

**VISUAL CHARACTERISTICS OF PHYSICAL CHARACTERISTICS OF GAJAH MADA ROAD CORRIDOR IN DENPASAR CITY****Putu Dika Aryangga, Wirawibawa, I. B. G, Widiastuti Widiastuti**

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Economic development in urban areas indirectly changes the function of residential areas into commercial areas. Along with the development of the function of the Gajah Mada area, the threat of decreasing the visual quality of Jalan Gajah Mada as an artifact of the corridors of the Denpasar Old Town area naturally cannot be avoided. The need for increased trading space, high building density, development of economic functions that are more commercial in nature due to the demands of profit and modernization as well as a slum environment can also eliminate the visual character of the physical corridor of Jalan Gajah Mada which still retains the characteristics of Balinese architecture and the image of Kota Tua because Therefore, it is necessary to study the visual characteristics of the physical corridors of Jalan Gajah Mada so that directions regarding the arrangement should be considered in accommodating changes in the physical corridors so that they remain visually aligned. This research method is a type of descriptive research using qualitative methods. Descriptive research is a research that aims to provide a systematic, factual, accurate description of the facts and characteristics of the population so that it can produce the physical characteristics of the Jalan Gajah Mada corridor as seen from the path elements, architectural patterns and street trees that surround the corridor.

**Keywords:** characteristics; visual; road corridor; commercial; Kota Tua.

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**INTRODUCTION**

The old area in an urban area is not a man-made environment that was built in a short time, but a built environment that was formed in a relatively long time. The shape, face, and spatial layout of the old city area that is formed today is the result of the accumulation of each stage of development that occurred previously and is influenced by various factors, including political, economic, social, cultural, and globalization (Daldjoeni, 2003).

Often cities experience developments that lead to fabrication which results in parts of the city area having characteristics that are not different from other parts of the city area. Norberg-Schulz (1980) states that the peculiarities or characteristics of a place are important to make a space a meaningful place. The presence of old buildings and street space elements which are artifacts and reminders of the city's past history is often ignored in regional planning and arrangement. As a result, buildings and street space elements that are related to the history of the city and form the characteristics of the area are prone to disappearance, especially in commercial areas and corridors. One of the commercial corridors experiencing this phenomenon is the Jalan Gajah Mada corridor, Denpasar.

Jalan Gajah Mada Denpasar area is a representation of the old city of Denpasar today. The background of this area is old buildings that functioned as shops. This line of shops in the Jalan Gajah Mada area shows the glory of the area as the largest trading center in Denpasar City to date. Along with the development of trade in the function of the Gajah Mada area, the threat of decreasing the physical quality of Jalan Gajah Mada as an artifact of the Denpasar Old Town corridor naturally cannot be avoided. The problem of the Jalan Gajah Mada corridor arose in line with the economic growth of greater trade activities. The need for increased trading space, high building density, the development of a more commercial economic function due to the demands of profit and modernization and a slum environment can damage and even eliminate the character of the Jalan Gajah Mada corridor which still retains the characteristics of Balinese architecture and the image of Kota Tua (historical heritage). This research is directed to examine the physical characteristics of

the built environment space in the Jalan Gajah Mada area as seen from the visual characteristics of the path elements, activity pattern, Degree of Enclosure, architectural pattern and street trees that surround the corridor.

The development of land for vehicle parking is urgently needed at this time. The existing parking area is not sufficient to function. Given the increasing level of ownership of motorized vehicles and increasing tourist destinations, resulting in increased tourist visits, especially using vehicles. This has implications for the availability of parking spaces. Existing parking space allows not accommodate with a high duration of parking vehicles. Land planning is also very influential on improving land use for purposes other than tourist destinations (Vianthi NPYL, Putra IDGAD, 2022; Putri NNS, Dwijendra NKA, 2021; Astoeti DR, Dwijendra NKA, 2021).

The use of roadside parking is currently very common. Accessibility of visitors provides reasons with the ease of reaching their destination, so they take shortcuts to get to a place. Good parking is motorized vehicles parked in accordance with the signs and land that has been provided. Both on-street and off-street parking are very open to development. Because the potential of parkis is now land to increase local revenue. With parking fees, local governments will add cash to plan future development (Syaiful S, Elvira Y, 2017; Syaiful S, Yuliantino M, 2017; Syaiful S et al, 2020).

### **Visual Character Understanding**

Characteristics are special characteristics or have special characteristics in accordance with certain characteristics. Characterization is one element in the scientific method in the form of observation and measurement. Meanwhile, space is a container that includes land space, sea space, and air space as a unitary area, where humans and other creatures live and carry out activities and maintain their survival (Spatial Planning Dictionary). Road corridors consist of the road surface, the edge of the road between the sidewalk and the land boundary line, and any space that is part of the building and property line, or in other words the elements forming the corridor, namely the road and the surrounding buildings so that the corridor These form a city architecture and city character.

According to Lynch (1969) and Yunus (2005), visual character is a feature of physical formation in an area or building whose constituent elements can be absorbed and captured by the sense of sight. The physical quality provided by a visual system in an area can create a strong image of the area. Cullen (1961) states that a good visual correlation creates a certain emotional satisfaction for the observer (a psychological phenomenon) which is then related to city views. In this case, the visual character refers more to the physical formations that occur in the area. In some theories it is stated that the dominant component of visual character formation is the physical formation in an environment. This is reinforced by the following statements of several theories:

1. The visual value of an area is indicated by the physical quality formed by the relationship or interrelation between visual elements in a city landscape (Smardon, CR, 1986, 314).
2. Visual characters can be seen through visual cues which are image perceptions that are felt with the eyes (Ching, F DK, 1995).
3. Visual character is the formation and arrangement of patterns and elements that compose them. These elements and patterns are shape, line, color and texture.
4. Good visual character is due to the harmony between physical formations or physical characters that exist in an area. According to Cullen (1961).

From the things mentioned above, it can be concluded that visual character is a characteristic, distinctiveness, or image that is typical of an area that is captured through its constituent physical elements or components. Therefore, to get, understand, or know the visual character of an area, it is necessary to understand the physical components (physical phenomena) that form and influence the visual character of the area.

### **Visual Character Building Components**

An understanding of the characteristics or characteristics of the area is needed to capture the uniqueness of a place. These characteristics can also be used to provide a physical or non-physical

description or description that makes the object easily recognizable. Bishop (1989) also mentions several elements as forming visual characters in corridors, namely landscape, buildings, parking, and markers.

1. **Landscape (Landscaping)** Landscape is the strongest romance in a block, where its existence can be a differentiator in a corridor or area. Elements that can be used as objects of observation here are vegetation, both trees and shrubs in the area. Trees can be used to define space, shape landscapes, provide a sense of continuity (define the shape of the road and provide a shaded canopy for pedestrians), act as a sculptural element, filter views of buildings and outdoor spaces, and influence one's inner voice.
2. **Building (Building)** Buildings in one block or piece of road is a unit forming space in a block. The series of buildings on the road can be an aesthetic element of a view and a space-forming element in a corridor.
3. **Parking (Parking)** The element that can be used as an object of observation here is the pattern of parking arrangements in the area. The arrangement pattern is very influential for the user on the space formed in the road corridor, circulation and the possibility of structuring other elements in the area.
4. **Signage** Placing a sign (signage) both in areas and buildings can give a positive or negative visual impression. A positive visual impression will be captured if the marker is placed according to its function and in harmony with its environment, while a negative visual impression will be captured if the marker is placed not in accordance with its function and even creates visual disturbances in the area or building. For example, the placement of a marker that creates a negative impression is the closure of the entire building facade by a sign whose composition is not regulated.

Smardon (1986) mentions that there are five physical elements of a view that will be recorded in one's observation, including:

1. **Paths** The shape of the road will give the impression of order and comfort in an area. The shape of the road can be in the form of a regular intersection so as to form a rectangular line or area blocks (grid), irregular (irregular), or a circular road with a road center (radial).
2. **Degree of Enclosure** Scope in a corridor affects user comfort through physical elements forming visual characters such as buildings, vegetation, and parking elements located on the shoulder of the road. The existence of these elements forms a space from the comparison of the wall and floor elements of the corridor.
3. **Street Trees (Trees)** The state of plants (trees) in an environment affects the image of someone who is in it. This relates to the height of the tree, the distribution of the presence of trees, and the shape of the tree canopy in a section of the corridor.
4. **Architectural Pattern (architectural pattern)** In a corridor, architectural patterns provide an overview of the interrelationships of a group of buildings that show the interrelationships in terms of shape, size, and alignment that are created as visual characters that are captured by someone who observes them.
5. **Activity Pattern, activity volume, activity time, and activity type.** Activity patterns provide an overview that leads to the percentage of human activities in an environment. The pattern of activity can be described through the appearance of activities in parts of the area that are categorized as activities that are carried out temporarily, temporarily or at a certain time, or are often carried out.

#### **Whether during the day, night, weekdays or holidays.**

Based on some of the theories above, it can be concluded that the physical components that make up the visual character proposed by Bishop (1989) and Smardon (1986) differ in terms, but complement each other. Broadly speaking, it can be seen that the common threads of the various physical components that make up the visual character of a townscape are stated, namely

emphasizing on 1) buildings including architectural patterns, 2) street trees, 3) paths (pedestrian and vehicle lanes), 4) street furniture and signage, 5) parking.

## RESEARCH METHODS

This research is a type of descriptive research using qualitative methods. Descriptive research is research that aims to provide a systematic, factual, accurate description of the facts and characteristics of a particular population or area (Darjosanjoto, 2006).

According to Siregar (2004) and Trancik (1986) descriptive research has two main characteristics, namely:

1. Focusing on problems that existed at the time the research was conducted (currently) or actual problems.
2. Describing the facts about the problem being investigated as it is accompanied by a rational interpretation.

In this study, descriptive research has the following benefits:

1. Provide information, problems, and the latest phenomena at the research location, especially problems with the characteristics and visual characteristics of the area.
2. Can describe specific facts about the study location, which in this case are the characteristics and peculiarities of the character of buildings and road spaces in the area.

## RESULTS AND DISCUSSION

### Corridor Segment Division

Existing conditions and corridor analysis are described by dividing the road into 3 segments based on visual findings in the field and activities that occur. The first segment is dominated by shopping buildings with an average building height of 2 floors. In segment 2 there are shops, the Badung River, Pura Desa and Puseh (a sacred place of Hinduism) and there are two markets, namely Pasar Badung and Pasar Kumbasari. While in segment 3 there are shops, offices and banking. Of the three segments that really dominate, the first is the trading function building, the second is the banking building and the three other buildings with different functions from the trade and banking functions. In the Badung river area, which is the barrier between Segment 1 to segment 2 and segment 3 to the Catur Muka statue as the point O area of Denpasar city, the division of the Jalan Gajah Mada Corridor segment can be seen in Figure 1.

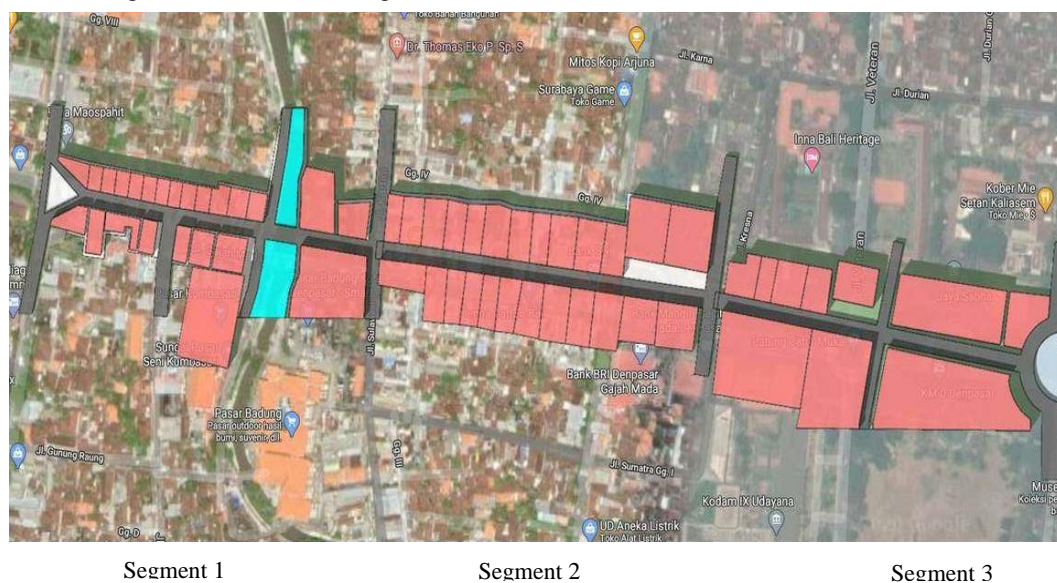


Figure 1. Segment Division on Jalan Gajah Mada Denpasar Corridor

**Path.** From field observations, it is known that the size of the existing road segment 1 to segment 3 is 14 m with a sidewalk width of 1.65 meters. In segment 2 (two) to segment 3 (three) through the river which is now often called the Korean tukad because it has been designed as a public space by the Denpasar city government. In segment 2, there are markets, namely the Badung Market and Kumbasari Market, where many vehicle activities stop for a moment to shop and park on the roadside so that the dimensions of the road are narrowed due to these activities. The narrowing of the road or what is known as the bottle neck in segment 2 results in the size of the utilized road being 10 m wide. The form of a parking pattern for visitors who park their vehicles in front of the shophouse or the place they are going. The parking pattern in front of the shophouse is two sides forming an angle of  $90^\circ$ . Meanwhile, the maximum parking time is 1 hour for visitors. In addition to parking the two sides form a  $90^\circ$  angle. The shophouses that are included in this building cooperate in terms of parking, where motorbikes park in front of one shophouse while parking cars in front of the other shophouses. In general, the parking pattern in segment 1 is the same as in segment 2, namely parking on two sides forming an angle of  $90^\circ$  in front of each shophouse. However, in front of service shops that have special parking spaces in the Gajah Mada area and are always crowded with visitors, the parking spaces are at angles of  $30^\circ$ ,  $45^\circ$ , and  $60^\circ$ . The parking pattern in the Gajah Mada area can be seen in Figure 2.



**Figure 2.** Parking Pattern for Gajah Mada Area

**Street Trees.** From the field data, it is stated that along the Jalan Gajah Mada corridor there are a row of trees in several places that serve as protection for pedestrians and motorized vehicles on the edge of Jalan Gajah Mada Corridor. There are 42 pieces of vegetation in the corridor of Jalan Gajah Mada with an average height of 6-10 m in the form of frangipani trees, bottle brush trees, shade trees, Japanese trees, ornamental planter box plants and palm trees. However, the number and layout of the trees are not neat with very diverse distances according to visitors' statements that the presence of these trees does not give the impression of being shady. The vegetation in the Gajah Mada area can be seen in Figure 3. In Segment 3 which is located next to the Denpasar Mayor's office, there is vegetation and seating for pedestrians to rest before continuing their journey.



**Figure 3.** The vegetation of the Gajah Mada area

### **Architectural Patterns**

The architectural building in segment 1 (one) is a building that adopts ancient Balinese architecture which was then updated by the shop owner by changing the building slightly to be cleaner, but the character of the old city building is maintained. With the development there are many new buildings made by the shop owner by following the function of the building. In Segment 2 (two) there is a Pasar building that has been redesigned with the latest materials but in terms of appearance it still adopts the concept of Balinese architecture, unlike the Kumbasari market building which still maintains its identity as an old city. The occurrence of this can have an impact on reducing the character of the old town on the Jalan Gajah Mada Corridor. Segment 3 The building is dominated by banks which still maintain the traditional Balinese building concept, but many changes have occurred in the facade of the building that has a touch of modern architecture. Nevertheless, the informant's statement that the urban landscape formed by the visual appearance of rows of shophouses and the combination of new buildings with old buildings in almost every part of the city still makes the Denpasar City area an interesting city color to observe. The view of the building in segment 1, segment 2 and segment 3 can be seen in Figure 4, Figure 5 and Figure 6.

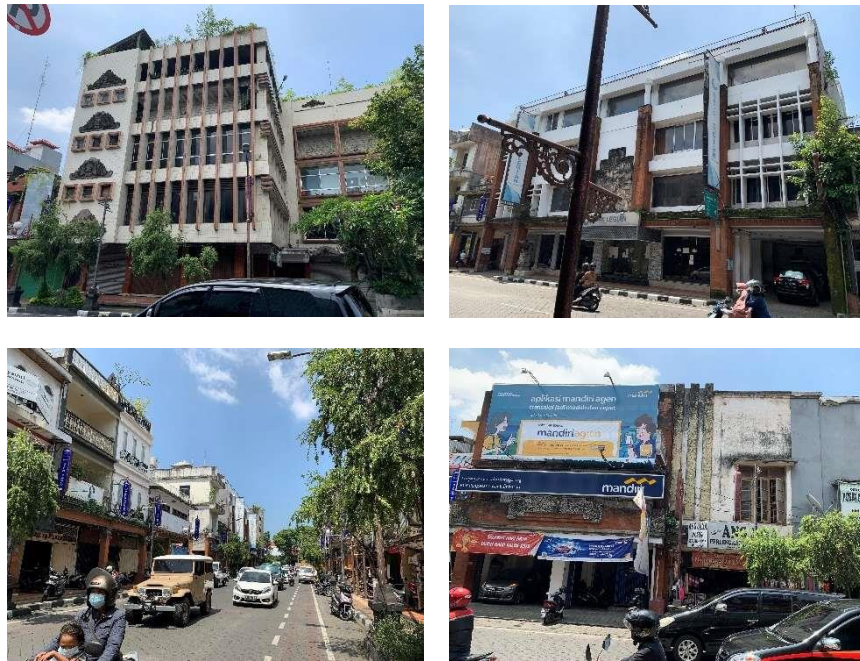


Figure 4. Building facade Segment 1

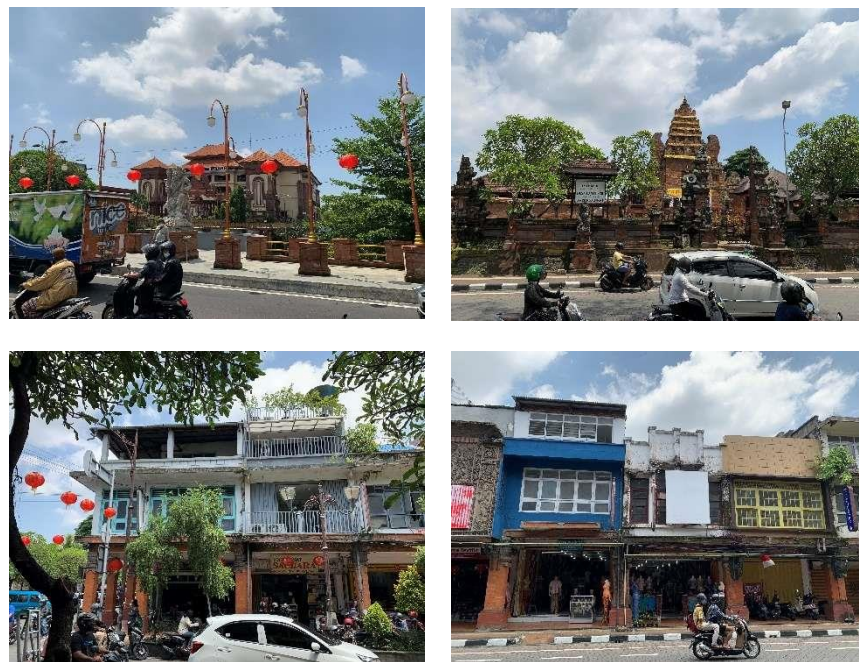


Figure 5. Building facade Segment 2



**Figure 6.** Building facade Segment 3

### **Activity and Physical System**

(Activity Pattern) Space The vitality of urban space depends on the possibility for economic, social and cultural transactions that occur in space from time to time which will lead to various patterns of activity. Trading activities in the corridor of Jalan Gajah Mada are crowded from morning to evening which accumulate in modern and traditional shopping centers, while on weekdays the dominant activity accumulates in banking services and in the market there are buying and selling activities. Shops in the Jalan Gajah Mada corridor are open on average from 8 a.m. to 10 p.m. in the morning. Informal sector activities at night are found in hangout areas and the tukad badung area (tukad korea) for taking selfies at the point of the Jalan Gajah Mada area until 24.00. The variety of activities found in the Jalan Gajah Mada corridor are: - Trade activities and formal sector services in it, namely shopping centers, cloth shops, restaurants and restaurants. - Non-formal sector trading activities in the form of food/beverage traders. -Activities in banking services. - Selfie activities in the Tukad Badung area.

### **Enclosure**

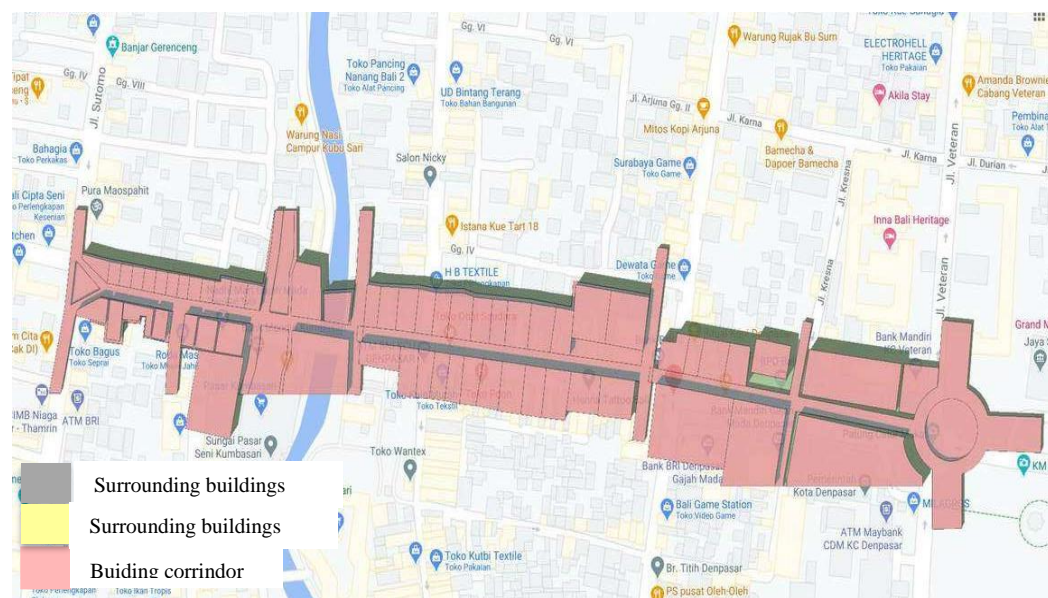
In the Jalan Gajah Mada area, Denpasar is divided into three segments, the first segment is 14 meters wide and 1.65 sidewalks wide, while the road corridors in each building have a width of 2.2 meters, in segment two it has a road width of 14 meters and has an average sidewalk - the average is 2-4



meters because it is an area that is designed as a place for taking selfies located above the badung area, while in segment 3 it has a road width of 14 meters and a sidewalk of 1.8 meters wide according to the results of visual observations in the field. With a road width of 14 meters and an average sidewalk of 1.65 meters, the average enclosure ratio in segments 1-3 is 1:1.5 – 1:1.8 (minor street and typical street).

### Analysis of the Physical Characteristics of the Space Corridor

The solid element void corridor Jalan Gajah Mada is a closed linear system where space is limited by the elongated mass of the building. Thus, it can be said that the figure pattern in the Gajah Mada corridor is homogeneous because the shape of the building is almost all the same and similar. In this pattern form a regular pattern. The texture pattern of this area is also diagrammatically including a linear pattern. The research area is included in the corridor category, when viewed from the aspect of visual linkage elements. Landscapes and buildings along the main road are used to define the relationship of each area in the corridor.



**Figure 7.** Map of Gajah Mada Denpasar Area, Solid and Void

The depth as a structural linkage on the Jalan Gajah Mada corridor is as the primary arterial road that road users pass through to access it. Denpasar Mayor Office Area, Puputan Badung Field Area, Denpasar City Historical Area (Bali Museum) and Education Area in Denpasar City. In this case, if the Jalan Gajah Mada corridor pattern is categorized as a collective linkage, the closest pattern is the megaform mass, which is a straight and hierarchical framework, as shown in Figure 7.

### CONCLUSION

Overall, the physical character of the corridor space on Jalan Gajah Mada has decreased in the physical quality of the space and some functions of the elements forming the corridor do not function properly, so it can be concluded from the discussion above that the visual physical character formed in the corridor of Jalan Gajah Mada is a system linear closed space where the space is limited by the elongated mass of the building with the impression of being closed. Landscapes and buildings along the main road are used to define the relationship of each area in the Jalan Gajah Mada corridor. As a structural linkage, the Jalan Gajah Mada corridor connects the Denpasar Mayor's Office Area, the Market Area, the Badung Puputan Field Area, the Denpasar City History Area (Bali Museum) and the Denpasar City Education Area. The main corridor characteristics are influenced by  $\pm 100\%$  of the functions of commercial buildings which include the type of large plot of commercial building with single or mixed functions, and the type of single-lined commercial building. The commercial

function building of trade becomes an object that represents the value of local uniqueness and uniqueness in socio-economic activities which is shown through the appearance of its facade which decomposes Balinese architecture. Vegetation as a 'wall' element that limits pedestrians and road users (car or motorbike drivers) and is formed by 3 visual elements in the form of shape, color and placement. Based on the results of subjective and objective observations and assessments, the vegetation characteristics produced by the 3 visual elements do not meet the aesthetic value and technical aspects due to the number of plants in the corridor space. The placement of plants does not experience continuity and there is no composition that pays attention to aspects of rhythm, unity and balance between the various types of plants that exist in the Gajah Mada corridor area. The physical condition of the circulation path for vehicles and pedestrians as the 'floor' element has suffered a lot of damage, the pavement pattern design is less attractive, the circulation path does not experience continuity, the dimensions do not meet the physical and visual flexibility and the lack of elements supporting the movement activity. Street furniture as an element in space that is visually shaped by elements of scale, shape/ornament, color. Most of the visual characteristics formed by these elements have not met the aesthetic value of visual aesthetics. Thus, there are only a few areas that are often used optimally, namely Korean tukats and rest areas for pedestrians to take selfies and rest. This is due to the lack of number & types of street furniture objects that provide comfort to visitors, designs that are classified as standard (does not reflect the image of the destination city and the image of the environment) and placement patterns that do not meet technical and aesthetic requirements, especially street furniture which is a supporting element. pedestrian activities such as trash cans, shelters / bus stops, and roof coverings such as pergolas in pedestrian areas. The shaper of the corridor space enclosure of Jalan Gajah Mada consists of buildings as 'wall' elements, vegetation as 'wall' and 'roof' wall elements, vehicle and pedestrian circulation paths as 'floor' elements and street furniture as objects in the corridor space. The visual quality of the physical corridor of Jalan Gajah Mada, which is minimal in pedestrian paths and complementary facilities, as well as the absence of a clear dividing line with motorized vehicle lanes, causes the low interest of pedestrians to move along the corridor. This research in the future can be used as a basis for Revitalization or Conservation of the Gajah Mada Area so that the physical changes that occur are not significant so as not to encroach on the characteristics of the Gajah Mada area.

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