



# Study of Continuity in City Roundabout as Pedestrian Friendly Public Open Space, case study: Tugu Gajah Roundabout, Bandar Lampung, Indonesia

M. M. Hizbullah Sesunan<sup>1\*</sup>, Citra Persada<sup>2</sup>, M. Shubhi Yuda Wibawa<sup>3</sup>

<sup>1</sup> Department of Architecture, Engineering Faculty, University of Lampung, Bandar Lampung 35145, Indonesia

<sup>2</sup> Department of Architecture, Engineering Faculty, University of Lampung, Bandar Lampung 35145, Indonesia

<sup>3</sup> Department of Architecture, Engineering Faculty, University of Lampung, Bandar Lampung 35145, Indonesia

\*mas.hizbullah@eng.unila.ac.id

**Abstract.** Research focuses on the study of continuity, which is a part of a townscape theory in public open spaces and is an extension of previous research that examined the principles of townscape in urban public spaces. The study object chosen is the Tugu Gajah Roundabout in Bandar Lampung. The current use of the Tugu Gajah Roundabout as a public open space by closing one side of the road is not ideal for pedestrians because there is no clear separation between pedestrian and motor vehicles spaces, potentially endangering pedestrian safety. The goal of this research is to create design recommendations for pedestrian issues at this roundabout, so it could become a more pedestrian-friendly public open space. This is a qualitative descriptive study, and several urban design theories are utilized to derive development principles for the area, such as placemaking and townscape theories. This research provides an understanding of the principles of continuity for pedestrians in urban public spaces, which can serve as a design concept for the development of urban public spaces in Bandar Lampung, particularly in the Tugu Gajah Roundabout area. From the study, numerous Place indicators from Townscape theory have not been manifested in the area, it can be concluded that these indicators have not been achieved. Therefore, it is necessary to develop facilities and functions/activities around this roundabout.

**Keywords:** Continuity, Townscape theory, Tugu Gajah roundabout, Qualitative descriptive

## 1 Introduction

The Gajah Roundabout area, also known as the Adipura Monument roundabout, which is the subject of research, has now become a public open space with an attraction in the form of the city icon of Bandar Lampung, namely the Adipura monument located in the city center, close to other city landmarks such as Gajah Park and Saburai Sports Complex. These elements are attractions for pedestrians and play a significant role for the city of Bandar Lampung, as it serves as the main venue for city

© The Author(s) 2024

A. Zakaria et al. (eds.), *Proceedings of the 1st International Conference on Industry Science Technology and Sustainability (IConISTS 2023)*, Advances in Engineering Research 235, [https://doi.org/10.2991/978-94-6463-475-4\\_19](https://doi.org/10.2991/978-94-6463-475-4_19)

events that are expected to enhance the city's image. This important role must be supported by the realization of a successful public open space, and this is where the importance of this research lies, because the success of the city's public open space is inseparable from its physical quality and its relationship with humans as users of that space. There are several urban physical values that can influence the success/life of a public open space on the city's landmark. The physical arrangement can contribute to the liveliness of a public space visited by the community, in addition to the human aspect itself. One of the arts in managing the city's physical environment is through the concept of continuity from the Townscape theory (Cullen, 1971) which has been studied in previous research. In this phase, the researcher will analyze the design concept using the continuity concept in public open spaces, in order to provide an ideal design concept guide for the Gajah Roundabout.

Regarding the research object, nowadays, the interest of the community and the city government of Bandar Lampung to visit and use the space around the Gajah Roundabout is increasing, as seen from the frequent use of the area for events and the closure of one of the roads at certain times to allow pedestrians to use it freely. Maybe, this happens because of this roundabout is the city's landmark, but the physical setting of this roundabout is not designed for pedestrian uses. The goal of this research is to create design recommendations for pedestrian issues at this roundabout, so it could become a more pedestrian-friendly public open space

The increasing interest of local residents in visiting the Gajah Park area (which is located near the Gajah Roundabout) was a previous research issue that has already been studied, by evaluating the principles of place attachment that manifested the area, which is an indication of the success of the revitalization of the area. From previous research, it is known that place attachment has been established (especially in Gajah Park), making the community feel comfortable and attached to the area. Based on these research results, this further research is conducted to support the formation of place attachment in the Gajah Park and Gajah Roundabout areas as a whole, not just focusing on Gajah Park alone.

## **2 Methodology**

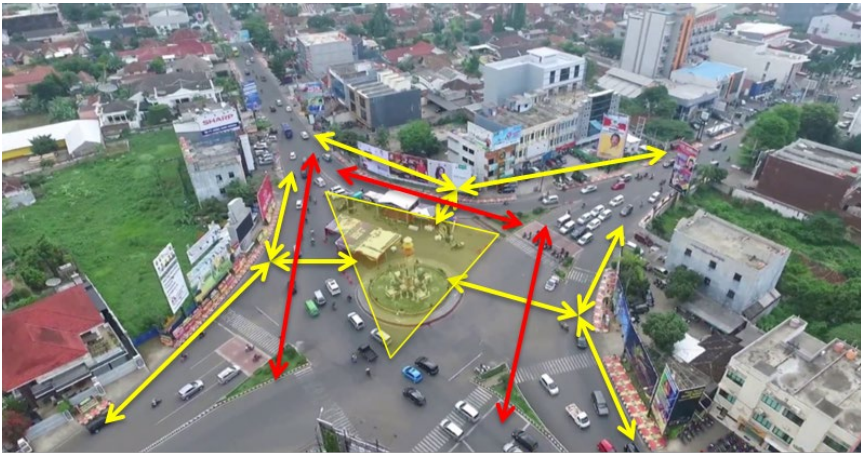
Using qualitative descriptive research methods, urban design theory is used to evaluate the area, especially the urban landscape. Based on these theories, indicators were developed to analyze the territory to support the formation of a sense of attachment to place. The results of this analysis are then used as a basis for making recommendations for the development of the territory. This research provides an understanding of the principles of continuity for pedestrians in urban public spaces, which can serve as a design concept for the development of urban public spaces in Bandar Lampung, particularly in the Tugu Gajah Roundabout area. Additionally, a design simulation will be carried out in future research.

### 3 Results and Discussion

Based on the results of the analysis, several issues were identified that need attention. They will be classified according to the place factors from the Townscape theory:

#### 3.1 Continuity

The continuity of pedestrian movement has not been achieved in the Gajah Roundabout area, as the city sidewalks leading to the roundabout are interrupted by vehicular circulation. Ideally, for this roundabout area to become a tourist destination (a scenic spot of Bandar Lampung), it must ensure that pedestrian traffic does not intersect with vehicle traffic.



**Fig. 1.** Cross circulation in the area (yellow: pedestrians, red: vehicles).

The Enggal area (Gajah Park, Saburai Sports Complex and Saburai Field) has many public spaces, but unfortunately pedestrian traffic is not well served due to several pedestrian routes. Walking is still interrupted. There are also no elevated pedestrian crossings to avoid pedestrian traffic with motor vehicles, both in the Enggal area (between Gajah Park, Saburai Sports Complex and Saburai Field) and with the surrounding environment (Gajah Roundabout, shopping mall, hospital, etc.).

#### 3.2 Focal Point

The established focal point in the area is the Adipura monument, which often serves as a subject for photography and selfies for tourists as well as local residents who want to capture images around this city landmark.



Fig. 2. Focal Point in the area.

### 3.3 Change of Level

There are no contours causing level differences around the site, except for the height difference between the road and the pedestrian path on both sides. Contours begin to be noticeable in the Gajah Park area, which has a close connection to the Gajah Roundabout due to its proximity.



Fig. 3. Change of level in the area.

### 3.4 Pedestrian Ways

Pedestrian facilities are provided quite well, but there are some spots that are still lacking due to the presence of street vendors. This deficiency in this aspect leads to discomfort for pedestrians in the sidewalk area around the Gajah Roundabout, as there are many street vendors in the pedestrian area, especially around Gajah Park.

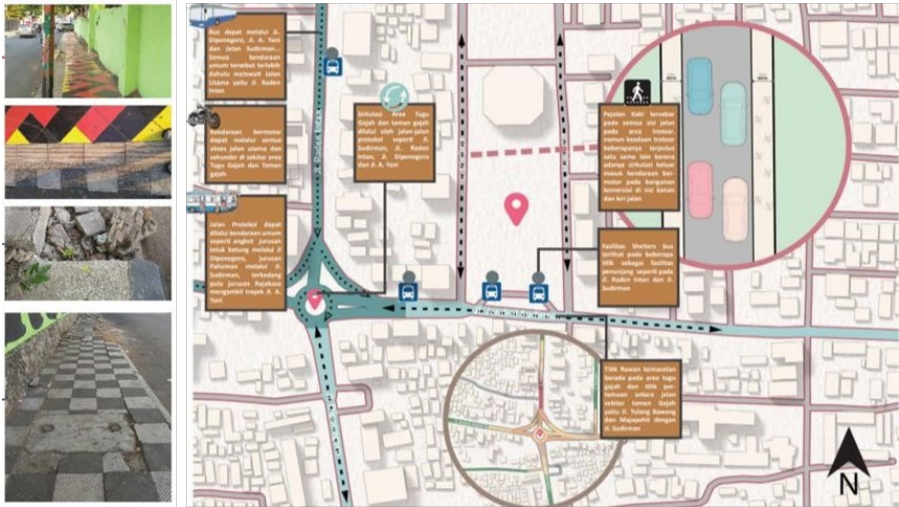


Fig. 4. Pedestrian Ways in the area.

### 3.5 Linking and Joining the Floor

The interconnection of several areas/functions on the site with the Gajah Roundabout has not been realized. There is currently only a pedestrian crossing at road level, but it is also necessary to create connecting paths at the upper level to achieve greater continuity in movement and better unify this area.



Fig. 5. Linkage in the area.

### 3.6 Grandiose Vista

The Grandiose Vista has not been realized at the Gajah Roundabout due to its very simple physical arrangement. It is necessary to consider ideas that can combine the natural view with the Adipura monument.



**Fig. 6.** Grandiose vista around the area.

### 3.7 Precincts

Precincts have not been realized within the Gajah Roundabout, as there is still a mixture of pedestrian and vehicular areas without clear physical boundaries. This condition is not ideal for a public open space that should be pedestrian-friendly, especially around a city landmark.



Fig. 7. Precincts in the area (yellow: pedestrians, red: vehicles)

## 4 Conclusion

Considering the numerous Place indicators from Townscape theory that have not been realized in the area, it can be concluded that these indicators have not been achieved in the Gajah Roundabout area. Therefore, it is necessary to develop facilities and functions/activities in this area.

### 4.1 Development Recommendations

Based on the research findings above, several townscape aspects in the Saburai Field area that need improvement are evident. Development recommendations for these aspects are focused on the Place component of the Townscape theory:

Table 1. Development recommendations with a continuity approach.

Design Component	Continuity Factor
	Place (Townscape)
Circulation and Parking	- Promoting the use of alternative transportation such as public transport and bicycles, by enhancing the convenience of public transport and providing facilities for bicycle use: establishing bicycle lanes around the area integrated with the city's circulation routes, providing free bicycles around the area, and creating designated bicycle parking areas.
	- Providing motor vehicle parking spaces to

Pedestrian Circulation	<p>prevent parking on the roadside, thus hindering the formation of the positive urban space that should be realized in public open spaces.</p> <ul style="list-style-type: none"> <li>- Creating facilities that allow for the separation of motor vehicle and pedestrian areas in the Gajah Roundabout area.</li> <li>- Introducing continuous and uninterrupted pedestrian paths around the Gajah Roundabout area, integrated with transit points.</li> <li>- Enhancing the quality of pedestrian paths, particularly to ensure they are separated from vehicular traffic, by providing clear boundaries.</li> <li>- Constructing a skywalk to connect the Gajah Roundabout with surrounding areas such as Gajah Park, Saburai Field, Saburai Sports Complex, and public buildings nearby. This will provide pedestrians with a seamless and uninterrupted experience even when crossing between city blocks.</li> <li>- Designing a city's public open space that is well-planned, unique, and serves high social functions, thus accommodating a wide range of urban community activities.</li> </ul>
Public Space	<ul style="list-style-type: none"> <li>- Injecting more facilities and activities for the middle and upper classes, in order to diversify the users of the field, such as organizing street vendor stalls, children's attractions, etc.</li> </ul>

---

**Acknowledgements.** We would like to acknowledge the contributions and support of various individuals and organizations in the completion of this research. Furthermore, we acknowledge the contributions of our colleagues and peers at Architecture Department of Universitas Lampung in providing discussions and feedback.

## References

1. Bentley, Ian, et al. *Responsive Environments*. The Architectural Press, London (1985)
2. Carmona, M. T. Heath, T. Oc, S. Tiesdell. *Public Spaces – Urban Spaces: the Dimensions of Urban Design*. Great Britain: Architectural Press. (2003)
3. Carr, Stephen, et al. *Public Space*. United States of America: Cambridge University Press. (1992)
4. Cullen, Gordon, *The Concise Townscape*, The Architectural Press, London. (1971)
5. Dinas Tata kota, Pemerintah kota Bandar Lampung. *Rencana Tata Ruang Wilayah Kota Bandar Lampung 2011-2030*. Bandar Lampung: DTK. (2011)
6. Direktorat Jenderal Penataan Ruang Departemen Pekerjaan Umum. *Mewujudkan Ruang Perkotaan yang Harmonis, Berdaya Saing dan Berkelanjutan*. Jakarta: Dep. PU. (2008)



7. Lynch, Kevin, *Good City Form*. Massachusett, The MIT Press. (1992)
8. Lynch, Kevin, *The Image of The City*. USA, The MIT Press (1992)
9. Peraturan Menteri Dalam Negeri No.1 tahun 2007 tentang Penataan Ruang Terbuka Hijau Kawasan Perkotaan (RTHKP)
10. Norberg-Schulz, C. *Genius Loci, Towards a Phenomenology of Architecture*. London: Academy Editions. (1980)
11. Sesunan, MM. Hizbullah *Evaluasi perwujudan place attachment pada revitalisasi ruang terbuka publik kota Bandar Lampung*. Program Studi Arsitektur Universitas Lampung, Indonesia. (2018)
12. Shirvani, H. *The Urban Design Process*. New York: Van Nostrand Reinhold Company. (1985)
13. Sudradjat, Iwan. "Conceptualizing A Framework For Research On Place In Indonesia", *Proceedings of International Seminar on Place Making and Identity 2012*, Department Of Architecture, Universitas Pembangunan Jaya, Indonesia. (2012)
14. Trancik, R. *Finding Lost space*. New York: Van Nostrand Reinhold Company Inc. (1986)
15. Tuan, Yi-Fi. *Space and Place. The Perspective of Experience*. Minnesota: the University of Minnesota press. (1977)

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

