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Design of the Jakarta Old Town Tourist Information and Cultural Center with Heritage Values Approach in Fatahillah Area of Jakarta

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***Abstract*: Cultural heritage is evidence of historical events from the past that are part of a nation's identity. Therefore, cultural heritage objects must be preserved for their quality and the values contained within them. One of the well-known cultural heritage objects, both locally and internationally, is the Old Town area of Jakarta, which was formerly known as Batavia and was built by the Dutch. As a well-known cultural heritage area, this area faces a problem, namely the lack of tourist information available, resulting in tourists having difficulty enjoying a complete tourist experience. Therefore, the purpose of this research is to design a tourist information building that can provide this information to tourists. The Fatahillah area in Jakarta is the perfect location for the presence of this tourist information building due to its busy visitor traffic and easy visibility to tourists. The architectural design process is carried out by studying objects with similar functions and examining design considerations, including the cultural heritage values contained within the Fatahillah area, to serve as a guide in designing this Tourist Information and Cultural Center building. Research data is collected through observation, literature review, and interviews. The analysis results will produce architectural design criteria for the Tourist Information and Cultural Center building and generate design simulations that follow the formulated design criteria.**

***Keywords*: Cultural heritage, Architectural design, Tourism information and cultural center, Fatahillah area, Heritage values.**

1. Introduction

Cultural heritage sites are vital historical remnants that deserve preservation and study. Cultural heritage exists in various forms such as structures, buildings, objects, areas, and sites. Indonesia, as a country rich in history and culture, harbors many such cultural heritage objects that are still preserved today. These objects span various periods, from prehistoric times and the Hindu-Buddhist era to the Dutch colonial era, scattered across the Indonesian archipelago.

One common type of cultural heritage object, that is related to architecture, are heritage buildings. These are constructed formations made of natural or man-made materials to fulfill spatial needs with walls and/or without walls, and with roofs (Republic of Indonesia Law No.11 of 2010). Studying the history of heritage buildings from the past can provide insights and guidance to understand human successes and failures throughout history. Additionally, heritage buildings contribute to the identity of a place, boost the economy as tourist attractions, and hold political significance in fostering nationalism (Aygen, 2013). Moreover, they embody values that must be safeguarded and preserved (Feilden, 2003).

2. Literature Review

A. Heritage Values

A cultural heritage building is a historical heritage building from the past which is an intrinsic part of the built environment which holds history and has values in it and influences our future (Feilden, 2003; Orbasli, 2008; Evans, 2013). The values contained in these cultural heritage buildings are very diverse. Feilden (2003) divides these cultural heritage values into 3 main values, namely:

- Emotional values, which relate to identity, symbolism, and spiritual feelings that arise when seeing and experiencing the space within heritage buildings.
- Cultural values, which relate to aesthetics, history, technology, and the context of heritage buildings.
- Functional values, which relate to the function of heritage buildings, economic management, social (local communities related to heritage), educational, and political aspects.

In contrast to Feilden, Orbasli (2008) divides the values of heritage buildings into more detailed 19 types of values, namely age and rarity value, architectural value, artistic value, associative value, cultural value, economic value, educational value, emotional value, historical value, landscape value, local value, political value, public value, spiritual value, scientific value, social value, symbolic value, technical value, and urban planning value.

Based on these two theories of heritage values, Orbasli's presentation of heritage values includes more types, but there are also heritage values not covered, such as the functional values mentioned by Feilden. Additionally, Orbasli's presentation of heritage values includes interconnected values, such as historical and educational values, because history is indirectly a part of the education of a heritage object. Therefore,

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based on these two theories, it can be concluded that there are 18 types of heritage values, namely:

From the 18 concluded heritage values, this study will only use 5 heritage values: urban planning value, architectural value, functional value, social value, and historical value. These five values are highlighted because they are relevant and predominantly present in the research object of the Fatahillah heritage area.

- Rarity value
- Architecture value
- Artistic value
- Associative value
- Cultural value
- Economical value
- Historical value
- Emotional value
- Landscape value
- Local value
- Political value
- Functional value
- Spiritual value
- Scientific value
- Social value
- Symbolic value
- Technical value
- Urban planning value

B. Design Approach in Heritage Sites

This research aims to design a Tourist Information and Cultural Center in the Fatahillah area, which is a heritage site in Jakarta's Old Town. Therefore, contextual architectural theory is needed to explain the methods and approaches in designing architecture within heritage areas. According to Meurs, P. (2016), architectural design in heritage areas always begins with the collection of data and information related to the historical, cultural, social, and physical context of the past, which is then analyzed to identify the significance and heritage values contained in the heritage area. The results of this heritage value analysis are then used to synthesize architectural designs within the heritage area, which he divides into three types of approaches:

1) Designed past

This first approach focuses on bringing back heritage from the past through actions such as restoration, reconstruction, or replicating lost buildings or parts of buildings.

2) Non-designed presence

This approach focuses on reusing heritage buildings for current needs without redesigning the building.

3) Designed presence

The third approach focuses on designing new buildings that strive to respect and create a relationship between the new buildings and the surrounding heritage buildings. According to Paul Meurs, this approach can result in three different types of buildings: Historical-shaped buildings with contemporary materials, contemporary-shaped buildings with historical materials, and buildings with very different forms and materials that still respond to the heritage values of the surrounding buildings.

From this theory, it can be concluded that the conceptual framework for the architectural design process in cultural heritage areas is as follows:

1. The design process begins with understanding the type of project to be designed and the history of the Fatahillah heritage area in Jakarta Old Town. Understanding the project type involves gaining insight into the functions to be provided, specifically the functions of the Tourist Information and Cultural Center. Understanding the Fatahillah heritage area aims to uncover the cultural values embedded within it, which will be respected and enhanced through the design process.
2. After understanding the project type and the context of the heritage area, the values and goals of designing the Tourist Information and Cultural Center are established, which will form the vision of the design.
3. This process then continues with uncovering the factual considerations for design, divided into 8 issues where the cultural values of the heritage area are also part of these considerations.
4. The results of these design considerations will yield the needs for the design, which are summarized into architectural design criteria for the Tourist Information and Cultural Center. Subsequently, architectural design concepts for the building will be developed, taking into account an approach that is contrasting yet harmonious with the heritage area.
5. The development of these design concepts will lead to architectural design simulations that address the issues raised in this research.

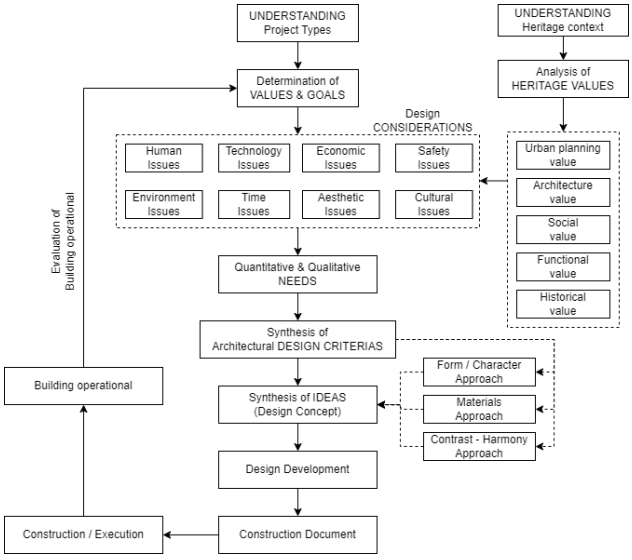

Fig. 1. Conceptual framework of architectural design process in cultural heritage areas

3. Methodology

This research is a qualitative study that analyzes qualitative data, focusing on issues and cultural values, to design the Tourist Information and Cultural Center within the Fatahillah area while respecting and enhancing its cultural values in Jakarta Old Town.

The collected data for this study consists of qualitative data aimed at developing the design for the Tourist Information and Cultural Center. The qualitative design data relates to urban design guidelines, human issues, environment, culture, economics, technology, time, aesthetics, security, and cultural values of the Fatahillah area in Jakarta Old Town. Data

collection methods include literature review, interviews, and direct observations. Literature review and interviews were conducted to gather factual considerations for design and to understand the historical context of the Fatahillah heritage area in Jakarta Old Town. Direct observations were conducted to observe the current conditions at the design site in the Fatahillah area, Jakarta Old Town.

The method of analysis used to uncover cultural heritage values is descriptive qualitative analysis, describing the historical context of cultural heritage to identify and enhance the embedded values through design. The method used to derive architectural design criteria from the uncovered design considerations is descriptive qualitative analysis using the VGFNI table (values, goals, facts, needs, ideas) from Hershberger, R. (2015) theory. The final product of this research will result in a simulation of architectural design for the Tourist Information and Cultural Center in the Jakarta Old Town heritage area.

4. Results and Discussion

A. Understanding the Project Type

1) Tourist Information and Cultural Center

The building to be designed in the Fatahillah area combines two functions: a tourist information center and a cultural center. The tourist information center serves as a central service point providing various tourism-related information through different media, including oral, written, print, and audiovisual formats. Through its services and facilities, the tourist information center offers guidance and assistance to tourists regarding tourist attractions, activities, facilities, and helps them plan their trips (Hakim, 2016; Sava, 2016).

A cultural center is a building initially intended to host art exhibitions and various versatile activities themed around arts and culture. The functions of a cultural center include administrative, educational, recreational, informative, commercial, social functions, and it also serves as an architectural icon (Fitria, 2020).

From the understanding of these two functions above, it can be concluded that the tourist information and cultural center function as a multifunctional service center that not only provides various tourism-related information but also hosts art exhibitions and a variety of activities themed around arts and culture. The typical spaces found in these functions include the following (Gomo, 2015; Fitria, 2020; Efendi, 2019) as shown in table 1.

2) Understanding the Context of the Fatahillah Cultural Heritage Area

The Fatahillah area is part of Jakarta's Old Town, which was built by the Dutch in the 17th century and named Batavia. Batavia was gradually developed by the Dutch after they took control of Jayakarta under the VOC trading company, due to its strategic location in the Sunda Strait (Noviyanti, 2017). The city's construction began with the establishment of bastion forts and continued along the Ciliwung River, forming Batavia surrounded by high stone walls designed to defend against attacks from local kingdoms. As a colonial city founded by the Dutch, Batavia became one of the largest and most important colonial cities in Southeast Asia due to its significant influence in the spice trade (Ridwiyanto, 2011). From a city planning perspective, Batavia was modeled after cities in Amsterdam, Netherlands, characterized by orderly grid-shaped layouts with canals serving as water transportation.

Strategically located in the center of Batavia, the Fatahillah area contains many important Dutch colonial buildings such as the town hall (*stadhuis Batavia*), the courthouse (*Raad van justitie*), and the Dutch Church (*Kruis kerk*). These buildings were constructed in the colonial Indische Empire style architecture, which adapted Neoclassical architectural elements to the tropical climate of Indonesia, featuring elements like tiled roofs, louvered windows, dormer roofs, etc., typical of tropical architecture in Indonesia. During colonial times, the square in the middle of Fatahillah was used for public gatherings, including spectacles such as public executions by hanging, and it housed a fountain that provided water for the local community.

Fig. 2. Colonial era Fatahillah area
Source: universiteitleiden.nl

During the Japanese occupation of Indonesia, many buildings in this area were repurposed as logistics centers for

Table 1
Spaces commonly found in tourist information and cultural center

Space	**Function**
Information area	Providing various tourism information in written form such as maps and brochures, as well as digitally through motion graphics.
Multi-purpose hall	Hosting various community activities, artistic performances, exhibitions, etc.
Souvenir store	Offering souvenirs/gifts for tourists visiting and serving as one of the commercial elements of the building.
Administrative office	Space for staff and building management activities.
Sitting area	Rest area for visitors/tourists.
Audio-visual room	Space for showing films/videos containing information about local tourism.
Tour guide office	Room for renting tourist guide services for tourists who wish to be guided.
Money changer	Currency exchange place, especially for foreign tourists from other countries.
Prayer room	Place of worship for tourists and staff.
Toilet	Restroom facilities for tourists and staff.
Mechanical and electrical room	Room for managing building utilities.

Table 2
Conclusion of the design approach for the comparative study objects

Building	Form/Character Approach	Material Approach	Contrast-Harmony Approach
Zhujiajiao Tourist Center	Adopting the architectural form and vertical line facade elements of traditional Zhujiajiao houses.	Wooden materials for the upper floor are adopted in the building.	X
Chetian Tourist Center	Adopting the residential character and courtyard elements of traditional Chinese architecture.	Using local blue stone materials in the design.	X
Mons Congress International	X	Using local wood materials available in the area.	Creating contrast in form with the surroundings, the building's view is oriented towards the old town.

Table 3
Spaces presented in the precedent study objects

Space presented	Building		
	Zhujiajiao Tourist Center	Chetian Tourist Center	Mons International Congress Xperience
Information area	v	v	
Reception	v	v	
Gallery		v	
Exhibition area		v	v
Ceremony area		v	
Staff office	v	v	v
Souvenir store	v	v	
Auditorium			v
Canteen / Cafe		v	v
Toilet	v	v	v

Table 4
Determination of values and objectives

Values	Objectives
Human	Creating an informative and educational Tourist Information and Cultural Center for tourists visiting Old Town Jakarta.
Environment	Adapt to the tropical and quite hot climate conditions of the area and respect the existence of surrounding buildings.
Cultural	Respect and enhance the cultural heritage values of the Fatahillah area.
Technology	Showing today's technology in a design that differentiates it from the old buildings around it.
Time	Allows buildings to be adapted to developments over time.
Economy	Minimize costs and energy expenditure for building design.
Aesthetic	Becoming a new unique symbol in the Old Town, but not dominating the cultural heritage buildings around the Fatahillah area.
Safety	Creating comfortable, safe and disabled-friendly facilities.

the Japanese military. After independence, particularly in 1974, many buildings in the area were converted into museums by Governor Ali Sadikin, and the area evolved into a cultural heritage tourism site. Today, several buildings in the area still function as museums, showcasing historical artifacts from the past. The square in the middle of the area is now a gathering place for the community, used for photography and various art performances by individuals aiming to entertain. Additionally, the area is currently inhabited by many residents of Kampung Kunir, who live around the Fatahillah area. Many of these Kampung Kunir residents work as traders or perform arts around the Fatahillah area to earn a living.

3) Precedent Study of Similar Projects

Precedent studies are conducted to examine how the design approach of buildings with similar functions applies within the context of cultural heritage areas. Therefore, three precedent buildings were selected: Zhujiajiao Tourist Center, Chetian Tourist Center, and Mons International Congress Xperience.

Fig. 3. Zhujiajiao, Chetian Tourist Center, and MICX
Source: archdaily.com

From the comparison of these three study objects, the design approach in the cultural heritage area of the three buildings can be concluded as given table 2.

Besides the design approach, several spaces typically present in a Tourist Information and Cultural Center includes as shown in table 3.

B. Determination of Values and Objectives

After understanding and studying the context of the area and similar buildings to be designed, it is necessary to establish values and objectives that will serve as the main guidelines in realizing the design. In this design, the values are established with the objectives as shown in table 4.

C. Analysis of Design Considerations

After the design objectives have been determined, it is necessary to reveal all issues/facts related to the design and be taken into consideration in designing the Tourist Information and Cultural Center is given in table 5.

D. Analysis of Design Needs

Based on the facts/design considerations above, the design requirements for this tourist information center can be formulated is given in table 6.

E. Design Criteria Conclusion

Based on the design requirements and urban guideline regulations in the Fatahillah area, the architectural design criteria can be summarized as in table 7.

Table 5
Identifying facts/design considerations

Values	Facts
Manusia	• The Fatahillah area is a potential location for this tourist information building to be presented because it is the most visited tourist attraction in the Old Town of Jakarta. • Visitors to the Fatahillah Museum area can reach around 3000 people/day. • There are many local people who often perform art performances in the area and dozens of bicycles that can be rented at Fatahillah Square. • The types of users of the Tourist Information Center and Cultural Center consist of tourists, art performers, researchers, traders, management staff and security guards.
Environment	• The climate of the design site is classified as a hot tropical climate with minimal greenery. • The wind on the site blows from the northwest to the southeast during the day, and vice versa at night. • Noise from the environment comes from motorized vehicles coming from the West side of Lada Dalam street. • The land is classified as having quite hard soil compared to the soil on the north side of the fish market area which is classified as softer. • There are several cultural heritage buildings around the design site that need to be appreciated, such as the Wayang Museum, Fatahillah Museum, and the Fine Arts and Ceramics Museum.
Cultural	• The Fatahillah area is a cultural heritage area of high significance in the Old Town of Jakarta which has cultural heritage values that need to be preserved and enhanced. • The cultural heritage values contained include functional value, architectural value, historical value, social value and urban planning value.
Technology	• Many buildings have implemented smart building systems and sustainable designs by utilizing various environmentally friendly technologies. • The emergence of various kinds of VR / AR technology, motion graphics and also video mapping nowadays which are more real and interactive in providing information.
Time	• Even though the design is in a cultural heritage area, the tourist information center building that will be built must be able to show its identity as a contemporary building built in the present. • Design is in the 21st century where technological and architectural developments are very rapid, as well as the possibility of changes in building activities.
Economy	• Even though there is no budget for design costs, design costs and energy used will be kept to a minimum.
Aesthetic	• There is a pedestrian access axis that connects from Fatahillah Field to the West side of the design site. • There are many buildings around the design site, including cultural heritage buildings such as the Fatahillah Museum, Wayang museum, and fine arts and ceramics museum which has a height of around 2-3 floors in colonial architectural style. • The design site is a tourist parking area for the Old Town of Jakarta. • The design site is bordered by 2 roads, the Taman Sari sub-district office, the Kunir village settlement, and the Ciliwung river. • Views towards the Fatahillah field and the Ciliwung river are 2 potential views from the design site. • The design site has an area of 5614.21 m² with provisions of building coverage ratio = 55%, FAR 5.05, basement site coefficient = 10%, and green area ratio = 20%.
Safety	• The design location is in the Fatahillah area, Old Town of Jakarta which is prone to flood and earthquake disasters. • The design must also take into account fire protection systems and be inclusive of all types of visitors. • The Cultural center, which is a place for exhibiting historical objects/objects, is prone to damage/loss due to irresponsible behavior.

Table 6
Analyzing design needs

Facts	Needs
• The Fatahillah area is a potential location for this tourist information building to be presented because it is the most visited tourist attraction in the Old Town of Jakarta.	• Requires a tourist information space about the location and history of tourist attractions, as well as facilities within Old Town Jakarta for tourists. • Requires bicycle parking space for cyclists in the area equipped with showers for cyclists.
• Visitors to the Fatahillah Museum area can reach around 3000 people/day. • There are many local people who often perform art performances in the area and dozens of bicycles that can be rented at Fatahillah Square. • The types of users of the Tourist Information Center and Cultural Center consist of tourists, art performers, researchers, traders, management staff and security guards.	• Requires a room with a capacity of approximately 300 people (±10% of the total visitors to the Fatahillah area), adjusted according to applicable regulations. • Requires space for local community art performances. • Requires supporting facilities such as restrooms and a prayer room for visitors. • Requires a management staff room for administrative work at the tourist information center. • Requires space for vendors to sell souvenirs and food and beverage stalls.
• The climate of the design site is classified as a hot tropical climate with minimal greenery. • The wind on the site blows from the northwest to the southeast during the day, and vice versa at night. • Noise from the environment comes from motorized vehicles coming from the West side of Lada Dalam street. • The land is classified as having quite hard soil compared to the soil on the north side of the fish market area which is classified as softer. • There are several cultural heritage buildings around the design site that need to be appreciated, such as the Wayang Museum, Fatahillah Museum, and the Fine Arts and Ceramics Museum.	• Requires a comfortable and weather-protected tourist information center in the Fatahillah area. • Requires a building structure system that can withstand the long-term tropical climate conditions of the area. • Maximizes natural air ventilation for interior spaces within the building. • Requires sufficient noise buffer distance between noise sources and activities inside the tourist information building, which requires a quieter atmosphere to ensure undisturbed information delivery. • Responds to and shows the relationship between the Tourist Information and Cultural Center with surrounding heritage buildings.

• The Fatahillah area is a cultural heritage area of high significance in the Old Town of Jakarta which has cultural heritage values that need to be preserved and enhanced. • The cultural heritage values contained include functional value, architectural value, historical value, social value and urban planning value. • Many buildings have implemented smart building systems and sustainable designs by utilizing various environmentally friendly technologies. • The emergence of various kinds of VR / AR technology, motion graphics and also video mapping nowadays which are more real and interactive in providing information.	• Strengthening the cultural heritage values that can be enhanced through the design of the Tourist Information and Cultural Center. • Reinforcing the urban planning values of the Fatahillah area as a city organized in a grid pattern, with zero setback buildings (GSB) and Fatahillah Square as a focal point and gathering place for the community and tourists. • Enhancing the functional values (activities and atmosphere) of the Fatahillah area as a cultural heritage tourism zone while respecting the current function of the site as a parking area for Old Town tourists. • Reinforcing the colonial architecture values, as well as principles of symmetry, hierarchy, and axis reflected in the surrounding heritage buildings. • Strengthening the social values of tourists visiting the Fatahillah area and the local community of Kampung Kunir. • Reinforcing the historical values of the Fatahillah area.
• Many buildings have implemented smart building systems and sustainable designs by utilizing various environmentally friendly technologies. • The emergence of various kinds of VR / AR technology, motion graphics and also video mapping nowadays which are more real and interactive in providing information.	• The use of modern materials and technology in the design of the Tourist Information and Cultural Center, along with the application of the latest technology in delivering information about the tourist attractions of Old Town Jakarta.
• Even though the design is in a cultural heritage area, the tourist information center building that will be built must be able to show its identity as a contemporary building built in the present. • Design is in the 21st century where technological and architectural developments are very rapid, as well as the possibility of changes in building activities.	• Designing a Tourist Information and Cultural Center that can adapt to evolving times. • Designing a Tourist Information and Cultural Center that incorporates contemporary elements in its design.
• Even though there is no budget for design costs, design costs and energy used will be kept to a minimum.	• Cost-effective design and construction system, as well as energy-efficient practices in the building.
• There is a pedestrian access axis that connects from Fatahillah Field to the West side of the design site. • There are many buildings around the design site, including cultural heritage buildings such as the Fatahillah Museum, wayang museum, and fine arts and ceramics museum which has a height of around 2-3 floors in colonial architectural style. • The design site is a tourist parking area for the Old Town of Jakarta. • The design site is bordered by 2 roads, the Taman Sari sub-district office, the Kunir village settlement, and the Ciliwung river. • Views towards the Fatahillah field and the Ciliwung river are 2 potential views from the design site. • The design site has an area of 5614.21 m² with provisions of building coverage ratio = 55%, FAR 5.05, basement site coefficient = 10%, and green area ratio = 20%.	• Zoning the space to accommodate tourist access and circulation from the Fatahillah area. • Requiring a pedestrian access path from Fatahillah Square to the design site. • Adjusting building height to be low so as not to dominate the surrounding heritage buildings in the Fatahillah area. • Designing in accordance with established urban guideline regulations. • Respecting and responding to the colonial architectural style of heritage buildings in the area. • Respecting and maintaining the current function of the site as a parking area for Old Town tourists. • Maximizing the potential view towards Fatahillah Square and the Ciliwung River. • Adapting the design area to comply with applicable land use intensity regulations.
• The design location is in the Fatahillah area, Old Town of Jakarta which is prone to flood and earthquake disasters. • The design must also take into account fire protection systems and be inclusive of all types of visitors. • The Cultural center, which is a place for exhibiting historical objects/objects, is prone to damage/loss due to irresponsible behavior.	• A structurally robust building capable of withstanding loads and earthquake resistance. • Reducing flood risks in the area and anticipating potential floods at the design site. • Requiring comfortable access and circulation for people with disabilities. • Needing an easy monitoring system, including CCTV rooms, for monitoring the Tourist Information and Cultural Center space.

Table 7
Design criteria's

Values	Architectural Design Criteria's
Human	• Provide a tourist information space offering information about the Old Town Jakarta area to visitors. • Provide bicycle parking space for cyclists in the area, along with shower facilities for visitors who arrive by bicycle. • Ensure that the building area can accommodate approximately 300 people (10% of daily visitors to the Fatahillah area). • Provide a cultural hall space for hosting local community arts and cultural performances. • Provide a souvenir shop and food and beverage stalls for local vendors around the area. • Provide a management staff room equipped with desks and chairs for staff workstations. • Provide a pantry for management staff equipped with a small kitchen for cooking/warming food and a sink for washing. • Provide supporting facilities including restrooms, a lactation room, and a prayer room (Mushola). Restrooms should be accessible for men, women, and people with disabilities. The Mushola should have wudhu (ablution) facilities with good lighting and ventilation. • Facilitate monitoring of exhibited items/artworks and provide a CCTV surveillance system with monitoring rooms.
Environment	• Preserve existing greenery on the design site and maximize natural air ventilation through openings in the design. • Use materials and building structural systems that can withstand the tropical climate conditions of the area. • Provide distance between noise sources and spaces requiring tranquility to ensure that noise does not disrupt the delivery of information in the Tourist Information and Cultural Center. • Show the relationship between the design of the Tourist Information and Cultural Center with surrounding heritage buildings by maintaining visual continuity of the area.

Cultural	• Strengthen the cultural heritage values of the Fatahillah area through the design of the Tourist Information and Cultural Center. • Reinforce the urban planning values of the area characterized by zero setback buildings, pedestrian-friendly streets, and a public square that serves as a gathering place for both locals and tourists. • Enhance the functional values (activities and atmosphere) of the Fatahillah area as a cultural heritage tourism zone, while acknowledging the site's existing function as parking for Old Town tourists and a marketplace for local vendors. • Reinforce colonial architectural values, as well as principles of symmetry, hierarchy, and axis evident in the landscape and historic buildings surrounding the Fatahillah area. • Strengthen the social values of tourists visiting the Fatahillah area and the majority of locals from Kampung Kunir who work in the vicinity. • Enhance the educational value of the historical significance of the Fatahillah area to increase awareness among tourists and the local community.
Technology	• Using modern materials and technology in the design of the Tourist Information and Cultural Center, as well as applying the latest technology in delivering information about the tourist attractions of Old Town Jakarta.
Time	• Produce a design for the Tourist Information and Cultural Center that can adapt to evolving times. • Create a design that incorporates contemporary elements.
Economy	• Develop a cost-effective design and construction system, with energy-efficient building practices.
Aesthetic	• Zoning of spaces to align with visitor access and circulation in the Fatahillah Museum Square area. • Maintain pedestrian circulation from Fatahillah Square to the design site. • Maximum building height of 4 floors or 20 meters from the road level to the top of the building's roof to avoid dominating the surrounding buildings. • Front setback of 0 meters, with buildings to be constructed flush against the front lot boundary. • Roof forms can be gable, hip, or flat with a maximum parapet height of 1 meter and a maximum cornice projection of 80 cm. Roof utility equipment must be hidden from street view. • Maximum front width of the building is 10 meters. If wider, the facade should be divided into sections each less than 10 meters wide. • Provide arcades extending to adjacent buildings, with a clear width of 2.5 meters and a height from floor to arcade ceiling of 3.5 meters. • Placement of building utility units must be concealed from view to maintain the building's exterior appearance.
Safety	• Use a building structural system that is strong, rigid, and structurally stable, capable of withstanding loads and earthquake resistance. • Mitigate flood risks in the area and anticipate flooding in the design. • Provide lifts and ramps to facilitate access and circulation for people with disabilities in the design. • Require CCTV surveillance rooms to monitor spaces containing important objects that need protection from damage.

F. Architectural Design Results

1) Space, Access, and Circulation

The concept of space and circulation on this design site is influenced by the urban planning values of the Fatahillah area, its elements, and the circulation around the design site. The direction of arrival for both locals and tourists predominantly comes from the west side of the design site, either through the pedestrian link from Fatahillah Square or Lada Dalam Street for motor vehicles. Therefore, pedestrian and motor vehicle entrances need to be provided on this western side to welcome visitors.

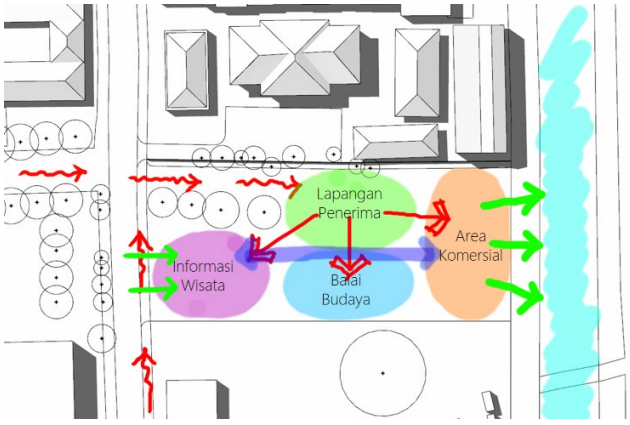

Fig. 4. Space and circulation concept

For the pedestrian entrance, a gateway is introduced to maintain the zero-setback building rule in the area. This pedestrian gateway is adopted from the architectural and historical values of the former Batavia city gates or "*stadspoort Batavia*," which functioned as the entrance gates to Batavia. The simplified form of this pedestrian gateway includes arch-shaped ornaments on the left and right sides, symbolizing Betawi cultural icons such as the '*ondel-ondel*', which traditionally symbolizes welcoming honored guests and warding off negative influences.

Fig. 5. Tourist information and cultural center entrance gate and central reception square

The pedestrian access from Fatahillah Square continues onto the site towards the central reception square, inspired by the urban planning values of Fatahillah Square in the Fatahillah area. This square functions as a welcoming and gathering place for both locals and tourists. The corridor leading to the reception square extends the pedestrian path originating from Fatahillah Square while preserving the existing trees on the site to provide shade along the pedestrian corridor.

Additionally, the reception square includes bicycle parking areas for visitors arriving by bike, as outlined in the design criteria. This square also features a landmark in the form of a statue of Prince Fatahillah, symbolizing the Fatahillah area in Jakarta.

Visitors are guided from the reception square to choose between the tourist information area, cultural center, or commercial zones. The tourist information zone, located on the western side near Lada Dalam Street, offers services like ticketing, seating, and restrooms. The cultural center occupies the central area, hosting exhibitions and workshops promoting local arts and culture. To the east, adjacent to the Ciliwung

River, the commercial area features souvenir shops and a cafeteria with views of the river and the reception square. Each zone is designed to enhance visitor experience while respecting the historical context and urban guidelines of Fatahillah Square, Jakarta.

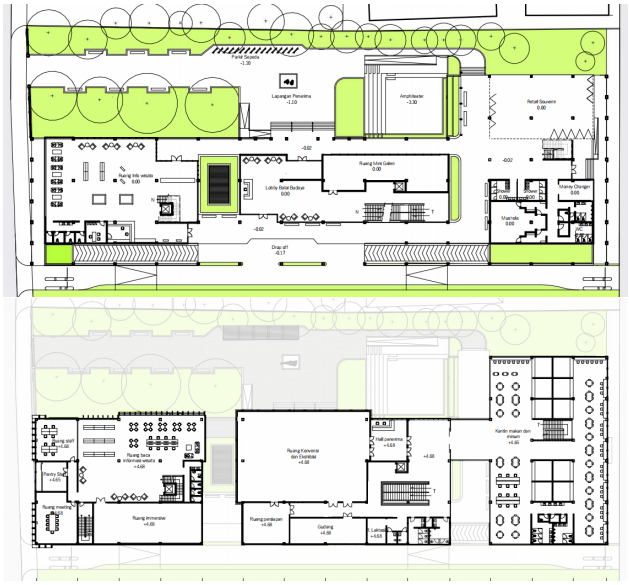

Fig. 6. First and second floor plan of Tourist Information and Cultural center

2) Building Mass and Elevation

The massing in this design is divided into three parts: the tourist information mass at the front/western part of the site, the cultural center mass in the middle, and the commercial mass at the back/eastern part of the site. These three building masses are connected by a datum in the form of an arcade corridor and face towards the reception square, which extends from the Fatahillah Square pedestrian area. An arcade is also provided on the side bordering the street, complying with the existing urban guidelines.

Fig. 7. Building block plan

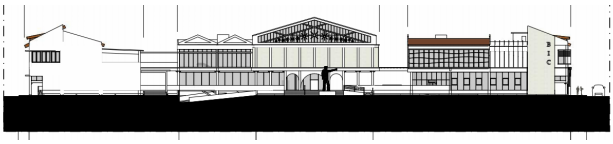

Fig. 8. Site section drawing

The tourist information mass building facade on the ground floor is transparent, making it easy for visitors to identify it as a tourist information center. The first-floor houses staff management, meeting, and pantry rooms, with the facade design reflecting these distinct functions. Colonial Dutch architectural elements, such as '*sopi-sopi*' roofs and sun-shading panels for sun protection, are used, inspired by the local colonial architecture.

Fig. 9. Tourist information center mass elevation

The cultural center mass, positioned in the middle, serves to promote art and culture. The design adopts the colonial Dutch gevel style, symbolizing importance and grandeur, with elements like columns, entablature, and pediments. The central pediment features a Betawi coconut flower cultural symbol, representing openness and multiculturalism related to art and culture.

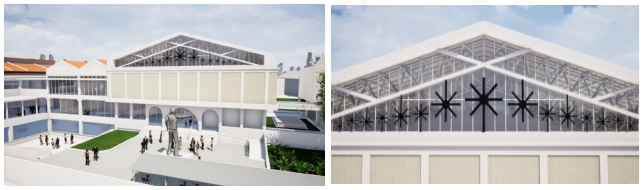

Fig. 10. Cultural center mass elevation and Betawi symbol

The commercial mass is located at the back or eastern part of the site, with souvenir shops on the ground floor and a food and beverage canteen on the first floor. The ground floor facade is transparent to attract visitors, with an arcade and a canopy marking the entrance. The first floor has windows providing views of the Ciliwung River, and the facade is divided into five sections to comply with urban guidelines. The roof design includes '*sopi-sopi*' elements with dormers, and the western side features sun-shading panels.

Fig. 11. Commercial mass elevations

3) Structure and Materials

The structure and materials used in the design employ a column and beam construction with reinforced concrete, which tends to be more resistant to the tropical climate and proximity to coastal areas. The transparent facade uses glass with aluminum frames. The vertical sun-shading fins on the front facade are made of reinforced concrete, while the wavy sun shading fins on the tourist information facade facing the reception square use perforated metal, which is easy to shape into waves and connect between modules. The Betawi coconut flower icon symbol on the pediment of the cultural hall facade uses laser-cut material mounted on a steel frame. The building's roof uses a reinforced concrete beam construction with purlins,

rafters, and battens for the clay tile roof covering. The cultural hall mass features a wide-span structure for the convention and exhibition space. The wide-span structure used in this space is a space truss structure with purlins, rafters, battens, and a roof covering made of sandwich panels.

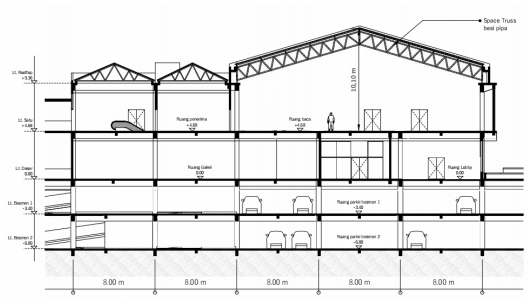

Fig. 12. Cultural center mass section drawing

5. Conclusion

The design simulation for the Tourist Information and Cultural Center is a synthesis of ideas to address the design requirements outlined in the criteria. This simulation produces a Tourist Information and Cultural Center that respects and enhances the cultural heritage values of the area through a harmonious approach, adopting architectural elements from the Fatahillah area that has heritage values or by incorporating functions that support the cultural heritage of the area. The design simulation results in a Tourist Information and Cultural Center divided into three masses: the tourist information mass, the cultural center mass, and the commercial mass, all surrounding a central reception square within the site. The tourist information and commercial masses adopt colonial architectural styles with '*sopi-sopi*' roofs and a series of arcades, blended with contemporary architectural elements such as sun-shading panels with slats or wavy sun-shading panels to convey the functions behind the building facade. The cultural hall mass, related to arts and culture, adopts elements of Dutch colonial gables, symbolizing something revered, thus conveying a message of honoring and appreciating arts and culture. Therefore, the building resembles a colonial gable with a series of columns, entablature, and a pediment, featuring a central symbol of a coconut flower ornament representing openness and multiculturalism. The overall design that meets the architectural criteria is as given in table 8.

Table 8
Synthesis of Design Ideas from Design Criteria's

Architectural Design Criteria's	Synthesis of Design Ideas
• Provide a tourist information room that offers information about the Old Town Jakarta area to visitors. • Provide bicycle parking for cyclists within the area as well as a shower room for visitors who come by bike.	• Design a tourist information center and cultural hall that includes a tourist information room, convention and exhibition space, souvenir shop, cafeteria, staff management room with a pantry, and other supporting facilities such as restrooms and a prayer room.
• Ensure the building can accommodate around 300 people (10% of daily visitors to the Fatahillah area). • Provide a cultural hall to host local community art and cultural performances. • Include a souvenir shop and a cafeteria for local vendors selling souvenirs and food in the area. • Provide a staff management room equipped with desks and chairs for staff. • Include a pantry for staff with a small kitchen for cooking/heating food and a sink for washing. • Provide supporting facilities such as restrooms, a lactation room, and a prayer room. Restrooms should be available for men, women, and the disabled. The prayer room should have good lighting and ventilation for ablution. • Facilitate the monitoring of exhibited items/artworks and provide a CCTV system with a monitoring room.	• Provide parking spaces for cars, motorcycles, and bicycles for visitors, with shower facilities for cyclists. • Implement a wireless CCTV system in the tourist information and cultural center areas to facilitate monitoring, especially in gallery spaces, convention/exhibition rooms, tourist information rooms, and staff management rooms, with a CCTV control room located on basement level 1.
• Preserve existing greenery on the design site and maximize natural air ventilation through openings in the design. • Use materials and building structural systems that can withstand the tropical climate conditions of the area. • Provide distance between noise sources and spaces requiring tranquility to ensure that noise does not disrupt the delivery of information in the Tourist Information and Cultural Center. • Show the relationship between the design of the Tourist Information and Cultural Center with surrounding heritage buildings by maintaining visual continuity of the area.	• Design the building to preserve existing trees on the site and maximize natural ventilation through window openings and dormers. • Place the waiting and immersive room on the first floor of the tourist information center, giving distance from vehicle noise on Lada Dalam street, and locate the convention and exhibition room of the cultural center in the middle of the site, away from noise sources on Lada Dalam street and Kampung Kunir street. • Design the tourist information center and cultural center with Dutch colonial architectural styles found in the area to maintain visual continuity, such as the use of '*sopi-sopi'* roofs, '*krepyak'* windows, colonial gables, and dormers. • Construct the buildings with reinforced concrete frames. Integrate sun-shading devices and louver elements on the facades to block sunlight and maintain indoor temperatures. • Design the roofs with '*sopi-sopi'* and gable shapes, including overhangs to facilitate rainwater runoff and protect the building from rain splashes. • Implement dormer structures in the roof design to enhance air circulation and prevent dampness and heat buildup.

• Strengthen the cultural heritage values of the Fatahillah area through the design of the Tourist Information and Cultural Center. • Reinforce the urban planning values of the area characterized by zero setback buildings, pedestrian-friendly streets, and a public square that serves as a gathering place for both locals and tourists. • Enhance the functional values (activities and atmosphere) of the Fatahillah area as a cultural heritage tourism zone, while acknowledging the site's existing function as parking for Old Town tourists and a marketplace for local vendors. • Reinforce colonial architectural values, as well as principles of symmetry, hierarchy, and axis evident in the landscape and historic buildings surrounding the Fatahillah area. • Strengthen the social values of tourists visiting the Fatahillah area and the majority of locals from Kampung Kunir who work in the vicinity. • Enhance the educational value of the historical significance of the Fatahillah area to increase awareness among tourists and the local community.	• Design the tourist information center as a supporting element for the cultural heritage tourist area of Kota Tua Jakarta, while retaining the site's existing function as a parking area for tourists on basement levels 1 and 2, and providing a food and drink canteen on the first floor of the commercial building at the rear of the site, adjacent to the Ciliwung River. • The design of the food and drink canteen and souvenir shop on the site enhances social value by allowing local residents to continue selling on the premises and accommodating local artists with the convention/exhibition space and amphitheater for performances. • Design the buildings with zero setbacks on the sides adjoining the streets for both the tourist information and commercial buildings, and include a reception square in the center of the site to honor the urban planning values of the Fatahillah area. • Design the cultural and commercial buildings to demonstrate principles of symmetry, repetition of columns in the arcades, hierarchy in the cultural center, and axis from Fatahillah Square to the site. • Create a pedestrian entrance gate inspired by the historical gates of Batavia to reinforce the zero-setback urban planning and historical values of the area. • Design the cultural center with the form of a Dutch colonial gable, a common element in Dutch colonial architecture. • Enhance and highlight the historical identity of the site as a former edge of Batavia city by providing unobstructed views and circulation from the reception square to the Ciliwung River area, using transparent and openable glass walls.
• Using modern materials and technology in the design of the Tourist Information Center and Cultural Hall, and applying the latest technology to deliver information about Kota Tua Jakarta's tourist attractions.	• Modern technology and materials are evident in the design through the use of space truss systems for the wide-span structure of the cultural hall, the application of wavy sun-shading panels with perforated metal materials, and laser-cutting materials used in the cultural hall mass and pedestrian entrance gateways.
• Producing a design for the Tourist Information Center and Cultural Hall that can adapt to changing times. • Creating a design for the Tourist Information Center and Cultural Hall that incorporates contemporary elements in its architecture.	• Designing an open-plan convention and exhibition space that can be adapted for various functions such as art exhibitions, historical seminars, and more. • Designing a souvenir shop on the ground floor of the commercial mass with transparent walls that can be opened or closed to accommodate potential circulation and views towards the Ciliwung River if revitalized. • Designing the Tourist Information and Cultural Center with contemporary elements such as the facade of the tourist information mass using wavy perforated metal sun-shading panels and aluminum grilles, and the cultural center mass and pedestrian entrance using laser-cutting technology.
• Develop a cost-effective design and construction system, with energy-efficient building practices.	• Reusing treated wastewater and rainwater for flushing toilets and irrigation of plants around the design site. • Minimizing the use of HVAC and lighting in the commercial areas to save energy and operational costs by utilizing natural ventilation and daylight. • Implementing photovoltaic panels as a secondary source of electrical energy to reduce reliance on grid electricity and enhance energy efficiency.
• Zoning of spaces to align with visitor access and circulation in the Fatahillah Museum Square area. • Maintain pedestrian circulation from Fatahillah Square to the design site. • Maximum building height of 4 floors or 20 meters from the road level to the top of the building's roof to avoid dominating the surrounding buildings. • Front setback of 0 meters, with buildings to be constructed flush against the front lot boundary. • Roof forms can be gable, hip, or flat with a maximum parapet height of 1 meter and a maximum cornice projection of 80 cm. Roof utility equipment must be hidden from street view. • Maximum front width of the building is 10 meters. If wider, the facade should be divided into sections each less than 10 meters wide. • Provide arcades extending to adjacent buildings, with a clear width of 2.5 meters and a height from floor to arcade ceiling of 3.5 meters.	• Design the entrance access gate to the site for pedestrians, cyclists, and motor vehicles on the West side of the design site. • Pedestrian circulation from the West side continues towards the center of the design site to the receiving field. • Design a 2-storey low-rise building, ground floor zero, using a hipped roof and flat roof type with 80 cm parapets. • Design the tourist information massing and commercial massing facing the street by showing an 8-meter-wide facade breakup conforming to urban guidelines with hipped roof wall. • Design an arcade on the side adjacent to the street with an arcade width of 2.5 meters and an arcade ceiling height of 3.5 meters. • Utility units such as outdoor AC units and rooftop reservoirs are placed on a flat roof obstructed from view from the street to maintain aesthetic integrity.
• Use a building structural system that is strong, rigid, and structurally stable, capable of withstanding loads and earthquake resistance. • Mitigate flood risks in the area and anticipate flooding in the design. • Provide lifts and ramps to facilitate access and circulation for people with disabilities in the design. Require CCTV surveillance rooms to monitor spaces containing important objects that need protection from damage.	• Designing a tourist information center and cultural hall with inclusive facilities, including for persons with disabilities, the elderly, and nursing mothers, by incorporating lifts in the tourist information center and cultural hall, downward ramps to the amphitheater, and upward ramps to the entrance corridors of the buildings, as well as disabled WC facilities and lactation rooms in the tourist information center, cultural hall, and commercial areas. • Designing CCTV areas to facilitate surveillance around and within the design site on the basement 1 floor, adjacent to natural ventilation and lighting. • Designing green areas within the design site and meeting the KDH standards set at 20% to maximize rainwater infiltration and minimize flood risks. • Reusing rainwater for flushing toilets and watering plants around the design site. The ground floor of the building is elevated 1 meter above street level on the design site to prevent water ingress in case of floods in the area.

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