mansur Corridor](image2)

3.2. Commercial buildings redesign
The commercial buildings had a significant influence to the corridor. These buildings attracted up to six hundreds of visitors a day. Thus they could generate public life and made this urban space active. Those big numbers of customers mainly came to the place by cars or motorcycles and made them a primary ‘intruder’ of the street. The flow of access and parking to and from these buildings could cause a long queue on the corridor. Besides, the sidewalk could not perform a public function for pedestrians, because of the modification of its level, material, and form by buildings owners.

The study found that for financial reasons, buildings owners did not hire architects to design all selected commercial buildings in this survey. The owners use only the individual builder or contractor. That was why they built without a proper insight about building standard and regulation. Therefore, the study explored the design solution for these private buildings focusing on two concerns: first, keep accommodating the needs and function of the buildings, second, continue maintaining the public space. The proposed design was a universal approach, but the building's owner did not recognize this ‘ordinary’ design before. The point of this method was to upgrade the awareness and capacity of the community, the commercial building owners in this case, about the importance of public space.
Design issues

The biggest problem that found in all selected buildings was: (1) the needs of the dining area that wide enough to accommodate 100 – 600 visitors a day; (2) the needs of motorcycles and private cars parking area. Except for the two main problems, the design also proposed a suggestion to enhance facade and building frontage and buildings landscaping.

The proposed design

a. Landscape and urban space design

Initially, Dr. Mansur Street was a corridor with a setback single buildings character. The next development made the corridor became denser and built close to the boundary of the sidewalk. Currently, some buildings stand on the sidewalk. The design suggested keeping the buildings close to the street to increase the control of the pedestrian, as ‘eye on the street’ [8]. This strategy would increase the pedestrian accessibility and the safety of the space. The design recommended putting back the sidewalk as a continue-pedestrian path, with the same level and width in its all part. No more individual-modification allowed to this space. The design proposed to enhance sidewalk quality with benches, trees and the other attractive street furniture (Figure 3). This effort would attract many recreational activities that improve public life [9]. The sidewalk revitalization would create a good linkage along the corridor, so the pedestrian accessibility to the buildings was enhanced [10]. For the case of Angkringan restaurants, the design offered linkage from the sidewalk to the backside of the buildings, as an open air dining area. In another building, the pedestrian path could extend to the buildings front yard and make the public space wider. Contrast with the existing condition that private buildings ‘stole’ the public space, by the extension, the private buildings contributed to public space. However, since the accessibility of the commercial buildings became higher, it would attract more visitors to come. Thus, the design offered a mutual collaboration between private and public space.

b. Spatial organization of the buildings

The study showed that all selected buildings ‘consumed’ the entire land they had. There was no space for the parking lot. The design recommended raising the buildings so that the ground level could be the car park. Yet, a part of dining area could take a part of the first level to keep the continuity of the entire spatial organization (Figure 4 and 5).

Figure 3. Proposed Design: Image Impression of the Urban Space Scenery that Return the Function of Sidewalk for Pedestrians
Figure 4. Proposed Design: Spatial Organization of Paris Burger that Put the Parking Lot Inside the Private land

Figure 5. Proposed Design: Spatial Organization of Angkringan that offer Linkage between Public and Private Space

c. Building mass and facade
Most of the existing buildings used natural ventilation. The shape of the building mass was an open air typology with wide openings. This type reflected the character of a tropical building. The design proposed keeping this nature because it could strengthen local identity. The recommendation offered some enhancement of facade by installing organic materials and or implementing a more rhythmic tropical facade pattern. The concept could perform a unique and attractive streetwall [11][12]
d. Building owners response to the design
All buildings owners gave the positive response to the design proposal. Some of them expressed their plan to improve their building. All of them agree about not intervening the sidewalk anymore. However, most of them worried about the expensive building construction cost. Overall, they appreciate the proposed design.

“This is a very creative design. I wonder my building can be that beautiful”, Coffee Cangkir manager.
“I love the design. There is bigger parking lot. I will not use sidewalk anymore for my display sales”, Paris Burger owner.
“This is a good. I like that the design can maximize the limited land,” Ayam Penyet Jakarta Manager.
“I think we can implement this design. I will consider to move the car park into the inside of the land”, “Ben’s Cafe’s Manager.
“I like the design, but I think it will be expensive to be built,” Zamzam owner.

Figure 6. The discussion about the proposal design with building owners

4. Conclusions
The study indicates that a main problem of the urban corridor utilization is the intervention of the private functions to the public area. The weakness of the building regulation implementation and the lack of community awareness could be responsible for this matter. However, though the physical quality of the corridor is very poor, the community keeps doing their activities in there. It reflects their needs for spend their time on the street. Therefore, the improving of the corridor should be started with the public education by architecture and urban design. The key point of the design proposed is the respect to public space. As an early step, the study shows that the design could ‘provoke’ people’s awareness. It evokes the optimism that the architects and community could together improve the city. The next study can be the exercising of the design execution and then the evaluation of the post-occupation in order to get the effect of the design.

Acknowledgments
The authors gratefully acknowledge the Ministry of Research, Technology, and Higher Education Republic of Indonesia that supports the present research under the research grant TALENTA USU of Year 2016, and for all participants involved in this study.

References
[1] Project for Public Spaces 2008 Great Corridors, Great Communities. New york.
[2] Jones, P, Boujenko, N. and Marshall, S. 2007 Link and Place: A Guide to Street Planning and Design, abstracts.aetransport.org/paper/download/id/2870, accessed October 5th, 2016
[3] Zahrah, W, Lie, S 2015. People and urban space in Medan: an environment behaviour approach, 6th Asia-Pacific International Conference on Environment-Behaviour Studies, Barcelona School of Architecture (ETSAB), Barcelona, Spain, 31 Aug.- 05 Sep. 2015, e-IPH Ltd, London 368 - 374
[4] Appleyard, D. 1981 Livable Streets Berkeley: University of California Press,
[5] Ever, HE, Korf, R. 2002 *Urbanisme di Asia Tenggara, Makna dan Kekuasaan Dalam ruang-ruang Sosial*, Jakarta: Yayasan Obor Indonesia

[6] Hartanti, B.N. 2012. *Street as Livable Space in the Urban Settlement* repository.ugm.ac.id/92176/1/9_Living%20disaster.pdf. accessed March, 8, 2015

[7] Babiano, I. M. & Ieda, H. 2007 Street Space Sustainability in Asia: The Role of The Asian Pedestrian and Street Culture. *Journal of the Eastern Asia Society for Transportation Studies*, Vo. 7, 2007

[8] Jacobs, J. 1961, *The Death And Life of Great American Cities* New York: Random House

[9] Gehl, J., Gemzoe, L 1996 *Public Space – Public Life*. Copenhagen: The Danish Architectural Press and Royal Danish Academy of Fine Arts School of Architecture Publishers.

[10] Project for Public Spaces 2012 *What Makes A Successful Place* www.pps.org/reference/grplacefeat

[11] CABE and DETR 2001 *The Value of Urban Design*, London: Thomas Telford

[12] Gehl, J 2002 *Public Space and Public Life City of Adelaide: 2002*. Adelaide: City of Adelaide