



## ***Final Architectural Design Studio***

Design of  
**Cultural Center with Cultural Waterfront Design Strategies**  
in Madura Strait Area, Kedung Cowek, Surabaya

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## VALIDATION SHEET

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Kedung Cowek, Surabaya)

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Yogyakarta, 12th August 2022  
Author



Rifqi Cahya Mahendra

## Preface

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Assalamualaikum wr. wb

Praise the presence of Allah SWT, The One and Only God for the abundance of grace, His gift, and His power so the preparation of the Final Architectural Design Studio report titled "Design of Cultural Center with Cultural Waterfront Design Strategies in Madura Strait Area, Kedung Cowek, Surabaya" can be completed. The author realizes that the process of drafting and implementing of this report can be done inseparable from the support of many parties, therefore the author wants to express appreciation and gratitude to:

1. Allah SWT., who has given His gifts, instructions, ease, and power in every research process and the preparation of the final project report so that the author can complete it.
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10. Last but not least, I want to thank myself for doing all the hard work under all the pressure, and thank you for believing in myself to be able to complete this Final Architectural Design Studio.

The author realizes that in the preparation of this report is far from perfection, in terms of language, drafting, and writing. Therefore, the author expects constructive criticism and suggestions that will later become a provision of experience for the author to be better in the future. Hopefully this report is useful for all who read it, as well as the author in particular.

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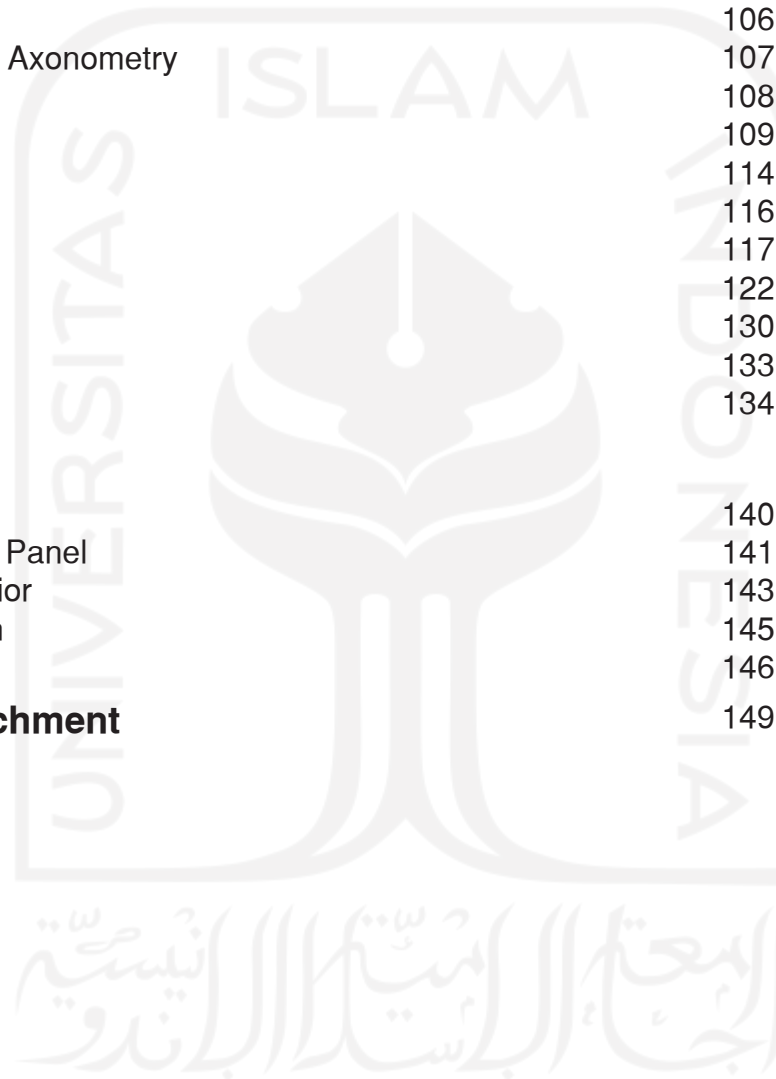
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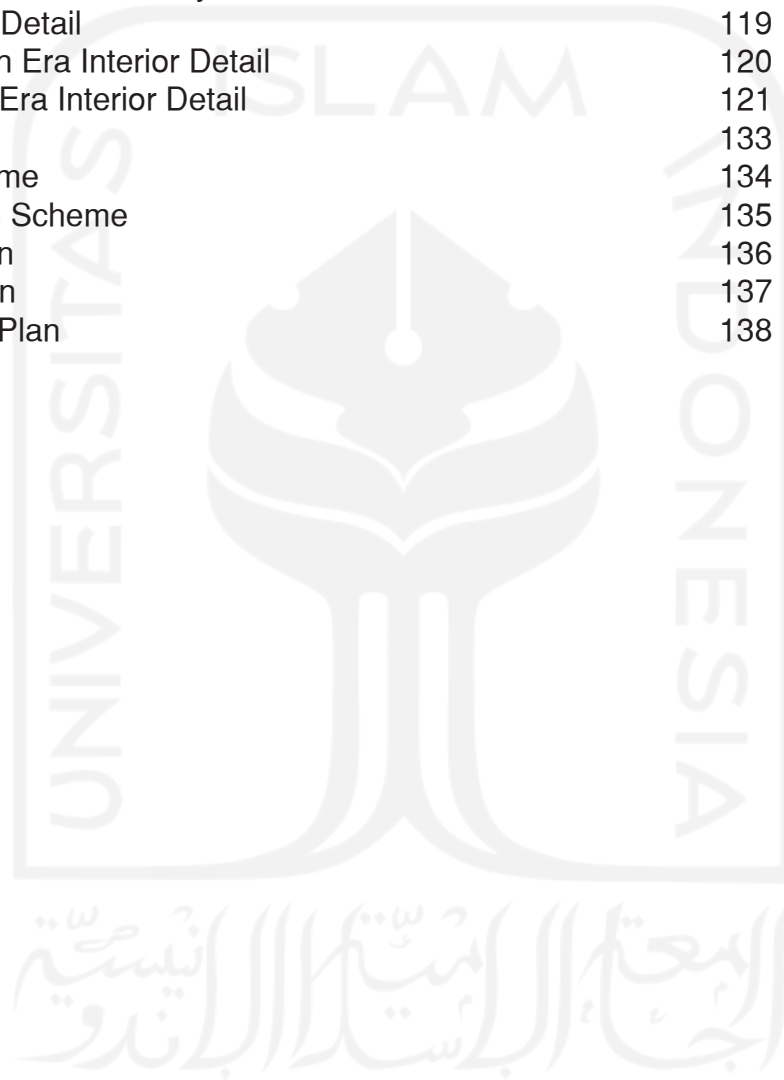
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## Design Premise

The design of the cultural center with cultural waterfront design strategies aims to preserve the fading of culture in Surabaya as well to accommodate cultural cooperation between the Madurese and Javanese tribes around the Madura Strait. The design aims to enhance and maximize the existing waterfront potential and improve the surrounding economy by creating jobs for the community around the area.

To achieve an excellent cultural center with the characteristics of a region where it was established, it is done by creating a cultural tourism area that follows the values and requirements of cultural activity and follows the patterns and characteristics of water as an essential planning element.

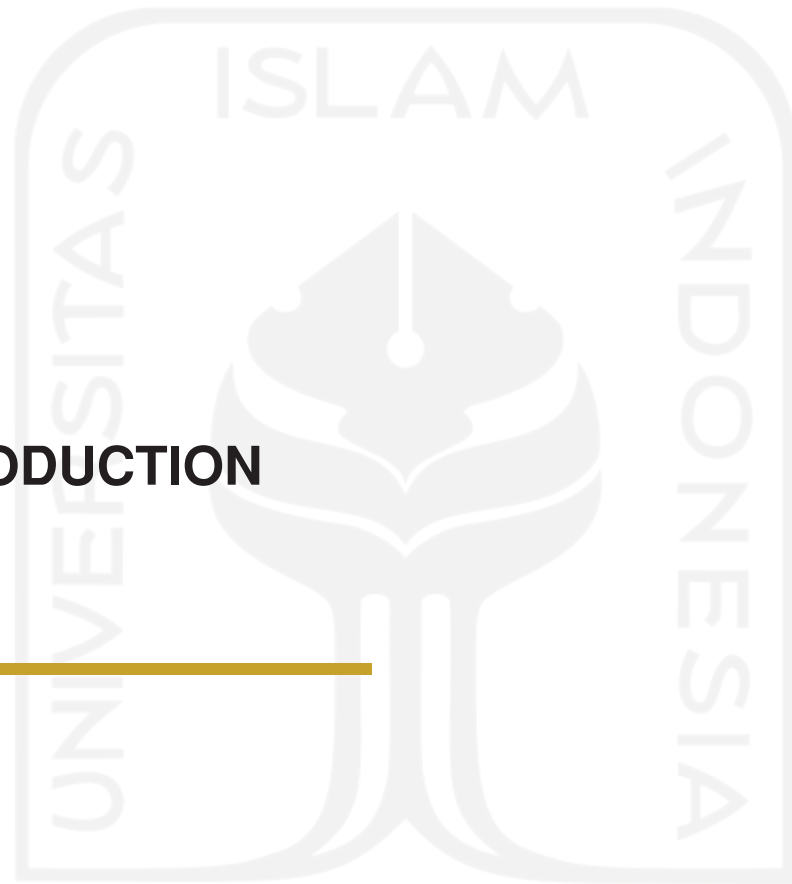
This design approach and strategies uses a cultural waterfront design strategies and utilizes the potential of water and the surrounding nature without destroying the already existing nature. This can create a new lively waterfront cultural tourism center, preserving the fading cultures and accommodating the new cultural cooperation alongside increasing the existing waterfront potential value and economic value to the people around it.

Keywords: Cultural Center, Cultural Waterfront, Waterfront

# INTRODUCTION

# 01

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الجامعة الإسلامية الأندونيسية

## Background

### The History of Javanese Ethnic Group and Their Migration

Surabaya's majority tribe is the Javanese. Despite the fact that Java has a tribal majority (83.68 percent), Surabaya is home to a diverse ethnic group of Indonesians, including the Madurese (7.5 percent), Chinese, and others (7.25 percent) (Soedarso, Nurif, Sutikno, & Windiani, 2013). The Kedu and Kewu Plains, located on the lush slopes of Mount Merapi and serving as the heart of the Ancient Mataram Kingdom, are widely regarded as the cradle of Javanese culture. When Mpu Sindok (r. 929-947) transferred the royal capital eastward to the Brantas river valley in the 10th century, the cultural and political center of Java was shifted to the eastern part of the island.



Figure 1. Javanese Ethnic Group

Source: <https://kumparan.com>



Figure 2. Srivijaya Invasion

Source: <https://en.wikipedia.org/wiki/Srivijaya>

The eruption of Mount Merapi and/or the invasion from Srivijaya are most likely to blame for the displacement. In the late 13th century, under King Kertanegara of the Singasari Kingdom, Javanese influence spread rapidly. In 1284, this expansionist king sent the Pamalayu Expedition to Madura, Bali, as well as several other big expeditions.

## Background

### The History of Madurese Ethnic Group and Their Migration

#### Earlier Madurese Interaction with Other Areas

The interaction between the Madurese ethnicity and people outside Madura island can be traced even during the royal/kingdom period. Over time, these interactions continued into a great migration process which finally until now, gave birth to a new culture.



Figure 3. Madurese Ethnic Group  
Source: <https://id.wikipedia.org/>

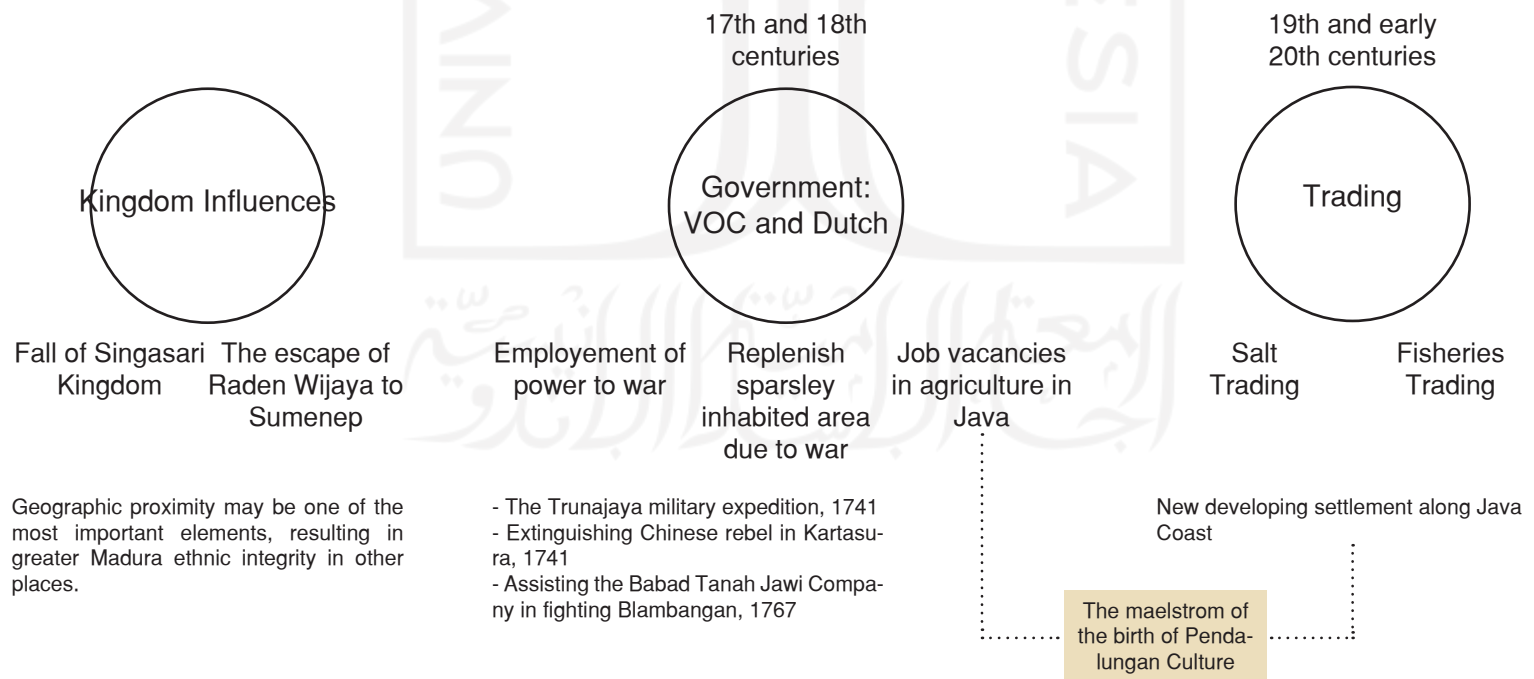


Figure 4. Diagram of the Maelstrom of the Birth of Pentalungan Culture  
Source: Author, 2022



## Background

### The Starting of Pandalungan Culture

The occurrence of the great migration of Madurese to Java was caused by two conditions that both occurred in Java and Madura

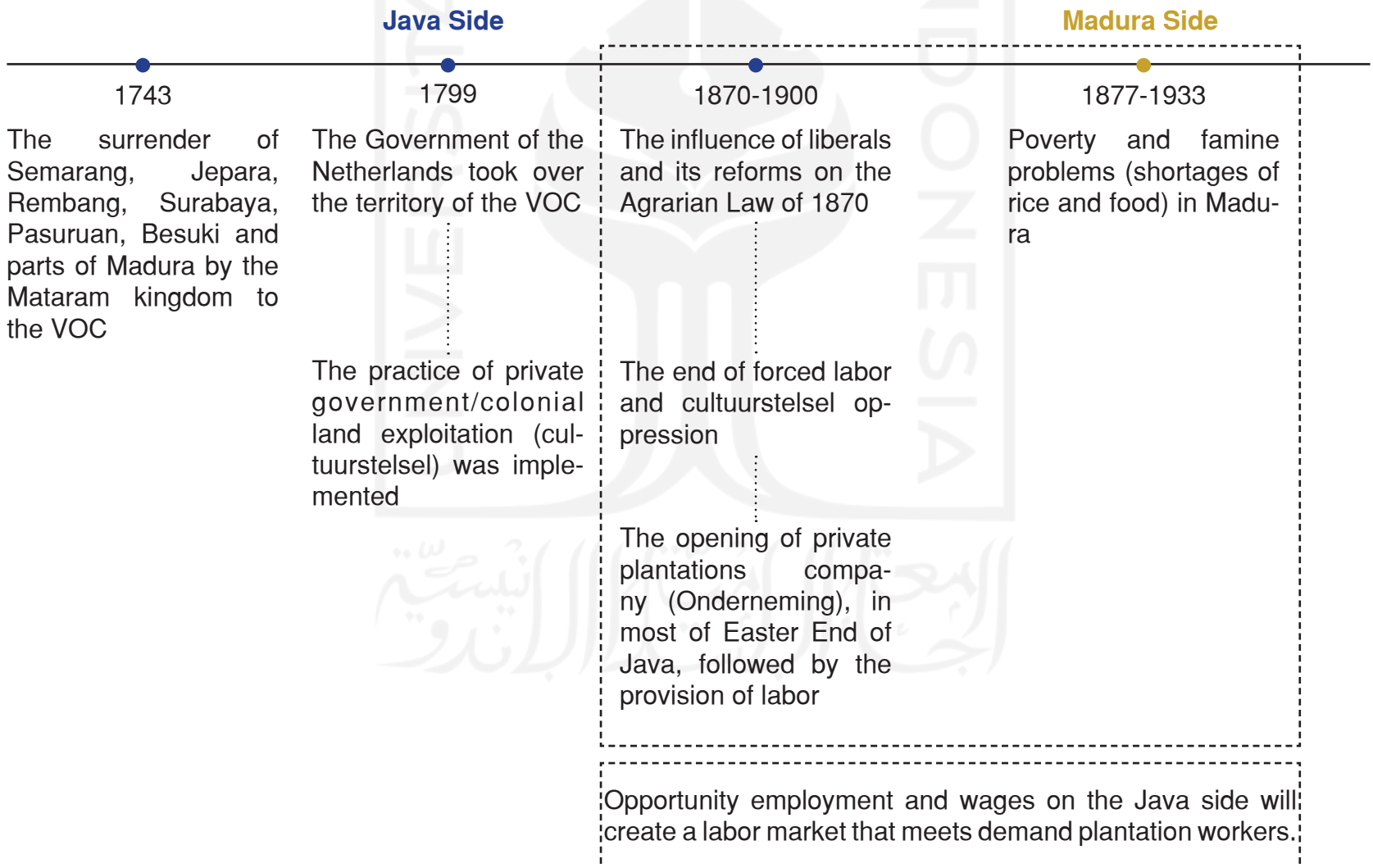
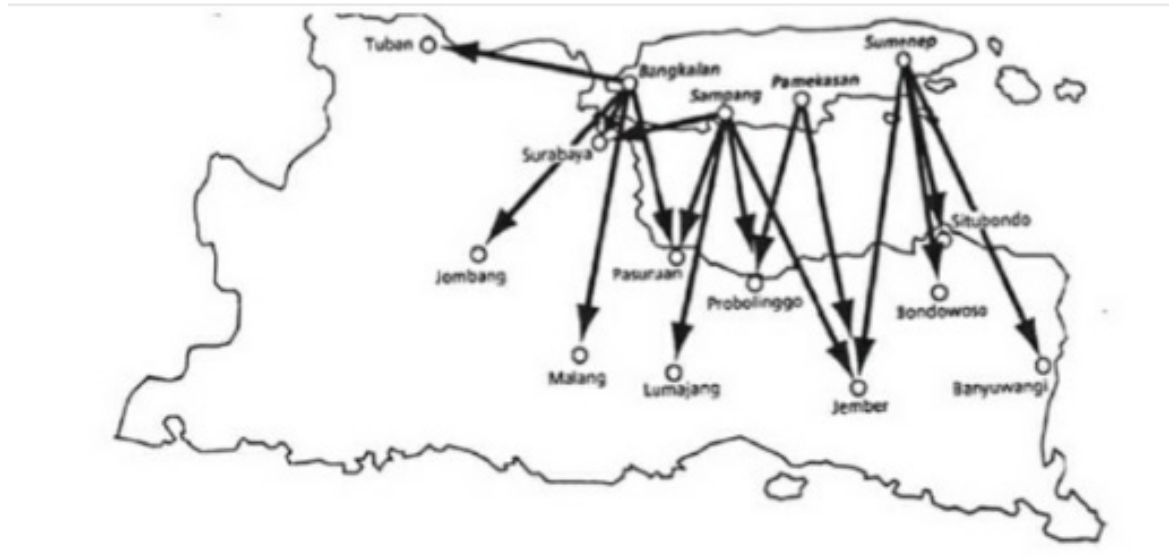


Figure 5. Diagram of the Starting of Pandalungan Culture  
Source: Author, 2022

## Background

### The Migration Spread Pattern



*Figure 6. Migration Origin and Destination Map*  
*Source: (Husson, 1997:93)*

Outsiders' word (exonym) for the people of the horseshoe is *pendalungan*. If the impact of the Javanese appears to be so strong in other districts of East Java. In the 'horseshoe', Javanese and Madurese cultures work together to create harmony.

Typically, these migrants relocate to locations on the outskirts of their district. As a result, people migrate from Bangkalan to Surabaya, Malang, Kediri, Madiun, and Bojonegoro. People from Sampang mostly moved to Pasuruan, Probolinggo, and Lumajang. Meanwhile, Sumenep and Pamekasan residents prefer to go to Jember, Bondowoso, and Banyuwangi.

## Background

### Pendalungan Culture: An Acculturation between Javanese and Madurese Ethnic Group

Pendalungan is derived from a combination of two Javanese words that have nearly identical meanings: *medal* and *lunga*, which respectively mean to leave and wander. The word refers to genetically indigenous Madurese who reside and settle outside of Madura's island, particularly in eastern Java. Medulungan people also refer to those who live away from home for an extended period of time, even to the extent of settling, and thus losing their original identity. As a result of migration, this phrase can also refer to a child whose father is Madurese and whose mother is not (*anak medalungan*).

East Java's northern coastline region, which spans from Tuban to Banyuwangi and includes the cities of Surabaya, Pasuruan, Probolinggo, and Situbondo, has long maintained close ties with Madura. The Madurese have been encouraged to relocate to the horseshoe area by socioeconomic challenges and the arid geographical conditions of Madura Island during the colonial period. The major elements that describe the migration event are socio-economic interests. The migration of the Madurese to Java has been fraught with difficulties. Later on, a slew of issues arose, including social and cultural ones.



Figure 7. Madurese People  
Source: Google



Figure 8. "Pendalungan" Region on East Java  
Source: <https://www.goodnewsfromindonesia.id/>

## Background

### The Living Pattern of Pandalungan Culture

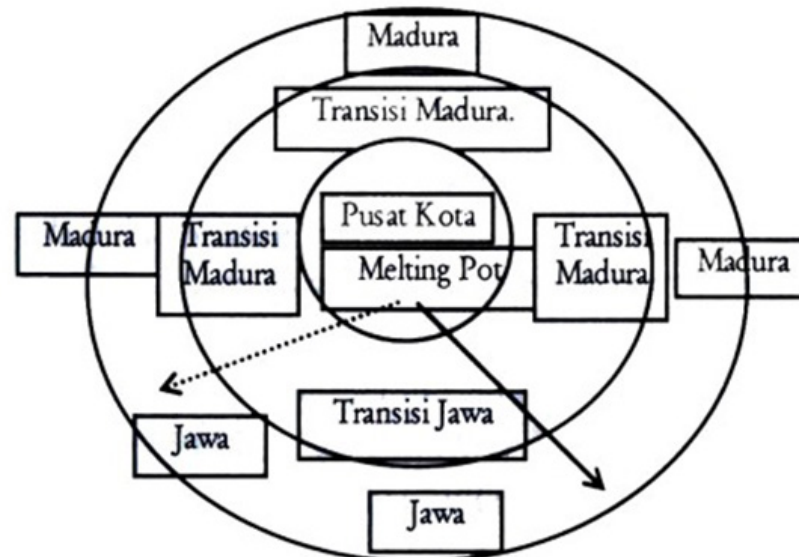


Figure 9. Cultural gradation of Pandalungan According to Concentric Environment  
Source: (Yuswadi, 2001)

A concentric circle pattern can be used to describe the formation of pandalungan culture, which consists of a city center surrounded by a circle of cultural enclaves. As a melting pot, the city center becomes the meeting point of two main civilizations and the focal point of concentric circles.

The degradation of cultural change is also stated to follow the ethnic concentration pattern's concentric circle character. This means that the further from the city center, the more obvious the waning of the particular culture as a result of conforming to the dominant cultural pattern becomes. In the suburbs and metropolitan regions, the pandalungan's cultural identity is deteriorating and becoming increasingly distinct.

This is due to the fact that the rural areas on the outside of the city are primarily populated by Madurese and Javanese peoples, each with their own main cultures.

## Background

### Social Interaction between Javanese and Madurese Ethnic Group

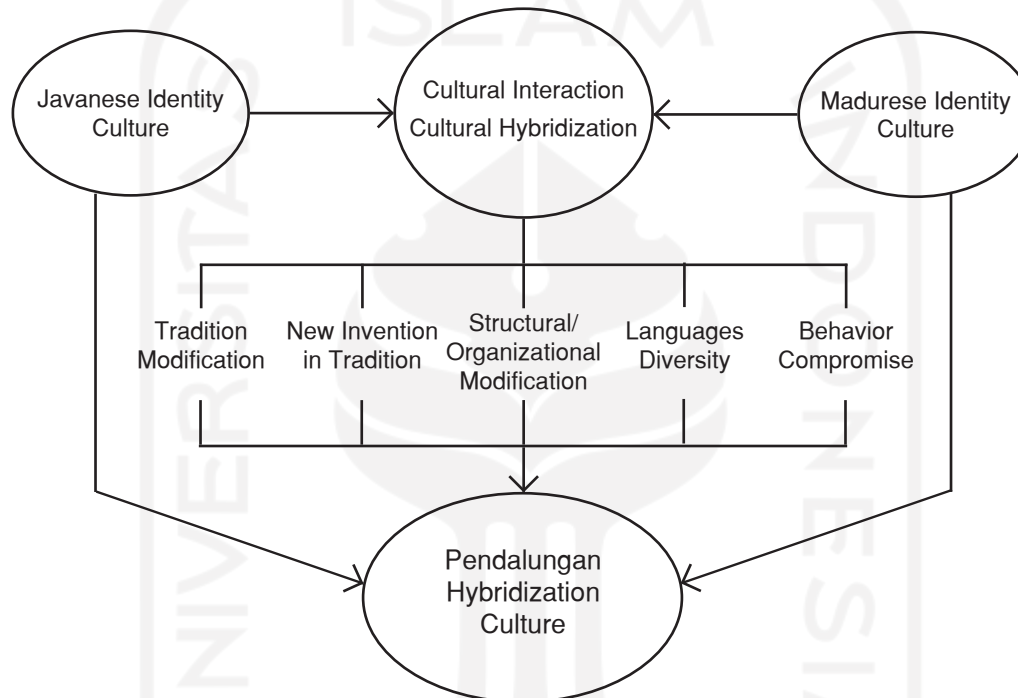
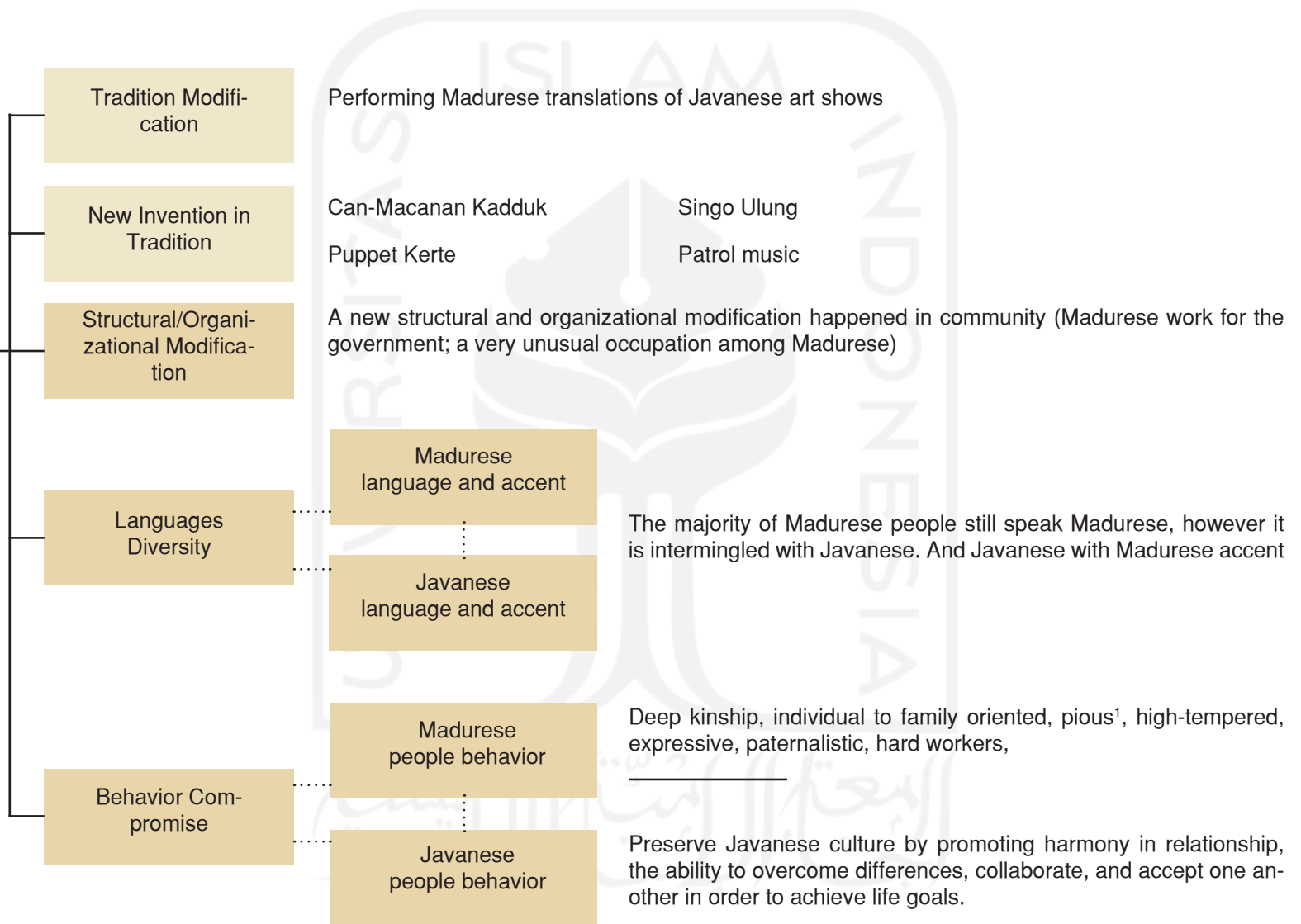


Figure 10. Diagram of the Hybridization Process of Javanese and Madurese  
Source: (Yuswadi, 2001)

Both the Javanese and the Madurese are oblivious to the fact that they will undergo transformation at some point during their cultural encounter. They will be satisfied if they establish a thought concept while adhering to their separate traditional ideologies in their separate localities, as a result of their socialization process. Both sides are attempting to survive each other during the process of cultural infiltration.

The interaction of East Java Province's two dominant groups (Java and Madura) occurs between two parties who already have their own cultural identities and customs. Residents of East Java's eastern area, each of whom has a distinct cultural identity, eventually develop a method to promote their respective cultures. The background of shared fate as immigrants and newcomers appears to have evolved in a peaceful sort of cultural compromise (Pandalungan culture) characterized as cultural hybridization.

Cultural hybridization is the process of changing a cultural aspect to match cultural norms in order to merge it into another culture.



This culture's identity is a compromise of two dominant civilizations that have succeeded in building a multicultural relationship by cooperating.

Figure 11. Diagram of the Hibridization Process of Javanese and Madurese  
Source: (Yuswadi, 2001)

## Background

### The Background of Suramadu Bridge Construction

The two cities and regencies that support the Suramadu Bridge, namely Surabaya and Bangkalan, Madura, have two distinct characteristics, with Surabaya being one of the largest cities in Indonesia with a strong economy, a high Human Development Index (IPM), and a developed metropolis. Meanwhile, as compared to Surabaya City, Bangkalan Regency is a region of Madura with a poorer economy and human resources (Muhammad, 2018).

The Suramadu Bridge was built at a key location on the island of Madura, which had social and economic disparities at the time compared to other parts of East Java's province. Economic activity, distribution of products and services, and tourism activities will all benefit from the Suramadu Bridge's development. According to (Effendi & Hendarto, 2014) Prior to the completion of the Suramadu Bridge, Madura Island's economic growth was still modest, and income per capita was poor. The construction of the Suramadu Bridge is regarded vital as an early opening due to the hindered mobility of transit routes. It is intended that the Suramadu Bridge, which will connect Surabaya with the island of Madura by road, will help to minimize social and economic disparities. The growth of the island

of Madura will quickly surge in order to compete with other regions in the province of East Java as a result of the flow of rapid and effective transportation.

### The History of Suramadu Bridge Construction

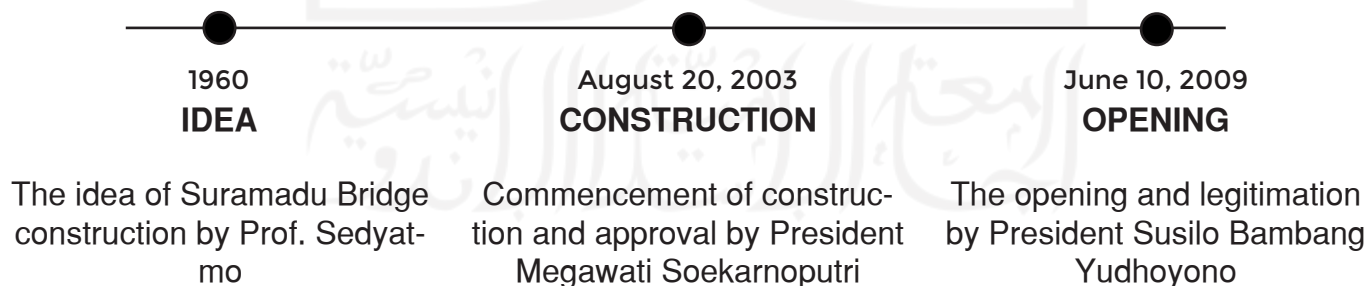


Figure 12. Diagram of the History of Suramadu Bridge Construction  
Source: (Yuswadi, 2001)

## Background

### The Impact of Suramadu Bridge Construction

#### Before the Construction - Mobility



Figure 13. Ujung Harbor  
Source: <https://kabarmadura.id/>

The only way to get from Surabaya to Madura Island and back is to take a ferry from Ujung Harbor in Surabaya to Kamal Harbor in Madura. According to (Effendi & Hendarto, 2014), the amount of ferries and crossings available at the moment is unbalanced, resulting in excessive wait times. According to a survey done by BPWS in 2002, ferries transport 315 light cars every day, 1036 small trucks, 324 heavy trucks, 260 buses, and 8128 motorcycles. The available ferry capacity is already full, as seen by the 30-minute average wait time for automobiles arriving at the Ujung and Kamal ports. It takes 15 minutes to transport people from the port to the ship, 30 minutes for crossing and 15 minutes for dropping off passengers. When the weekend or vacation season approaches Eid and for them, the whole

time it takes is around 60 minutes or one. As a result, increasing people and products mobility is unavoidable.



## Social and Economic Differences Pre and Post Construction

Tabel 1 Jumlah dan persentase responden menurut strata sosial sebelum dan setelah pembangunan

Strata sosial	Sebelum pembangunan (2002)		Sesudah pembangunan (2017)		Perubahan $\Delta$ (%)
	n	%	n	%	
Atas	3	6,5	15	32,6	26,1
Menengah	19	41,3	20	43,5	2,2
Bawah	24	52,2	11	23,9	-19,6
Total	46	100,0	46	100,0	

Keterangan: (-) menurun

Figure 14. Number and percentage of social strata  
Source: Hendarto, 2014

According to the research by (Effendi & Hendarto, 2014), The table above depicts the huge difference in conditions before and after the Suramadu Bridge was built. The top layer increased by 26.1 percent, from 6.5 percent to 32.6 percent. The bottom layer, on the other hand, tends to fall from 52.2 percent to 32.6 percent with a 2.2 percent change. This is because people start new businesses,

which means that the majority of people gain from the development, even if they merely benefit from the convenience and speed of travel. However, many fishing villages do not benefit, particularly in terms of economic benefits, as their revenue tends to decline as a result of development.

## After the Construction - Mobility

The Suramadu Bridge provides considerable benefits to the residents of Bangkalan Regency, including promoting economic development, saving money on passenger and freight transportation, and providing enhanced comfort and pleasure (Effendi & Hendarto, 2014). The increased investment value of better transportation flows will be boosted by easier access and transportation to Madura Island. Prior to the Suramadu Bridge, Madura Island residents who wished to travel to Surabaya could only do it via ferry, which was the only way to get from Madura Island to Surabaya and vice versa. It is impossible to resist the culture of going home with a large number of people and possessions. The efficiency of time and travel costs has a significant impact on the residents of Bangkalan Regency.



Figure 15. Suramadu Bridge  
Source: <https://investor.id/>

## After the Construction - Education



Figure 16. Education  
Source: Google

The influence of the Suramadu bridge on education has been favorable for the community in West Sukolilo Village, Bangkalan Regency, Madura, resulting in the establishment of two new public schools, SMK and SMP (Yanti, Soeaidy, & Ribawanto, 2013) Another good consequence is that the Suramadu Regional Development Agency provides training, workshops, and socialization to the inhabitants of West Sukolilo Village, particularly fisherman, in order to develop excellent human resources.

People in Sukolilo Barat Village, Labang Subdistrict, have made little progress in their understanding and knowledge of the community as a result of government intervention in the construction of the Suramadu bridge, which has an impact on advanced and future-oriented education.

### After the Construction - Social Interaction

According to (Sulaisyah, Nasdian, & Barlan, 2018) Bara Lorong Village has changed dramatically as a result of a reduction in daily activities, such as farmers becoming traders who meet and connect with new people from diverse locations. Daily life in Jarat Lanjang Village is very similar to what it was before the Suramadu Bridge was built. The difference is that people who work outside the village or in Surabaya every week or even every day always return home and gather with their families, increasing intimacy. Due to the easy access, there is also interaction between the Madurese and Surabaya communities, and it is not uncommon to see residents from Surabaya's Kedung Cowek Village come to Sukolilo Barat Village merely to sell vegetables. According to sources, the Suramadu Bridge has had a significant impact on the Madurese community in terms of interactions, which are diminishing in some communities and tending to be more open to outsiders.



*Figure 17. Interaction in Market*

Source: Google

## Suramadu Signifying Both Parties - Migration and Economic

Because of the Suramadu Bridge, more people are migrating to Bangkalan, reducing the population concentration in Surabaya. Aside from that, the bridge boosts Bangkalan's GRDP and has the potential to spur the development of new economic activity in the area. Although the GRDP of Surabaya is much higher, the economic growth in Bangkalan following the construction of the Suramadu Bridge has been extremely high, indicating the beginning of a shift of economic activities to Bangkalan, such as industry, trade, and services, to support the district's rapid population growth.

Nonetheless, the Suramadu Bridge building creates its own work because of the low level of education in Bangkalan, which results in low labor absorption, causing the region's unemployment rate to rise as the population and GRDP grow. It is unquestionably distinct from Surabaya, where the presence of the Suramadu Bridge has the potential to reduce regional unemployment rates.



Figure 18. Migration Activity  
Source: Google

## Suramadu Signifying Both Parties - Land Use

However, six years after the bridge opened, development of the Suramadu area, particularly on the increasingly alarming Madura side, has been marked by an increase in the number of street vendors as well as a lack of planning that is still unclear, resulting in an increase in illegal settlements around the Suramadu bridge (Faoziyah, 2016).

This land use change is expected to occur around the development of Suramadu Bridge, which has been directed under the Suramadu Bridge Street Area Development Plan, which covers 1200 hectares (600 ha and 600 ha in Surabaya in Bangkalan). Each region, both in Surabaya and Bangkalan, was originally designed as a contemporary complex, with trade and services, industry, warehousing, tourism, housing, the CBD, and public facilities. At the Metropolitan Gerbangkertosusilo, these factors would foster the growth of unplanned corridors.

## Background

### The Impact of Suramadu Bridge Construction

#### New Cultural Activity



Figure 19. Kirab Carnival  
Source: <https://jatim.antaranews.com/>



Figure 20. Ornamental Boat Competition  
Source: <https://www.antarafoto.com/>

#### Kirab Carnival and Ornamental Boat Competition

The Kirab carnival and ornamental boat competition in the coastal area near Suramadu Bridge to commemorate Ketupat Day became the cultural transformations since, before the Suramadu Bridge, Madurese were the only ones who participated in cultural activities.

According to one of the sources, Abdul Ghoni Mukhlas Ni'am, a leader of BKN DPC PDIP, although though this activity is basic and requires a small budget, if it is carried out yearly, it will have an impact on the emergence and growth of the economy along the coast.

#### New Culture: Suramadu Dance

Another culture arising from the built of Suramadu was the creation of Suramadu Dance. Suramadu Dance is a dance piece developed by Diaztiarni in 2009 to commemorate the opening of the Suramadu bridge construction on June 10, 2009.

As a plural society, this dance depicts the fusion of the two dynamic lifestyles of the people of Surabaya and Madura. Suramadu Dance's creation is very strong in developing social conditions to increase tourist visits in Madura and Surabaya. It has a range of cultures and customs and makes Surabaya and Madura's tourism face proud.



Figure 21. Suramadu Dance  
Source: <https://www.antarafoto.com/>



Figure 22. Suramadu Dance  
Source: <https://www.youtube.com/>

## Background

### Cultural Tradition in Surabaya

According to the findings of study conducted by Ariyadi and Suyanto in 2002, some of Surabaya's traditional arts that are currently recorded as 'existing' and on various occasions are still occasionally performed in several regions, including:



Figure 23. Ludruk  
Source: <https://surabaya.liputan6.com/>

#### 1. Ludruk

Ludruk is known as traditional Theater. This suggests that ludruk develops from ordinary people's expressions. The story's topics are inspired by people's everyday issues. The play is written in the common language of the working class. As a result, ludruk is sometimes regarded as a folk theater.

#### 2. Remo Dance

Remo Dance is normally performed as part of a package and is part of the ludruk standard, although it is also performed on its own at times.



Figure 24. Remo Dance  
Source: <https://travel.kompas.com/>



Figure 25. Reog Dance  
Source: <https://backpackerjakarta.com/>

#### 3. Reog

Reog is a traditional Indonesian dance that serves as folk entertainment. It contains magical elements, the main dancer is a lion-headed person with a peacock feather decoration, plus several masked dancers and Kuda Lumping.



#### 4. Wayang Kulit

Wayang kulit is a traditional puppet-shadow play that originated in the Indonesian civilizations of Java and Bali. The puppet figures are rear-projected on a tight linen screen with a coconut-oil (or electric) light in a wayang kulit performance.

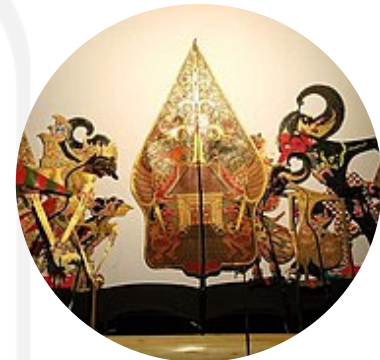


Figure 26. Wayang Kulit  
Source: <https://id.wikipedia.org/>



Figure 27. Wayang Kulit  
Source: <https://www.beritajowo.com/>

#### 5. Karawitan

Karawitan is a gamelan and sound art form that uses the slendro and pelog scales. This form of art is well-known in Java and Bali.

## Background

### Cultural Tradition in Madura



Figure 28. Gelang Ro'om Dance  
Source: <https://budaya-indonesia.org/>

#### 1. Gelang Ro'om Dance

Gelang Ro'om dance is a Madura cultural dance that depicts the behavior of young Madura ladies as they grow up. Since ancient times, Madura ladies have worn anklets. The more bracelets a person wears, the greater their social status.

#### 2. Muang Sangkal

Muang Sangkal dance is a popular and iconic form of art, particularly dance, on the island of Madura. It started in the Sumenep Regency as a ceremony to reject reinforcements or remain away from danger.



Figure 29. Muara Sangkal Dance  
Source: <http://kikomunal-indonesia.dgip.go.id/>

## Background

### Strategic Place with Untapped Potential

#### Kawasan Suramadu Dinilai Potensial Jadi Waterfront City Terbaik

Senin, 20 Mei 2019 14:53 WIB

Editor: [Haslolan Eko P Gultom](#)

*Figure 30. Strategic Place with Untapped Potential Background*  
Source: Google

The East Java Provincial Government's agreement with the Ministry of Tourism and Creative Economy to promote Madura tourism is believed to have an impact on economic development in the East Surabaya area which is part of the new Suramadu economic area.

Satrio Sujatmiko, Project Director of PT PP Properti Suramadu, Surabaya, believes the property industry would do well in the fourth quarter of 2019, following the 2019 general election. Investors will be looking for growth in strategic (locations) areas, new areas where property prices (land and building) are still undervalued and where there is the potential for substantial price increases. Suramadu area in East Surabaya, near the North Surabaya border, is one of the regions he believes is still undervalued. He believes that this location has the potential to be developed and can become a beach resort tourism area, similar to the Ancol recreation area in North Jakarta.

#### Potensi Kawasan Suramadu Jadi Waterfront City Terbaik

By [redaksi](#) - 25/07/2019

764

On the press conference on (1/24/2020) Satrio Sujatmiko, the Project Director of PT PP Properti Suramadu, added "The tourism development plan for Madura Island will certainly have an influence on Suramadu on the Bangkalan and Surabaya sides. The hospitality industry will expand swiftly, particularly on Surabaya's east side".



Figure 31. East Outer Ring Road / Jalan Lingkar Luar Timur (JLLT) Project  
Source: Dinas Perhubungan Kota Surabaya

The projection of the area's potential around the Suramadu Bridge to become a waterfront city cannot be separated from the ease of access and infrastructure; The construction of the East Outer Ring Road (JLLT), which connects Tanjung Perak Port - Juanda Airport in Sidoarjo.

He went on to say that there are two more projects in the East Surabaya area that will boost the area's credibility at this time, notably the JLLT and cable car transit, both of which are now under construction.



Figure 32. Ideas of Cable Car Project  
Source: <https://www.goodnewsfromindonesia.id>

The Surabaya City Government wholeheartedly supports the cable car project. The Bulak area will be connected to the cable car later.

## Background

### Government Discourse Towards Cultural Tourism Center

**Saatnya Menyulap Kaki Suramadu, Ada Cable Car yang Digarap 2018**

JLLT Jadi Pendukung Wisata Suramadu

# Pemkot Surabaya Akan Bangun Destinasi Wisata 'Suramadu Culture'

Senin, 27 Januari 2020 | 21:14

## Pemerintah Restui Keinginan Walikota Surabaya Kelola Suramadu

"Jembatan Suramadu itu masih jadi ikon wisata, belum menjadi ikon pertumbuhan ekonomi," kata Menteri PUPR Basuki Hadimoeljono.

*Figure 33. Government Discourse Towards Cultural Tourism Center*  
*Source: Google*

Surabaya City Government will create numerous new tourist spots in northern Surabaya, according to Deputy Mayor Whisnu Sakti Buana. Suramadu Culture will be the theme of the tourism attractions. Whisnu stated following a plenary meeting at the Surabaya City DPRD headquarters on Monday (27/1/2020), that they will create several attractions in North Surabaya in the future, while keeping alluding to the culture there. It is hoped that the strategy for the development of tourist attractions with a cultural theme will have a good impact on the growth of Surabaya's northern region.



Figure 34. Badan Perencanaan Pembangunan Kota “Bappeko” Surabaya  
Source: Author, 2022

Based on interviews with people in Badan Perencanaan Pembangunan Daerah, Penelitian dan Pengembangan Kota Surabaya, It's true, the government is developing coastal tourism, to be more concrete, starting from Kenjeran Beach and Taman Surabaya, which in the future will spread to selected sites.

## Background

### The Fading of Traditional Arts and Culture in Surabaya and Madura



#### Kesenian Tradisi Surabaya Terancam Hilang Eksistensinya

Author by [Danu Bhirawa](#) Posted on [19/12/2019](#)

##### Pemudaran Seni Tradisional di Kota Surabaya dan Revitalisasi

Mochamad Jalal  
jalalunair123@gmail.com

(Departemen Bahasa dan Sastra Indonesia, Fakultas Ilmu Budaya, Universitas Airlangga)

#### Memudarnya Tradisi Praonan di Pesisir Selatan Bangkalan

Kabar Madura  
13 Juni 2019



Figure 35. *The Fading of Traditional Arts and Culture Discourse*  
Source: Google

Traditional values, arts, and other local cultural items are actually a necessity in a major metropolis like Surabaya. Surabaya cannot, as a metropolis, continue to separate the ideals of traditional arts and culture in order to remain sterile from the march of change. Even in other circumstances, the changes appear to develop very swiftly and wildly, effectively putting a stop to the existence of traditional arts and culture. For example, in the Surabaya Cultural Heritage region, the art building where the ludruk performance was staged abruptly changed its

##### Perjuangkan Ludruk, Seniman Pentaskan Karya Secara Daring

Laporan oleh J. Totok Sumarno

Jumat, 19 Juni 2020 | 19:31 WIB

Bagikan    

#### Budaya Madura : Bertahan dengan Identitas yang Terselip

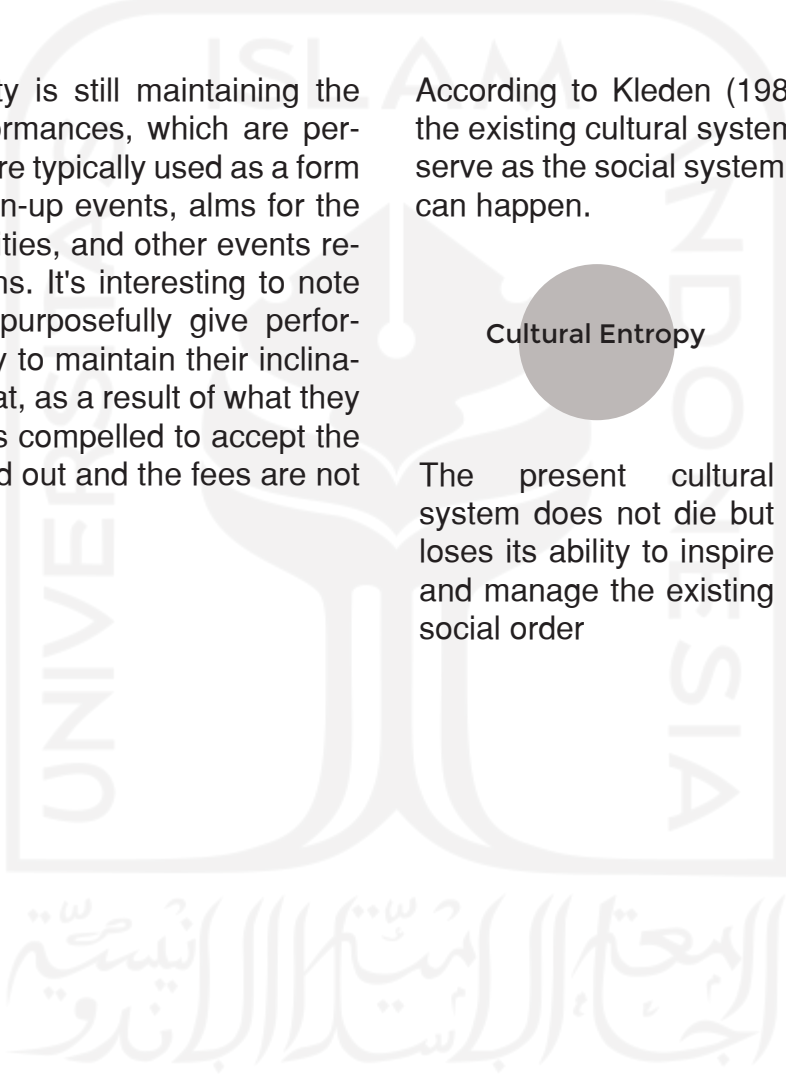
06 May 2006

function to a dangdut discotheque. It is not wise to make changes that destroy local cultural and aesthetic values. Culture, particularly local art, is not only a product of cultural wealth as a frame of reference for people to think and act, but it is also a product of cultural riches.

## The Urgency

Basically, the community is still maintaining the usual traditional art. The performances, which are perhaps rare in terms of quantity, are typically used as a form of entertainment at village clean-up events, alms for the earth, suroan, 17 August festivities, and other events relating to community celebrations. It's interesting to note that certain traditional artists purposefully give performances on a regular basis only to maintain their inclination to exist. Despite the fact that, as a result of what they have done, they are sometimes compelled to accept the fact that the performance is sold out and the fees are not financially viable.

According to Kleden (1987:239), in each community, if the existing cultural system is no longer strong enough to serve as the social system's foundation, one of two things can happen.



### Cultural Entropy

The present cultural system does not die but loses its ability to inspire and manage the existing social order

### Cultural Paraphernalia

The cultural values potency as a cognitive and normative system has ceased, leaving only its position as an ornamental appendage.



## Background

### The Poverty Line Below the Foot of Suramadu Bridge



Figure 36. Coastal Residents  
Source: <https://www.viva.co.id>

The Mayor of Surabaya, Tri Rismaharini, said that many residents at the foot of the Suramadu Bridge live below the poverty line. Therefore, Risma admitted that she plans to develop the Suramadu area without leaving the residents. So that she hopes the area can be more lively and provide more value for residents. On the Madura side, similar phenomena occur. According to PUPR

Minister Basuki Hadimuljono, the government will develop Surabaya and Madura after the bridge is finished because the poverty rates in Madura and other East Java provinces are relatively different.

## Background

### Existing Cultural Center



Figure 37. Existing Local Cultural Center in Surabaya  
Source: Google Maps

The existence of a cultural center in Surabaya shows the lack of a cultural center located at the proposed site location

#### Indonesia Tionghoa Culture Center

The Indonesian Chinese Culture Center is the first institution or foundation in Surabaya that is concerned with the development of the Mandarin language in Indonesia



Figure 40. Indonesia Tionghoa Culture Center  
Source: Google

#### UPT Taman Budaya Jawa Timur



Figure 38. UPT Taman Budaya Jawa Timur  
Source: <https://www.aroengbinang.com/>

Center for cultural arts events, including performances, as well as art training in a variety of disciplines, including theater, dance, music, and puppetry. Art studies, appraisal, inventory, and documentation are now being conducted.

#### Rumah Kebudayaan



Figure 39. Rumah Kebudayaan  
Source: Google

This cultural house functions as a forum for research, cultural development, language learning, and exhibitions of works,

#### Balai Pemuda



Figure 41. Balai Pemuda  
Source: <https://seputarkota.com/>

The complex was designed in the Dutch colonial style, and they hold art-related events from time to time, ranging from open-air concerts to traditional handicrafts, paintings, and so on.

## Problem Statement

### General Problems

How is the design of Waterfront Cultural Center can preserve the fading culture and accomodate the new cultural cooperation with the aplication of cultural waterfront design startegies to attract tourists and fulfilling more lively area and value for the residents?

### Spesific Problems

1. How to design a waterfront cultural center that preserve the almost lost culture and accomodate the new culture that was born?
3. How the design can take advantage of the geographical conditions in the design location of the building?
4. How the design can represent cultures of Javanese, Madurese, and Pandalungan?

## Goals and Objectives

### Goals

1. Designing a Waterfront Cultural Center that preservie the fading culture and accomodate the new cultural cooporation between two tribes
2. Designing a Waterfront Cultural Center to attract tourists and fulfilling more lively area and value for the residents
3. The design can represents cultures of Javanese, Madurese, and Pandalungan

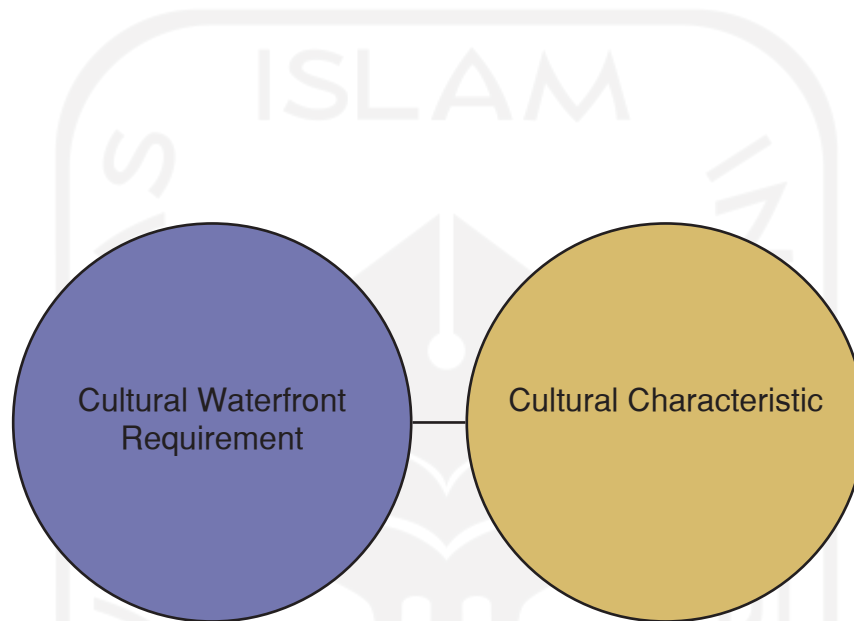
### Objectives

1. Can attract more tourism, therefore ecreate lively area and value for the residents
2. Can preserve the fading culture anda ccomodate the new culture colaboration between two tribes
3. The design can represents cultures of Javanese, Madurese, and Pandalungan

## Design Limitation

1. Provide design options for the improvement of cultural waterfront through its design requirements
2. The waterfront cultural center can represent cultures of Javanese, Madurese, and Pandalungan

## Design Method



This design method combines two problem-solving concepts, namely cultural waterfront design requirements and cultural characteristics from Javanese, Madurese, and Pandalungan, which are then used as space characteristics.

## Design Method

### Data Collection Methods

#### 1. Primary Data Collection

Primary data collection method is a method that obtains data directly from sources by means of observation and interviews. Observations are made by observing the design location and its condition in terms of visuals, access, surrounding activities, existing problems, and the typology of surrounding buildings. Meanwhile, data collection by interview was carried out with the surrounding community to obtain any data needed by the local community.

#### 2. Secondary Data Collection

The method of collecting secondary data is done indirectly from the source. Thus, the data obtained came from books, journals, and literature studies.

### Data Analysis and Design Stage

#### 1. Building Typology Analysis

This process is carried out related to analyzing the spatial requirements needed in cultural center as well the outdoor cultural activity to support tourism activities in the waterfront area. The spatial requirements that need to be analyzed:

- Building Layout
- Space Requirement
- Space Connectivity
- Public and Private Zoning Arrangement
- Outdoor cultural activity

#### 2. Site Analysis

Site analysis is carried out by observing the condition on the site. The data analyzed were in the form of:

- Building Codes and Regulation Analysis
- Site Analysis
- Regional Climate Data Analysis

#### 3. Design Development and Evaluation

The design development respond to the study of problems, data, and programs. The project adapts to the building typology, as well as the design strategy of cultural waterfront that can improve the waterfront quality and maximizing its potential values associated with it.

## Problem Thinking

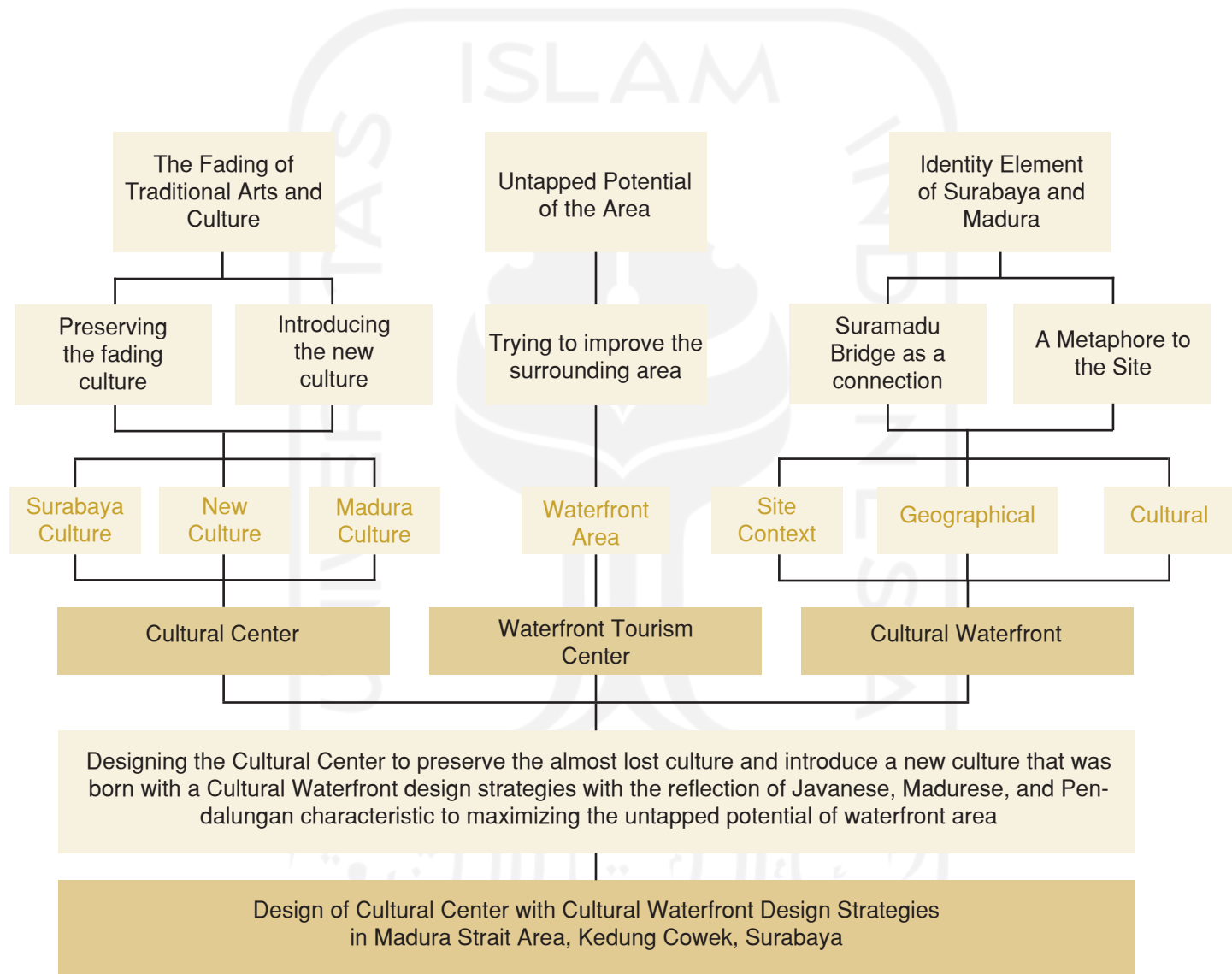


Figure 42. Diagram of Problem Thinking  
Source: Author, 2022

## Design Mapping

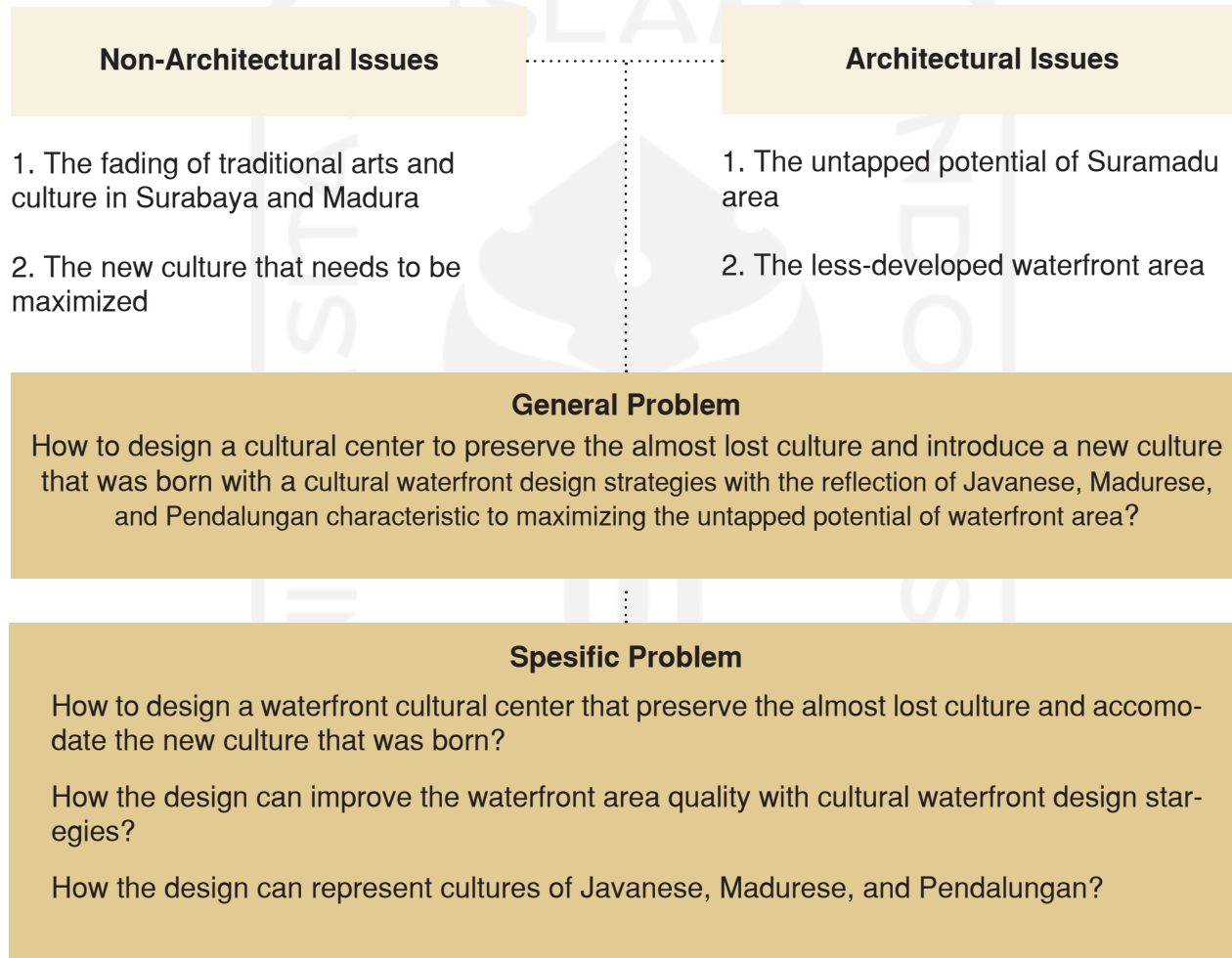


Figure 43. Diagram of Design Mapping  
Source: Author, 2022

## Excellency, Originality & Novelty

### **Pusat Kesenian Ludruk di Surabaya**

By : Indah Rahmawati  
Year : 2012  
Jurusan Teknik Arsitektur Fakultas Teknik Sipil dan Perencanaan  
Universitas Pembangunan Nasional Veteran Jawa Timur

The final studio project, titled Pusat Kesenian Ludruk di Surabaya, is a location to demonstrate the worth of Ludruk art's beauty. Equality with the author's Final Project is an art center intended to serve as a venue for Ludruk performances, workshops, and as a rare and endangered art form. The view from the building that will be designed for the Pusat Kesenian Ludruk di Surabaya is of a colonial architecture that adapts to the philosophical ideals of Ludruk art and the site's situation, where the typical building is a colonial building.

Pusat Kesenian Ludruk di Surabaya differs from the author's final studio project is that it only accommodates the performance of Ludruk art and does not include the functions of buildings or other arts, as well as site constraints that prevent it from taking use of the river view.

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### **Perancangan Gedung Pertunjukan Seni dengan Pendekatan Arsitektur Ikonik di Surabaya**

By : Sholeh bin Agil  
Year : 2019  
Program Studi Arsitektur, Fakultas Sains Dan Teknologi,  
Universitas Islam Negeri Sunan Ampel, Surabaya

The final studio project, Gedung Pertunjukan Seni serves as a venue for performances of many forms of art, as well as a source of information, knowledge, training, and learning, as well as recreation in the arts and culture.

The use of approach in architectural design is what sets it apart from the Author's final studio project.



**Galeri Seni Bawah Tanah Surabaya : Pengalaman Indrawi Pengunjung Sebagai Estetika**

By : Sapta Sunusae

Year : 2017

Program Sarjana, Departemen Arsitektur, Fakultas Teknik Sipil Dan Perencanaan, Institut Teknologi Sepuluh Nopember, Surabaya

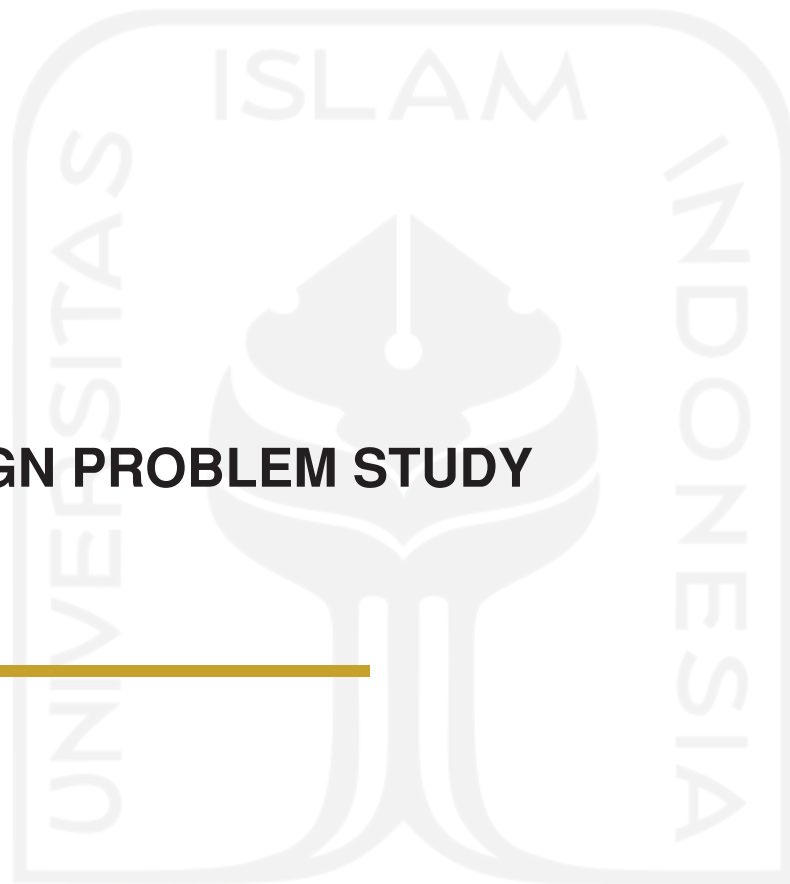
This final project designs an art gallery, which focuses more on aesthetics and sensory experience by visitors. The differences between Author's final studio project is by the approach and building typology.



## DESIGN PROBLEM STUDY

# 02

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الجمعة، الأستد الاندو  
الجمعة، الأستد الاندو



## Site Study

### Rencana Tata Ruang Wilayah Kota Surabaya

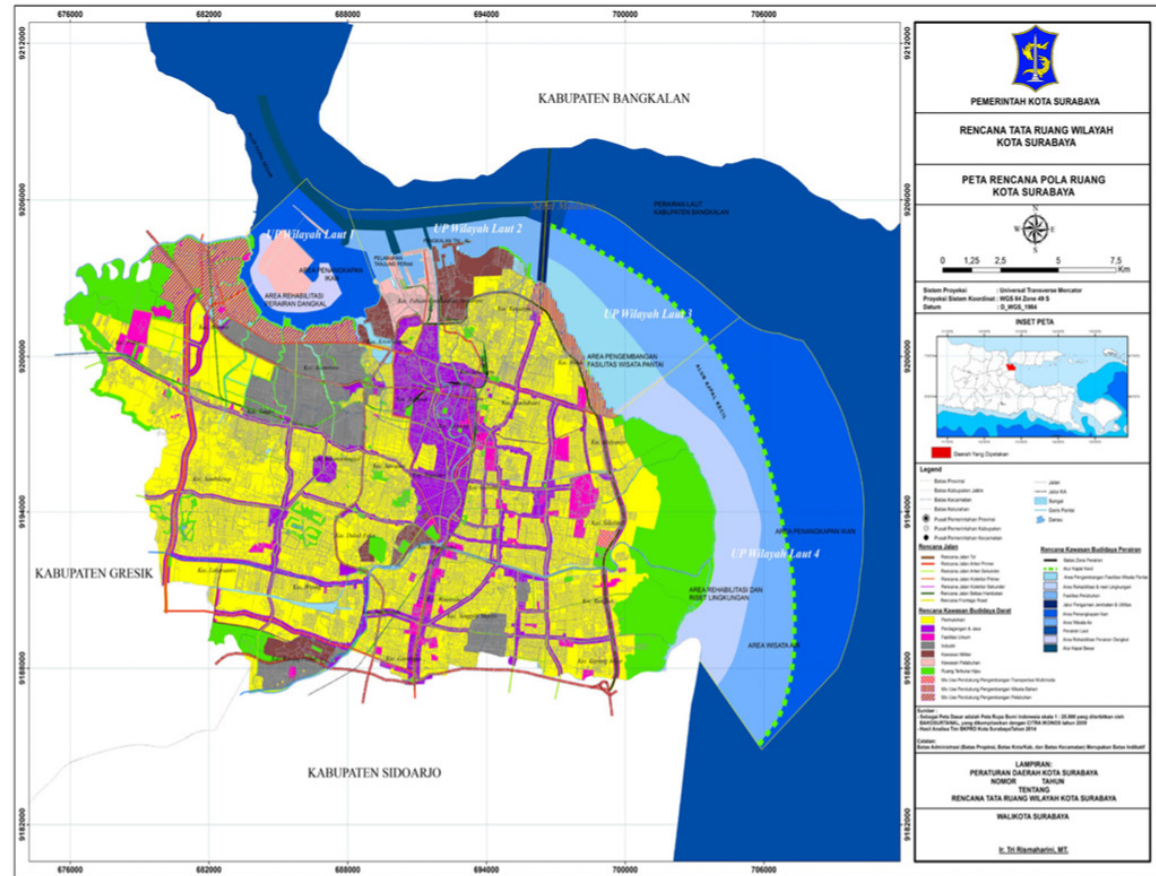


Figure 44. Rencana Tata Ruang Wilayah Kota Surabaya  
Source: Pemerintah kota Surabaya

#### Determination of the Environmental Center

- Environmental center in the Tambak Wedi Development Unit III, covering the Bulak and Kenjeran sub-districts with the development unit center at the foot of the Suramadu Bridge;

#### Strategic Area for the Benefit of Economic Growth

- The Bridge Feet Area of the Suramadu-Kenjeran Beach Region and the Waterfront City Area in Bulak District are located in Development Unit III of Tambak Wedi as the embryo of the center of economic growth.

#### **Development of Tourism Area - Natural Attraction**

- The development of marine/coastal tourist attraction areas, namely the Kenjeran beach area and around the Suramadu Bridge in the Tambak Wedi Development Unit III.

#### **Development of Tourism Area - Artificial Attraction**

- Development of artificial tourist attraction areas for entertainment, including the Kenjeran area and around the Suramadu Bridge in Development Unit III Tambak Wedi, on the coast of Teluk Lamong area in Development Unit XI Tambak Oso Wilangan;

#### **Protected Area Plan - Nature Conservation Area and Cultural Heritage**

- Mangrove forested coastal area developed on the coastal border in the north and east of the city and around the Suramadu bridge

## Site Study

### Site Information



Figure 45. Site Location  
Source: Google Map and Author

Coordinates : 7 12'41.1"S 112 46'50"E  
Area : 23,347 m<sup>2</sup>  
Regulations :

**BCR**  
50-60%

**FAR**  
2

**GCR**  
min 10%

**Setback**  
3m

The site is located in the Kedung Cowek, Surabaya, with a total population of 6,415 people, with 3,222 men and 3,193 women, for a sex ratio of 100.9 in 2019. The main potential that drives the economy of residents of Kedung Cowek Village is marine resources.

Reef fisherman make up the majority of the population of Kedung Cowek village. Reef fishermen are those whose primary goal is to find shells rather than fish. Fishermen's earnings in Kedungcowek are modest and unreliable demands a wife's assistance in meeting the family's needs.



Figure 47. South-Front View  
Source: Author, 2022



Figure 48. North View  
Source: Author, 2022



Figure 49. West View  
Source: Author, 2022



Figure 50. South View  
Source: Author, 2022



Figure 51. East View  
Source: Author, 2022

Figure 46. Site Location  
Source: Google Map and Author

The site already have a good view of the sea. Several adjustments need to be made such as the open space in front of it, and the rearrangement of small temporary kiosk in the side of the site.



Figure 52. Site Condition Documentation  
Source: Author, 2022



Figure 54. Site Condition Documentation  
Source: Author, 2022



Figure 53. Site Condition Documentation  
Source: Author, 2022



Figure 55. Site Condition Documentation  
Source: Author, 2022

Since most of the men worked as a fisherman, the role of a wife is important to help the economic condition of the family.

According to site visit done by the writer, the sellers and traders of the waterfront-small-business-area mostly consist of women.

## Design Problem

### Waterfront Development Success

VARIABLE	INDICATOR	PARAMETER
Waterfront Development Success	Beneficial for All Parties	Beneficial for all parties (visitor, seller, service provider, businessman, government, residents)
	The Satisfaction of All Parties	The related parties (visitor, seller, local residents, etc) feel satisfied with the waterfront development
	Visitor Rate	The balance of public response and participation to create lively waterfront area
	The Various of Views	Creating a variety of views from becoming repetitive and to attract visitors.
	The Uniqueness of Theme and Character	Waterfront need its own theme and image for uniqueness
	Function	Every facilities available can be used properly
	Access and Circulation	Have easy access and circulation for the pedestrian to reach
	Capacity	Have parking capacities even in crowded time
	Ideal Place for Activity	Waterfront can be an ideal and neutral place for festivities and other local activity
	Education Oriented	Can be a place for education for visitor
	Education Facility	Educational facility that can give information for the visitor like museum, aquarium, gallery, etc

Table 1. Waterfront Development Success  
Source: Author, 2022



## Existing Waterfront Evaluation

### 1. Beneficial for all parties

The site only beneficial for the visitor, seller, and the residents, as the site and surrounding provides place for the residents and seller to sell and the seller to enjoy the view

### 4. Function

The waterfront is still lacking proper facilities, only public restroom and street food facilities grow on the outskirts of waterfront

### 7. Education Oriented and Education Facility

The waterfront still lacking the value for education facility and activity

### 2. The various of views

The variety of views are enough, in terms of the vastness of view towards the sea

### 5. Access and Circulation

The site is accessible for the vehicle and pedestrian, but lacking the comfort of it

### 3. The Uniqueness of Theme and Character

The waterfront is still lacking of its own uniqueness of theme and image

### 6. Capacity

The proposed site have enough parking space



Figure 56. Site Condition Documentation  
Source: Author, 2022

## Building Typology

### Cultural Center

#### Definition of Cultural Center

A cultural center, often known as a cultural center, is a non-profit organization, building, or complex dedicated to the promotion of culture and the arts. Neighborhood community arts organizations, private facilities, government-sponsored cultural centers, and activist-run cultural centers are all examples of cultural centers.

#### Need for New Cultural Facilities

According to Cultural Facilities: A Study on Their Requirements and the Formulation of New Planning Standards and Guidelines, the following are the top priorities for new facilities:

1. Commercial cultural facilities for major international concerts that are also key tourism draws
2. Purpose-built medium-scale performance halls with seating capacities of 600 to 1,000 people
3. Small-scale performance studio venues with 100-300 seats provided by the private sector
4. Space for preparatory activities such as studios, workshops, classes, and small rehearsal and performance spaces at the community level with a high degree of flexibility in its use, free of rigid procedures and limits
5. Auxiliary area for storage, set and prop construction, and a 'scrap store',
6. Non-mainstream arts activities (modern art galleries, black box theatres, workshops, etc.) in a 'alternative' space
7. Increased use of streets and open space to promote community connection through public art.
8. Retail malls and other public places should be utilized more extensively.
9. Showgrounds and temporary sites for short term performances and events. For short-term concerts and events, showgrounds and temporary sites are available.

Based on a book titled Building for the Performance Arts: A Design and Development Guide by (Appleton, 2006), several guidelines need to be required, such as:

### **Parking**

Public car parking close to the public entrance, with the number of car park spaces as (minimum):

- 25 per cent of the seating capacity in the auditorium,
- 40 per cent in rural areas
- Car parking can be combined with complementary day-time activities, such as retail and offices.
- Designated areas for coaches for disembarking near the public entrance and their parking.

### **Access and Entrances**

- The main public entrance should be readily accessible to all public coming to the building including disabled and infirm persons,
- Inclement weather who wish to be dropped off close to the public entrance.
- Disabled parking immediately adjacent to the entrance.
- Emergency exits from all parts of the building in case of fire.
- Requires separate egress from all parts and levels of the auditorium for the public, with the disabled in wheelchairs able to egress on the same level from the auditorium to a safe external area.
- Access for service vehicles for the delivery of

goods: food and drink to the public area; materials, scenery and costumes to the stage areas and workshops.

- Pedestrian backstage and vehicle entrances and exits for performers and backstage staff (usually stage doors).

## Auditorium and Platform/Stage Formats

For opera, dance and musicals the formats are restricted to the proscenium and end stage.

- The proscenium form is defined as the audience facing the stage on one side only viewing the performing area through an architectural opening, which may have an elaborate architectural frame.
- The end stage is similar to the proscenium form but without the architectural opening, placing both the perfor-

mance and audience in the same rectangular box, suitable for small-scale productions.

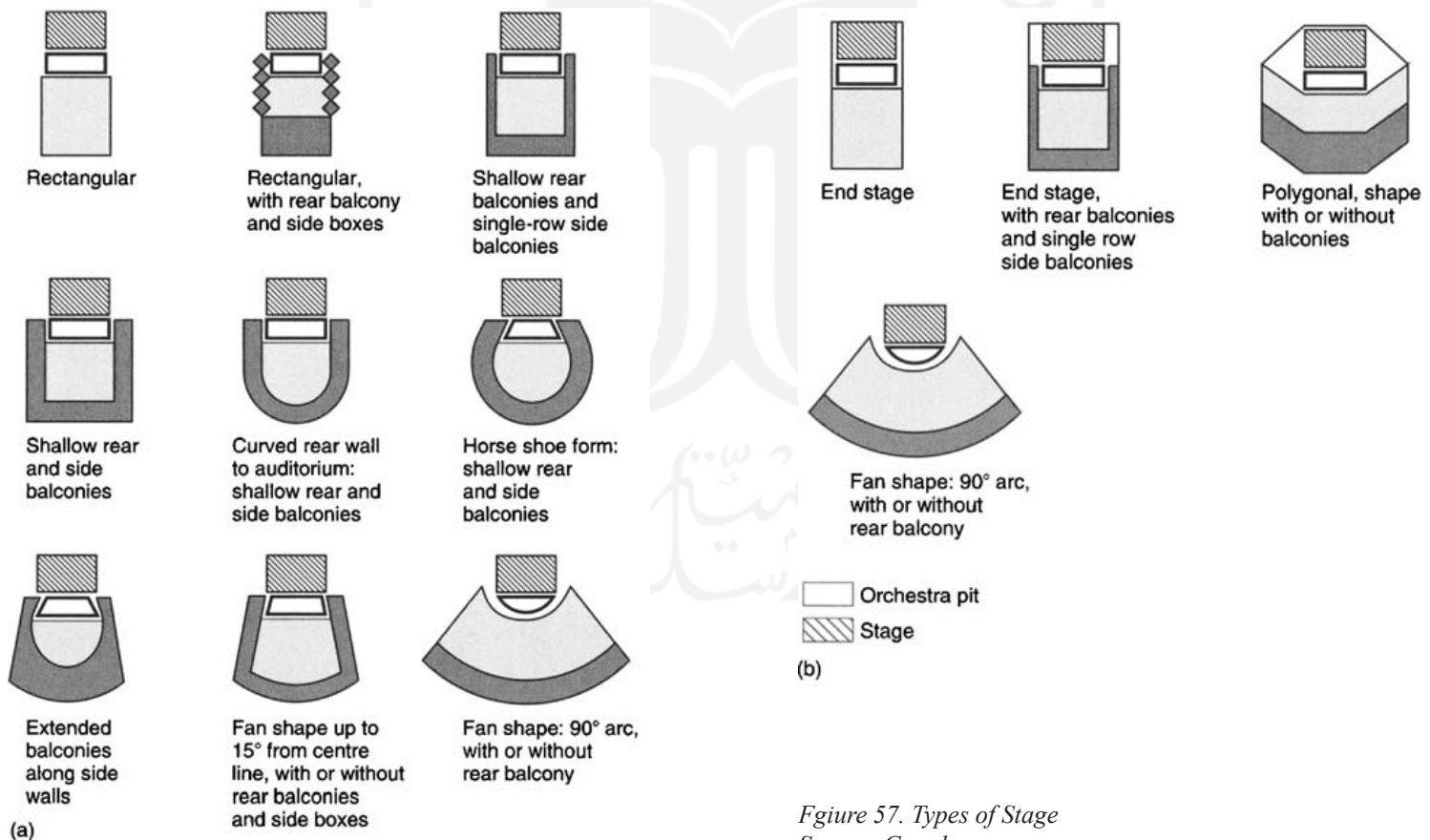


Figure 57. Types of Stage  
Source: Google

## Gallery Standards: Perspective of 3-dimensional Art

To bring comfort to the point of view of the work of 3-dimensional objects, the standard of laying and structuring a work of art can be examined in order to make it look more appealing. Viewpoint of a normal human to an object is 40 degrees below, 70 degrees above, and 30 degrees below, 50 degrees above.

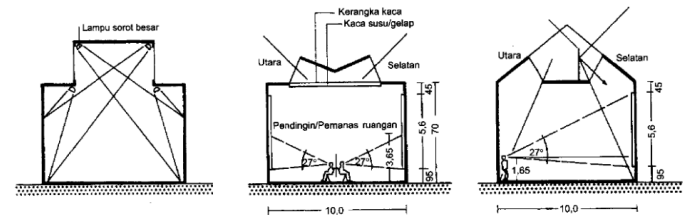


Figure 58. Lighting on the Gallery

Source: Google

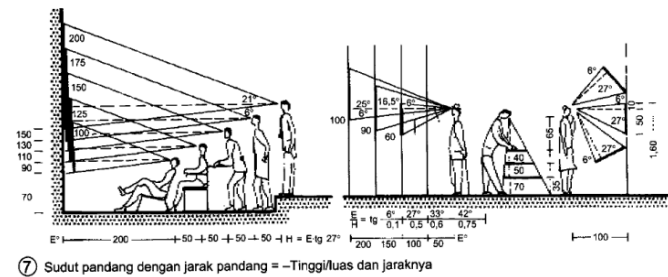
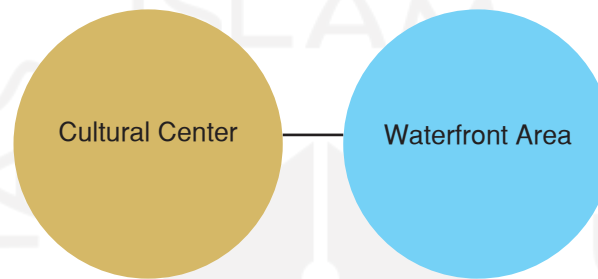


Figure 59. Distance of the observer's point of view with 3 dimensional art

Source: Google

## Building Typology

### Waterfront Cultural Center



A **cultural center** is a public building, site, or complex that exhibit and promotes culture and arts, especially of a particular region or people. Since the proposed design is located in the waterfront, it is important to **maximize the future waterfront untapped potential**.

The relationship between culture and waterfront space can be described as a form-content relationship. Culture grows and produces forms that accommodate the authenticity of the culture in waterfront spaces (Yang, 2006). As a result, the physical design of the built environment at the waterfront reflects the patterns and traits that are accommodated, implying that culturally oriented spatial forms are more effective in accommodating cultural content. As a result, it can be stated that culture has a significant role in determining the characteristics of the waterfront environment.

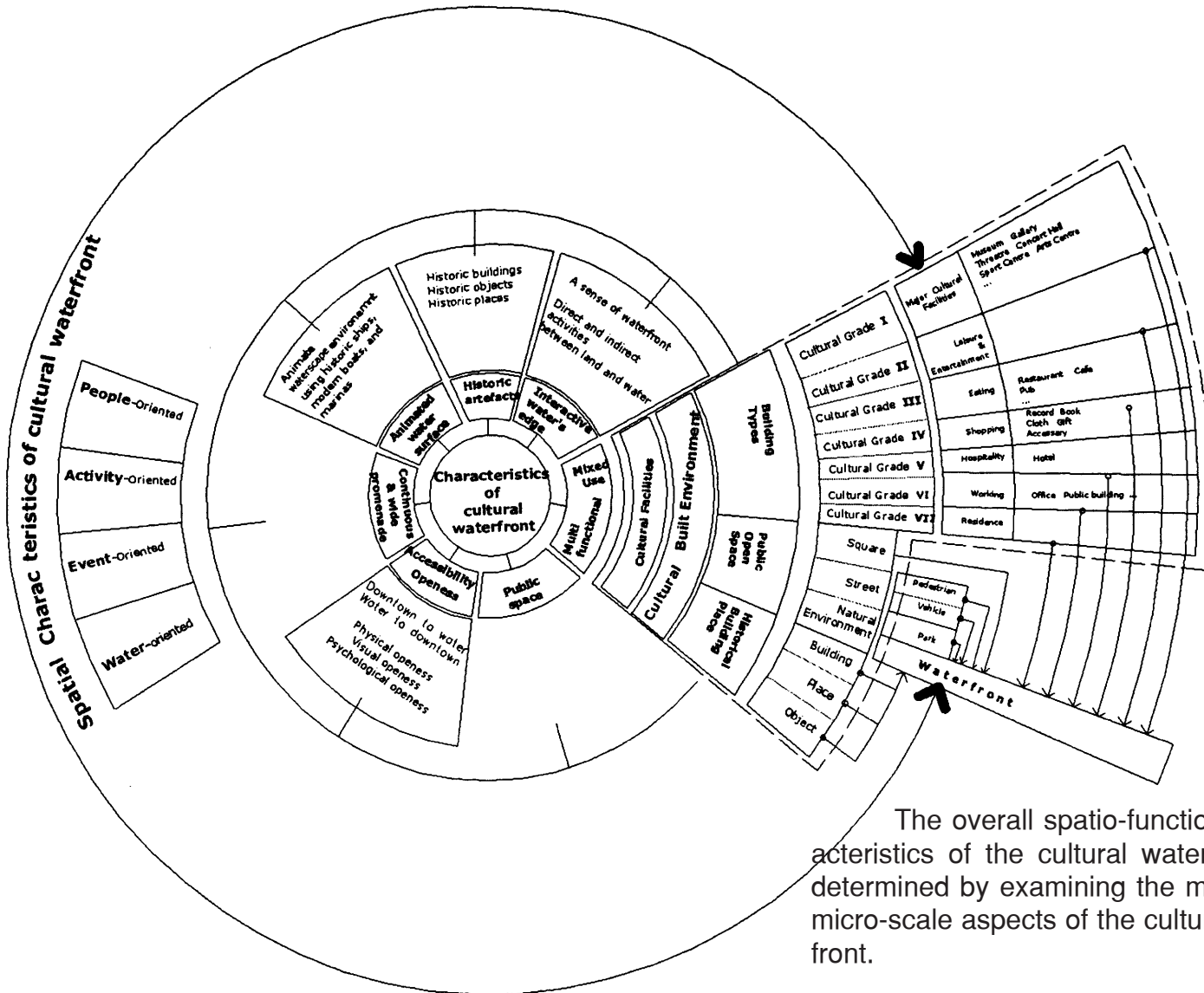
According to Browser in Syala (2011), two dimensions are important in observing the factors that influence tourist attraction to waterfront contexts: **cultural diversity of users** and **activities that allow tourists to stay longer** (Syala AL, 2011).

According to the different claims above, waterfront culture is the foundation of waterfront development as a tourist destination.

# Design Strategy

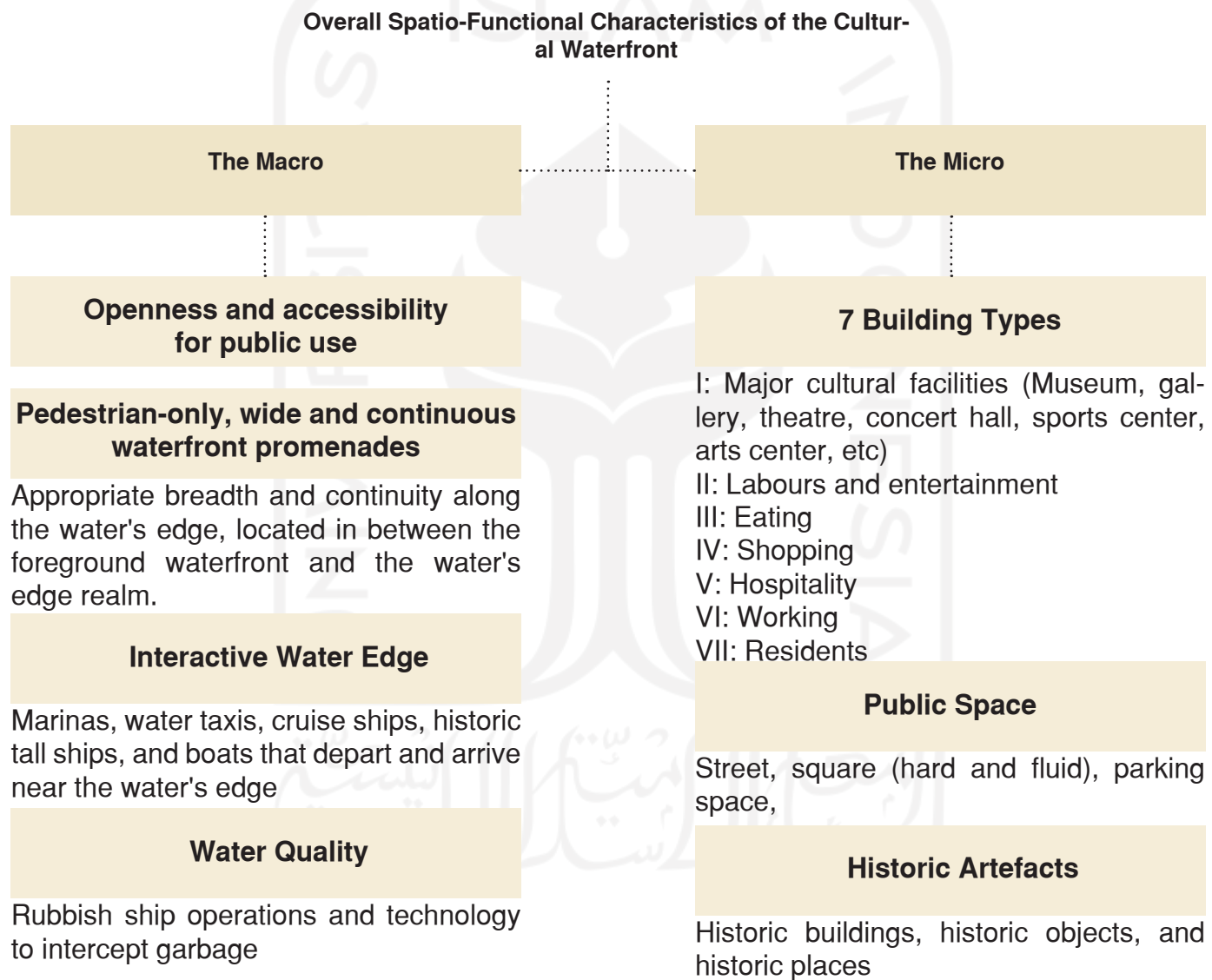
## Cultural Waterfront

### Charateristics of Cultural Waterfront



The overall spatio-functional characteristics of the cultural waterfront are determined by examining the macro and micro-scale aspects of the cultural waterfront.

Figure 60. Charateristics of Cultural Waterfront  
Source: Doshik Yang, 2006



*Table 2. Overall Spatio-Functional Characteristics of the Cultural Waterfront*  
 Source: Author, 2022, adapted from Doshik Yang, 2006



## The Interaction of Cultural Waterfront

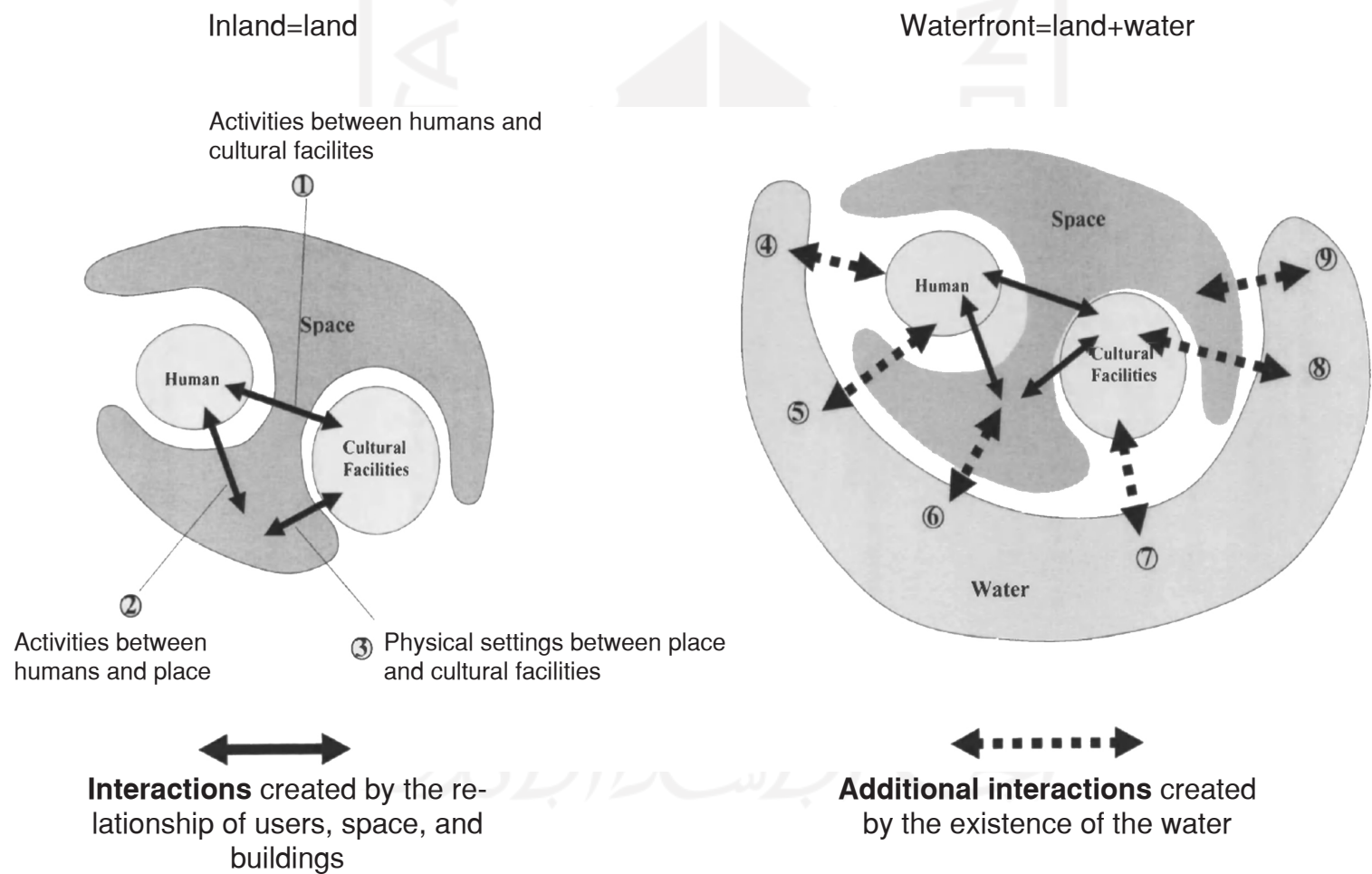






Figure 61. Types of Interaction in Cultural Waterfront  
Source: Doshik Yang, 2006

## Multi-Dimensional Interactions on the Waterfront

**Figure 7.22:** 9 multi-dimensional interactions on the waterfront, including 6 additional activities which only took place on the waterfront because of the water's existence – **the Aquarium section**

	Type	Interaction	Characteristics	Example
Interactions both on land and waterfront	①	users + buildings	<ul style="list-style-type: none"> <li>Cultural facilities as a magnet</li> <li>Cultural experiences through cultural facilities</li> </ul>	
	②	users + space	<ul style="list-style-type: none"> <li>Derivative and optional activities</li> <li>Sitting, seeing, relaxing, performing events and eating</li> </ul>	
	③	space + buildings	<ul style="list-style-type: none"> <li>Significant activity nodes and gathering place</li> </ul>	
	④	Users+ water	<ul style="list-style-type: none"> <li>Experience of the waterscape</li> <li>Touching, watching, boating and cruising</li> </ul>	

In short, the success of a cultural waterfront is highly dependent on how users and the built environment interact with the water, maximizing the nine types of interaction.






Additional interactions only on the waterfront	⑤	②+ <b>water</b> (users + space + water)	<ul style="list-style-type: none"> <li>▪ Attractive activity and gathering spot</li> <li>▪ Experience of the water's edge which provides panoramic waterscape</li> </ul>	
	⑥	<b>Space</b> + <b>Water</b>	<ul style="list-style-type: none"> <li>▪ A sense of waterfront</li> <li>▪ Meditation of waterscape</li> </ul>	
	⑦	③+ <b>water</b> (space + buildings + water)	<ul style="list-style-type: none"> <li>▪ Creating a cultural ambience</li> <li>▪ Cultural production and consumption backup by the waterfront's built environment</li> </ul>	
	⑧	<b>Buildings</b> + <b>Water</b>	<ul style="list-style-type: none"> <li>▪ Enhancing the quality of cultural facilities</li> <li>▪ Attractive cultural facilities</li> </ul>	
	⑨	①+ <b>water</b> (users + buildings + water)	<ul style="list-style-type: none"> <li>▪ experience of three different components of the cultural waterfront</li> </ul>	

Figure 62. Types of Interaction in Cultural Waterfront  
Source: Doshik Yang, 2006

## Summary of Design Strategies for Waterfront Cultural Center

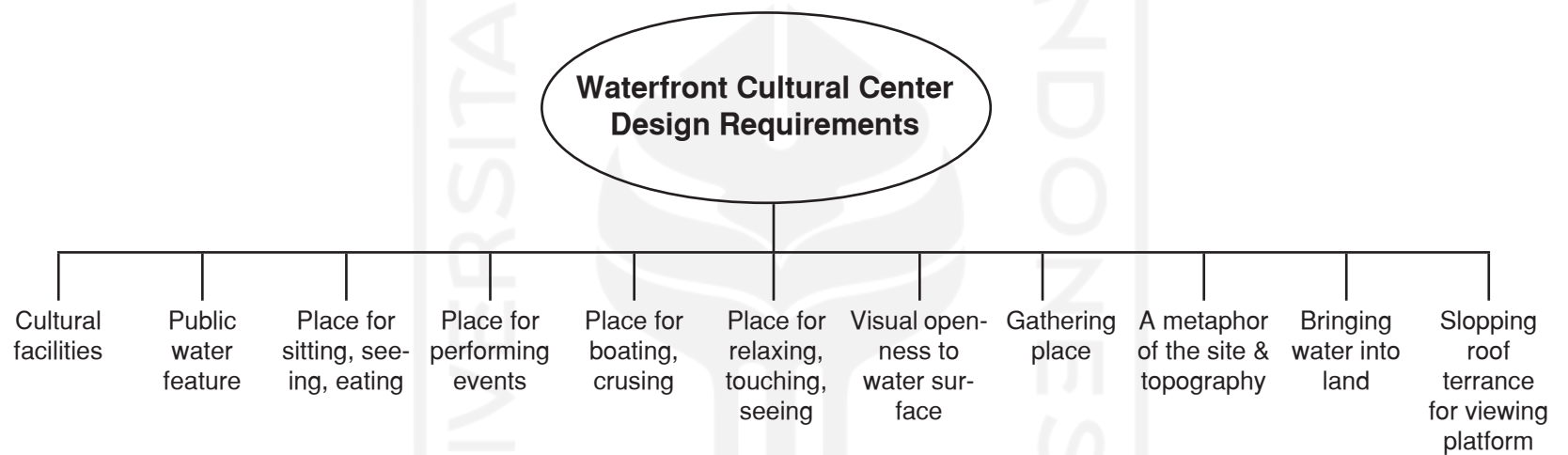


Figure 63. Summary of Design Strategies for Waterfront Cultural Center  
Source: Doshik Yang, 2006

According to a book Building with Water (Ryan, 2010), and from several precedent of arts and cultural building in waterfront, several criterias can be a consideration to create an interesting art and culture waterfront area:

Forge a new identity and image

A methapor of the site and topography

Bring people into spatial relationship with water

Bringing water into the land

Sloping roof and roof terrance for viewing platform for visitor

## Precedent

### Waterfront Cultural Center



### MÉCA Cultural Center

Location : Bordeaux, France  
Architects : Bjarke Ingels Group  
Area : 18000 m<sup>2</sup>  
Year : 2019

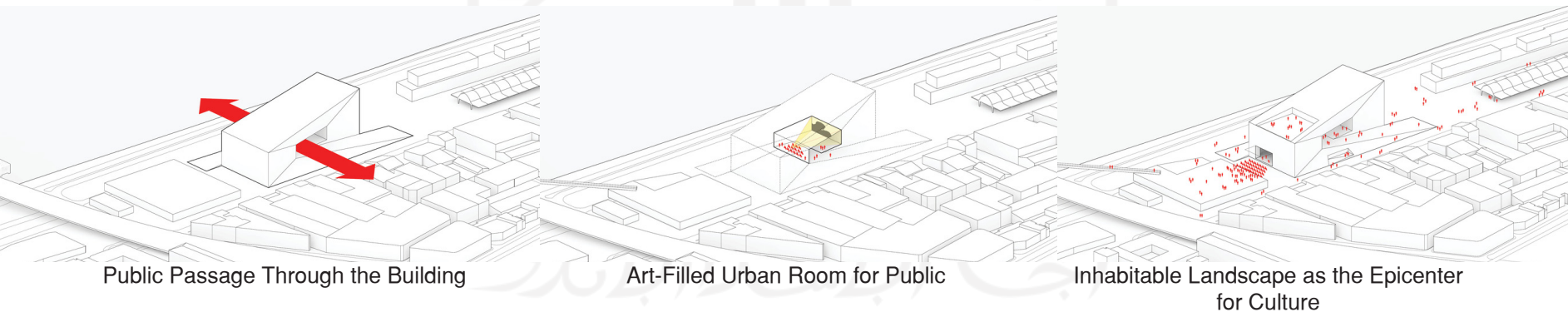
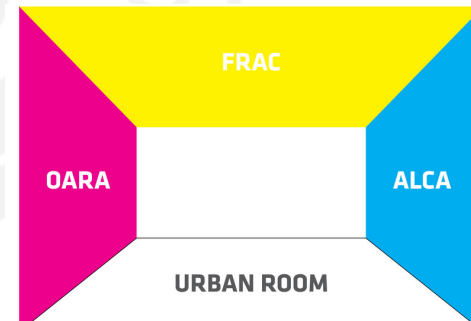


Figure 64. MÉCA Cultural Center  
Source:

#### Design Strategies:

1. The open areas for public and urban room
2. A cross-space between two cultural rooms for transition
3. A flexible open space can be transformed into a stage for concerts and theatrical productions, or a gallery for art installations, on special occasions.

## Precedent Cultural Center



Figure 65. Hodjapasha Culture Center  
Source: Google

### Hodjapasha Culture Center

Location : Istanbul, Turkey  
Architects : Sultan Mehmet and Vizier Hoca  
Year : 1470

Turkish Dances and Sema (whirling dervish ceremony) are performed every day at the facility. The historic edifice, made completely of quarried stone and adorned with peacock tail decorations at its corners.

#### Design Strategies:

1. The divided space into exhibition halls and performance area.
2. The use of local material and regional architectural ornament, but still serves a majestic performance.
3. The use of correct color and ambiance during the performance.

## Precedent

### Waterfront Cultural Center

#### The Fuzhou Strait Culture and Art Centre

Location : China  
Architects : PES-Architects  
Area : 153000 m<sup>2</sup>  
Year : 2018



Figure 66. The Fuzhou Strait Culture and Art Centre  
Source: Archdaily

The Fuzhou Strait Culture and Art Center functioned as performing arts and cultural center with the purpose as to improve the city's cultural image as well as the Mawei New Town development region.

The petals of a jasmine bloom, Fuzhou's city flower, were used as inspiration. The petals of a jasmine bloom, Fuzhou's city flower, are reflected in the formal language and color of the architecture.





Figure 67. The Fuzhou Strait Culture and Art Centre's Sketches

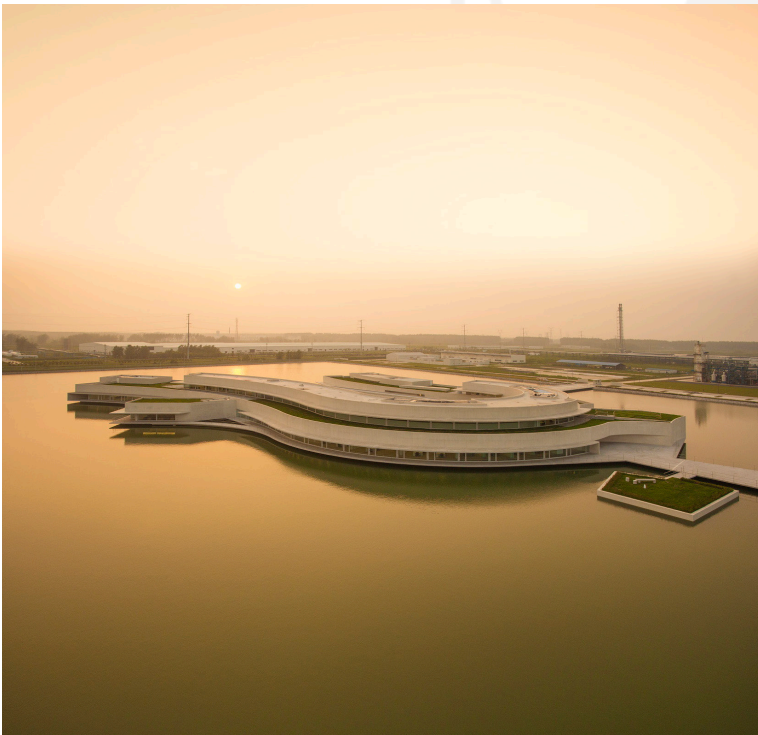
Source: Archdaily and Author, 2022

- **A semi-public arc tunnel** connects the public indoor space to the building's garden landscape and connects it to the waterfront area  
**Public roof terrace** to create a view of the city and waterfront
- **The bar petals, watching petals, and dancer petals**, allowing citizens to set up bazaars and celebrate music festivals and other cultural acts.
- **Leisure Bamboo Platform and High Music Fountain**, a terraces and bamboo bushes for sitting and see the river, and a 12-meter-high music fountain that will occasionally performed  
**Fountain Square**, the circular fountain area holds a spray fountain that children can touch and play, giving coolness in hot summer.
  - A curving, semi-public gallery that follows the curvature of the building, located near in the main function of each building

## Precedent Design Strategies

### The Building on the Water

Location : Bordeaux, France  
Architects : Carlos Castanheira, Ivaro Siza Vieira, Carlos Castanheira,  
Area : 11000 m<sup>2</sup>  
Year : 2019



The idea of this building was to design a structure that would mix in with the most critical element, water. The Building on the Water exemplifies a precise use of construction materials. The structure is a white concrete and glass symphony. Despite the fact that concrete is a hefty material to look at, the use of plates to identify levels and a well-defined flowing form give the material a fluid, even sensual appearance.



#### Design Strategies

1. Promoting the qualities of the landscape
2. Depicting the fluidity of the water
2. Uses its beautiful location and natural light to its maximum potential
3. Fits in beautifully with the waterscape and plant grounds
4. Both the building and the user may 'interact' with the natural landscape and water



Figure 68. The Building on the Water  
Source: Archdaily

**DESIGN EXPLORATIONS**

**03**

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## Site Analysis

### Geographical Context Relation

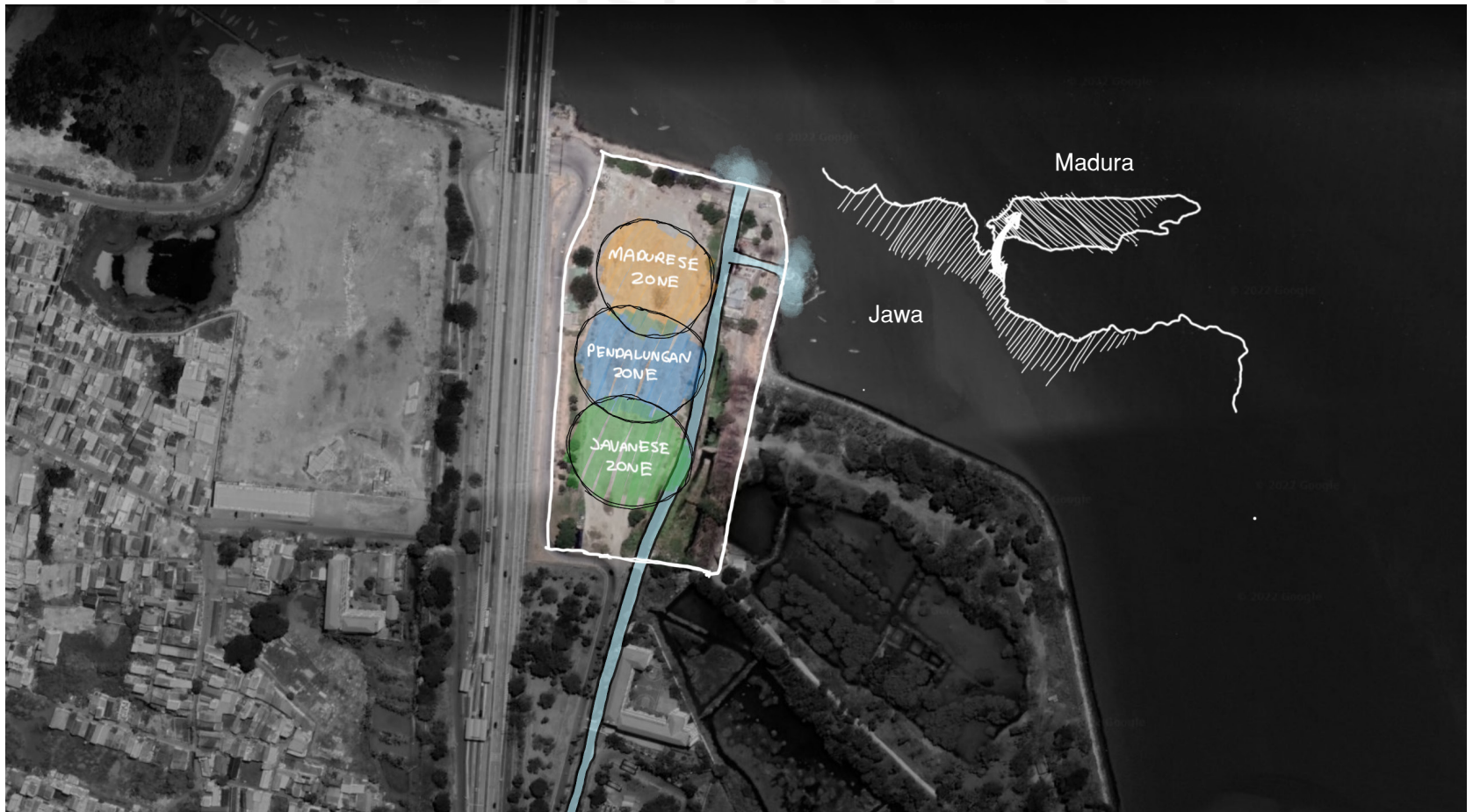


Figure 69. Geographical Context Relation  
Source: Google Maps and Author, 2022

### Overall Zoning Analysis

Based on geographical condition; Madura Island that located on the northern side, and Java Island that located on the southern side, the Madurese zone will be located on the northern side of the site, while the Javanese zone will be located on the southern side.

While the Pandalungan Zone, as a hibridization of Madurese and Javanese culture, will be located on the center of both Madurese and Javanese Zone.

## Climate

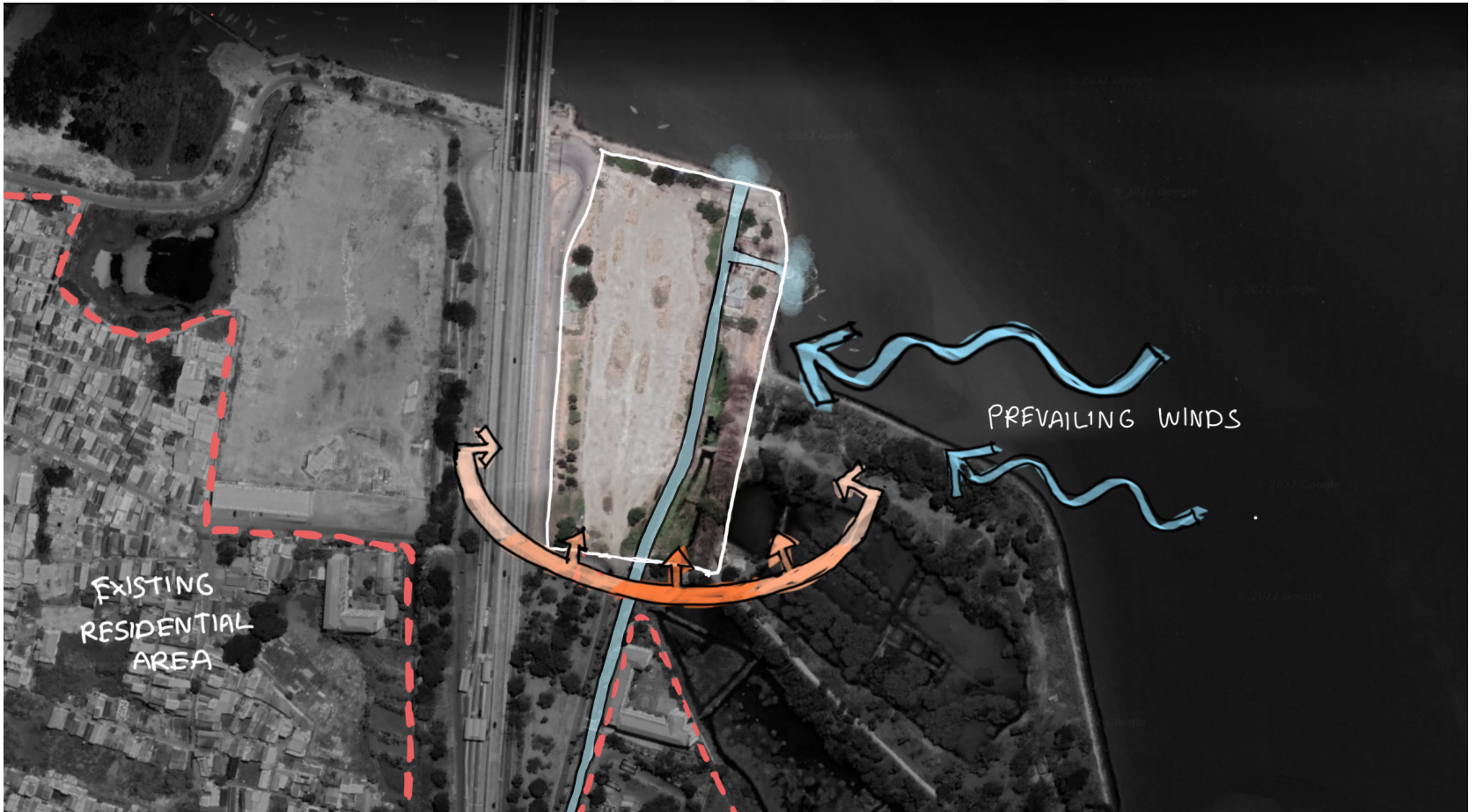


Figure 70. Climate  
Source: Google Maps and Author, 2022

### Climate Response

On the part of the building that directly exposed to the sunlight, there will be less opening to that side.

## Vehicular Access and View

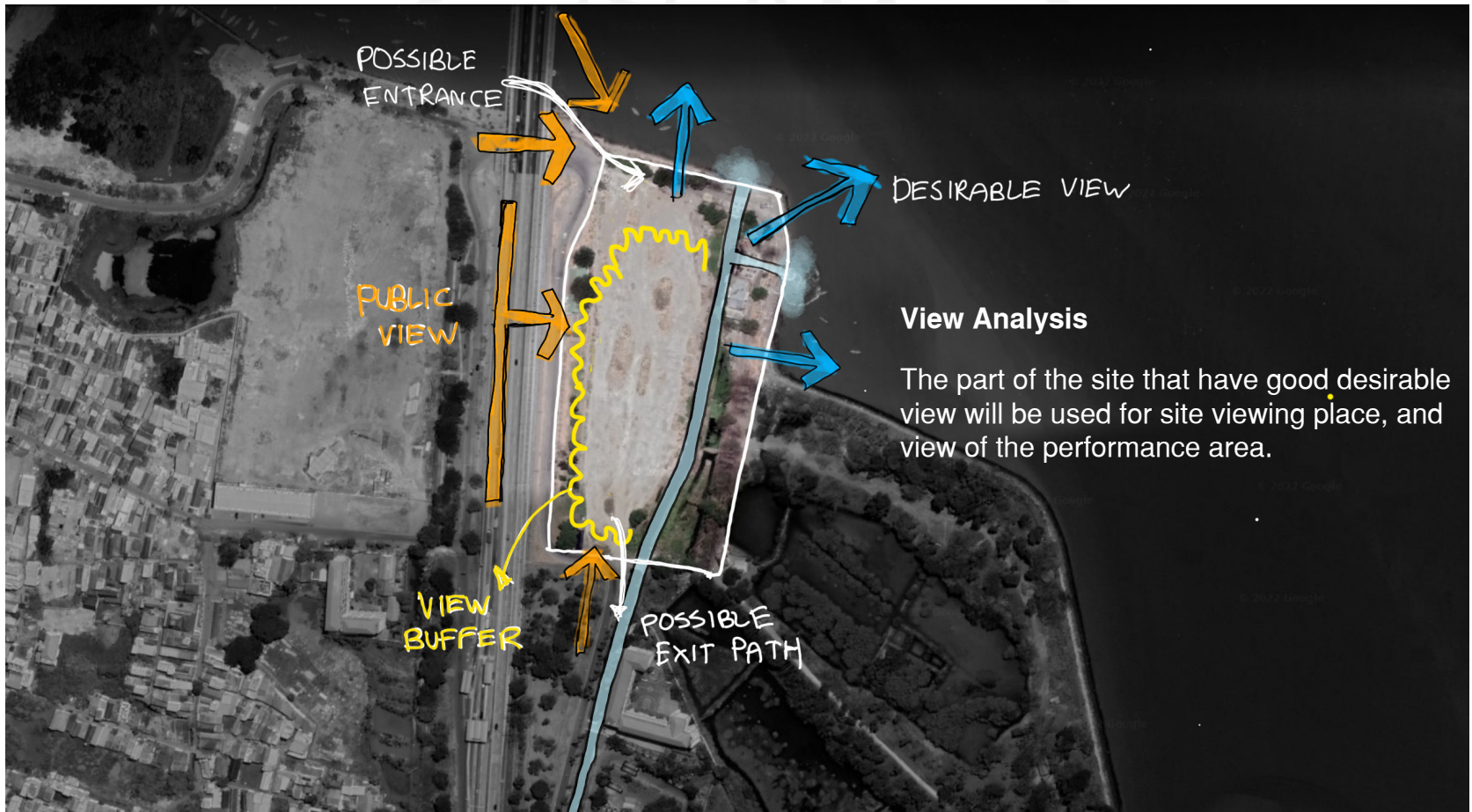


Figure 71. Vehicular Access and View  
Source: Google Maps and Author, 2022

### Public View Response

Part of the building that exposed directly to public view will have view buffer in front of it. This functioned as a safe space to view the building from afar.

### Entrance and Exit Analysis

The entrance part of the site is based on where the vehicles come to the chosen site. The exit part of the site based on the vehicular flow on the road outside of the site.

## Implementation of Design Strategies

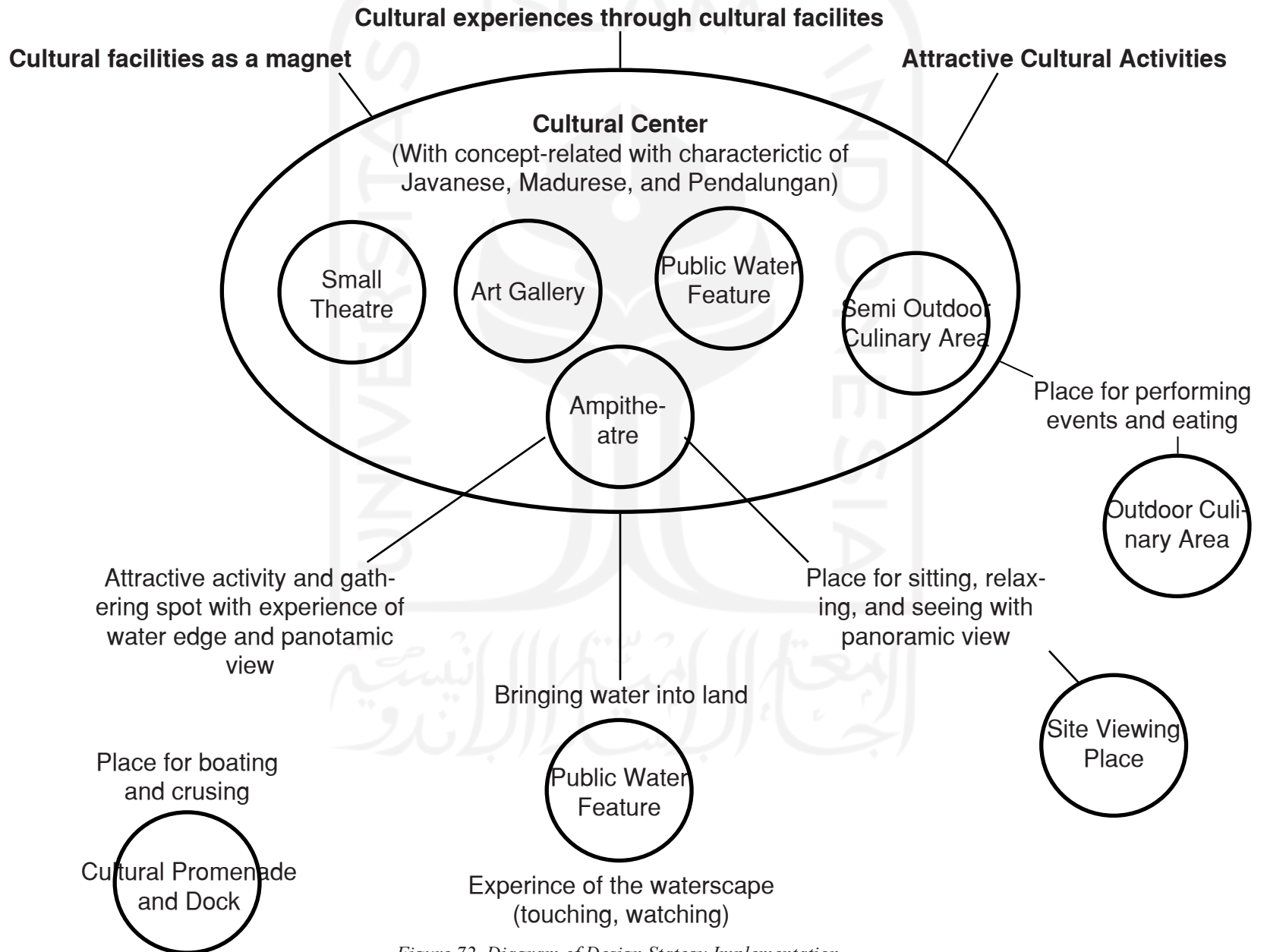


Figure 72. Diagram of Design Strategy Implementation  
Source: Google Maps and Author

## Activity

Zone	Cultural Acitivity	Types of Room	Types of Activity/Performance
Madurese Zone	Small Performance Area	Proscenium Theatre	Muang Sangkal Dance
	Paintings Gallery	Permanent Galleries	2D Art/Paintings
Pendalungan Zone	Ampitheatre	Thrust Stage	Suramadu Dance, Can Macanan Kadruk, Remo, and Reog
	Place of Remembrance	Permanent Galleries	Gallery of Colonial Era Gallery of Migration Era Gallery of Settled Era
Javanese Zone	Art Gallery	Exhibition Space	3D Art and Sculpture
		Permanent Galleries	2D Art/Paintings

Table 3. Activity  
Source: Author, 2022



## Property Size

Function	Space	Requirement	Capacity	Quantity	Required Area (sqm)
Cultural Madurese Zone	Waiting Room	4 sqm/person	50	1	200
	Information Center	2 sqm/person	3	1	6
	Introductory Space	4 sqm/person	50	1	200
	Performance Stage	4 sqm/person	11-30	1	120
	Sitting Place	0.5 sqm/person	100	1	50
	Paintings Gallery	4 sqm/person	20	1	80
	Total				656

Function	Space	Requirement	Capacity	Quantity	Total Area (sqm)
Cultural Pandalungan Zone	Gallery of Colonial Era	4 sqm/person	30-40	1	160
	Gallery of Migration Era	4 sqm/person	30-40	1	160
	Gallery of Settled Era	4 sqm/person	30-40	1	160
	Ampitheatre Lobby	4 sqm/person	30-40	1	160
	Performance Stage	4 sqm/person	11-30	1	120
	Sitting Place	0.5 sqm/person	300	1	150
	Total				910

Function	Space	Requirement	Capacity	Quantity	Required Area (sqm)
Cultural Javanese Zone	Exhibition Gallery	4 sqm/person	30-40	1	160
	Permanent Gallery	4 sqm/person	30-40	1	160
	Total				320

Function	Space	Requirement	Capacity	Quantity	Total Area (sqm)
Managerial Service	Owner Room	4 sqm/person	1	1	4
	Staff Room	4 sqm/person	10-15	1	60
	Toilet	3 sqm/person	1	22	66
	Preparation Room	4 sqm/person	11-15	2	120
	Praying Room	2 sqm/person	20	1	40
	Storage	6 sqm/equipment	5	3	90
	Cafeteria	4 sqm/person	30	1	120
	Currator Room	4 sqm/person	10	4	160
	Total				860

Function	Space	Standard	Capacity	Quantity	Total Area (sqm)
Parking Space	Car Parking	12.5 sqm	40	1	500
	Motorcycle Parking	1.5 sqm	30	1	45
	Bus Parking	16.5 sqm	3	1	49.5
	Total				594.5

Table 4. Property Size Requirement  
Source: Author, 2022



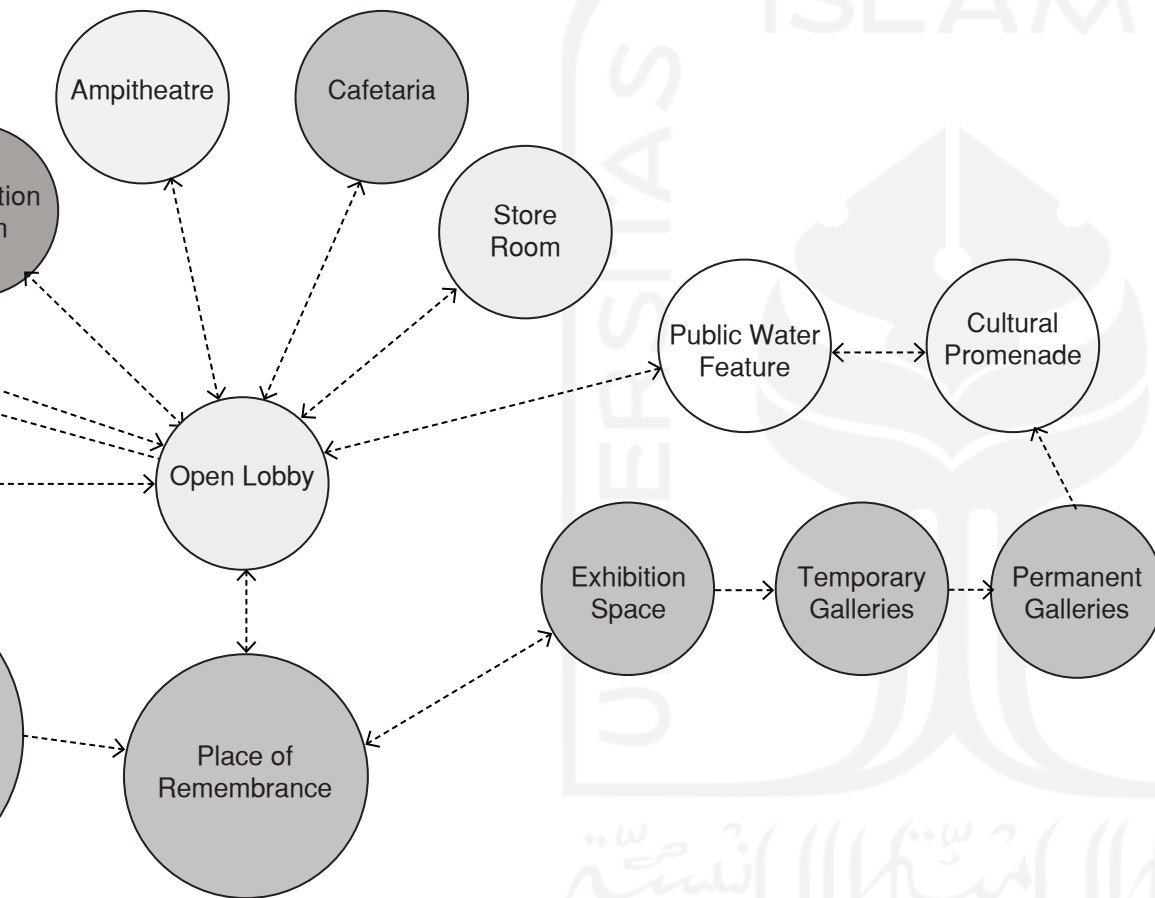
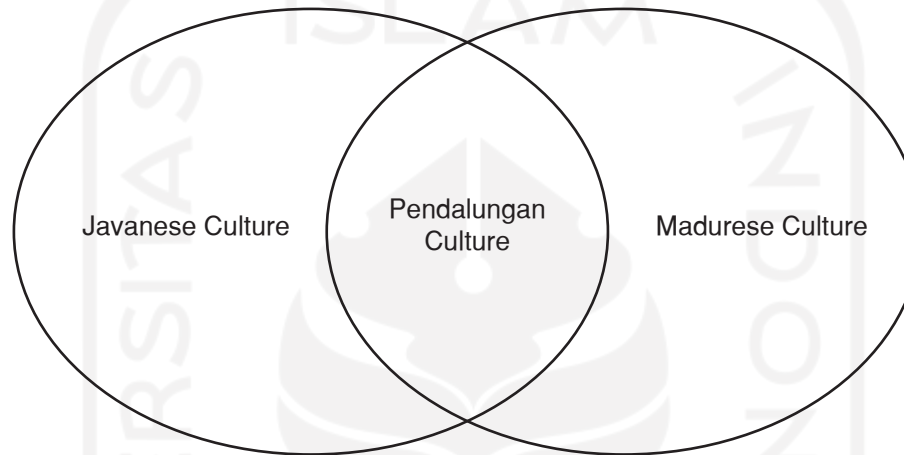


Figure 73. Diagram of Spatial Analysis and Visitor Flow  
 Source: Author, 2022

## Cultural Characteristic

### Getting Know the Characteristic!



- Javanese village that fosters more communalism
- Timid/shy, a preference for hiding feelings
- Patient
- The spirit of communalism produces a culture of togetherness
- Diversity of social strata

- Easy to adapt and open minded to change
- Expressive and transparent
- Paternalistic
- High solidarity in ending a problem and doing it together
- Temperamental

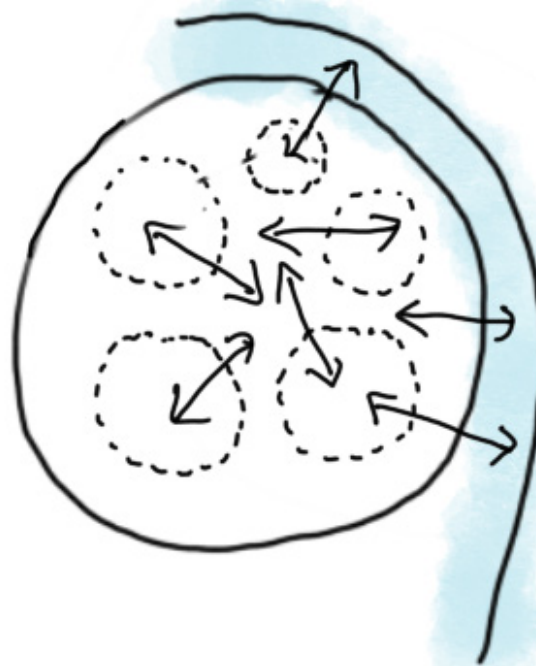
- The Madurese settlement results in loose social relations and fosters an individualistic spirit
- Expressive, open, outspoken
- High-tempered
- Individualistic and self-confident
- Diversity of social strata

Figure 74. Diagram of Cultural Characteristic  
Source: Author, 2022

## Cultural Characteristic Javanese Culture

- Javanese village that fosters more communalism

→ Openness in interaction



*Figure 75. Javanese Cultural Characteristic Sketch*  
*Source: Author, 2022*

Include various activities in a big/open areas, with their own interest, and upholds cooperation, between the indoor and the outdoor of waterfront.

- Timid/shy, a preference for hiding feelings



People often do not say directly what they mean, avoid bad feeling between themselves and their interlocutors

Indirection / Indirectness

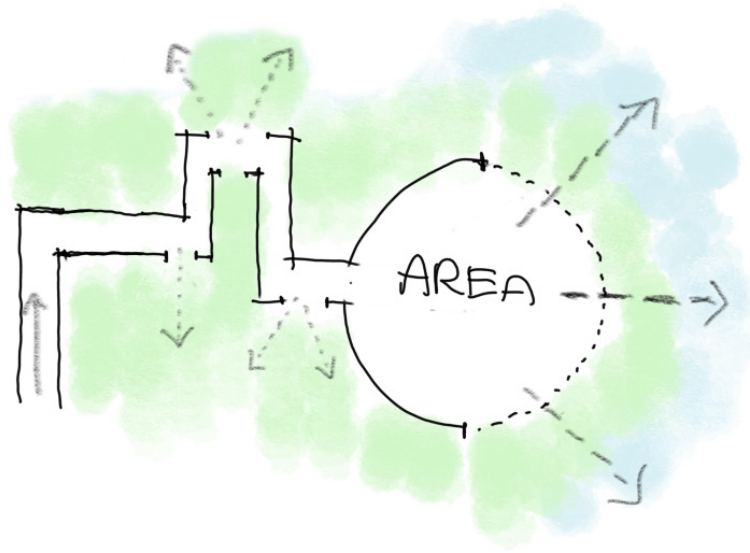


Figure 76. Javanese Cultural Characteristic Sketch  
Source: Author, 2022

A flow that emphasizes the beauty of nature that is shown slowly, where nature is expected to provide peace and calmness

- Patient



Patient in facing ridicule to be peaceful, no emotions, but can resulting in vindictive

The use of soft material on the space and the soft sound of flowing water

- Mutually Open



Open to communal interaction

Layouts and layouts that are open and attractive to each other

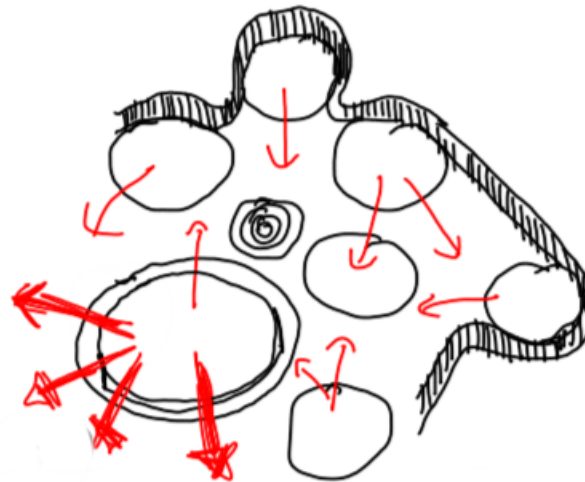


Figure 77. Javanese Cultural Characteristic Sketch  
Source: Author, 2022

Openness



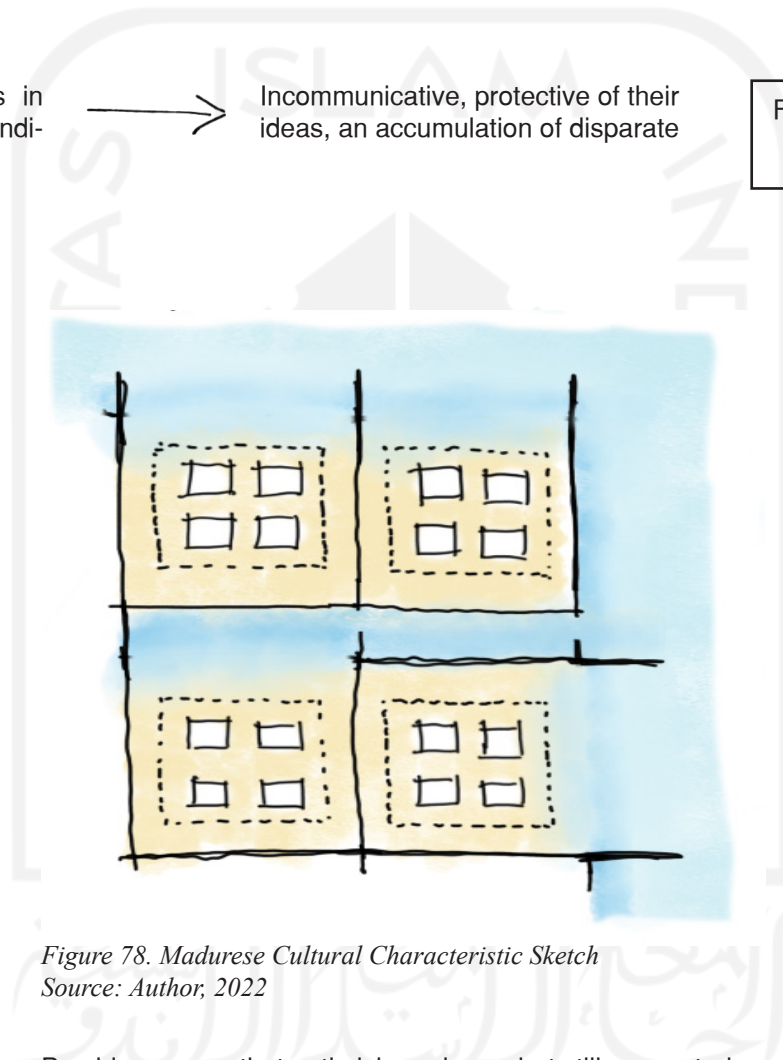
## Cultural Characteristic Madurese Culture

- The Madurese settlement results in loose social relations and fosters an individualistic spirit



Incommunicative, protective of their ideas, an accumulation of disparate

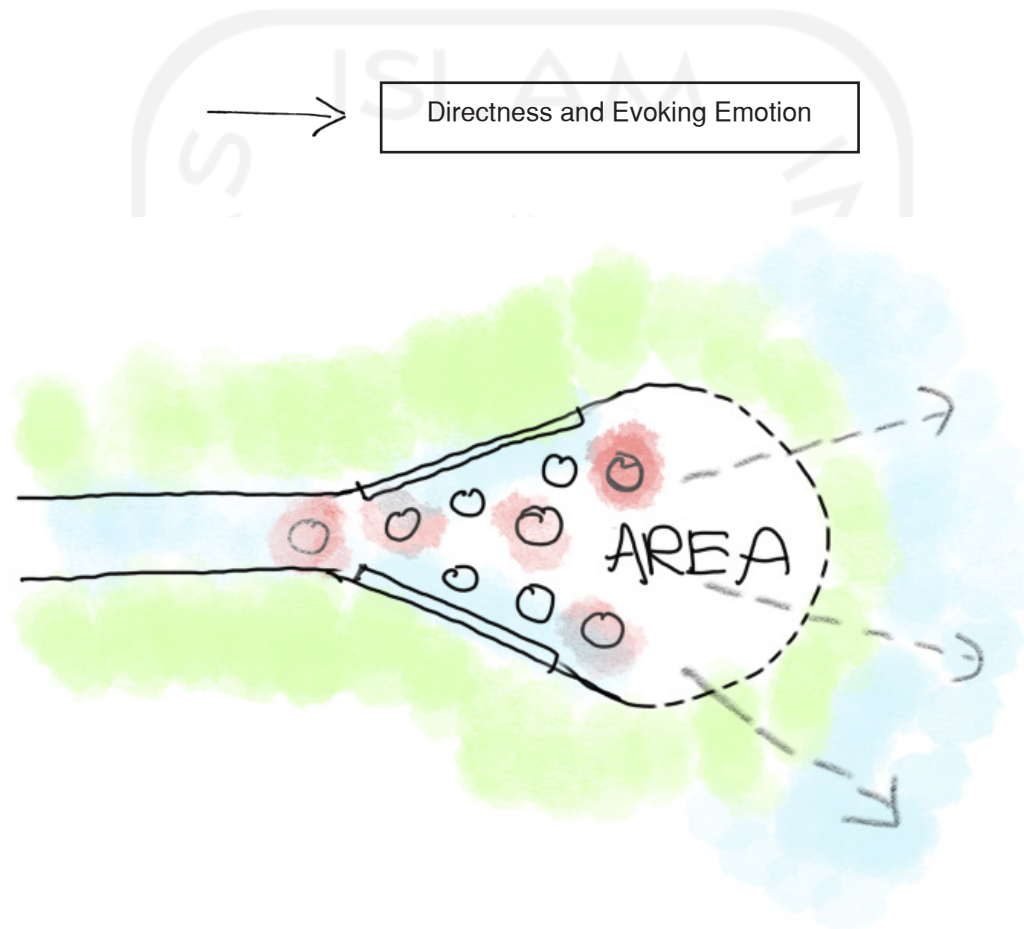
Fluff up, to generate space of opportunity



*Figure 78. Madurese Cultural Characteristic Sketch*  
*Source: Author, 2022*

Provide a space that optimizing privacy, but still connected with the surrounding area (water)

- Expressive, outspoken



*Figure 79. Madurese Cultural Characteristic Sketch*  
*Source: Author, 2022*

The directness of flow towards the area of culture, combined with the experience of water and other provoking emotion ambiance

- High tempered



Madurese culture, in the past, seems to use a cruel way to solve the problem, make a disadvantage in one party

The use of hard material on the space and the rough and hard sound of flowing water

- Individualistic, Place of Opportunity

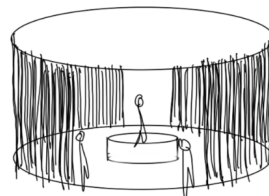
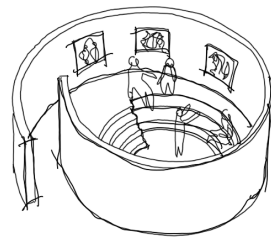


Figure 80. Madurese Cultural Characteristic Sketch  
Source: Author, 2022

## Cultural Characteristic

### Pendalungan Culture

- Togetherness, easy to adapt, solidary

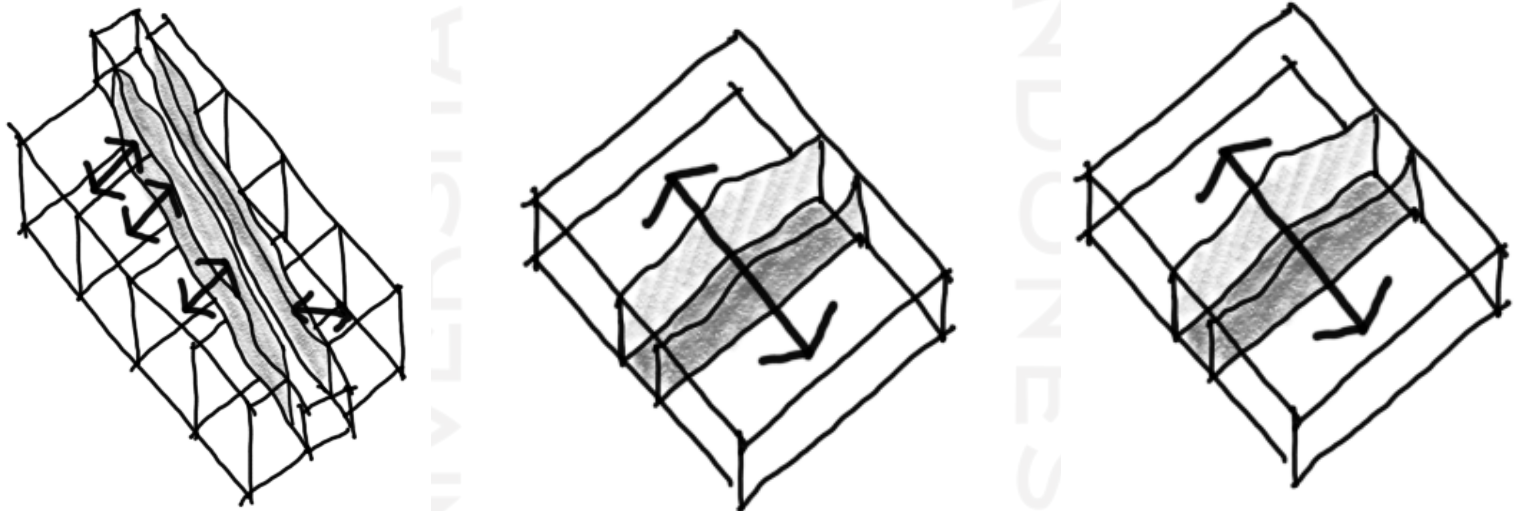


Figure 81. Pendalungan Cultural Characteristic Sketch  
Source: Author, 2022

Superimpose spaces, in order to have unexpected exchange

Create in between space in order to shape common infrastructure

Fill the space with other spaces in order to get influenced by them

- Transparant

Expressive and transparant

- 
1. Revelation of ambiances
    - acclimatisation
  2. Reconfiguration of ambiances
    - appropriation
  3. Merge of ambiances
    - challenging

- Solidarity



- A place for to the memories and history
- A place for to the reconciliation of the society with its past.
- A place for to the knowledge about the struggle of the people with its oppressors.
- A place for young people will walk through to make the part relevant and present understandable.

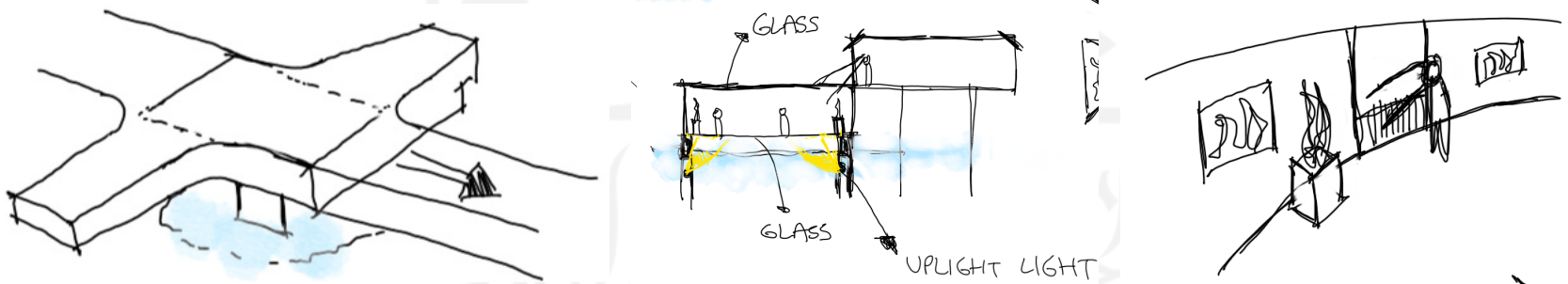
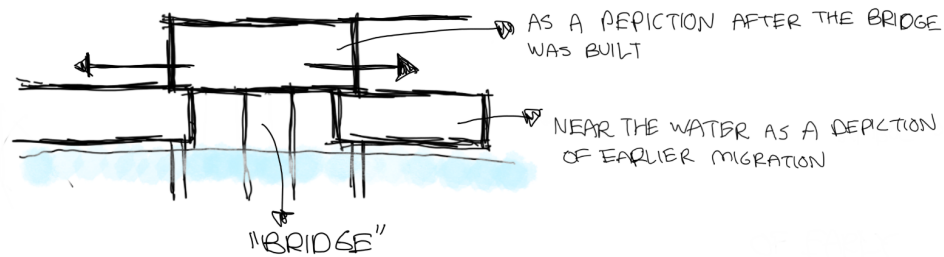


Figure 82. Pandalungan Cultural Characteristic Sketch  
Source: Author, 2022

## Cultural Characteristic Flow

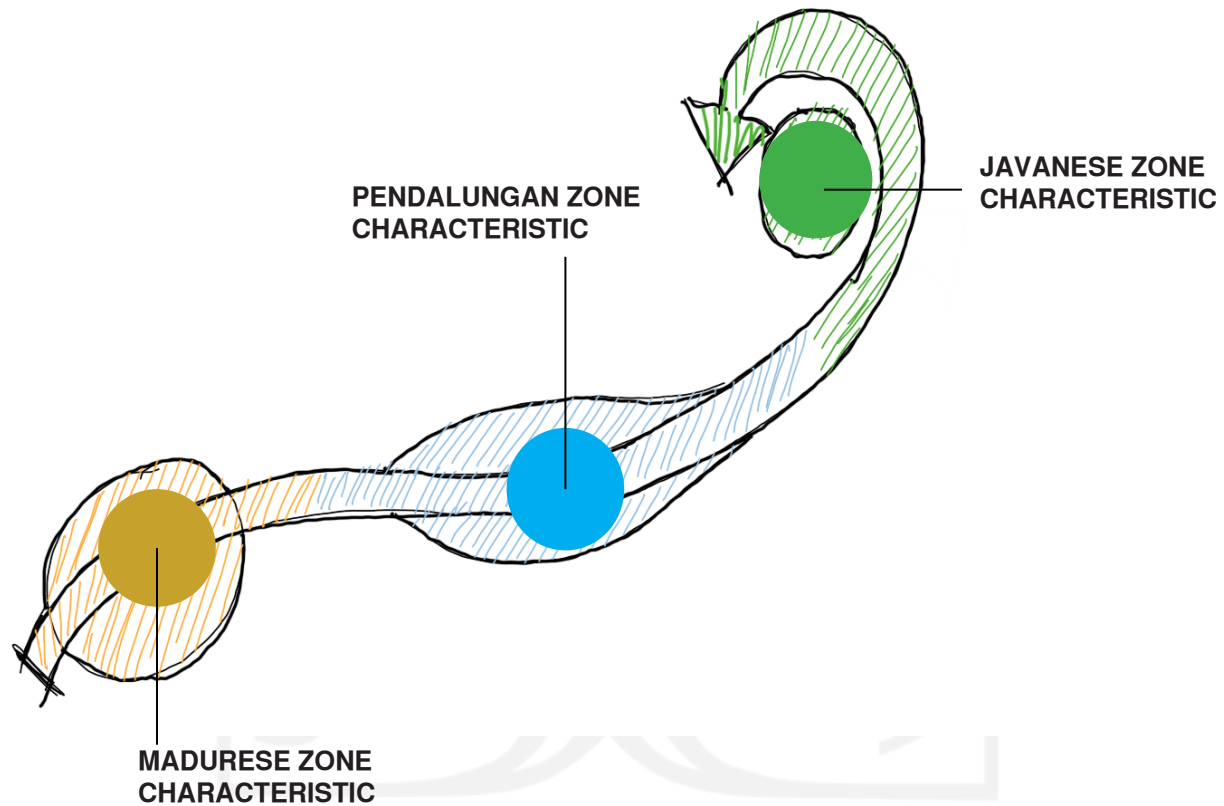


Figure 83. Cultural Characteristic Flow  
Source: Author, 2022

Visitors can feel the spatial characteristics of architectural elements such as shape, texture, and light. Based on the concept of characteristic, background, and history in each region, each zone has its own spatial characteristics.

## Cultural Characteristic to Spatial Characteristic

### Madurese Zone

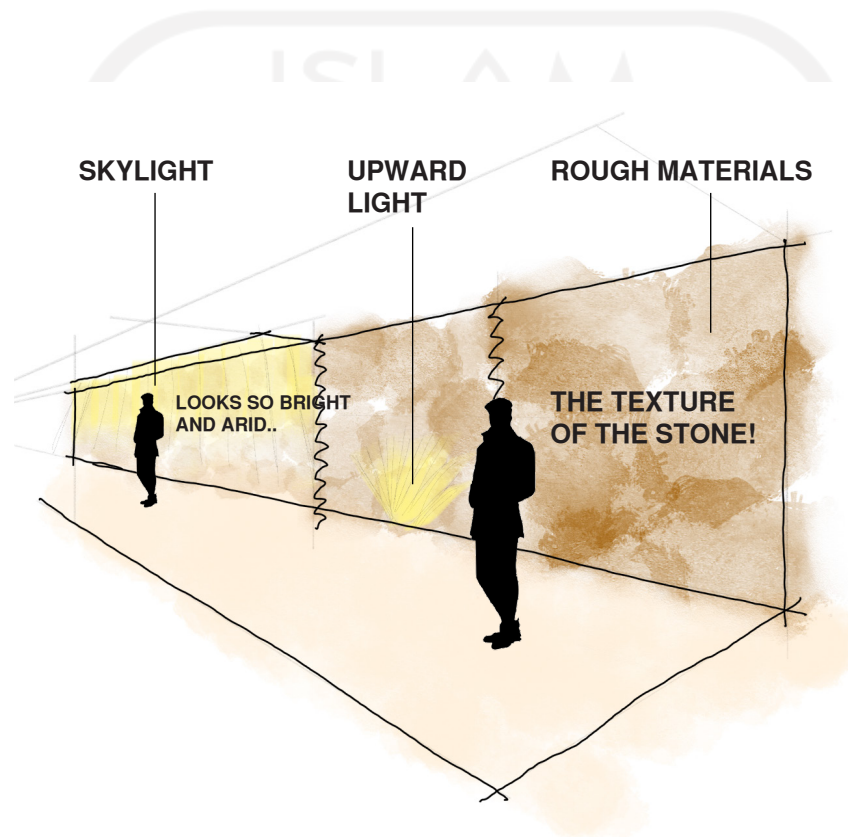


Figure 84. Madurese Zone Spatial Characteristic  
Source: Author, 2022

Madurese zone is simulated with rough rock wall material, skylights, and lights that shine upward, depicting the aridity of Madura land, and the characteristics of the people who tend to be expressive.

## Cultural Characteristic to Spatial Characteristic Pendalungan Zone as a Hybridization and Solidarity Place

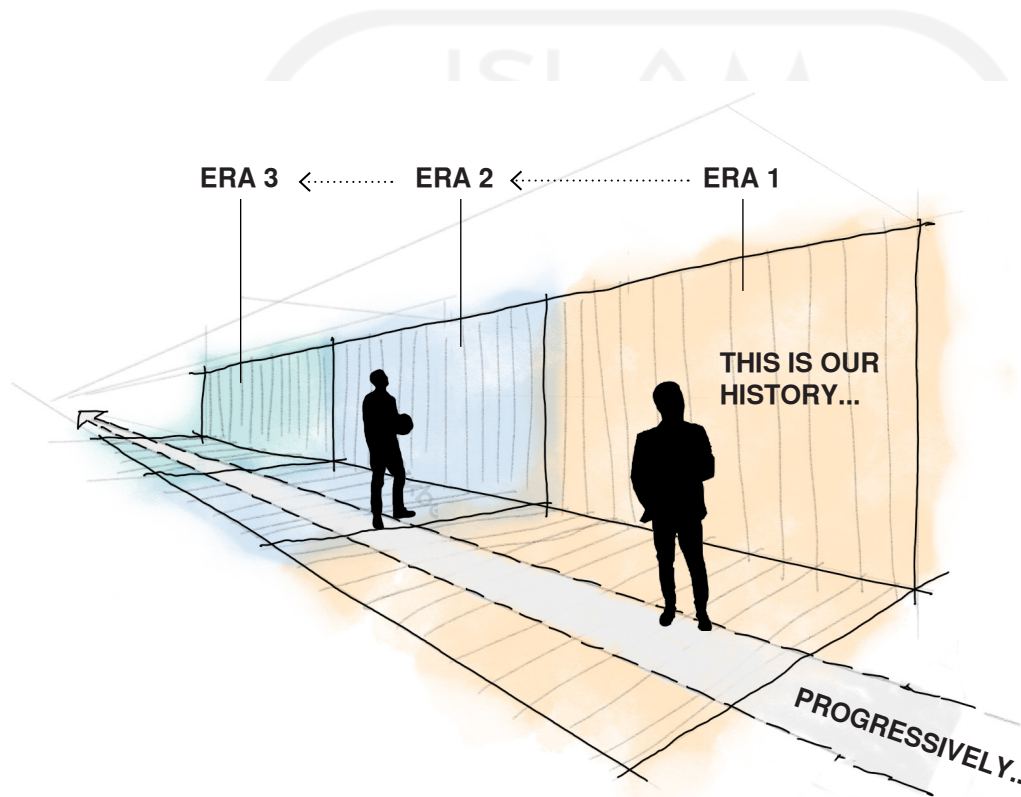


Figure 85. Pendalungan Zone Spatial Characteristic  
Source: Author, 2022

Pendalungan zone as a hybridization between Java and Madura, has a **high level of solidarity and adaptability**, simulated with the location in the middle of the building as to accept both transition and architectural elements and ambiance that is focused on space to remember the history of the formation of Pendalungan Culture.



## Cultural Characteristic to Spatial Characteristic

### Javanese Zone

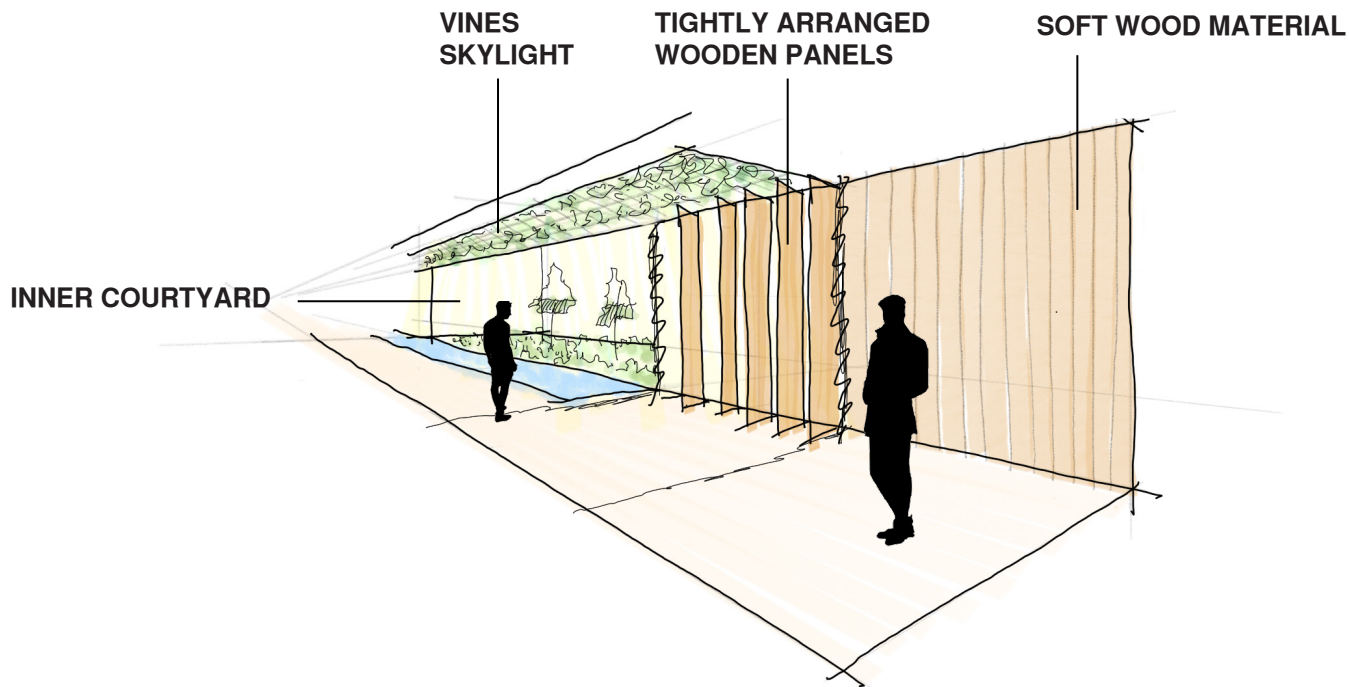


Figure 86. Javanese Zone Spatial Characteristic  
Source: Author, 2022

The Javanese zone is simulated with smooth wood material, skylights covered with vines, inner courtyard and also tightly arranged wood structures, depicting the characteristics of a smooth, shy, communal, and fertility of Java land.

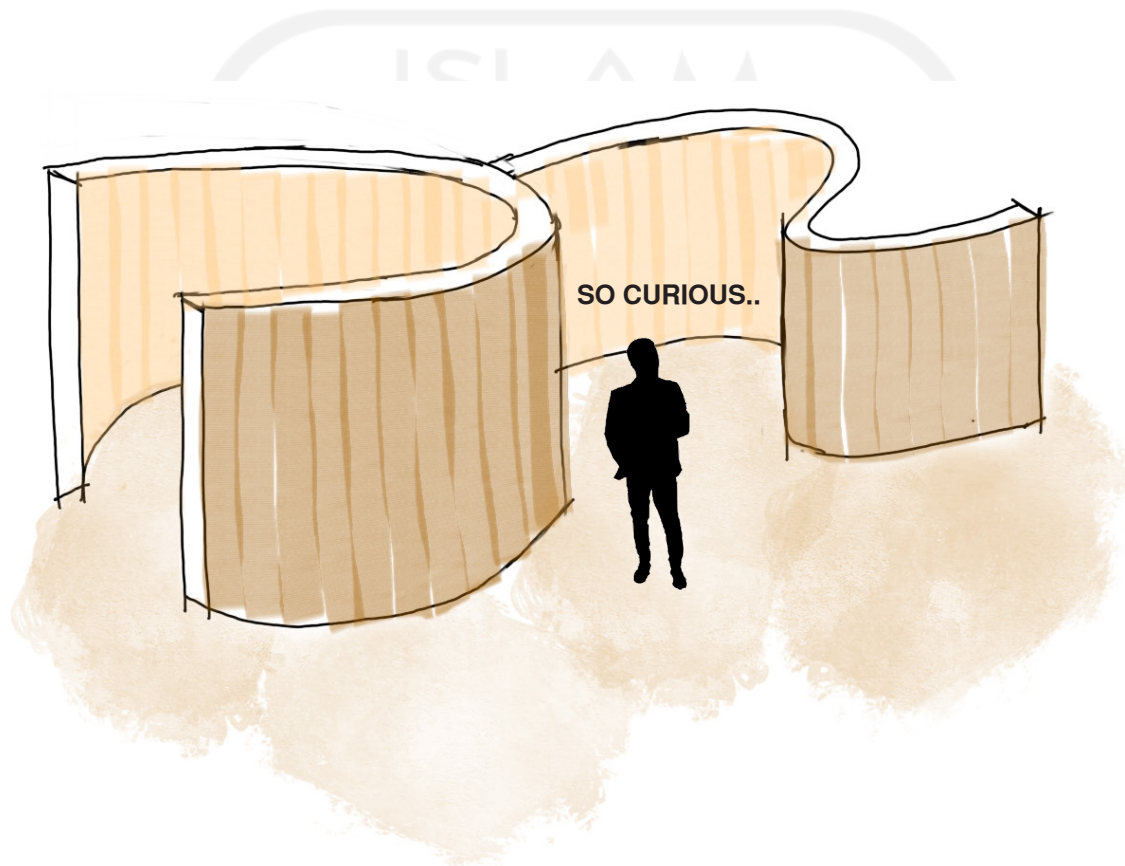
## Schematic Interior Concept Small Theatre - Madurese Zone



*Figure 87. Small Theatre Schematic Interior Concept*  
*Source: Author, 2022*

The small theater in the Madurase zone is circular and secretive, with rooms that tend to be dark and use contrasting light from the ceiling as stage theater lighting, illustrating the expressive Madurese people.

## Schematic Interior Concept Paintings Gallery - Madurese Zone



*Figure 88. Paintings Gallery Schematic Interior Concept  
Source: Author, 2022*

The paintings gallery in the Madurase zone is circular and secretive, illustrating the individualistic tendencies between Madurese families.

## Schematic Interior Concept

### Gallery of Colonial Era - Pandalungan Zone

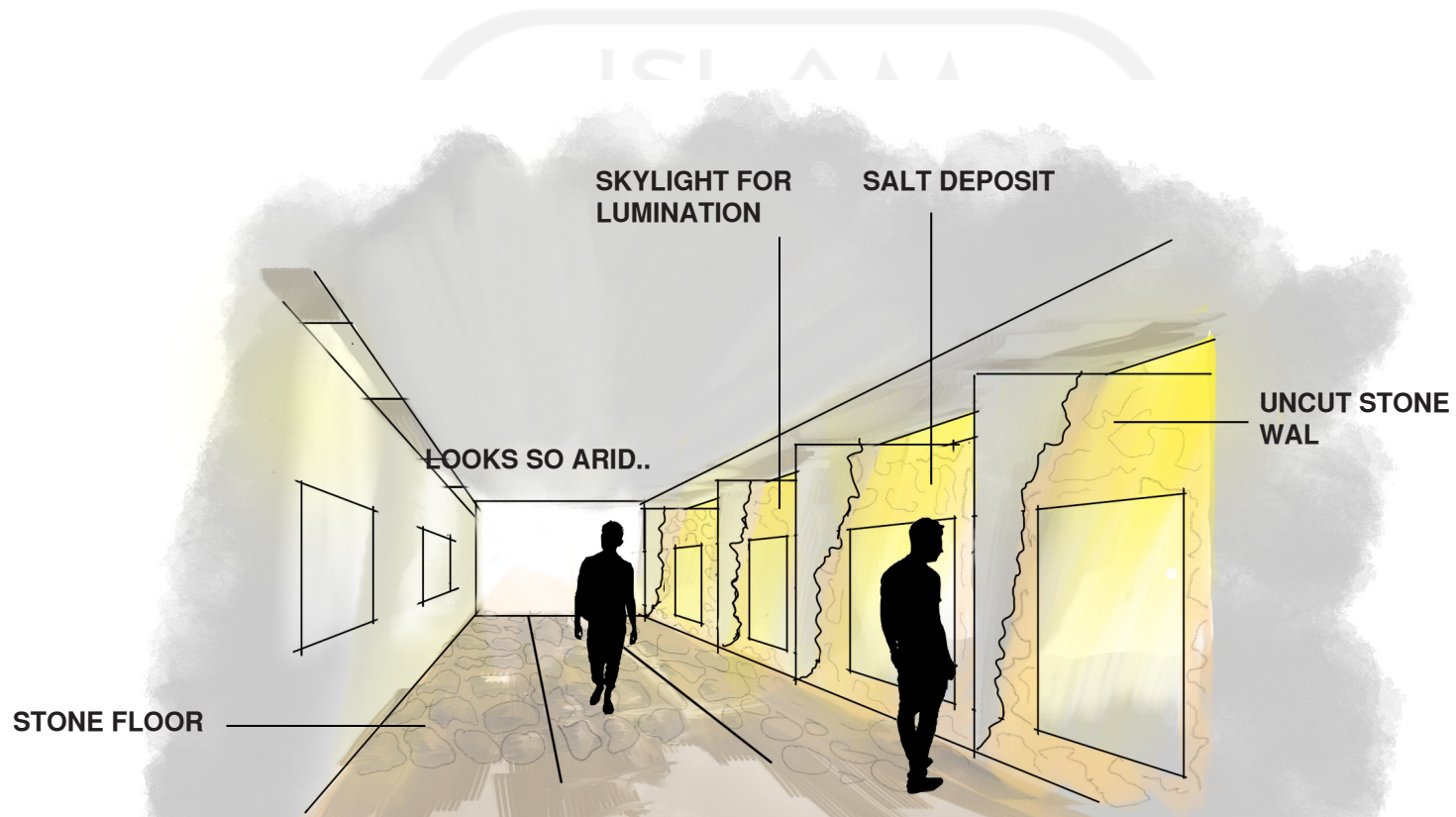


Figure 89. Gallery of Colonial Era Schematic Interior Concept  
Source: Author, 2022

The Gallery of Colonial Era depicts the condition of Madura before migrating to Java, with the difficulty of planting and dry soil conditions, and also salt factory history, simulated with rough rock wall textures, salt rock deposit, and skylights.

## Schematic Interior Concept

### Gallery of Migration Era - Pentalungan Zone

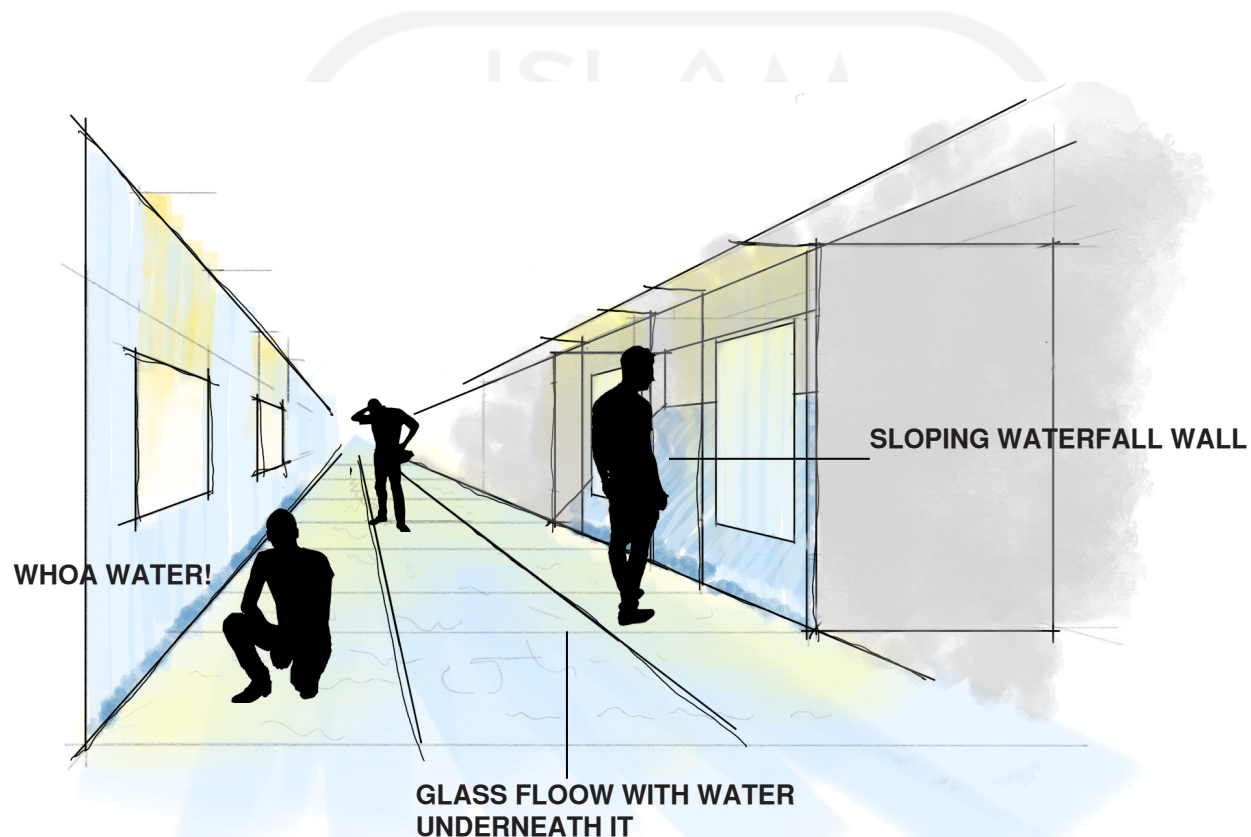


Figure 90. Gallery of Migration Era Schematic Interior Concept  
Source: Author, 2022

The Gallery of Migration Era depicts Madurese who are migrating to Java by boat, simulated with water flowing on a dark and cold sloping wall, and a glass floor showing the water below, giving the experience of people sailing on a boat.

## Schematic Interior Concept

### Gallery of Settled Era - Pandalungan Zone

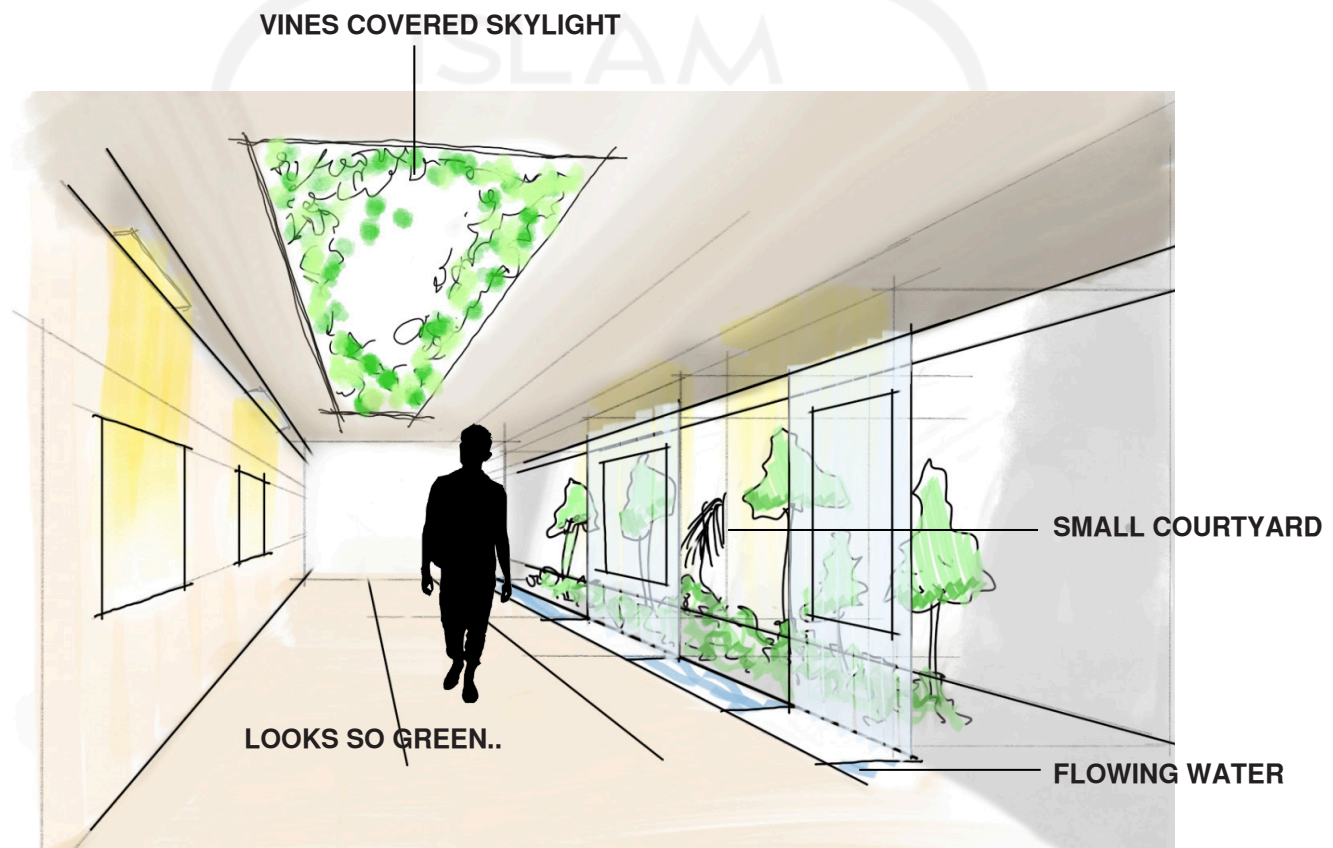


Figure 91. Gallery of Settled Era Schematic Interior Concept  
Source: Author, 2022

The Gallery of Settled Era depicts Madurese who have settled in Java and started working as farmers, simulated with plants beside the room, flowing water that resembles an irrigating river beside it, and skylights covered in vines.

## Schematic Interior Concept Exhibition and Permanent Gallery - Javanese Zone

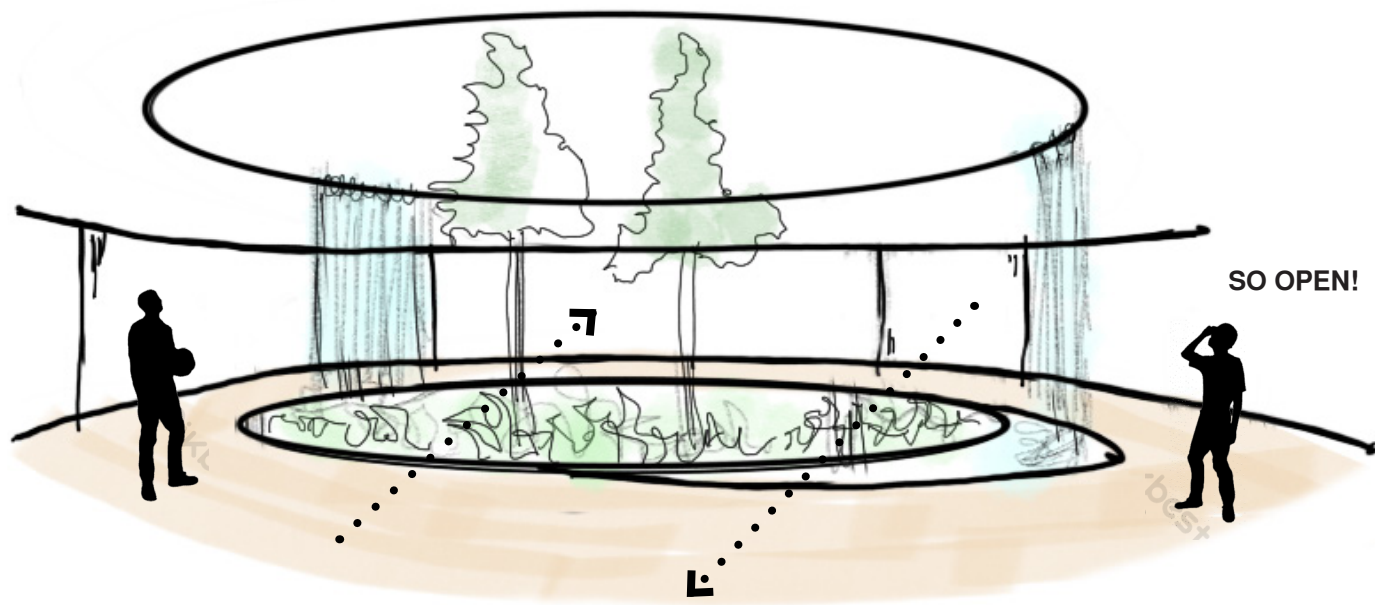
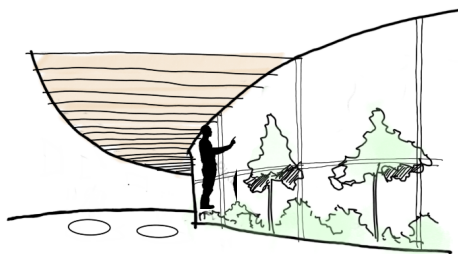


Figure 92. Exhibition and Permanent Gallery Schematic Interior Concept  
Source: Author, 2022



3D and Paintings Gallery in the Javanese zone using an inner courtyard and flowing water, as well as an open layout of the room, and smooth wood materials, depicting shy Javanese people, soft and communal characteristics, and depicting a more fertile Java land.

## Design Alternatives

### First Alternative



Figure 93. Design Alternatives  
Source: Author, 2022



## Design Alternatives

### Second Alternative



Figure 94. Design Alternatives  
Source: Author, 2022

## Design Alternatives

### Third Alternatives

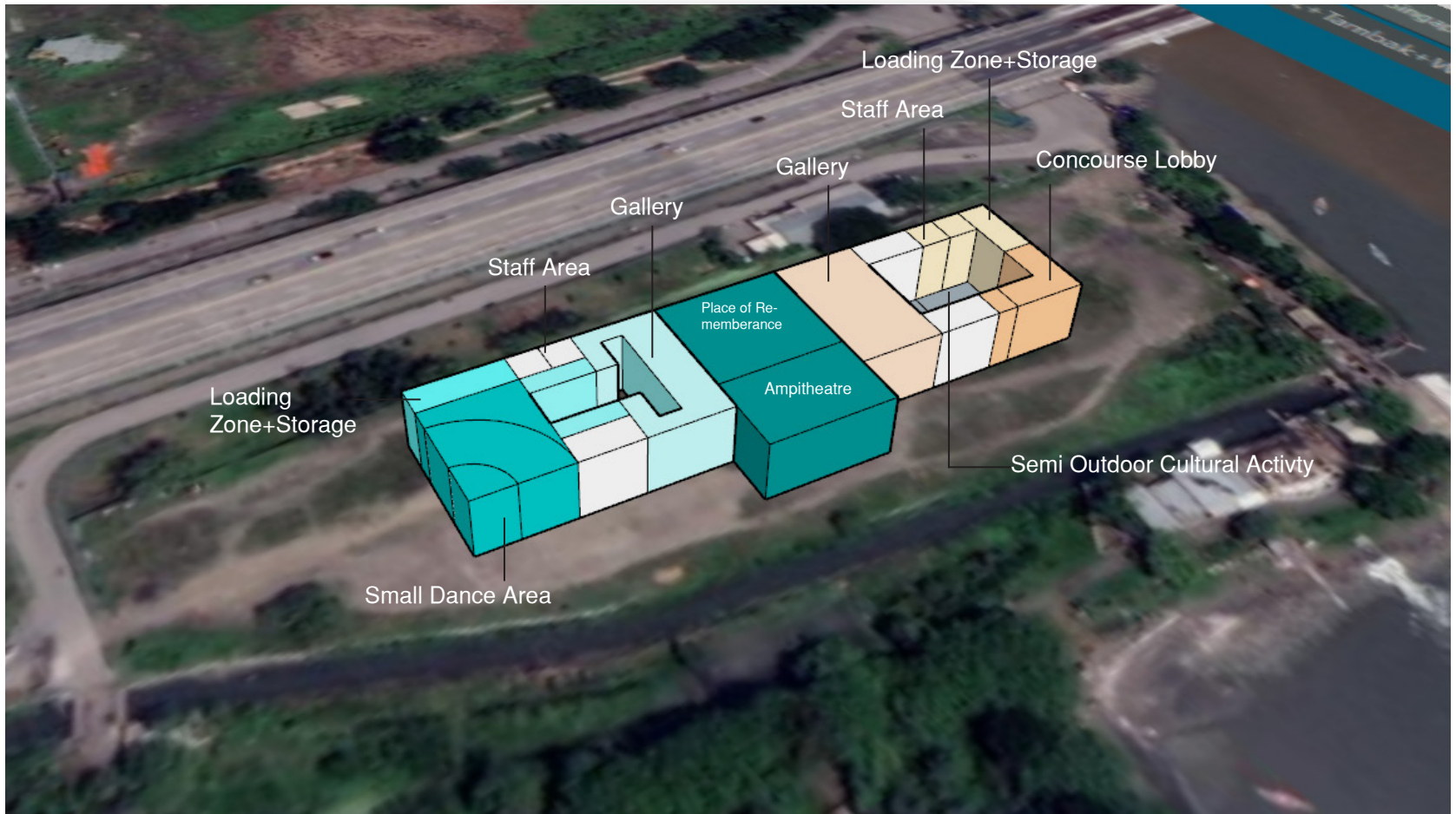
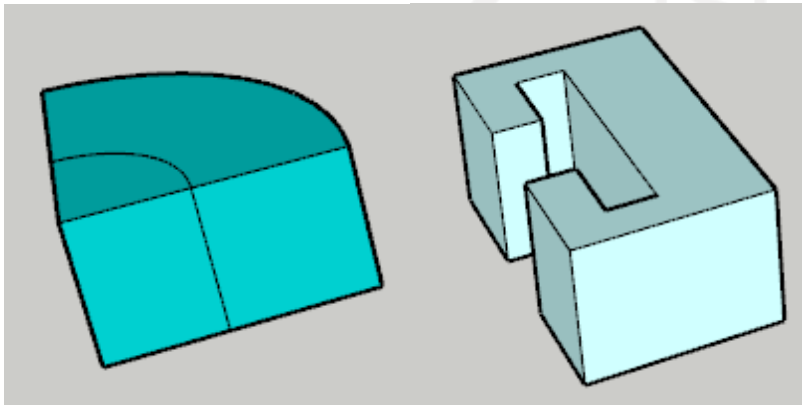
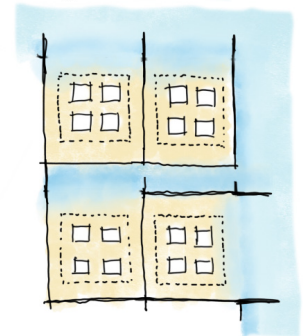
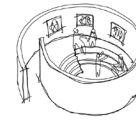
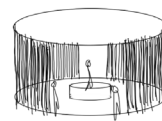
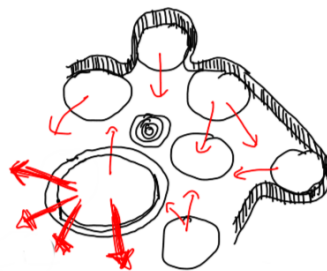
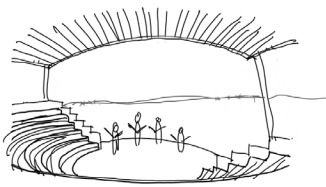
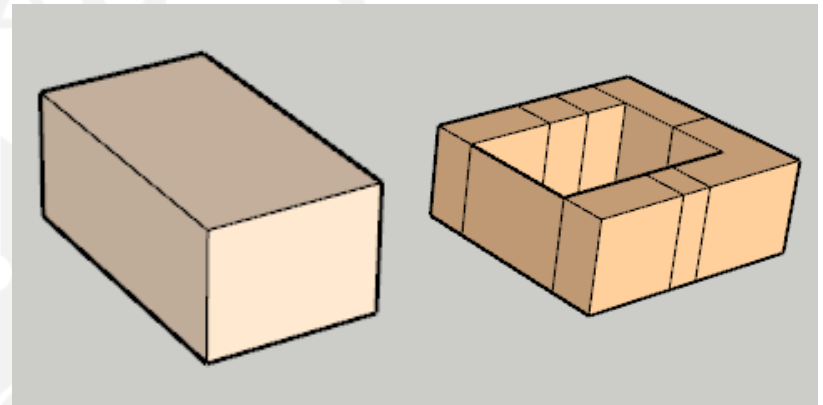


Figure 95. Design Alternatives  
Source: Author, 2022

## Javanese Zone



## Madurese Zone



The small dance area is placed on the side of the building to add to the impression of openness and openness, with clear openings

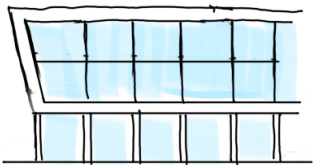
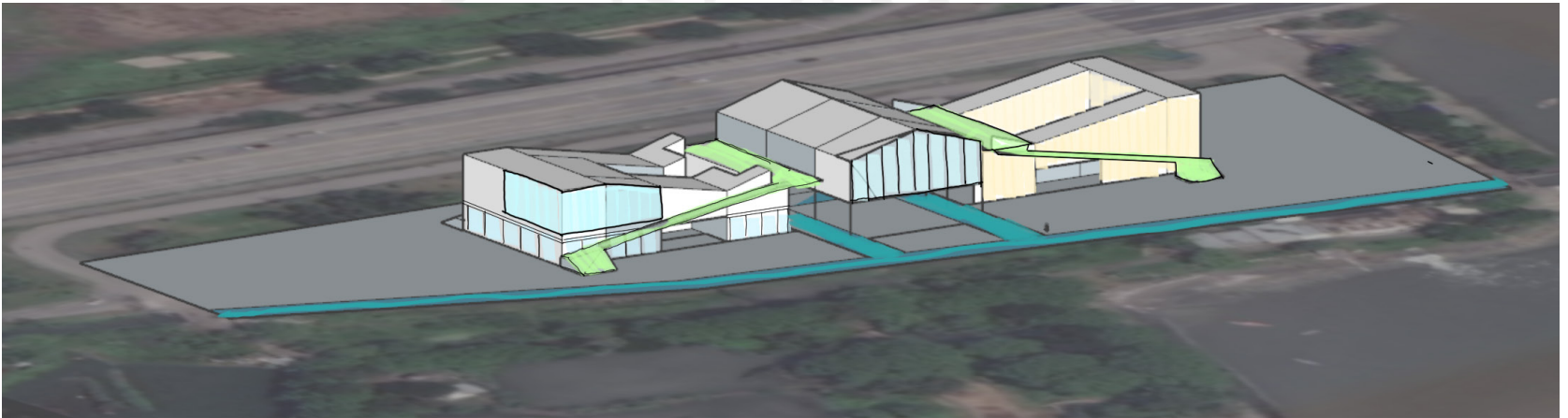
The gallery is faced with an indoor garden adding to the impression of openness

The gallery area tends to be closed by taking advantage of the individualistic characteristics of the artwork display layout

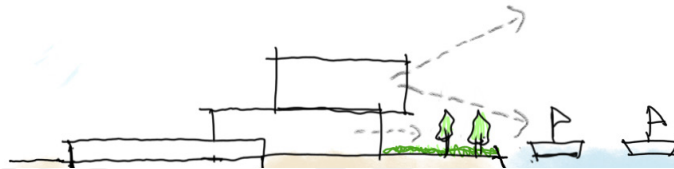
The semi-outdoor tends to be placed on the inside of the building, adding to the impression of being closed, and individualistic, while emphasizing the concept of "place of opportunity".

Figure 96. Design Alternatives

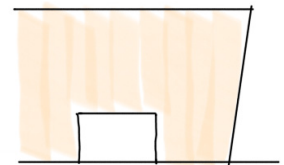
Source: Author, 2022



The opening and the first impression of the Javanese zone building, emphasizes the rise, which describes openness, and transparency.

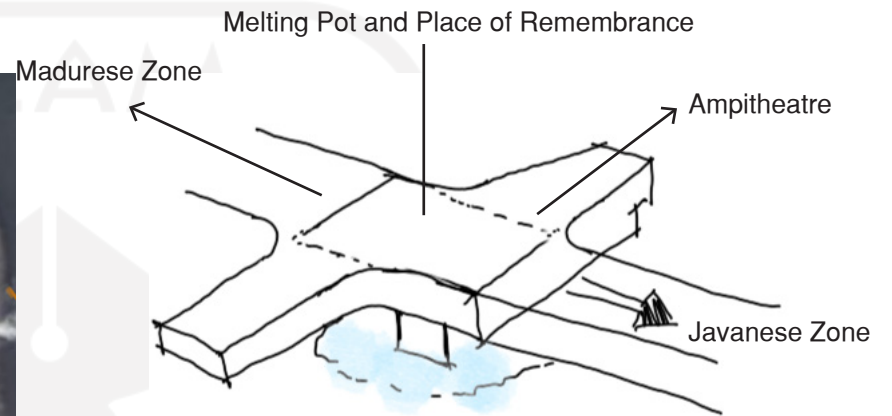
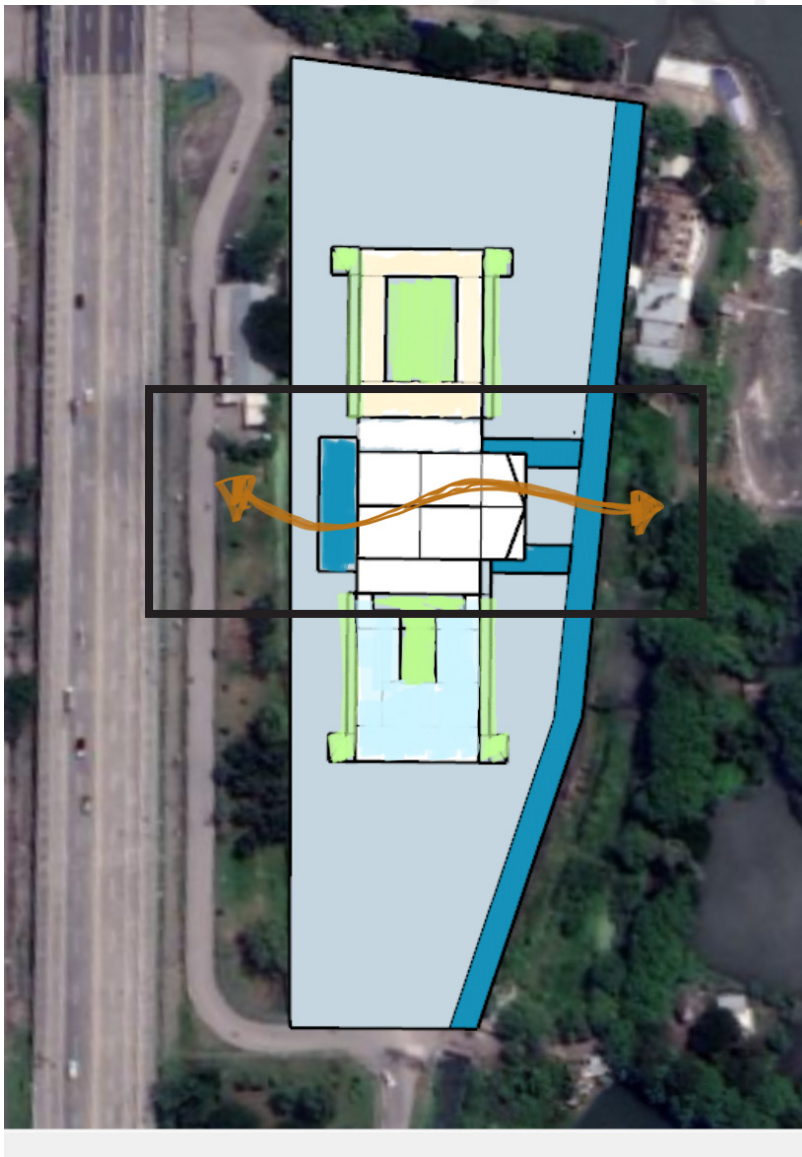


The use of two floors on the side of the building, impresses the difference in strata and what each visitor gets on each floor.



The opening and the first impression of the Madurese zone, emphasizes a closed mass with minimal openings, which illustrates the closeness.

Figure 97. Design Alternatives  
Source: Author, 2022



Pendalungan zone, also utilizes water that can be put into the site, as one of the design requirements of the waterfront, also with the concept of meeting two cultures

The openness on the left and right sides of the building, impressing the blend of cultures, and facilitates circulation and the existence of an urban room

The green area, sloping roof terrace, as one of the waterfront development requirements, which leads to the restaurant on the second floor, which prioritizes sight seeing, and a place to enjoy the view

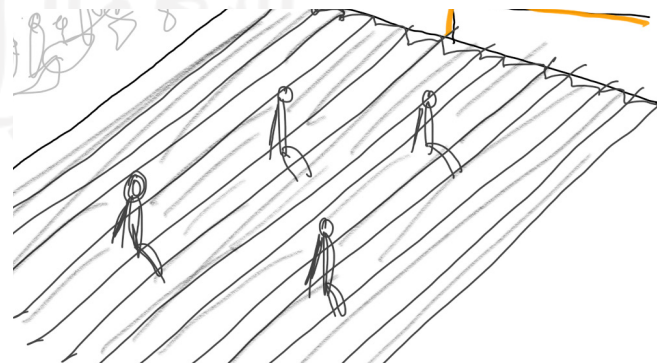
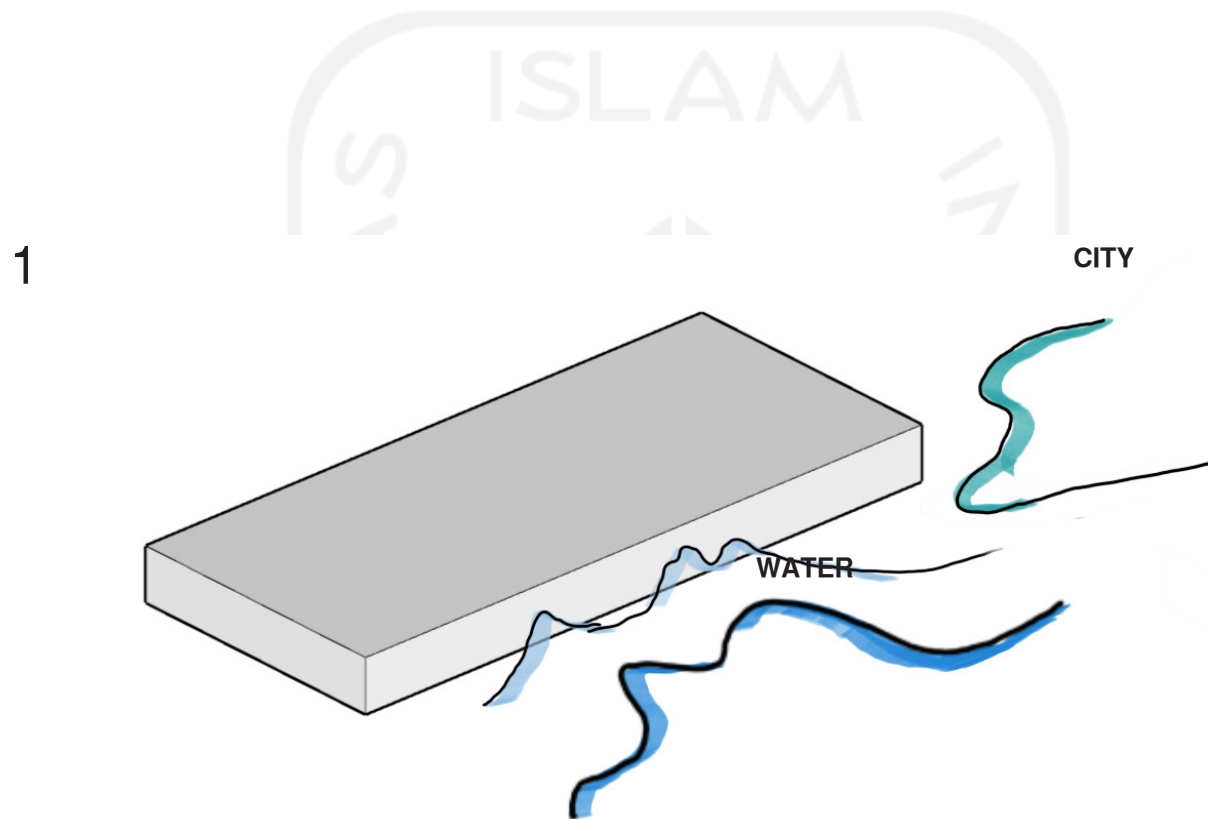


Figure 98. Design Alternatives

Source: Author, 2022

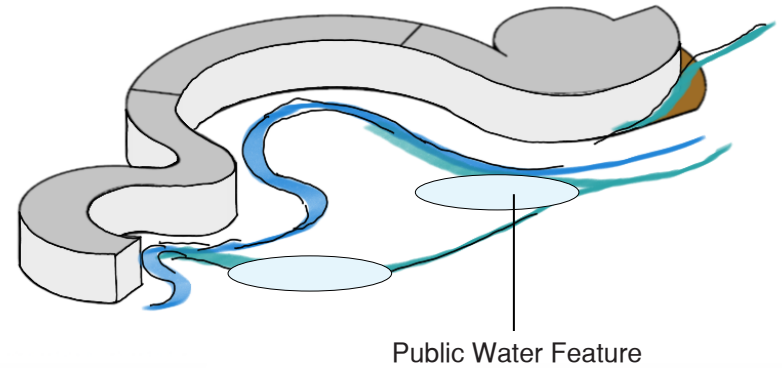
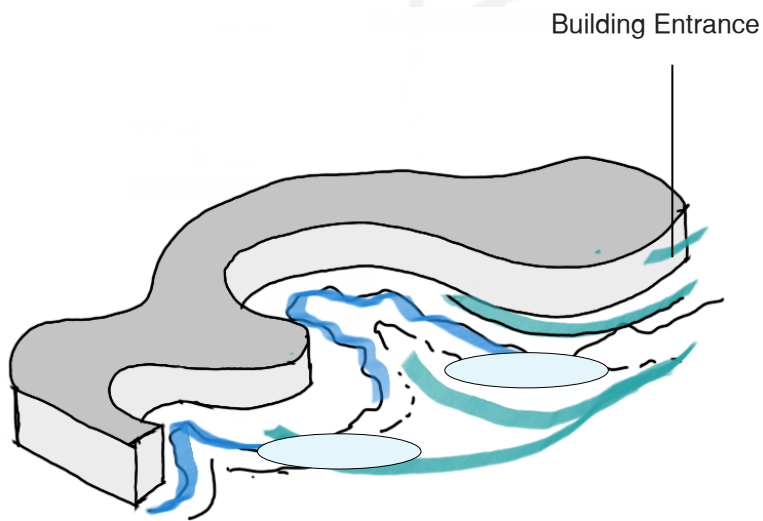
## Key Design Concept and Form Transformation



*Figure 99. Key Design Concept and Form Transformation*  
*Source: Author, 2022*

The shape of the building sculpted by the tides coming in from the river and people coming in from the city/supposed entrance.

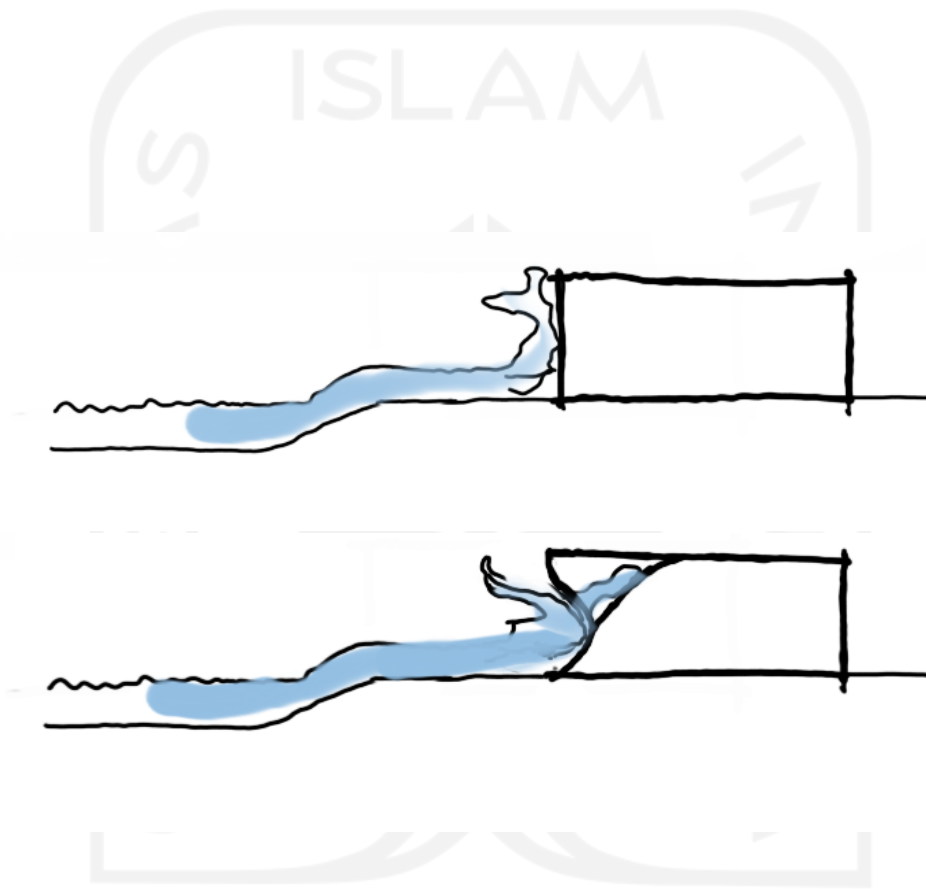
2



The mass of the building is formed in a circular way, with the building entrance facing the supposed site entrance, and the circulation outside of the building continuing the public circulation of waterfront promenade

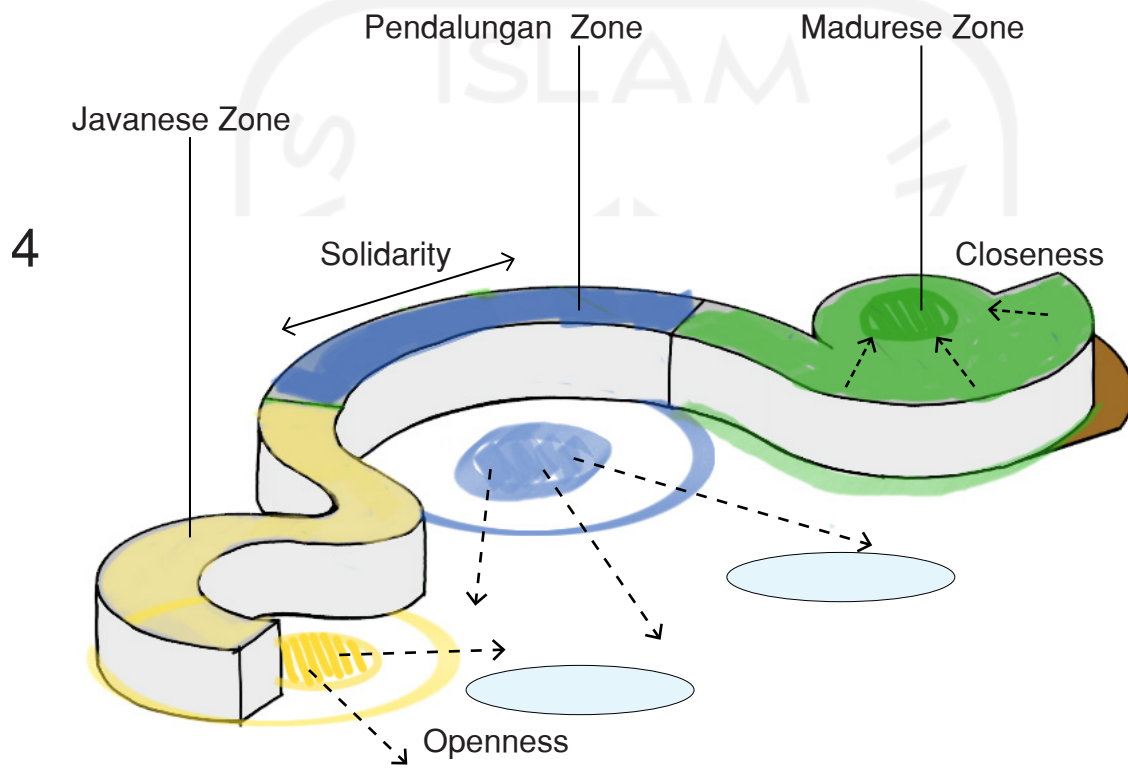
As a representation of waves on the coast, it will leave water debris, which then turns into a public water feature.

3



Not only with the floor plan, the mass form vertically is also formed and inspired like being hit by the waves

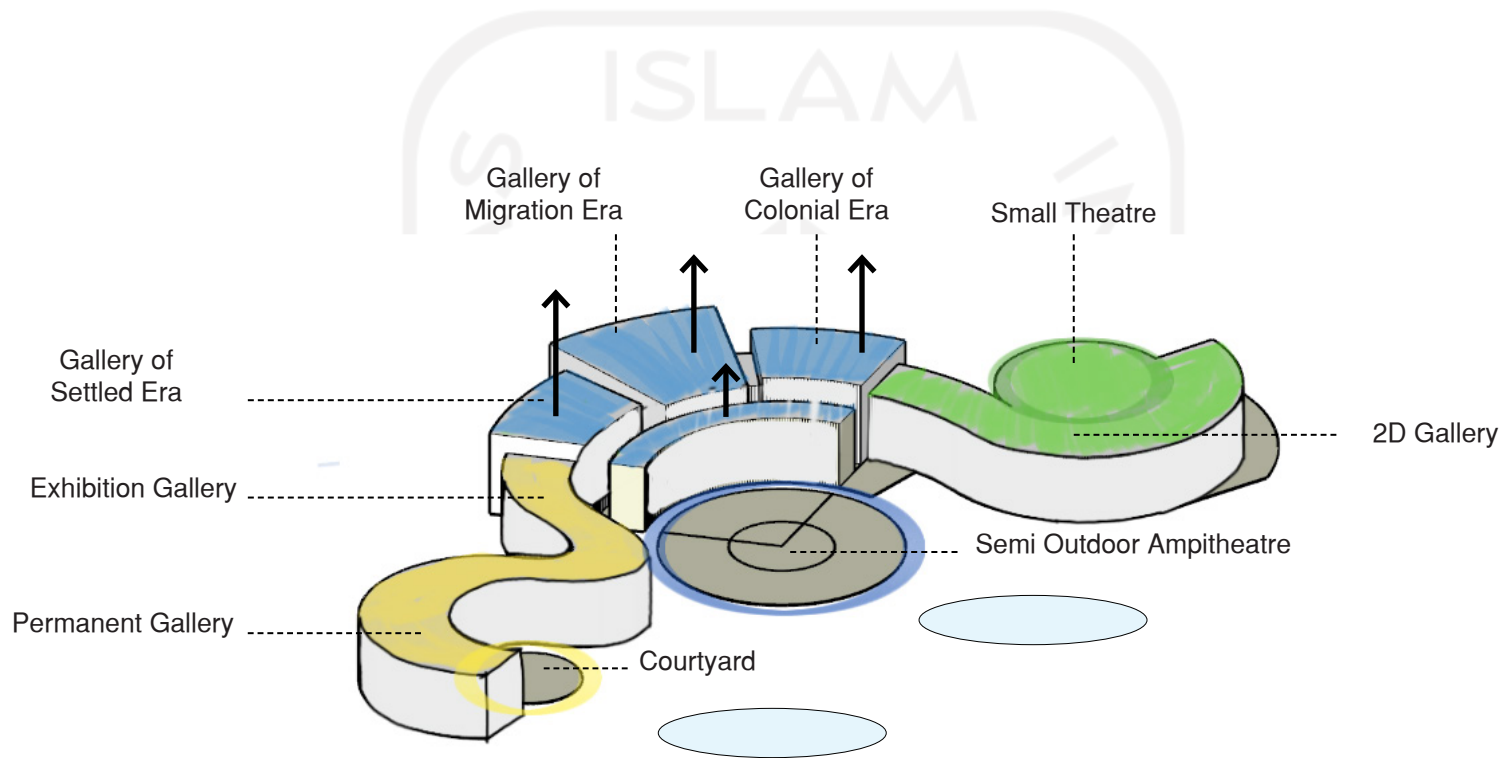




The culture zones are located based on the geographical conditions of Java and Madura, and the Pandalungan in the middle.

The mass and opening orientation to the outside in each zone, adjusting to the characteristics of each culture.

5

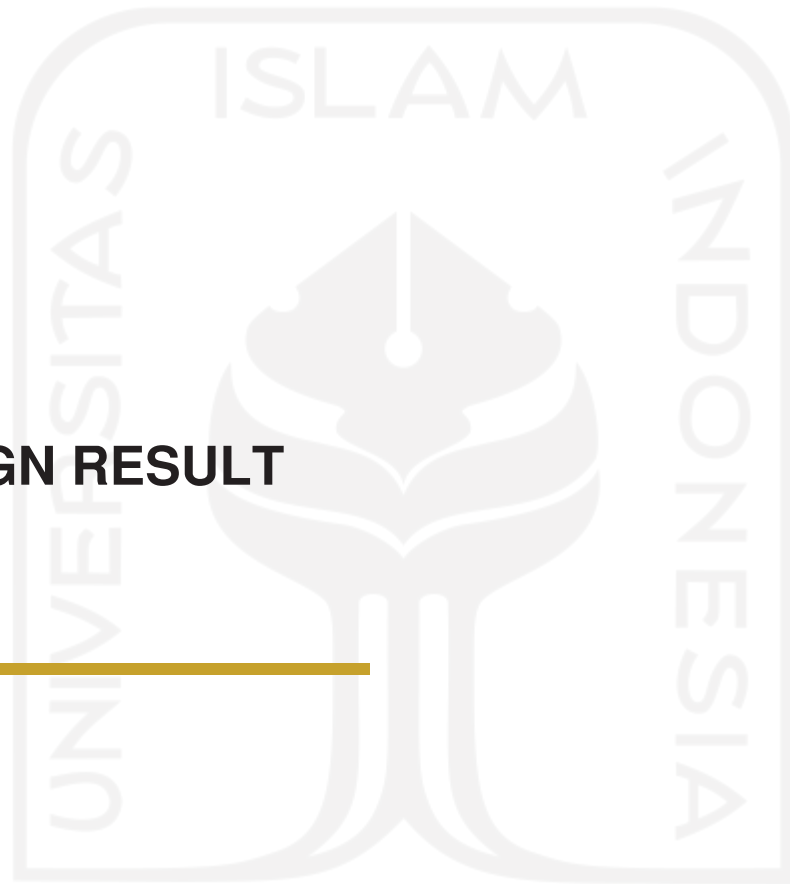


To emphasize the impression of Pandalungan culture as a hybridization, the mass that is already located in the middle is made to lift and extend in both directions, adding to the impression of blending in both directions.

**DESIGN RESULT**

**04**

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الجامعة الإسلامية  
الاستد بالاندو

## Property Size BCR, FAR, GCR

**Site Area:**  
**23,347 m<sup>2</sup>**

**Building Area:**  
**6,472 m<sup>2</sup>**

**Building Coverage Ratio**  
Building BCR 27%  
Local BCR Max 50-60%

**Floor Area Ratio**  
Building FAR 0,27  
Local FAR 2

**Green Coverage Ratio**  
Building GCR 29%  
Local GCR Min 10%

This building is designed according to local building regulations, which are in accordance with the Building Coverage Ratio (BCR), Floor Area Ratio (FAR) and Green Coverage Ratio (GCR). In the design, all of the BCR, FAR, and GCR of the building are still below the minimum and maximum limits of the predetermined local BCR, FAR, and GCR.

The large amount of open space around the building is intended to help with adding greenery to the surrounding community, and maximizing experience and direct views towards the coast.

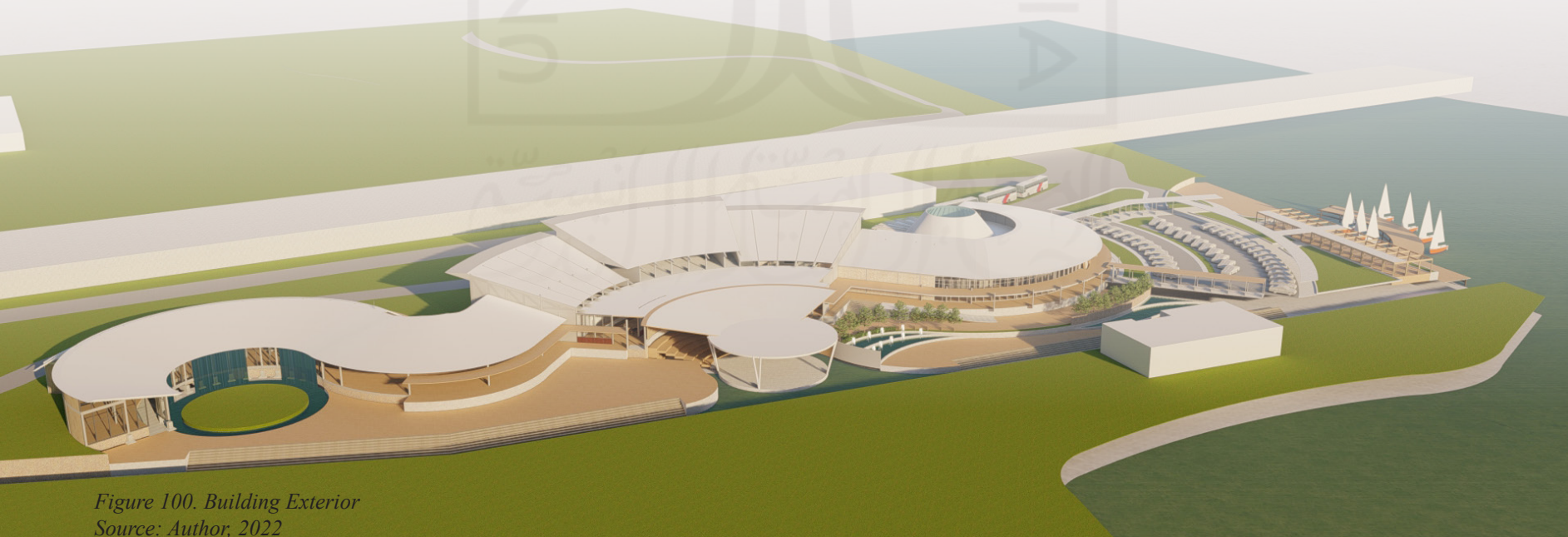


Figure 100. Building Exterior  
Source: Author, 2022

Function	Space	Requirement	Capacity	Quantity	Required Area (sqm)	Designed Area (sqm)
Cultural Madurese Zone	Waiting Room	4 sqm/person	50	1	200	235.9
	Information Center	2 sqm/person	3	1	6	23
	Introductory Space	4 sqm/person	50	1	200	274.2
	Performance Stage	4 sqm/person	11-30	1	120	254.5
	Sitting Place	0.5 sqm/person	100	1	50	116
	Paintings Gallery	4 sqm/person	20	1	80	452
	Total				656	1355.6

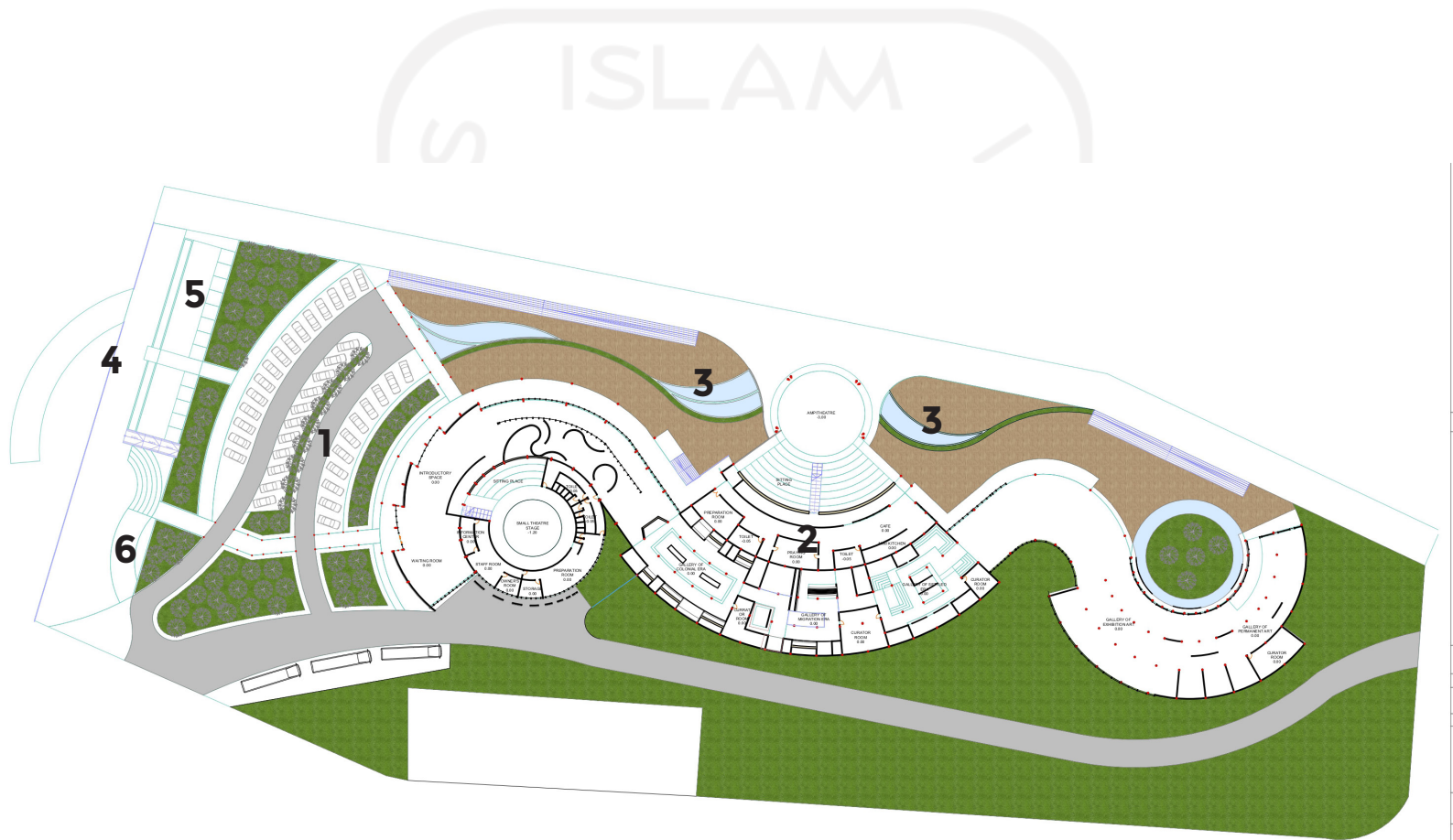
Function	Space	Requirement	Capacity	Quantity	Total Area (sqm)	Designed Area (sqm)
Cultural Pandalungan Zone	Gallery of Colonial Era	4 sqm/person	30-40	1	160	396
	Gallery of Migration Era	4 sqm/person	30-40	1	160	403
	Gallery of Settled Era	4 sqm/person	30-40	1	160	397.3
	Ampitheatre Lobby	4 sqm/person	30-40	1	160	274.2
	Performance Stage	4 sqm/person	11-30	1	120	254.5
	Sitting Place	0.5 sqm/person	300	1	150	298
	Total				910	2023

Function	Space	Requirement	Capacity	Quantity	Required Area (sqm)	Designed Area (sqm)
Cultural Javanese Zone	Exhibition Gallery	4 sqm/person	30-40	1	160	797
	Permanent Gallery	4 sqm/person	30-40	1	160	571
	Total				320	1368

Function	Space	Requirement	Capacity	Quantity	Total Area (sqm)	Designed Area (sqm)
Managerial Service	Owner Room	4 sqm/person	1	1	4	15.7
	Staff Room	4 sqm/person	10-15	1	60	64.4
	Toilet	3 sqm/person	1	22	66	135
	Preparation Room	4 sqm/person	11-15	2	120	144.3
	Praying Room	2 sqm/person	20	1	40	55.1
	Storage	6 sqm/equipment	5	3	90	110
	Cafeteria	4 sqm/person	30	1	120	134.3
	Currator Room	4 sqm/person	10	4	160	215.6
	Total				860	874.4

Function	Space	Standard	Capacity	Quantity	Total Area (sqm)	Designed Area (sqm)
Parking Space	Car Parking	12.5 sqm	40	1	500	896.5
	Motorcycle Parking	1.5 sqm	30	1	45	126
	Bus Parking	16.5 sqm	3	1	49.5	226.9
	Total				594.5	1249.4

## The Overall Cultural Waterfront Experience



On the entire site plan, visitors can enjoy various experiences (cultural experiences and waterfront experiences) which can be enjoyed not only in the main cultural center building, but also in the area around the building, such as Public Water Feature, Cultural Promenade, and Site Viewing Places.

1. Parking Area
2. Cultural Center
3. Public Water Feature
4. Cultural Promenade
5. Outdoor Culinary Area
6. Site Viewing Place

Site Plan  
Scale 1:1000

Figure 101. Site Plan

Source: Author, 2022

## Site Development Exploded Axonometri

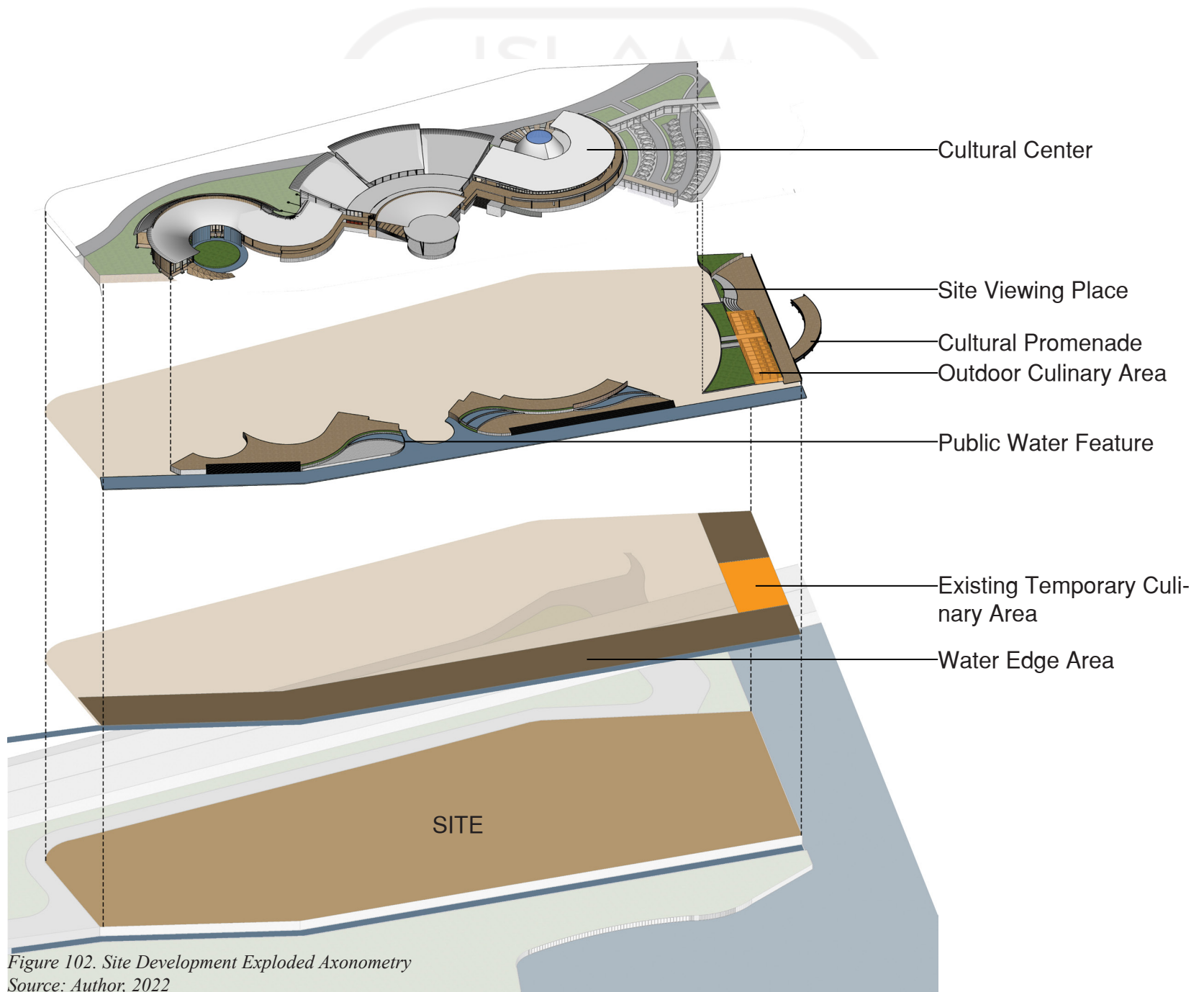


Figure 102. Site Development Exploded Axonometry  
Source: Author, 2022



## Cultural Center with Dedicated Experience and Theme

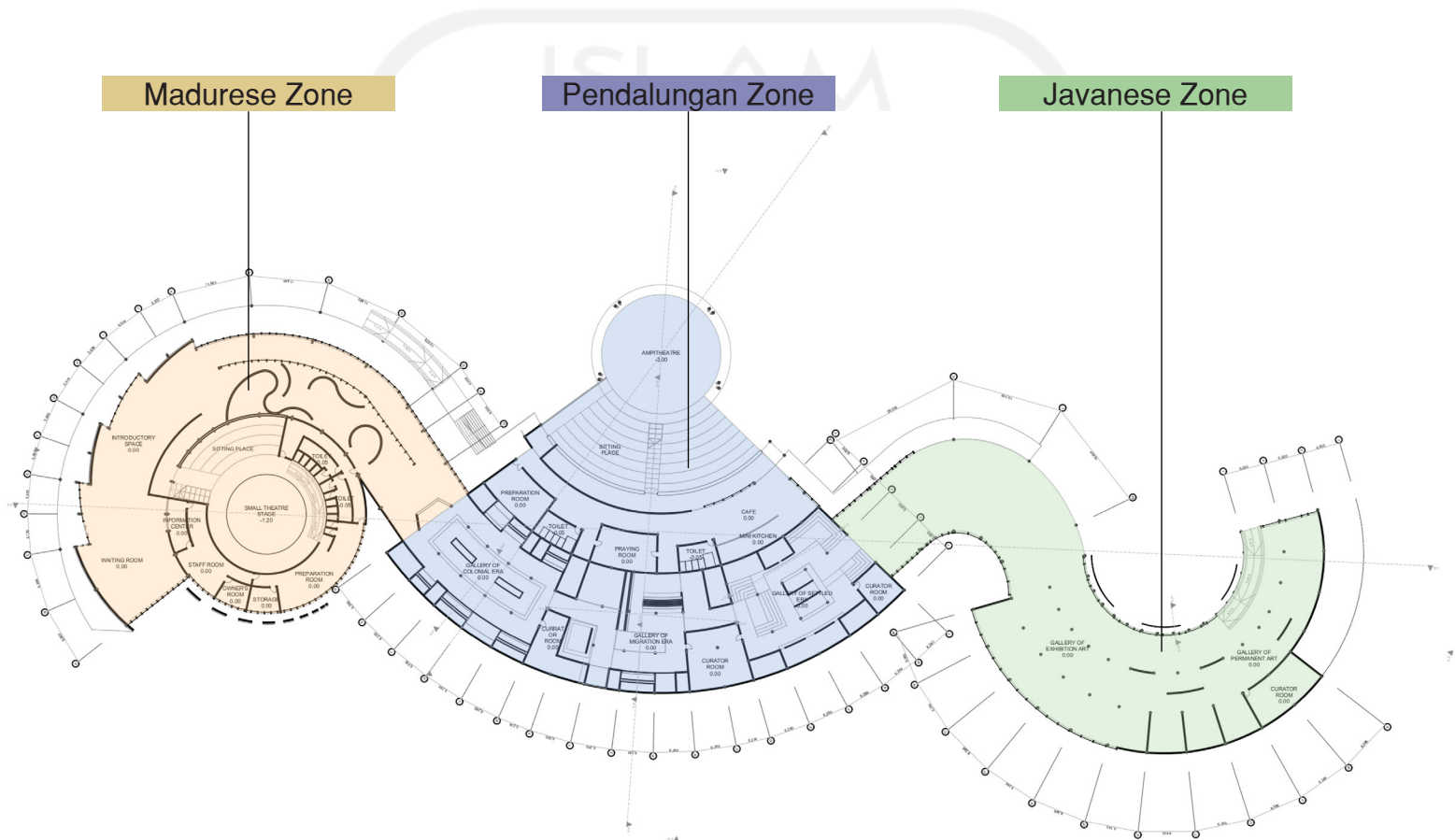


Figure 103. Ground Floor Plan  
Source: Author, 2022

Ground Floor Plan  
Scale 1:1000

The cultural center as a whole is divided into three zones, namely; Madurese Zone, Pandalungan Zone, and Javanese Zone. Each zone provides a different cultural experience with a special theme based on the characteristics of each culture.

## Various Zones with Various Themes

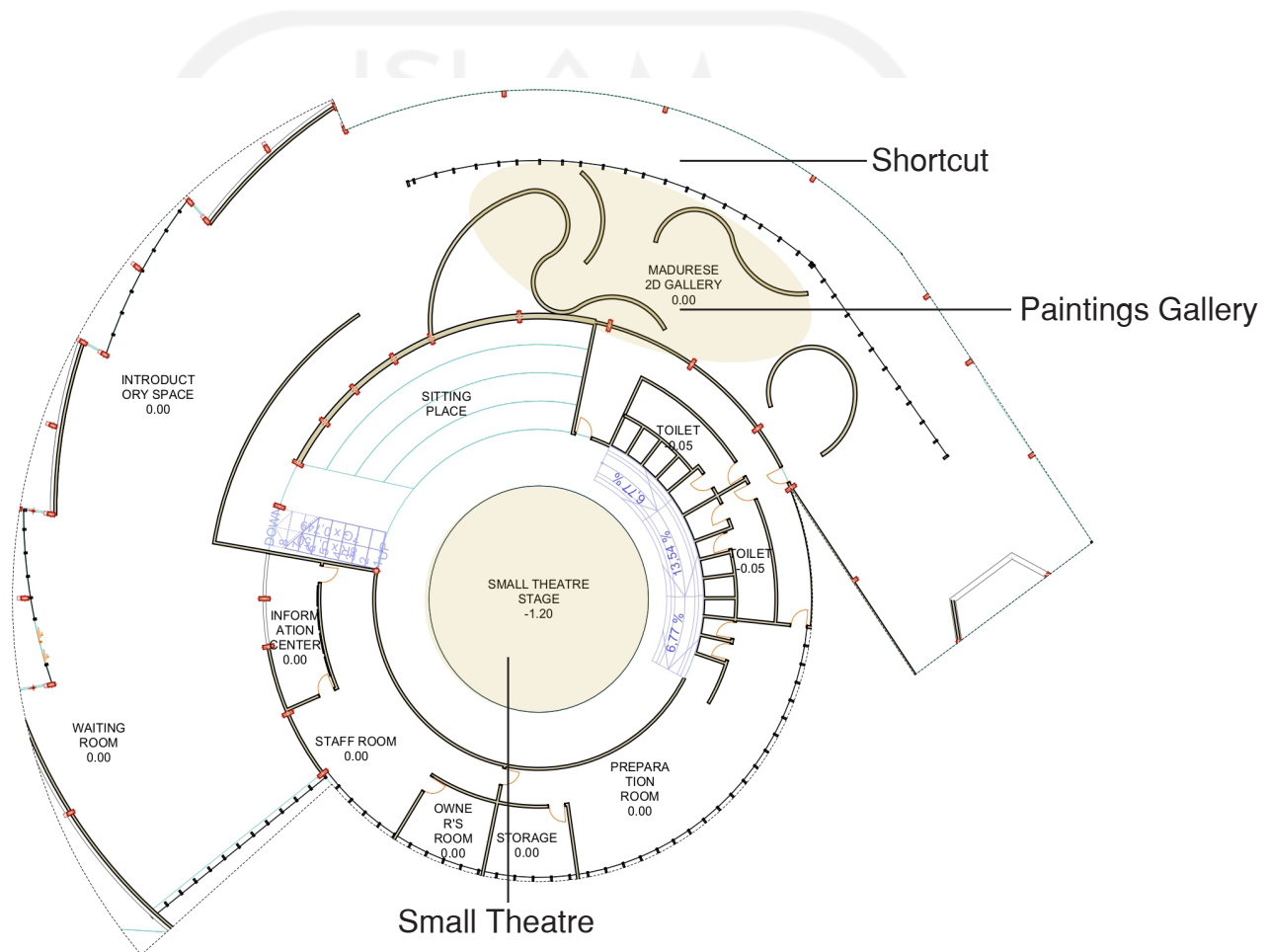


Figure 104. Madurese Zone Partial Plan  
Source: Author, 2022

Madurese Zone Partial Plan  
Scale 1:100

Small theater area which is located some distance in the building and is covered with walls, entered to impress Madurese people who tend to be **individualistic**.

The layout of the paintings gallery also takes the same concept. The ceilings in this gallery tend to be high, indicating **the outspoken way of speaking** of Madurese.

## Various Zones with Various Themes

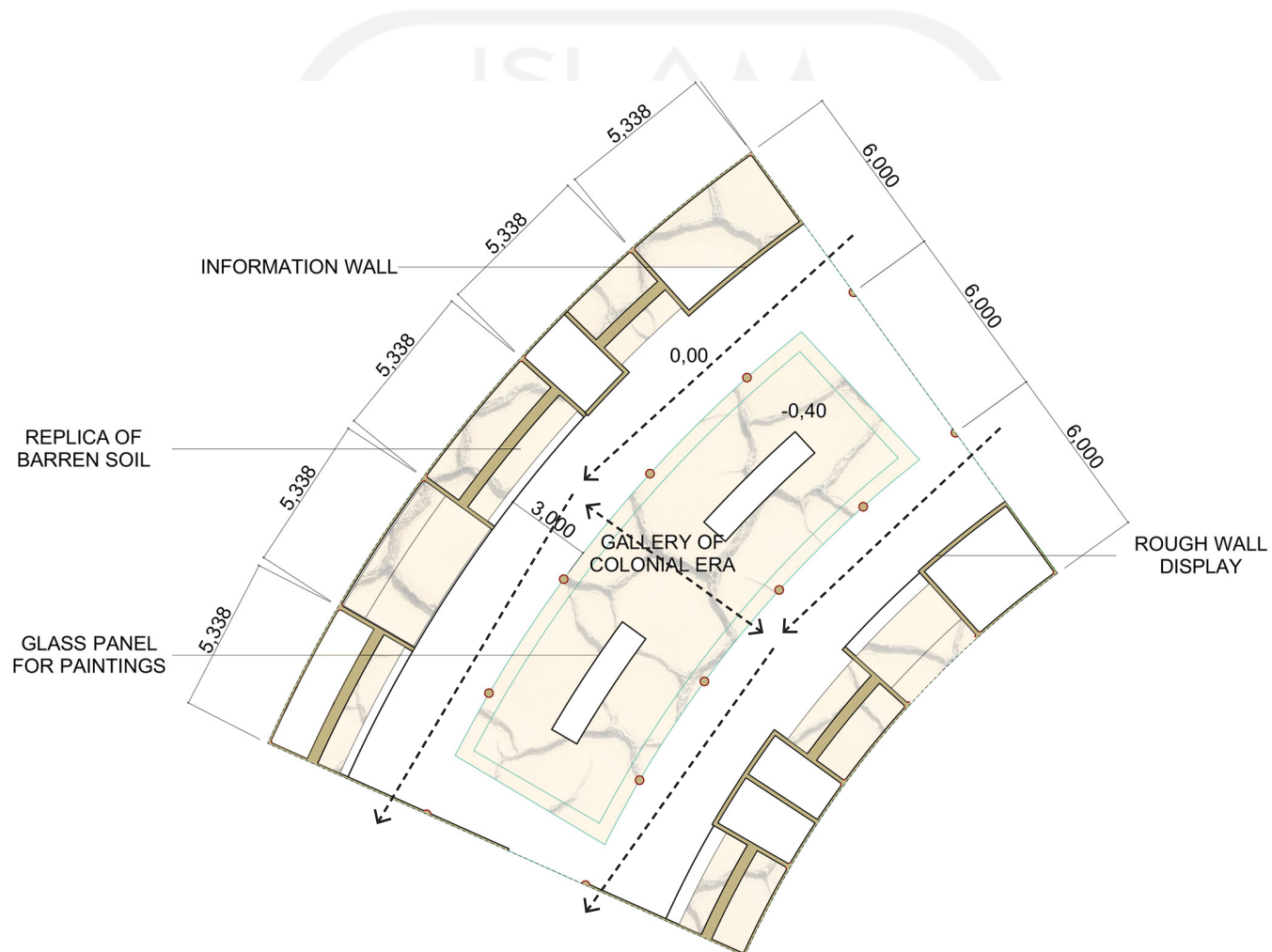


Figure 105. Gallery of Colonial Era Partial Plan  
Source: Author, 2022

Gallery of Colonial Era  
Scale 1:100

The Gallery of Colonial Era depicting the Madura condition during that the time before the Madurese went to migrate to Java.

The circulation created in this part of the gallery is flexible, with the intention of giving the impression of farmers monitoring their arid agriculture. The replica of the terracing land that is decreasing and arid also shows that at that time they were difficult to produce food.

## Various Zones with Various Themes

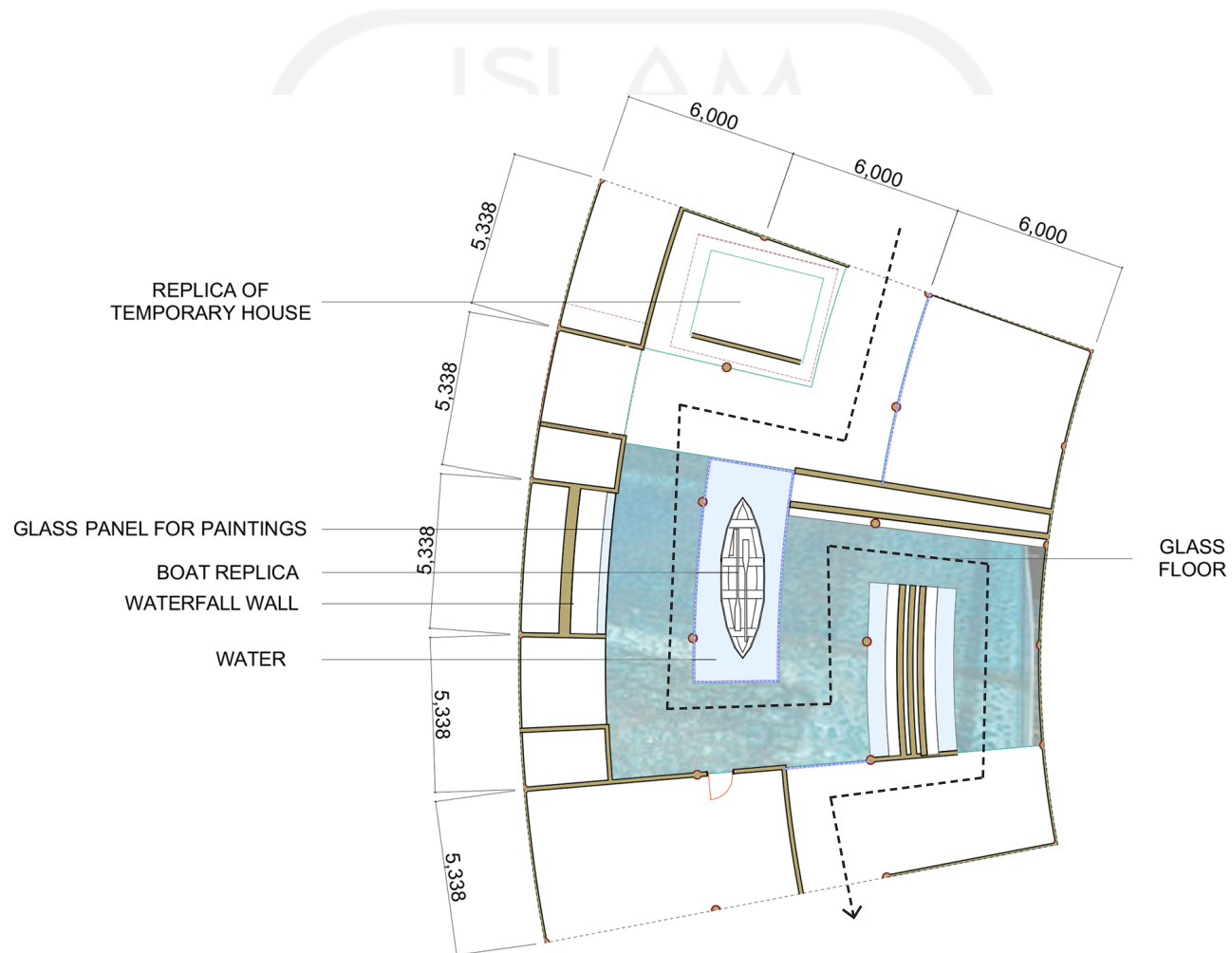


Figure 106. Gallery of Migration Era Partial Plan  
Source: Author, 2022

Gallery of Settled Era  
Scale 1:100

The Gallery of Migration Era depicting the arts and story of Madurese people as they go migration using boat to the Java Island.

The circulation in this part of the gallery is only one-way, with the intention of giving the impression that we cannot do much when we are on a boat.

## Various Zones with Various Themes



Figure 107. Gallery of Settled Era Partial Plan  
Source: Author, 2022

Gallery of Settled Era  
Scale 1:100

The Gallery of Settled Era depicting the arts and story of fertility condition of Java Island, as one of the reason why Madurese people tend to migrate to Java due to famine condition and soil condition to be planted.

The circulation created in this section of the gallery is made more flexible, with the intention of giving the impression of agriculture farmers who are monitoring their agriculture.

## Various Zones with Various Themes

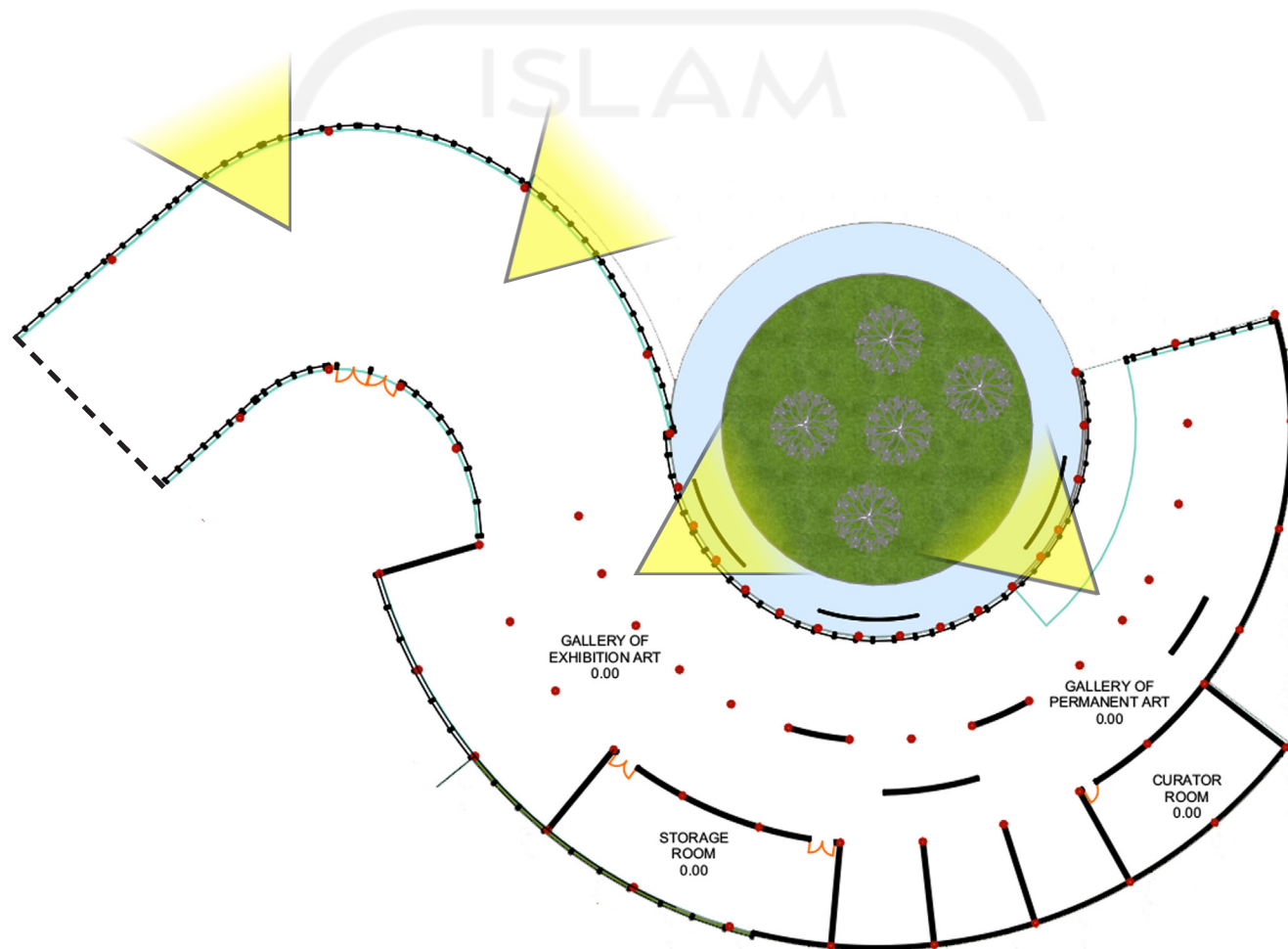


Figure 108. Exhibition and Permanent Gallery Partial Plan  
Source: Author, 2022

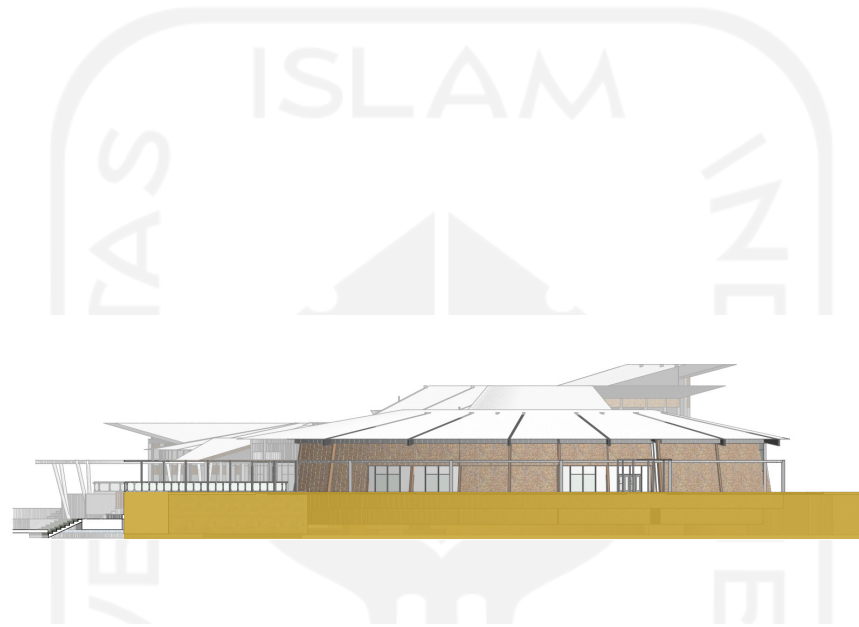
Exhibition and Permanent Gallery Partial Plan  
Scale 1:100

The concept of Exhibition gallery and Permanent gallery is based on the characteristics of Javanese people, namely, being mutually open and communal, so the layout of the space designed tends to have no boundaries that limit the two galleries.

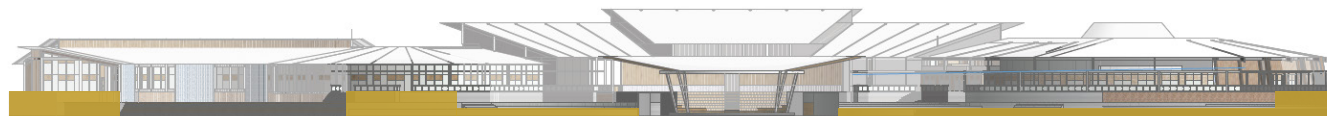
The two galleries also directly face the courtyard with the additional feature of a waterfall, giving the impression that the land of Java is more fertile.

## Elevation

### North Elevation and East Elevation



North Elevation  
Scale 1:300

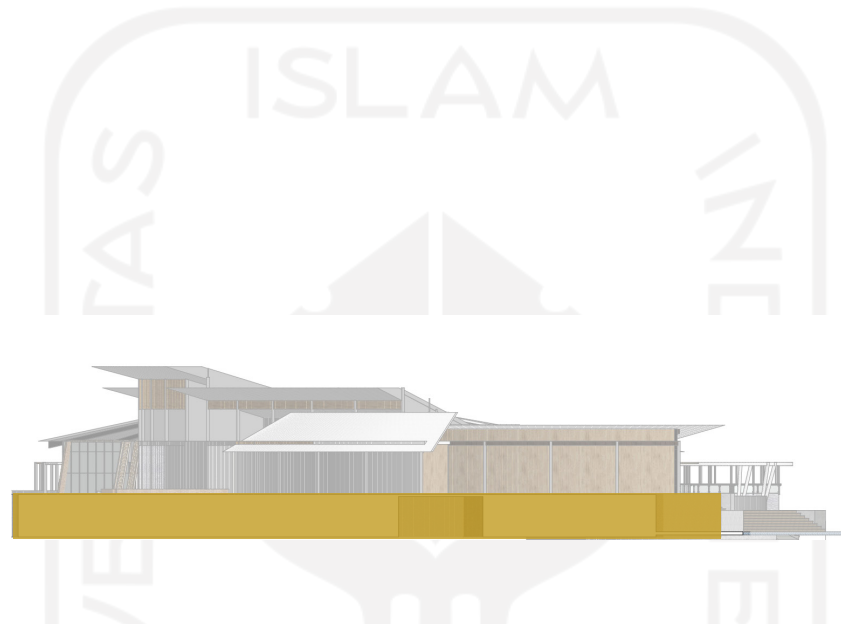


East Elevation  
Scale 1:500

Figure 109. North and East Elevation  
Source: Author, 2022

## Elevation

### South Elevation and West Elevation



South Elevation  
Scale 1:300



West Elevation  
Scale 1:500

Figure 110. South and West Elevation  
Source: Author, 2022



## Building Section Section A-A and B-B

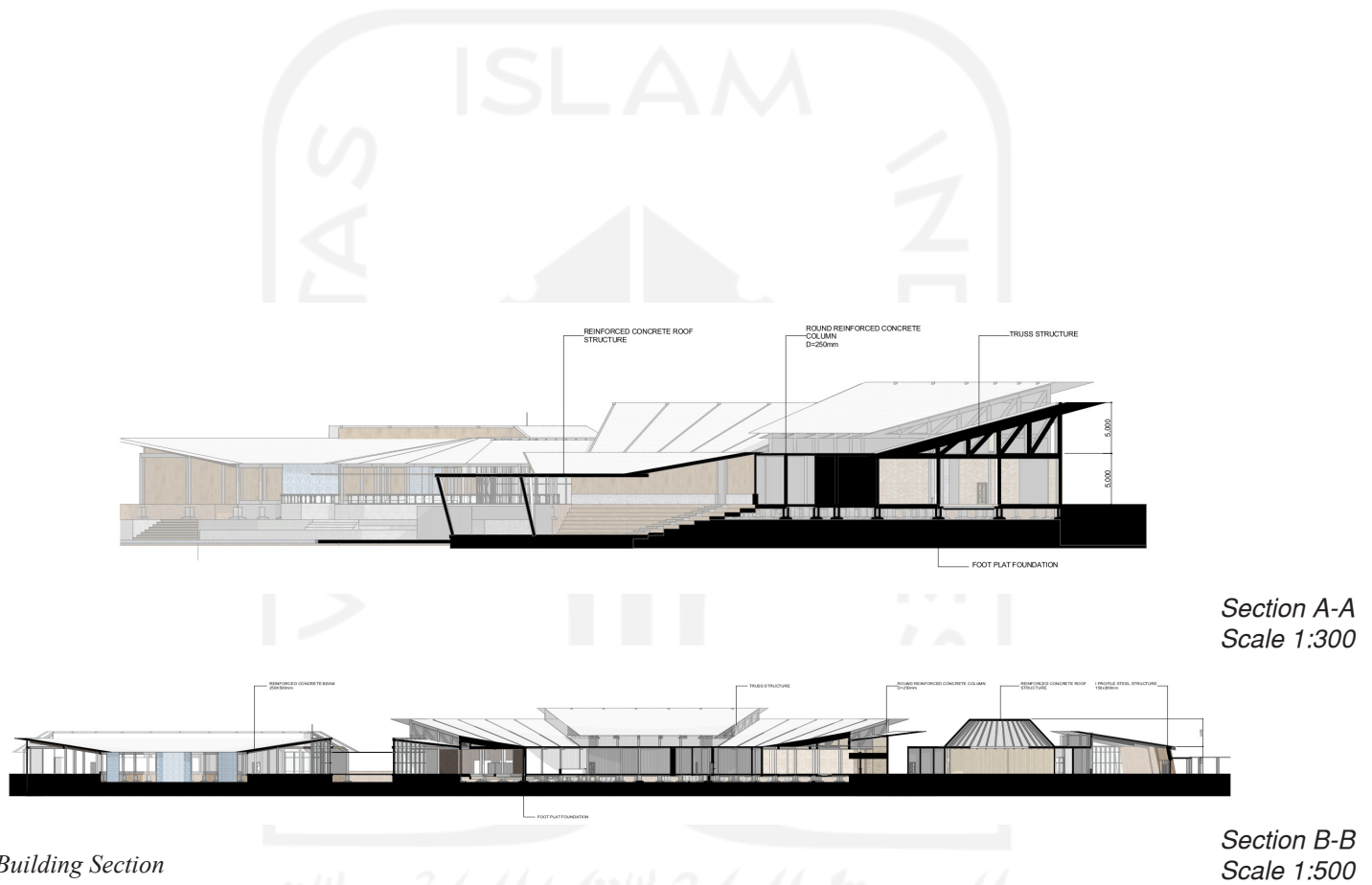


Figure 111. Building Section  
Source: Author, 2022

## Detail

### Water System in Gallery

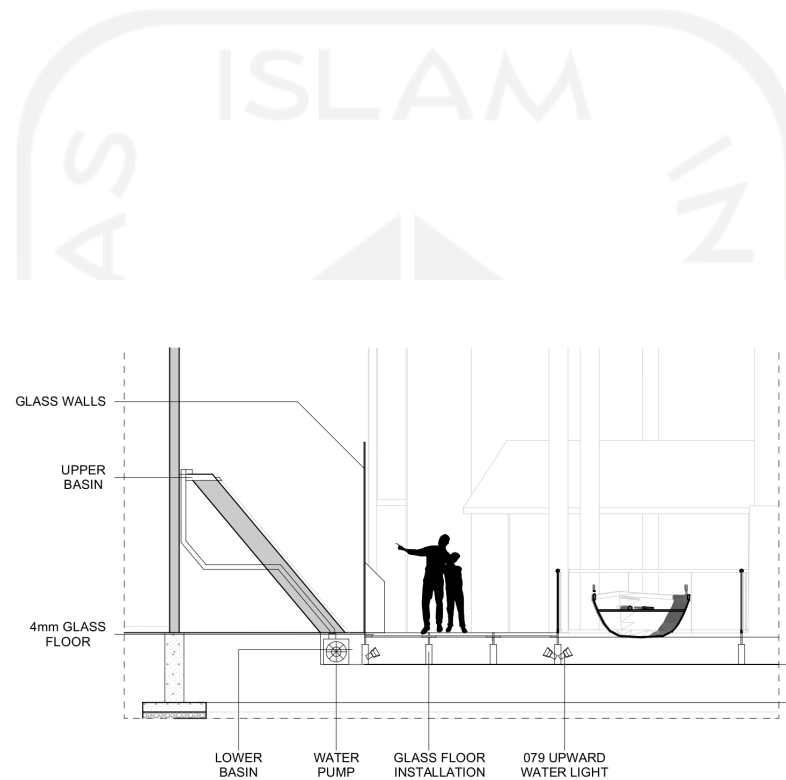


Figure 112. Gallery of Migration Era Water System Detail  
Source: Author, 2022

Water System Detail  
Scale 1:50

The water feature for the tilted water wall is rotated using a water pump. And to add to the impression of being on a boat in the middle of the ocean, lighting is also installed under the glass floor, so that visitors will more clearly see the water under their feet.

## Detail

### Water Feature Detail

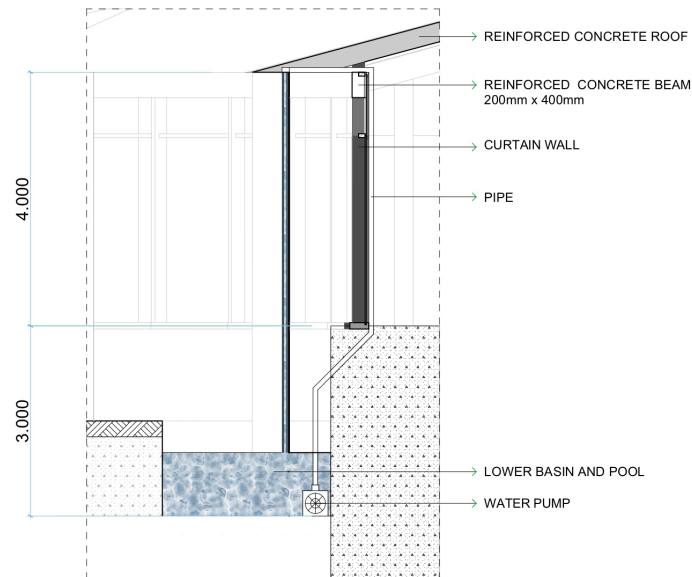
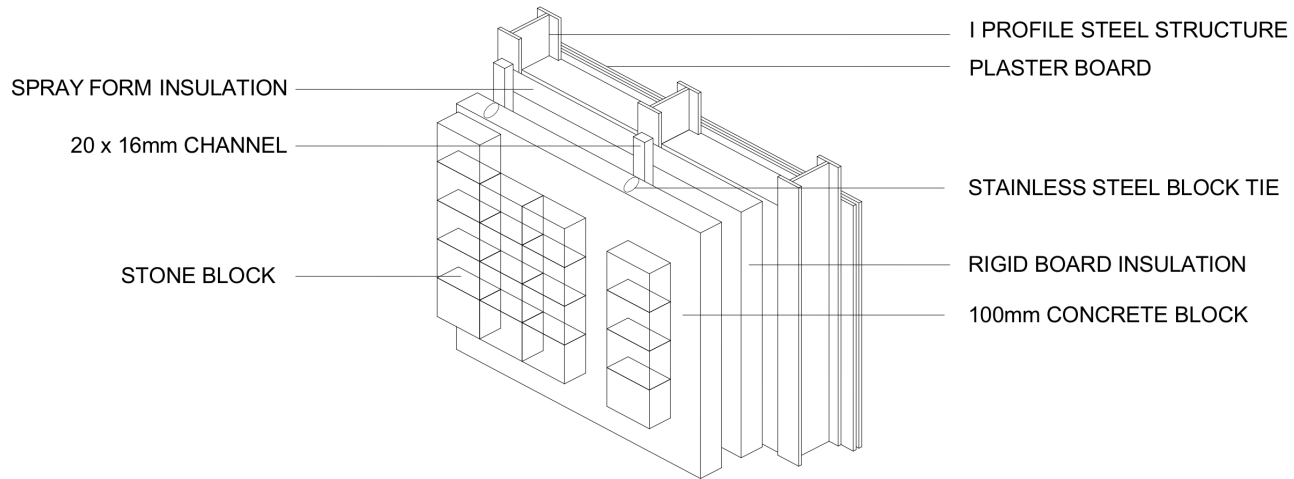


Figure 113. Gallery of Migration Era Water System Detail  
Source: Author, 2022

Water Feature Detail  
Scale 1:50

The use of water features in the exhibition and permanent gallery (Javanese Zone) gives the impression of a more fertile Java land and also adds a sense of place to the waterfront by bringing water into land.

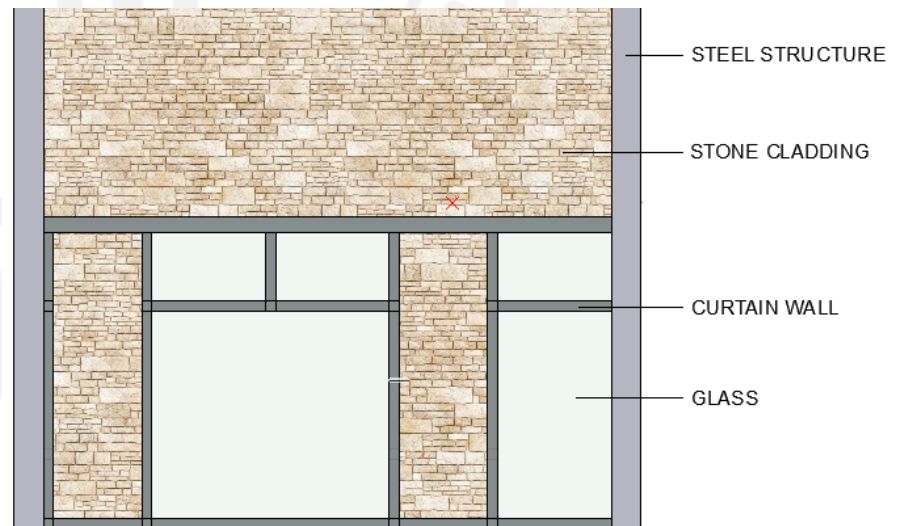
## Detail Building Envelope



The use of a rough stone facade at the entrance illustrates the characteristics of Madurese who tend to be rough (visitors will enter the Madurase zone first).

The use of minimal openings describes the characteristics of Madurese who tend to be non-communal and individualistic

*Building Envelope Detail  
Scale 1:20*

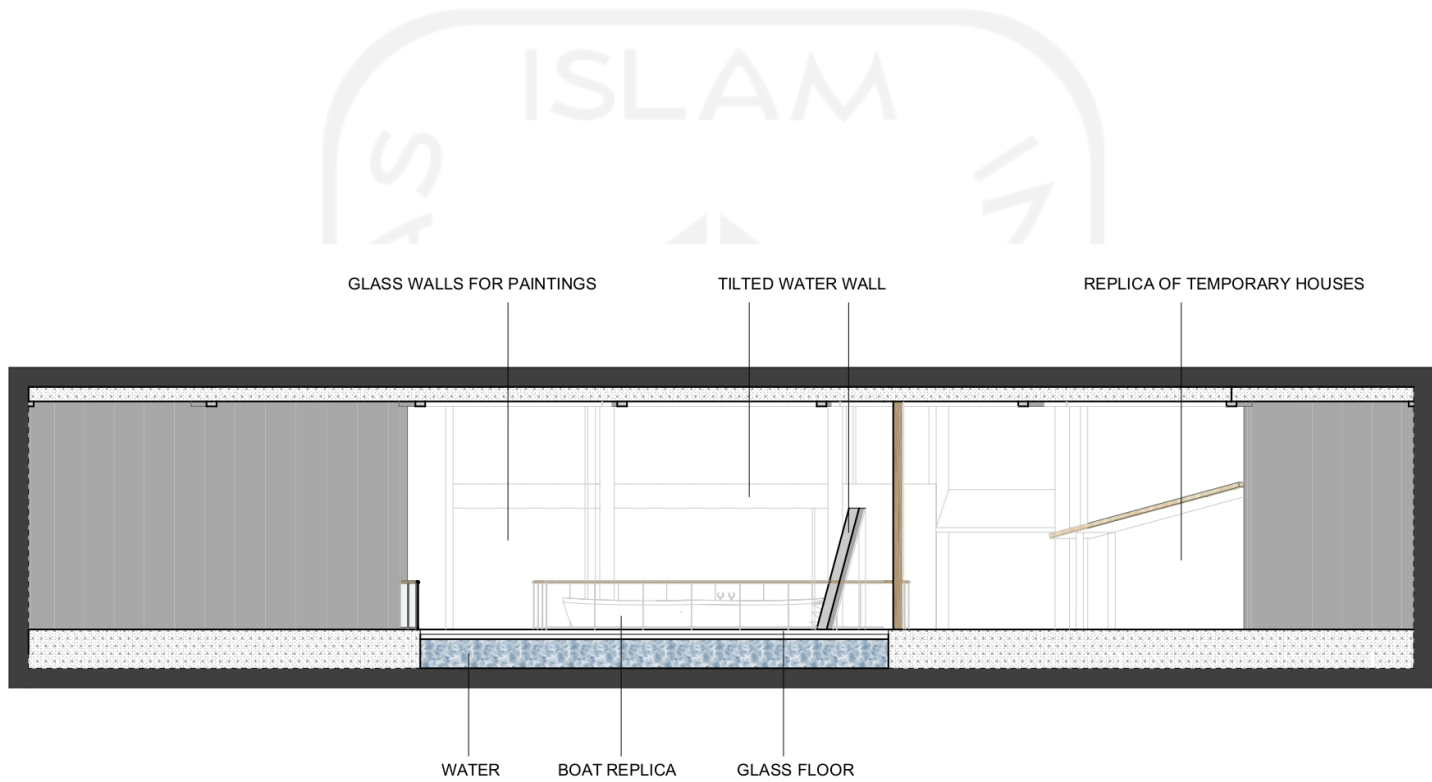


*Figure 114. Building Envelope Detail  
Source: Author, 2022*

*Building Envelope Detail  
Scale 1:20*

## Detail

### Interior Detail - Gallery of Migration Era



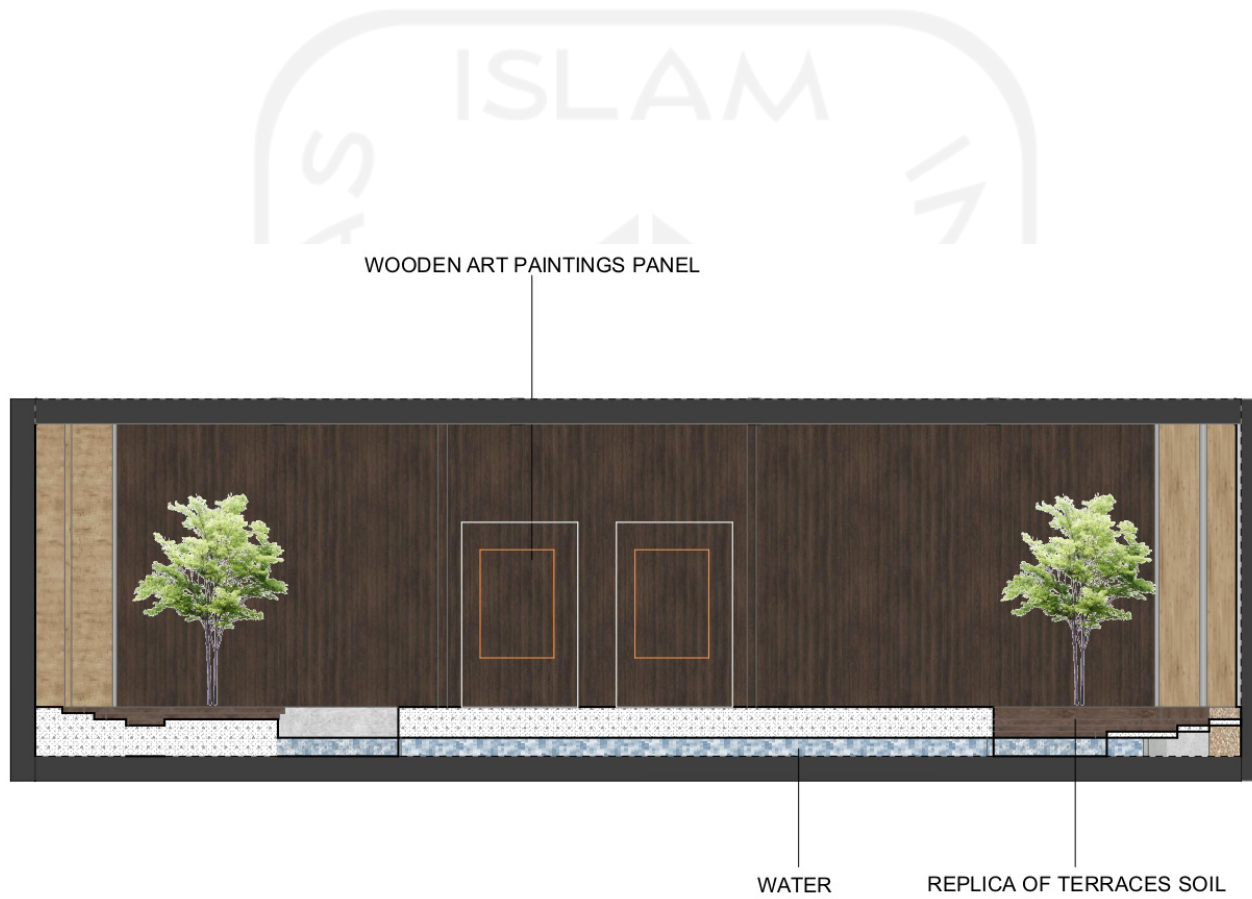
*Figure 115. Gallery of Migration Era Interior Detail*  
*Source: Author, 2022*

*Interior Detail*  
*Scale 1:100*

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## Detail

### Interior Detail - Gallery of Settled Era



*Figure 116. Gallery of Settled Era Interior Detail*  
*Source: Author, 2022*

*Interior Detail*  
*Scale 1:100*

## Madurese Small Theatre An Expressive Dance Performance

The Madurese Small Theater presents indoor dance performances. The atmosphere and spatial form also implies the personality of the Madurese.

Cultural Ambiance with  
Dedicated Experience

Attractive Cul-  
tural Facilities

Users + Space  
Feeling the texture

The circular and hidden shape of the room symbolizes the **individualistic** of Madurese people

The rough stone wall material symbolizes **rudeness in communication** of Madurese People

The contrasting light from above, symbolizing an **expressive personality** of Madurese people



## Madurese Paintings Gallery A Secretive Information

The Madurese Paintings Gallery presents paintings of daily life and cultural activity of Madurese people, as a learning area before going into the history of the creation of Pandalungan Culture.

Cultural Ambiance with  
Dedicated Experience

Attractive Cul-  
tural Facilities

Users + Space  
Feeling the texture

The circular and hidden shape of the art layout symbolizes **individualistic** of Madurese people

The rough stone wall material symbolizes **rudeness in communication** of Madurese People





## Gallery of Colonial Era The Background of the Migration

The Gallery of Colonial Era depicting the Madura condition during that the time before the Madurese went to migrate to Java.

Cultural Ambiance with  
Dedicated Experience

Attractive Cul-  
tural Facilities

Users + Space  
Feeling the texture

The overall rough stone wall and floor materials **depicts the aridity condition** of Madura.

The rough stone and salt display **depicts the soil condition** of Madura.

The empty barren land display depicts the **dryness and texture of the soil** that is not suitable for farming

The lights that shine upwards add emphasis to the **dryness and texture of the soil**



## Gallery of Migration Era The Starting Point of Pendalungan Culture

The Gallery of Migration Era depicting the arts and story of Madurese people as they go migration using boat to the Java Island.

Bringing Water  
into Land

Users + Space +  
Water  
Touching the water

Cultural Ambiance with  
Dedicated Experience

Attractive Cul-  
tural Facilities

The tilted waterwall creating the experience of water splash while sailing with a boat

The glass floor with water underneath it creating the experience of sailing on top of a boat on a sea

The replica of hanging rope, wooden boat, temporary houses, supporting the history of the event

The lights that shine upwards add emphasis to the **dry-ness and texture of the soil**



## Gallery of Settled Era The Beginning of Pendalungan Hybridization

The Gallery of Settled Era depicting the arts and story of fertility condition of Java Island, as one of the reason why Madurese people tend to migrate to Java due to famine condition and soil condition to be planted.

Bringing Water  
into Land

Users + Space +  
Water  
Touching the water

Cultural Ambiance with  
Dedicated Experience

Attractive Cul-  
tural Facilities

The overall wooden materials and greeneries **depicting the fertile condition** of Java Island.

The replica of soil terraces depicting the agriculture terrace land in Java

The water pool depicting the land of Java that is not arid.



## Pendalungan Ampitheatre The Result of Hybridization

The Pendalungan Ampitheatre served cultural dance performance that exist in Pendalungan Era, with the open view to the waterfront area.

Users + Space + Water  
Sitting, Seeing, Relaxing, Performing Events,  
Place for Gathering

Attractive Cul-  
tural Facilities

Cultural Ambiance with  
Dedicated Experience

Visitors will enjoy the final experience of Pendalungan Zone to the amphitheater. With the characteristics of the pendalungan person who is **easily adaptable and open-minded to change**, the view of the amphitheater is presented with an opening directly to the waterfront and beach aerial to the waterfront area.



## Javanese Gallery The Result of Hybridization

Cultural Ambiance  
with Dedicated  
Experience

Attractive  
Cultural  
Facilities

The concept of exhibition gallery and permanent gallery is based on the characteristics of Javanese people, namely, being **mutually open and communal**, so the layout of the space designed tends to have no boundaries that limit the two galleries.



## **Javanese Gallery** **The Result of Hybridization**

Cultural Ambiance  
with Dedicated  
Experience

Attractive  
Cultural  
Facilities

The two galleries also directly face the courtyard with the additional feature of a waterfall, giving the impression that the land of Java is more fertile.



## Cultural Promenade Cruising with Cultural Theme

Cultural promenade is one of the implementation of strategic design and improvement of the existing waterfront, where visitors can enjoy the beach site comfortably and see ornamental boat activities coming from the river beside the site.



## Public Water Feature Bringing Water into Land

A public water feature is an open area with an air feature that can be used publicly, in order to give a full impression of the atmosphere of the place in the waterfront area. visitors can also sit and enjoy the float show.





## Site Viewing Place A Place to Enjoy the Panorama

Site viewing place is an application of design strategy and improvement of the waterfront area, so that visitors feel more comfortable sitting and enjoying the view of the beach and the area around the Suramadu Bridge.



## Structural Scheme

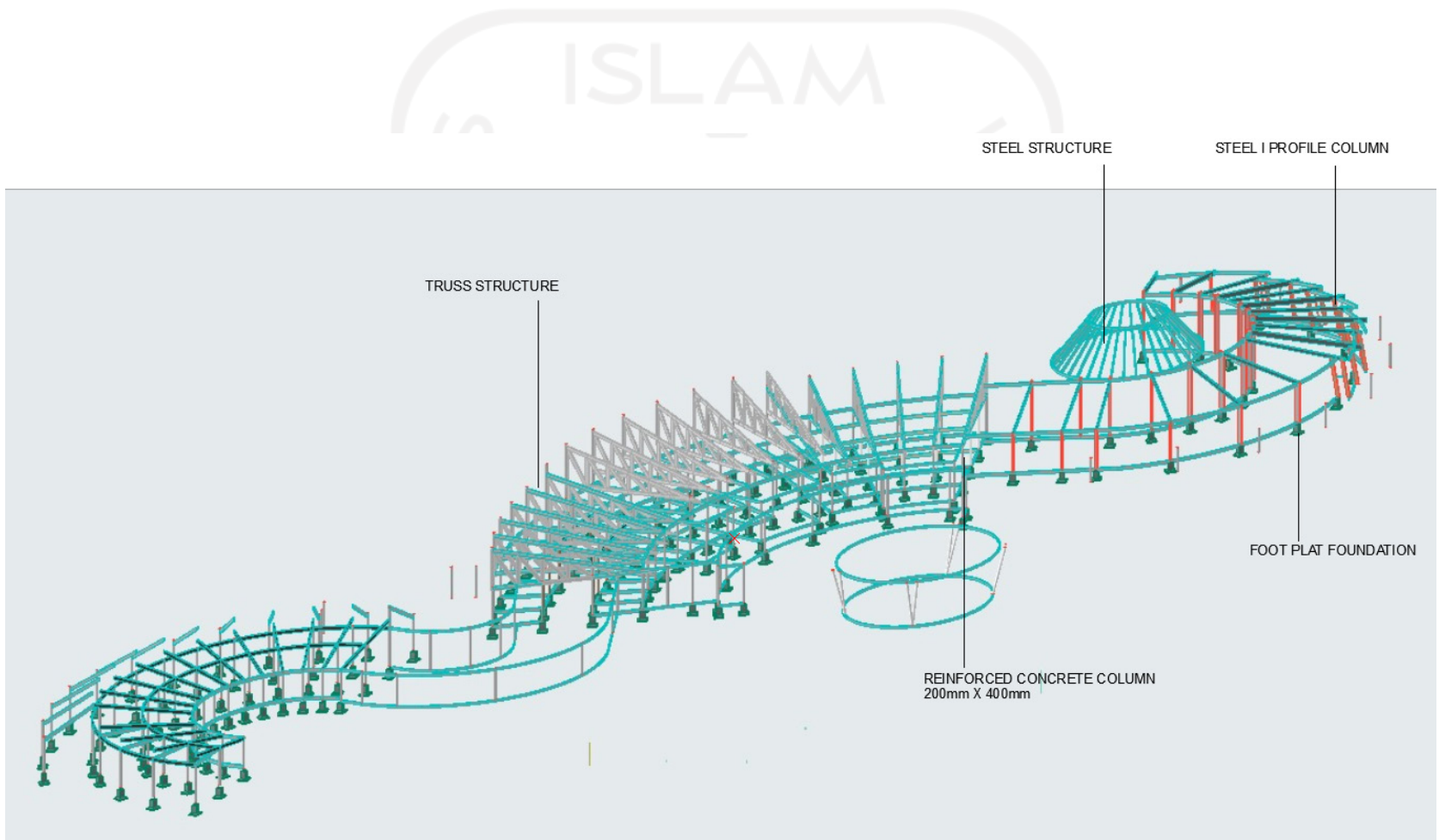


Figure 117. Structural Scheme  
Source: Author, 2022

## Utility Scheme

### Clean Water Scheme

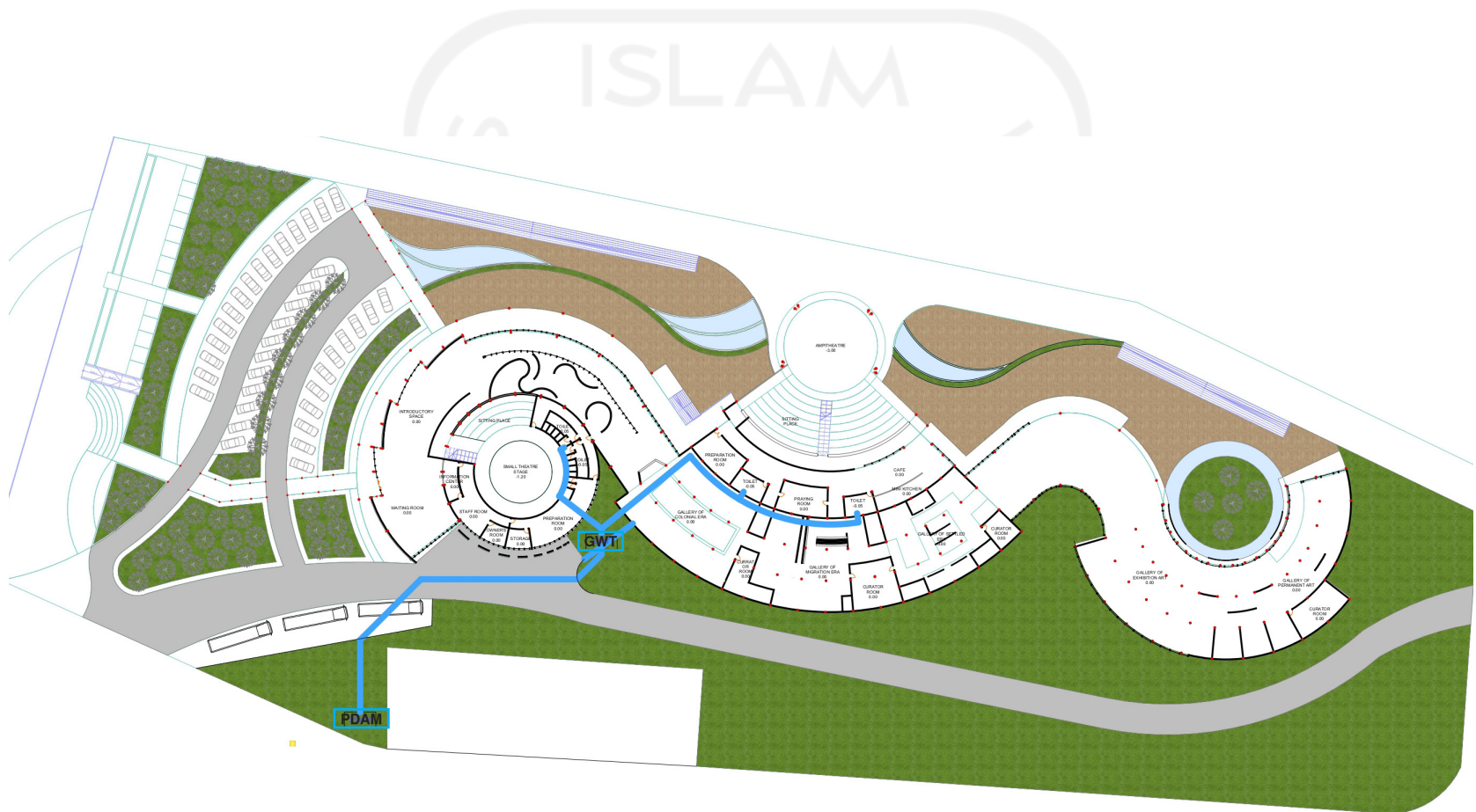


Figure 118. Clean Water Scheme  
Source: Author, 2022

The use of clean water using PDAM water which is assumed to be at the front of the site, which is then channeled to the ground water tank and channeled to the lavatory, prayer room, and gallery areas which in the interior use water.

#### Legend

**GWT** Ground Water Tank

**PDAM** PDAM

Interior Detail  
Scale 1:100

## Utility Scheme Vertical Circulation Plan

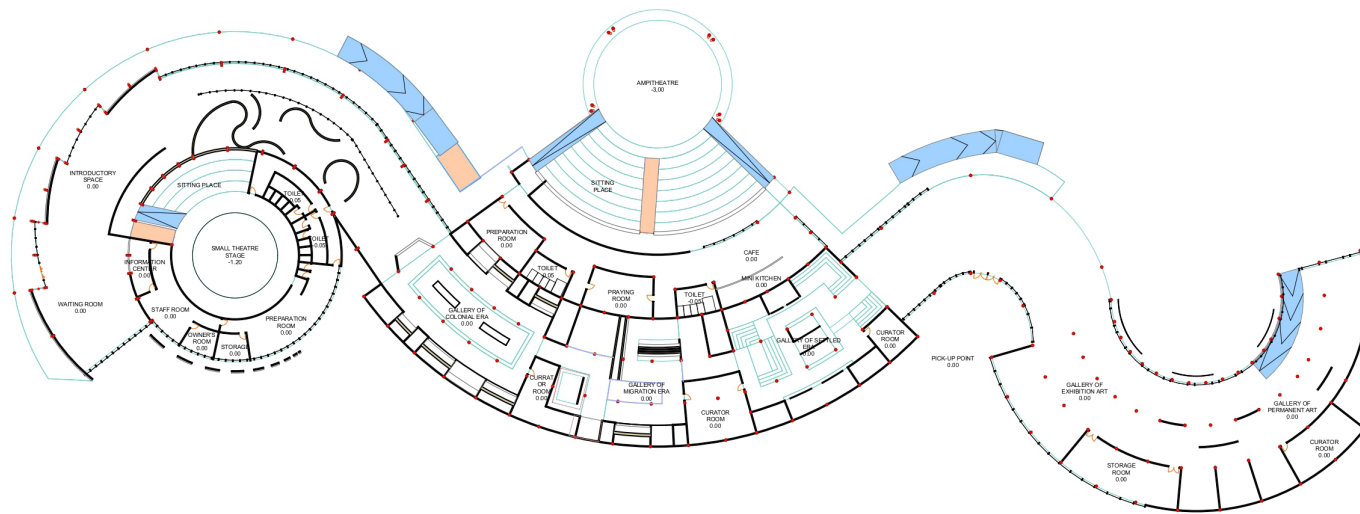
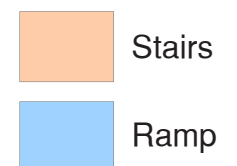


Figure 119. Vertical Circulation Scheme  
Source: Author, 2022

This building only consists of one floor and in all its parts it is designed to have the same elevation, except in some parts which are also equipped with stairs and ramps.

### Legend



## Utility Scheme Barrier Free Design

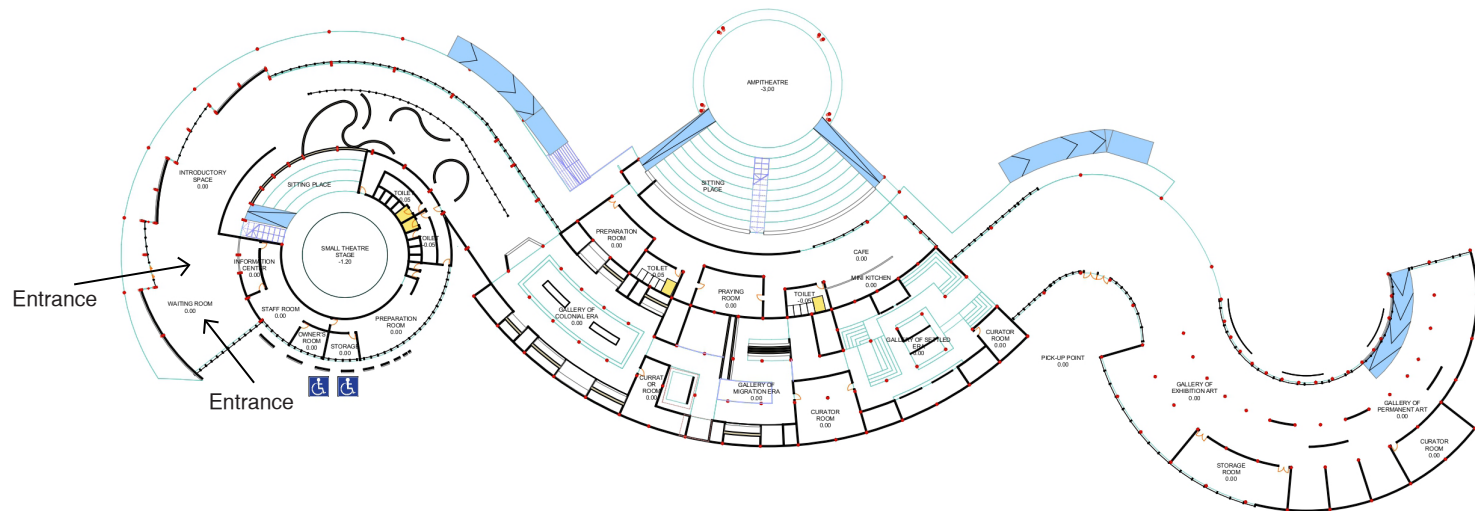


Figure 120. Barrier Free Design  
Source: Author, 2022

The barrier-free design aspect of this building consists of a disabled parking located with building entrances, ramps and diffable toilet.

### Legend

-  Ramp
-  Diffabled Parking
-  Diffable Toilet

## Utility Scheme Fire Protection Plan

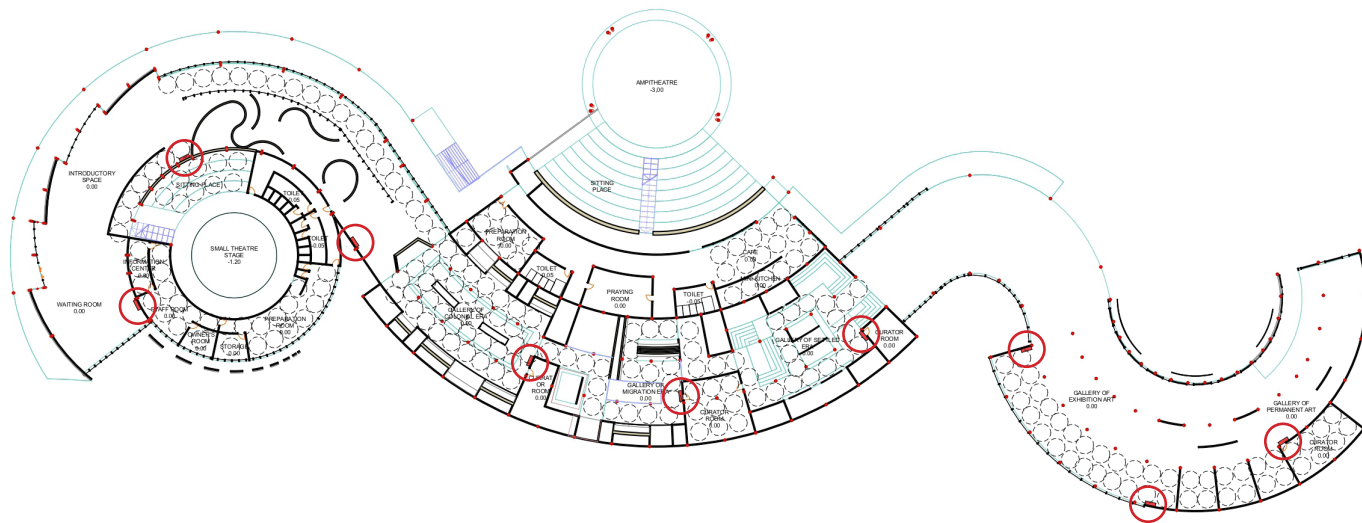


Figure 121. Fire Protection Plan  
Source: Author, 2022

The use of sprinklers is installed on parts of the building that have the majority of the ceilings are quite flat, and hydrants have also been provided in places that are easily visible.

### Legend

-  Hydrant
-  Sprinkler

## Utility Scheme

### Evacuation Route Plan

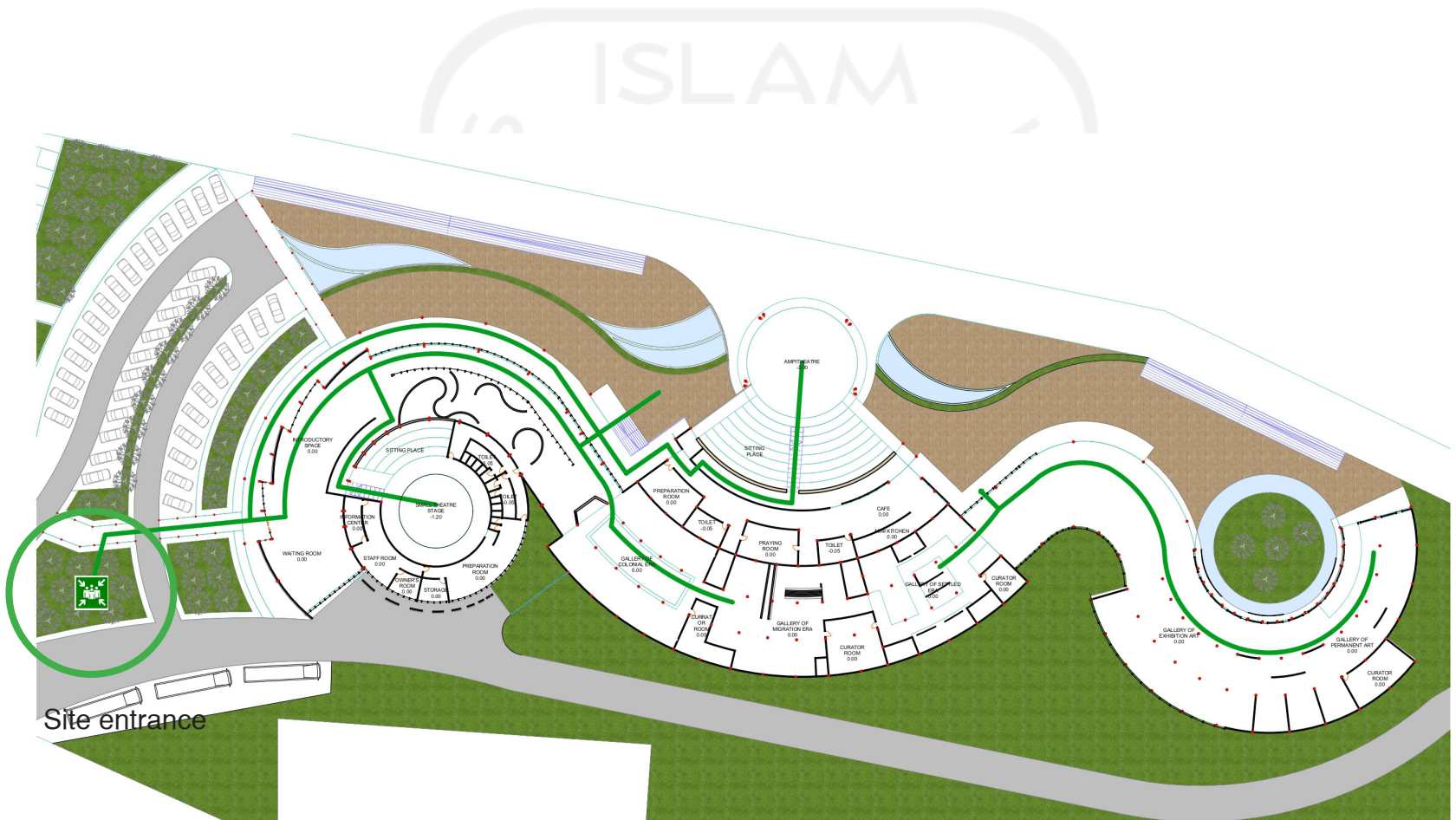


Figure 121. Evacuation Route Plan  
Source: Author, 2022

The gathering point is located near the entrance to the site, making it easier for the entrance process.

#### Legend



Gathering Point

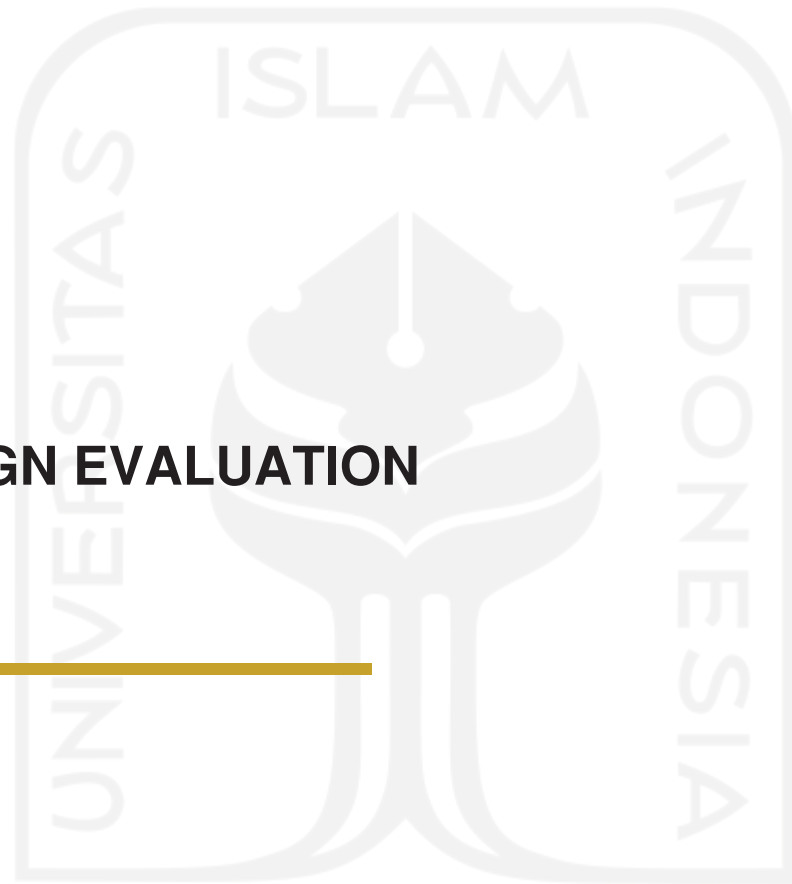


Evacuation Route

**DESIGN EVALUATION**

**05**

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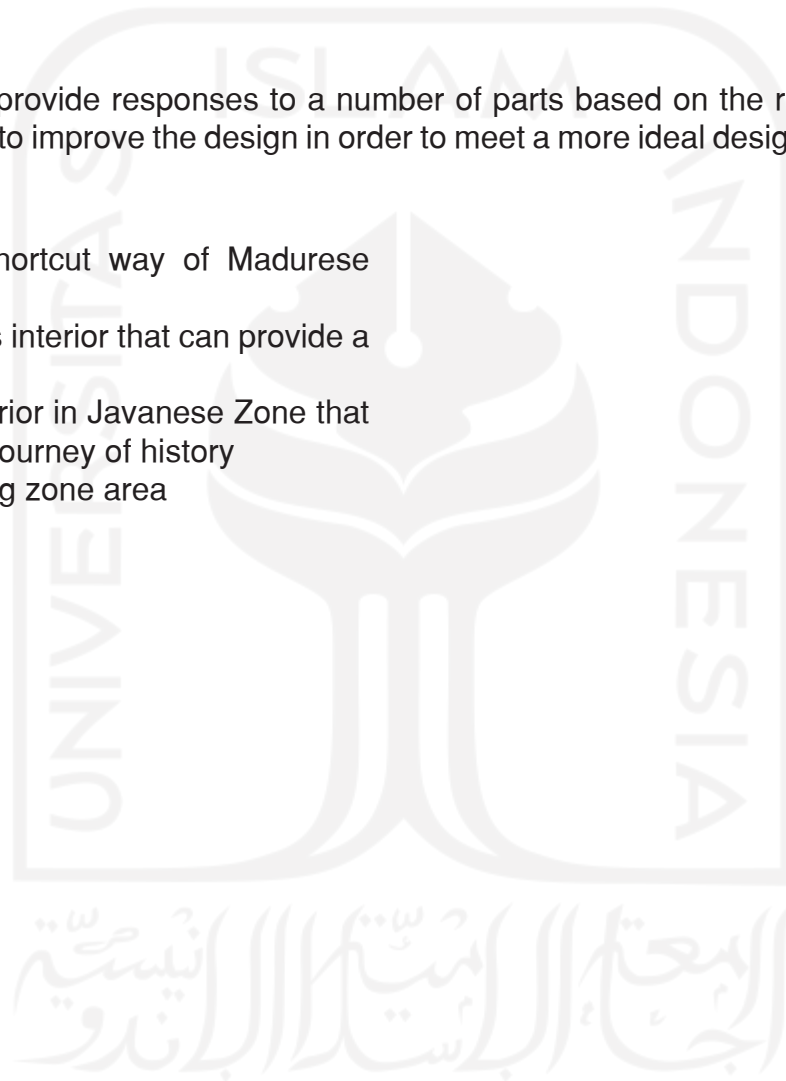
## Design Evaluation

### Conclusion Review

The examiner and supervisor provide responses to a number of parts based on the result of the evaluation. The responses and comments seeks to improve the design in order to meet a more ideal design. The following responses are:

#### Comments:

1. Additional panel on the shortcut way of Madurese Paintings Gallery
2. The Gallery of Colonial Era's interior that can provide a more immersive experience
3. The Exhibition Gallery's interior in Javanese Zone that can tells an 'ending' of overall journey of history
4. The shortcut way into loading zone area



## Madurese Paintings Gallery Panel



*Before Evaluation*

Before the Evaluation, at the Madurase Pantings Gallery, visitors can enjoy an exhibition of paintings that tell about the daily life of the Madurese in ancient times before migrating to the island of Java, with a gallery layout based on the characteristics of the Madurese.

Beside it, there is a shortcut path as a fast path for evacuation and a convenient path for people with special needs.



After the evaluation, the shortcut is equipped with information panels, so that visitors who previously could not enjoy the gallery content in the Madurese Paintings gallery, can still capture the essence of the story and the information provided in the paintings gallery.

## Gallery of Colonial Era Interior



Before the evaluation, the Gallery of Colonial Era designed to depicts the condition of Madura in the period before the Madurese migrated to Java, with a play of textures and light depicting the dry and arid conditions of Madura's land.

The occurrence of famine and the Madurese who were used as war soldiers during the colonial period are also the historical background of the Madurese who migrated to Java.



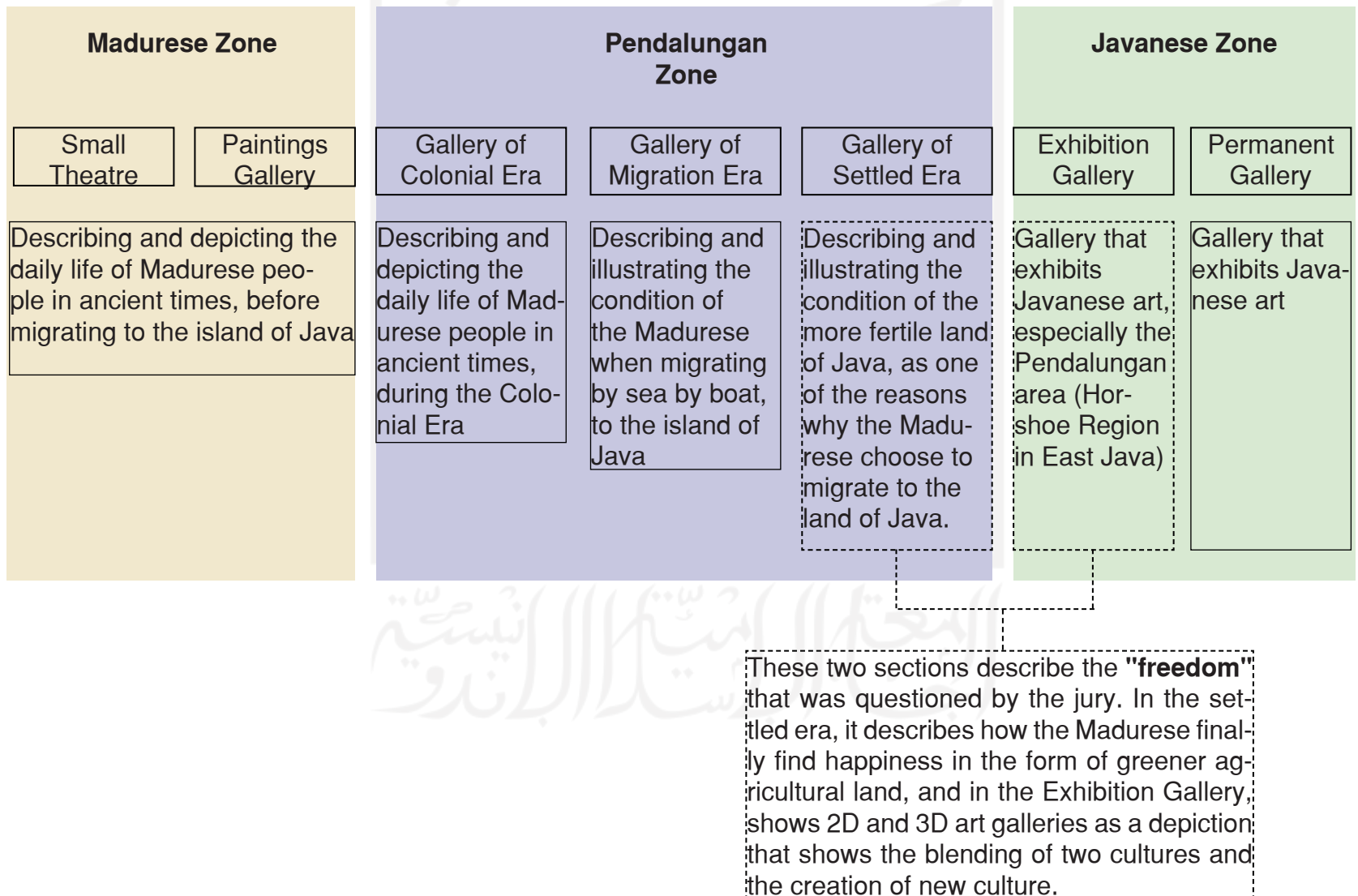
### *After Evaluation*

After the evaluation, the interior of the gallery of the colonial era is made darker in order to **create a dark and eerie impression, hinting at the darkness of the colonial era.**

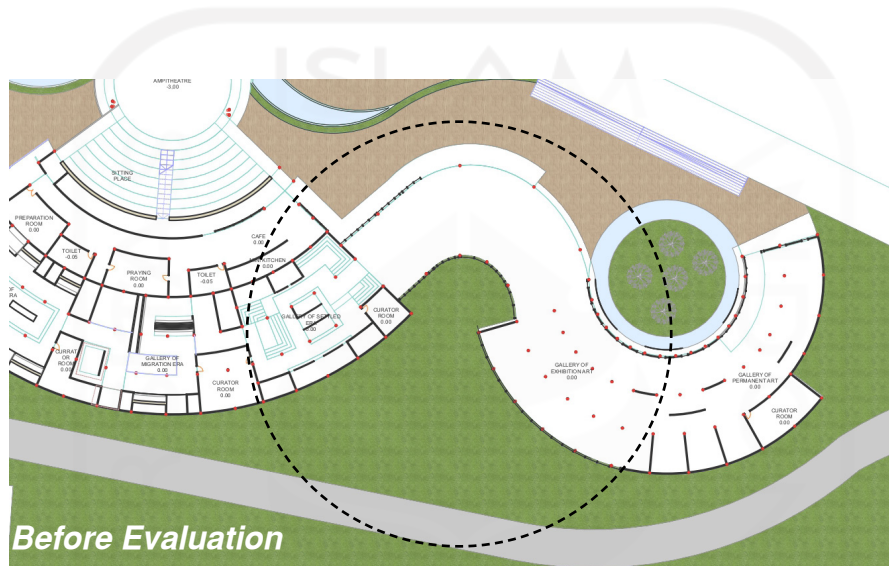
Additional features provided are small stairs made of stone material and light that accentuates the texture giving **the impression of dry agricultural land.** The line lights above aim to direct visitors to the next room.

## Exhibition Gallery Reflection

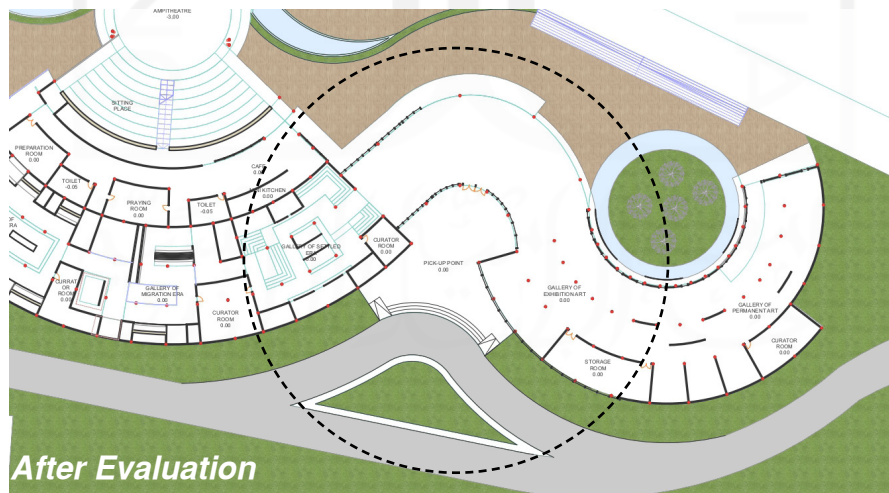
From the interior theme that is presented to the visitor, the visitor will get an experience of the history of Pandalungan Culture accompanied by its characteristics which are transformed into architectural spatial characteristics.



## Loading Zone Area



The exhibition gallery in the Javanese zone showcases the art of sculpture, therefore, a wider and more effective circulation is needed from the loading zone point.



After the evaluation, a path is created to facilitate loading of goods to the exhibition space. The new created path can be used also as a pick-point for the visitor.

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### **SURAT KETERANGAN HASIL CEK PLAGIASI**

Nomor: 1866460016/Perpus./10/Dir.Perpus/TV/2022

*Bismillaahirrahmaanirrahiim*

*Assalamualaikum Wr. Wb.*

Dengan ini, menerangkan Bahwa:

Nama : Rifqi Cahya Mahendra  
Nomor Mahasiswa : 18512146  
Pembimbing : Putu Ayu P Agustiananda., ST., MA., Dr.-Ing  
Fakultas / Prodi : Teknik Sipil dan Perencanaan/ Arsitektur  
Judul Karya Ilmiah : Design of Cultural Center with Cultural Waterfront Design Strategies  
in Madura Strait Area, Kedung Cowek, Surabaya

Karya ilmiah yang bersangkutan di atas telah melalui proses cek plagiasi menggunakan **Turnitin** dengan hasil kemiripan (*similarity*) sebesar **6 (Enam) %**.

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

*Wassalamualaikum Wr. Wb.*

Yogyakarta, 7/4/2022

Direktur



Joko S. Prianto, SIP., M.Hum

## A Cultural Center with Waterfront Design Strategies in Madura Strait Area, Kedungcowek Surabaya

The design of the cultural center with cultural waterfront design strategies aims to preserve the fading of culture in Surabaya as well to accommodate cultural cooperation between the Madurese and Javanese tribes around the Madura Strait. The design aims to enhance and maximize the existing waterfront potential and improve the surrounding economy by creating jobs for the community around the area. To achieve an excellent cultural center with the characteristics of a region where it was established, it is done by creating a cultural tourism area that follows the values and requirements of cultural activity and follows the patterns and characteristics of water as an essential planning element. This design approach and strategies uses a cultural waterfront design strategies and utilizes the potential of water and the surrounding nature without destroying the already existing nature. This can create a new lively waterfront cultural tourism center, preserving the fading cultures and accommodating the new cultural cooperation alongside increasing the existing waterfront potential value and economic value to the people around it.



FINAL ARCHITECTURAL DESIGN STUDIO  
A Cultural Center  
with Cultural Waterfront Design Strategies  
in Madura Strait Area, Kedung Cowek, Surabaya

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## Location



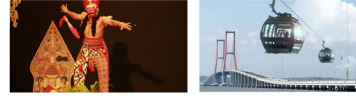
The site is located in the Kedung Cowek, Surabaya, that already have a good view of the sea. Several adjustments need to be made such as the open space in front of it, and the rearrangement of small temporary kiosk in the side of the site.

## Background



Surabaya City Government will create numerous new tourist spots in northern Surabaya, and Suramadu Culture will be the theme of the tourism attractions.

The lack of development in the waterfront area as a regional identity and tourist attraction



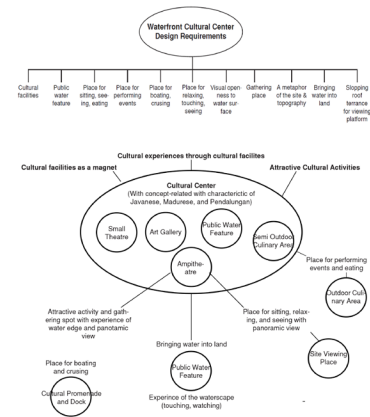
The fading of traditional arts and culture in Surabaya and Madura.

The agreement to promote Madura tourism is believed to have an impact on economic development in the East Surabaya

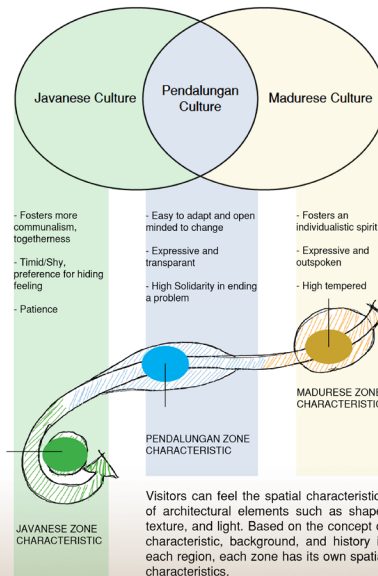
**General Problem**  
How to design a cultural center that preserve the almost lost culture and introduce a new culture that was born with a cultural waterfront design strategies with the reflection of Javanese, Madurese, and Pendlungan characteristic to maximizing the untapped potential of waterfront area?

**Specific Problem**  
How to design a waterfront cultural center that preserve the almost lost culture and accommodate the new culture that was born?  
How the design can improve the waterfront area quality with cultural waterfront design strategies?  
How the design can represent cultures of Javanese, Madurese, and Pendlungan?

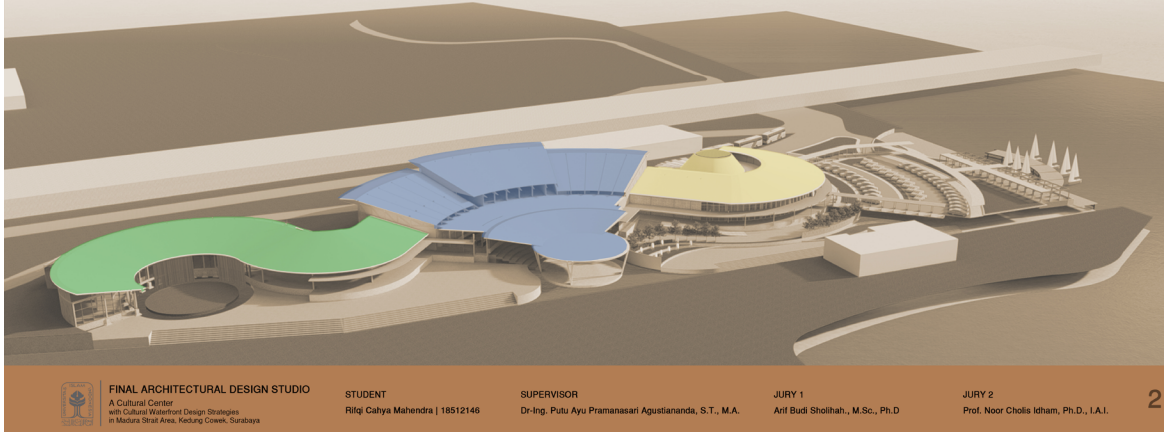
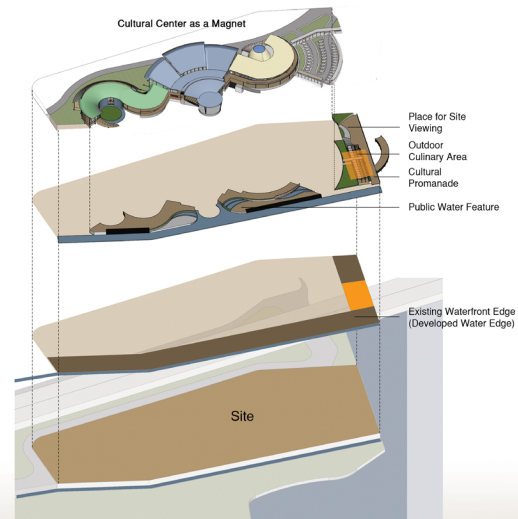
## Design Strategies



## Cultural Characteristic



## Strategies Implementation



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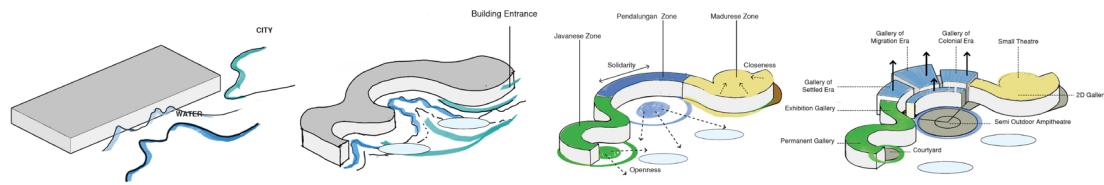
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## Form Transformation



The shape of the building sculpted by the tides coming in from the river and people coming in from the city/supposed entrance.

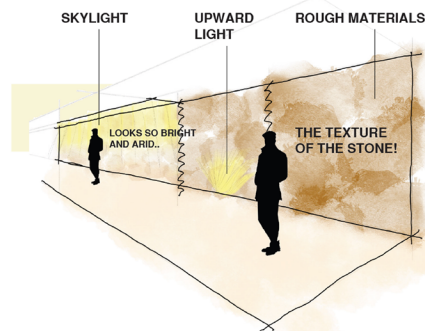
The mass of the building is formed in a circular way, with the building entrance facing the supposed site entrance, and the circulation outside of the building continuing the public circulation of waterfront promenade. As a representation of waves on the coast, it will leave water

The culture zones are located based on the geographical conditions of Java and Madura, and the Pendalungan in the middle. The mass and opening orientation to the outside in each zone, adjusting to the characteristics of each culture.

To emphasize the impression of Pendalungan culture as a hybridization, the mass that is already located in the middle is made to lift and extend in both directions, adding to the impression of blending in both directions.

## Spatial Characteristic

### Madurese Zone



Madurese zone is simulated with rough rock wall material, skylights, and lights that shine upward, depicting the aridity of Madura land, and the characteristics of the people who tend to be expressive.

#### Small Theatre



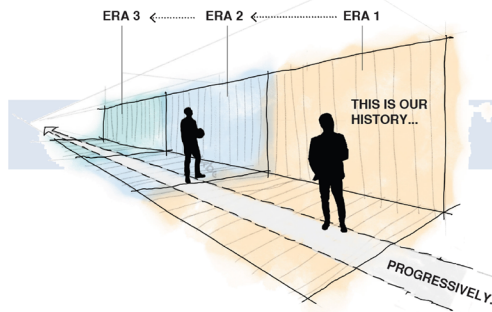
The small theater in the Madurese zone is circular and secretive, with rooms that tend to be dark and use contrasting light from the ceiling as stage theater lighting, illustrating the expressive Madurese people.

#### Paintings Gallery



The paintings gallery in the Madurese zone is circular and secretive, illustrating the individualistic tendencies between Madurese families.

### Pendalungan Zone



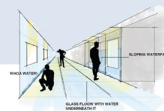
Pendalungan zone as a hybridization between Java and Madura, has a high level of solidarity and adaptability, with architectural elements and ambiance that is focused on space to remember the history of the formation of Pendalungan Culture.

#### Gallery of Colonial Era



Depicts the condition of Madura before migrating to Java, with the difficulty of planting and dry soil conditions, and also salt factory history, simulated with rough rock wall textures, salt rock deposit, and skylights.

#### Gallery of Migration Era



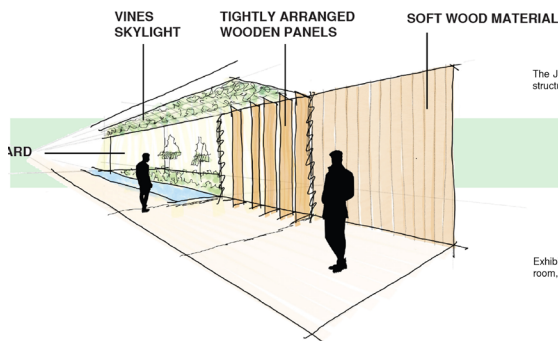
Depicts Madurese who are migrating to Java by boat, simulated with water flowing on a dark and cold sloping wall, and a glass floor showing the water below, giving the experience of people sailing on a boat.

#### Gallery of Settled Era



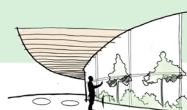
Depicts Madurese who have settled in Java and started working as farmers, simulated with plants beside the room, flowing water that resembles an irrigating river beside it, and skylights covered in vines.

### Javanese Zone



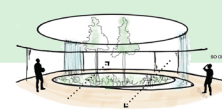
The Javanese zone is simulated with smooth wood material, skylights covered with vines, inner courtyard and also tightly arranged wood structures, depicting the characteristics of a smooth, shy, communal, and fertility of Java land.

#### Exhibition Gallery



Exhibition Gallery and Permanent Gallery in the Javanese zone using an inner courtyard and flowing water, as well as an open layout of the room, and smooth wood materials, depicting shy Javanese people, soft and communal characteristics, and depicting a more fertile Java land.

#### Permanent Gallery



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## Madurese Zone

### Place of Expressiveness

#### Small Theatre



The Madurese Small Theater presents indoor dance performances. The atmosphere and spatial form also implies the personality of the Madurese.

- The circular and hidden shape of the room symbolizes the individualistic of Madurese people.
- The contrasting light from above, symbolizing an expressive personality of Madurese people.

#### Paintings Gallery

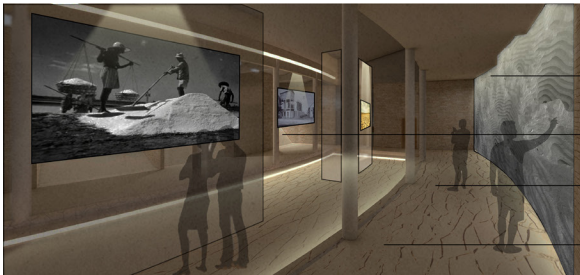


The Madurese Paintings Gallery presents paintings of daily life and cultural activity of Madurese people, as a learning area before going into the history of the creation of Pandalungan Culture.

- The rough stone wall material symbolizes rudeness in communication of Madurese People.

## Pandalungan Zone

### Place of Remembrance



#### Gallery of Colonial Era

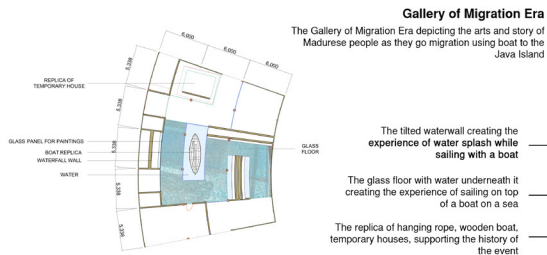
The Gallery of Colonial Era depicting the Madura condition during that time before the Madurese went to migrate to Java.

The overall rough stone wall and floor materials with the lighting to depicts the arid condition of Madura.

The rough stone and salt display depicts the soil condition of Madura.

The interior of the gallery is made darker in order to create a dark and eerie impression, hinting at the darkness of the colonial era.

The empty barren land display depicts the dryness and texture of the soil that is not suitable for farming



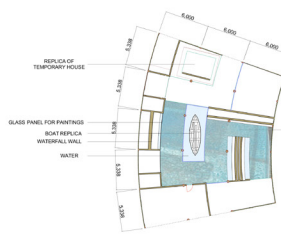
#### Gallery of Migration Era

The Gallery of Migration Era depicting the arts and story of Madurese people as they go migration using boat to the Java Island

The tilted waterwall creating the experience of water splash while sailing with a boat

The glass floor with water underneath it creating the experience of sailing on top of a boat on a sea

The replica of hanging rope, wooden boat, temporary houses, supporting the history of the event



#### Gallery of Settled Era

The overall wooden materials and greeneries depicting the fertile condition of Java Island.

The replica of soil terraces depicting the agriculture terrace land in Java.

The water pool depicting the land of Java that is not arid.



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## Pendalungan Zone

### Pendalungan Ampitheatre



Visitors will enjoy the final experience of Pendalungan Zone to the amphitheater. With the characteristics of the Pendalungan person who is easily adaptable and open-minded to change, the view of the amphitheater is presented with an opening directly to the waterfront and beach aerial.

## Javanese Zone

### Place of Communalism

#### Exhibition Gallery



The concept of Exhibition Gallery and Permanent Gallery is based on the characteristics of Javanese people, namely, being mutually open and communal, so the layout of the space designed tends to have no boundaries that limit the two galleries. The two galleries also directly face the courtyard with the additional feature of a waterfall, giving the impression that the land of Java is more fertile.

#### Permanent Gallery



These two sections describe the "freedom" for the Madurese people, as it describes how the Madurese finally find happiness in the form of greener agricultural land, and in the Exhibition Gallery, shows 2D and 3D art galleries as a depiction that shows the blending of two cultures and the creation of new culture.

#### Cultural Promenade



Cultural promenade is one of the implementation of strategic design and improvement of the existing waterfront, where visitors can enjoy the beach site comfortably and see ornamental boat activities coming from the river beside the site.

#### Public Water Feature



A public water feature is an open area with an air feature that can be used publicly, in order to give a full impression of the atmosphere of the place in the waterfront area. visitors can also sit and enjoy the float show.

#### Site Viewing Place

Site viewing place is an application of design strategy and improvement of the waterfront area, so that visitors feel more comfortable sitting and enjoying the view of the beach and the area around the Suramadu bridge.



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