QUALITY ENHANCEMENT OF THE STREET CORRIDOR TO SUPPORT TOURISM BASED ON URBAN DESIGN CONCEPT IN PEMUDA STREET, MAGELANG CITY

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ABSTRAK

Kata Kunci: Penataan Koridor, Jalan Pemuda, Kawasan Pecinan, Kota Magelang.

ABSTRACT
Pemuda Street is a corridor in the Magelang Chinatown area, known as one of the shopping centers in Magelang City. This area is generally a commerce and service area consisting of shops, healthcare facilities, and banking services. Despite its dominance by various economic opportunities and claims to be a Chinatown area, it requires a suitable area identity. Problems arise from various perspectives, such as pedestrian facilities being limited to pedestrians with unattractive visual appeal that fails to represent the distinctive characteristics of Chinatown. Consequently, motorcycle riders tend to utilize pedestrians more than walkers. Furthermore, most shops have experienced a decrease in visitors, influencing the economic earnings of the area. The Pemuda Street corridor aims to be planned using the design thinking method, adapting the concept of complete streets with elaboration from the concepts of commercial street, shared street, urban tourism, and vernacular settlement, to address various issues. The planning process begins with problem analysis and literature review to manifest the ideal planning concept. It concludes with creating a master plan design for the area summarized in textual explanations, two-dimensional images, and three-dimensional frameworks. The results of this research are apply the “complete street” planning concept can become the basis for designs that focus on functionality, aesthetics, sustainability, social needs, environmental harmony, and economic progress while respecting the historical values of the area Chinatown in Magelang City.

Keywords: Corridor Arrangement, Pemuda Street, Chinatown Area, Magelang City.
A. INTRODUCTION

Urban areas persistently undergo substantial advancements in their growth and expansion. Addressing urban issues has a pivotal role in resolving worldwide challenges, encompassing the development of street corridors. On an ongoing basis, street design is seen as a form of knowledge that must be structured to comply with regulations and overcome constraints. This assumption is then used to maximize opportunities by processing street space. Street spatial planning has now been recognized as a form of action in shaping urban spatial characteristics. In the view of modern science, cities must plan street space to improve the quality of life with various basic requirements and engineering contexts (New York City Department of Transportation, 2014). Revitalization or physical arrangement of the environment can eventually change the social structure and economic composition of urban centres, which are important for the surrounding population and the city in a broader sense.

One area of particular concern is the Pemuda Street corridor located within the Chinatown district of Magelang City. The Pemuda Street Corridor is a strategically positioned route in the heart of the metropolitan region of Magelang City, close to the Bawen-Magelang Toll route Section. In addition to serving as a major transportation corridor, Pemuda Street also functions as the primary commercial hub in the city of Magelang. The area under consideration is Chinatown, a residential neighbourhood with a broad and diverse economic sector. A typical Chinatown district exhibits attributes as a hub for urban and regional economic activities. According to a 23.3% increase in commerce and services, this region has also experienced significant economic development (Burhani et al., 2019).

In contrast to developing existing commerces and services, a review of existing conditions shows decreased visits to most stores. This condition can be due to the need for characteristics that interest visitors in coming to this area. The nickname of the Chinatown area is only seen in the temple building at the entrance to this area and the red lantern ornaments along the way. There are few activities or visuals that stand out comprehensively to show the attractiveness of this area. The
development of the program needs to address existing aspects to achieve urban tourism and emphasize spatial visuals referring to vernacular settlements in maintaining distinctive characteristics.

Furthermore, other issues arise more broadly. Government initiatives to improve facilities for pedestrians have yet to yield good results. The construction of a pedestrian with a width of five meters does not increase the frequency of visits or pedestrian activity. Issues emerge when the designated pedestrian pathway is utilized for parking motorcycles. Frequent sightings of motorbikes and rickshaws along this pathway are common. This phenomenon hinders the pedestrian walkway from fulfilling its intended function. According to a study (Setyowati, 2018), several factors and variables beyond just street width could affect the relationship between spatial division and human activity within. Within the urban design component, it aligns differently than achieving a thriving commercial street since the improper use of pedestrian areas disrupts its commercial activities and the appropriate use of shared streets.

As a commercial area corridor, this area should have an attractive space that can maintain the number of visits to shops managed in this area. The pedestrian path that is built should have facilities that are not only in the form of footpaths but can provide attractions that support visitor activities. The street corridor space is active in one section and all sections horizontally. In order to address issues and maximize the potential of the Pemuda Street corridor, spatial planning is required in response to the circumstances mentioned above. This plan is expected to be a solution to increasing the attractiveness of the Pemuda Street corridor in the Chinatown area of Magelang as the centre of the economy in Magelang City.

**Literature Review**

1. **Complete Street**

The design uses the Complete Street concept to guide the creation of a street that provides services to all its users (City of Los Angeles, 2020). The complete street concept prioritizes more than just the street design process in the longer term. Orange County Complete Streets Initiative (2016) states that a complete street is...
designed and planned, then operated and maintained to provide mobility security for all users who vary. Still, it prioritizes users who do not use motorized vehicles.

In line with this explanation, the New Jersey State Department of Transportation (2017) emphasizes that streets are not exclusive lanes for motorized vehicles but are inclusive for many users. Streets have an important role in human interaction which is realized through communication and a community of users from various backgrounds. Ministry of Housing and Urban Affairs Government of India & Institute for Transportation and Development Policy (ITDP) (2019) explains with the same content. A fair-allocated full street meets users’ demands and uses. Motorized vehicles, pedestrians, disabled people, cyclists, social interaction, parking spots, public transportation, women, children, the elderly, sellers, and resting locations are all targeted.

2. Commercial Street

Ewing and Bartholomew (2013) explain that a commercial street is open to the public with various activities. This concept is designed so that the street can attract pedestrians for activities such as shopping, enjoying culinary delights, and socializing with other users. The commercial street must have the right character and identity. Meanwhile, Mehta (2013) stated that commercial streets make the surrounding environment more livable, increasing contributions to the community and space in the face of urbanization. In line with this definition, a commercial street is closely related to the notion of a good great street. Jacobs (1993) describes great streets as having boundaries in the form of walls, trees, or the like that communicate with each other clearly as the edges of the street.

3. Shared Street

The shared street concept upholds the freedom of its users to achieve comfort and safety for pedestrians. This concept also ensures that the movement of vehicles and cyclists is not disturbed. This concept is considered a solution to changing the behaviour of street users by changing their environment (Valenzona, 2013). Meanwhile, Southworth and Ben-Joseph (2013) define a shared street as a concept that incorporates street space into a mix between public areas and various activities such as playing, communicating, relaxing, watching, to gardening. Shared
street integrates pedestrian activity and vehicle movement on the same street surface. The physical formation of the street adjusts this integrated system.

4. **Urban Tourism**

Urban tourism is a tourist attraction that relies on attractions in urban areas. Müller (2020) mentions the keywords taken to mean urban tourism is a form of tourism that intends to visit or travel to city destinations for recreational purposes. Meanwhile, the keywords used by Stankov (2020) are defined as the formation of tourism, with cities or urban areas constituting a special geographic area with visitors carrying out activities to consume existing or potential resources in that area. Several other things need to be considered in planning a city tour. Murphy (1997) states that a new image of a city can be expanded and created by holding large events even in a short time. Urban tourism can also be interpreted as a manifestation of the city's economic potential. Casado (2010) analyzes the uniqueness of urban tourism conditions compared to suburban areas with details such as city, first line, operational identity, time, fun mobility, geometry, consumption, superhuman, the sun as a product, and active landscape.

5. **Vernacular Settlement**

Vernacular is a term in the style of the built environment that is formed considering regional conditions such as climate, building materials, expertise and skills of locals, and environmental factors. It becomes more relevant as building or architectural styles express the essence of identity (Richardson, 2001). Vernacular settlement can also be referred to as vernacular settlement or inheritance. The local community used wisdom, knowledge, and practices passed down from generation to generation to build this area. Communities adapt to geographical and environmental conditions (Dayaratne, 2018). Anna-Maria (2009) conducted a physical evaluation of buildings in vernacular settlements based on design variables as a response to climate.

**B. METHODS**

This study was written using a qualitative descriptive method that adapted the design thinking method and was divided into three parts: data collection,
location analysis, and planning. The design thinking method is used as an innovation with a development centre looking from a human perspective or human-centred primarily in exploring problem solutions (UNFCC, 2022). The design thinking method in question uses five steps initiated by the Institute of Design at Stanford (2016) and explained as follows:

1) **Emphasize**, this step was included in the data collection stage, namely preparation, initial observation through primary and secondary surveys, and determining locus conditions and problems in general;

2) **Define**, this step is carried out by theoretical studies of planning concepts and synthesis with design precedents, analysis of locus conditions coupled with concept studies, and discovery of potential problems;

3) **Ideate**, is part of the planning stage by developing a concept plan;

4) **Prototype**, namely the formation of a master plan and detailed plans realized through two-dimensional and three-dimensional designs;

5) **Test** was the last stage to validate the planning results with theoretical studies as the basis for the ideal concept raised.

The observation boundary taken for this plan is the Pemuda Street Corridor area which is in the Chinatown area of Magelang City, Central Java. This street corridor has a length of 885 meters and an observation area of 6.61 hectares. This street corridor is limited to a linear space on the right and left of the street circulation path, including streets for motorized vehicles and pedestrians and one layer beside the street, which is the locus of planning observation.

This location analysis study was carried out by applying the urban design formulated by Shirvani (1985). Urban design analysis includes spatial planning between buildings that are closely related to the physical environment within, which is broken down into detailed physical elements consisting of land use, building form and massing, circulation and parking, open space, pedestrian ways, activity support, signage, and preservation.

Complete streets are introduced as an idea to achieve a corridor with comprehensive components, including facilities, environment, and users. First, the elaboration of the commercial street concept is seen as an adaptation to the area's
existing conditions as one of the urban economic centers, making it compatible with future planning. Second, the shared street concept is adopted to facilitate flexible road use and promote increased pedestrian traffic, seen as potential customers engaging in economic activities in the area. Third, the urban tourism concept is an innovation developed based on the potential of the area's constellation, serving as a catalyst for visitors from broader areas and making economic activities more dynamic. Fourth, the vernacular settlement concept is developed to preserve and strengthen the character of the pecinan area. This concept is implemented by constructing visually distinct features that intensify and uniquely influence the area's atmosphere.

The study analysis and design for each concept are described as follows: 1) Commercial Street described as visual capability and quality, transparency of street edges, comfort and safety, attractions, interactive (Ewing & Bartholomew, 2013; Jacobs, 1993); 2) Shared Street describe as equality of street users, public space, clear entrances; pedestrian freedom; limited speed (Valenzona, 2013; Southworth and Ben-Joseph, 2013); 3) Urban Tourism described as city, time, first line, fun mobility, geometry, operation identity, superhuman, consumption, active landscape, the sun as product (Casado, 2010); 4) Vernacular settlement describe ad authentic, expression of identity, environmental adaptation, location and building arrangement (Richardson, 2010; Dayaratne, 2018).

C. RESULTS AND DISCUSSION
C.1. Existing Condition of Pemuda Street

Pemuda Street, spanning 885 meters with an 18.35-meter width, comprises three sections: east and west pedestrian paths and an 11.35-meter wide motorized vehicle lane, including a 2-meter parking area. It features a two-lane one-way system shared by pedestrians, cyclists, rickshaws, and all vehicle types, with no dedicated public transportation stops. The corridor is densely built Building Covered Ratio (BCR) ranges from 90% to 100% and typically have 1 to 4 floors buildings. Minimal greenery and solid-paved parking lots are observed. Commerce, notably retail, dominates the area, offering fashion, electronics, supermarkets,
jewelry, and services like hotels and banking. This commercial diversity encourages window shopping, attracting customers, enhancing brand recognition, and fostering customer engagement, enriching the overall experience. The cross-section of the Pemuda Street structure is detailed in Figure 1.

![Figure 1. Cross-section of Pemuda Street](source: Created on the website https://streetmix.net/ with changes (2023))

C.2. **Conceptual Design Planning**

Each planning element can encompass elements from each concept in the urban design process. Planning concept elements serve as criteria indicators for planning element units. Urban design elements are juxtaposed with complete street planning elements to produce ideal directions. The elaboration of each planning element is connected to its relevance with the elements present in the concepts of commercial street, shared street, urban tourism, and vernacular settlement to achieve a complete street. The results of elaborating these elements is described in the following diagram.

![Figure 2. The Concept of Elaborating Urban Design Planning Elements](source: Author Analysis (2024))
The planning design concept for Pemuda Street is based on the idea of a complete street, derived from four related concepts. It aims to create an ideal commercial hub that attracts people, promoting various human activities. The upper corridor primarily caters to pedestrians and cyclists, surrounded by commercial functions, while motorized vehicles are directed through underground corridors with limited speed. This two-level corridor approach accommodates different transportation modes, influencing the types of commercial activities in each section. The upper corridor encourages individual buyers, window shopping, and visually appealing products, whereas the underground corridor caters to large-scale commercial ventures and group-oriented customers like department stores. These modifications enhance the street's functionality and appeal. Detailed adjustments to this concept are illustrated in Figure 3.

Figure 3. Spatial Structure in the Adjustment of the Planning Concept
Source: Author Analysis (2023)

C.3. Pemuda Street Master Plan

The master plan for structuring the Pemuda Street corridor in Magelang City's Chinatown area is developed in response to the location's conditions, challenges, potentials, and opportunities. It is guided by the overarching concept of a complete street, incorporating elements from commercial street, shared street,
urban tourism, and vernacular settlement concepts. After considering two planning alternatives and creating a conceptual model, the final master plan is designed to enhance street user mobility. The central zone serves as a key attraction icon with an innovative design, providing uniqueness to the area. Furthermore, entrance points are designed as distinctive Chinatown landmarks. This master plan is divided into explaining the upper and underground corridors as in Figure 4.

![Figure 4. Detailed Pemuda Street Corridor Master Plan](source)

The resulting master plan becomes an overview in formulating a detailed spatial plan. This section explains planning in more detail into eight design elements described in the following details.

1) Land Use

The land use plan for the Pemuda Street corridor comprises three primary categories: commercial, mixed-use commercial, green open space, parking, and prayer areas. Commercial zones are designated for trade and commercial services, spanning both horizontal and vertical development. Mixed-use commercial areas blend commercial functions on the ground floor with non-commercial functions like residences, public services, government offices, and cultural buildings on upper
floors. Green open spaces are incorporated by converting vacant land or properties with surrounding yards along the main corridor. Parking areas are provided for motorized vehicles, primarily in basement spaces within the underground corridor. Additionally, prayer spaces are allocated for worship facilities, depicted on map illustrations in Figure 5 to illustrate their locations within the corridor.

![Figure 5. Land Use Detailed Plan](image)

2) Building Form and Massing

The arrangement of building intensity in the Pemuda Street corridor is governed by Building Coverage Ratio (BCR) levels and Floor Area Ratio (FAR), determined by the number of floors. BCR-based intensity is categorized into three ranges, favoring high density for commercial and mixed-use areas, lower BCR for parking and worship spaces, and green open spaces with low Building Coverage. Generally, the BCR of each building is limited to a maximum value of 90%. Transparent facades using materials like translucent glass enhance visibility into buildings, with mandatory building names or brands as identifiers but no external advertisements. The recommended building style incorporates Chinatown-themed elements, including roofs, dragon motifs, walls, doorways, entrances, lanterns, and building name placement.
3) Circulation and Parking

Elements of circulation planning and parking lots in the Pemuda Street Corridor are the arrangement of movement and mobility of various modes that pass through the area, distribution of traffic flow, and pedestrian paths. Circulation in this corridor is divided into circulation in the upper and underground corridors. This motorized vehicle lane is maintained on class III roads. In more detail, the upper corridor has an overall pedestrian path with a width of up to 15.5 meters and a bicycle lane with a width of 3 meters divided into two-way lanes. The underground corridor has 3-meter-wide pedestrian paths on both sides, 7-meter-wide one-way motorized vehicle lanes, a 2.5-meter wide drop-off zone and a 2.5-meter wide on-street parking zone. The details of this circulation plan are explained in more depth through the cross-sectional images of the street in Figure 6.

![Figure 6. Illustrations of the use of Chinatown ornaments](https://streetmix.net/)

Source: Created on the website https://streetmix.net/ with changes (2023)

4) Open Space

The open space plan for Pemuda Street Corridor was developed using green open space. The planned open space is the development of vacant or unused land around the corridor, such as yards or damaged building land. In this corridor, three points of land are found that can be utilized. These two lands are planned as open spaces, generally accommodating social activities, while the other is planned as a children’s playground. The design plans for all open spaces apply elements that reinforce the image of the Chinatown area. The land change in question is explained in Figure 7.
5) Pedestrian Ways

The pedestrian path in the Pemuda Street Corridor is a development focus that embodies all the concepts developed. The pedestrian path in the upper corridor is 18.35 meters wide. The path is further divided into distraction-free walking paths and spaces for various walkway furniture. The street furniture consists of garden chairs, stone chairs, plants, trees, street vendors or street vendors, street lamps, trash cans, and road-dividing bollards.

The planned pedestrian path has a concept to accommodate regular movements. Placement of vegetation arranged neatly parallel to form horizons or tree tunnels that will keep the corridor cool and not restrict the movement of street users. Park chairs are placed straight with the street to accommodate street users who will enjoy the atmosphere while resting. Garden benches and stone chairs can be found all over the street corridors. The atmosphere of the pedestrian path plan illustration is described in Figure 8.

Figure 7. Transformation of Detailed Open Space Plans
Source: Author Documentation and Analysis (2023)
6) Activity Support

The design of these supporting activity spaces are zones devoted to strengthening the image of the Chinatown area. In the planning, the supporting activities are special pedestrian lane zones used as a typical icon of this Chinatown area. Spatial use plans in creating supporting activities that strengthen the image of the Chinatown area are formed by modifying the planned pedestrian paths. This street section is also a motorized vehicle lane in the existing condition. The change in question gives the impression of a new atmosphere essential to show the area's character. This design plan is illustrated in the following Figure 9.
7) Signage

Planning traffic signs or markers are divided into traffic signs and information media advertisements. Traffic signs are installed at specific points as information symbols to regulate traffic. The signs are divided into warning signs, prohibitions, orders, and instructions. These traffic signs include a parking sign, street class, street lane, and others. In addition to traffic signs, information media advertisements are necessary for conveying messages, especially on busy user routes. One of these digital advertisements is installed, as illustrated in Figure 10.

![Figure 10. Illustrations of Digital Advertising in the Street Corridor](source: Author Analysis (2023))

8) Preservation

The planned preservation is divided into building preservation and environmental preservation. Maintaining the integrity of the Liong Hok Bio temple building serves as building preservation in the Pemuda Street Corridor area. In line with the direction of strengthening the preservation character of the Chinatown area, one of the highlighted landmarks is the existence of a gate as a chinatown symbol. Arches with permanent materials have stronger properties, can be formed with more aesthetic details, are sturdy and stable, and are safer from damage. This change in the representation of landmarks is made clear in Figure 11.
D. CONCLUSIONS AND RECOMMENDATION

The study shows that the Pemuda Street corridor in the Chinatown area of Magelang City needs to have an attractiveness that can maintain and increase the number of visits to its commercial area. This attraction plays a role in developing the region's economic system. The attractiveness of this area is realized through the importance of pedestrian elements related to every shop in the area. Pedestrian paths are presented as footholds and attractive open spaces for visitors. Spatial planning is crucial in solving problems and optimizing the potential of an area by linking spatial relationships that can influence activities within it. In addition, cultural aspects need to be interpreted as part of area identity integrated with spatial design so that corridor design can restore history and create a sustainable life.

The complete street planning concept is an innovative, sustainable and reliable solution for dealing with this Chinatown area’s complex challenges and unique characteristics. This approach is presented by combining and elaborating on other concepts, such as commercial streets, shared streets, urban tourism, and vernacular settlement, providing an additional precise assessment compared to only the problem of road sections. This elaboration emphasizes strengthening area identity, providing various facilities for visitors, and creating a directed area attractiveness. Thus, can be conclusioned that the "complete street" planning concept can become
the basis for designs that focus on functionality, aesthetics, sustainability, social needs, environmental harmony, and economic progress while respecting the historical values of the area.

The suggestion that can be conveyed is that the government can pay attention to the key concepts in each design implementation of the Chinatown area which are as follows:

1. Integrating functional needs, design aesthetics, sustainability, social needs, environmental harmony, and economic progress is key in selecting the appropriate planning and design concept to realize a complete street and considering that all layers of users can use the street.

2. The arrangement of the Jalan Pemuda corridor in the Chinatown of Magelang City is a complex process that requires special attention to the unique character of the area and the strong culture achieved through vernacular settlement standards.

3. Designing with a complete street concept not only focuses on the functional aspects of the road but also considers the preservation of cultural heritage and understanding the area's characteristics to create the appropriate identity and achieve the concept of urban tourism that stands out.

4. The arrangement of the Jalan Pemuda corridor affects not only the street but also the surrounding street networks and the impact of land use changes behind the corridor, one of which is essential in considering the use of private land and communal space (shared street).

5. The relationships with larger areas, suitability with the character of the Pecinan area, and attention to detail in size and spatial structure are critical factors in achieving the success of the Pemuda Street corridor arrangement that aligns with the selection of commercial street for the street corridor and larger areas.

REFERENCES


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