

PORT IN MANDEH TOURISM AREA WITH METAPHOR ARCHITECTURE APPROACH

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ABSTRAK

Peran transportasi sangat penting sebagai sarana pendukung pariwisata di Indonesia. Seiring dengan meningkatnya persaingan dalam menarik kunjungan wisatawan, pengembangan sarana dan prasarana infrastruktur menjadi prioritas utama. Hal ini menuntut tersedianya infrastruktur pelabuhan yang dapat melayani kapal wisata dengan standar internasional. Metode yang digunakan dalam penelitian ini adalah metode deskriptif, yaitu suatu pendekatan yang berusaha menggambarkan suatu peristiwa secara sistematis sesuai dengan kenyataan yang ada. Penelitian ini bersifat deskriptif-analitis, artinya data yang diperoleh tidak diterjemahkan ke dalam bentuk angka, melainkan dianalisis secara kualitatif. Pelabuhan wisata merupakan tempat yang dikunjungi oleh individu maupun kelompok untuk menikmati keindahan alam, berlibur, atau berekreasi. Fungsi utamanya adalah sebagai sarana transportasi publik, namun kapal-kapal yang beroperasi di pelabuhan ini merupakan kapal wisata. Penumpang dan wisatawan dapat menikmati keindahan alam serta berbagai fasilitas yang disediakan oleh objek wisata tersebut. Bagi para wisatawan, keberadaan fasilitas yang memadai tentu sangat membantu dalam menunjang kenyamanan dan pengalaman berwisata.

Kata Kunci: Pelabuhan, Turis, Penumpang, Kapal, Maritim.

ABSTRACT

The role of transportation is very important as a means of supporting tourism in Indonesia. Along with the competition to attract tourist visits, the development of infrastructure facilities and infrastructure is a top priority. This requires port infrastructure for tourist boats that are equipped with international standards. The method used is descriptive research, which seeks to systematically describe an event as it really is. This research is descriptive-analytical in nature, that is, it does not translate the data obtained into numbers. A tourist port is a place visited by individuals or groups for nature, vacation or recreation. Its main function is as public transportation, but the ships offered at this port are tourist boats. Passengers and tourists can enjoy the beauty and facilities offered by these tourist attractions. For tourists, the facilities provided are usually very helpful.

Keywords : Harbor, Tourism, Passenger, Ships, Maritime.

INTRODUCTION

Tourism is one of Indonesia's industrial sectors with significant prospects, potential, and opportunities for growth (Wibowo et al., 2017). One type of tourism currently being prioritized by the government is ecotourism. Ecotourism refers to a form of travel to natural areas aimed at conserving the environment and promoting the livelihood and well-being of local communities (Pitana., n.d.). The principles and criteria for ecotourism management in Indonesia's national standards include the sustainability of ecosystem functions, the preservation of natural tourism attraction objects, the conservation of socio-cultural values, visitor satisfaction, safety, and comfort, as well as adherence to the principle of economic benefit (Rhama, 2019).

Indonesia possesses significant economic potential in its marine and fisheries sector. Furthermore, the country is endowed with rich biodiversity, ancient relics, historical heritage, and diverse arts and culture, all of which can be optimally leveraged through tourism development (Indriana et al., 2023). West Sumatra Province boasts numerous

natural beauty destinations, one of which is the Mandeh Tourist Area located in Koto XI Tarusan District, South Pesisir Regency. This tourist area was inaugurated by the President of the Republic of Indonesia, Joko Widodo, on October 10, 2015 (Zen et al., 2017). Since its inauguration, the Mandeh Tourist Area has gained widespread recognition, attracting both local and international tourists. Mandeh is a natural tourist destination featuring stunning natural and beach scenery, surrounded by islands scattered around the beach, creating a view skin to a marine lake on the edge of the Indian Ocean (Zen et al., 2017). The participatory involvement of local communities in ecotourism planning and development in Indonesia demonstrates notable similarities with Japan's approach. Such a comparative understanding can contribute to more effective policy formulation, especially in ensuring community empowerment, environmental sustainability, and the integration of local values in tourism infrastructure development (Sisriany & Furuya, 2020).

The Mandeh Tourist Area comprises many islands accessible via the TPI Carocok Tarusan dock, though the facilities are in poor condition. Due to the limited facilities at the Mandeh Tourist Area dock, a port with adequate amenities is needed. A port is a protected water area equipped with terminal facilities, including docks where ships can moor to load and unload goods and passengers (Bambang, 2009). Designing a tourist port fundamentally aims to provide crossing facilities to tourist areas, particularly those with marine potential (Riana et al., 2021). There are three types of docks: Wharf, Pier, and Jetty (figure 1) (Bambang, 2009). These docks are used according to natural conditions and needs. A Wharf is parallel to the shore and usually touches the shoreline. A Pier is located at the shoreline, perpendicular to the shore. A Jetty extends into the sea, with its front end at a depth sufficient for ships to dock (Bambang, 2009).

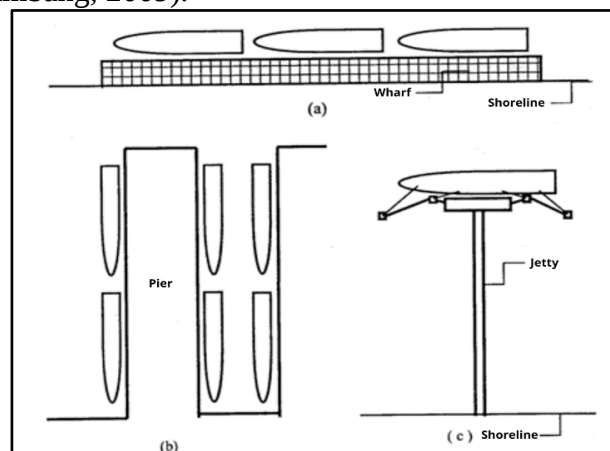


Figure 1. (a) Wharf; (b) Pier; (c) Jetty

Source: T. Bambang, 2009

A passenger port is a facility specifically designed to serve passenger ships. It includes various amenities that facilitate the embarkation and disembarkation process, such as passenger terminals, check-in areas, waiting rooms, baggage services, and other facilities ensuring passenger comfort and safety. Passenger ports are usually located near city centers or tourist destinations to facilitate access for passengers. These include both primary and supporting facilities aimed at ensuring seamless travel experiences for visitors (Indriana et al., 2023). The Executive Summary of the Mandeh Masterplan highlights that the islands around the Mandeh Tourist Area each have their marine potential. This can be seen in Table 1.

Table 1. Mandeh Marine Potential

Island Name	Tourism Activities
Soetan	Banana Boat, Jet Ski, Snorkeling, Scuba Diving
Cubadak	Kapo – Kapo Beach Cottage
Pagang – Pamutusan	Scuba Diving
Marak	Previously serving as a Wildlife Conservation Area, it has now become a turtle nesting site.
Sironjong Gadang	Snorkeling
Sironjong ketek	Snorkeling, Lompat Tebing
Boeloengan Netherland	Underwater Tourism, Diving

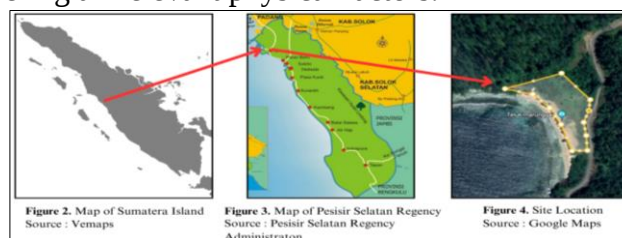
This design uses a Metaphorical Architecture approach as the port is seen as a gateway to an area or tourist destination, and the Metaphor theme is expected to reflect the image of the destination. According to Charles Jencks in "The Language of PostModern Architecture," a metaphor is a code captured by the observer by relying on one object to another (Levin & Jencks, 1978). For example, how an observer sees one building compared to another due to the similarity of elements between them. The majority of ecotourism attractions emphasize the authenticity and uniqueness of natural sites that remain largely untouched by human activity (Hidrawati et al., 2020). This approach aims to preserve the ecological integrity of the environment while providing visitors with a genuine and immersive experience of nature, promoting both environmental awareness and sustainable tourism practices.

METHODOLOGY

The method used is descriptive research, which aims to describe an event systematically as it is. The research is descriptive-analytic, where the obtained data (observations, interviews, photographs, etc.) are not presented in numerical form. The researcher analyzes the data by enriching information, comparing, finding relationships, and discovering patterns based on the original data.

Location Selection Area

The criteria for selecting the location of marine tourism ports are analyzed through a SWOT approach, which involves several considerations: 1) strength, supporting the location is the government policy in the field of tourism, 2) weaknesses, there are weaknesses that need to be addressed, such as the limitations in infrastructure, 3) opportunities, include the needs, desires, and expectations of the community regarding the development of marine tourism, 4) threats, external barriers that could affect the construction and development of the marine tourism port are also identified (Biasane, 2018). The location selection for the port construction plan considers various physical conditions, including: 1) accessibility, meaning the condition of the roads leading to the location, 2) hinterland, meaning an influential area with significant economic growth and a dense population, 3) availability of ample land, 4) oceanographic conditions with minimal waves and free from sedimentation, and 5) supporting facilities such as clean water, electricity, and communication. This approach ensures that the chosen location is optimal for supporting the port's function and operations by considering all relevant physical factors.



The project location is in the Mandeh Tourist Area with a site area of approximately 1.8 ha. The site boundaries are: 1) north: Bungus Teluk Kabung District, 2) south: Bayang District, 3) east: Koto XI Tarusan District, and 4) west: Mandeh Bay.

RESULT AND DISCUSSION

Exterior Design Concept

The exterior concept prioritizes the ease of access for visitors to the building. It provides supporting facilities with comfortable circulation for pedestrians, cars, and motorcycles. The primary function of the outdoor space is to support the building's main function as a port with a passenger terminal. Supporting facilities at this location include breakwaters that can serve as walking paths while enjoying the beach, docks for passengers to board and disembark from ships to the terminal and otherwise, parking areas for two-wheelers, four-wheelers, and buses, and a park for visitors who want to enjoy the beach view from the port (Figure 5). This design approach aligns with principles of waterfront development, where accessibility, pedestrian comfort, and visual connectivity to the landscape are emphasized to enhance the user experience in coastal public infrastructure (Gehl, 1987).



Figure 5. Exterior Design Concept

Circulation Concept

The site can be accessed from the main road in the Mandeh tourist area. Due to uneven land contours, access to and from the site uses the same route. There are ample parking areas provided according to the building's needs (Figure 6). The building's orientation is designed in response to the site's shape. The building concept uses symmetry, implying harmony and balance through aligned dimensions, proportions, and arrangements. This approach aligns with findings by Notodipuro and Mandala (2022), who emphasize that building orientation and form on sloped terrains in tropical climates significantly influence energy efficiency and spatial comfort (Notodipuro & Mandala, 2022).

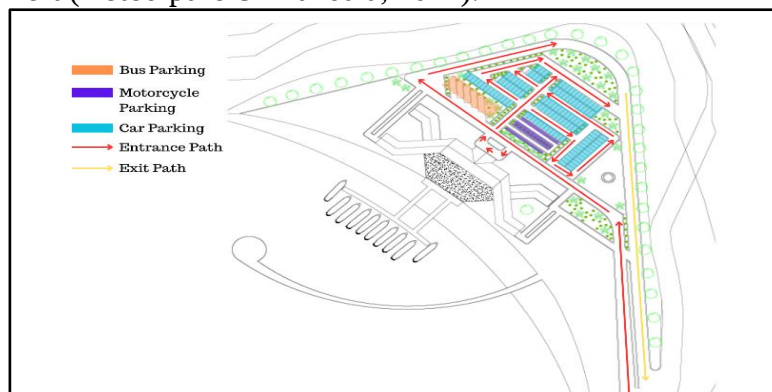


Figure 6. Circulation Concept

The main access to the building is on the right side of the site. From this main access, there is the main entrance to the building, the second entrance to the building, and the parking area on the right side can be seen (figure 7). Based on its location, an entrance can be positioned at the center of the frontal facade of a building or shifted off-center to create localized symmetry around the opening. The placement of an entrance relative to the shape of the space it leads into will influence the pathway configuration and activity patterns within the space (Ching, 2015).



Figure 7. Site Access

After dropping off passengers, visitors who bring private vehicles can park their vehicles in the designated parking areas. There are many parking areas available at the port for buses, cars, and motorcycles (figure 8). This arrangement aims to ensure that visitors, even those so many people arriving at certain times, can still park their vehicles within the port area. Providing ample and well-organized parking facilities helps maintain smooth traffic circulation, prevents overcrowding near the main building entrances, and supports the overall efficiency and comfort of the port environment. Parking areas are typically marked with colored lines (white or yellow) along the sides and front, measuring 12–20 cm in width. These lines are positioned at an elevated height, up to 1 meter on the wall, to ensure better visibility (Ernst & Neufert, 2002).

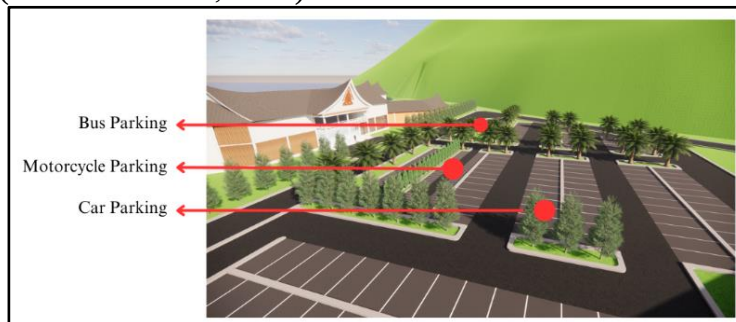


Figure 8. Parking Lot

There are separate drop-off points for passengers in private vehicles and public transportation. Visitors in private vehicles can drop off passengers at the main entrance, while those using public transportation can alight at the building's second entrance (figure 9). This separation is intended to optimize traffic flow and reduce congestion at the main entry point, ensuring a more organized and efficient circulation system for both types of users. It also enhances safety and comfort by minimizing potential conflicts between private and public vehicle movements.



Figure 9. Building Access

A rooftop garden is available on the second floor, offering a direct view of the sea. This area is provided for visitors who wish to enjoy the sea without crossing to the island. The area is equipped with seating and garden lights (figure 10). This space serves not only as a visual attraction but also as a place of relaxation and social interaction. The integration of landscape elements on the upper floor enhances the building's connection with its coastal context, while also contributing to thermal comfort and aesthetic value.



Figure 10. Rooftop Garden

Implementing Concept of Metaphor Architecture Design

The metaphorical architecture is implemented in the building's roof. The port's roof is shaped like Atap Bagonjong of Minangkabau traditional house's. This is because the Minangkabau community generally still adheres to strong customs.



Figure 11. Implementing Concept of Metaphor Architecture

To preserve these traditions, the port building is designed to resemble a traditional house (figure 11). Another goal is that the port, seen as a gateway to a region, aims to impart the impression and image of the area. The port building also features several Minangkabau ornaments, such as "pucuk rabuang" on the roof and "siriah gadang" as the fence on the building's balcony.

Interior Design Concept

The port is designed with two levels to accommodate all activities. The first level includes the terminal with waiting room (Figure 12), shops (Figure 13), prayer rooms,

toilets, and other service areas. The second level has a food court, restaurant, and rooftop garden. The waiting area is designed to face the sea, allowing visitors to watch ships as they arrive and depart, while also providing a pleasant view. The waiting area is equipped with seating, information services, and restrooms, ensuring that visitors can use the facilities without having to leave the waiting area.



Figure 12. Waiting Room

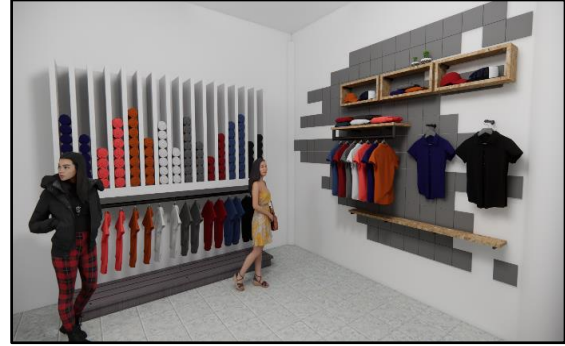


Figure 13. Shops

Lots off shopping areas are provided to sell souvenirs, clothing, and other items to meet visitors' needs. These shopping areas can be accessed from both the main access or the secondary access. Additionally, seating is available around the shopping areas for those who need it (figure 14).



Figure 14. Shopping Area

CONCLUSION

Indonesia, an archipelagic country, boasts numerous marine tourism destinations that are popular among both international and domestic tourists. Ports play a crucial role in supporting tourism by providing access to these destinations. The necessary ports should be equipped to accommodate ships as a mode of transportation, featuring passenger terminals that offer comfort and comprehensive information to travelers. Based on these requirements, the proposed port design includes a jetty-type pier and supporting facilities such as a breakwater, which can also serve as a vantage point for enjoying the surrounding scenery. The design approach utilized is metaphorical architecture, which can evoke and represent the local culture and identity. Consequently, the port is designed to resemble the traditional Minangkabau house.

DAFTAR PUSTAKA

- Bambang, T. (2009). *Perencanaan Pelabuhan*. Betta Offset Yogyakarta, 01.
- Biasane, D. I. (2018). Potensi Pembangunan Pelabuhan Wisata Bahari Di Kabupaten Sorong. *Warta Penelitian Perhubungan*, 28(4). <https://doi.org/10.25104/warlit.v28i4.589>
- Ching, F. D. K. (2015). *Architecture Form, Space, & Order*. In John Wiley & Sons, Inc. (Vol. 53, Issue 9).

- Ernst, & Neufert, P. (2002). Data Arsitek 2. In *Antimicrobial Agents and Chemotherapy* (Vol. 58, Issue 12).
- Gehl, J. (1987). *Life between the buildings : using public space. Life between the Buildings : Using Public Space.*
- Hidrawati, H., Normayasari, N., Sahari, S., Fyka, S., & Yusria, W. (2020). A Study of the Potential of Ecotourism Development in Konawe Islands Regency, Southeast Sulawesi Province, Indonesia. *HABITAT*, 31(3). <https://doi.org/10.21776/ub.habitat.2020.031.3.14>
- Indriana, H., Sausan, M. F., & Purwandari, H. (2023). Pengembangan Ekowisata Bahari dan Kesejahteraan Masyarakat Lokal pada Masa Pandemi Covid-19. *Jurnal Sains Komunikasi Dan Pengembangan Masyarakat [JSKPM]*, 7(1), 165–171. <https://doi.org/10.29244/jskpm.v7i1.938>
- Levin, R., & Jencks, C. A. (1978). The Language of Post-Modern Architecture. *The Journal of Aesthetics and Art Criticism*, 37(2). <https://doi.org/10.2307/429857>
- Notodipuro, P. G. A. S. K. W., & Mandala, A. (2022). The effect of building shape and orientation on energy use at sloped sites in tropical climates using sefaira. *ARTEKS : Jurnal Teknik Arsitektur*, 7(1). <https://doi.org/10.30822/arteks.v7i1.1397>
- Pitana., D. A. and I. G. (n.d.). EKOWISATA: TEORI, APLIKASI, DAN IMPLIKASI Oleh: Dini Andriani * dan I Gde Pitana †. 10, 1–12.
- Rhama, B. (2019). Peluang Ekowisata Dalam Industri 4.0 di Indonesia. *Jurnal Ilmu Sosial, Politik Dan Pemerintahan*, 8(2).
- Riana, I. G. Y. A. P., Arthana, I. N. N., & Nurwasih, N. W. (2021). Perencanaan Dan Perancangan Pelabuhan Penumpang Wisata Di Labuhan Lalang, Desa Sumberklompok, Kecamatan Gerokgak, Kabupaten Buleleng. *UNDAGI: Jurnal Ilmiah Arsitektur Universitas Warmadewa*, 9(2).
- Sisriany, S., & Furuya, K. (2020). Ecotourism policy research trends in Indonesia, Japan, and Australia. *Jurnal Manajemen Hutan Tropika*, 26(2). <https://doi.org/10.7226/JTFM.26.2.178>
- Wibowo, S., Rusmana, O., & Zuhelfa, Z. (2017). Pengembangan Ekonomi Melalui Sektor Pariwisata Tourism. *Jurnal Kepariwisata: Destinasi, Hospitalitas Dan Perjalanan*, 1(2), 93–99. <https://doi.org/10.34013/jk.v1i2.13>
- Zen, Z. W., Albar, B. B., & Mayasari, H. (2017). Daya Tarik Wisata Dan Promosi Terhadap Keputusan Memilih Objek Wisata Kawasan Mandeh Kabupaten Pesisir Selatan. *Jurnal Manajemen Dan Kewirausahaan*, 8(1).