Bachelor Final Project
Final Architectural Design Studio

REKA RUPA RUANG

TAMAN SARI CULTURAL CENTER

REVITALIZATION Design of Plaza Ngasem Kampung Wisata Taman Sari Area As Batik Workshop and Cultural Center with ***Soundscape Experience***



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Statement of Authenticity

Here, I am Kirana Nandang Sadhani Bantilan, Undergraduate Program Students of Architecture Department in Universitas Islam Indonesia, as the author of this thesis book declare that all of this work part are original. I have not presented others person work words, ideas, and expressions, except those mentioned and all citated in references. if there is any statement within this book that proven false or did not follow the rules, I accept any consequences based on the regulation.

Yogyakarta, July 12th, 2021



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Plagiarism Check

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CHAPTER

1

PRELIMINARY

Design Premical
Background
Problem
Goals
Site Location

Design Premical



Pulo Kenanga, Taman Sari Garden Complex
source : Author,2020

The fact that Taman Sari complex having a high quality one of the most beautiful historical building and visually breathtaking makes the other human senses role and their experiences questioned. Human hearing sense often to neglected since sound is relatively heard every time, every seconds, every hour and everyday. However, sounds is having characteristic in delivering the condition of space, language of experiences which telling the ambiance story, stimulating human brain to creating perception depend on the physical, environment and social. It is creating a soundscape to experiencing places. With soundscape features, context, classification, perception and sensing place, it will helping people to learn and aware to the history value of space. This theory will be a design guidelines for architecture realm.

One of historic value of Taman Sari area is Taman Sari inhabitant Batik creation which is the attraction toward visitor is decreasing. Using soundscape to experience historic value will increasing attractiveness of visitors to learn.

Thus, it is needed to have a space design in order to accommodating the soundscape experience which supporting the theme of Taman Sari building using pavilion type. Pavilion responsive to changes in its geographical and historical environments. The pavilion may reflecting the context of geographical and social which where the pavilion is built and used.

Background

Why Kampung Taman ?

Introduction

Some of cluster Shop house at Kampung Taman is heritage and some is new shop house. It is hereditary from family. “ I’m here from child until now to continuing my art work which is hereditary from my family. My blood is into the art. Until now on, my father still doing the art work on his own place.” (Iwan Setiawan, Owner of Batik’e Lek Iwan,2021).

Why?

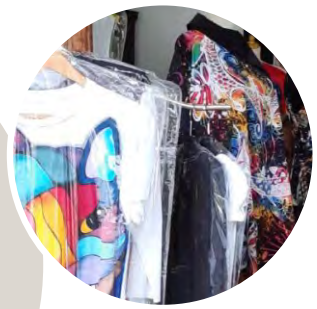
- **LACK OF AWARENESS TO PRESERVE TAMAN SARI HISTORY HEREDITARY**

In the past, Batik is used by abdi dalem to meet with Sultan either to daily activity.
“ Abdi dalem painting their own batik jarik to be used during meeting with Sultan. Every batik jarik motif having different meaning and position. Usually, the lower position using Lurik.” (Ipung,Abdi dalem, 2021). Abdi dalem in Taman Sari still continuing to bequeathing their title as Abdi dalem to their family and also the batik lukis jarik. In this time, not all people who live at surrounding Taman Sari complex is abdi dalem. Only a few of people who willing to be abdi dalem. Either with batik lukis, only a few of painters still continuing their work.

- **LIMIT SPACE IN SHOP HOUSE**

Not all of shop houses land owned by the users. Some of them is rented house about 10 m x 6 m and magersari land about 5 m x 10 m (title for land which the users live at the land that owned by Keraton and ready to give back the land if there’s a command from Keraton). “ The space is very small. I use the showroom either as space for working the art. In this house, there is one bathroom,.....





Batik’e Lek Iwan
Owner
Iwan Setiawan
47 years old
source : Author,2021



Ipung
Abdi Dalem Taman Sari (grand daughter of Djoko Moelyo)
source : Author,2021





Aguswati
Owner
Daniels clothing
52 years old
source : Author,2021

Background

Why Kampung Taman?

Why?

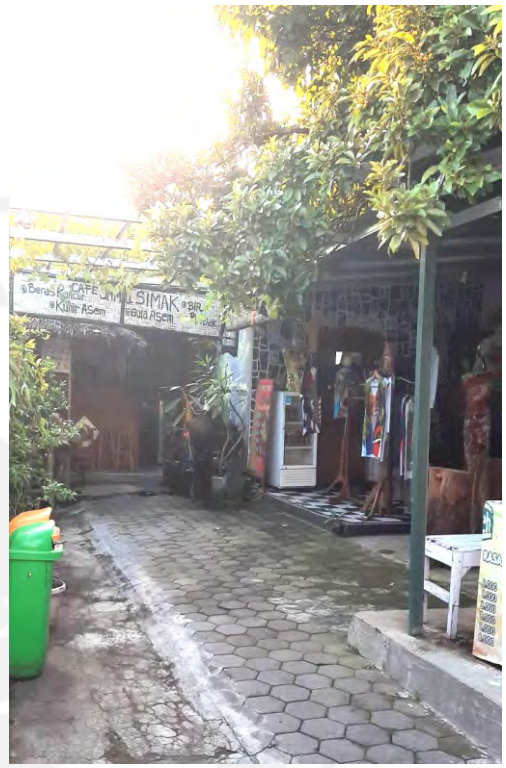
....., one bedroom and one kitchen only." (Agus,owner shop house). Keraton giving a rules to the people who live in Magersari land to not having a full wall. It's have to half wall and half wooden. Also, Kampung Taman people may built building 12 meter until the highest top point of roof.

- **LACK OF BUYING INTEREST AND RESPECT TO HISTORICAL ART WORK**

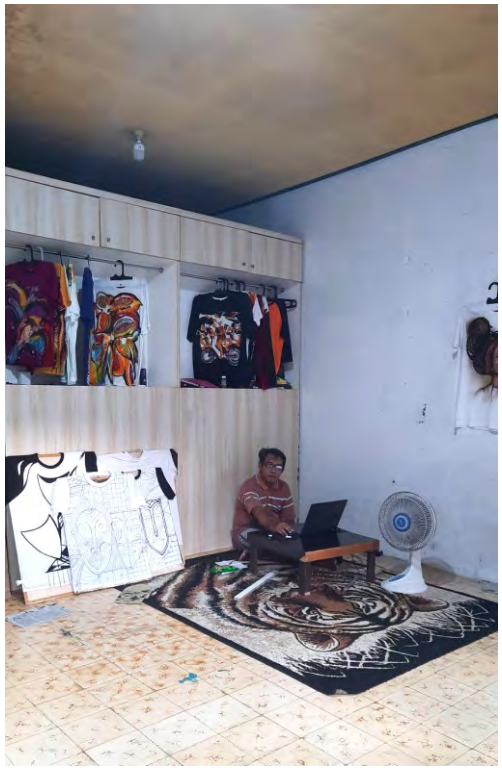
"I think visitors not giving attention to our shop house since it is less attraction in our shop house. The space also needed to give more movement to people when visit our art work. It will really good if there is something that we can offer to visitor and make them attracted." (Eni, owner shop house). The shop house owner was realize and worried about their job when buying interest from visitors are lack and less respect of art work value. It will threatening their livelihood since it is their main income.

- **ABANDONED SPACE**

The abandoned space formerly is a city waste water treatment and now located at Bantul (Kampung Taman parking guard). In this time, this area is used as an access to go to parking area at west part for Kampung Taman people and visitors. Also, used for local people playing bird. there is a cage for bird. This area having no light and closed by abandoned office at north part and fort at east and south part.



Rented house for shop house
Source : Author,2021



The shop house in Magersari land
Source : Author,2021





Abandoned space at west part of Plaza ngasem (was formerly city waste water treatment)
Source : Author,2021

Background

Why Kampung Taman ?

Why?

- **LIMIT SPACE DUE TO HIGH POPULATION DENSITY**

Kampung Taman consist of houses with crowded density and narrow alley. This settlement was grow naturally surround Taman Sari complex.

“ There is no exact space for children and community to do such an event or activity. Children often to use space like Plaza Ngasem, pelataran at gedhong lopak-lopak, or keputran 2 yogyakarta elementary school at north part to playing game or sport activity.” (Vina, shophouse owner, 2021). She said that, she was selling groceries, snack, and others at keputran 2 yogyakarta elementary school. But, when pandemic she moved to her own house to sell the groceries.



Children playing at Plaza Ngasem during afternoon
Source : Author,2021

- **LACK OF SOCIAL ACTIVITY**

Social activity is decreasing because of many aspect such as there is a limit land to have a social activities, competitiveness between seller of shop house is high in aspect of commercial, the houses at alley having compact solid form to have a communication.

The community doing discussion “Rembugan” at settlement pos ronda (patrol post) near sumur gumuling and lorong Taman Sari. It is just small space to do a discussion for people activity and others.



Kampung Taman alley during afternoon
Source : Author,2021

Background

Why Kampung Taman ?

Why?

- **SENSE OF PLACE CHANGES IN KAMPUNG TAMAN**

People in current situation not realize that they live at historical and heritage area. They only knowing that it was historical. But, they only feels living in present condition with dense population, houses, and modernization. The sense of place in Kampung Taman is completely different with Taman Sari garden. It is seen at how Taman Sari producing a beautiful visual, certain sound element, and tactility in exploring the space.

“Soundmark changes resulted from a form changes of space which make mankind in the area difficult recognize the area in the past” (Noviandri,2018). The different appearance and form of Taman Sari and Kampung Taman creating a different sound element source to be delivered to visitors and community.



Kampung Taman Alley (Access route of visitors Taman Sari)
Source : Author,2021



Lorong Taman Sari
Source : Author,2021

Background

GENERAL BACKGROUND

Sight sense vs hearing sense

The fact that Taman Sari complex is one of the famous garden complex in Yogyakarta which is having aesthetic of architectural construction java - portuguise character, it makes the main visual attraction for tourist. Sight sense having high role to experiencing Taman Sari complex and it may neglecting others sense since the beauty of the building is breathtaking. Besides, based on my research of “Soundscape Experience at Pulo Kenanga and Lorong in Taman Sari Building 2020” it is confirm that Taman Sari complex having differences soundscape experience language with parameter of sound sources, ground level, building physic and physical environment. It is mean, that hearing sense in Taman Sari either having high role and each building may having different sound experience meaning.

Senses role in Batik shop house area



This complex mingle with settlement which either time by time gradually developing as creative industry and becoming the main income for people who living surround Taman Sari. Creative industry and the path surrounding Taman Sari often seen as supporting part of the building only. Since, the location and access of shop house is in an alley between building and narrow/crowded space. It is either becoming transition space between one building to another Taman Sari complex building. This space having less of visual attraction and soundscape experiences except the beauty and creativity of the product that they sell such as Batik Lukis Taman Sari, wayang kulit, and others craft .

The role of soundscape

Kampung Wisata Taman Sari having high potency in experiencing the space. But, the sound or hearing experience still ignored by visitors. The shop houses surround Taman Sari also having less attention. The lack of visual which triggering the experience and hearing senses to realizing the experience of space will make the visitors only passing through the shop houses and the path without experiencing the space. It is become the reason how the journey experience in between Taman Sari building is broke and creating a new overlapping feeling

The important of historical value delivery

Besides, the history value of Taman Sari complex garden need to be delivered properly to the visitors. If there is no media to delivering the value from building to human, the important of value awareness is ignored. With supporting the process of value delivery with media of soundscape experiences and cluster shop house which imaging and reflecting Taman Sari building, the journey of experiencing and receiving the value of Taman Sari building will connected and continued. Thus, the message will turning on the human feeling deeply to aware value about building history

Problem

NON-ARCHITECTURAL ISSUE

- LACK OF AWARENESS TO PRESERVE TAMAN SARI HISTORY HEREDITARY
- LIMIT SPACE AT BATIK SHOP HOUSE
- PRESERVING HEREDITARY ART WORK
- ABANDONED SPACE (FORMERLY CITY WASTER WATER TREATMENT)
- LACK OF BUYING INTEREST AND RESPECT TO HISTORICAL AND CONTEMPORARY ART WORK
- LIMIT SPACE DUE TO HIGH POPULATION DENSITY
- LACK OF SOCIAL ACTIVITY
- SENSE OF PLACE CHANGES BETWEEN TAMAN SARI AND KAMPUNG TAMAN

ARCHITECTURAL ISSUE

- LIMIT SPACE FOR ACCOMMODATING COMMUNITY SOCIAL ACTIVITIES
- LIMIT SPACE FOR SHOP HOUSE DISPLAY/SHOWROOM AND WORKING AREA
- SPACE FOR PRESERVING CULTURE AND HISTORICAL INHERITANT
- WORKSHOP AREA FOR INCREASING PEOPLE AWARENESS TO THE VALUE OF HEREDITARY ART WORK
- SPACE FOR CONNECT AND PRESERVE THE SENSE OF PLACE TAMAN SARI AND KAMPUNG TAMAN

GENERAL PROBLEM

How the layer history of space with soundscape approach will increasing value of culture and history experience through batik paguyuban workshop, public space and cultural performance in abandoned area ?

SPECIFIC PROBLEM

1 How to design a temporary space for showroom and workshop Batik paguyuban space in limit space area at Kampung Taman with history layer of soundscape ?

2 How to increasing awareness of visitors and inhabitant about culture and history value at Kampung Taman with soundscape ?

3 How to revitalize Plaza Ngasem amphitheater as public space and fashion and cultural performance with history layer of soundscape ?

4 How to revitalize the abandoned space at Pasar Ngasem area as workshop, educational and cultural center with history layer of soundscape ?

Goals

ASPECT

ECONOMY

IMPROVING LIVELIHOOD INHABITANT AND RESTORE HISTORICAL VALUE

- Increasing the livelihood of people surround Taman Sari Complex by improving their main income
- Improving the attractiveness and value awareness of batik art from shop house work

HISTORICAL

INCREASING THE SENSE OF HISTORICAL PLACE AND AWARENESS OF HISTORICAL VALUE

- Increasing the sense of place experience Taman Sari complex with soundscape apporach
- Increasing the awareness of Taman Sari history value through creative industry of people Kampung Taman

SOCIAL BONDING

AS PUBLIC SPACE IN LIMIT SPACE AND INCREASE SOCIAL BONDING

- Social space as meeting or gather point for inhabitant or visitors
- Increasing community prosperity and social bonding of Kampung Taman

TARGET

SHOP HOUSE OWNER



VISITORS / TOURISM



INHABITANT



Site Location



Yogyakarta City, Special Region of Yogyakarta

Taman Sari Garden Complex

THE SCOPE

Yogyakarta city is famous with the tourism spot which is Keraton (Palace) Yogyakarta area such as Malioboro, Masjid Gedhe Kauman, Alun-alun Lor, Alun-alun Kidul, Taman Sari complex.

Location of site at Kampung Taman, Patehan, Keraton district, Yogyakarta City. It is surrounding Taman Sari complex. Pasar Ngasem and Plaza Ngasem area which is northern part of Taman Sari. It is focused on west and north area of Kampung Taman with concerning several aspect such as ;



Visitors/tourism main route



Custer shop house area which supporting Taman Sari complex tourism area



Ease in access for Kampung Taman people and visitors



Available space to be developed

Kampung Taman houses
Abandoned space (city waste water treatment)
Plaza and Pasar Ngasem
Shop house cluster
Alley/pathway of kampung taman
Taman Sari building
Boundary area

Site Location

Taman Sari Garden Complex

Introduction

Taman sari complex was built during the era of Sultan Hamengkubuwono I (HB I) in 1758 - 1765. At first, this garden was called "The fragrant garden" which has an area of about 10 hectares with 57 buildings that have various functions, functioned as buildings, ponds, baths, suspension bridges, water canals, and artificial lakes along with artificial islands and underwater passages. In the past, this garden was still in use during 1765 - 1812 which the main door was in the southwest of the Kedhaton complex to the southeast of the Magang complex. Now, there are only about 22 buildings left, which in the southwest of the Kedhaton complex.

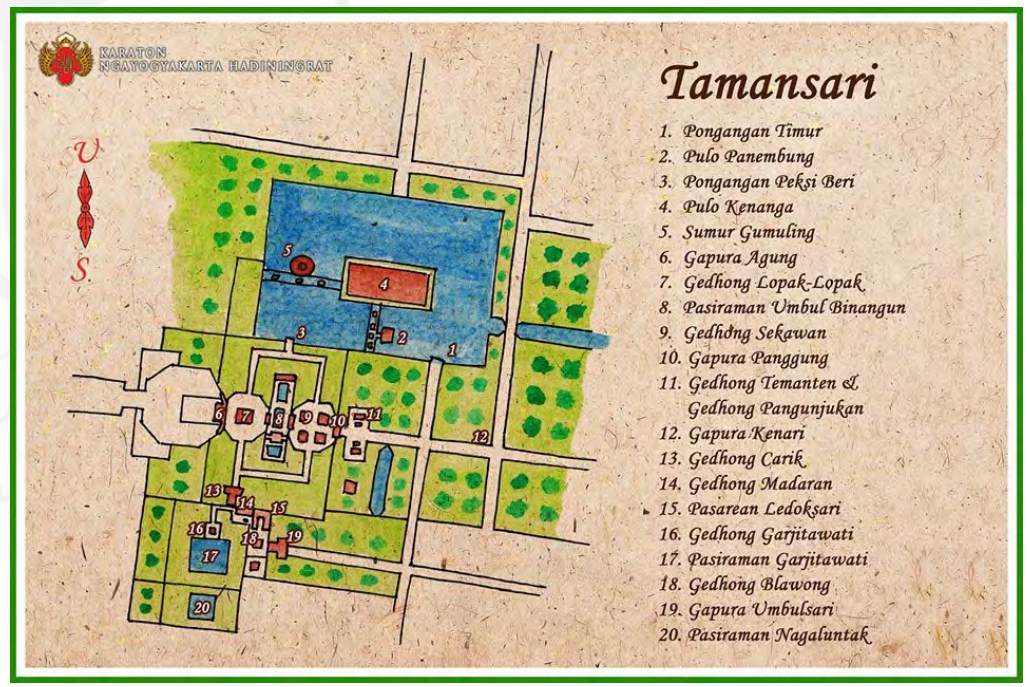


Taman Sari at 1859
Source : C. Buddhing, Geschiedenis van Nederlandsch Indië atau "Sejarah Hindia Belanda

Plan

The Taman Sari Garden Complex is divided into 4 sections.

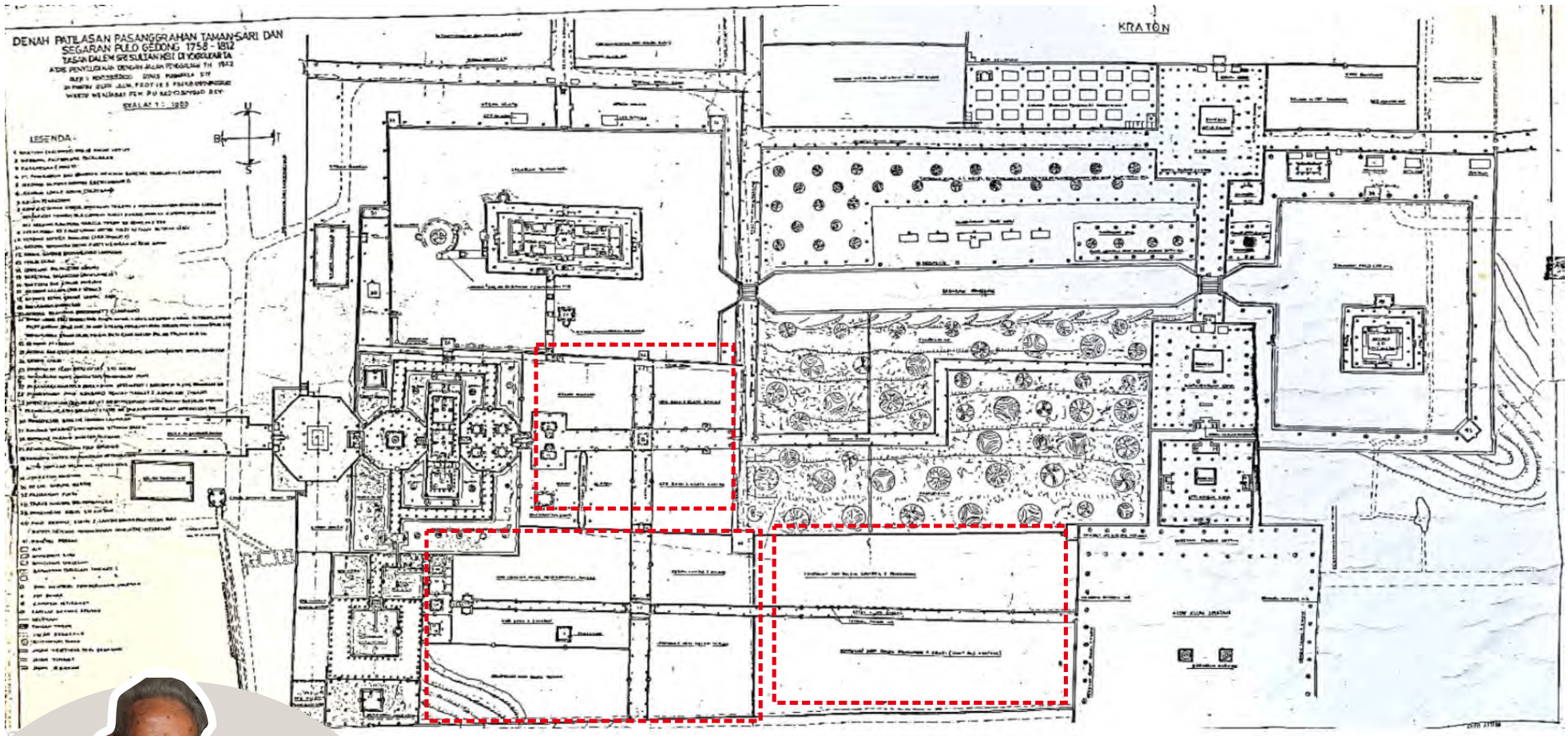
- The first part is the main place which is the most exotic. consists of an artificial lake, Pulo kenongo building in the middle of the lake, Pulo cemethi and Sumur Gumuling .(west area)
- The second is southern part consists of gedhong gapura hageng, gedhong lopak-lopak, umbul pasiraman, gedhong gapuro panggung, gedhong temanten and gedhong sekawan (the building in this area is still intact and preserved)
- The third part is only a few intact, namely the complex area of Pasarean Dalem Ledok Sari and the Garjitawati Pond. (this building is still preserved)
- The fourth is southeast part, the artificial lake and the building in the middle, the garden around the artificial lake, the large canal that connects the artificial lake with the artificial lake in the first part and a garden.



Taman Sari Yogya Plan
Source : Kratonjogja.id

Site Location

Taman Sari Garden Complex in the past



Taman Sari Complex in the past 1765
Picture : taken by Author from Pak Joko (Abdi Dalem),2021

Garden of vegetables and fruit

N



MW. Citro Mardowo/Djoko Moelyo
Sesepuh abdi dalem Taman Sari complex
93 years old
Source : author,2021

"This is the original of Taman Sari complex maps. The west part of Gedhong Lopak-lopak was a gate as Paseban (entrance) of Taman Sari complex. Iit was surrounded with kebun (garden) start from kebun mangga, naga, sayur-sayuran (vegetable), Duku, Kepel and others. So, why it was called as Taman Sari because this area half of lake and half of garden. "

Site Location

Kampung Taman and cluster shop house

Introduction

The settlement which mingle with Taman Sari Complex is Kampung Taman. People who living there having a creative industry especially batik and craft characteristic of Taman Sari history which is their main income.

History

“In the past, Kampung Taman area is a garden and artificial lake of Taman Sari Complex. But, after the building collapse because of England military attack at 1812 and also the earthquake.” (Ipung,Abdi Dalem,2021). After the tragedy, Taman Sari Abdi dalem start to build their houses side by side with Taman Sari complex.

“ It is their duty to preserving and treat the rest of Taman Sari complex. They start to build and bequeathing that land and house to their inheritant. Thus, some of the houses at Kampung Taman is inherited land hereditary until now.”

(Ipung, Abdi dalem, 2021). Keraton having an agreement to some people and abdi dalem who live at Taman Sari complex. Magersari is a title for people who live at the land which the owner of land is Keraton. So, when the Keraton have to have back the land, the people who live there must agree if they have to move. (Ipung,Abdi dalem,2021)



Kampung Taman alley artificial lake area
Source : author,2021



Kampung Taman alley artificial lake area
Source : author,2021

Site Location

Plaza Ngasem

Plaza Ngasem function

Plaza Ngasem located at southern part of Pasar Ngasem and northen part of Pulo kenanga Taman Sari. It is a space for held a cultural and others festival or event. Completed with seating area and stage formed half of circle. Plaza Ngasem also used for daily activity for children playing games or public space for community surrounding relaxing.



Existing site
Source : Google earth by author, 2021

Kampung Taman community parking area
Abandoned space (City waste water treatment)
Plaza Ngasem
Main street
Entrance access

Abandoned Space

History

The abandoned space located at west part of Plaza Ngasem and north west of Pulo Kenanga Taman Sari. Formerly, it was a city waste water treatment system. All of the waster water will delivered here to be treated. People surrounding believe that this is a historical waste water treatment and need to be preserved So, they think better if they let the space as it is and do nothing to that space (Revianto,2021). This space contain of a waste water treatment place and the office to supervised the work.



Existing abandoned space
Source : Google earth by author, 2021



Existing plaza ngasem
Source : Google earth by author, 2021

CHAPTER

2

LITERATURE REVIEW

Thematic Review
Tipology Review
Precedent Review

Thematic Review

FEATURE OF SOUNDSCAPE

Principles

Discovering the features of soundscape is the first step to know how the sound dominated human hearing, such as

- Keynote sound is a sound with particular composition and tone. This sound become listening habits or it is a sound which exist in common unconsciously. Such as water, wind, forest, plains, birds, insect and animals.
- Signals sound can be listened consciously. Such as horn, bells, sirens.
- Soundmark sound is a unique sound to recognizing some place or area. It is a special sound which refer to a certain community. Such as church, mosque call to prayer.

SOUND CLASSIFICATION

Sounds may be classified in several ways:

- according to their physical characteristics (acoustics) or the way in which they are perceived (psychoacoustics) is presenting general physical description of sound. it is giving information of is the sound distance far or close, strong or weak, clear or blur, and other.
- according to their function and meaning (semiotics and semantics) or according to their emotional or affective qualities (aesthetics) sound affecting individual differently. This part is subjective but meaningful result. The sound might pleasing or displeasing, phobias to certain sound, undesirable sound, and others.

SOUNDSCAPE AND FORMAL AESTHETIC OF ARCHITECTURE BASIC FORM

Principles

Basic form is strengthening people's perception in soundscape application with primary element of point, line, plane and volume.

a. point
it is showing a focus point of sound source. It is exist in the environment as an active element. The visual will dominating the space.

b. line
in architecture commonly used to describe path and expressing the direction, movement and growth. It is also describing the edges between spaces. The sound is coming along with the line of sound sources.

e. plane
it is often draw as a wall element to mask other sound objects. Sometimes plane used to blocking or masking the undesirable soundscape. it is also creating a aural space for individual no longer can hear their own movement, speech. They will focus on what they see and hear.

f. Soundscape and organization of space it is combination of space organization. The space may don't move. But, when human move, the sound is move and it is creating a feel of changing space.

Thematic Review

SOUNDSCAPE

Introduction

Soundscape is a sound or noise in a place created by natural element or artificial element context surrounding (physical environment) which is make human feel living in it. Soundscape
experience is how human involve and participating with the sound from physical surrounding which affect on human feeling, mind and perception. The

Soundscape experience will be a language to translating the meaning of place making. It will be the language to speak what the ambiance of space is refer to. It is creating a perception in human mind through element of sound. With sound human will drowned to brain stimulation to knowing the meaning of each sound.



Gallery of Soundscape
Source : Archdaily

Aim of Soundscape

The aim of soundscape experience is for increasing the quality of how visitors will deliver the history value of Taman Sari building within cluster shop house area. So, it is continuing the experience from Taman Sari building to shop house area which designed to have a similar soundscape experience with Taman sari building .

The aim of soundscape such as

- Stimulating the brain of human to have a perception of sound element that they heard
- Translating the language of each sound to what it is referred to
- Delivering the message of ambiance in space
- Creating an awareness of certain value (depend what space it is)
- Identify and define sound perceived
- Identifying and defining space

Thematic Review

SOUND CONTEXT

Aesthetics/context

Study of sound separated into acoustics and psychoacoustic used for physicist and engineer, semantics and aesthetics used for linguist and communicator. The two sound having different physical and resulting different meaning of aesthetic responses. The listener will ease to differentiate the meaning of sound. But, it is will give another respond of aesthetic if there is a identical sound but differ meaning or vice versa which different sound but same meaning.

Sample sound	Acoustic	Psychoacoustic	Semantic	Aesthetic
Alarm bell	Sharo attack, steady-state with rapid amplitude modulation narrow band noise on center frequency of 6,000 hz ; dB	sudden arousal; continous high pitch loud ; decreasing interest; subject to auditory fatigue; sensitive pitch area	alarm signal	Frightening, unpleasant, ugly
Flute music	Interrupted modulation of shifting frequency;near pure tones with some presence of even harmonics; varying between 500 and 2000 hz ; 60 dB	Active patterned sound of shifting pitch melodic contour; pure tones ; high register ; moderately loud	Sonata by J.S bach inducement to sit down and listen	Musical, pleasant, beautiful

Table 1. Sound context different physical sound. Schafer,R.Murray. Book : The Soundscape our sonic environment and the tuning of the world (161)

According to Schafer, R. (1977) " Here two sounds with similar, but not identical, physical characteristics appear to be identical in perception, but nevertheless cause no confusion in meaning and accordingly have different aesthetic effects. Their contexts keep them clear. But when they are removed from their contexts in tape recordings, they may quickly lose their identities. Nor is the ear acute enough to be able to distinguish whatever differences may exist in their physical structure."

The two sound is similar, but having different meaning and aesthetic effects. The context make them clear. But, if the sound removed from the context the identities of sound will disappear and resulting different respond

Sample sound	Acoustic	Psychoacoustic	Semantic	Aesthetic
Kettle boiling	Colored noise; narrow band (8000hz) steady state; 60 dB	High pitched hissing sound	Tea is on	Pleasing
Snake hissing	Colored noise; narrow band (7500 hz); steady state (occasionally intermittent); 55dB	High pitched hissing sound	Snake prepare to attack	Frightening

Table 2. Sound context identical sound different meaning. Schafer,R.Murray. Book : The Soundscape our sonic environment and the tuning of the world (163)

Thematic Review

PERCEPTION

Introduction

Perception is how to identifying and interpretation sensory information to give a image and understanding to environment. Perception either involving the signal of nervous system.

The process of perception occurred in several step such as ;

1. Stimulation

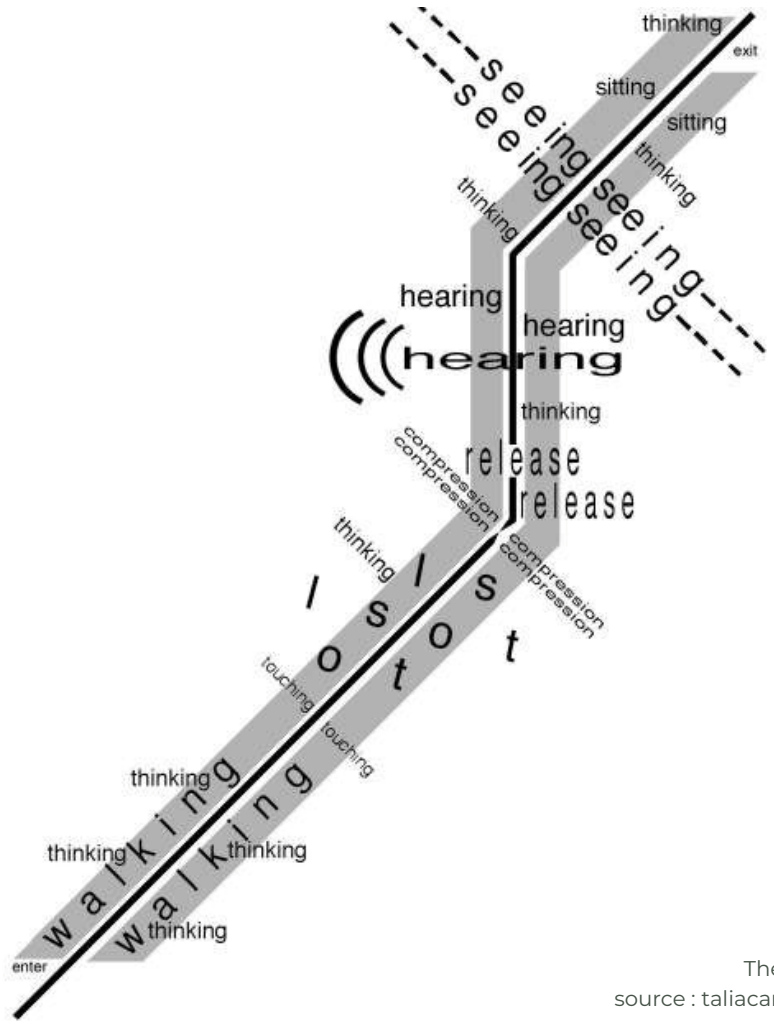
Perception happened when receptor or senses of human receiving stimulation from their surrounding

2. Registration

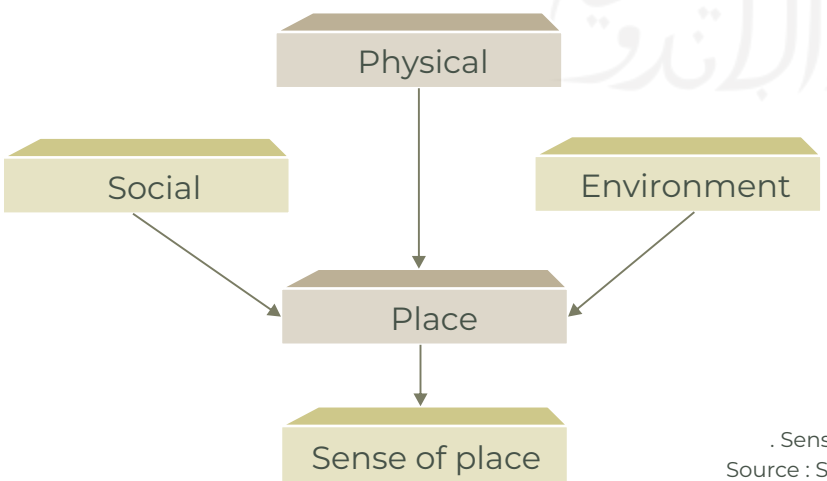
Human may see, hear, touch, smell and other if there is information received by individual then listing all information.

3. Interpretation

Process of translating or give meaning to stimulus which received by senses. This process depend on how the individual perceived and deal with the stimulus. So, different people may have different interpretation.



Thesis program museum
source : taliacannistra.wordpress.com



. Sense of place
Source : Steele, 1981

SENSES OF PLACE

Sense of place is an specific experience feeling in certain place or setting by individual. When human doing activity or interaction toward the space, it will resulting a reaction to human body such as feeling, behavior , perception and others. It is depend on what kind of place.“...Soundscape research is highly subjective as listening to sound sources is an activity that is arranged and comprehended by the human mind. Therefore, sounds interact and intervene in the connections of listeners and context; yet sounds are also influenced by physical, environmental and social elements”. Truax,B (1996). The three element is important to influencing human sense of place.

Thematic Review

REGULATION REVITALIZATION HERITAGE AREA

PERATURAN TEKNIS KAWASAN BUDI DAYA
PERATURAN MENTERI PEKERJAAN UMUM NO.41/PRT/M/2007

1. Kawasan peruntukan pariwisata

Jenis obyek wisata yang diusahakan dan dikembangkan di kawasan peruntukan pariwisata dapat berupa wisata alam ataupun wisata sejarah dan konservasi budaya.

a) Fungsi utama

Kawasan peruntukan pariwisata memiliki fungsi antara lain:

1) Memperkenalkan cagar budaya

2) Mendukung penyediaan lapangan kerja untuk masyarakat sekitar

b) Kriteria umum dan kaidah perencanaan:

1) Ketentuan pokok tentang pengaturan, pembinaan dan pengembangan kegiatan kepariwisataan mengacu kepada Undang-Undang Nomor 9 Tahun 1990 tentang Kepariwisataan;

2) Kegiatan kepariwisataan diarahkan untuk memanfaatkan potensi-potensi alam, budaya dan adat istiadat

3) Kegiatan kepariwisataan harus memiliki fungsional dan industri kecil sekitar

4) Pemanfaatan lingkungan dan bangunan cagar budaya untuk kepentingan pariwisata, harus memperhatikan kelestarian lingkungan

5) Pengusahaan situs benda cagar budaya sebagai obyek wisata dapat membantu masyarakat sekitar

6) Ketentuan tentang penguasaan, pemilikan, pengelolaan, dan pemanfaatan benda-benda cagar budaya diatur dalam Undang-Undang Nomor 5 Tahun 1992 tentang Benda Cagar Budaya dan Peraturan Pemerintah Nomor 10 Tahun 1993 tentang Pelaksanaan Undang-Undang Nomor 5 Tahun 1992 tentang Benda Cagar Budaya;

7) Pada kawasan peruntukan pariwisata, fasilitas fisik yang harus tersedia meliputi jaringan listrik, telepon, jaringan jalan raya, tempat pembuangan sampah, drainase, dan saluran air kotor;

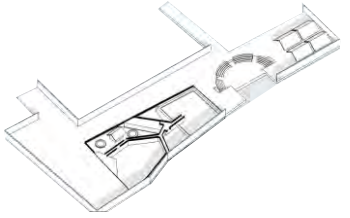
8) Harus memberikan dampak perkembangan terhadap pusat produksi seperti kawasan pertanian, perikanan, dan perkebunan

Tabel 12 Karakteristik kawasan peruntukan pariwisata

No.	Jenis Wisata	Kriteria Teknis		
		Fisik	Prasarana	Sarana
1	Wisata Alam			
	Wisata Pegunungan	• Luas lahan minimal 100 Ha • Mempunyai struktur tanah yang stabil • Mempunyai kemiringan tanah yang memungkinkan dibangun tanpa memberikan dampak negatif terhadap kelestarian lingkungan • Iklim sejuk (di atas 700 dpl, atau suhu <20°C) • Mempunyai daya tarik flora & fauna, air terjun, sungai, dan air panas	• Jenis prasarana yang tersedia antara lain jalan, air bersih, listrik, dan telepon • Mempunyai nilai pencapaian dan kemudahan hubungan yang tinggi dan mudah dicapai • Tidak mengganggu kelancaran lalu lintas pada jalur regional	• Tersedia angkutan umum • Jenis sarana yang tersedia yaitu hotel/penginapan, rumah makan, kantor pengelola, tempat rekreasi & hiburan, WC umum, mushola, poliklinik, dan wartel • Gaya bangunan disesuaikan dengan kondisi lingkungan dan dianjurkan untuk menampilkan ciri-ciri budaya daerah
	Wisata Bahari	• Mempunyai struktur tanah yang stabil • Mempunyai kemiringan tanah yang memungkinkan dibangun tanpa memberikan dampak negatif terhadap kelestarian lingkungan • Mempunyai daya tarik, flora & fauna *aquatic*, pasir putih, dan terumbu karang • Harus bebas bau tidak enak, debu, asap, serta air tercemar	• Jenis prasarana yang tersedia antara lain jalan, air bersih, listrik, dan telepon • Mempunyai nilai pencapaian dan kemudahan hubungan yang tinggi dan mudah dicapai dengan kendaraan bermotor • Memperhatikan risiko bahaya dan bencana • Perancangan sempadan pantai yang memperhatikan tinggi gelombang laut	• Tersedia angkutan umum • Jenis sarana yang tersedia yaitu hotel/penginapan, rumah makan, kantor pengelola, tempat rekreasi & hiburan, WC umum, dan mushola • Gaya bangunan disesuaikan dengan kondisi lingkungan dan dianjurkan untuk menampilkan ciri-ciri budaya daerah

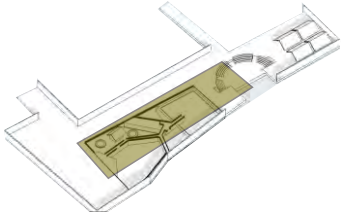
PERATURAN TEKNIS KAWASAN BUDI DAYA PERATURAN MENTERI PEKERJAAN UMUM NO.41/PRT/M/2007
source :
http://landspatial.bappenas.go.id/komponen/peraturan/the_file/permen41.pdf

Yogyakarta district, regulation



FAR 9.651 m2

1.5



BCR 3.619 m2

60%

Thematic Review

REVITALIZATION

Introduction

Revitalization is defined as many-sided effort including revalorization, restoration, reconstruction, modernization, and actions aimed at revival of as building, district or a town devastated in various aspects, also economic and social [Pawłowska and Swaryczewska 2002]. K. Skalski, moreover, determines the factors, such as society, local and state authorities, and other institutions, that can initiate and shape the developmen-tal processes of a given area [Skalski 1996].
Revitalization also defined as an effort to conserve an existing to make it to be beneficial and good to used.

Revitalization having different place variables to deal with such as building, sites, city. The benefit of revitalization to the society in aspect of government , public , and economic interest.

1. Government interest
- Maintain cultural asset to preserved
- Making new cultural landmark
- Engagement for public in heritage place

2. Economic interest
- Opportunities for job (increasing)
- Tourism new resources
- Appropriate use in land resources

3. Public interest
- Character and local culture retained
- Improving existing in urban environment
- New resources in cultural aspect for public
- Awareness of cultural heritage increase



Revitalization benefit to society
source :
https://www.slideshare.net/alihyder790/conservation-and-revitalization-of-historic-buildings

Thematic Review

COMPARING BATIK SELLER HOUSE LAYOUT

Study case

BATIK SELLER HOUSE IN KAMPUNG TAMAN

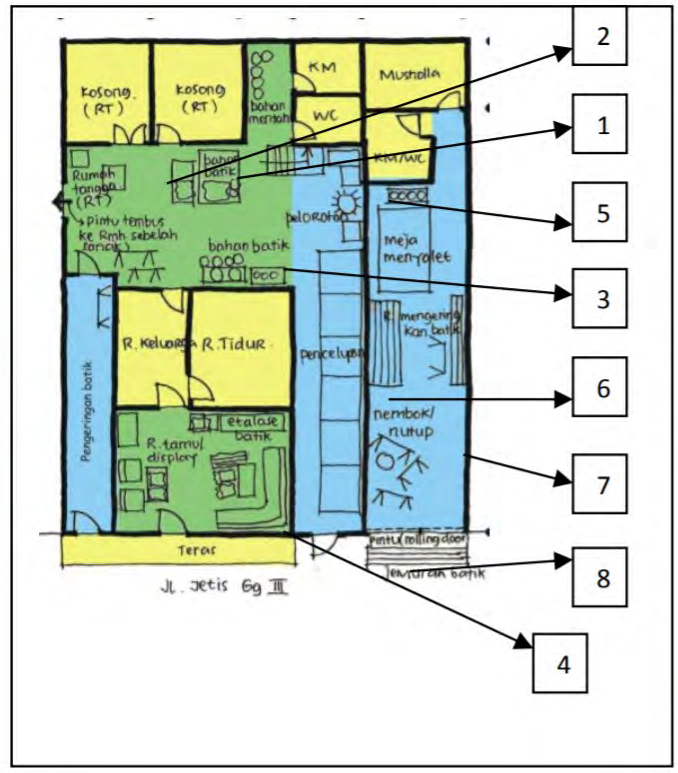


Sample layout Mr.Agus shop house at Magersari land
source : Author,2021



Sample layout raw sketch
Mr.Iwan shop house at
Rented house

BATIK SELLER HOUSE IN KAMPUNG BATIK JETIS SIDOARJO



Production space layout batik amri
source : Irma Fitriyani, 2015

DIFFERENTIATION

Space differences between batik seller house in Kampung Taman, Yogyakarta and Kampung Batik Jetis, Sidoarjo such as ;

- House space dimension
- Space dimension needed
- Space needed
- Land of house owner

So, the differences based on the function of space, and space needed.

Thematic Review

PAGUYUBAN BATIK KAMPUNG TAMAN

History

- **1970**

From sources it is mentioned that the first or volunteer of Batik art in Kampung Taman is Harjiman since 1973. He lives there and develop batik knowledge to Kampung Taman teenager. He also creating paguyuban batik at Taman Sari which called Sanggar Kalpika. But, Sanggar Kalpika only for Kampung Taman inhabitant.Not for public.

- **1976 - 1983**

Batik lukis Taman Sari become famous and developed very well. This is become a Batik center in Yogyakarta. 90% of Kampung Taman inhabitant become batik painters.

- **2017**

The painters of Kampung Taman is lessen. from 90% now only left about 10-25 % only. The value of batik lukis lessen time by time.



Mbatik process source : http://jogjatranstour.blogspot.com/2012/09/kursus-sehari-di-jogja.html



Plorotan process source : http://jogjatranstour.blogspot.com/2012/09/kursus-sehari-di-jogja.html

Process making

- **SKETCH**

Drawing/sketching the design on the fabric

- **MBATIK**

Start to use canting to take the wax and layering the sketch with it

- **COLOURING**

Colouring the fabric with certain design

- **MBATIK**

Layering the first mbatik process to get maximum quality of wax molded on fabric

- **NGEBYOK/PELOROTAN (REMOVING WAX)**

Removing the wax and cleaning the fabric with hot water then wash again

- **DRYING**

Drying the fabric with aerated



Drying process source : https://www.antarafoto.com/asian-games-2018/v1387631701/produksi-batik-terkendala-cuaca

Thematic Review

PASAR PLAZA NGASEM ACTIVITIES

History

- **1765**

It is a artificial lake area which is Pulo Kenongo building area. It is used for Sultan Hamengku Buwono II sightseeing while looking at the beauty of the palace from outside the fort

- **1809**

Pasar Ngasem already there. They sell groceries for foods and Pasar Hewan which sell birds.

- **1960**

Pasar Ngasem identical with birds seller after bird seller from Pasar Bringharjo moved to Pasar Ngasem.

.

- **2010**

Pasar Ngasem relocated to Pasar Satwa dan Tanaman Hias Yogyakarta atau Pasty in Bantul

- **2013 - now**

Festival Kesenian Yogyakarta which usually held in Benteng Vredeburg relocated to Pasar Ngasem. Then, created a Plaza Ngasem



Pasar hewan
Source : Wikipedia



Pasar Ngasem
In the past
Source : Wikipedia



Plaza Ngasem
source : magnet holidaysenjoy yogyakarta

Thematic Review

BIRD VARIATION AT NGASEM BIRD MARKET

List of bird

This Ngasem bird market used for selling birds, birds show, or bird singing battle. There are many variety of birds in Bird Market Ngasem. Most of them are local bird such as

1. ***Geopelia striata***
perkutut bird
2. ***Pycnonotus aurigaster***
Kutilang bird
3. ***Serinus canaria***
Kenari bird
4. ***Pycnonotus zeylanicus.***
Cucak rawa bird

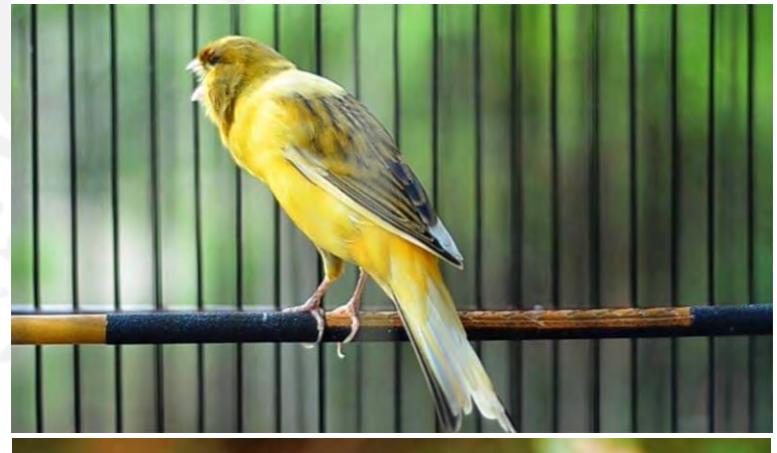
also lovebird, beo, betet, kepondang, emprit, jalak, hantu bird and many more. Not only local bird, but also imported birds such as poksay China, gelatik silver fromi Kanada and others.



Perkutut bird
Source : Portal jember



Kutilang bird
Source : greeners.co



Kenari bird
Source : Hewanee



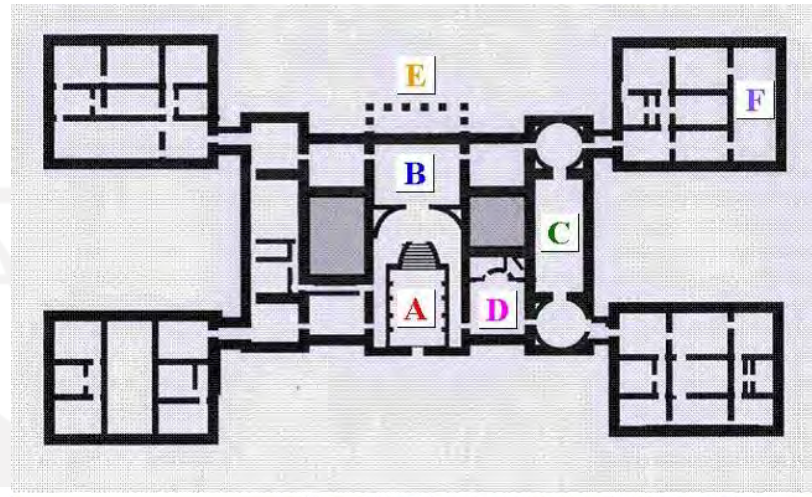
Cucak Rawa bird
Source : burung cantik

Typology Review

PAVILION FROM ANCIENT TO MODERN

Introduction

Informal pavilion is appear in history of Roman Empire (200BC-1450 AD) as temporary tents set up during military operation resulting in the term of papilio which translates to butterfly, later evolving to the French Pavillon. It is used as canopy for sheltering.



Plan of the main part of Holkham Hall,Plan of the main part of Holkham Hall (F) pavilion
Source : Wikipedia

In modern period, the function of tents used in many of aspect such as art, culture festive, shelter, and other. The form of pavilion time by time adjust with the function. Now, it is related with recreation and entertainment pavilion such as landscape park, fanciful garden, nineteenth-century architect style, boathouses, gazebos, pergolas, seats, cabinets, and other.



Modern Pavilion
Source : inhabitant ; Tal Friedman's Origami Pavilion is an ultra-modern interpretation of an ancient art form

The structure of pavilion in common is simple structure which is 4 main column and beam to hold the roof weight. Time by time, the structure and form of pavilion is vary and resulting new tipology of pavilion. It is depend on the function, characteristic of it's place, or others consideration to be responded by pavilion design.



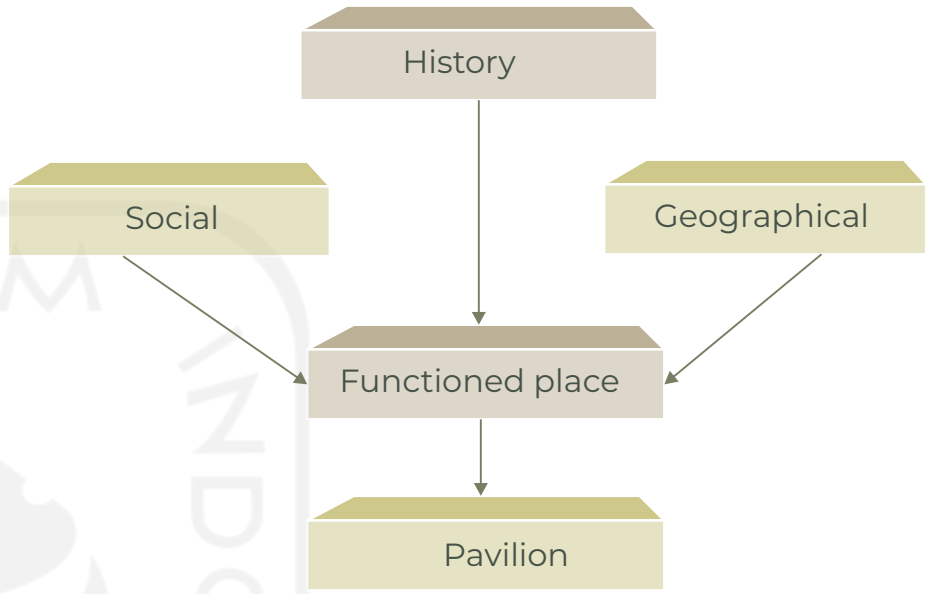
Ancient pavilion, A marble pavilion, Red Fort, Delhi
Source : Wikipedia

Typology Review

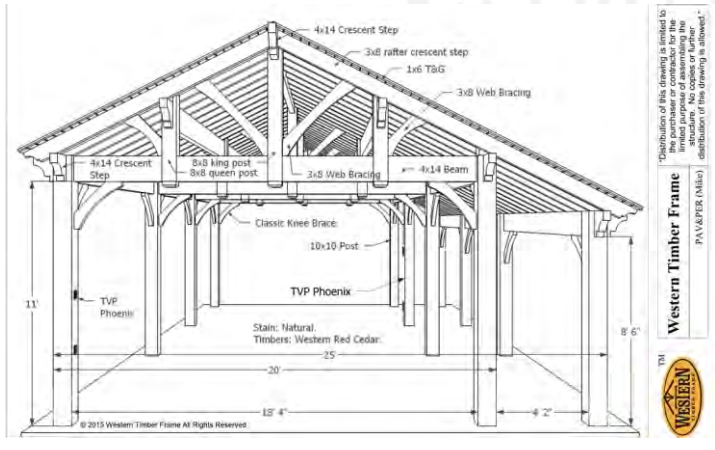
WHAT IS PAVILION?

Principles

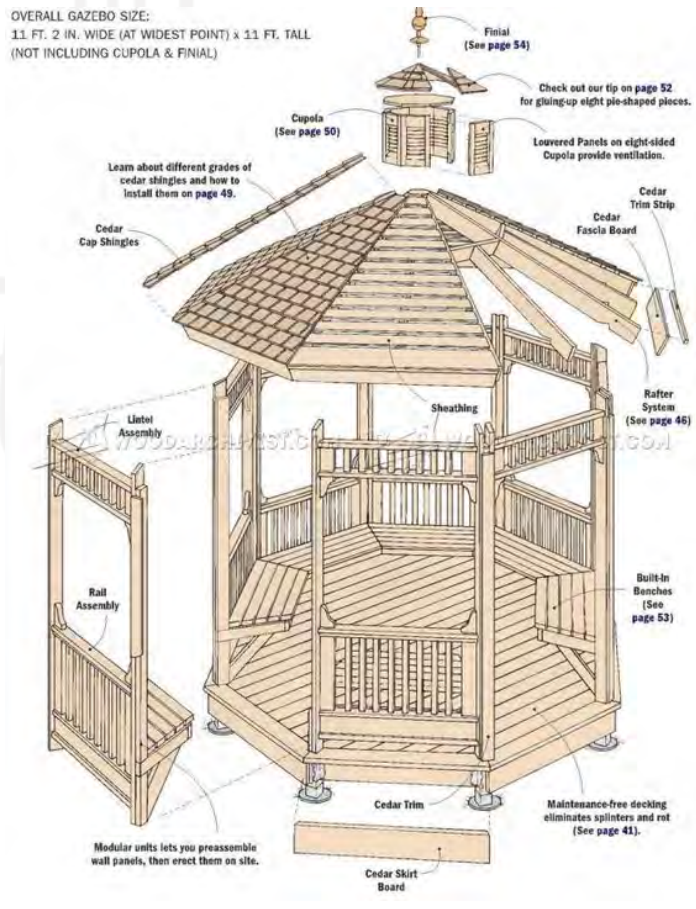
what is a pavilion? Building that is either positioned separately or as an attachment to a main building. Pavilion might freestanding or connected by covered walkways. Pavilion also having meaning of emphasized by combination of change in height, profile, material and others. Commonly it is connected from one main building to another building, called as a tent, a structure connected to larger building. Pavilion often seen in outdoor area which is mingle with nature and landscape surrounding. It is often exposed to the environment. The pavilion is not static. It is not a single unchanging type; in fact, it is not a type at all. The pavilion is not only an amorphous thing, adapting to several forms and functions, but is also responsive to changes in its geographical and historical environments. The pavilion may reflecting the context of geographical, social which where the pavilion is built and used.



How pavilion space formed
Source : Big world under little tents journal



Pavilion structure
Source : https://www.westerntimberframe.com/wooden-timber-pergolas/wooden-pergola-kits/timeless-red-cedar-diy-pavilion-w-outdoor-kitchen/



Pavilion assembly
Source : https://www.pinterest.fr/pin/598134394250127820/

Typology Review

AMPHITHEATER FROM ANCIENT TO

Introduction

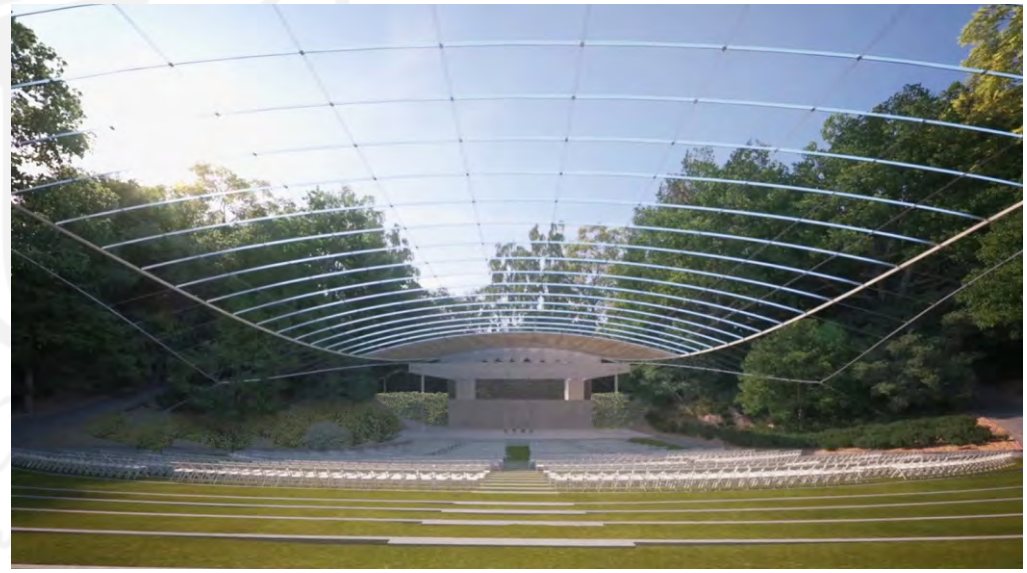
Amphitheater is a freestanding structure of round, oval, central , arena or others with seats concentrically placed around it. The way the seats and stage are design is depending on what are the function of the amphitheater is.

In ancient, Roman amphitheater date from middle of first century BCE. The most were built under imperial rule which is 27 BCE - 14 CE onwards. Roman amphitheater having an oval or circular plan with seating area around the performance area at central. It was used for blood games in Rome. It was a major public space for venues.



Pompeii: amphitheatre, The amphitheatre at Pompeii, Italy
source : Britannica

Modern amphitheater used to have a circular, semicircular or curved plan, particularly one located outdoors. with sloping seating, seating on only one side or round and stadium. Contemporary amphitheater often to have a standing structure behind the stage and audience used called as bandshells. it is creating an echo sound to the audience. so, that having ideal audio and performance especially for musical and theatrical.



FROST AMPHITHEATER RENEWAL, JAMES CARPENTER DESIGN ASSOCIATES
source : The plan.it

Typology Review

AMPHITHEATER BASIC FORM

Principle

There are positive and negative of stage form

- **Arena stage**

Pos : Intimate performance, audience are close

Neg : View of point might be a problem. so there needs to be lots of movement around the space.

- **Proscenium theatre**

Pos : View point good and ease in access.

Neg : The audience can feel separated from the performance.

- **Thrust stage**

Pros : The audience feeling is included to the performance. it is creating an intimate atmosphere. Having one end part which is visible to all provides a 'back' to the stage.

Cons : Point of view can still be a problem.

- **Theatre in the round**

Pros : Having an intimate and exciting atmosphere. Audience feel included.

Cons : View point is different for every point. So, may trick the viewers.

- **Traverse**

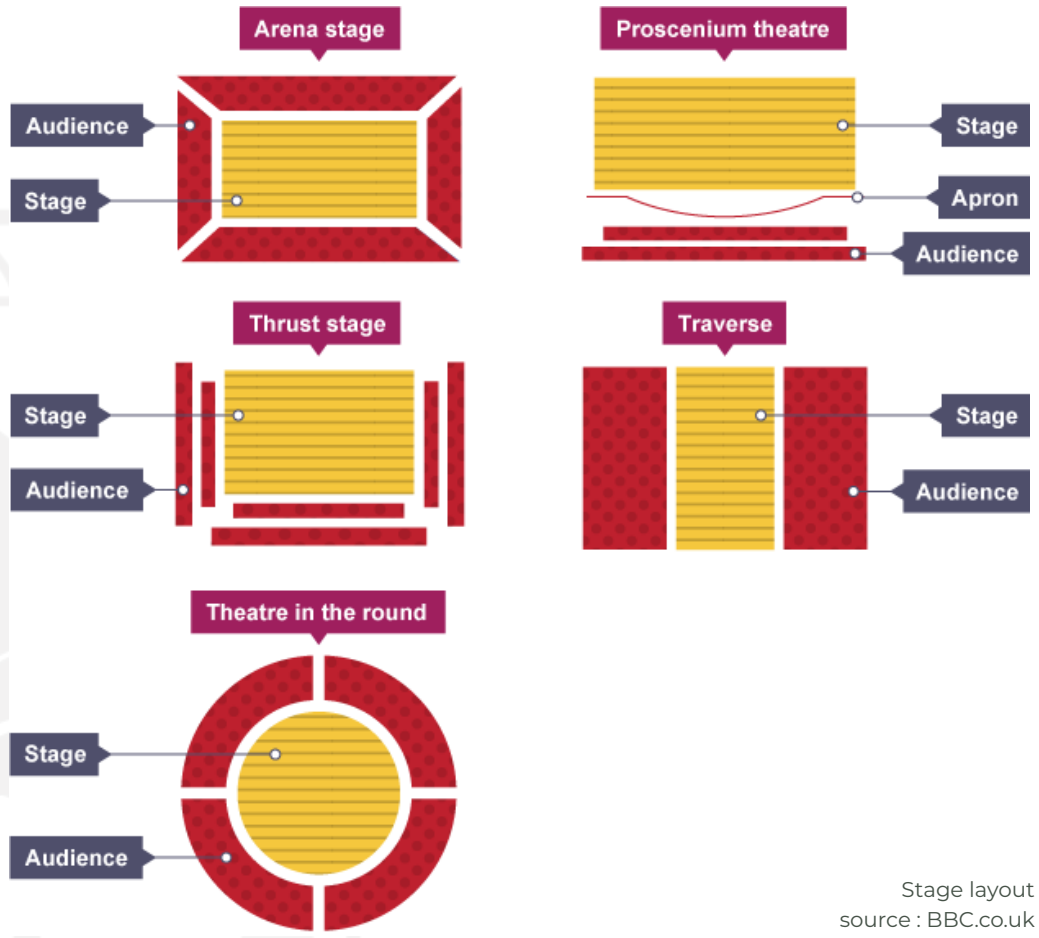
Pros : The audience on both side can clearly see work that happens at two sides. The audience can see each other, creating intimacy.

Cons : The opposite sides of the audience might see two different shows and view point are still a problem

- **Promenade staging**

Pros : Can work excellent. Interesting experience for the audience.

Cons : Moving between locations can break the tension of the piece and take some time.



Stage layout
source : BBC.co.uk

Typology Review

FASHION SHOW PERFORMANCE

Principle

There are two type of fashion show performance

1. Open

Open performance without pay the performance for introduce new fashion.

2. Closed

Exclusive, only for people who pay or it is an artist design.

Fashion show stage consist of **stage** where the models come from backtage and **runaway** is for models walk through to show the fashion**.**

The stage of fashio also have many variation such as

1. T runaway
2. I runaway
3 . X runaway
4. U runaway

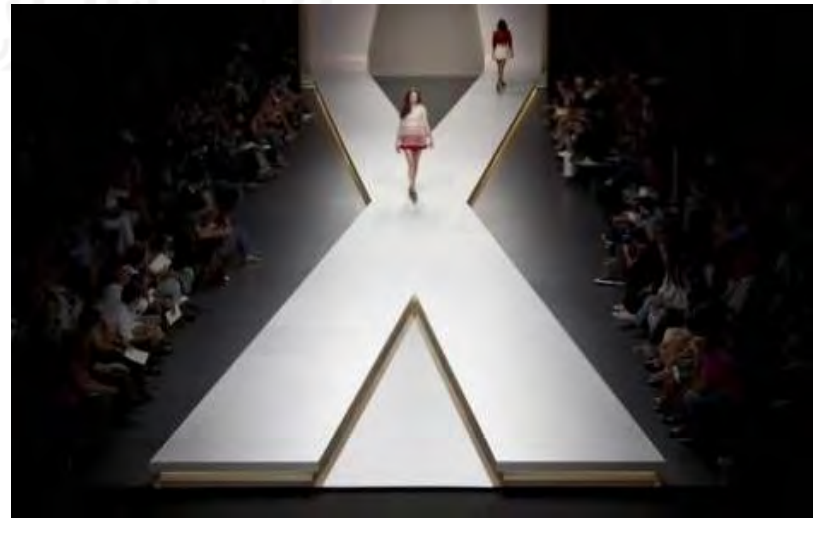
and many more. it is depend on the function and theme of fashion in every performance show.



Stage layout I
source : pinterest



Stage layout U
source : pinterest



Stage layout X
source : pinterest

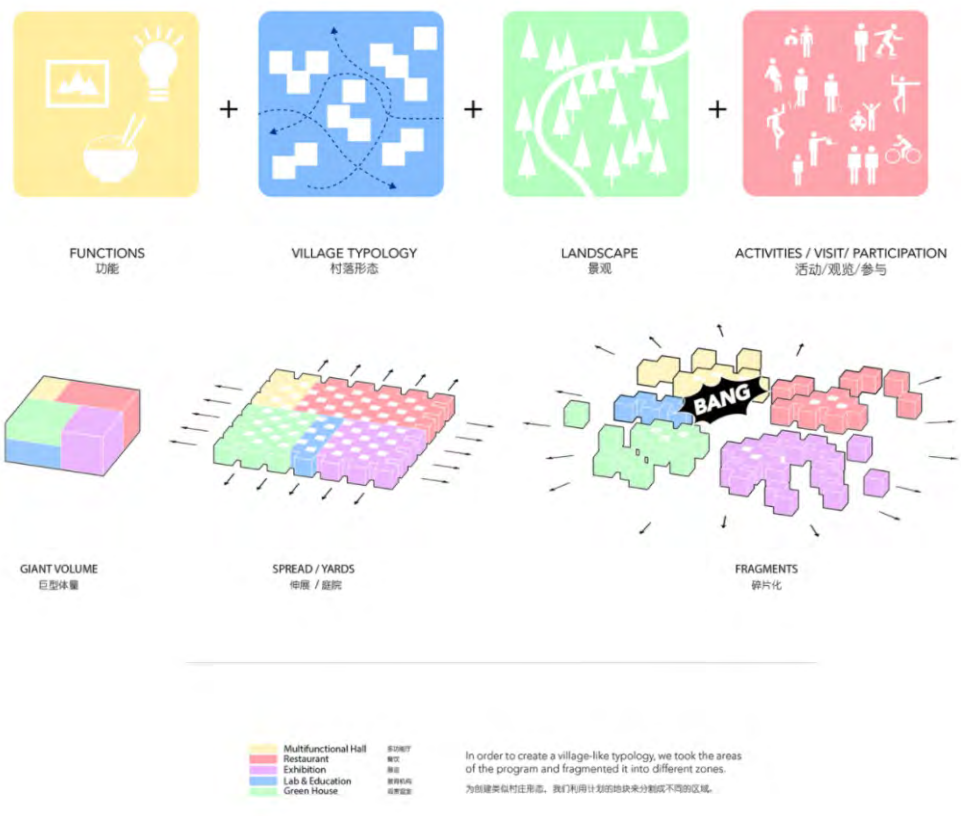
Precedent Review

"A Thousand Yards" Botanical Pavilion
Beijing, China

FIRM : Precht
TYPE : Cultural › Pavilion
STATUS : Concept
SIZE : 300,000 sqft - 500,000 sqft

The pavilion using path as visitors guidance to the center plaza which is become the major pivotal point and also meeting spot for visitors. Then, the next destination is pavilion which have a foodcourt with a restaurant, a bar and several teahouses and a Multipurpose hall, a large indoor greenhouse for several untypical plants and a centre of education also exhibition. All functions are connected to space on their lower 2 floors and outside gardening units on the roof.









A thousand yards Botanical village in Beijing project, Images Source : Archdaily

Precedent Review

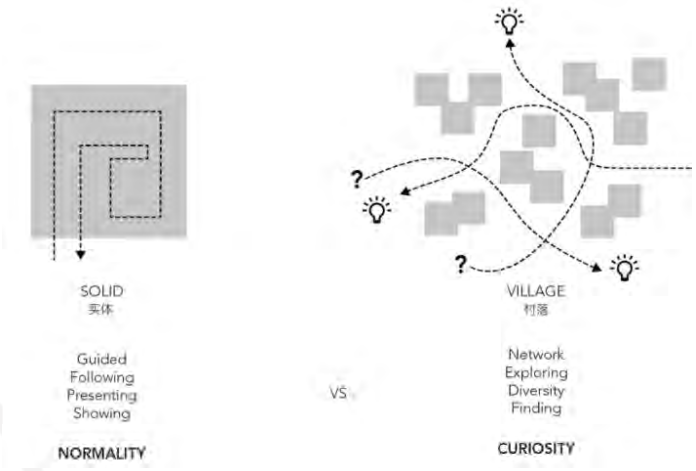
Village : This pavilion as a network between small scale unit which bring village-like typology that can be explored freely by visitors. Every small scale unit makes the space having speciality to happen at each corner. Village typology creates diversity, unexpected connections, and the curiosity to discover the unforeseen.

Flexibility : The masterplan was inspired of urban planning in ancient chinese cities. Using traditional urban orientation, zoning and infrastructure. Then, implement them in pavilion typology. Taking the ancient Chinese “Li” (an old area-measurement) as basic unit and developed a modular system of 8x8m units around it. It’s creating flexibility in explore the module.

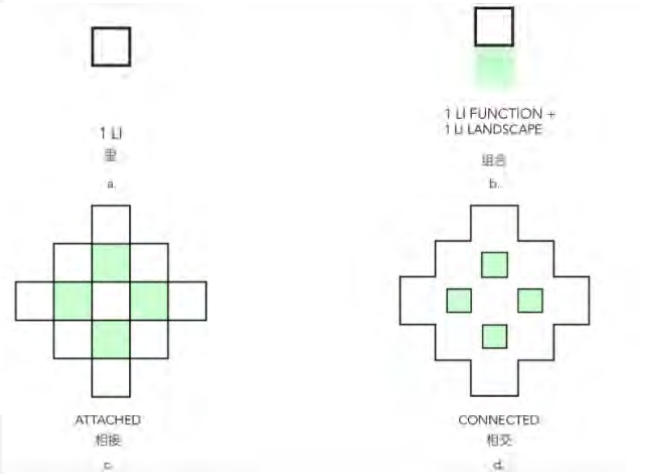
Interweaving of Architecture and Nature :
The building and yards correlated with one another to create a symbioses between architecture and the yards. Yards are having various functions, from ping-pong tables or children playgrounds for the active guests to themed gardens.

Visitors Participation / Design with Nature:
Visitors may participate with the design with nature. Visitors will get package of seeds and ask to plant the vegetables, herb and others at the roof top. Ramps connecting the green roof to the public areas of plazas and yards, makes the visitors leave their ecological impact in their own way on pavilion. The result of plants will be harvested by the pavilions staff and prepared into healthy dishes in the restaurant area.

Village



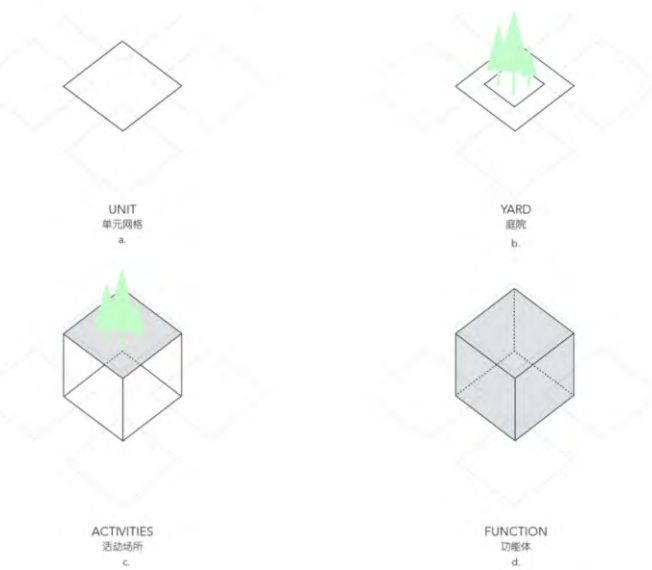
Flexibility



Interweaving of Architecture and Nature



Visitors Participation / Design with Nature



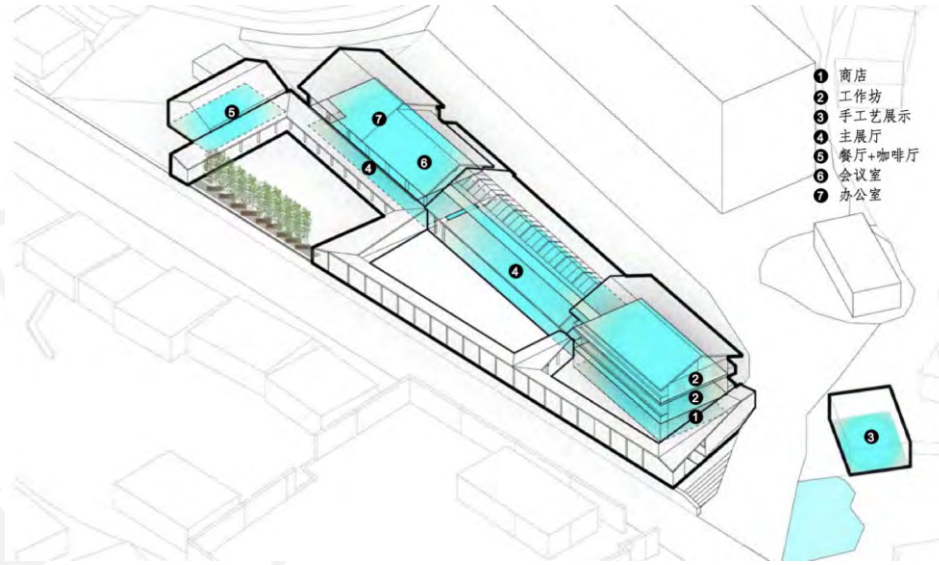
A thousand yards Botanical village in Beijing project, Images Source : Archdaily

Precedent Review

Redevelopment of MaoGong Barn Art Center / Approach Architecture Studio

Architects : Approach Architecture Studio
Area : 3000 m²
Year : 2016

The main design strategy is the open space courtyard utilization between the existing buildings and the road , and treat the space between the corridor and the courtyard as the buffer zone. Arranged old barn houses and surrounding old building as cultural space with local handcraft and agricultural product showrooms, together with artists' workshops, studios, catering gifts, and other ancillary facilities.
Implemented with local traditional techniques and material, exterior part which is the corridor between noisy highway the quiet exhibition hall, and it divides the existing outdoor space into three courtyards of different sizes, shapes and purposes.









Redevelopment of Maogong Barn Art Center image
Source : Archdaily

Precedent Review

Children Village / Rosenbaum + Aleph Zero

Architects : Aleph Zero, Rosenbaum
Area : 23344 m^2
Year : 2017

This project concern about transformation, cultural rescue and encouragement of local constructive techniques also development for children of the Canuana school. It is an existing complex also potential for the ideas of belonging students to Canuana. This is a learning space which prioritize home value.





Children Village / Rosenbaum + Aleph Zero image
Source : Archdaily





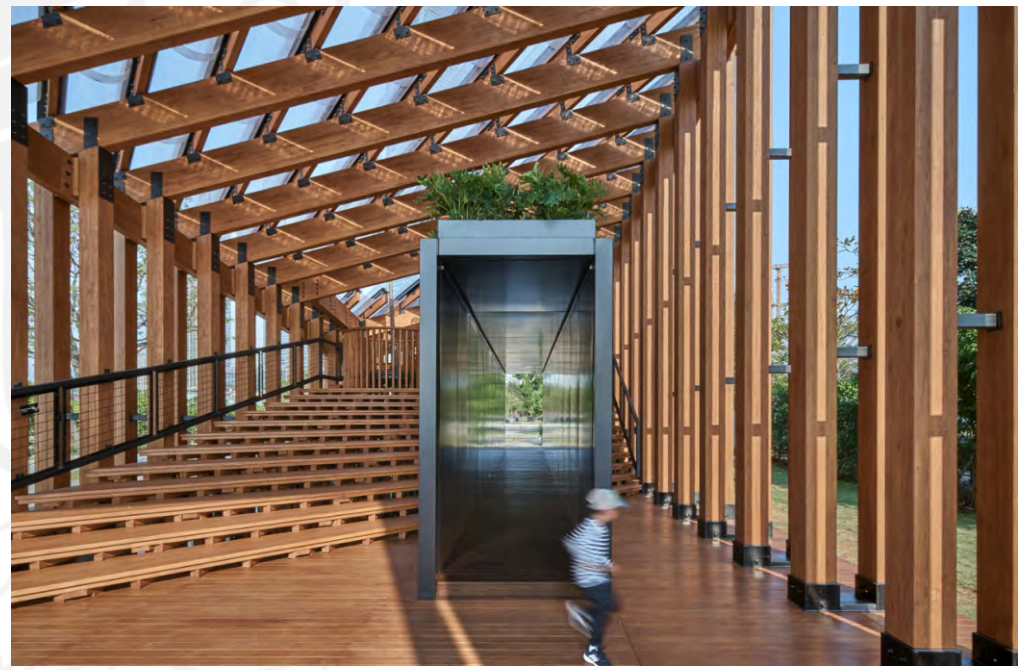
Precedent Review

Growing Up Pavilion / New Office Works

Architects : New Office Works
Area : 240 m²
Year : 2019

Hongkong fundamental element. The sloped roof using supporting series of timber column. It is showing a grow from an intimate human scale to harbor scale. The stepped landscape also shows the city hilly topography which providing both seating and stage for vary activities. Besides of the form which more to simple volume, each of the pavilion angle are revealing the different sense of porosity, materiality and scale. It is having a transparency characteristic at the north and south elevation, also having background of seamless trees. The repetition of column makes it overlap in perspective and it is framing the waterfront view.









Growing Up Pavilions, Images
Source : Archdaily

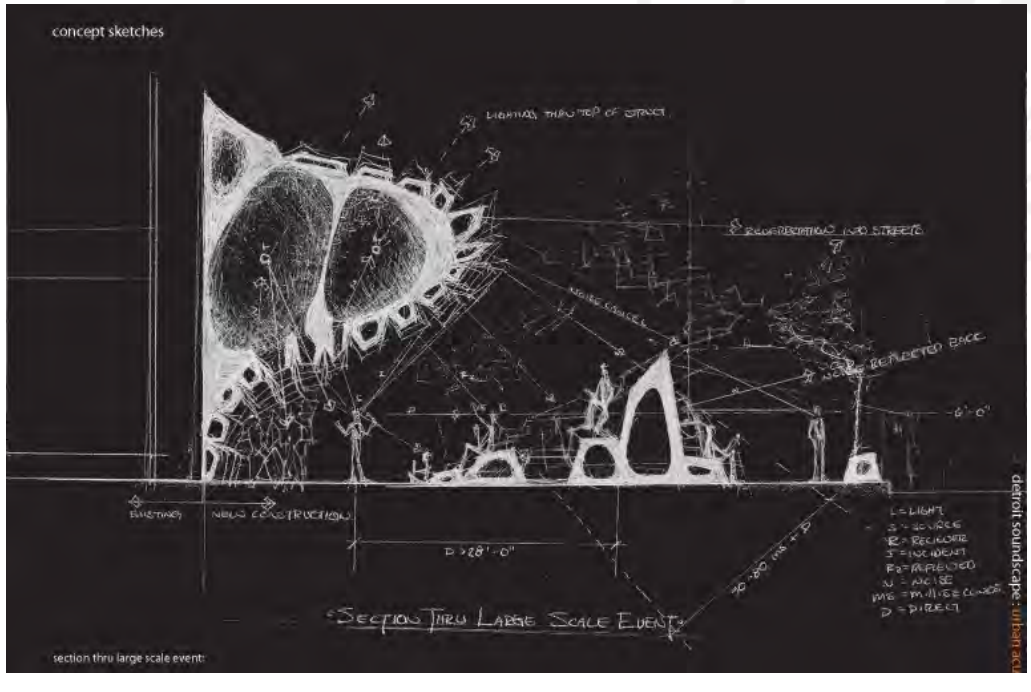
Precedent Review

Detroit Soundscape : Urban Acunpuncture

TYPE : Installation
STATUS : Concept
Detroit city

Begin from the lack safety of pedestrian and making the pedestrian presence is low. Creating the sidewalk with spatial and social condition. It is resulting visibility of local bussiness and cultural activity. it is strengthen the identities of commercial districts.
Work with local business and aligning themselves with local performers, the business will obtain an additional avenue to self promotion while additionally establishing themselves as active supporters of their community. Strengthen the sense of community with street performer which gathering the community individuals.
The implementation of acoustically system. performance create a draw to the business and encourage people to linger at the business. During non-perfomance time the installation will continue open as a public space or social space. it's might occupied by musicians, people relaxing, or others. it is serving all the people needs in street.







Detroit Soundscape images
Source : https://archimorph.com/2010/04/27/detroit-soundscape/

CHAPTER

3

DESIGN METHOD

Initial Design Method
Design Novelty

Initial Design Method

Data Gathering Method

Observation
Direct observation to the site location with taking several photos and sketches. Observing the cluster shop house layout, waste water treatment location, and plaza ngasem existing element.

Interview
Interview with several resources person such as Ketua paguyuban Batik Taman Sari, shop house owner, visitors, tour guide and people living there.

Data Analysis

Analyzing the real condition of site location especially waste water treatment area and Plaza Ngasem amphitheater physic. The condition of cluster shop house economy.
analyzing :

- The soundscape experience on Taman Sari complex mapping
- Mapping the changes of soundscape in the past and present
- Analysis the existing site to be revitalized

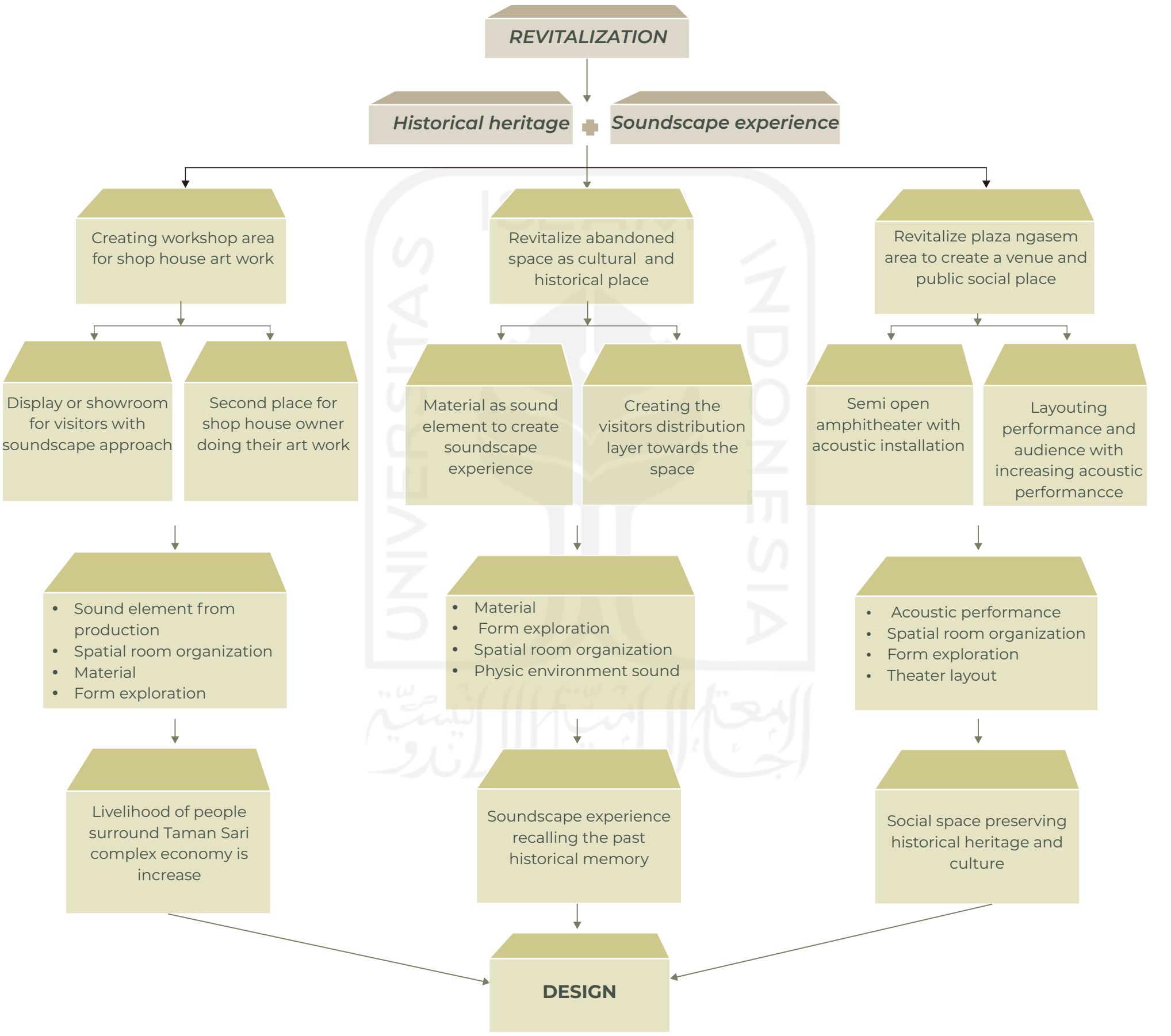
Design Concept

The design concept is result of analysis which is the physic of site, shop houses owner, experience of place, and others.

Literature Review

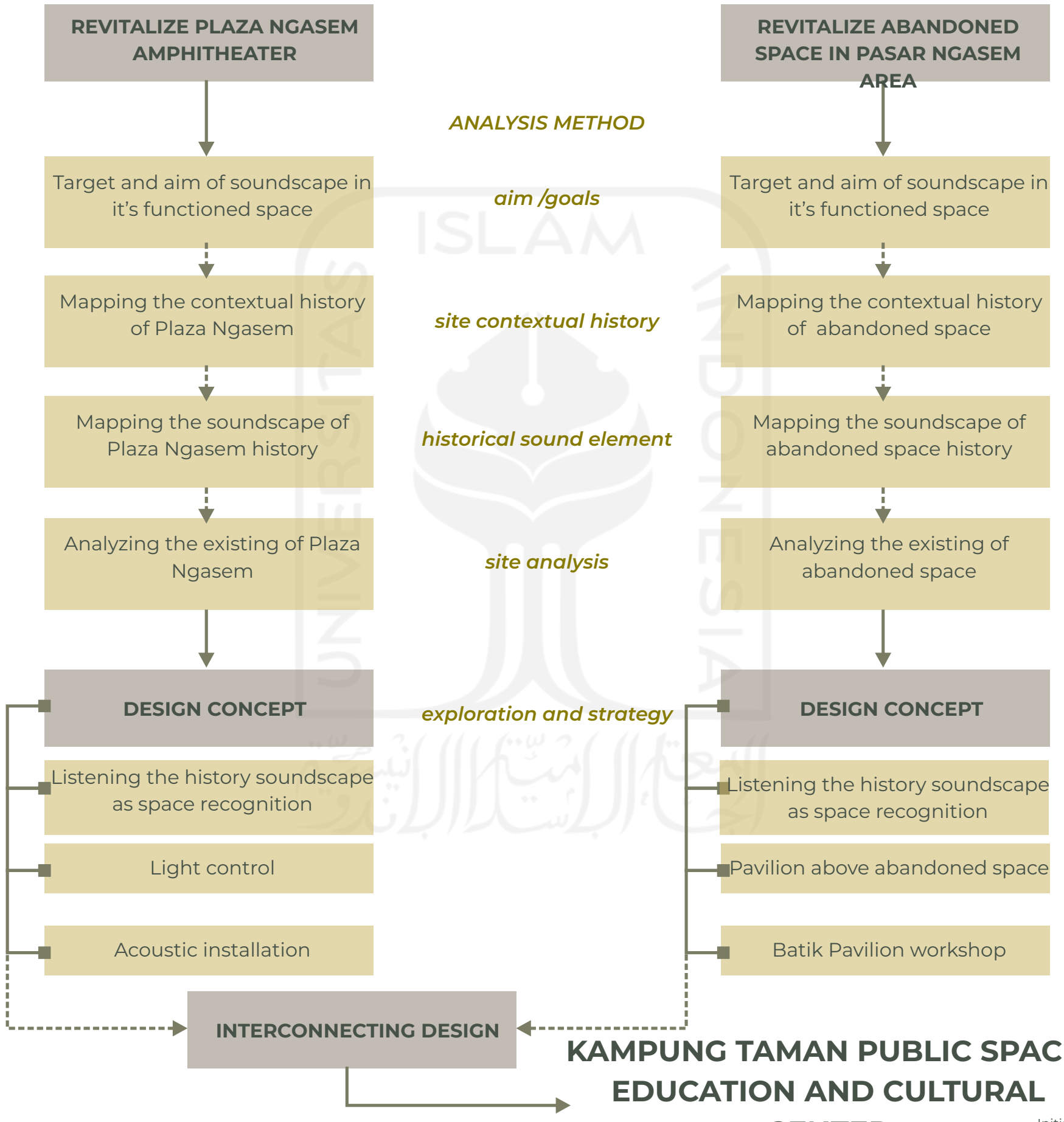
Observation on literature review which is supporting the theory of soundscape experience approach, Taman Sari Garden Complex, Amphitheater, and others.

Initial Design Method



Initial design method
Source : Author,2021

Initial Design Method



Initial design method
Source : Author,2021

Design Novelty

Title :**REVITALISASI TAMAN BUDAYA SUMATERA SELATAN DI PALEMBANG**
Author : PUTRI MONICA SHELLY
University : Universitas Sriwijaya
Year : 2017
Approach : Revitalization
Problem : How to plan and design Taman Budaya Sumatra Selatan as one of information center for art and culture, training space and art development as recreative space which able to be all educational space for community and tourism?

Title :**REVITALISASI NDONDONGAN With Vernacular Approach for Social and Economic Improvement**
Author : Mutia Amelia Febriana
University : Universitas Islam Indonesia
Year : 2019
Approach : Revitalization
Problem : How to implement the principal of vernacular may facilitate the capacity, productivity abdi dalem and conectivity of visitors with maximally and creating better environmental quality?

Title : **PERANCANGAN PUSAT KEBUDAYAAN KAMPUNG WISATA PANDEYAN DENGAN PENDEKATAN ARSITEKTUR EDUKASI**
Author : Arti Setyawati [1] Endah Tisnawati[2]
University : Universitas Teknologi Yogyakarta
Year : 2019
Approach : Cultural and education
Problem : How to design cultural center of Kampung Wisata Pandeyan with education architecture approach ?

Title : **REVITALISASI KAWASAN SEMPADAN SUNGAI KAMPUNG BATIK LAWEYAN DENGAN PENDEKATAN ECO-CULTURAL**
Author : SYANDY DIANTRISNA KUSUMA
University : Universitas Muhammadiyah Surakarta
Year : 2018
Approach : Eco-cultural
Problem : How to Revitaliza setback area of Kampung Batik Laweyan River with approach of eco cultural ?

CHAPTER 4

ANALYSIS AND DESIGN CONCEPT

EXPLORATION SITE CONTEXT

A. TARGET AND AIM OF SOUNDSCAPE

- Analysis target and aim of soundscape Plaza Ngasem and abandoned space

B. HISTORICAL SOUND ELEMENT SOURCE

- Mapping the soundscape of Plaza Ngasem and Taman Sari in the past until present
- Mapping the soundscape of Abandoned Space in the past until present

C. SITE ANALYSIS

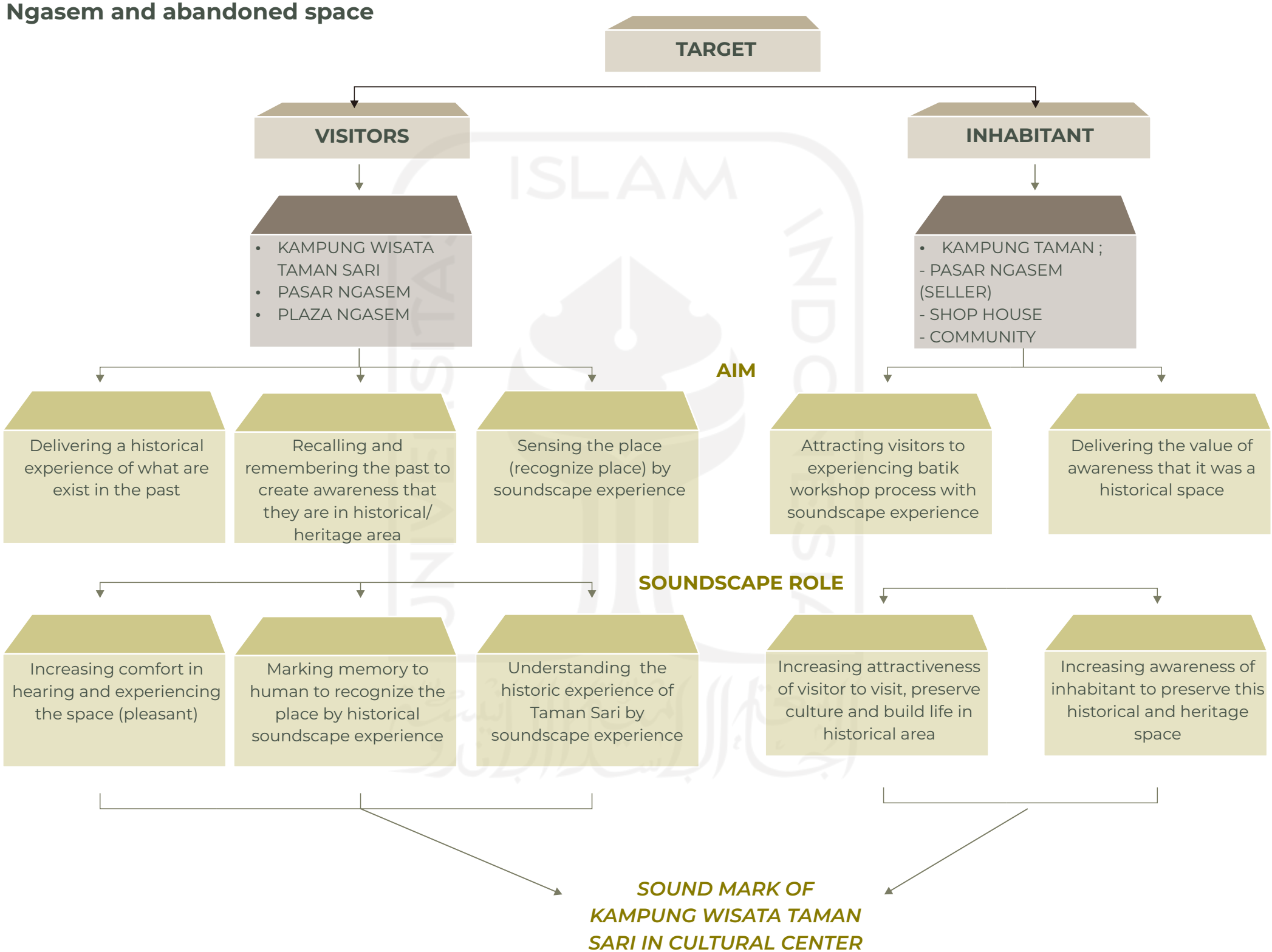
- Analyzing the landscape Plaza Ngasem and Abandoned space
- Analyzing the existing of abandoned space

D. DESIGN CONCEPT EXPLORATION AND STRATEGY

- Analyzing the room programming and needs of functioned space
- Spatial space organization
- Building mass and landscape concept
- How soundscape produced

A. TARGET AND AIM OF SOUNDSCAPE

Analysis target and aim of soundscape Plaza Ngasem and abandoned space

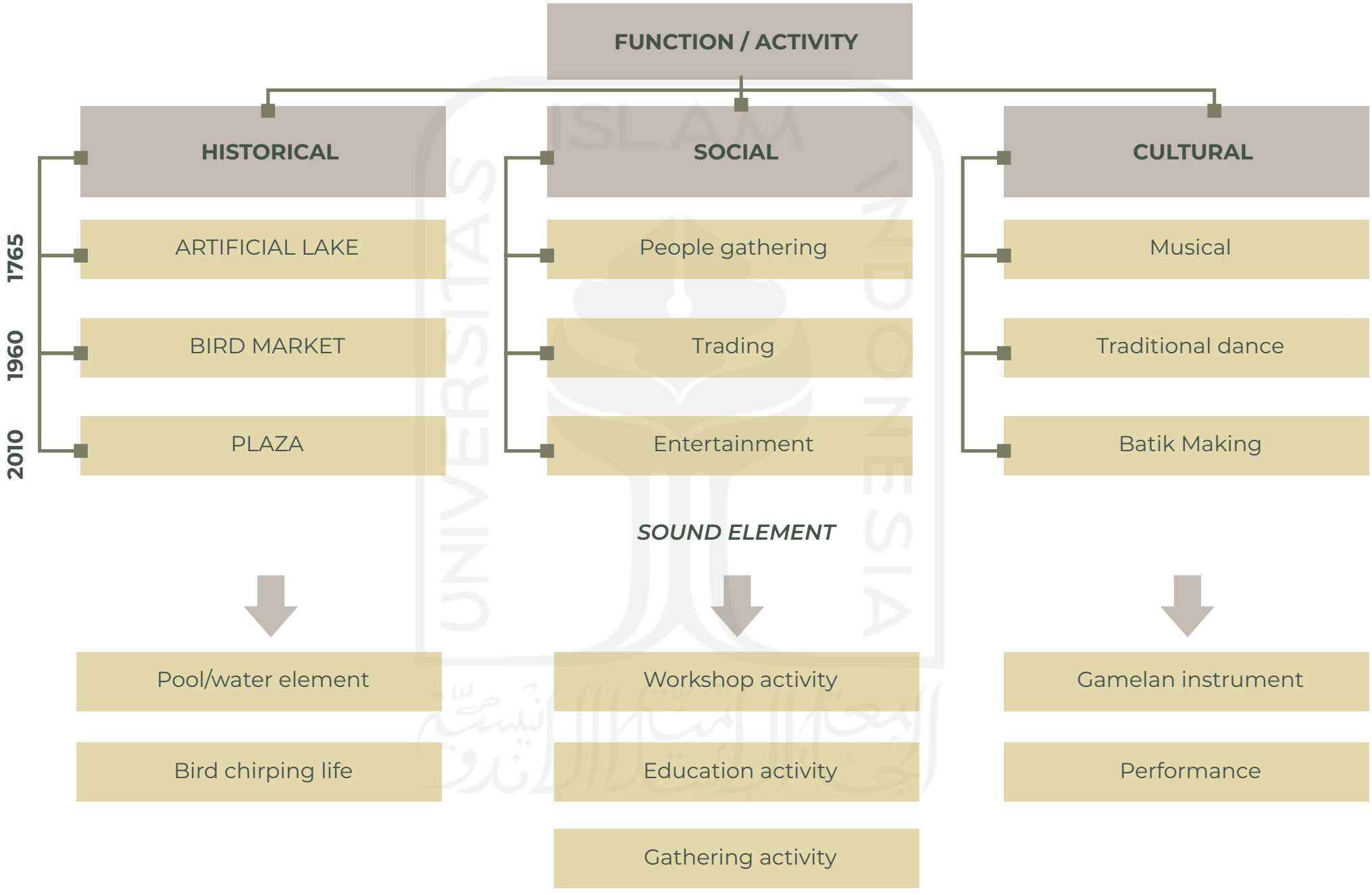


Target and aim of soundscape
Source : Author,2021

B. HISTORICAL SOUND ELEMENT SOURCE

Mapping Historical Sound of Plaza Ngasem

Layer of Soundscape in History Space



sound element classification
Source : Author,2021

B. HISTORICAL SOUND ELEMENT SOURCE

Mapping Historical Sound of Plaza Ngasem

Gamelan instrument

Introduction

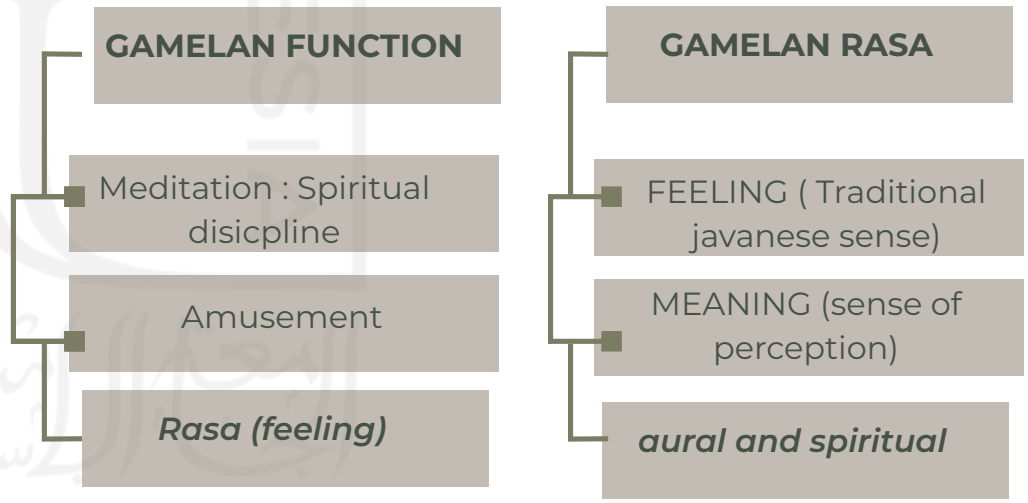
Gamelan is an ensemble traditional music from Bali, Javanese, and Sunda. Consists of percussion instruments used in musical art. Javanese implement rasa in gamelan music making. Gamelan instrument will make unique atmosphere of sound to be received by human.



Gamelan instrument
Source : https://paketwisatajogja75.com/paket-wisata-jogja-gamelan-orkestra-ala-jawa/

Function of Gamelan instrument

In the past, gamelan functioned as amusement for kingdom, meditation for powerful people, or traditional ceremonies. Gamelan having special meaning in spiritual for meditation. It's increasing the spiritual emotion. Every gamelan sound will create *Rasa* (feeling) to people. Then, every Rasa have meaning or sense of perception which triggering the aural and spiritual emotion of person.



Sound of gamelan meaning
Source : https://gamelan.gs/booklet/the-meditative-gender/

B. HISTORICAL SOUND ELEMENT SOURCE

Mapping Historical Sound of Plaza Ngasem

Gamelan Instrument

Introduction instrument

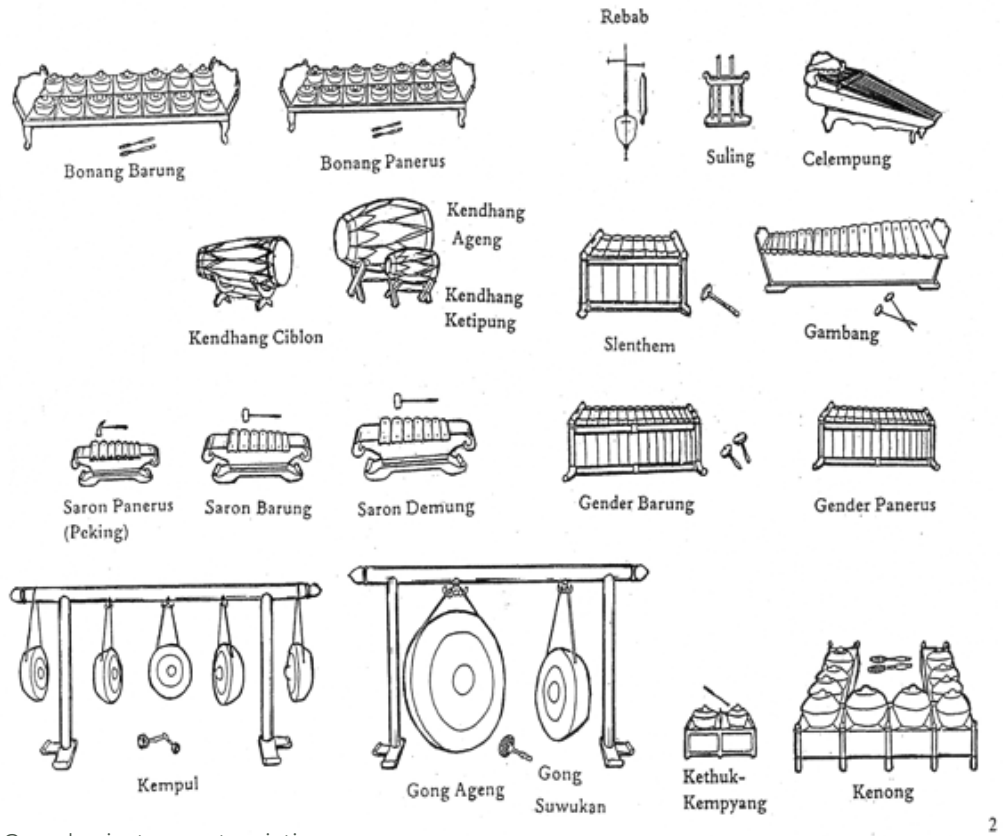
Yogyakarta gamelan instrument intended to soft and slow melody. It is reflect to javanese people who calm. It's giving a peaceful soul and mind.

choosing 4 element as theme of gamelan
1. Gambang
2. Gender
3. Gong
4. Kendang

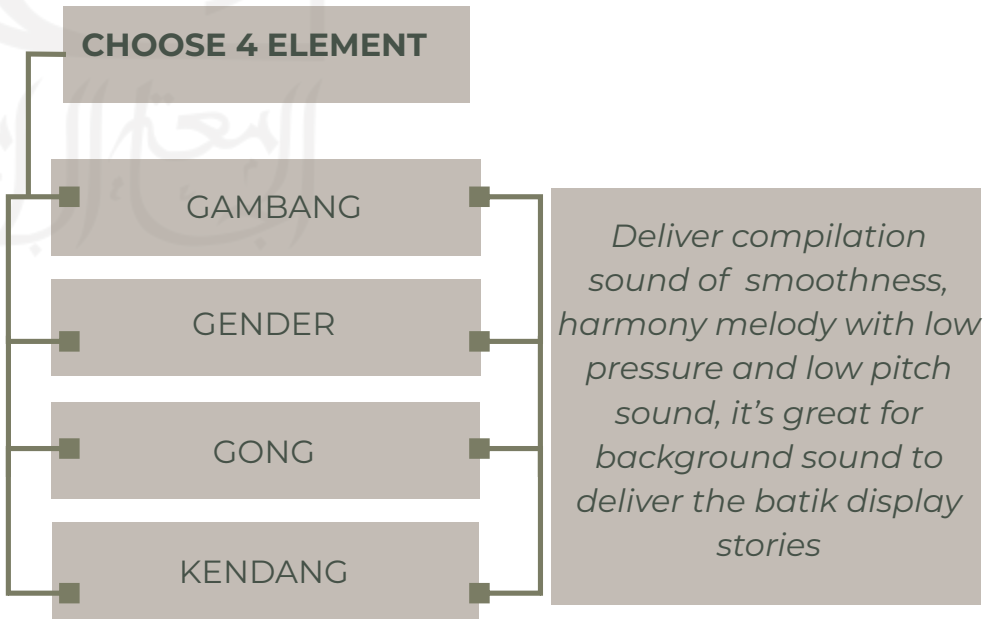
Gambang consist of 18 wooden slats with 2 hammer and have mayor and minor music scale.

Gender have 10-14 metal slats. The hammer use wooden slats circle. Different tone depend on music scale used. there are 3 *gender* : *slendro, pelog and pathet nem and lim*a, and *pelog pathet*

Gong and Kendhang to lead the other instrument.



Gamelan instrument variation
Source : brandbilda.com



Explanation why 4 instrument choosen
Source : Author,2021

B. HISTORICAL SOUND ELEMENT SOURCE

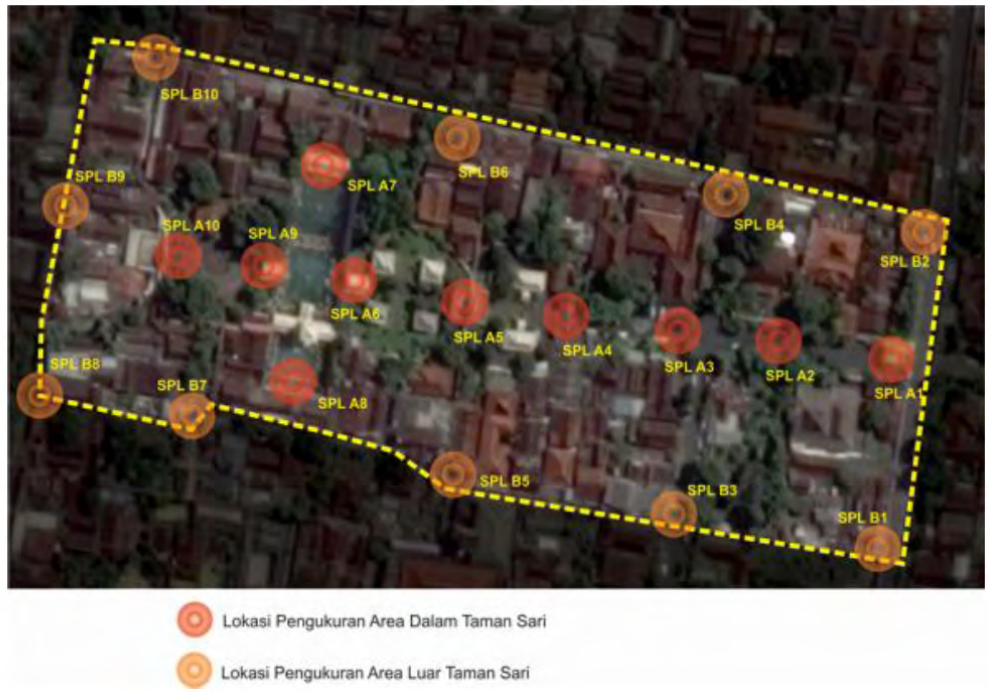
Mapping Historical Sound of Plaza Ngasem

Taman Sari Soundscape

List of sound

Zone	source	sound
A1	Motorcycle muffler sound from main street and human foot steps	74 dB
A2	Prayer siren sound from mosque, human steps and motorcycle muffler	65 dB
A3	Sound of people trading and music	65 dB
A6	Sound of visitors footsteps, water splash, bird chirping and human echo sound	64 dB
A8	Sound of water fountain fill the pond	58 dB
A9	Bird chirping, leaves and wind trees, music	56 dB
B1	Footsteps of horse and people sell food	71 dB
B10	Sound of bird singing high pitched, cricket sound	57 dB
C1	Sound of bird, wind, trees wind, motorcycle muffler	70 dB
C2	visitors footsteps, murmuring echoing	65 dB

Sound mapping table in Taman Sari
Source : Noviandri, 2018



Taman Sari soundscape mapping
Source : Noviandri, 2018



Taman Sari soundscape mapping
Source : Kirana, 2020

C. SITE ANALYSIS

Site existing

Site calculation

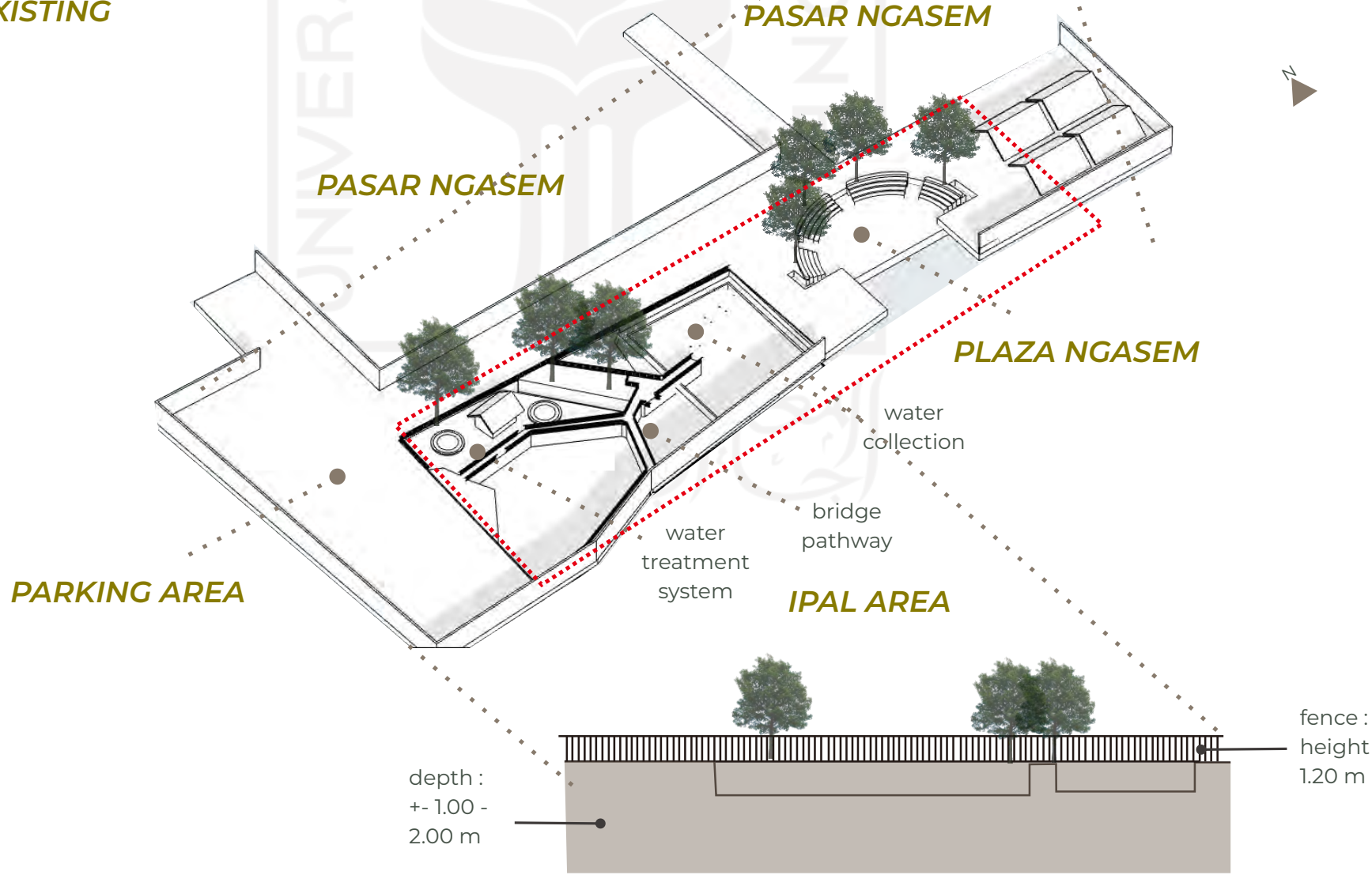
BCR (KDH) : 60% x 6.102 m2. = 3.661 m2
FAR (KLB) : 1,6 x 6.102 m2 = 9.763 m2
Building height max : 16 m
Green area : 45% x 6.102 m2 = 2.745 m2

Respond to existing

Preserving the existing of IPAL (waste water treatment area) such as the bridge pathway, waste water system, landscape, pavement, etc. The addition of structure will be using lightweight structure to make it stable and not ruin or demolishing the existing history.

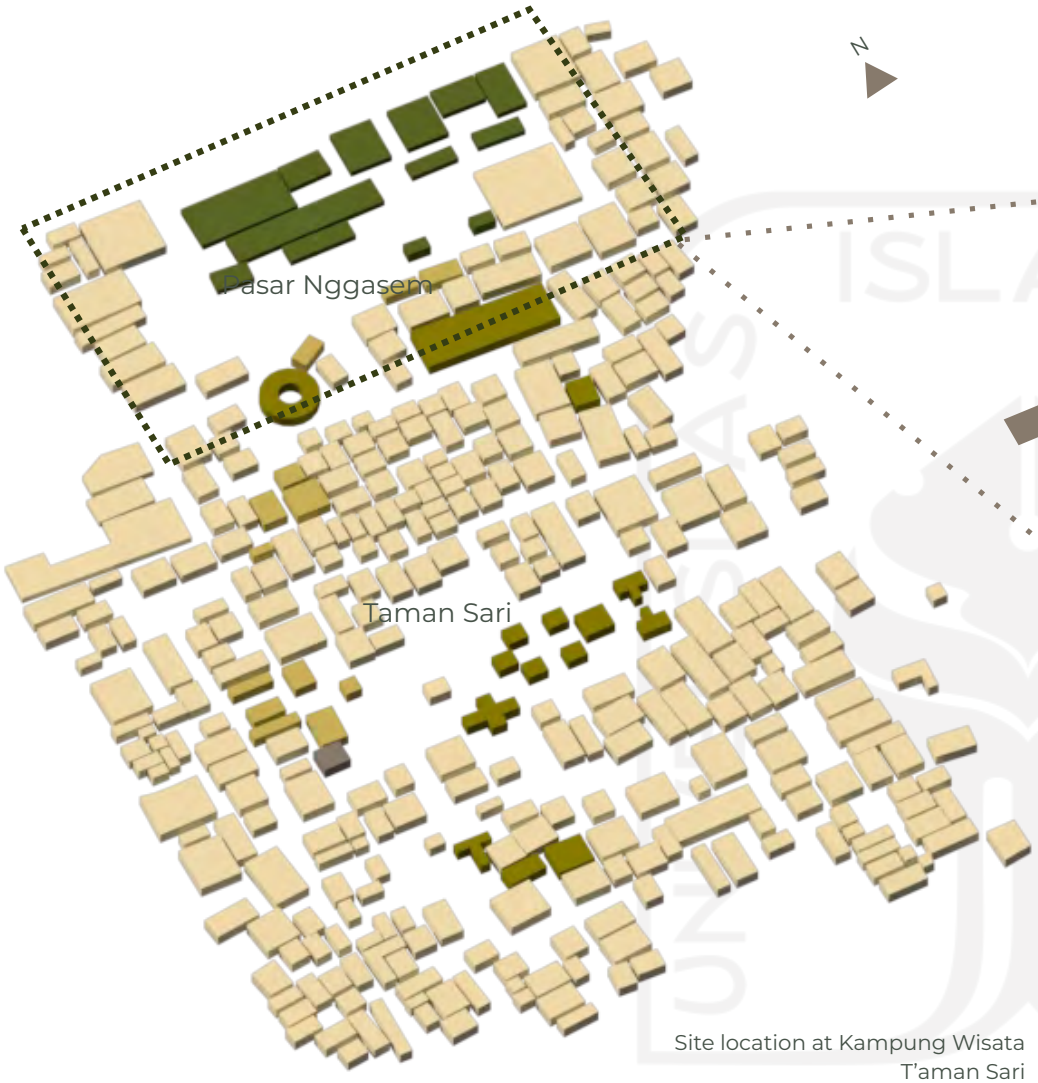


Existing site condition
source : Author, 2021



C. SITE ANALYSIS

Site existing



Site location at Kampung Wisata T'aman Sari
source : Author,2021



Existing site condition
source : Author, 2021

Site location is northern part of Kampung Wisata Taman Sari. It is at waste water treatment and parking area for inhabitant and visitors which is currently abandoned and existing Plaza Ngasem amphitheater. With total site area is 6.102 m2.

C. SITE ANALYSIS

Site existing images

PRESERVED EXISTING ELEMENT

Water reservoir area



water stream/cannal



waste water treatment



Existing site condition
source : Author, 2021

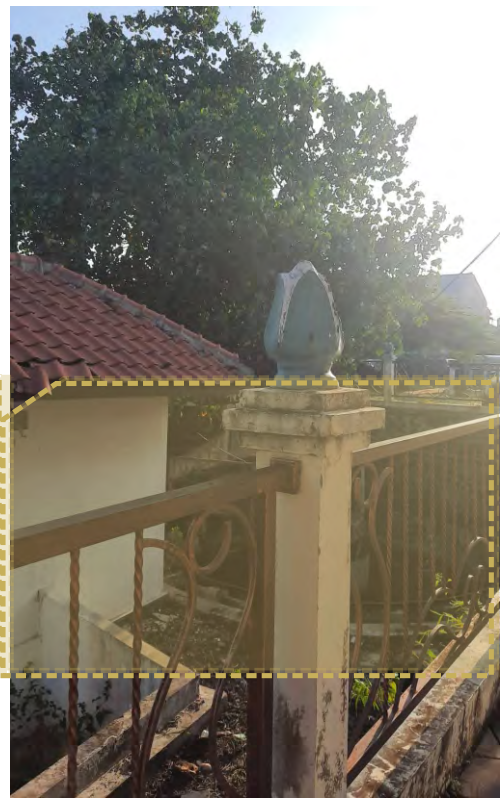
fences



Landscape



waste water treatment



Existing site condition
source : Author, 2021

D. EXPLORATION AND STRATEGY

Room programming and needs

SPACE NEEDED CONSIDERATION

Batik workshop having split mass for accommodating the activity. The area of space depend on the activity in each space and the capacity of person in one pavilion not to crowded. The multi purpose pavilion is may used as gather space and indoor space for inhabitant doing their discussion or others activity. Amphitheater in Plaza Ngasem needed a supporting space to do the preparation when performance will be held.

ROOM PROGRAMMING

CLASSIFICATION	ROOM	m2	PERSON CAPACITY	BUILDING CAPACITY	TOTAL m2	TOTAL AREA m2
PUBLIC						
BATIK WORKSHOP	MBATIK SPACE	2 m2	10 ~ 15	1	30	283
	STORAGE	1 m2	5	1	5	
	PLOROTAN SPACE	4 m2	10 ~ 15	1	60	
	DRYING SPACE	4 m2	11 ~ 15	1	60	
	SHOWROOM/DISPLAY	4 m2	20 ~ 30	1	120	
	TOILET	2 m2	4	1	8	
MULTI PURPOSE PAVILION		2 m2	20	1	40	40
AMPHITHEATER	STAGE	4 m2	20	1	80	278
	AUDIENCE	2 m2	80	1	160	
	SOUND CONTROL	2 m2	4	1	8	
	LIGHT CONTROL	2 m2	5	1	10	
	DISPLAY ROOM	2 m2	10	1	20	
SUPPORT	DROP OFF AREA	24 m2	1	1	24	224
	WATER SPRING POND				200	

Room programming needed
source : Author, 2021

WORKSHOP GUIDE

Listing the batik painters surround Kampung Taman to know the availability of people to be the workshop guide. If batik painters join and making a group “Paguyuban batik kampung taman” it will increasing their income for livelihood and the cultural aspect increasing either.

LIST OF BATIK PAINTERS IN KAMPUNG TAMAN

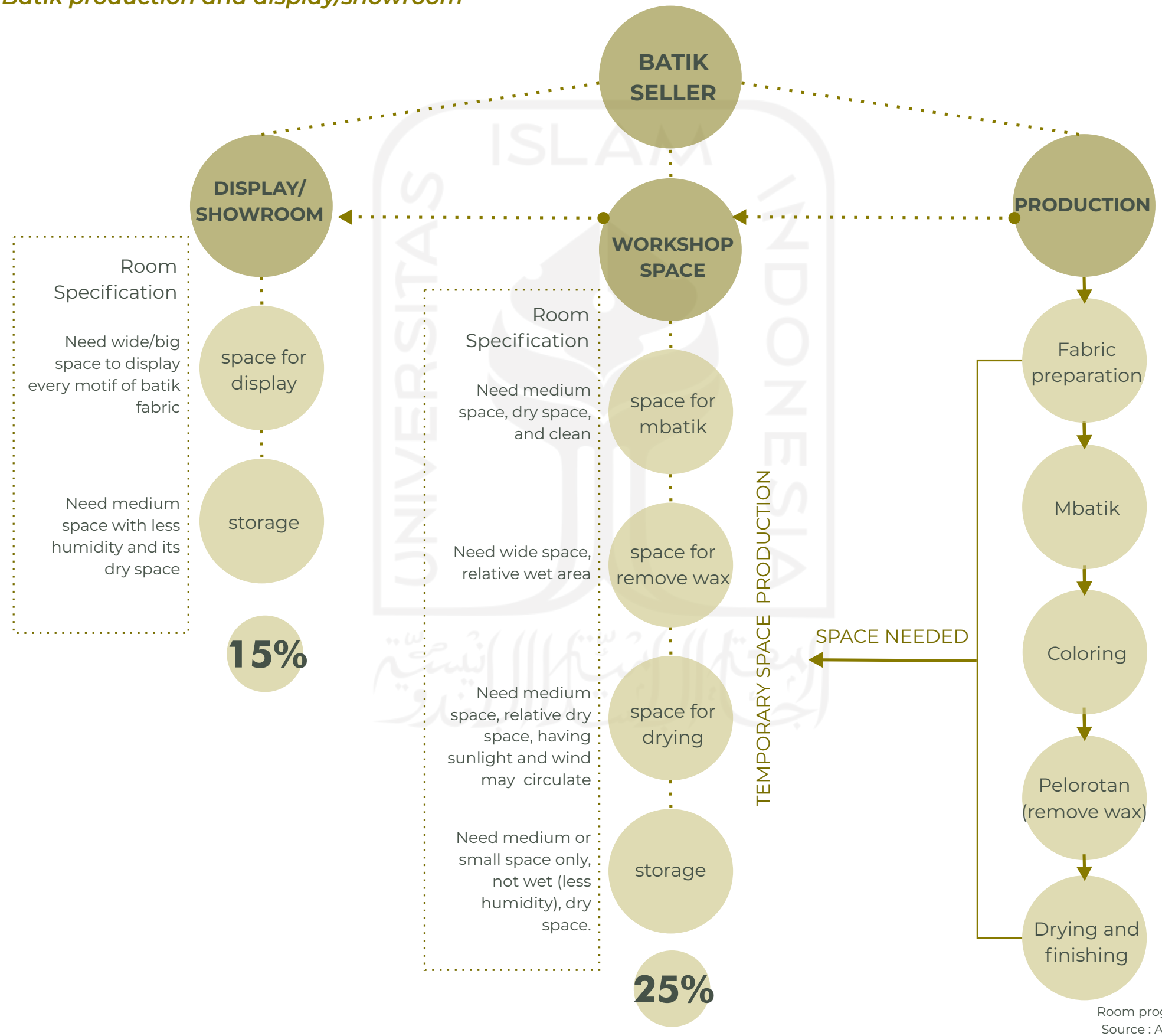
RT/RW	NAME SHOP	VARIATION		
			CLOTH	FABRIC
KAMPUNG CYBER	WAROENG LOEKIS		●	
	BATIK'E LEK IWAN		●	●
	VOICE OF JOGJA		●	
	BATIK AYUNI TAMAN SARI		●	
	BATIK GRIYA SENTONG		●	
	KAIN BATIK TULIS NOOR			●
	DANIS CLOTHING KAOS LUKIS JOGJA		●	
	SANGGAR KALPIKA (CENTER)		●	●
	BATIK ASLI BU KARTI		●	●
	BATIK SENGENGE		●	
	BATIK TENTREM		●	●
	BATIK PURNAMA		●	

List of batik painters in Kampung Taman category
source : Author, 2021

D. EXPLORATION AND STRATEGY

Room programming and needs

Batik production and display/showroom

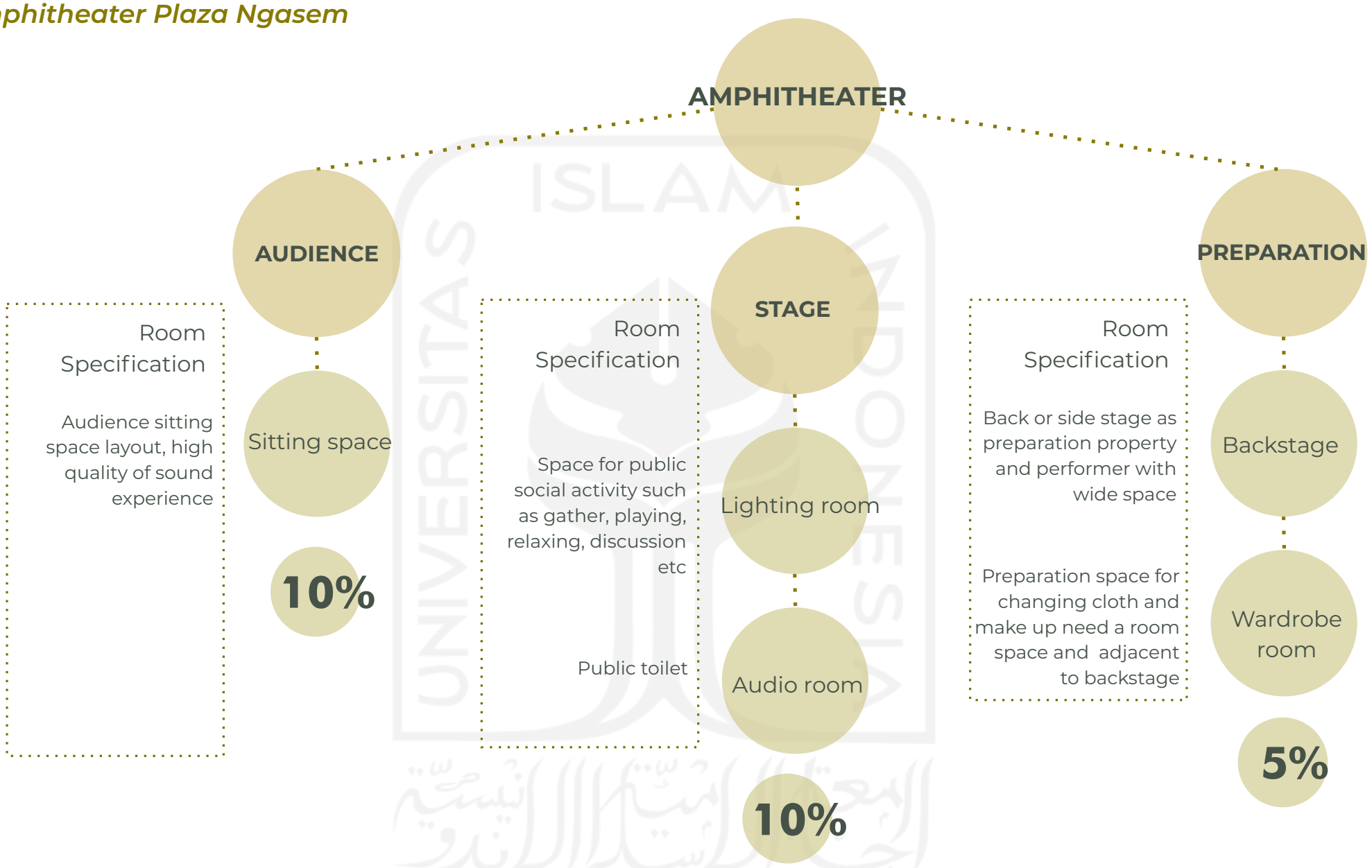


Room programming
Source : Author,2021

D. EXPLORATION AND STRATEGY

Room programming and needs

Amphitheater Plaza Ngasem

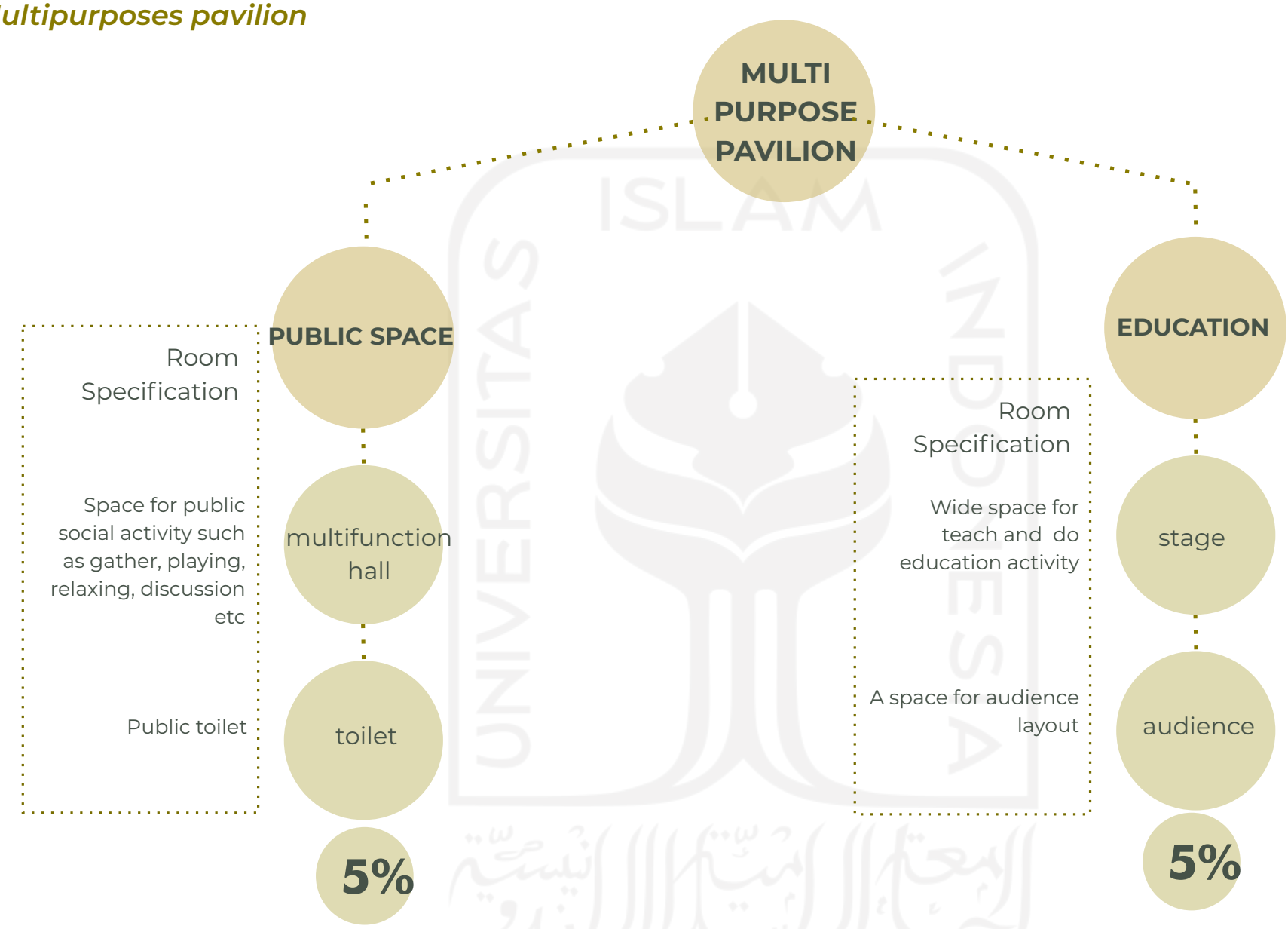


Room programming
Source : Author,2021

D. EXPLORATION AND STRATEGY

Room programming and needs

Multipurposes pavilion

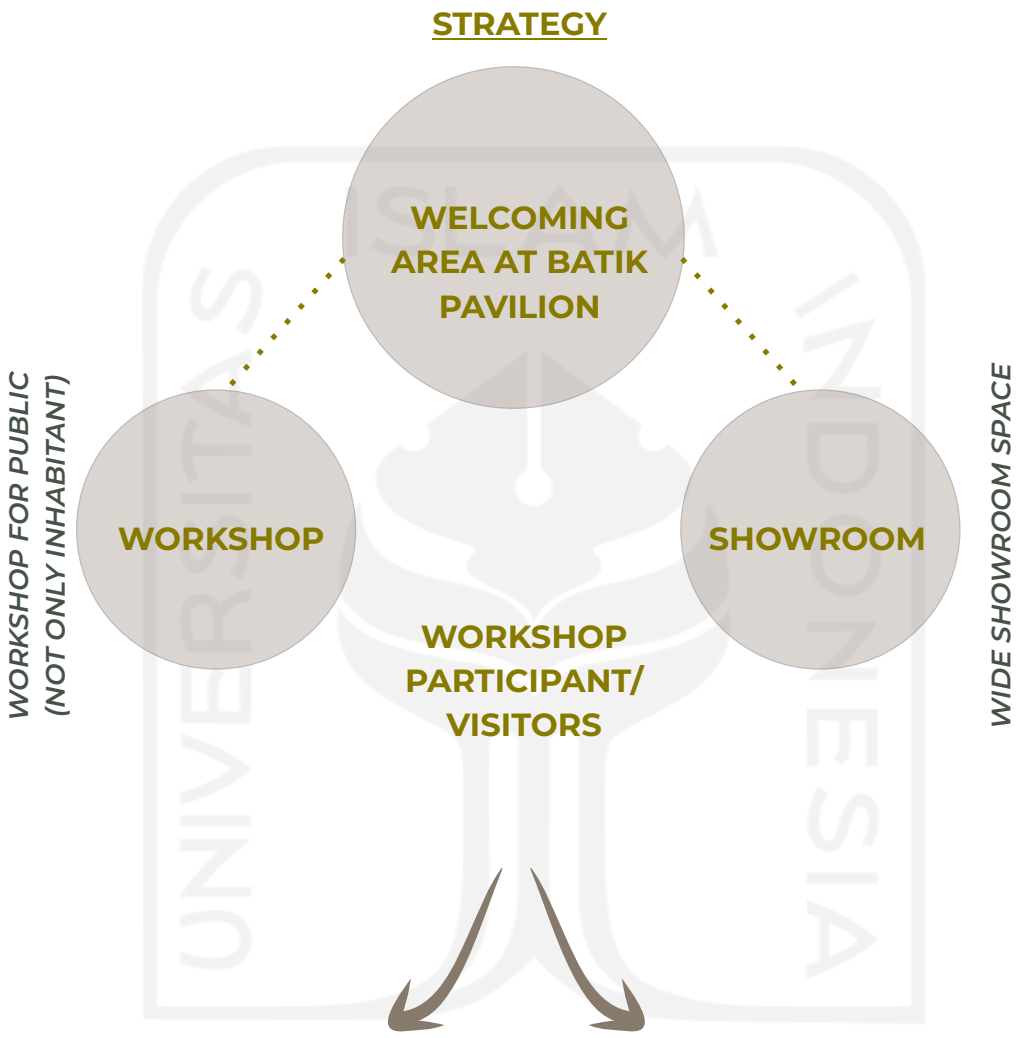


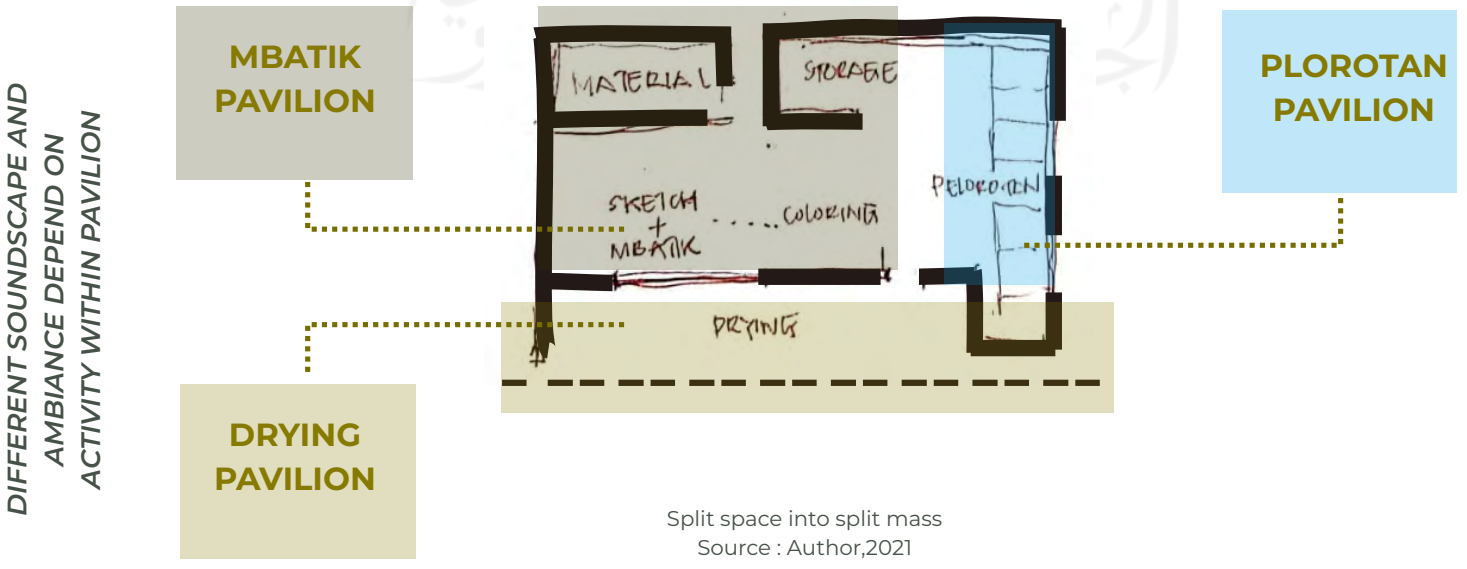
Room programming
Source : Author,2021

D. EXPLORATION AND STRATEGY

Spatial room organization

Batik workshop





Split space into split mass
Source : Author,2021

If visitors want to do workshop, they will use work area of seller for certain activity such as PELOROTAN AND DRYING activity

Seller may use multi purpose hall as their showroom every day or if only there is an event

Spatial room organization
Source : Author,2021

D. EXPLORATION AND STRATEGY

Spatial room organization

Batik workshop

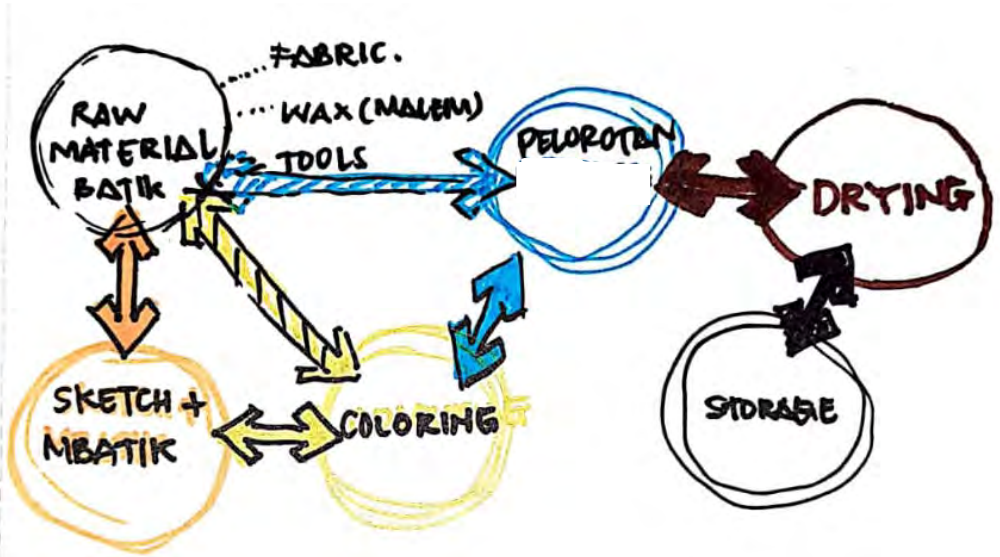
PROBLEM

NEED SPACE FOR PRODUCTION

NEED PUBLIC WORKSHOP

NEED EASE IN PRODUCTION

NEED PROPER DISPLAY ROOM



Space connection diagram
Source : Author,2021

STRATEGY

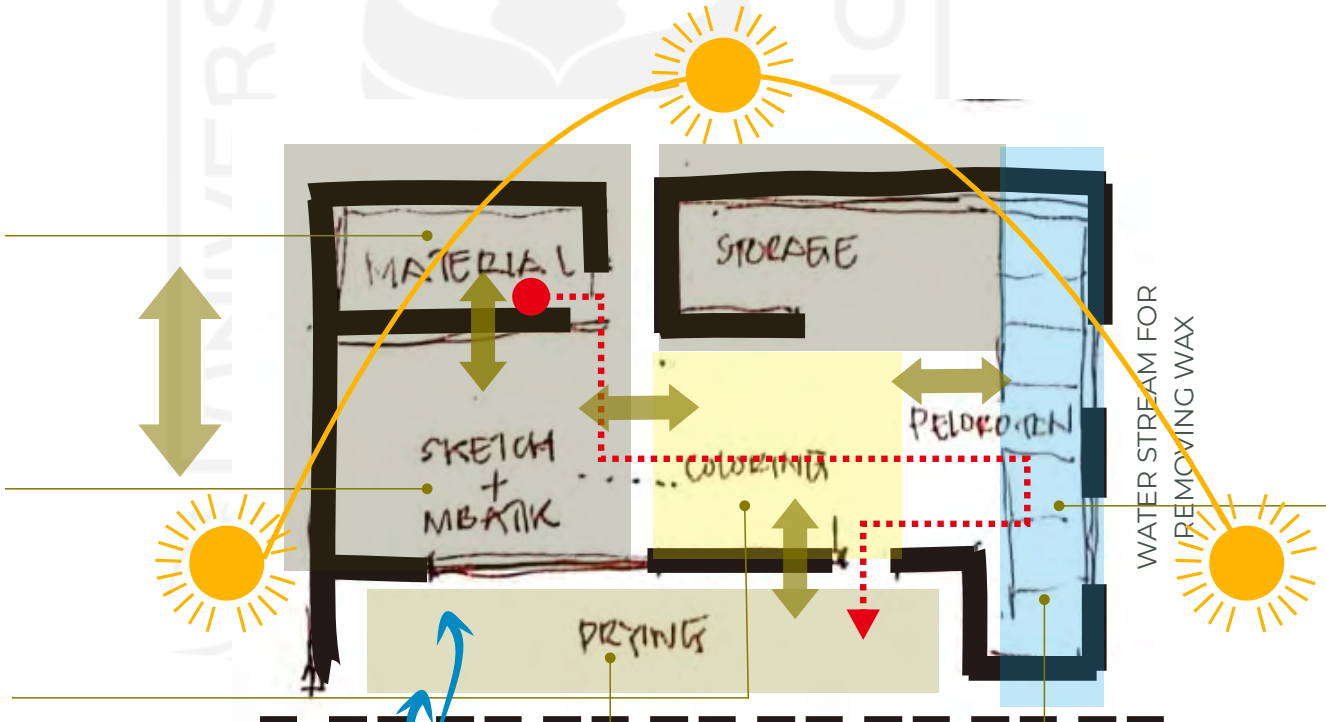
BATIK MATERIAL
become one area to have efficient space and organization

SKETCH + MBATIK
it is beside BATIK MATERIAL space to give ease in access to get tools and material. So, efficient in movement

COLORING
After mbatik the next step is coloring. It is one area with MBATIK. It is a wide space to do long period of work

EASE IN MOVEMENT

EFFICIENT MOVEMENT AND SPACE



Space connection diagram
Source : Author,2021

WIND PENETRATION TO BUILDING

DRYING
After removing wax, it is aerated

WATER STREAM

PELOROTAN
Removing wax with hot water then washing with water stream

WATER STREAM FOR REMOVING WAX

BATIK WASTE WATER TREATMENT

WAX REMOVED

WASTE WATER COLLECTED

TREATMENT

Spatial room organization
Source : Author,2021

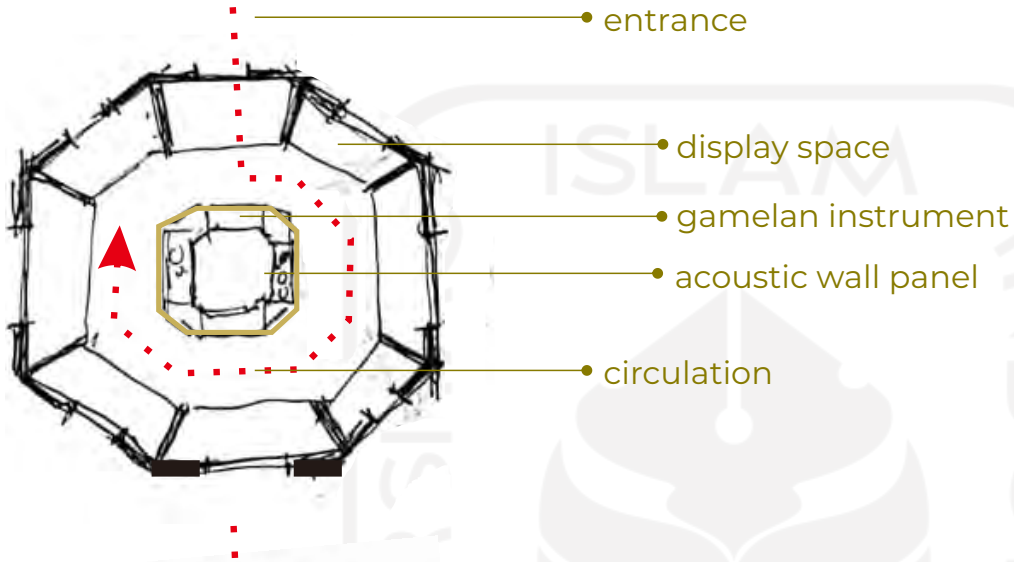
D. EXPLORATION AND STRATEGY

Spatial room organization

Batik workshop plan

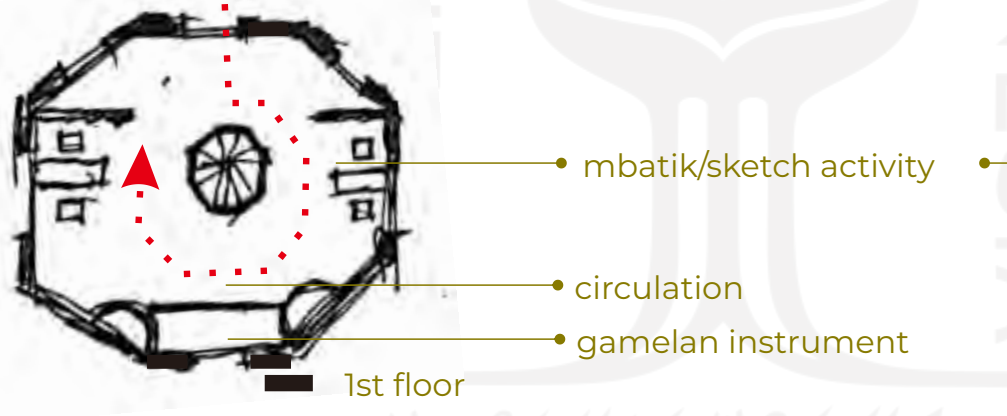
1

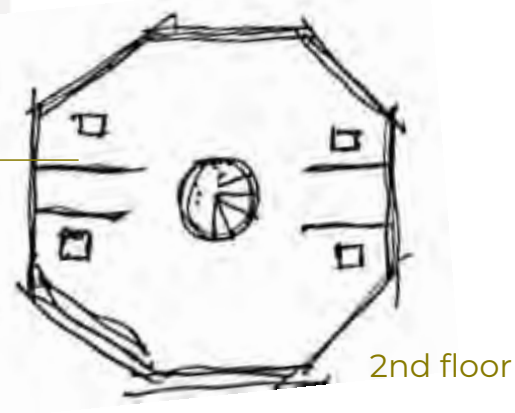
BATIK DISPLAY PAVILION



2

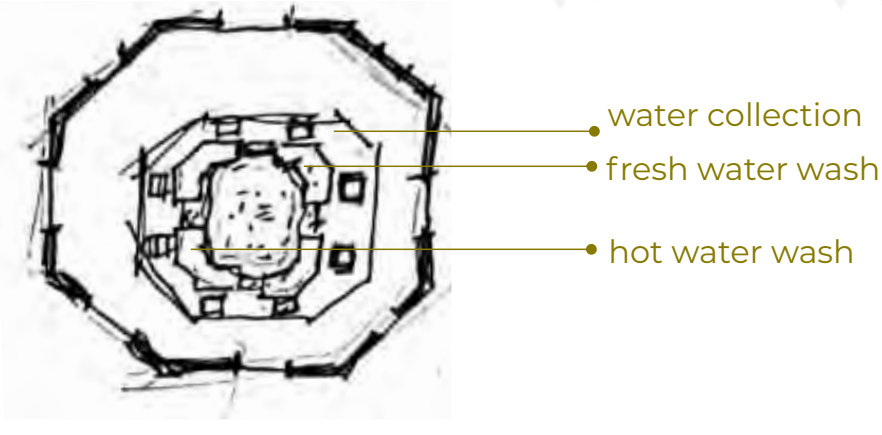
MBATIK & SKETCH PAVILION





3

PLOROTAN PAVILION



4

DRYING FABRIC PAVILION



Spatial room organization
Source : Author,2021

D. EXPLORATION AND STRATEGY

Spatial room organization

Multipurpose pavilion

PROBLEM

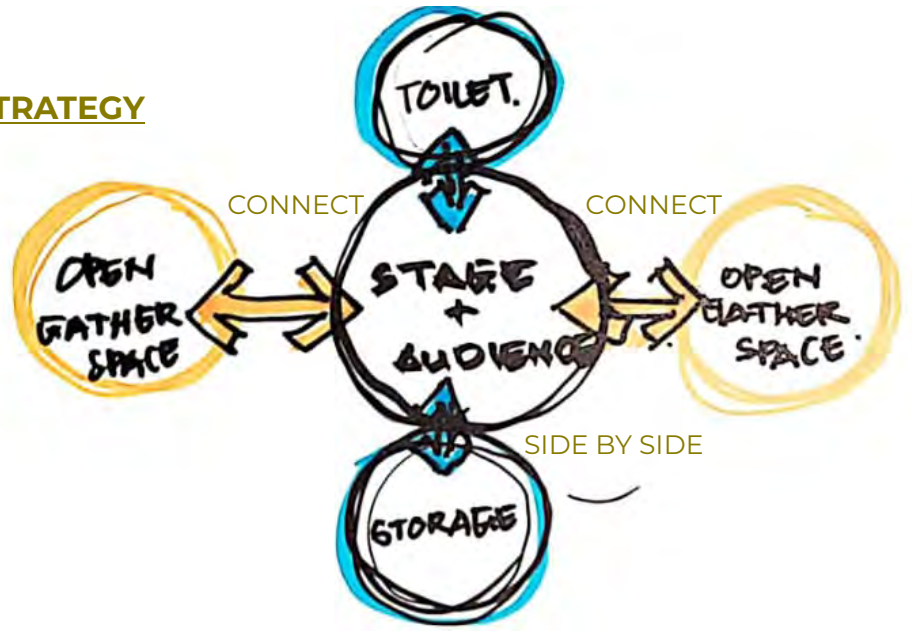
GATHER SPACE FOR INHABITANT

SUPPORT CHILDREN ACTIVITY

PUBLIC SPACE FOR VISITORS

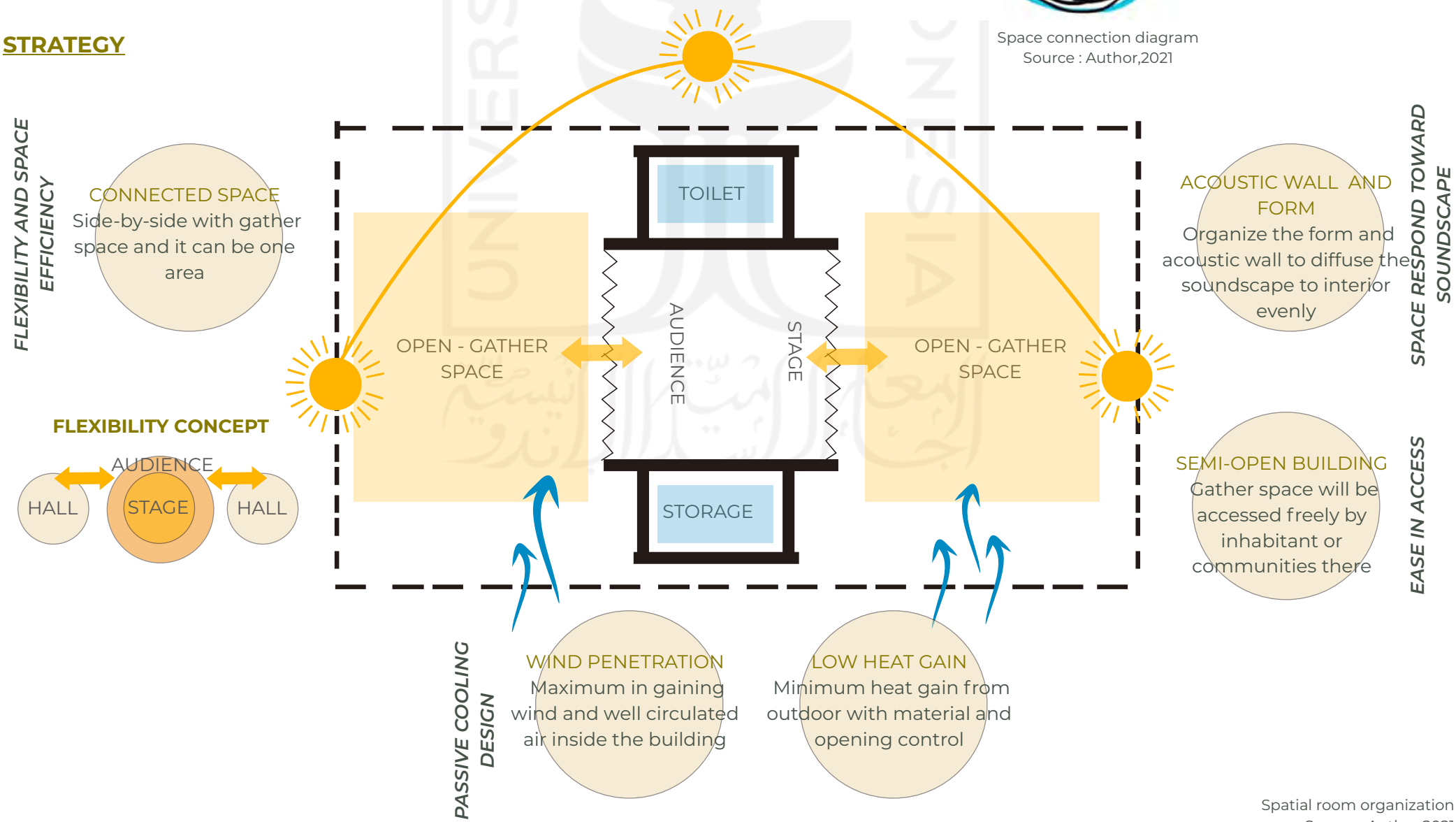
INDOOR REHEARSAL/ PREPARATION

STRATEGY



Space connection diagram
Source : Author,2021

STRATEGY



Spatial room organization
Source : Author,2021

D. EXPLORATION AND STRATEGY

Spatial room organization

Amphitheater

PROBLEM

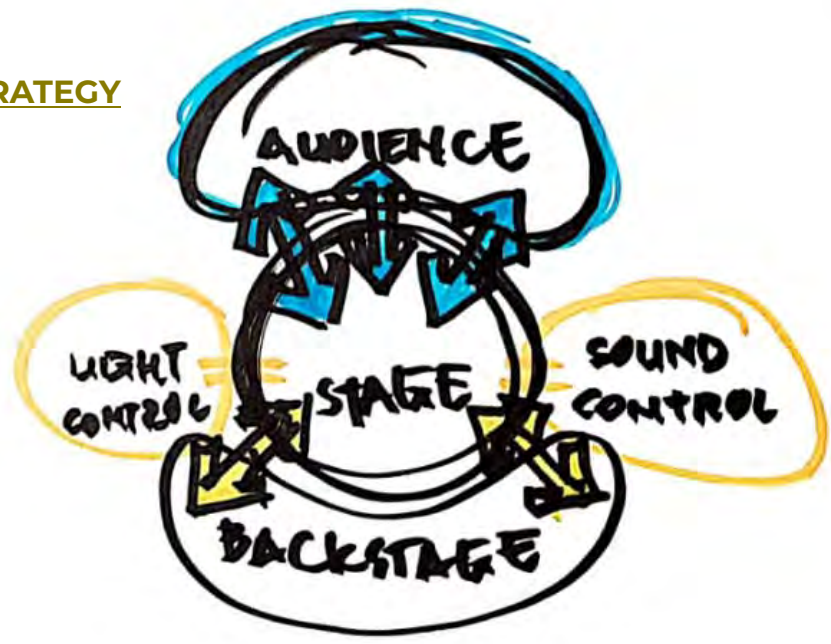
HIGH NOISE FROM SURROUNDING

OUTDOOR CHILDREN ACTIVITY

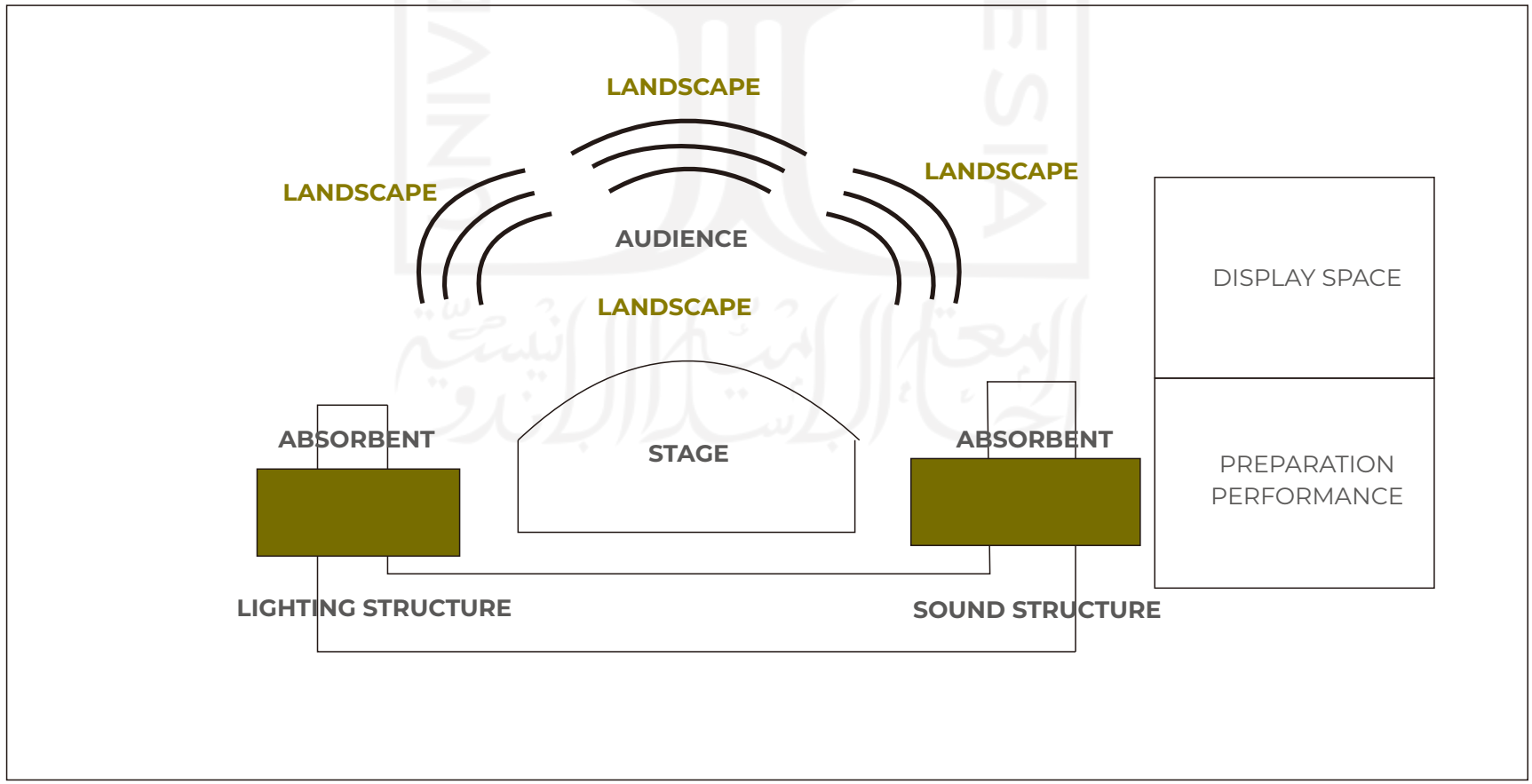
NEED BACKSTAGE SPACE

NEED WARDROBE SPACE

STRATEGY



Space connection diagram
Source : Author,2021



Spatial room organization
Source : Author,2021

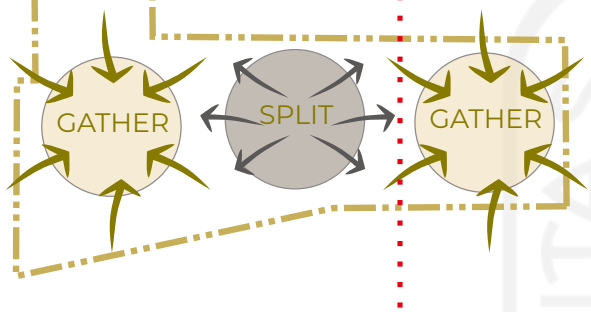
D. EXPLORATION AND STRATEGY

Visitors activities, respond and behavior toward

STRATEGY

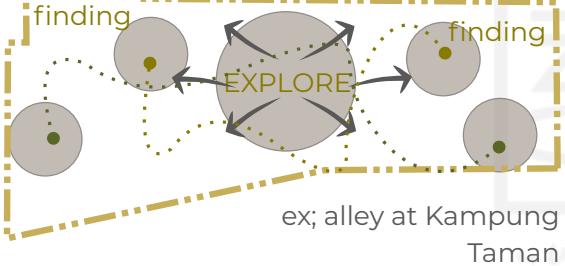
SPLIT AND GATHER VISITORS DISTRIBUTION

Variation of visitors distribution to have vary of movement and behavior from visitors



INTERCONNECTION BETWEEN SPACE

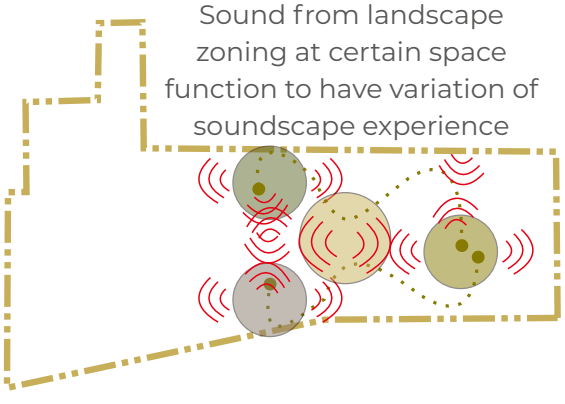
Let the visitors explore the site with giving an access to reach all of site corner (alley-like concept) creating diversity experience



ex; alley at Kampung Taman

SOUNDSCAPE VARIATION, ZONING AND CONNECTION

Sound from landscape zoning at certain space function to have variation of soundscape experience



ACTIVITIES JOURNEY

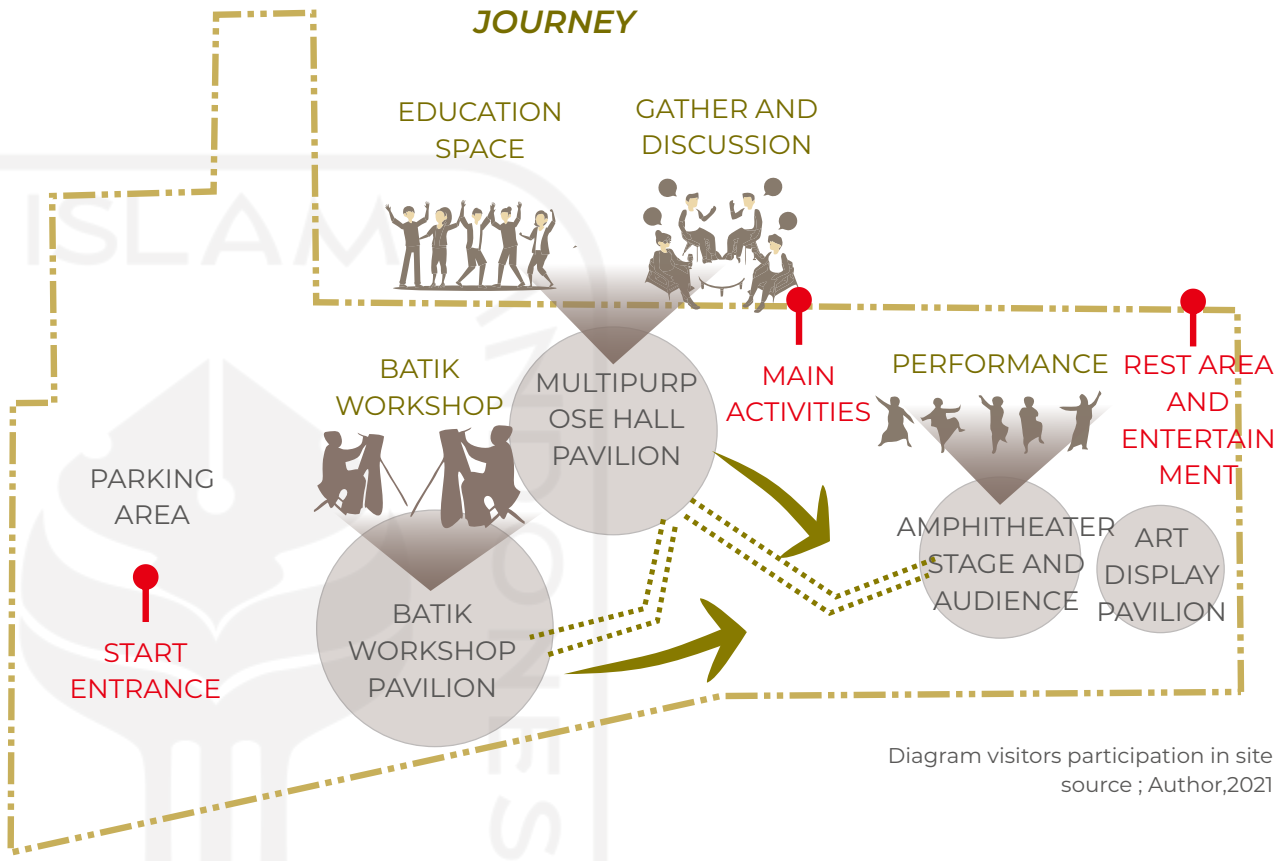


Diagram visitors participation in site
source ; Author,2021

VISITORS PARTICIPATION

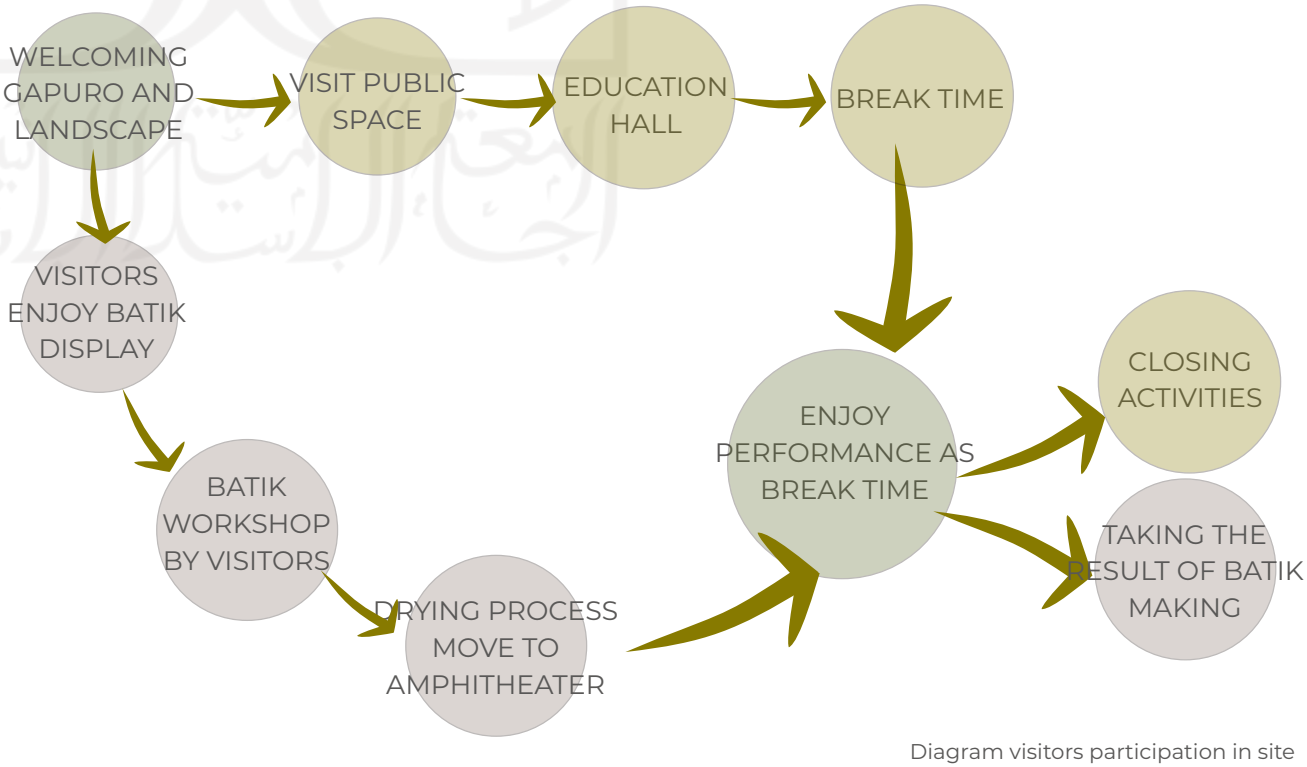
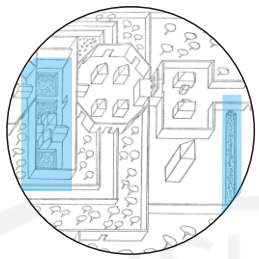


Diagram visitors participation in site
source ; Author,2021

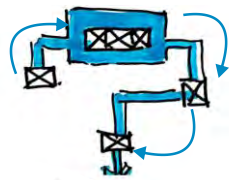
D. EXPLORATION AND STRATEGY

Building mass and landscape concept

STRATEGY
SITE PLAN ORGANIZATION
EXAMINE TAMAN SARI BUILDING
ORGANIZATION AND LANDSCAPING

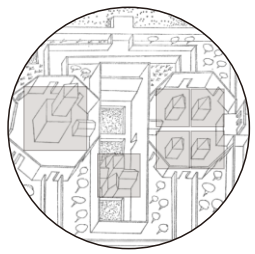


Connected stream

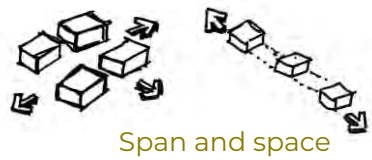


WATER STREAM
Water stream to control the sound and thermal from outdoor to indoor

SPLIT MASS PAVILION
Dividing pavilion into 5 part to have maximal delivery of soundscape to indoor and respond it



Geometrical split mass

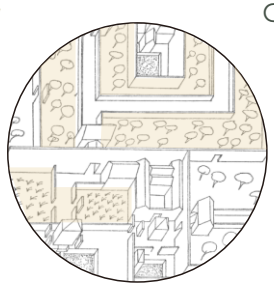


Span and space

LANDSCAPE
WASTE WATER TREATMENT
LANDSCAPE
MULTIPURPOSE HALL PAVILION
DRYING PAVILION
AMPHITHEATER STAGE AND AUDIENCE
ART DISPLAY PAVILION
LANDSCAPE
LANDSCAPE
SHOWROOM AND BATIK WELCOMING PAVILION
LANDSCAPE
MBATIK PAVILION
PLOROTAN PAVILION
LANDSCAPE
LANDSCAPE
LANDSCAPE
PARKING AREA
LANDSCAPE

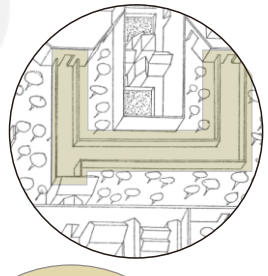
Landscape separating building function



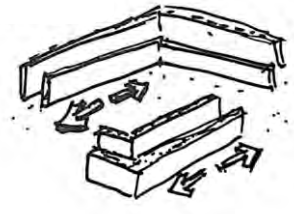


LANDSCAPE AS PAVILION CONNECTOR
Connect building with open landscape and organize to deliver landscape sound to building

BRIDGE PATHWAY
Connect the pavilion with bridge pathway to have soundscape experience in different respond behavior



Wall connecting the building function



PAVILION
Split masses and level of floor high depend on the function of building

RESPOND AND TRANSPARENCY
The pavilion will respond the sound from outside, sound from inside will deliver to outside

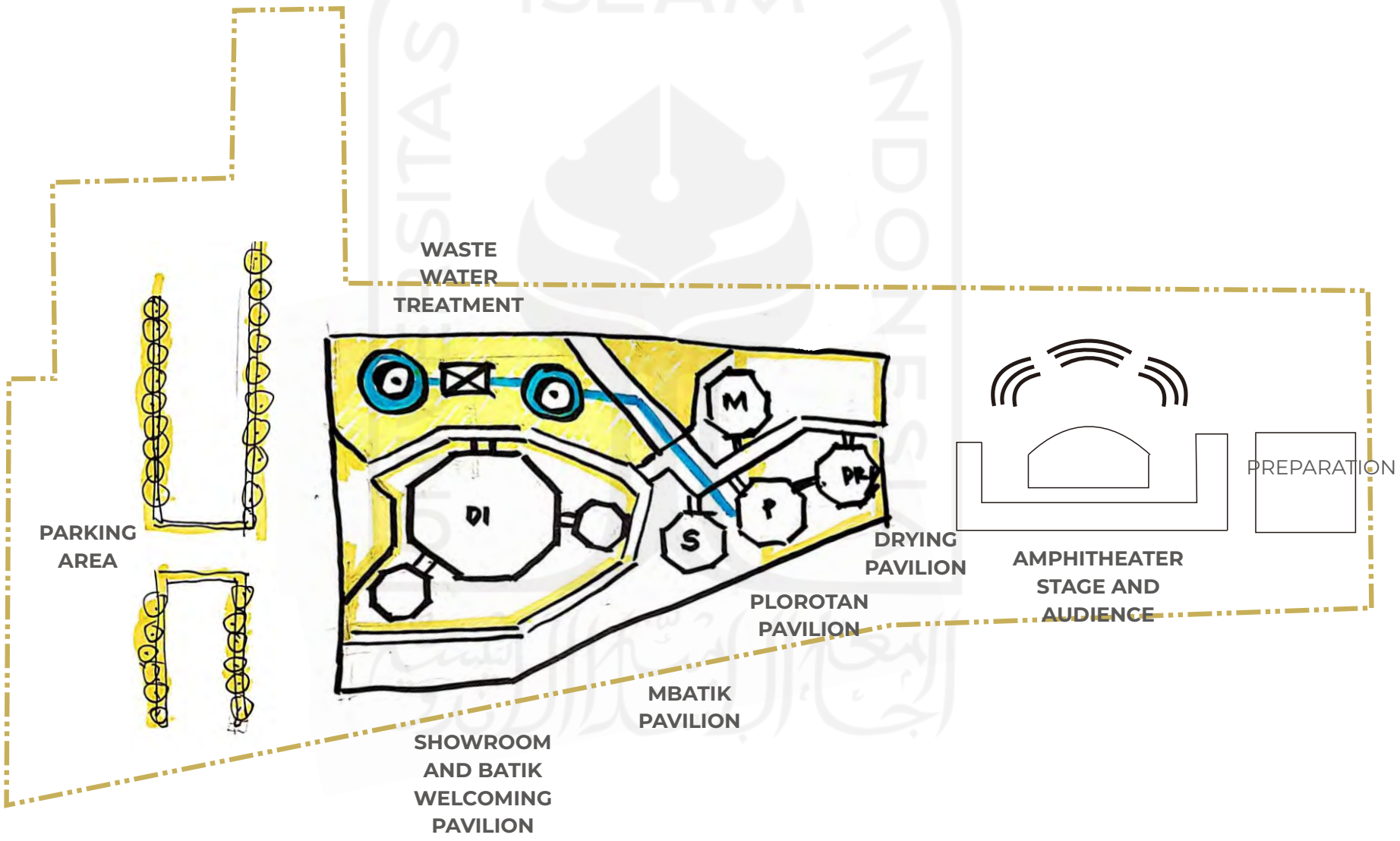
LANDSCAPE
Source of sound which related to physical environment

Building mass and landscape program
Source : Author,2021

D. EXPLORATION AND STRATEGY

Building mass and landscape concept

STRATEGY
SITE PLAN ORGANIZATION



Site programming
source : Author, 2021

D. EXPLORATION AND STRATEGY

Building mass and landscape concept

STRATEGY
LANDSCAPE RESPOND TO CREATE AND DELIVER SOUND

list of plants

Tree name :
Terminalia Catappa
Type : Shading trees





function block sound
enter or exit from source

Tree name :
Johar (Cassia siamea)
Type : Shading trees

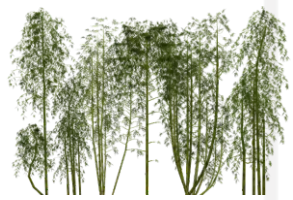




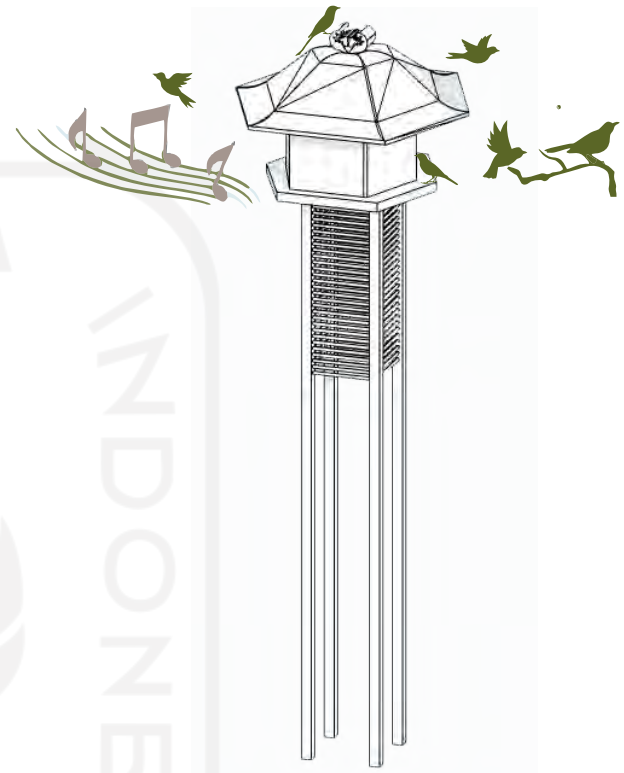
function block sound
enter or exit the site

Tree name :
Bamboo
Type : Fence trees

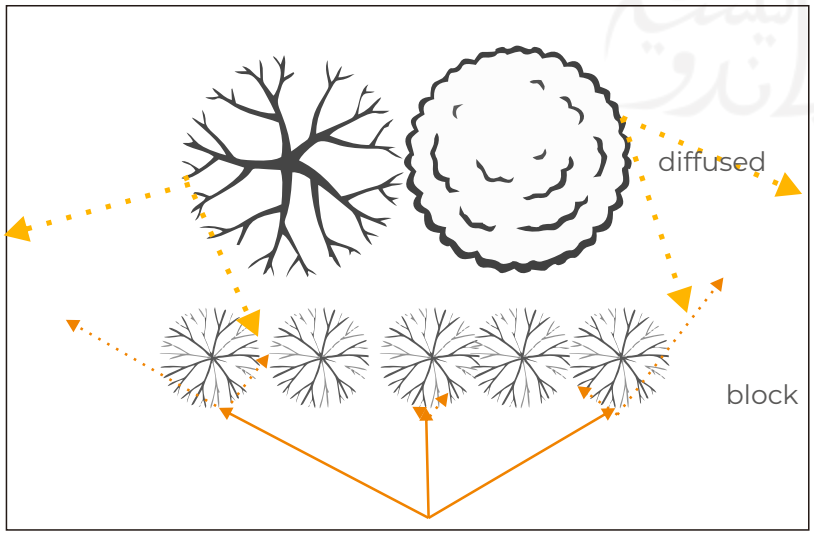




shrubs to block the sound



bird cage schematic
source : author,2021



source

Trees respond to sound
Source : Author,2021



Landscape as sound source
source : author,2021

D. EXPLORATION AND STRATEGY

Building mass and landscape concept

STRATEGY
WATER DRAINAGE ON LANDSCAPE
WATER SUPPLY PLANNING AND WASTE WATER TREATMENT

WATER REQUIREMENT CALCULATION

3) Kebutuhan air industri

Kebutuhan air industri → kebutuhan air untuk proses industri, termasuk bahan baku, kebutuhan air pekerja industri dan pendukung kegiatan industri.

Jumlah Tenaga Kerja	Klasifikasi Industri
1 – 4 orang	Rumah Tangga
5 – 19 orang	Kecil
20 – 99 orang	Sedang
> 100 orang	Besar

Besarnya standar kebutuhan industri adalah sebagai berikut :

Untuk pekerja industri kebutuhan air merupakan kebutuhan air domestik yang telah disesuaikan dengan kebutuhan pekerja pabrik, yaitu 60 liter/ pekerja/hari.

Untuk proses industri, kebutuhan air diklasifikasi sesuai dengan tabel berikut ini.

Water needs for industrial
source :https://www.slideshare.net/udhiye/kebutuhan-air-baku

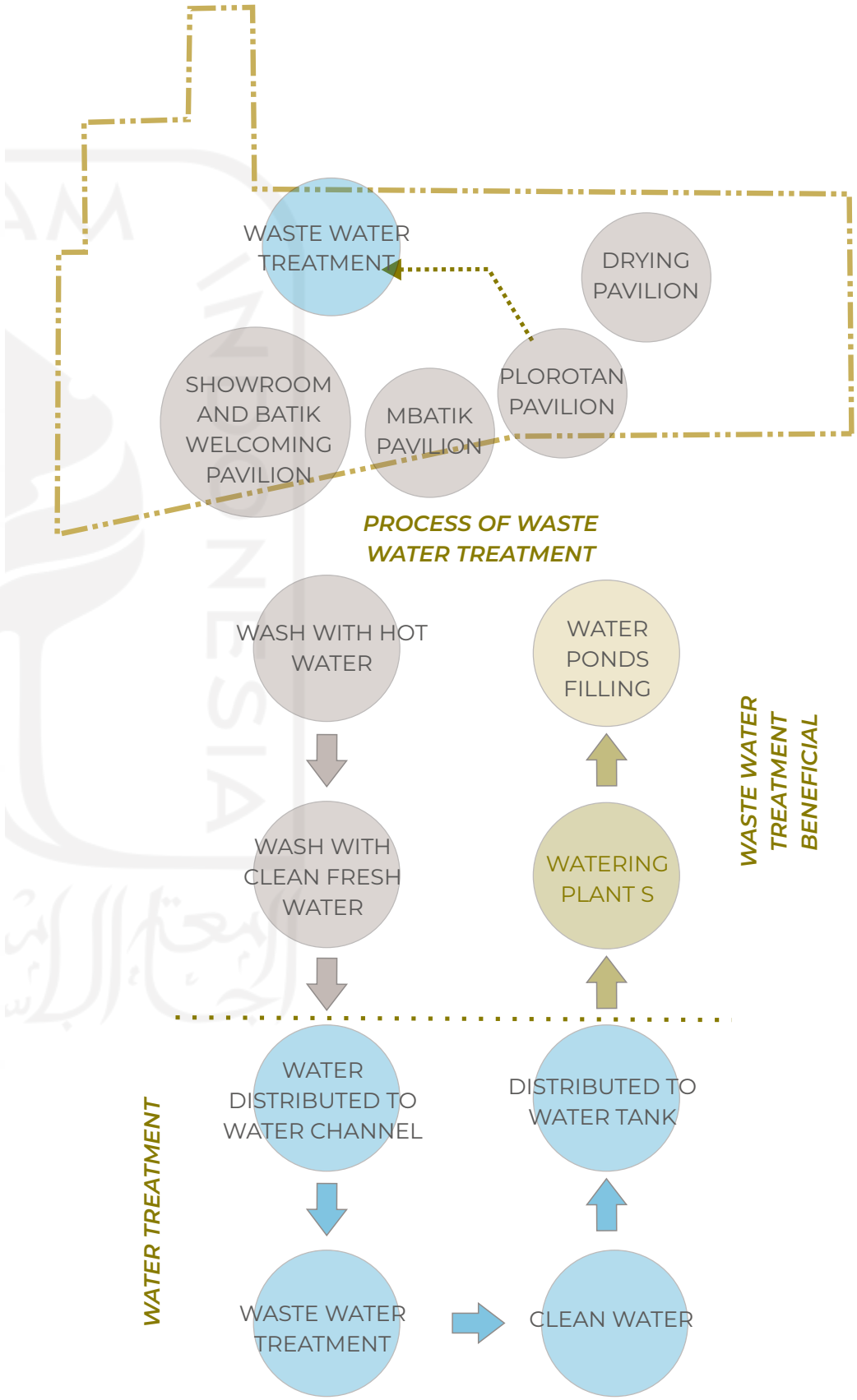
Kebutuhan Air Industri Berdasarkan Beberapa Proses Industri

Jenis Industri	Jenis Proses Industri	Kebutuhan Air (liter/hari)
Industri rumah tangga	Belum ada, rekomendasi dapat disesuaikan dengan	
Industri kecil	kebutuhan air rumah tangga.	
Industri sedang	Minuman ringan.	1.600 – 11.200
	Industri es.	18.000 – 67.000
	Kecap.	12.000 – 97.000
Industri besar	Minuman ringan.	65.000 – 7,8 juta
	Industri pembekuan ikan dan biota perairan lainnya.	225.000 – 1,35 juta
Industri tekstil	Proses pengolahan tekstil.	400 – 700 liter/kapita/hari

Apabila data industri yang diperoleh adalah data luas lahan areal industri maka kita dapat menggunakan Kriteria Perencanaan Air Baku yang dikeluarkan oleh Direktorat Jenderal Cipta Karya (1994) sebagai berikut:

- Industri berat membutuhkan air sebesar 0,50-1,00 liter/detik/ha.
- Industri sedang membutuhkan air sebesar 0,25-0,50 liter/detik/ha.
- Industri kecil membutuhkan air sebesar 0,15-0,25 liter/detik/ha.

Water needs for industrial
source :https://www.slideshare.net/udhiye/kebutuhan-air-baku



Batik waste water treatment process diagram
source : Author,2021

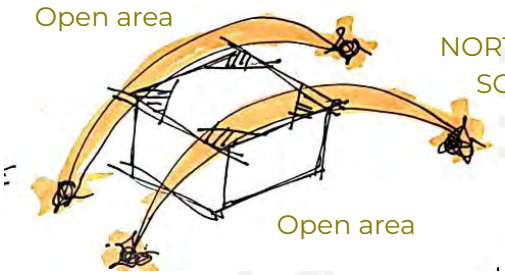
D. EXPLORATION AND STRATEGY

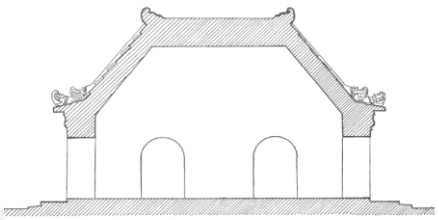
Building form exploration

Batik workshop pavilion

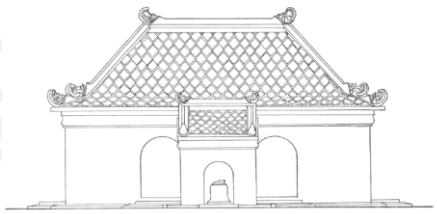
STRATEGY

DRYING PROCESS SUNLIGHT NEEDED



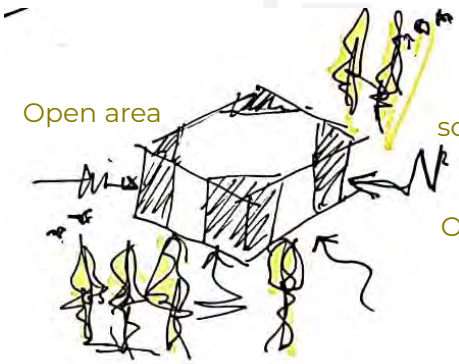


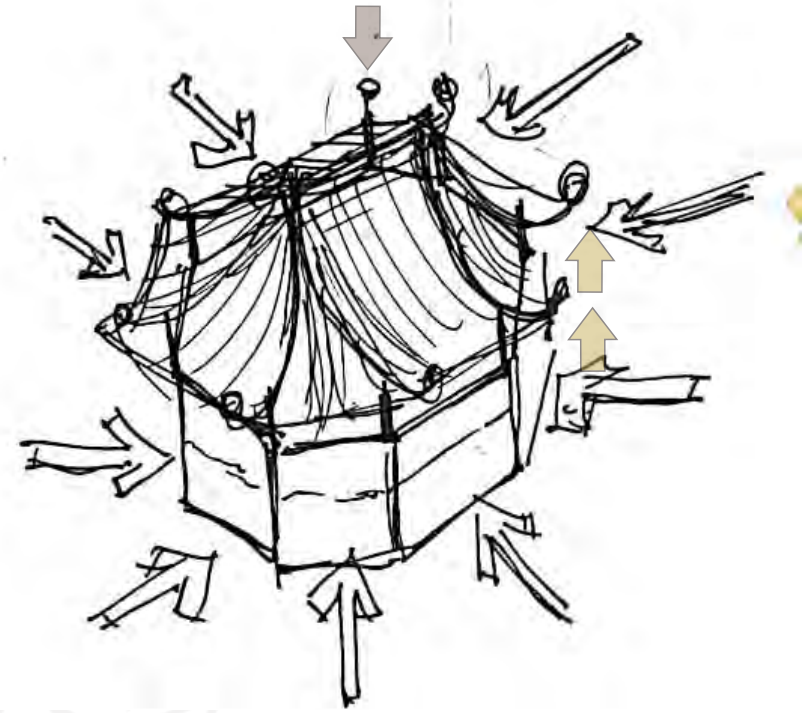
thick/weight structure



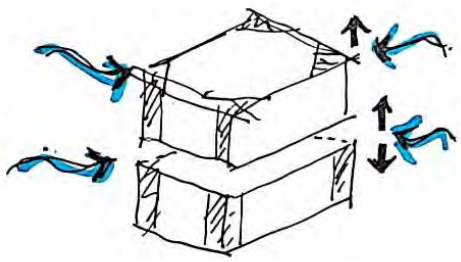
turned into light structure and gap between roof and ceiling

LANDSCAPE(ENVIRONMENT) SOUND ENTER BUILDING

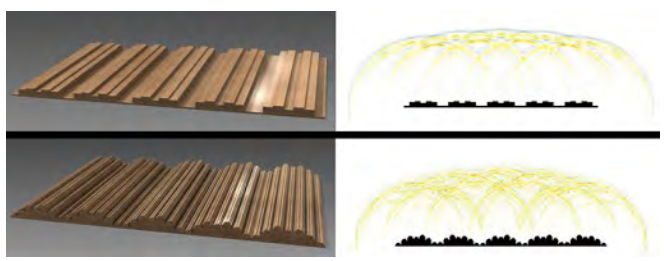




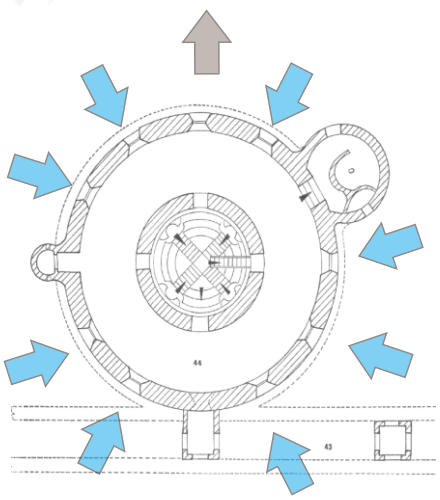
WIND CIRCULATION AND SOUND DELIVERY



INDOOR CEILING AND WALL FORM (BUILDING RESPOND)



Form Sound diffused



opening

Form exploration pavilion
source : Author,2021

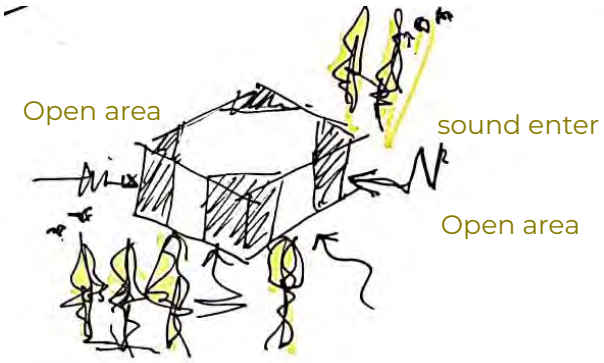
D. EXPLORATION AND STRATEGY

Building form exploration

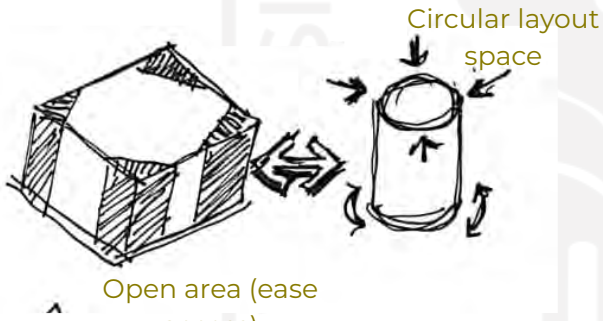
Multipurpose Pavilion

STRATEGY

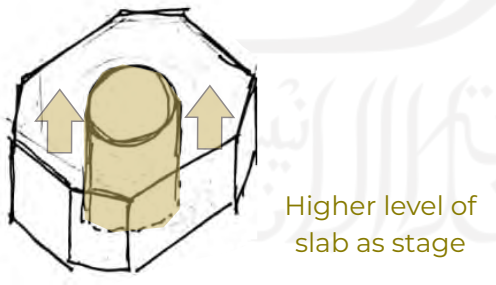
LANDSCAPE(ENVIRONMENT) SOUND ENTER BUILDING



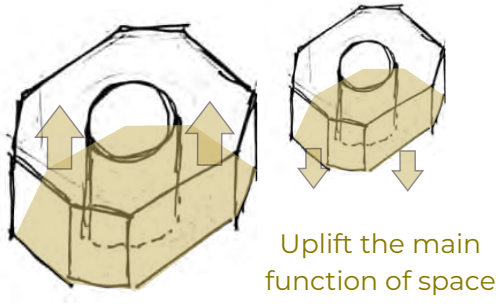
PUBLIC SPACE (GATHER AREA)

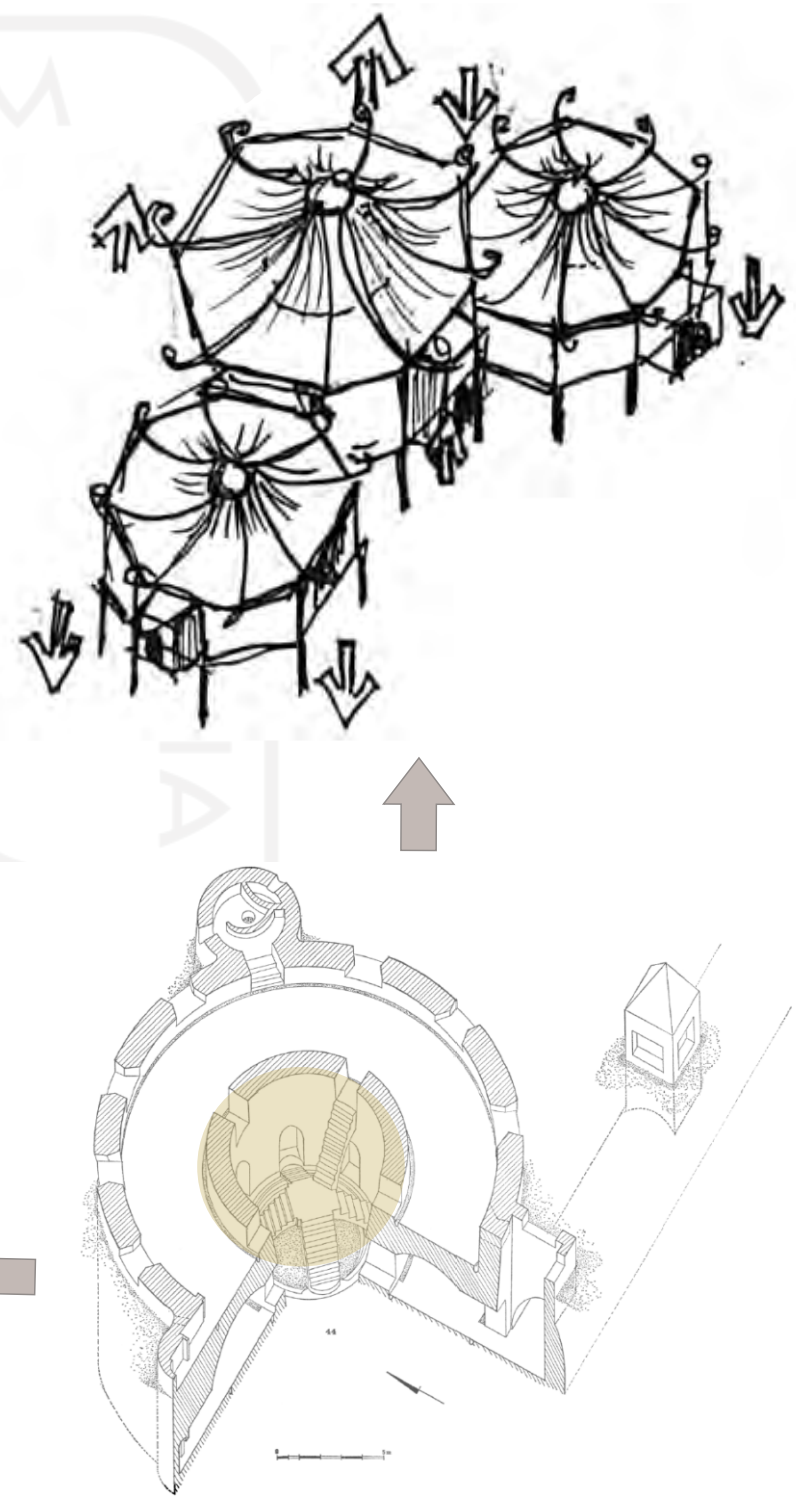


PERFORMANCE AND EDUCATION AREA



DIFFERENT LEVEL OF BUILDING MASS





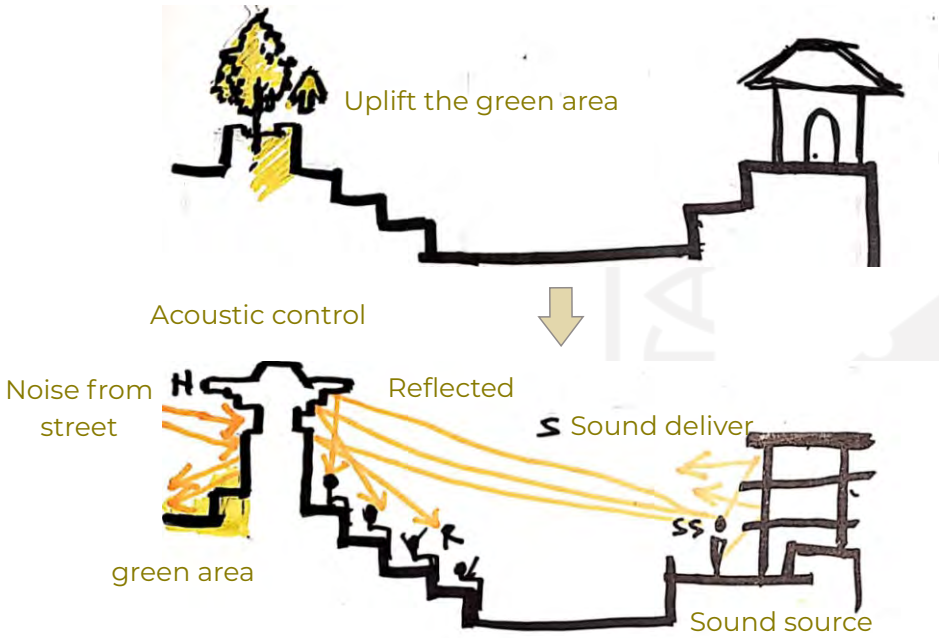
Form exploration pavilion
source : Author,2021

D. EXPLORATION AND STRATEGY

Building form exploration

Amphitheater

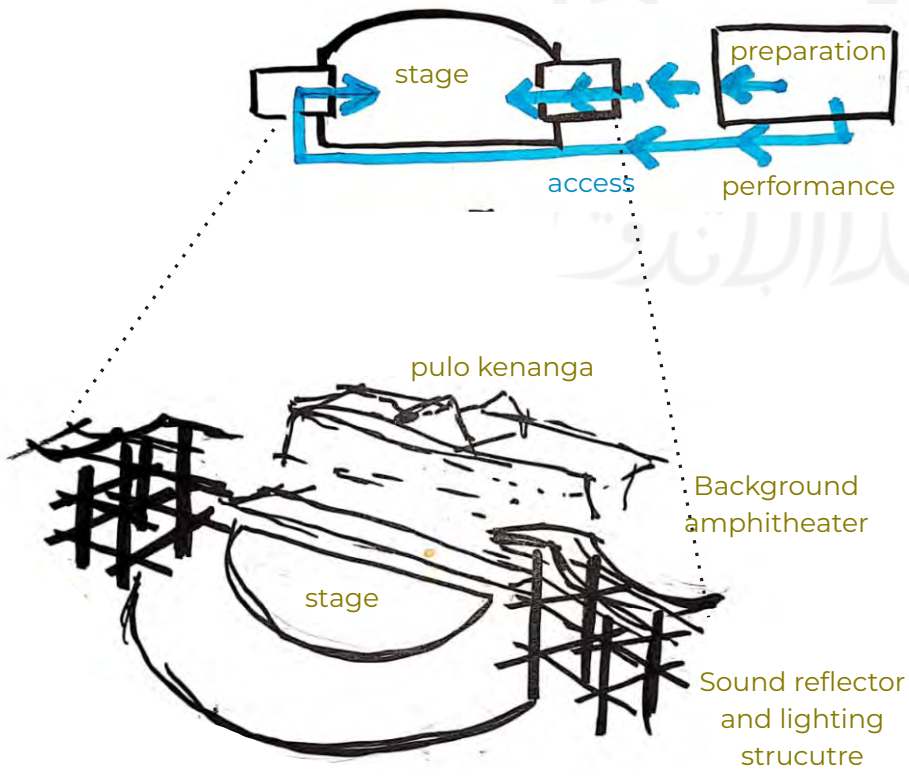
STRATEGY - AUDIENCE SPACE -





Plaza Ngasem Audience Space
Source : author, 2021

STRATEGY - STAGE SPACE -



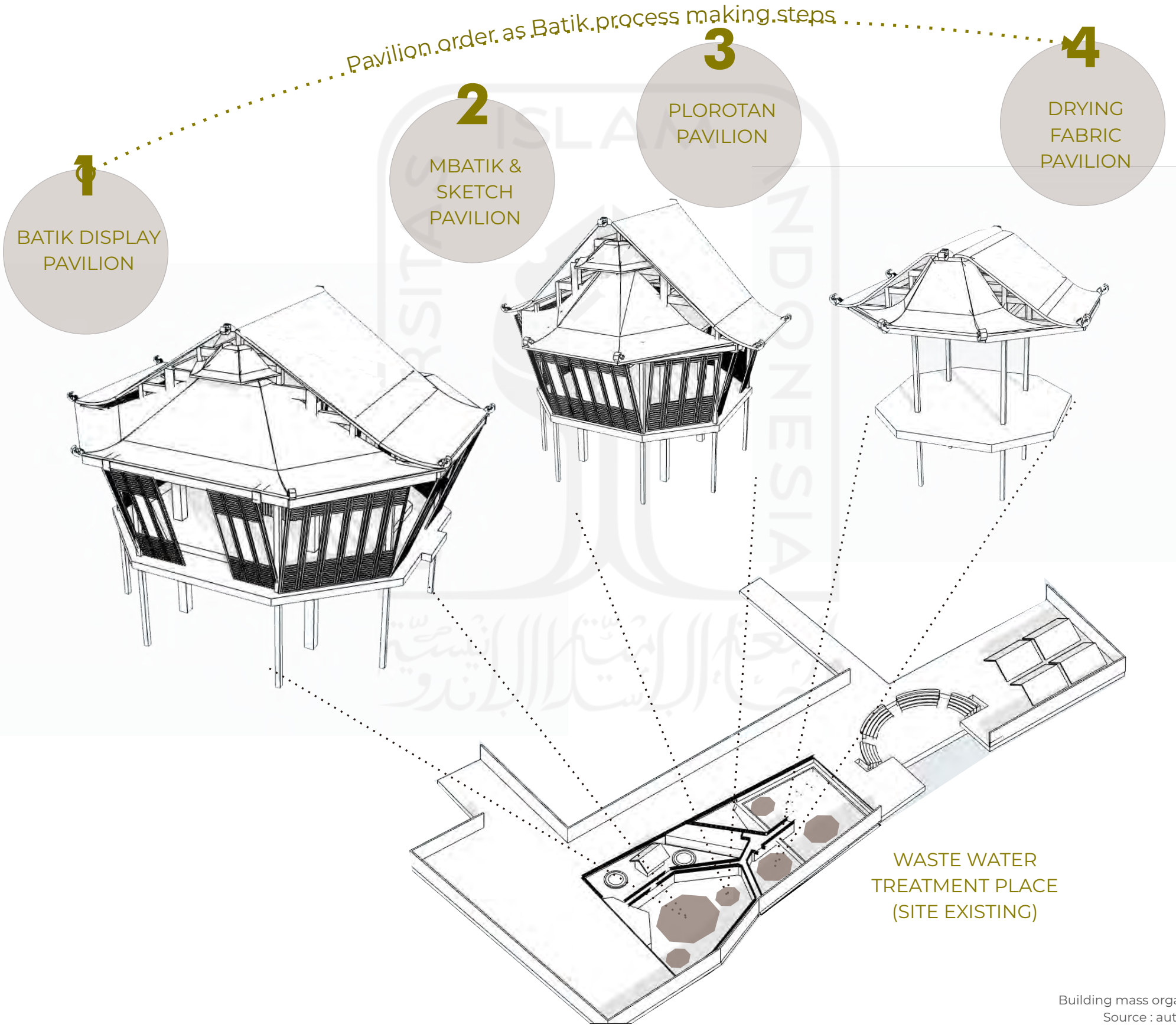


Plaza Ngasem Audience Space
Source : author, 2021

D. EXPLORATION AND STRATEGY

SITEPLAN

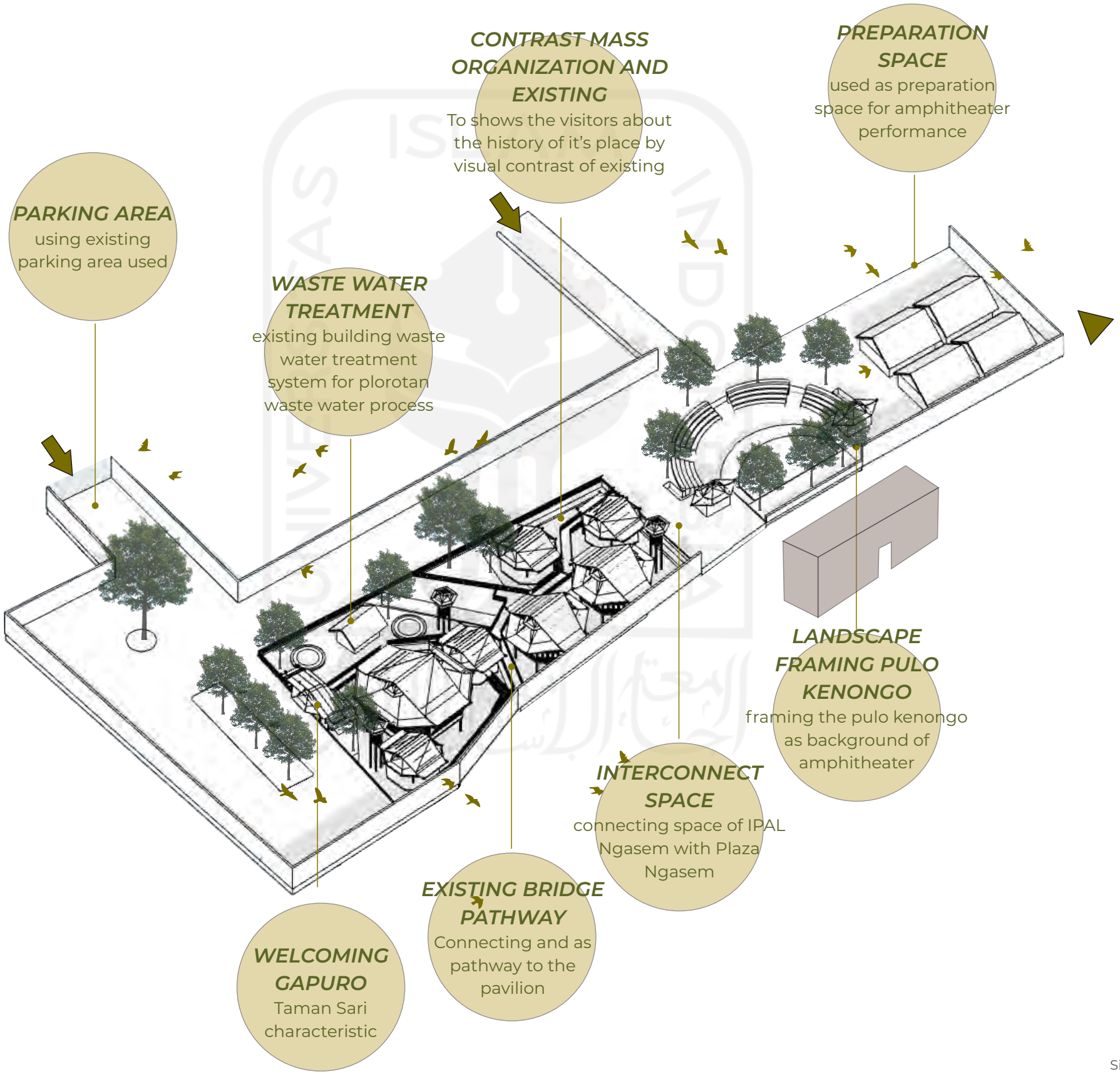
Building mass organization



Building mass organization
Source : author, 2021

D. EXPLORATION AND STRATEGY

SITEPLAN



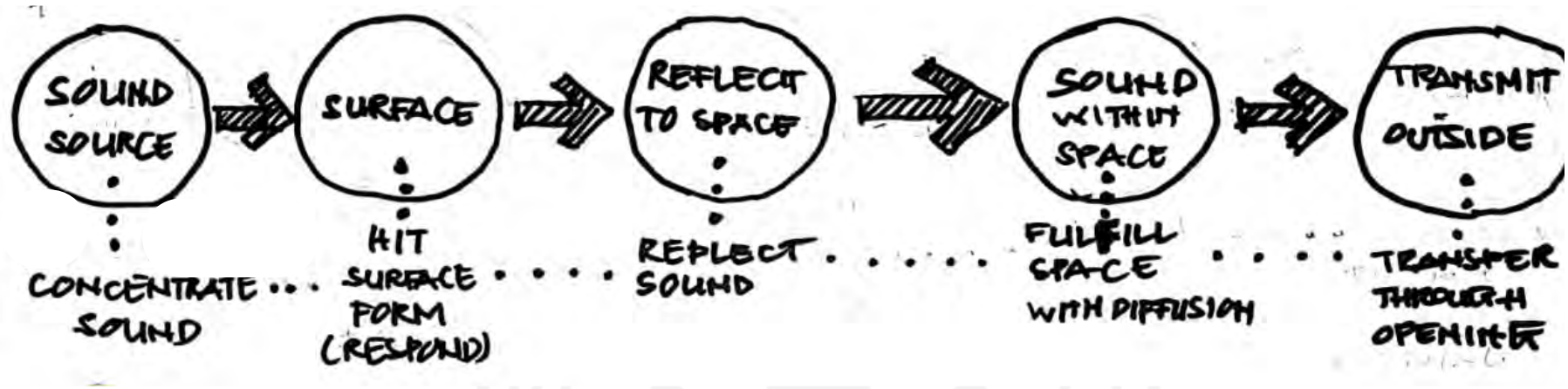
Site plan
Source : author, 2021

D. EXPLORATION AND STRATEGY

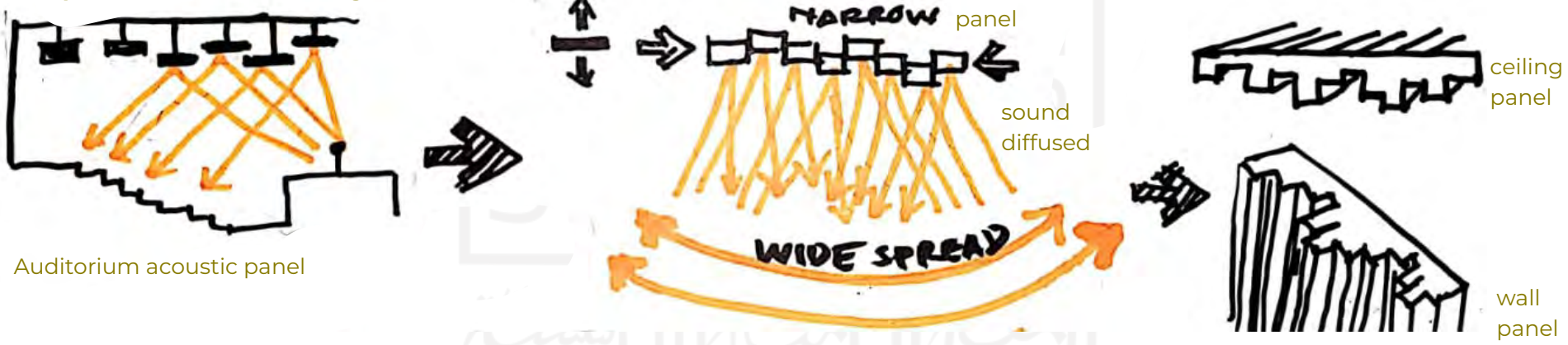
HOW SOUNDSCAPE PRODUCED

Sound acoustic panel

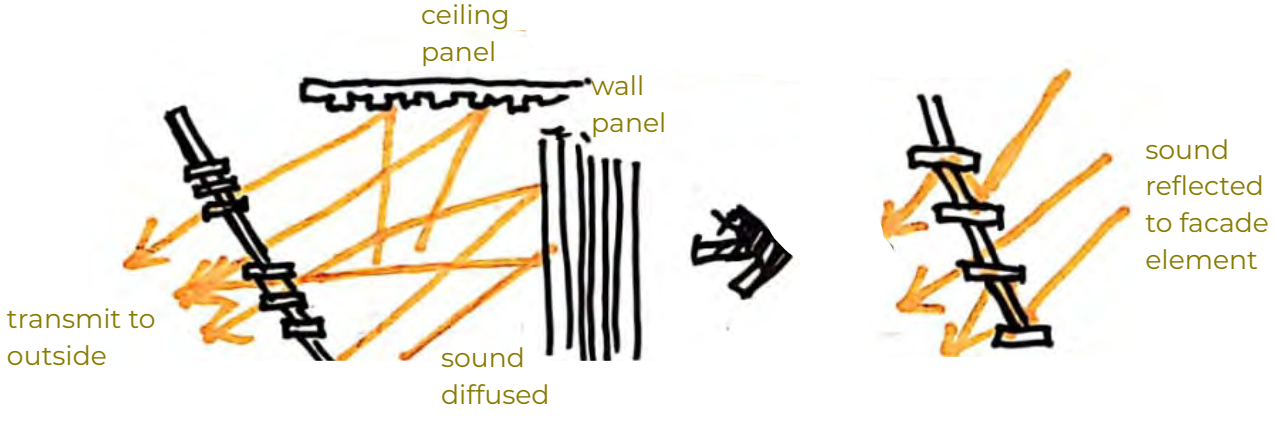
Concept



Acoustic panel wall and ceiling



Facade



Sound acoustic panel exploration
Source : author, 2021

D. EXPLORATION AND STRATEGY

HOW SOUNDSCAPE PRODUCED

Sound element source

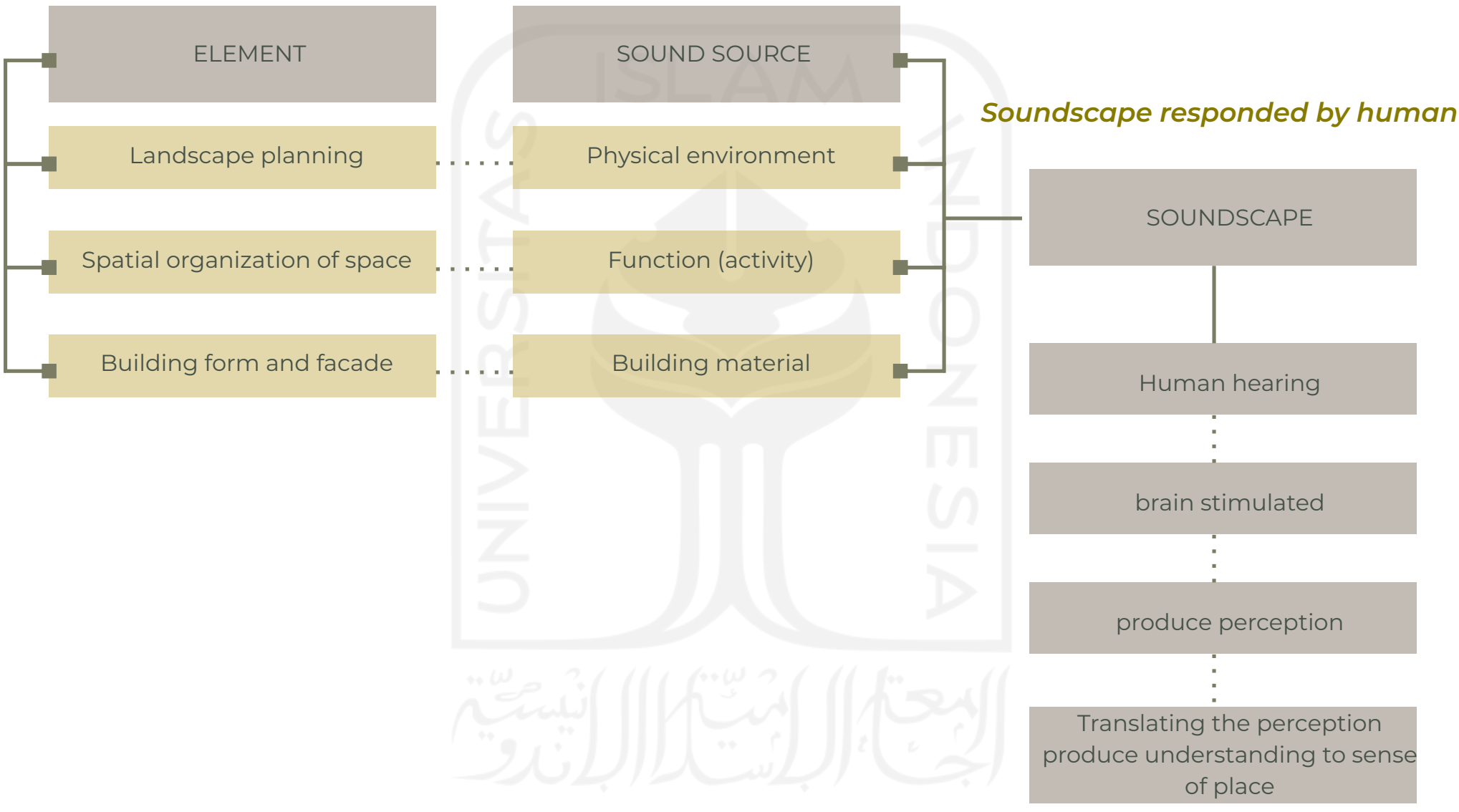
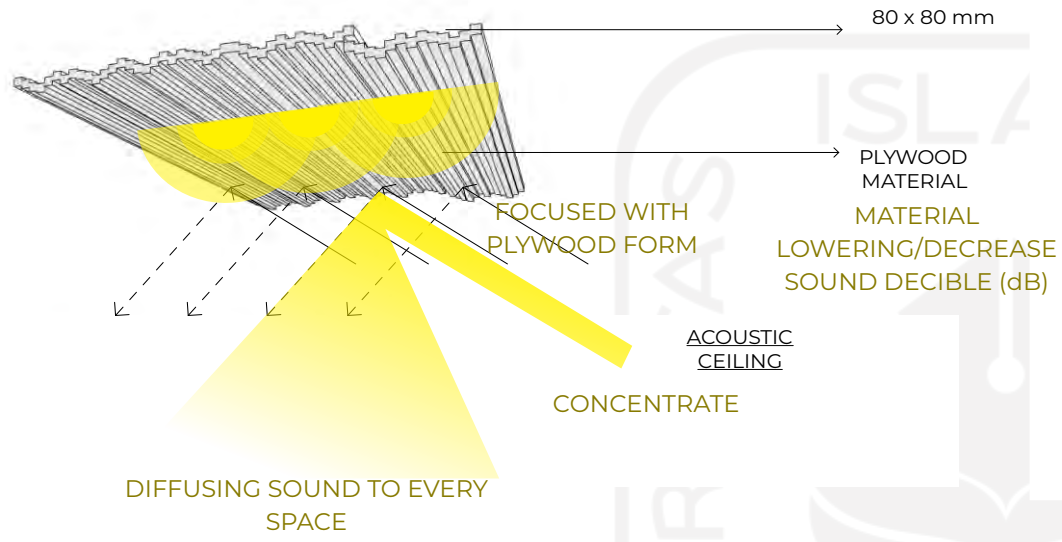


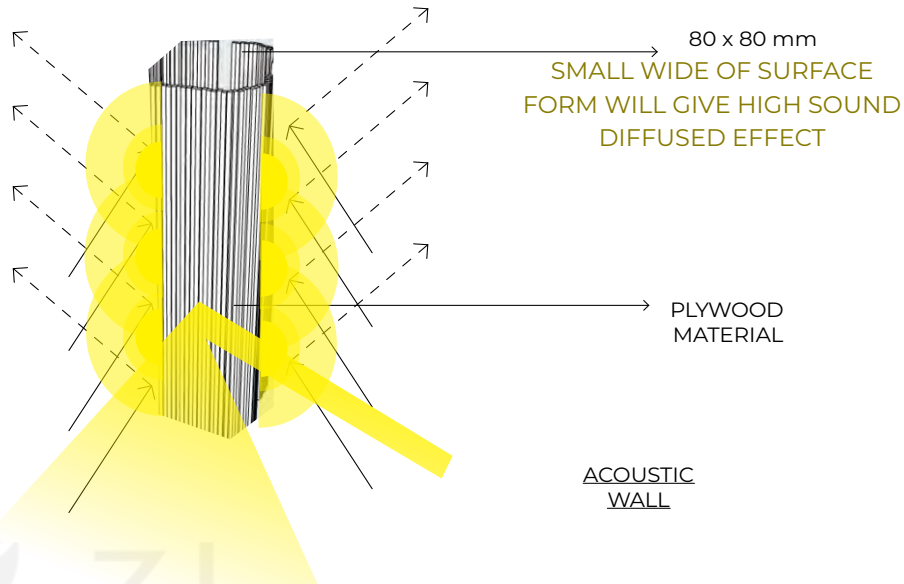
Diagram soundscape produced
Source : author, 2021

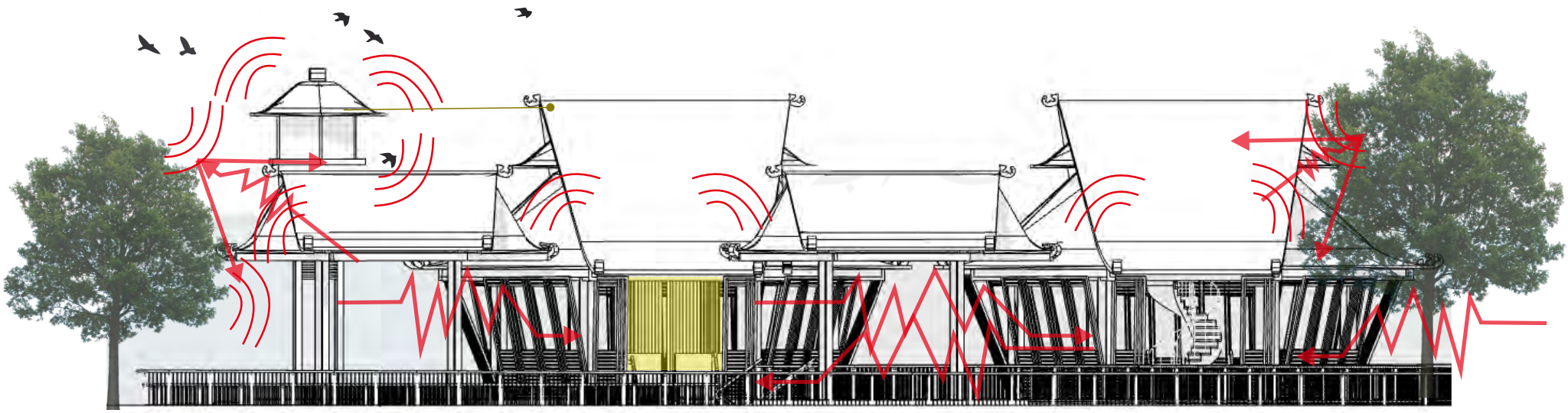
D. EXPLORATION AND STRATEGY

HOW SOUNDSCAPE PRODUCED

Building responding soundscape with acoustic panel





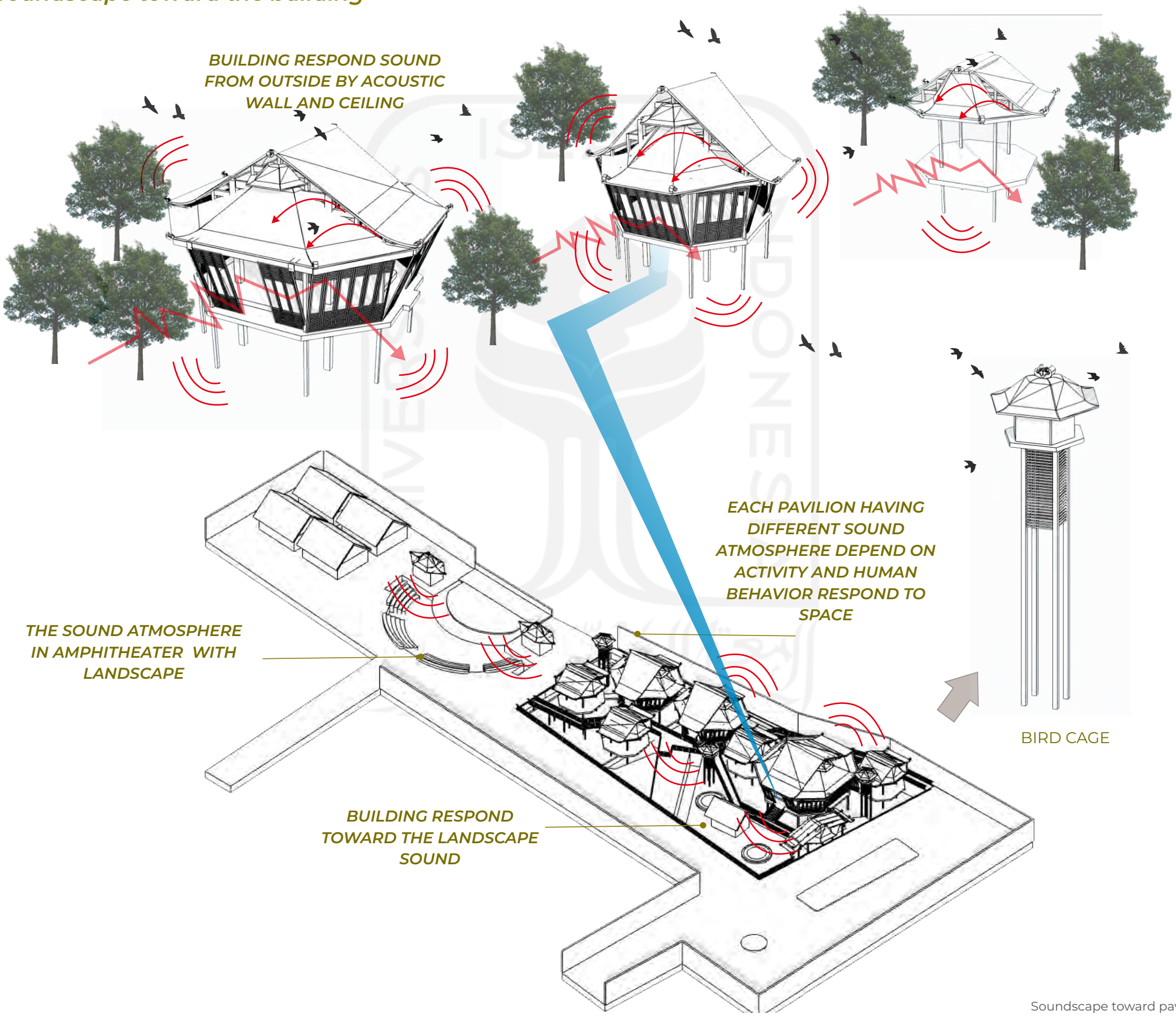


Soundscape toward pavilion
Source : author, 2021

D. EXPLORATION AND STRATEGY

HOW SOUNDSCAPE PRODUCED

Soundscape toward the building

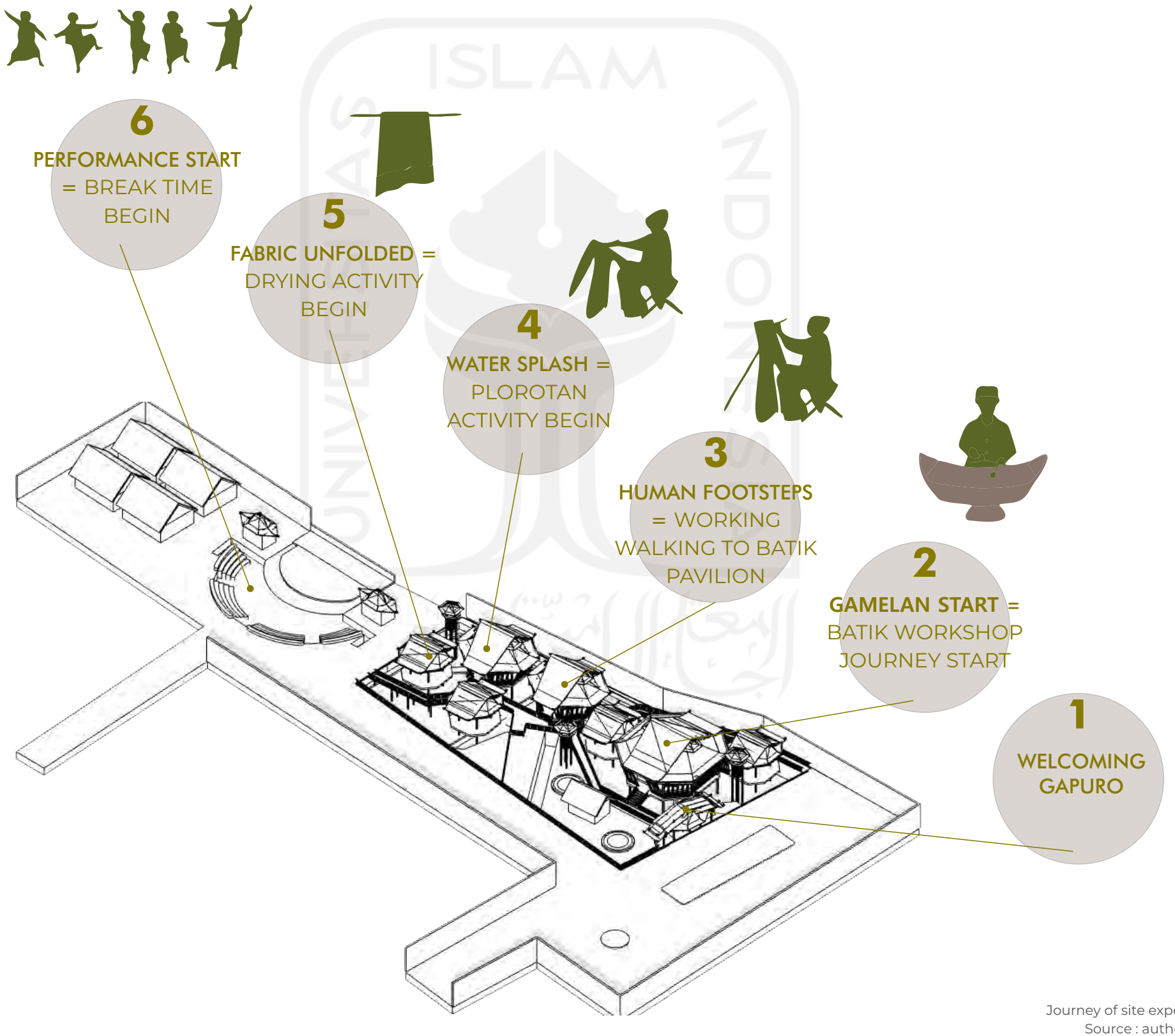


Soundscape toward pavilion
Source : author, 2021

D. EXPLORATION AND STRATEGY

HOW SOUNDSCAPE PRODUCED

Soundscape journey experience



Journey of site experience
Source : author, 2021

CHAPTER 5

SCHEMATIC DESIGN

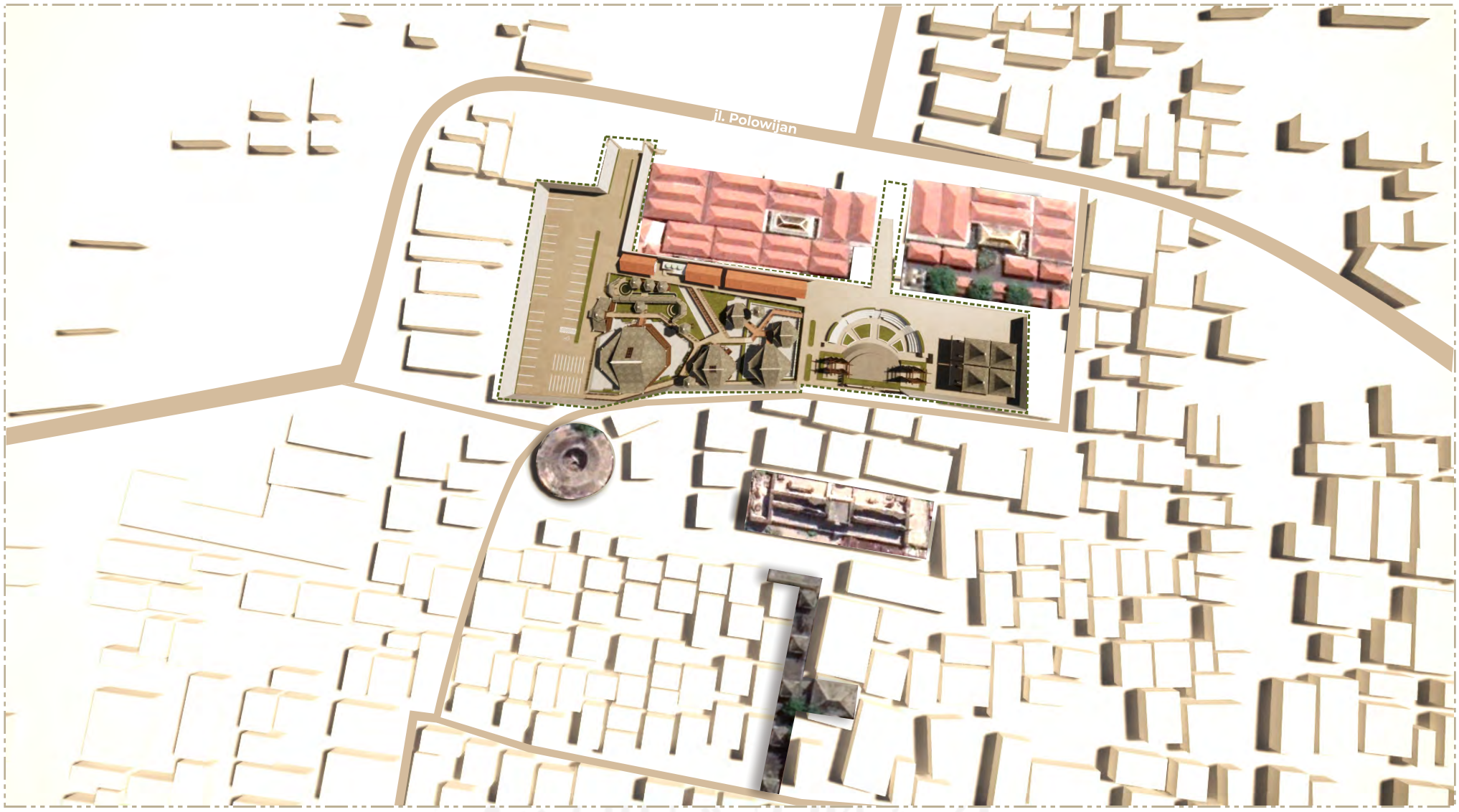
Connection in urban neigborhood (Situation)
Site plan
Landscape concept
Building mass layout concept
Building form concept
Light weight structure
Circulation and movement in pavilion
Acoustic parameter
Soundscape and pavilion
Manage existing amphitheater
Showroom and performance lighting concept
Infrastructure system

Design evaluation use *I-Simpa*
Design evaluation use *Noisetool*
Design evaluation from Head of *Batik Paguyuban Taman Sari*

CONNECTION IN URBAN

NEIGHBORHOOD

Situation

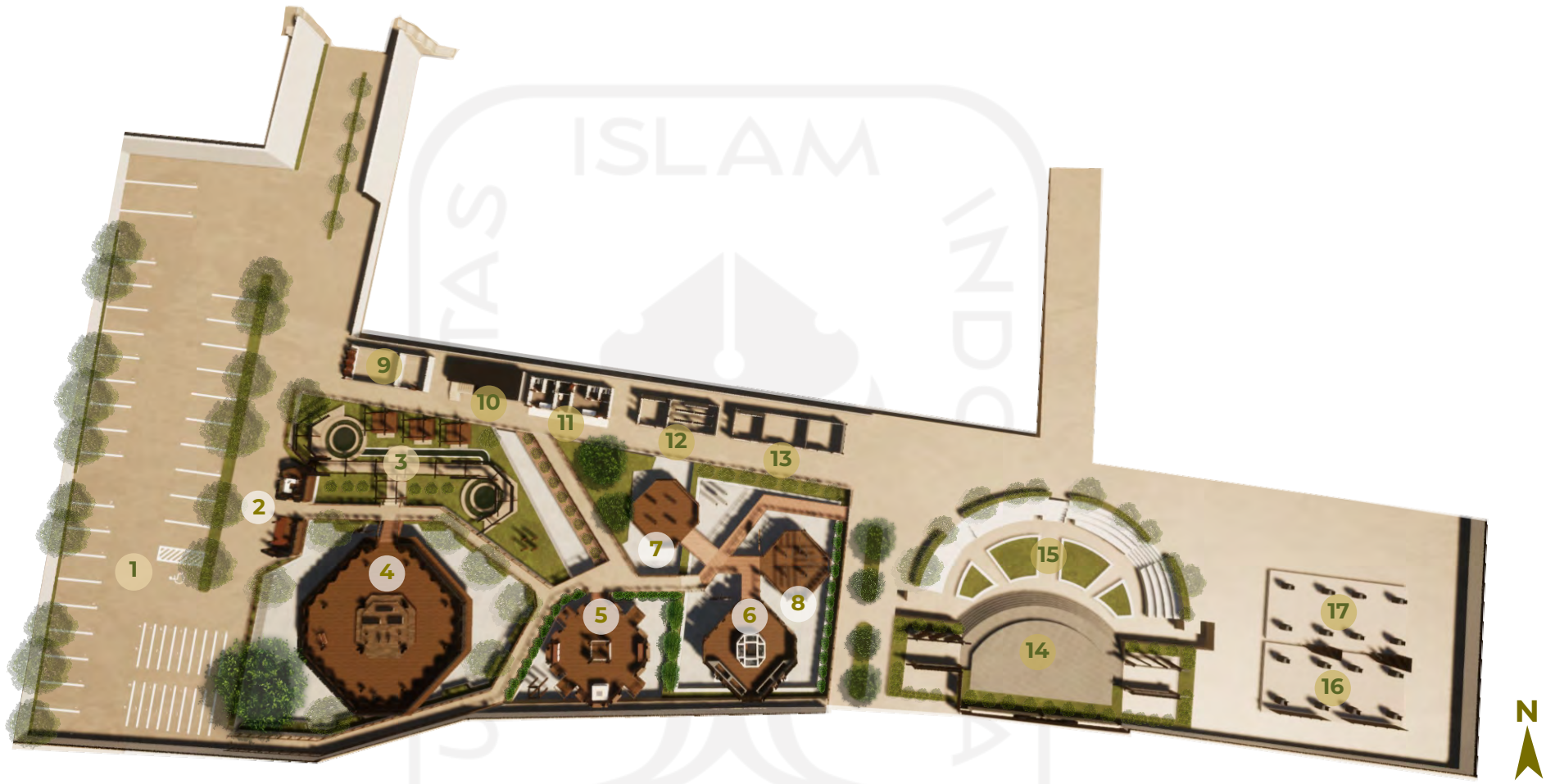


Situation and neighborhood
source : Author,2021

SITE CONNECTIVITY

SITE EXISTING AND NEW BUILDING

Site plan



Existing renoved
New built

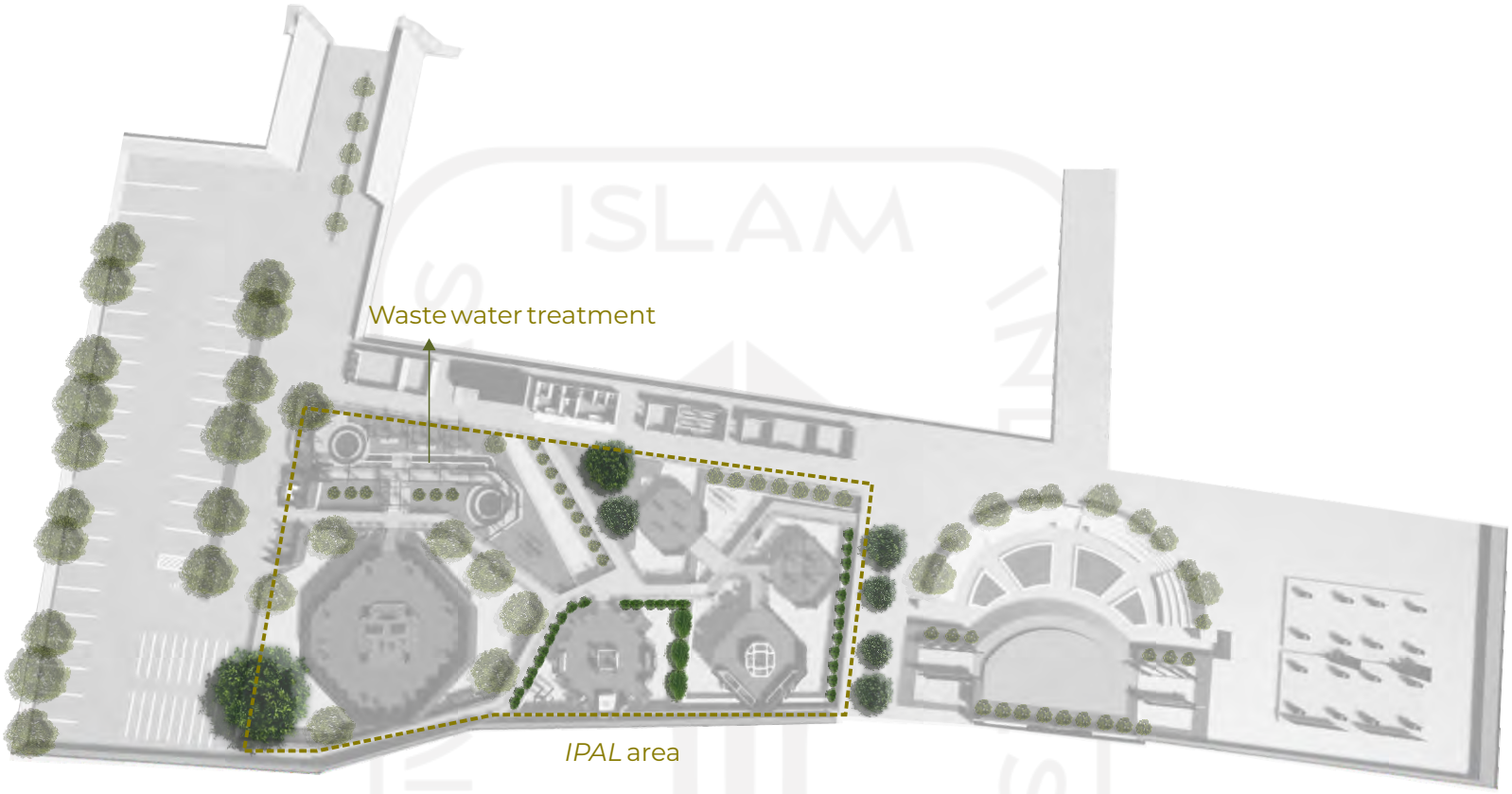
1. Parking area
2. Welcoming gapuro
3. Ponds and garden
4. Gamelan pavilion
5. Singing bird pavilion
6. Water pavilion
7. Multipurpose pavilion
8. Drying pavilion
9. MEE room
10. Upper water tank
11. Toilet
12. Batik material storage
13. Storage performance
14. Stage
15. Garden-sitting area
16. Preparation room
17. Display space

Siteplan
source : Author,2021

LANDSCAPE

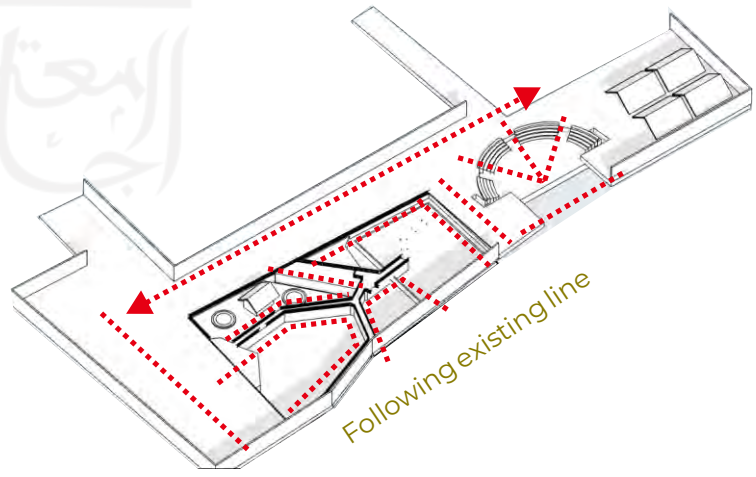
INTEPRATING TAMAN SARI LANDSCAPE

STRATEGY



GEOMETRICAL LANDSCAPE

The plants are planted in the pot, especially for plants that inside *IPAL* area which become an effort to not ruin and preserve existing. The pot is the characteristic of Taman Sari Complex. The way it is arranged following how Taman Sari planted the plants following the line of pavement or wall and buildings. Then, the execution of arrangement in here is following the existing line of pathway.



Landscape diagram
source : Author,2021

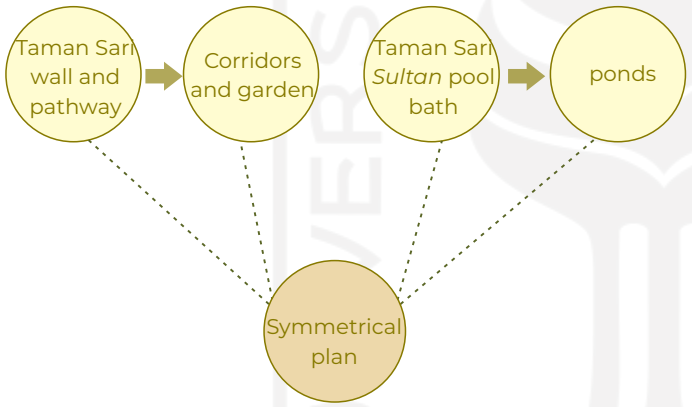
LANDSCAPE

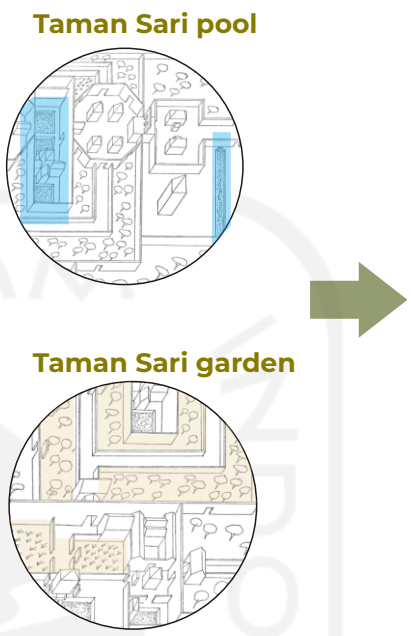
INTEPRATING TAMAN SARI LANDSCAPE

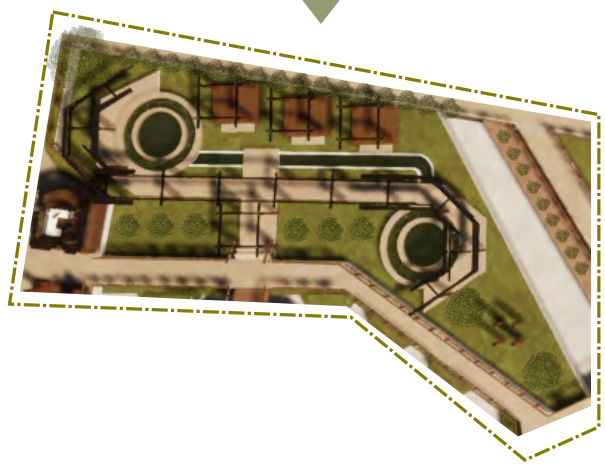
STRATEGY

BLUE AND GREEN FEATURES

Interprate Taman Sari which is known as water castle and garden/park. the space which formerly waste water treatment changed into ponds, fountain and garden. The water circulate between two circle also used to watering the garden. There is a corridor and small pavilion which sheltering the visitors when explore this place. The wall and pathway from Taman sari garden transformed into a corridors. The pool for *Sultan* taking bath transformed into ponds. It will show them two memories between Taman Sari and *IPAL* area.

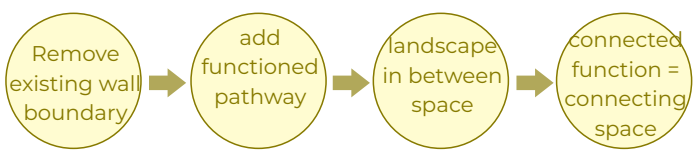


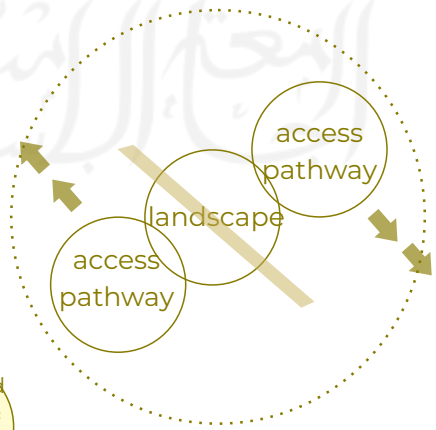


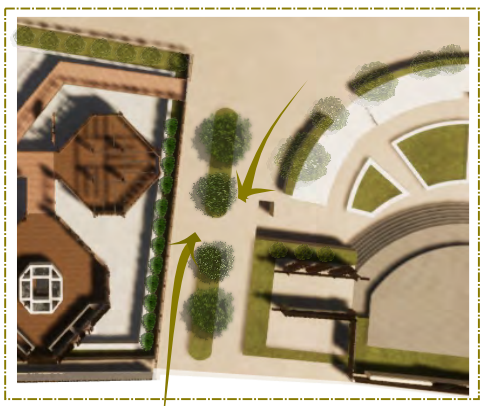


CONNECTION BETWEEN SPACE

Formerly *IPAL* area and plaza ngasem was separated with high wall. Here it is destroyed and connect the space with pathway and landscape. The plants planted in the middle of pathway. So, it is creating two access. Having two access in one space make the space connected each other in aspect of function, and human visual .







Landscape diagram
source : Author,2021

BUILDING MASS LAYOUT

INTERPRATING TAMAN SARI PLAN

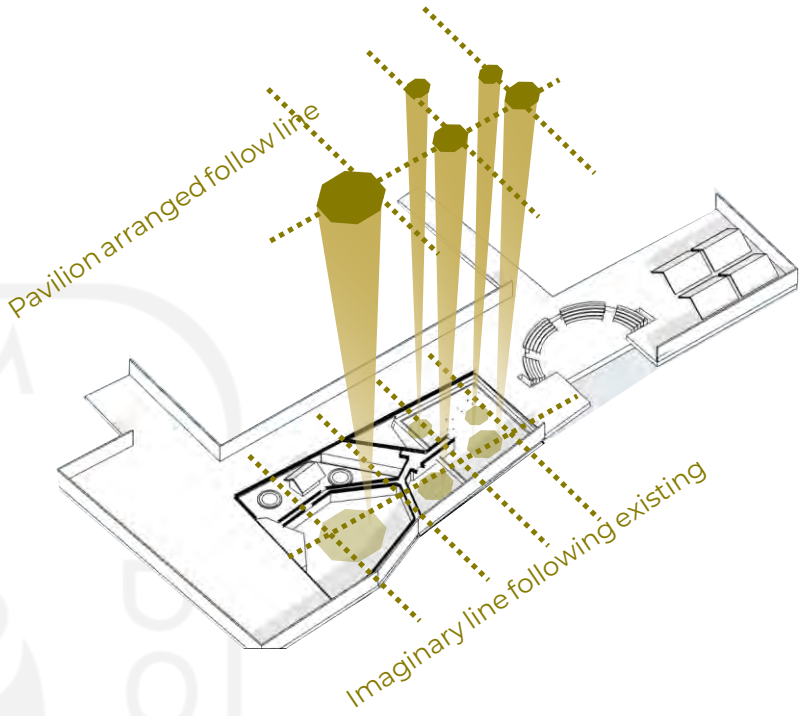
STRATEGY

RESPOND TO THE EXISTING

The site existing having a pathway, waste water treatment area, and depth about 1.5 m . Responding the existing, The building mass layout following the major imaginary line of pathway and outer line of waste water treatment area. The building fill the gap or empty space between the existing pathway. Gives the pavilion gap or distance in between.

existing

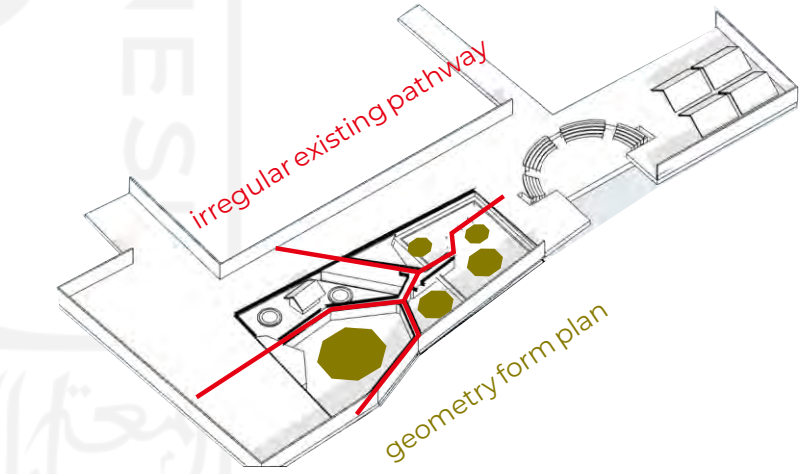
pathway | waste water treatment | depth 1.5 meter



GEOMETRICAL PLAN

The geometrical plan considered as the solution to mingle with the existing pathway shape. The irregular shape of pathway need to be balanced with geometrical shape. Geometry tend to give simple-look and well arranged layout. Taman Sari complex also having a strong geometry plan in landscape and building. So, it is representing Taman Sari complex as well.

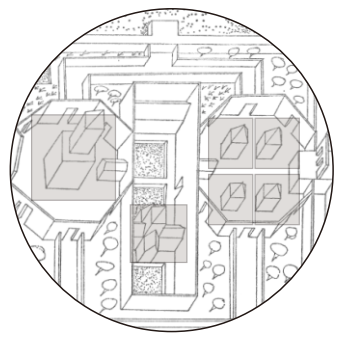
Irregular existing pathway → combined with regular and geometry → Balance layout



SPLIT MASS

Taman Sari complex consist of pavilion or buildings which is separated or split mass. The pavilions are surrounded by garden and water features element. By dividing pavilion into 5 part, it will have maximal delivery of soundscape to pavilion interior and respond it directly.

TAMAN SARI PAVILIONS



Geometrical split mass



gap between mass

Building mass diagram
source : Author,2021

BUILDING MASS LAYOUT

RESPOND TO BATIK SHOP HOUSE LAYOUT AND FUNCTION

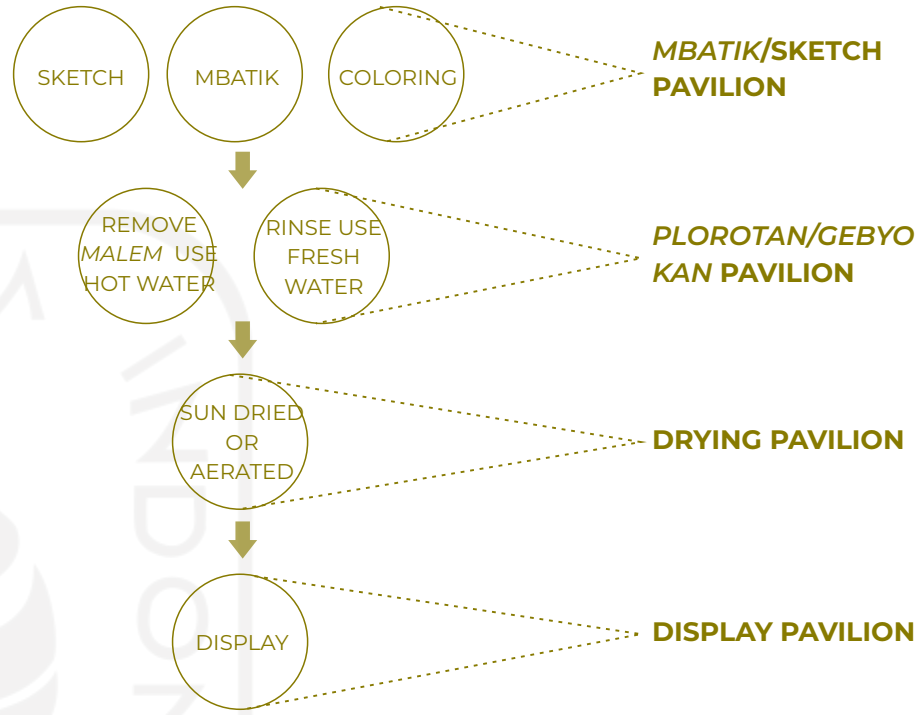
STRATEGY

BATIK SHOP HOUSE FUNCTION

Based on the observation to Taman sari batik shop house, batik production steps consist of ;
- MBATIK/SKETCH
- COLORING
- PLOROTAN
- DRYING
- DISPLAY

Different shop house having different way to produce their work. But, the general steps are the same. Implement the steps of production into building mass function to createcharacteristic of each building mass.



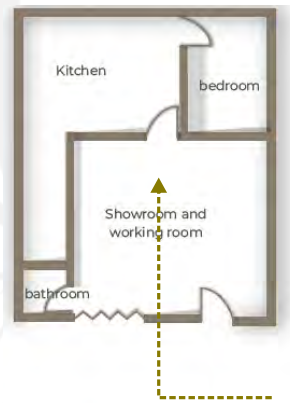


BATIK SHOP HOUSE ROOM LAYOUT

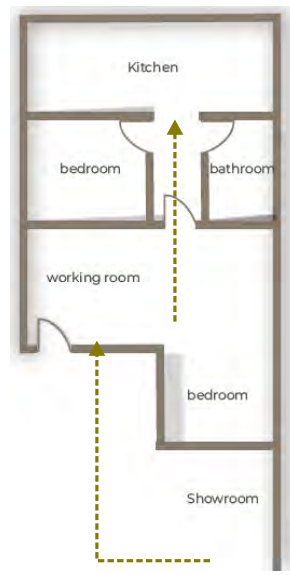
Based on the observation to Taman sari batik shop house, the layout of shop house in general is
1. SHOWROOM/DISPLAY ROOM
2. WORKING ROOM (Sometimes it's in one with showroom space)
3. PLOROTAN ROOM (at bathroom)
4. DRYING ROOM (outside of house)

it is creating a hierarchy of place from public to private, from open to closed. Arrange the hierarchy from the entrance.

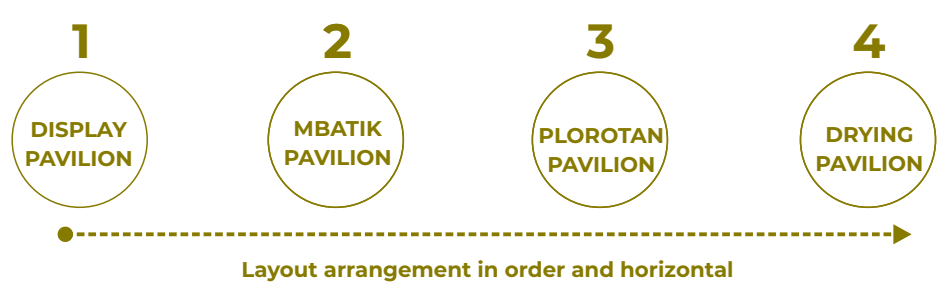




Sample layout Mr.Agus shop house at Magersari land
source : Author,2021



Sample layout raw sketch Mr.Iwan shop house at Rented house

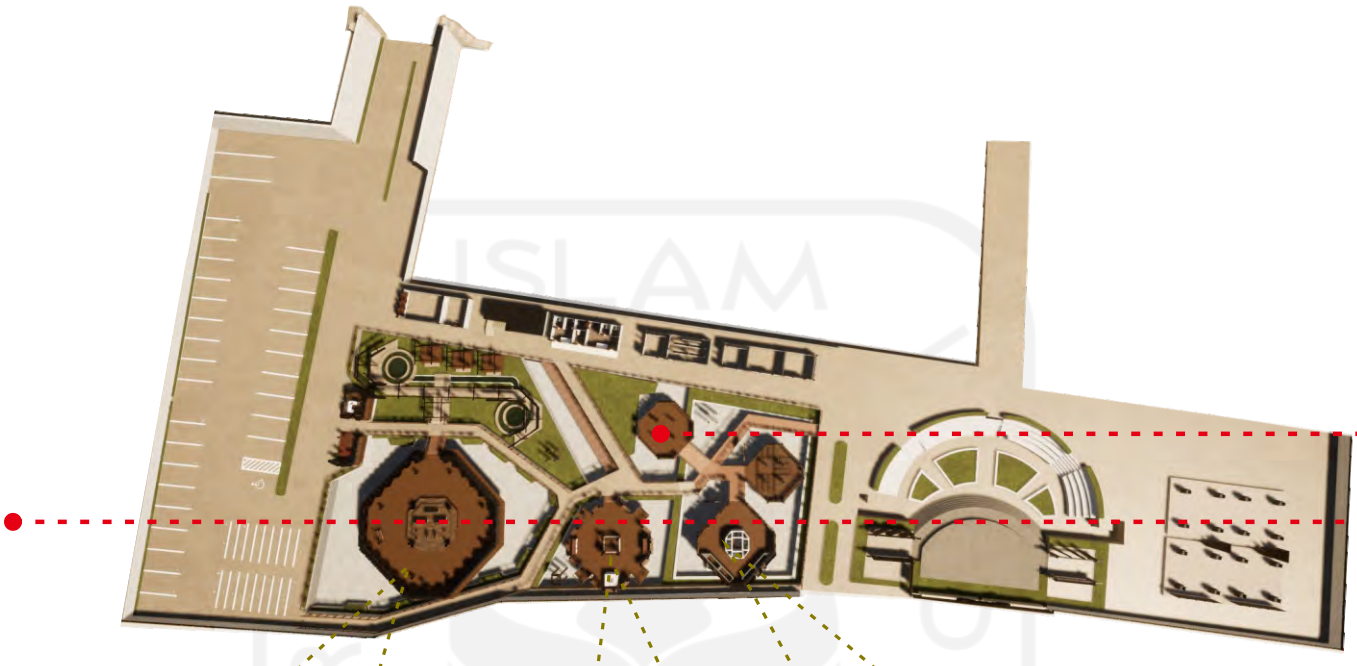


Building mass diagram
source : Author,2021

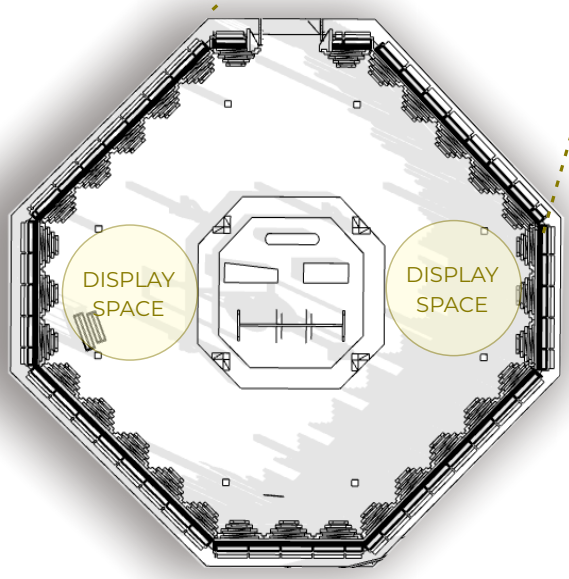
BUILDING MASS LAYOUT

RESPOND TO BATIK SHOP HOUSE LAYOUT AND FUNCTION

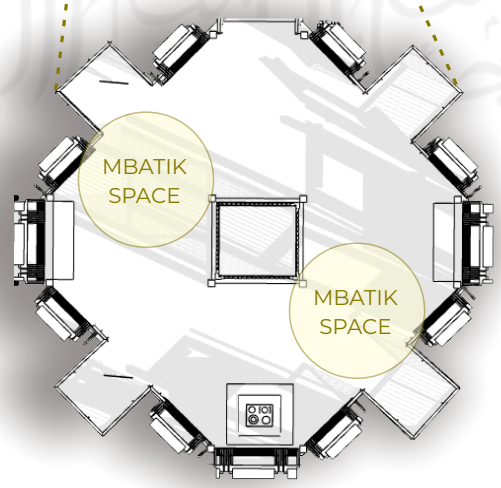
RESULT



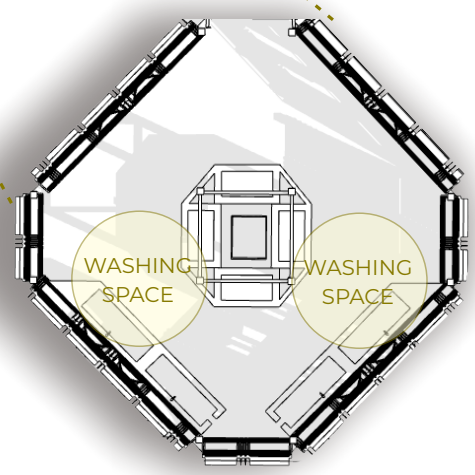
Site plan



DISPLAY PAVILION



MBATIK PAVILION



DRYING PAVILION

PLOROTAN PAVILION

Building mass diagram
source : Author,2021

BUILDING FORM

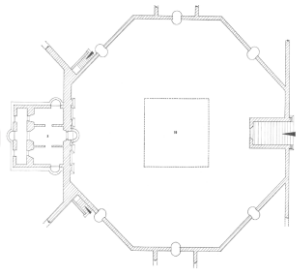
NEW FACE OF TAMAN SARI

STRATEGY

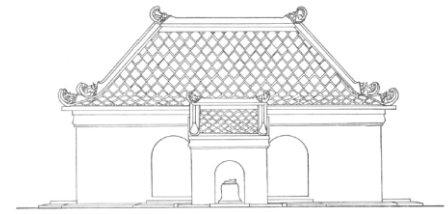
TAMAN SARI FORM

The form of Taman Sari plan and building is geometrical and give simple-minimalist-look. Taking the most striking shape of Taman Sari which is the roof of buildings and octagonal shape of *pelataran gedong lopak lopak*.

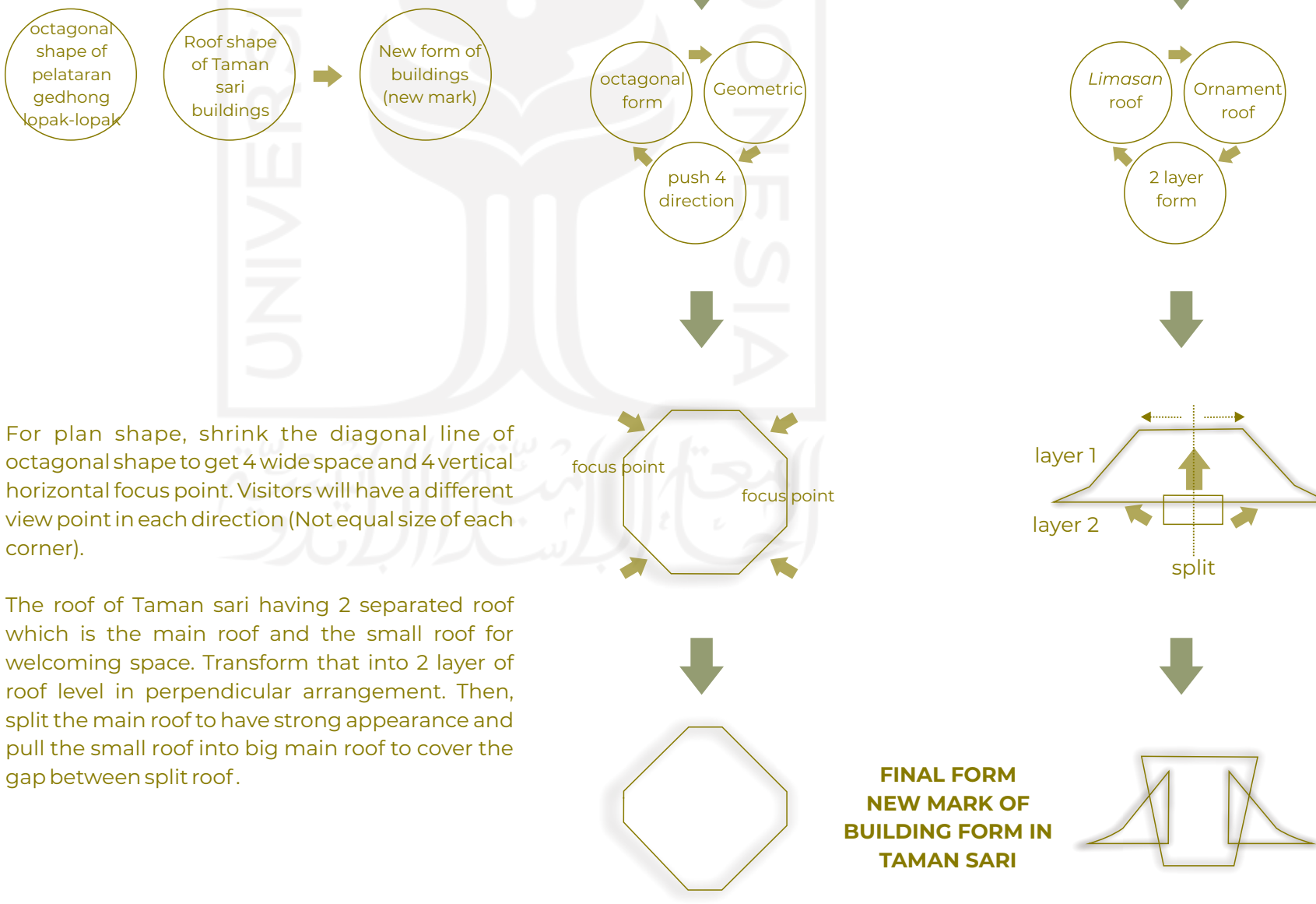
The octagonal shape appearance is strong which make it stand out to stand by itself. To balancing the form of octagonal shape plan using stand out roof shape of Taman Sari buildings either with the ornament at each corner.



Octagonal shape



Roof shape of taman sari



For plan shape, shrink the diagonal line of octagonal shape to get 4 wide space and 4 vertical horizontal focus point. Visitors will have a different view point in each direction (Not equal size of each corner).

The roof of Taman sari having 2 separated roof which is the main roof and the small roof for welcoming space. Transform that into 2 layer of roof level in perpendicular arrangement. Then, split the main roof to have strong appearance and pull the small roof into big main roof to cover the gap between split roof.

Building form diagram
source : Author,2021

BUILDING FORM

NEW FACE OF TAMAN SARI

RESULT

GAMELAN PAVILION

MAINTAIN MAIN FORM OF TAMAN SARI ROOF

SKYLIGHT AS NATURAL LIGHT PENETRATION

1st ROOF LAYER HAVING ELONGATED TIP CORNER AS VENTILATION SHADING OR COVER FROM RAIN WATER

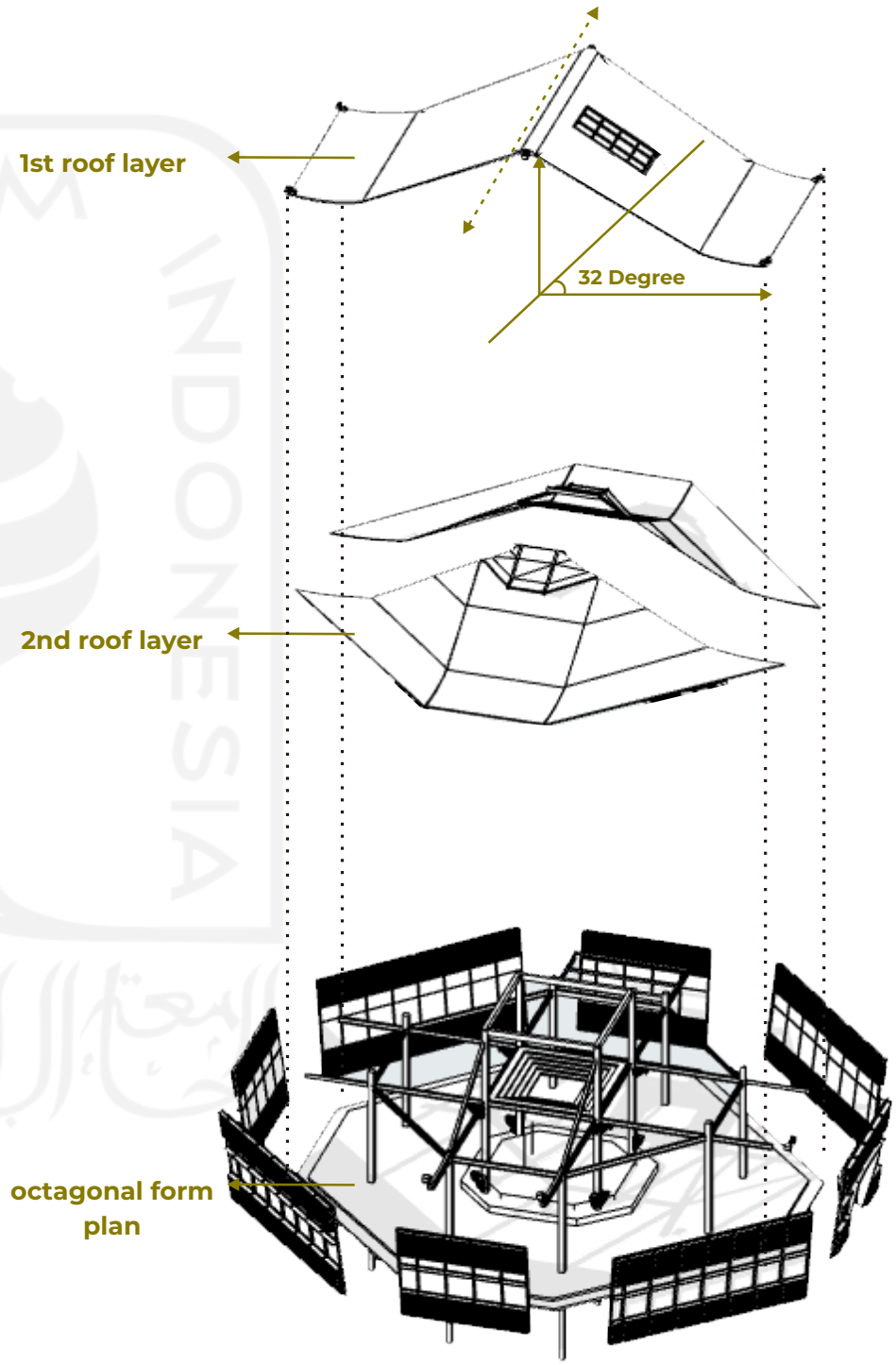
THE ELEVATION OF ROOF SLOPE RESPONDING TO SOUND WILL DELIVERED

TWO LAYER OF ROOF WILL PROVIDE A WIND VENTILATION IN BETWEEN THE ROOF

APPEARANCE AS PAVILION ROOF WINGS (STRONG POINT OF VIEW)

STILT SLAB RESPOND TO THE EXISTING, NOT RUIN THE HISTORICAL SITE ELEMENT

MAINTAN THE FORM OF *PELATARAN GEDHONG LOPAK-LOPAK*



Building form diagram in exploda axono
source : Author,2021

BUILDING FORM

NEW FACE OF TAMAN SARI

RESULT

SINGING BIRD PAVILION

MAINTAIN MAIN FORM OF TAMAN SARI ROOF

SKYLIGHT AS NATURAL LIGHT PENETRATION FOR BIRD CAGE

DECK FOR VISITORS INTERACTION BETWEEN OUTSIDE AND INSIDE PAVILION

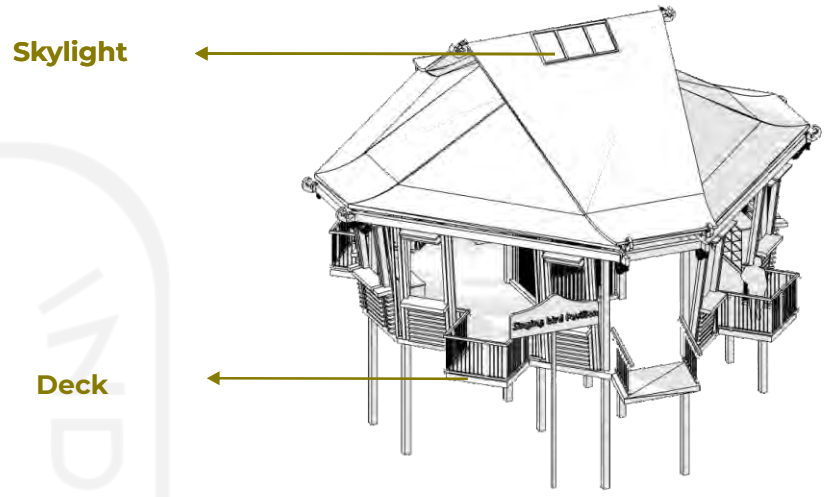
DRYING PAVILION

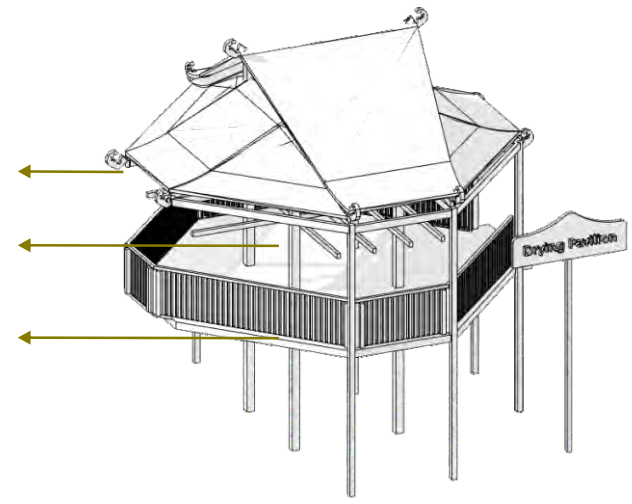
MAINTAIN MAIN FORM OF TAMAN SARI ROOF

REPRESENT *PENDOPO* STRUCTURE AND SHAPE

OPENED PAVILION

FENCES REPRESENT *JOGLO* HOUSE TERRACE AND *PENDOPO*





Building form diagram in axono
source : Author,2021

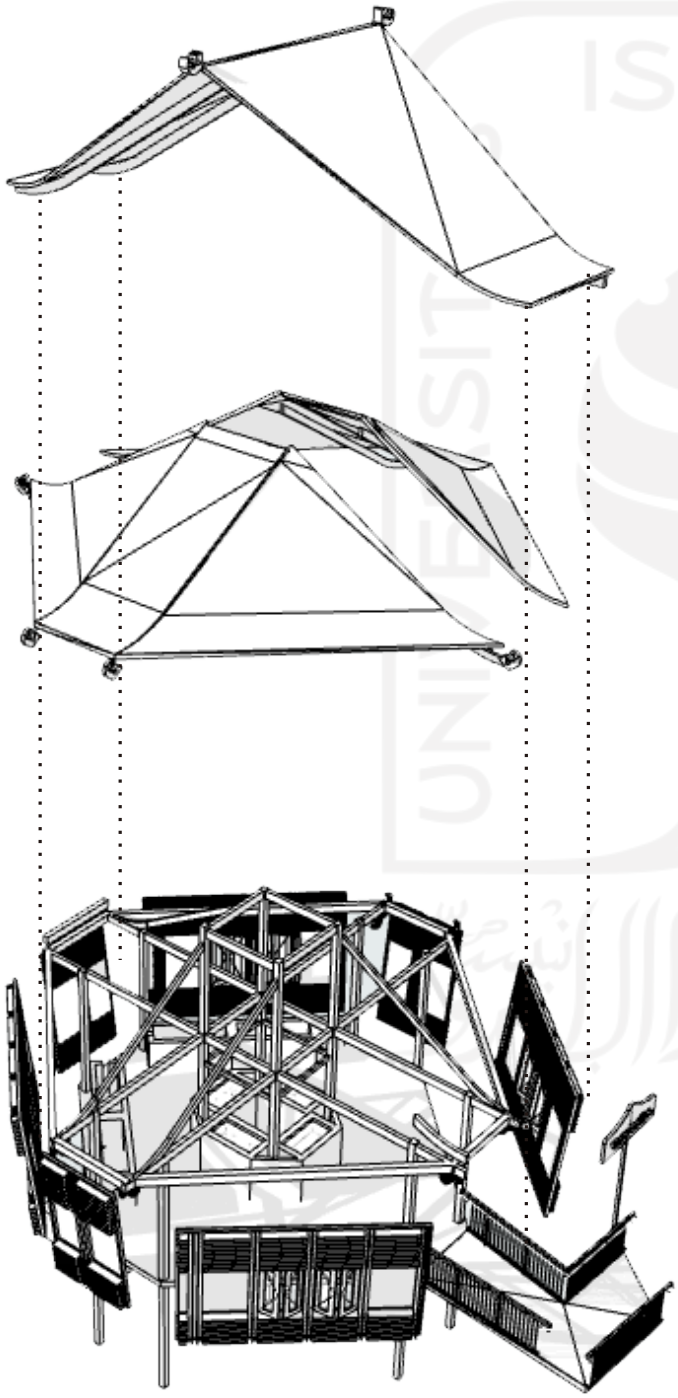
BUILDING FORM

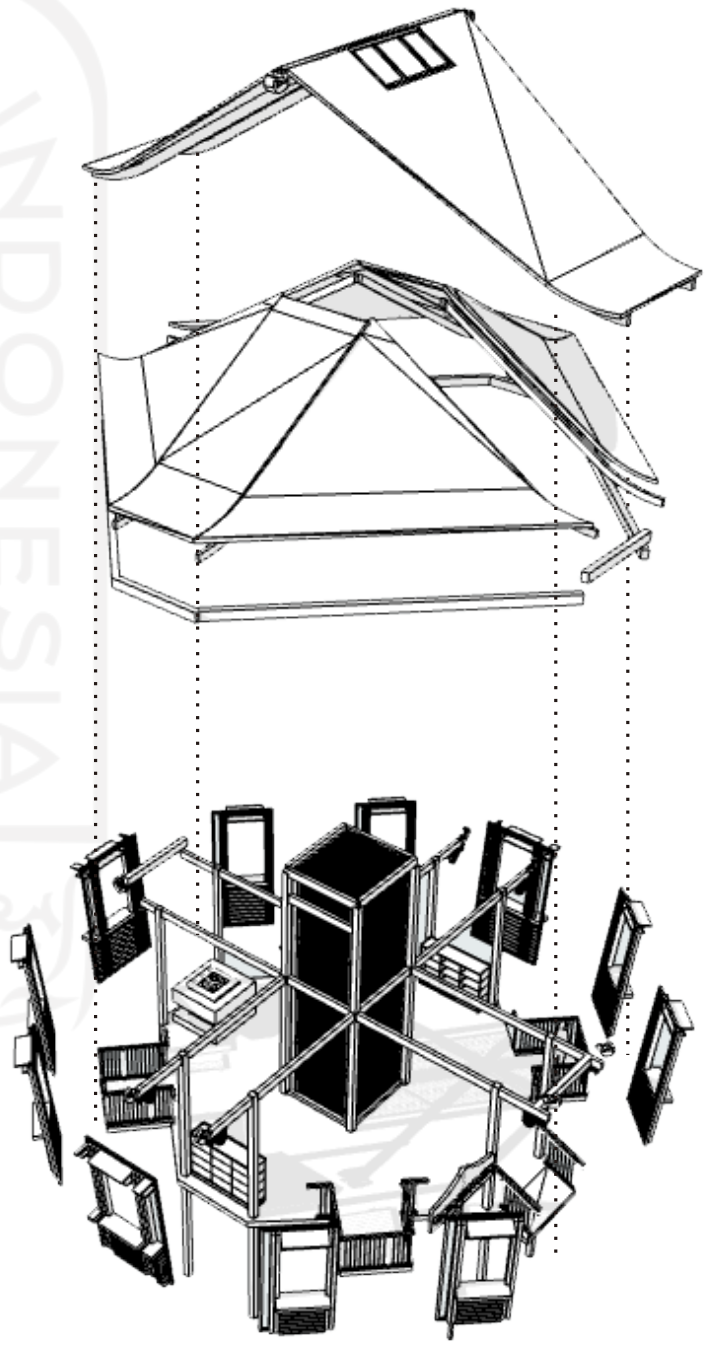
NEW FACE OF TAMAN SARI

RESULT

SINGING BIRD PAVILION

DRYING PAVILION





Building form diagram in exploda axono
source : Author,2021

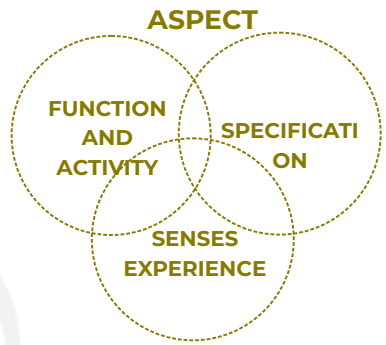
BUILDING FACADE

FACE OF TAMAN SARI, PENDOPO AND JOGLO HOUSE

STRATEGY

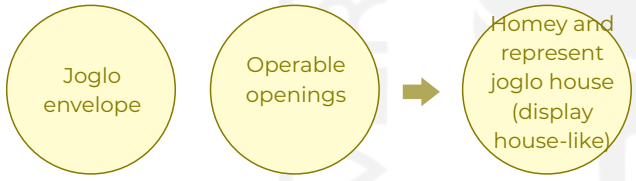
VARIES FACADE PAVILION

The facade envelope of each pavilion are different. It is depend on the function of building activities, specification space, and experience especially hearing sense want to achieved. It will create different respond of envelope form for each pavilions.



GAMELAN PAVILION

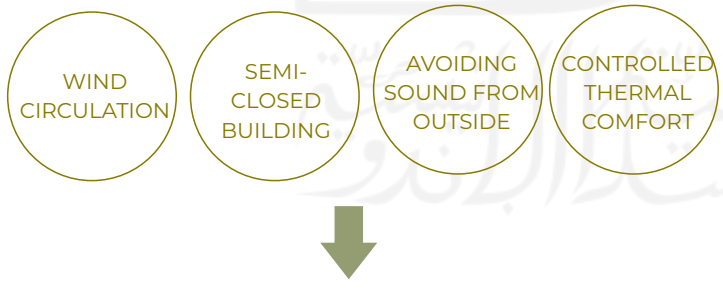
This pavilion have function as display or showroom of batik space. Interprating shop house ambiance to the pavilion by taking the envelope of *joglo* house since it has a warm appearance and homey feeling. It will create display house-like space.

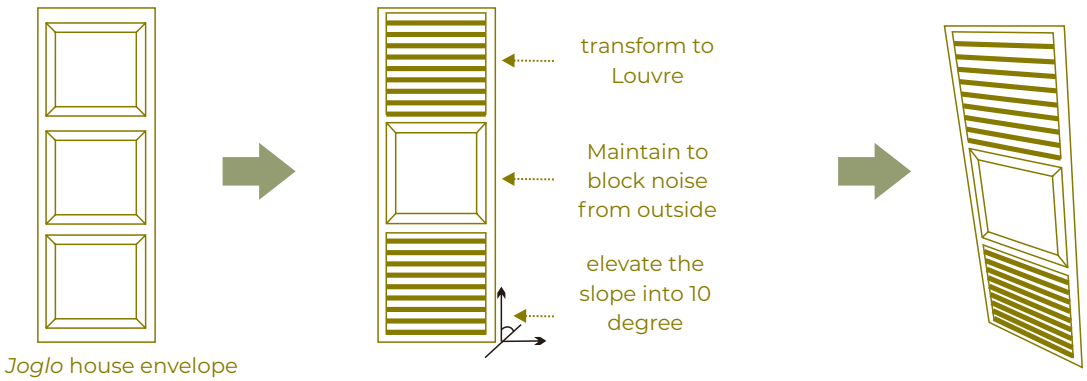




Joglo House
Source : jawawoodenhouses.com

SPECIFICATION

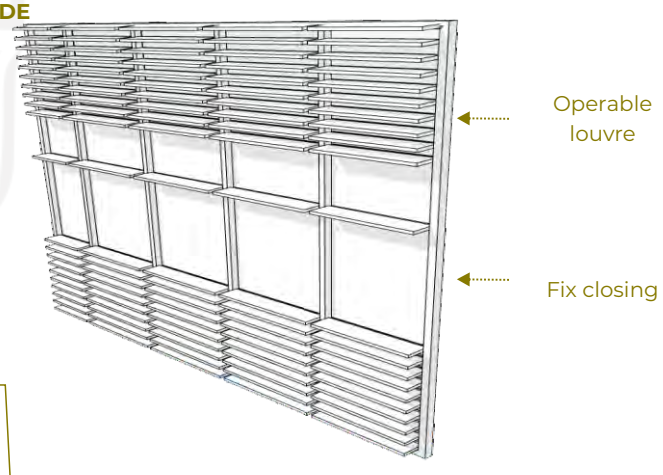




Joglo house envelope

RESULT

AXONOMETRY FACADE



Gamelan Pavilion facade
source : Author,2021

BUILDING FACADE

FACE OF TAMAN SARI, PENDOPO AND JOGLO HOUSE

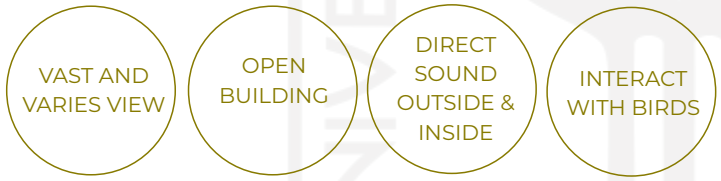
STRATEGY

SINGING BIRD PAVILION

This pavilion have function as mbatik / sketch / coloring activity. To achieve comfort space and creativity during activity, it is needed an ambiance that support them. Implement *Joglo* house terrace which use fences and direct interaction with outdoor, having infinity point of view either. Implement the wide opening from Taman Sari building as sitting and relaxing space. This facade will support and triggering the ideas and creativity of visitors shows up.



SPECIFICATION







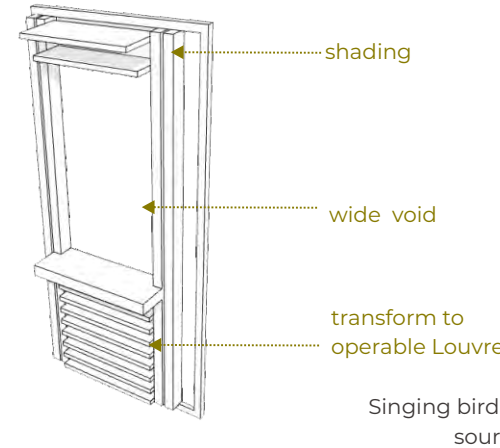
Joglo House terrace
Source : Kalindo land



Pulo Kenongo, Taman Sari Complex
Source : Kaskus

RESULT

AXONOMETRY FACADE



Singing bird pavilion facade
source : Author,2021

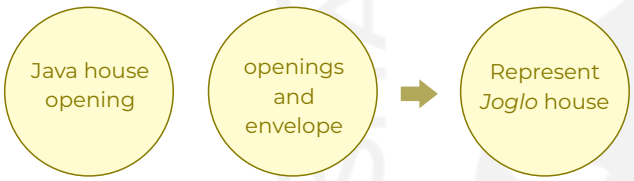
BUILDING FACADE

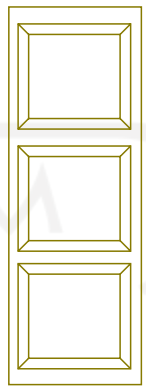
FACE OF TAMAN SARI, PENDOPO AND JOGLO HOUSE

STRATEGY

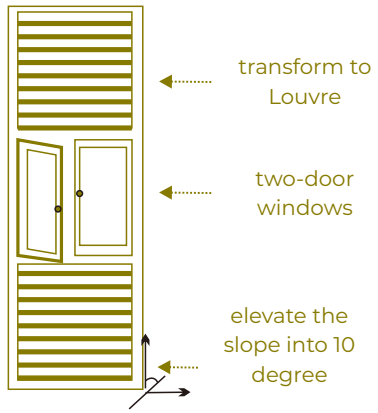
WATER PAVILION

this pavilion have function to do *plorotan / gebyokan* or cleaning and washing *malem* from the cloth. the place will have a high humidity and wet flooring. The form envelope coming from *joglo* house. Use an operable louvre and two-frame of window like houses. Maximum in opening (semi-open) to deliver the humidity from indoor to outdoor and let the wind circulate it.

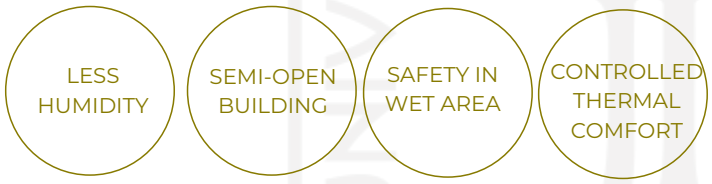




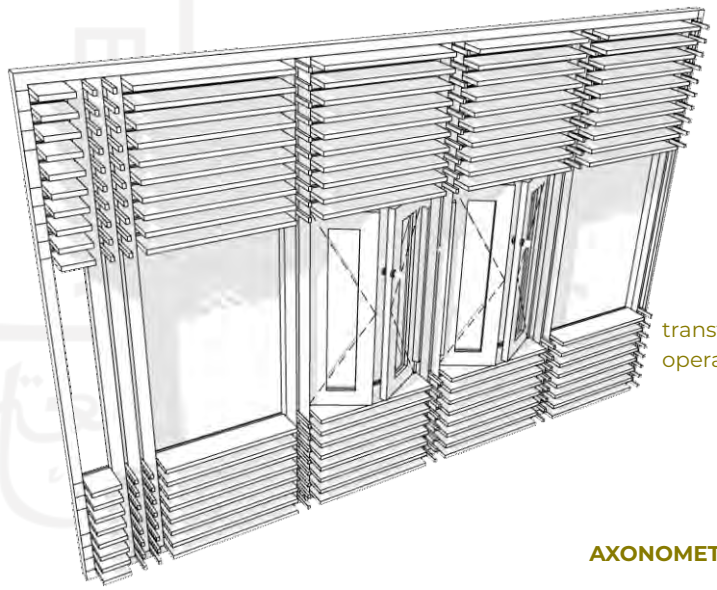
Joglo house envelope



SPECIFICATION



RESULT



AXONOMETRY FACADE

Water Pavilion facade
source : Author,2021

BUILDING FACADE

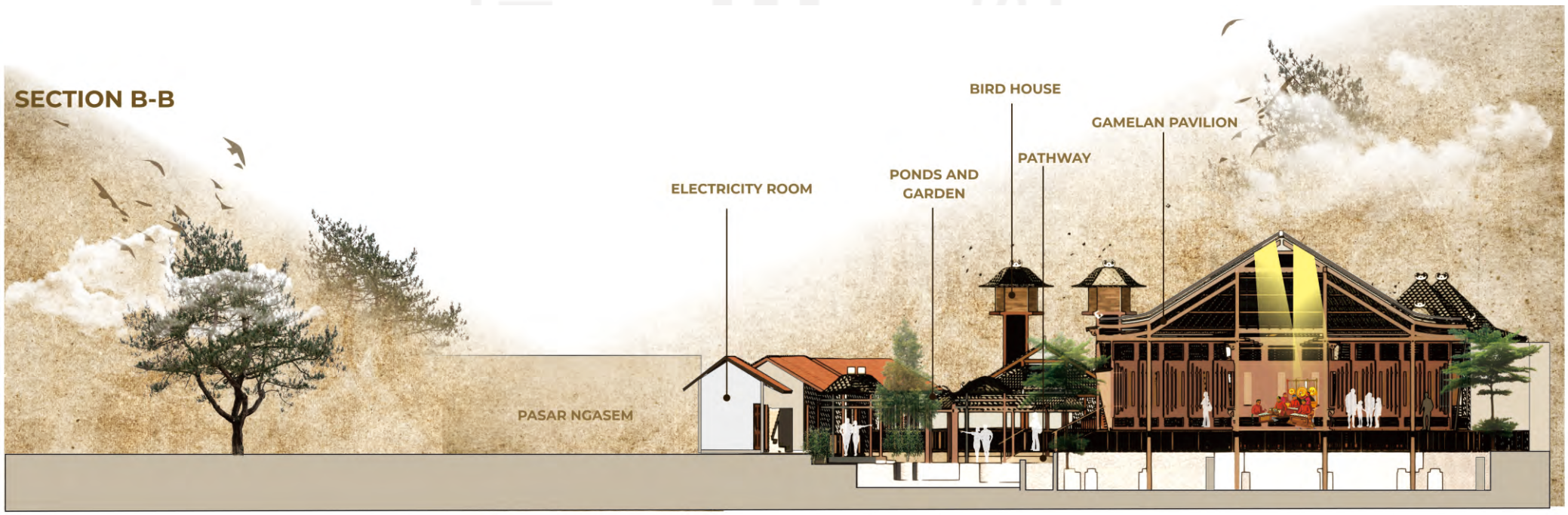




Site elevation
source : Author,2021

BUILDING SECTION





Site section
source : Author,2021

LIGHT WEIGHT STRUCTURE

PAVILION, STILT, LIGHT WEIGHT MATERIAL

STRATEGY

PAVILION *TYPOLOGY*

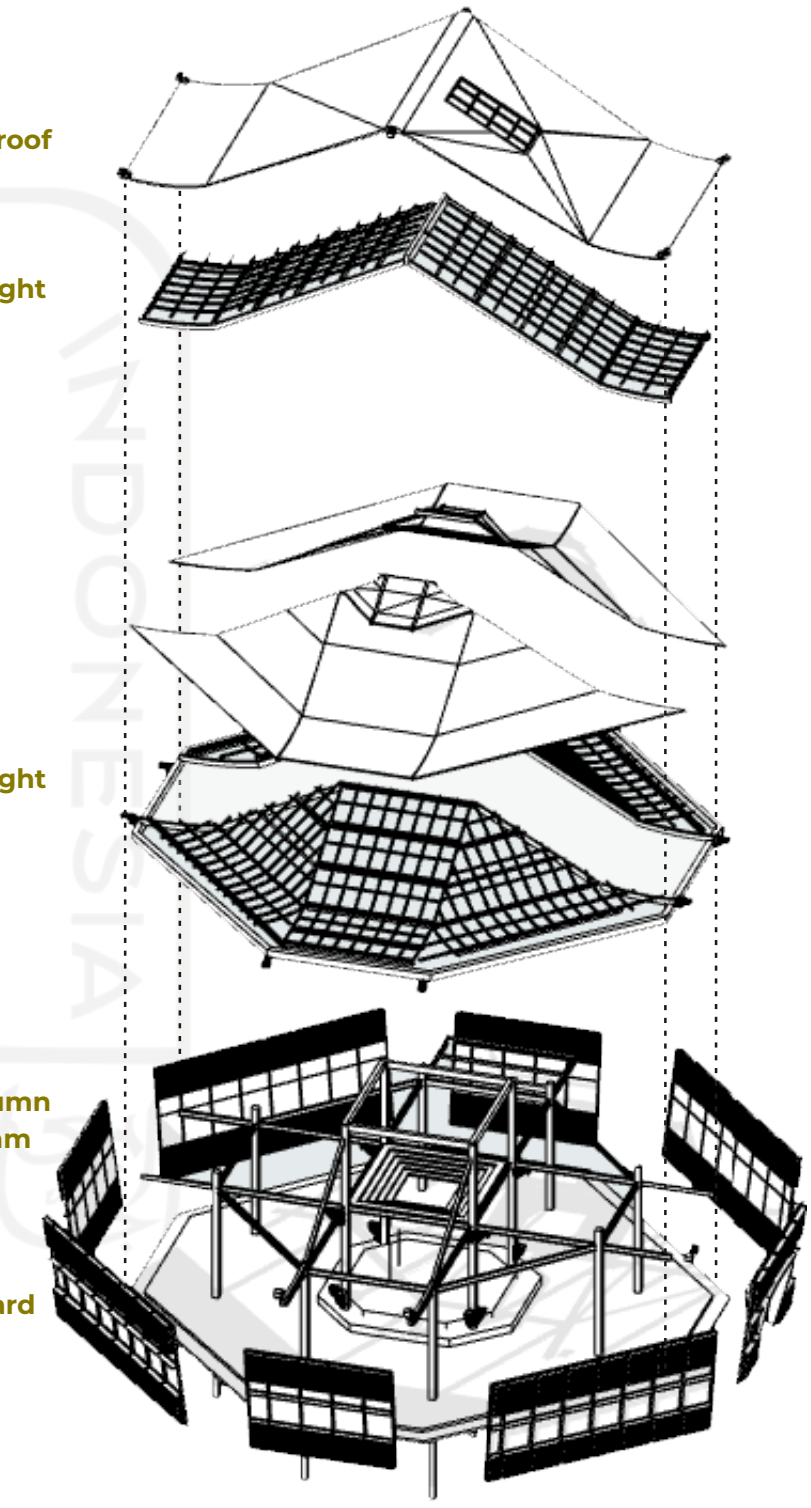
An effort to preserve and treat the heritage place using pavilion typology, it's able to have light weight structure which able to stand up strongly above ground directly. The structure which load the pavilion is simple. The complexity of this pavilion is the joints between structure.

- able to stand directly above ground
- structure framework simplicity
- light weight structure applicable

STILT *TYPE*

One of the solution to not ruin the existing by not to touch the existing itself. By using stilt type approach, the building will stand above the ground with a gap. The slab will not touch the ground. Only use the slab structure to have the floor.

- Not touch/ ruin the existing ground
- Stilt Slab structure applicable



Stilt with pedestal foundation

Axonometric structure
source : Author,2021

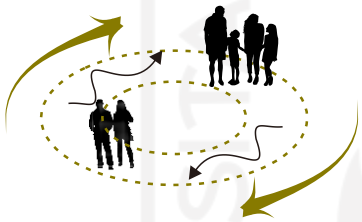
CIRCULATION AND MOVEMENT IN PAVILION

RADIAL &NETWORK, DYNAMIC & STATIC

STRATEGY

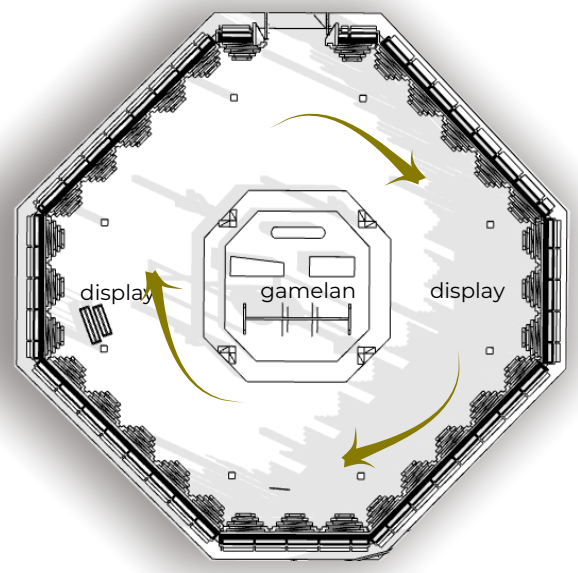
GAMELAN PAVILION
RADIAL and DYNAMIC

the layout of space is having *gamelan* instrument which responded by the visitors with radial movement circulation. The visitors may approach both of the display batik and then the instrument. the wide of circulation path is about 2 meters. When the visitors move radial they will hear the sound both from 2 sides and feel the intimation of that. Visitors will always move dynamic and stop temporarily.



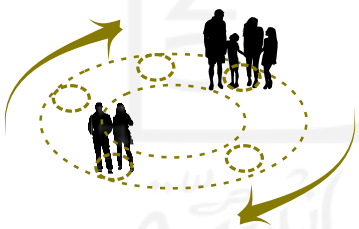
2 focus point

dynamic and temporary



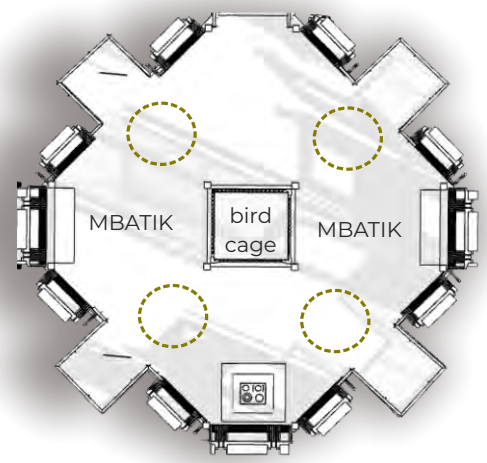
SINGING BIRD PAVILION
RADIAL and STATIC

the layout of pavilion having a high bird cages in the middle. It is celebrating the beauty of birds and the singing. The visitors will respond by focus to the middle point and tend to stay (static) in one point to take a view of birds.



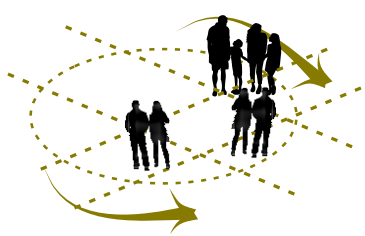
1 focus point

static and stay long time



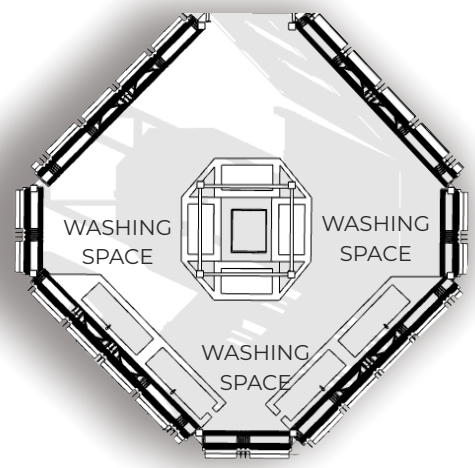
WATER PAVILION
NETWORK and STATIC

the layout of pavilion having 2 focus point place which is the hot water washing space and fresh water washing space. The visitors will respond by focus in the middle point first to wash with hot water then move to the next second point which to wash cloth with fresh water. So, their movement will temporary static. but, having certain point to be visited.



2 focus point

temporary static



Floorplan and movement
source : Author,2021

ACOUSTIC PARAMETER

GAMELAN PAVILION

SOUND DELIVER CONTROLLED WITH BUILDING MATERIAL

1. SOUND SOURCE TO CEILING

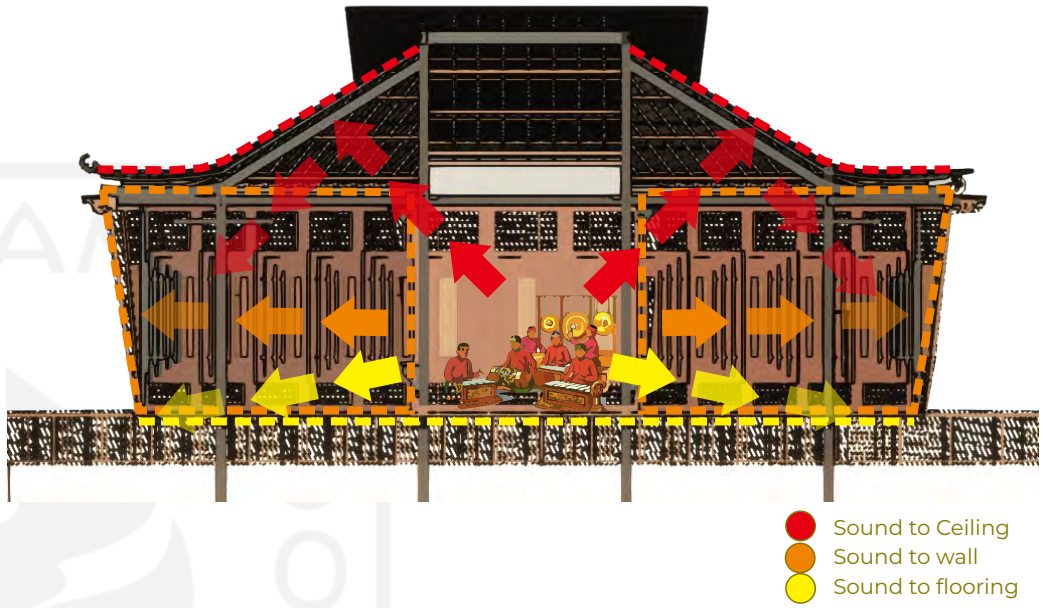
Sound source from gamelan instrument will delivered to the ceiling first. Ceiling use a PVC panel which have small number possibility to diffuse the sound. This material having characteristic dense and non pored material. So, it's hard to absorb the sound. The small number of sound will delivered to the wall acoustic panel which become sound absorbent.

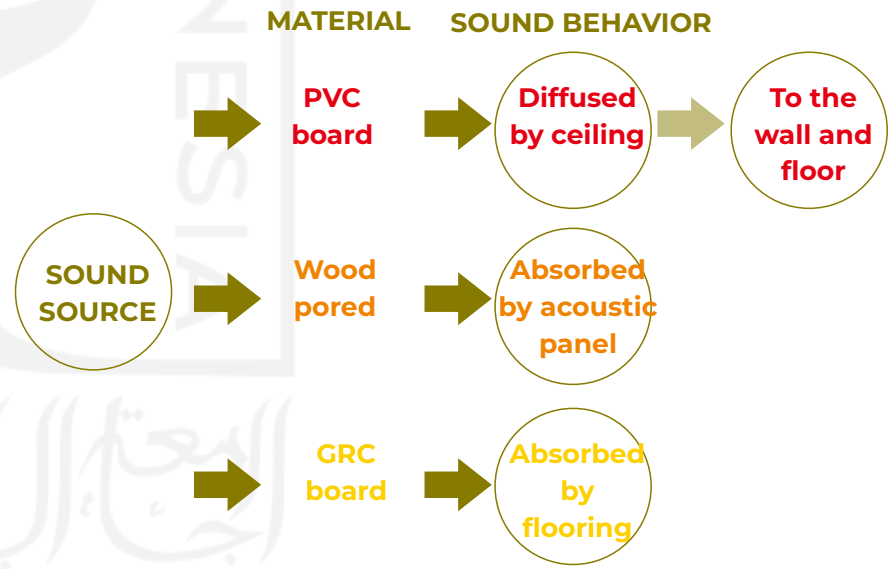
2. SOUND SOURCE TO ACOUSTIC PANEL ABSORBENT

Sound source from gamelan instrument will directly delivered to acoustic panel as absorbent which use wood pored material. The excess sound will be absorbed by the acoustic panel to be a sound background of visitors while enjoying batik display

3. SOUND SOURCE TO FLOORING

Sound source from gamelan instrument will directly delivered to pavilion floor which use GRC board material. This material having characteristic to diffuse and absorb the sound since material type is having very small pore. This material will help to reduce step sound from visitors.





Sound and material within pavilion
source : Author,2021

SOUNDSCAPE AND PAVILION

SOUNDSCAPE TOWARDS PAVILION

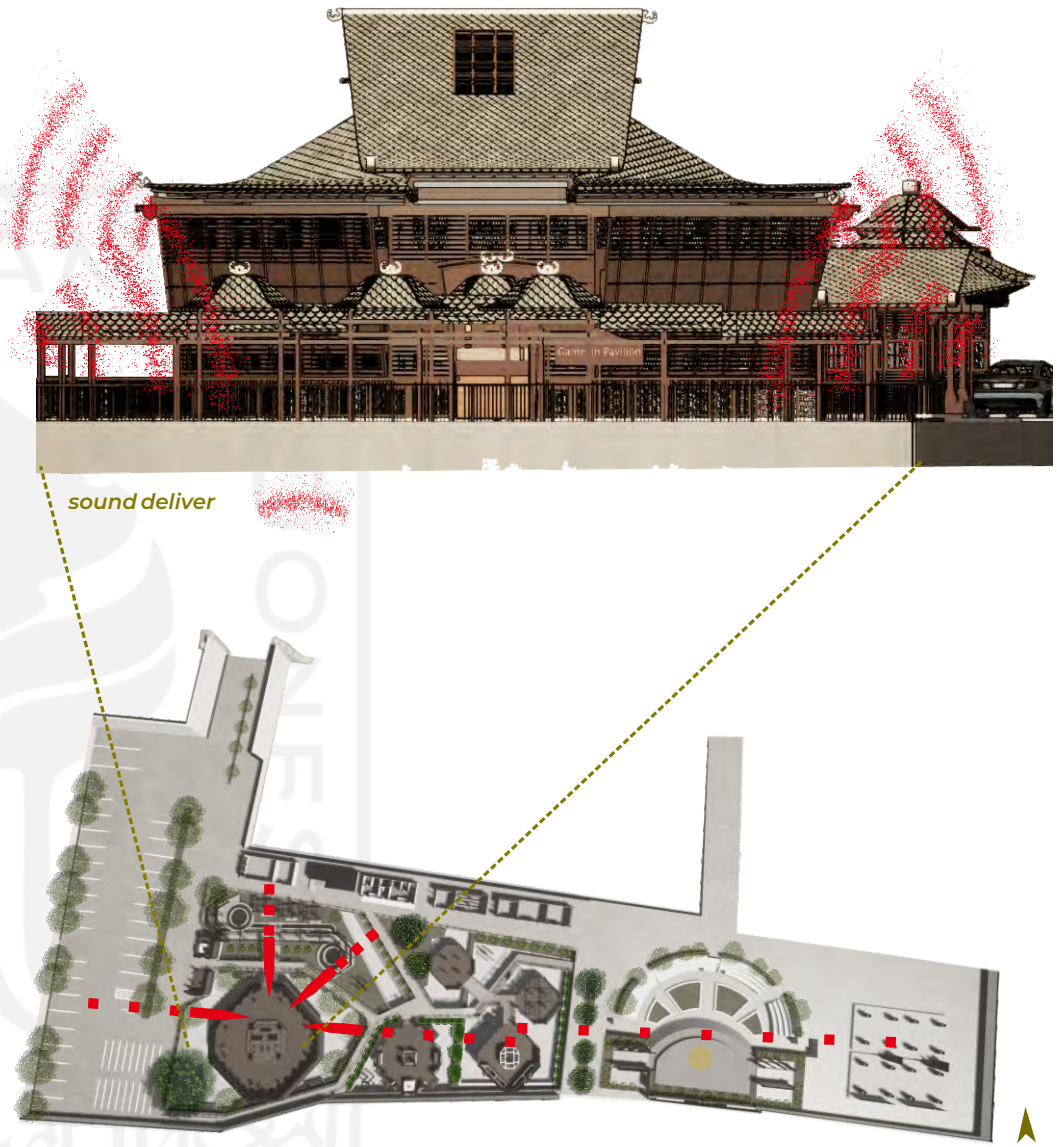
GAMELAN PAVILION

Another space surround gamelan pavilion is
- Ponds and garden
- Singing bird pavilion
- Parking area

The ponds and garden area is in the north part of building which there is an opening. the sound of water and people walking there having medium possibility to transfer to the pavilion. While the high sound decible (dB) from gamelan instrument is enough to press the sound travel within the pavilion itself.

The Singing bird pavilion is in the east part of building which there is a pathway and shrub with high about 1.5 meters. It will decrease sound from Singing bird pavilion to transfer to the building.

Parking area is in the west part of building which there is a pathway, trees and shrub that reducing the sound of vehicle to not to transfer to the building. The distance between building and parking area is about 10 meter which enough to stop sound transfer.



Soundscape towards pavilion
source : Author,2021

SOUNDSCAPE AND PAVILION

SOUNDSCAPE TOWARDS PAVILION

SINGING BIRD PAVILION

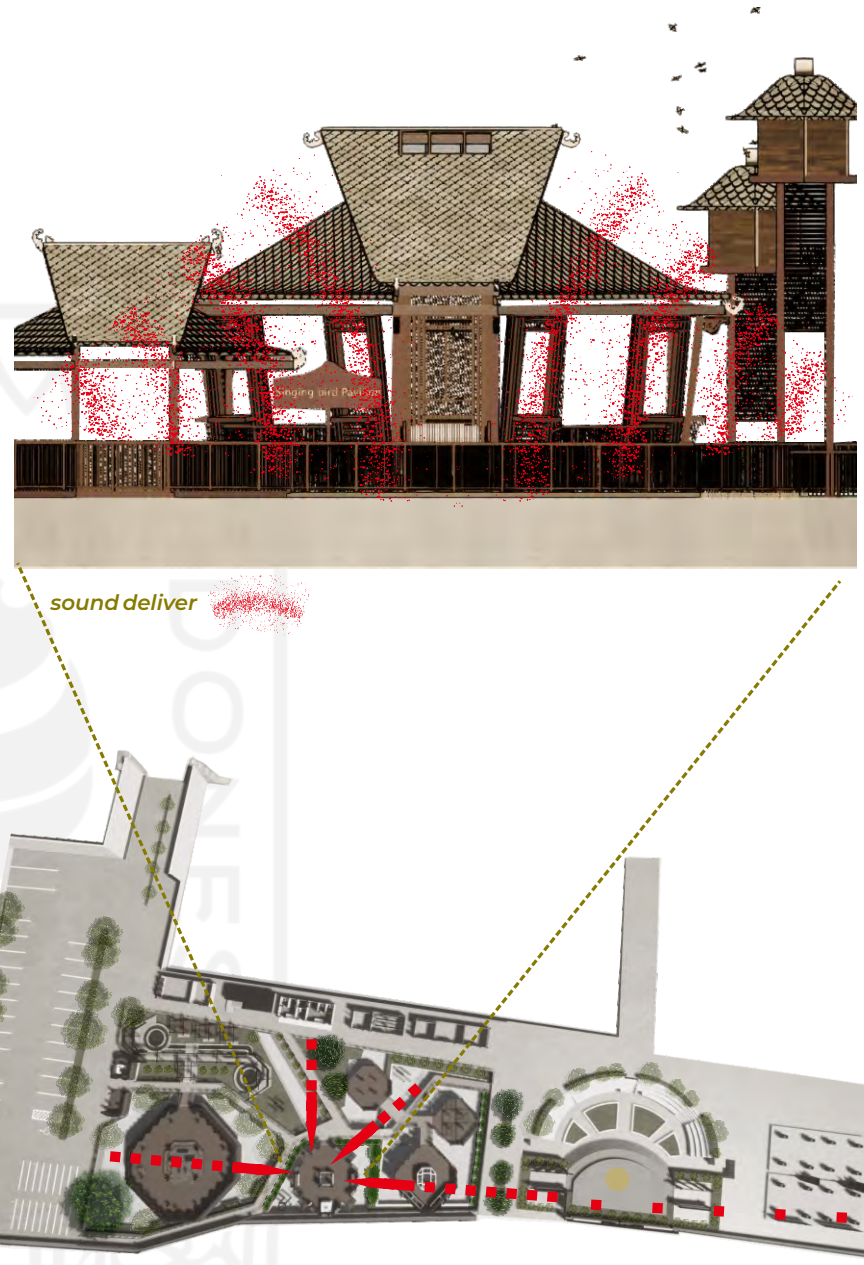
Another space surround singing bird pavilion is
- Multi purpose pavilion
- Gamelan pavilion
- Water pavilion

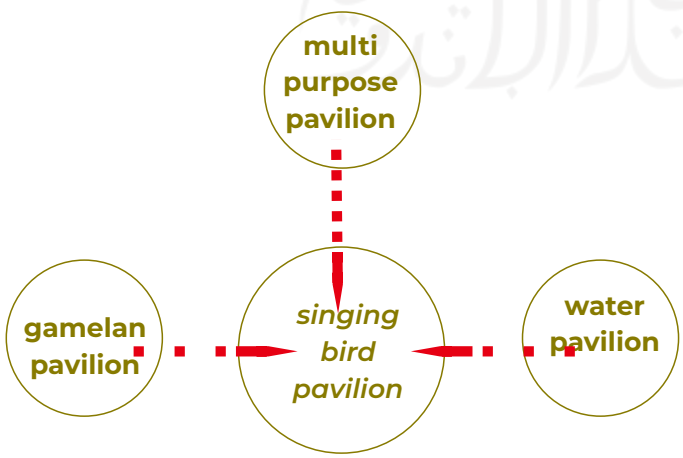
most of this pavilion are an opening or void. It's representing terrace of *joglo* house. So, the sound may transfer to the pavilion easily. The way it is controlled by landscaping.

Multi purpose pavilion is in the north part of building which very flexible place. The sound may transmit to the building easily. But, the shrubs with high 1.5 meter in the north part is reducing the sound transmit.

The gamelan pavilion is in the west part of building which there is a *gamelan* performance. *Gamelan* sound may have enough decible (dB) to transfer to the outdoor area. This pavilion will receive a small decible (dB) of *gamelan* sound. the distance and shrubs will reduce the sound. It will mix with bird chirping sound.

The water pavilion is in the east part of building. it's only 6 meter distance. The sound from water pavilion will delivered to this pavilion easily. But, it is controlled with green chinesse bamboo which have high about 2 meters to reduce the sound transmission.





Soundscape towards pavilion
source : Author,2021

SOUNDSCAPE AND PAVILION

SOUNDSCAPE TOWARDS PAVILION

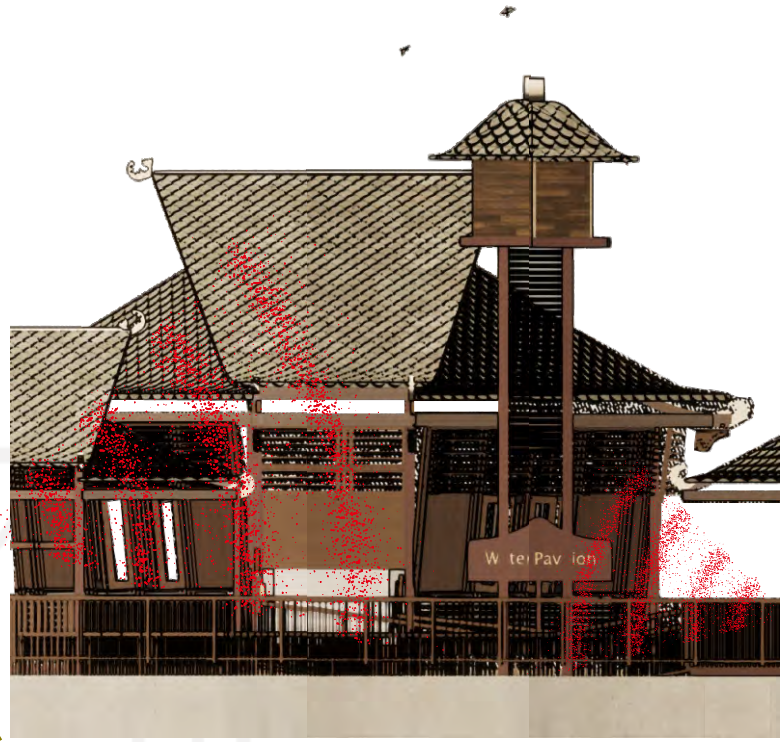
WATER PAVILION

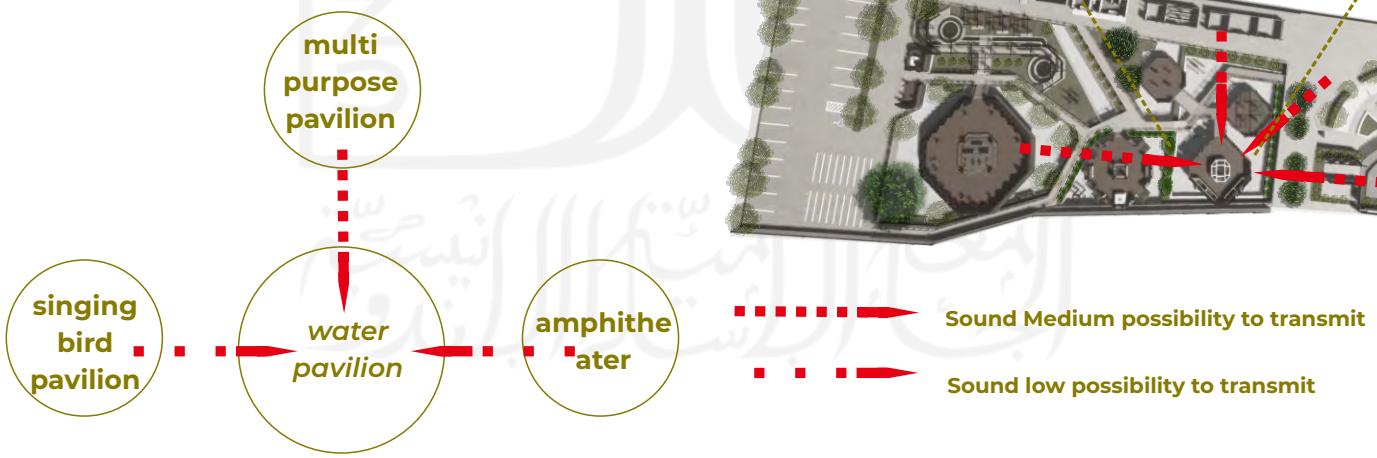
Another space surround singing bird pavilion is
- Multi purpose pavilion
- Singing bird pavilion
- Amphitheater

Multi purpose pavilion is in the north part of building which very flexible place. The sound may transmit to the building easily through the entrance opening of this pavilion.

The singing bird pavilion is in the west part of building which there is a bird cage and resulting melody. The sound will transfer to this pavilion but, reduced with shrubs that become boundaries between pavilion and semi-closed facade.

Amphitheater is in the east part of building. it's about 15 meter distance. This two space are separated and divided with chinese bamboo with high 2 meters also Ketapang cendana trees. It will reduce the sound from amphitheater to the building.





Soundscape towards pavilion
source : Author,2021

SOUNDSCAPE AND PAVILION

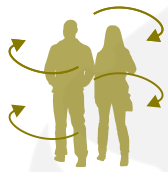
SOUND WITHIN PAVILION

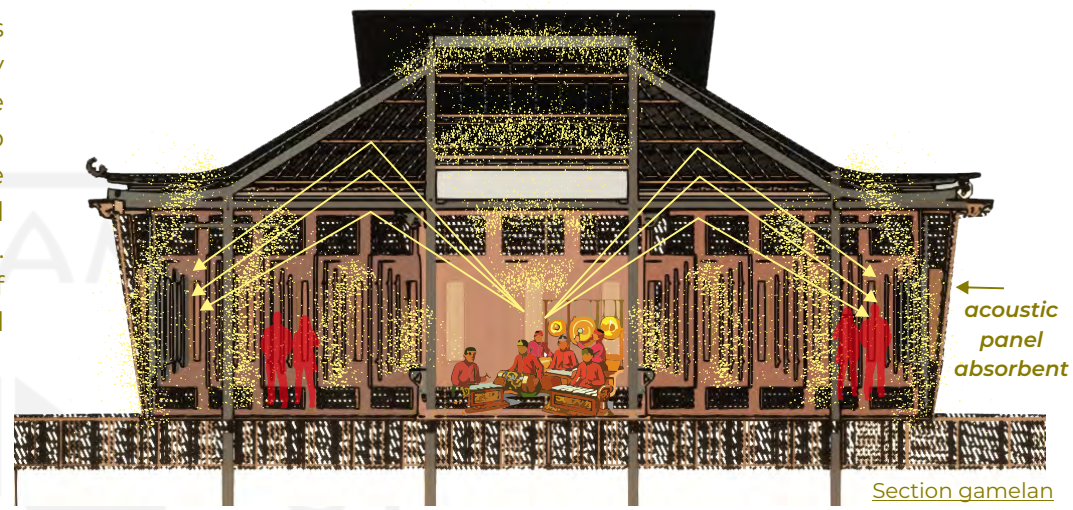
GAMELAN PAVILION

Source of sound is coming from *gamelan* instrument in the middle of pavilion. The visitors will circling the *gamelan* instrument while enjoy the display batik. When instrument begin, the sound will delivered to the roof to reflected to others surface and acoustic panel absorbed the excess amount of sound. The intimation of sound to the visitors will be travel to their head and ears. The sound of gamelan may bring the theme of batik display it self. So, the gamelan sound will tell the stories of batik.

Intimate sound

***Rasa* and meaning**





Section gamelan pavilion

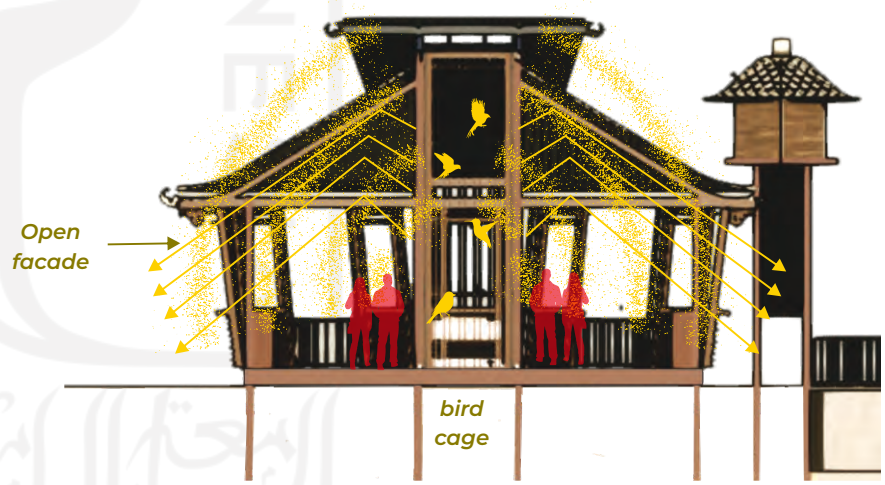
SINGING BIRD PAVILION

Source of sound coming from bird cage in the middle of pavilion. When the birds are singing, the sound will delivered direct to roof and the visitors. Giving a sense of in the nature feeling with comfort pavilion. The sound will travel to all pavilion area. This sound also will lead the visitors to give attention towards bird cage. the outside of this pavilion will hear the bird singing vaguely.

beautiful melody

comfort and calm





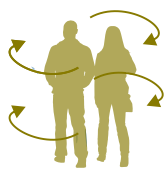
Section Singing bird pavilion

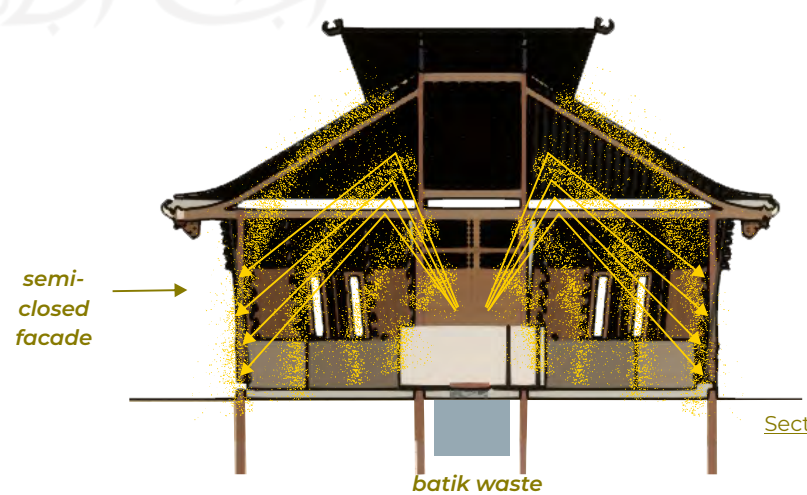
WATER PAVILION

Source of sound coming from *plorotan/gebyokan* activity which is remove the wax(*malem).* the sound of people's hand use water to rub the cloth and water splash will only heard inside the pavilion. The semi-closed facade will try stop the sound to transmit to outside. So, this pavilion will full of water sound only.

water splash

play with water





Section water pavilion

Soundscape within pavilion
source : Author,2021

MANAGE EXISTING AMPHITHEATER

FLEXIBLE AND INTIMACY

STRATEGY

FLEXIBILITY IN FUNCTION

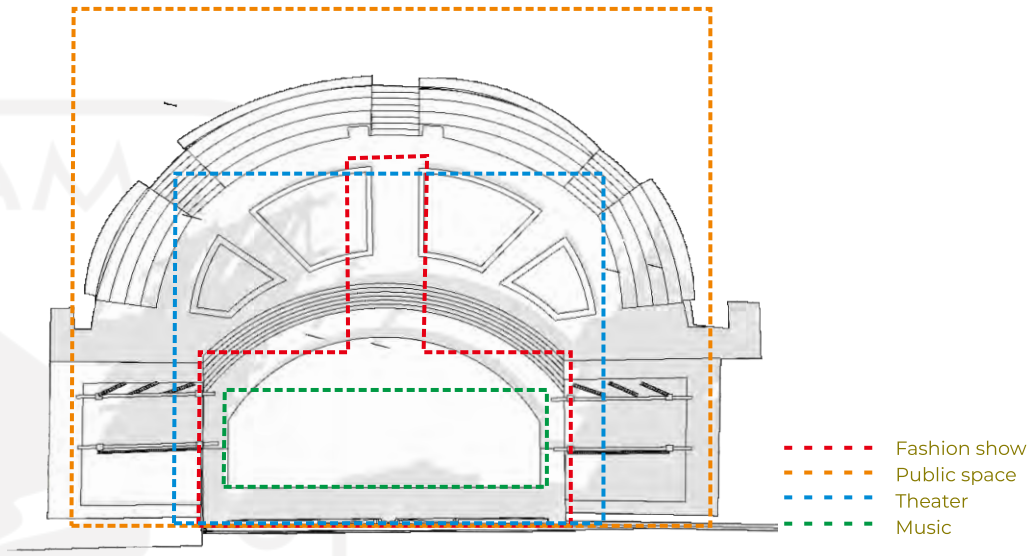
Having multi function amphitheater as space for
- **Performance theater**
- **Music**
- **Fashion show**
- **Public space**

by designing infinity stairs from stage directly connect to the audience area and connect it with garden as boundary between stage and audience. Fashion show need a low stair in runaways.

Connect stage with audience

Infinity stairs

Landscape as connection



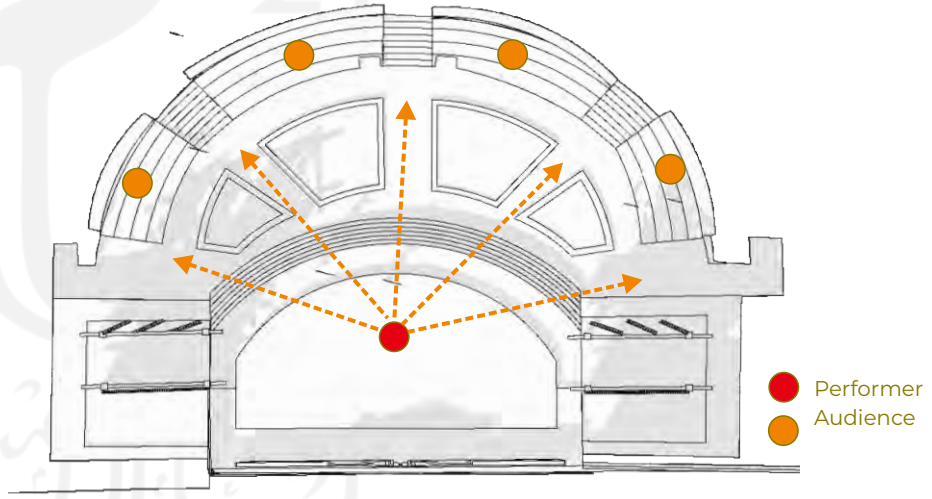
INTIMACY WITH AUDIENCE

In several performance, audience need to have intimacy from the performer. To have that, designed the infinity stairs which accessible from 180 degree direction of stage. an access to each part of sitting area to reach the audience directly.

infinity stairs access

infinity stairs access

Pathway connect to audience

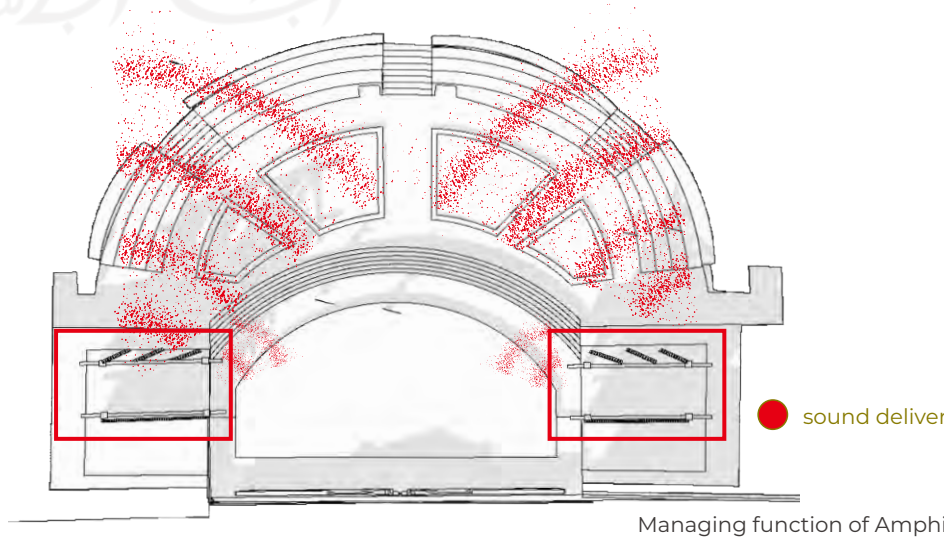


COMFORT OF PERFORMER

Sound from audio system may disturb the performer performance. Designing the wooden panel left and right of stage will decrease the sound reflection from sound to the stage. The wooden acoustic panel will absorb the excess amount of sound decible (dB), The performer will feel comfortable and enjoy doing performance.

acoustic panel absorbent

audio system structure



Managing function of Amphitheater
source : Author,2021

MANAGE EXISTING AMPHITHEATER

FLEXIBLE AND INTIMACY

RESULT

VIEW TO NORTH



VIEW TO SOUTH



VIEW TO SOUTH, PULO KENONGO AS BACKGROUND



3D images of amphitheater
source : Author,2021

DISPLAY ROOM AND PERFORMANCE LIGHTING

LIGHTING CONCEPT

STRATEGY

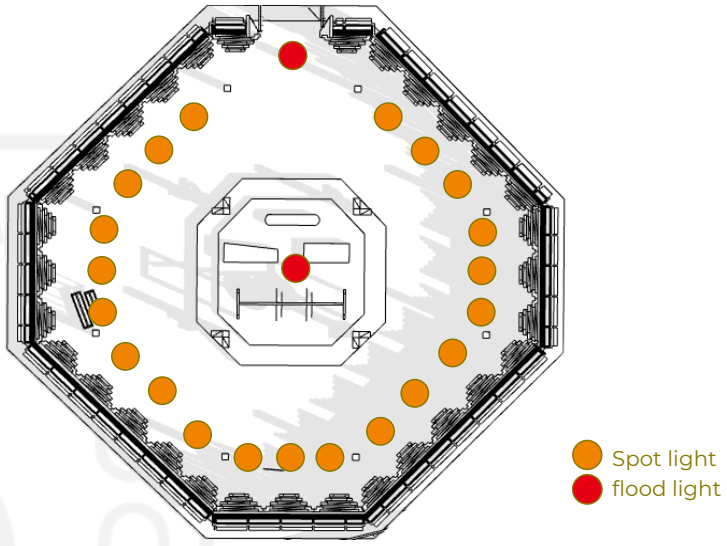
GAMELAN PAVILION

Gamelan pavilion is displaying batik lukis cloth and fabric, also batik painting. The light must shoot the product with **NO CHANGE THE ACTUAL COLOR OF BATIK** . Usually use **5000 K** color, it is the natural color light. The spotlight will shoot every 3 panel in the wall. The light is installed at the beam structure. The Flood light will installed above the gamelan performer. So, the light coming through ceiling tumpang sari.

No light change color

spotlight

flood light



PERFORMANCE MUSIC AND THEATER

For performance music and theater, it is using stage spot light left and right at the structure. It's used for spotting the performer which consist of colors to represent the emotion of theater. Then, the led strip light for the stairs lighting. Also the background of amphitheater is Pulo Kenongo which can be use as background of performance with putting light mapping there.

Pulo Kenongo background light mapping

stage spotlight

stairs and garden lighting

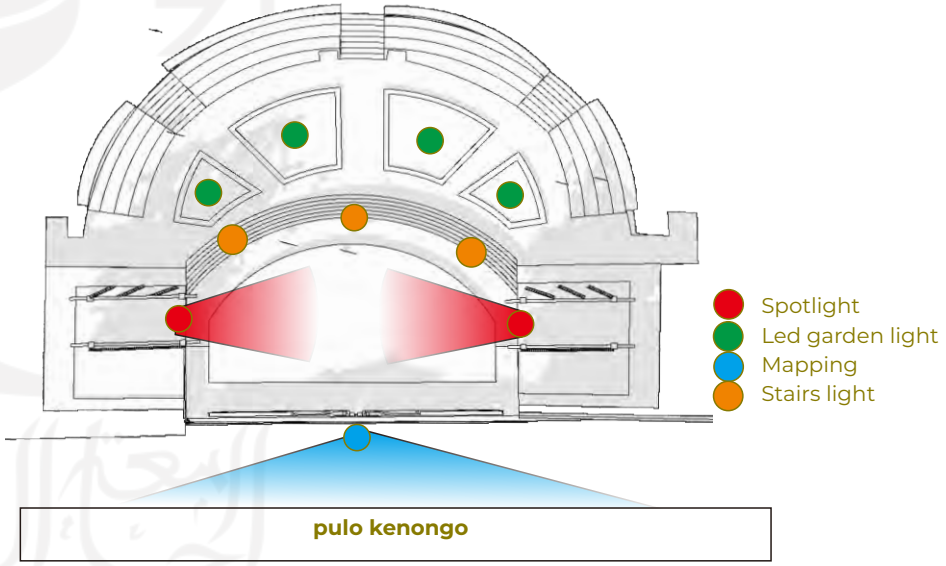
FASHION SHOW

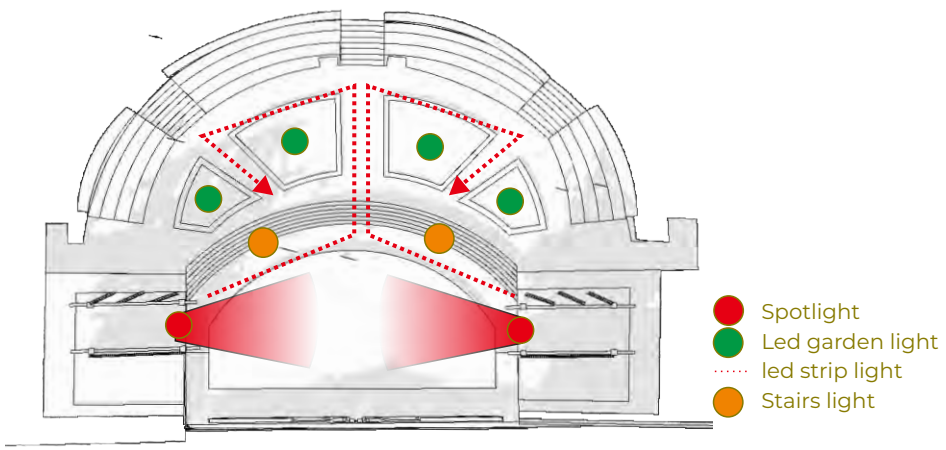
For fashion show, it is using led strip light as stage direction or boundaries in runaway. The strip led light will direct from stage, go down to garden and back to the stage. Using spot light for highlighting the final point of runaway.

Directional strip led light

stage spotlight

stairs and garden lighting





Lighting concept of Amphitheater
source : Author,2021

DISPLAY ROOM AND PERFORMANCE LIGHTING

LIGHTING CONCEPT

RESULT

GAMELAN PAVILION



AMPHITHEATER VIEW TO SOUTH



AMPHI VIEW TO SOUTH, PULO KENONGO AS BACKGROUND



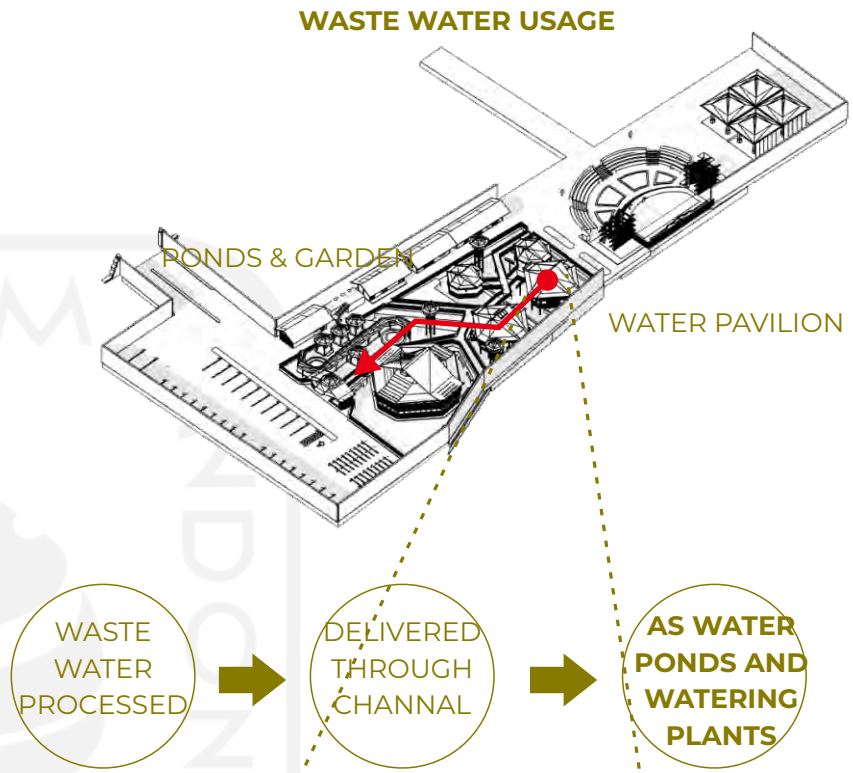
3D night lighting of Amphitheater
source : Author,2021

BATIK WASTE WATER TREATMENT

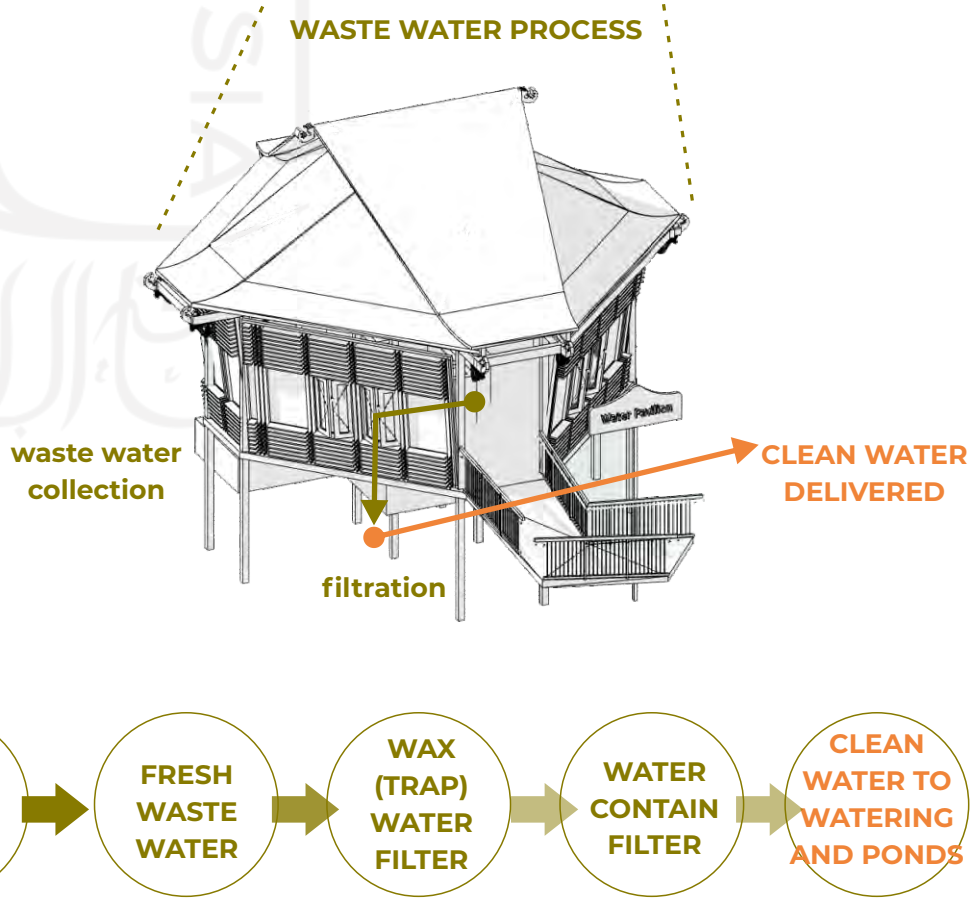
WATER PAVILION

STRATEGY

The batik waste water after it is processed and filtered will be delivered through chanal to ponds and garden area and collected as water ponds and to watering the plants. In the ponds and garden area, the clean water will delivered to both of ponds. The excess amount of water will collected in the ground tank or to watering the plants



The process of treatment the waste water is
1. Waste water from hot water and fresh water will be collected in vessel
2. Filtering the wax (*mal*em) batik wiith trap water filter.
3. Filtering the waste water contain to be clean water
4, Deliver the clean water to ponds and garden area.



Process of batik waste water treatment
source : Author,2021

DESIGN EVALUATION

BY I-SIMPA SOFTWARE

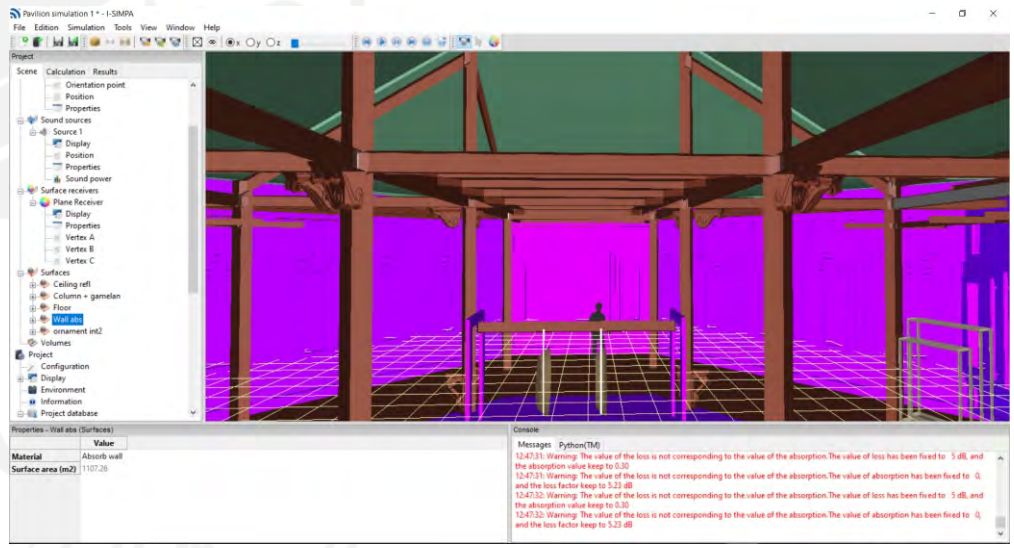
PARAMETER
INPUT DATA

The data input for calculate the acoustic sound result by filling complex number such as the **dividing the materials receiver, deciding materials, deciding the absorbent, reflective, diffusing material, put the distance from source to receiver, direction of it's sound, etc.**

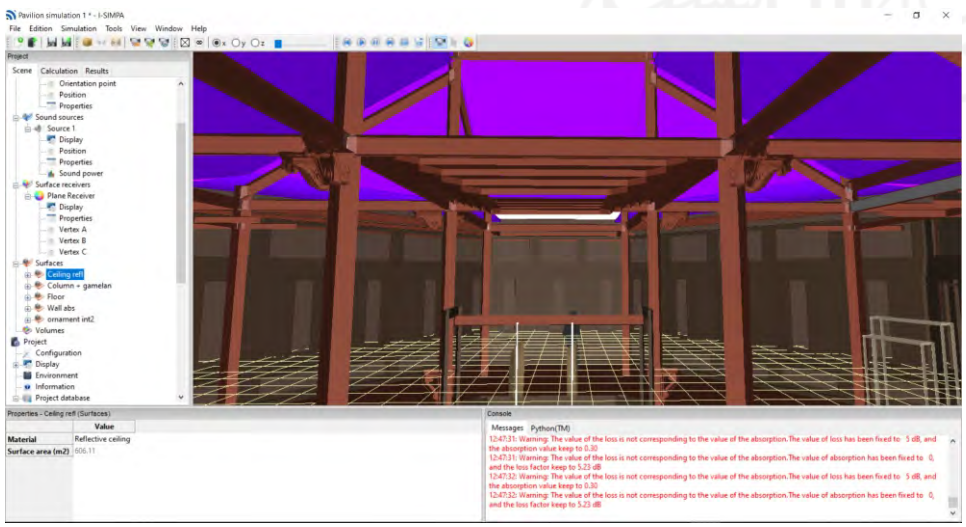
GAMELAN SOUND 65 dB	MATERIAL	DISTANCE (m)
PVC Ceiling	absorb 35%, reflect 65%	7 meter
Acoustic panel wood	Absorb 80%	5 meter
GRC Board flooring	Absorb 50%,diffuse 50%	0-7 meter
Sound source is omnidirecton	***panel receiver is bilateral direction***	

Table data input for parameter calculation
Source : Author,2021

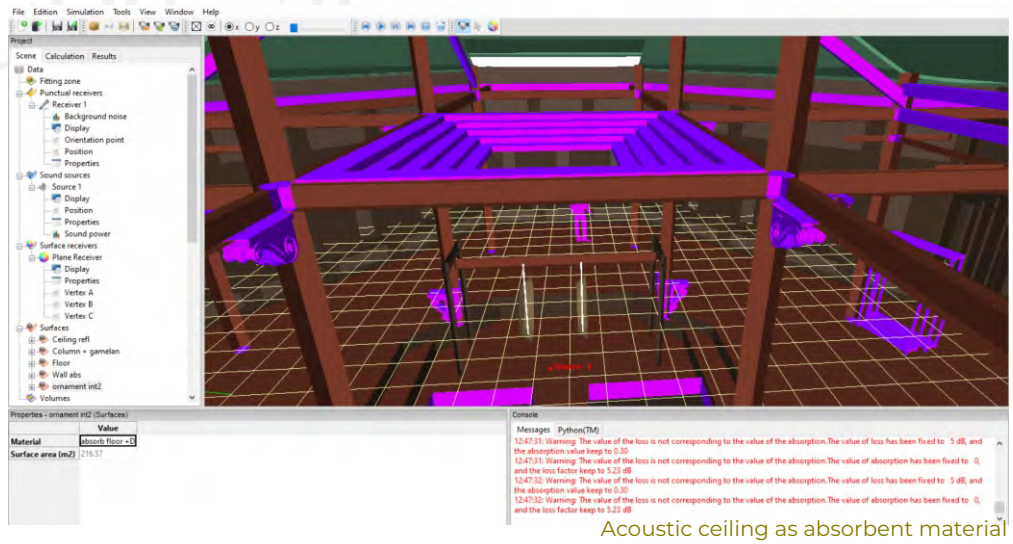
Choosing the building component as absorbent material, reflective material and diffusing material. Then, Calculate the result.



Acoustic panel as absorbent



Ceiling as reflective material



Acoustic ceiling as absorbent material

Simulation by I-Simpa software
source : Author,2021

DESIGN EVALUATION

BY I-SIMPA SOFTWARE

RESULT

From the table of punctual receiver result, at **400 Hz (**which is music instrument standart)

1. The direct sound from sound source to visitors will have **31.3 dB** without any reflection or diffusing process. Only absorbed with the acoustic wall . The sound properly delivered and become a background sound for the visitors while enjoying the batik display.

2. The sound from source to visitors, if it's delivered with reflection and diffusion then go to the visitors, it will be **64.2 dB**. The sound will have echo and high decibel sound. It will not comfortable for visitors to enjoy the batik display

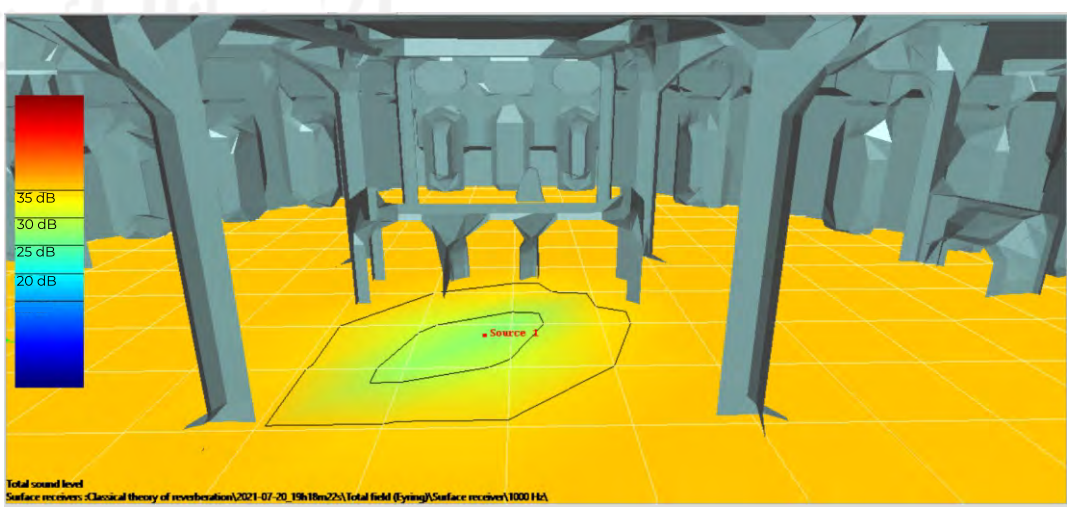
Spreadsheet - ..f reverberation\2021-07-27_12h50m31s\Punctual receivers\Receiver ...

Receiver 1

	Direct dB SPL	Total (Sabine) dB SPL	Total (Eyring) dB SPL
50 Hz	22.3	69.8	69.8
63 Hz	23.3	68.8	68.8
80 Hz	24.3	67.8	67.8
100 Hz	25.3	67.0	67.0
125 Hz	26.3	66.2	66.2
160 Hz	27.3	65.4	65.4
200 Hz	28.3	64.9	64.9
250 Hz	29.3	64.5	64.5
315 Hz	30.3	64.3	64.3
400 Hz	31.3	64.2	64.2
500 Hz	32.3	64.3	64.3
630 Hz	33.3	64.5	64.5
800 Hz	34.3	64.8	64.8
1000 Hz	35.3	65.0	65.0
1250 Hz	36.3	65.1	65.1
1600 Hz	37.3	65.0	65.0
2000 Hz	38.3	64.7	64.7
2500 Hz	39.3	64.3	64.3
3150 Hz	40.3	63.8	63.8
4000 Hz	41.3	63.0	63.0
5000 Hz	42.3	62.3	62.3
6300 Hz	43.3	61.4	61.4

Table Punctual receiver result
Source : Author,2021

This simulation showing the data of sound deliveration. The sound source in the middle having green index color which mean this sound source having absorbent material and resulting low decibel.
The yellow index color showing the sound delivered to the visitors is almost 35 decibel.



3D simulation

Simulation by I-Simpa software
source : Author,2021

DESIGN EVALUATION

SOUND PROPAGATION BY NOISETOOL

PARAMETER

Using parameter of sound decible (dB) to show whether the sound is **comfort or unpleasant.** The sound resulted from design evaluation will measured with this dB number.

SOUNDS	AVERAGE SOUND (dB)	MEANING
Whisper	**30 dB**	soft and slow
Normal conversation	**60 dB**	good for hearing (comfort)
Motorcycle engine	**95 dB**	Unpleasant
Concert	**110 dB**	hearing damage possibility

table of sound parameter
source : cdc.gov hearing loss

RESULT

GAMELAN PAVILION TOWARDS VISITORS WITHIN

Sound source from gamelan without output audio system with assumption high 1.2 meter and distance to users about meter delivered to the visitors with high human body average about 1.6 meters. Data input ;

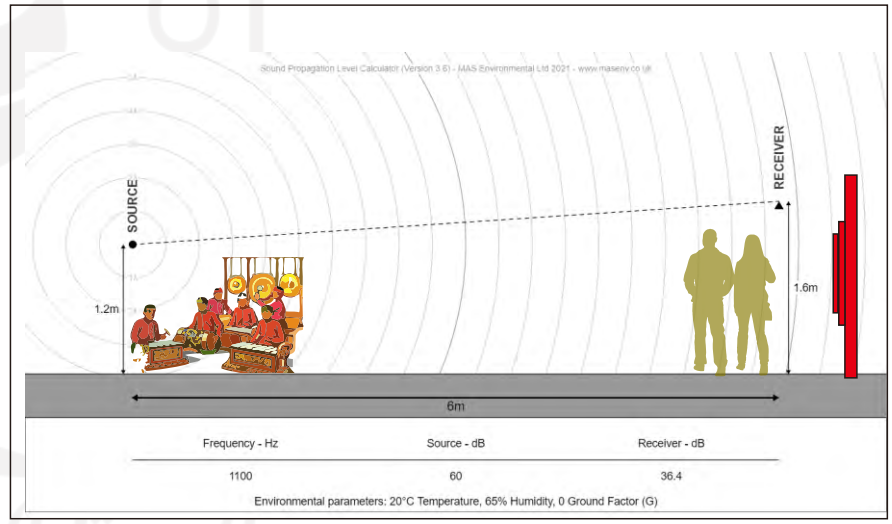
SOUND SOURCE : 60 dB

output ;

RECEIVER : 36.4 dB *(without absorbent)*

RECEIVER : 33.4 dB *(with absorbent panel)*

CONCLUSION : the sound of gamelan reduced almost 50% from sound source. the gamelan sound received by the visitors as background sound to enjoy and deliver the story of batik display. It's COMFORT



Graphics from noise tool Gamelan pavilion result
Source : Author,2021

SINGING BIRD PAVILION TOWARDS VISITORS WITHIN

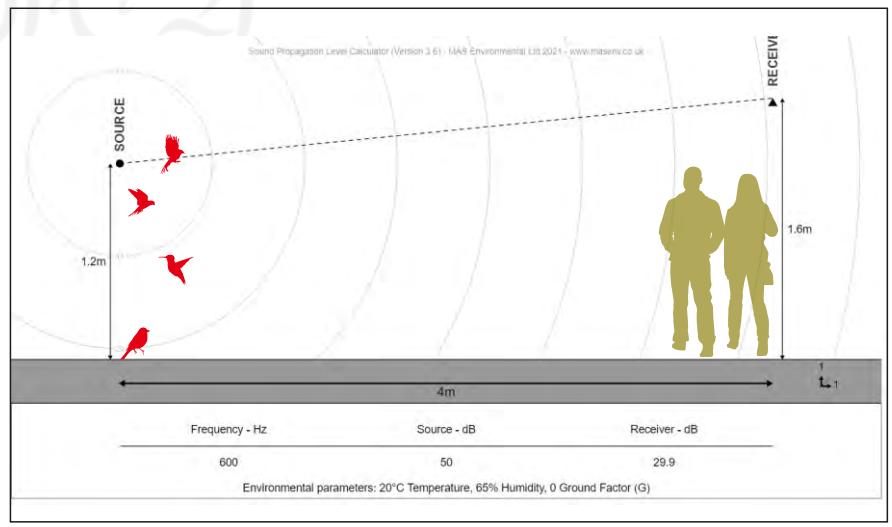
Sound source from bird cage with assumption of source height 2 meters. the distance to visitors about 2-4 meters. The height of human is 1.6 meters. Data input ;

SOUND SOURCE : 50 dB

output ;

RECEIVER : 35 - 29.4 dB (direct to human)

CONCLUSION : the sound of singing bird reduced about 30-40% of sound source. The singing bird sound received by the visitors as background sound to triggering creativity and comfort to do mbatik/sketch activity. It will give FOCUS and COMFORT in the same time.



Graphics from noise tool Singing bird pavilion result
Source : Author,2021

DESIGN EVALUATION

SOUND PROPAGATION BY NOISETOOL

RESULT

WATER PAVILION TOWARDS VISITORS WITHIN

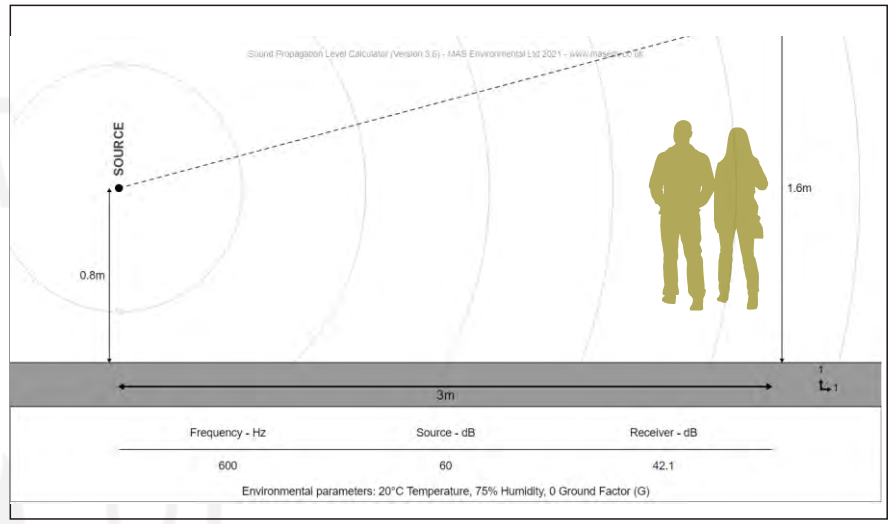
Sound source from water splash with vessel height about 0.80 meter. the distance about 1-3 meter from vessel. The height of human is 1.6 meter. data input ;

SOUND SOURCE : 60 dB

output

RECEIVER : 48-42.4 dB

CONCLUSION : the sound of water reduced about 10-20% of sound source. The activity is heavy and it's create high sound. The sound received to the visitors to triggering all the senses with playing water. it is COMFORT and UNPLEASANT in the same time.



Graphics from noise tool water paviion
Source : Author,2021

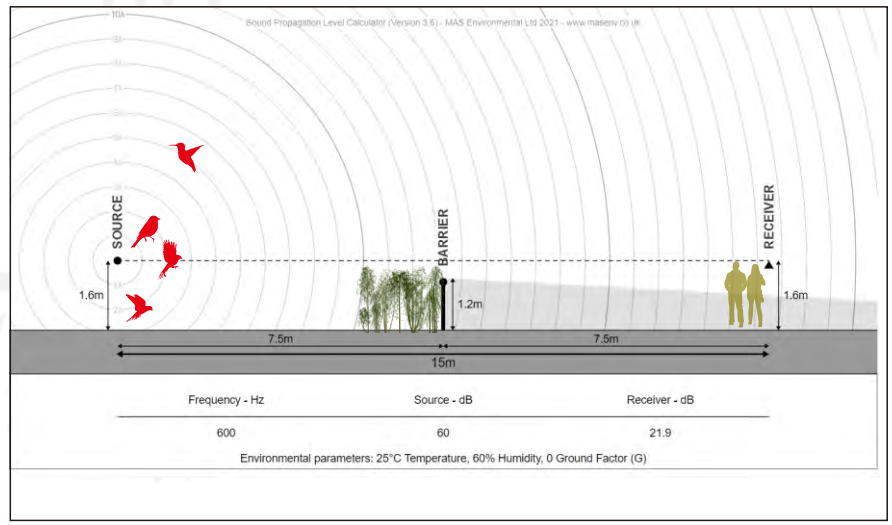
SINGING BIRD PAVILION TOWARDS VISITORS OUTSIDE

Sound source from bird cage with assumption of source height 1.6 meters and bamboo chinese 1.2 meter as barrier. The distance is about 15 meter to the receiver.

SOUND SOURCE : 60 dB

RECEIVER :21.9 dB (direct to human)

CONCLUSION : the sound of singing bird reduced about 60% of sound source. The singing bird sound received by the visitors are like whispering. it will makes a COMFORT and PLEASANT warmth ambiance and triggering visitors to looking for the sound source.



Graphics from noise tool singing bird pavilion to outside visitors
Source : Author,2021

DESIGN EVALUATION

SOUND PROPAGATION BY NOISETOOL

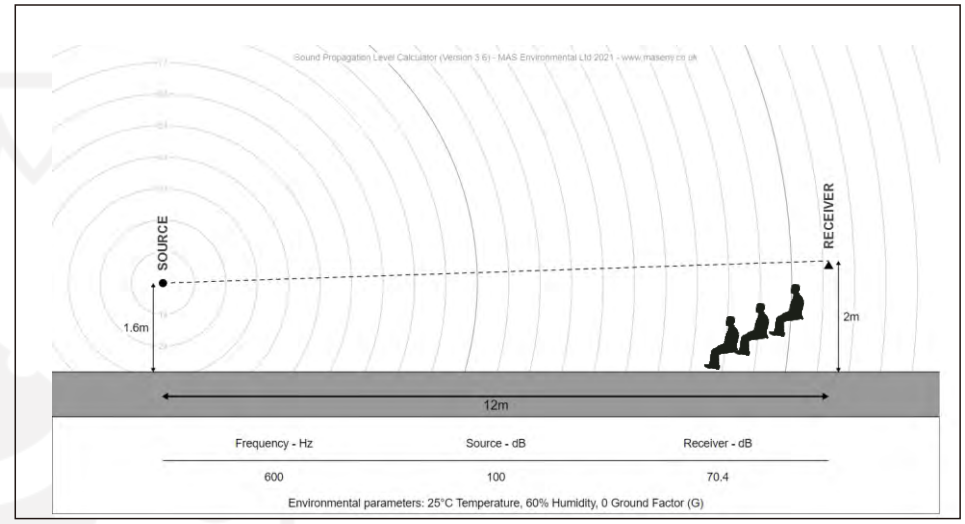
RESULT

AMPHITHEATER SOURCE TO RECEIVER

Sound source from bird cage with assumption of source height 1.6 meters and bamboo chinese 1.2 meter as barrier. The distance is about 15 meter to the receiver. Data input ;

SOUND SOURCE : 100 dB
RECEIVER : 70.4 dB (direct to human)
RECEIVER : 66.4 dB (Absorb with panel)

CONCLUSION : the amphitheater use sound system which produce high decible. it's delivered directly to the audience. The sound reduced about 30% of sound source. It's enough for good hearing.



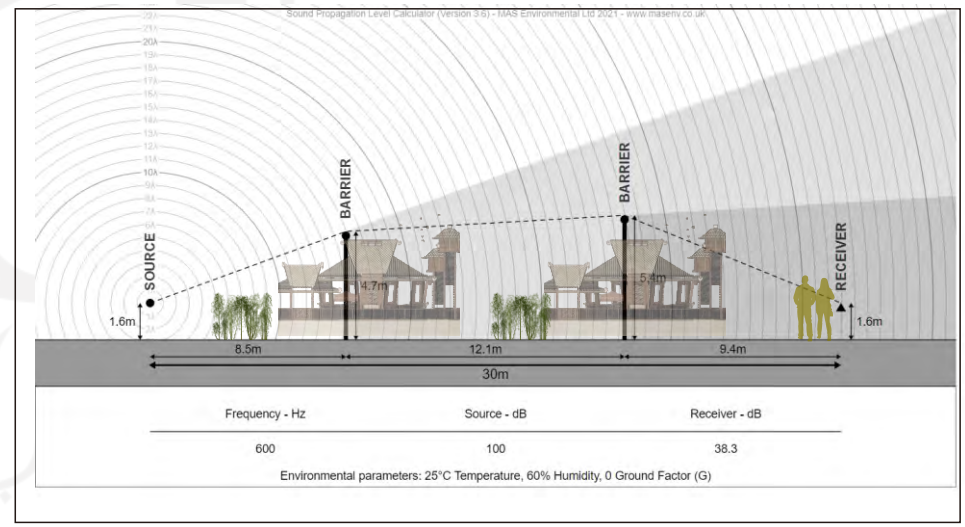
Graphics from noise tool amphitheater to audience
Source : Author,2021

AMPHITHEATER TOWARDS PAVILION

Sound source from amphitheater with assumption height 1.6 -3 meter. Building as barrier with height about 4 - 6 meter high. with distance about 10-30 meter.

SOUND SOURCE : 100 dB
RECEIVER : 38.3 dB (direct to human)
RECEIVER : 32.4 dB (Absorb with building material and landscape)

CONCLUSION : the amphitheater sound is reduced about 50-70% to each building pavilion. It is absorbed by landscape and building material. The activity in pavilion area will not disturbed.



Graphics from noise tool amphitheater to others building
Source : Author,2021

DESIGN EVALUATION

RESPONDED BY HEAD OF BATIK PAGUYUBAN TAMAN SARI

QUESTION RESPONDED

Mr. Setiawan was responded to question and design proposal of the project in 2 times interview. After analyzing the contextual problem of Kampung Taman which is lack of respect to culture and historical value, Mr. Setiawan choosen as responden of question ;

1. Since what time the lack of respect and awareness of culture and historical value of people are decreasing?
2. How the behavior of people when passing through and visit the shop house?
3. Are they having difficulties in visiting the shop house?
4. How about social activity within kampung wisata taman Sari?
5. Where is the public space for kampung wisata taman sari?

The respond of Mr.Iwan towards the design proposal is the awareness to understand and knowing about batik value will increase. Through attractiveness use sound and architectural element the visitors will interest to go there. They will learn batik with emotion, and ambiance of site. his ambition to have proper workshop space are high. So, he believe with have education purposes with attractive element such as sound and architectural aspect will give huge impact to visitors to have a new experience.

NAMA : S. IWAN SETIAWAN
KETUA PAGUYUBAN BATIK TAMANSARI Y/C

HASIL REVIEW :
Tentang pemberdayaan IPAL (BTKL) dijadikan Tempat Batik Workshop. Yg terdiri dari: Ruman panggung Edukasi Tentang proses Batik Konsep yg ditawarkan Sangat Setuju dan Sesuai yg diharapkan, karena Sama Visi Dengan apa yg selama ini kami Wujudkan. Terkait dgn Suasana pengunjung jadi lebih tertarik, Nyaman, Bisa Berkreasi/Hias dgn apa yg di fasilitaskan. Dengan Konsep ini: Sangat Ideal untuk Workshop yg Sangat Menarik di Wujudkan.



Batik'e Lek Iwan
Owner
Iwan Setiawan
47 years old
source : Author,2021

(S. Iwan Setiawan).

Ketua Paguyuban Batik Taman Sari handwriting reviewing project
source : Author,2021

CHAPTER 6

EVALUATION AND REFLECTION

Critics and question from juror
Inputs from juror
Lesson learning

CRITICS AND QUESTION FROM JURORS

QUESTION

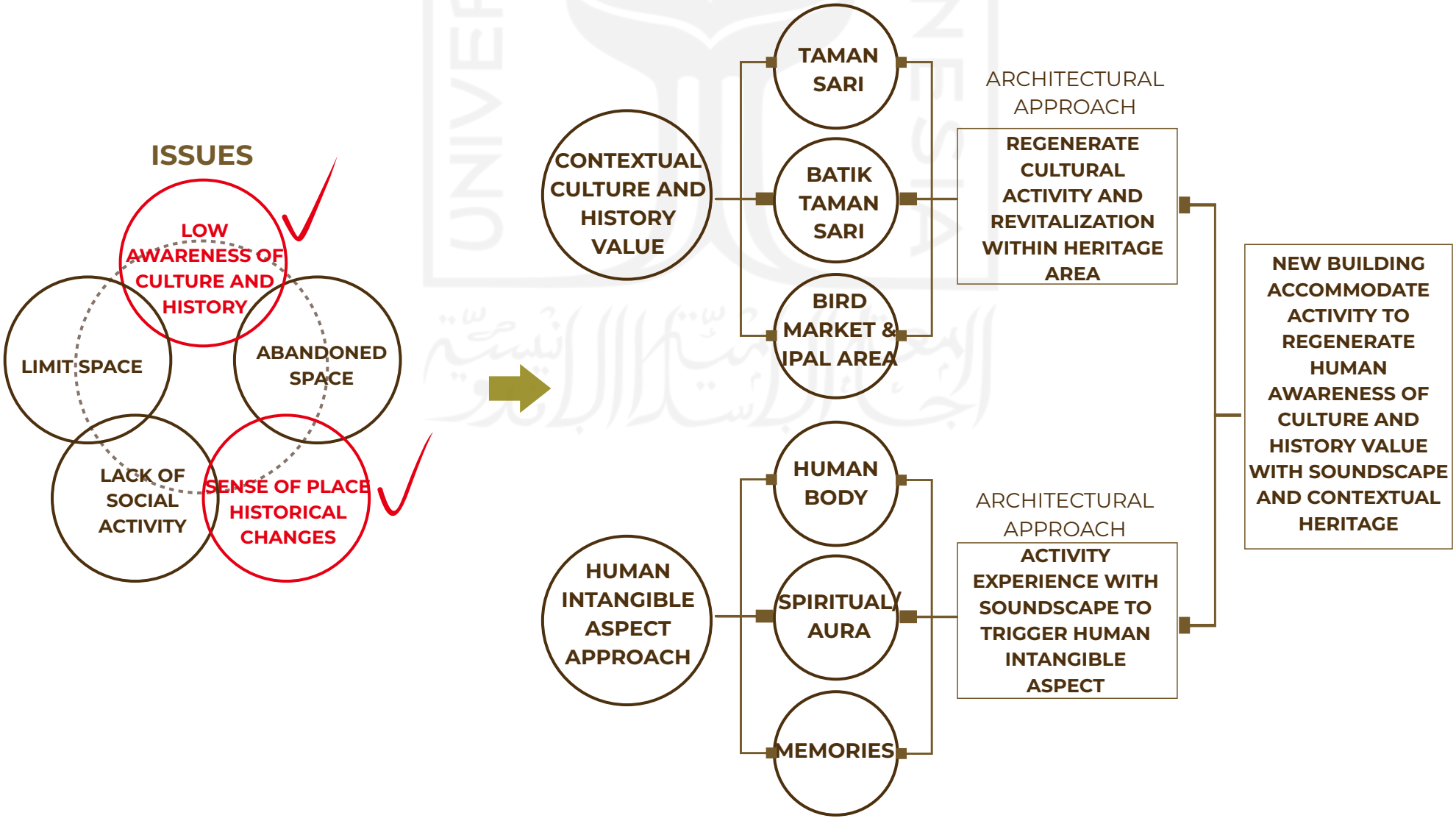
Jury : Putu Ayu P. Agustianandа., Dr.-Ing

1. What are the most complicated issues you had to deal in this project? Please explain how you came into some solutions.

RESPONDS :

To deal with human is very challenging since play with intangible aspect which is relative or subjective value, such as Time by time the sense of heritage place in Kampung Wisata Taman Sari complex also decreasing . Now , Kampung Wisata Taman Sari area only feels like dense houses in the urban area.

- how to built the awareness of culture and history value within human? while they are in heritage area. The feeling to preserving the heritage is fading.



CRITICS AND QUESTION FROM JURORS

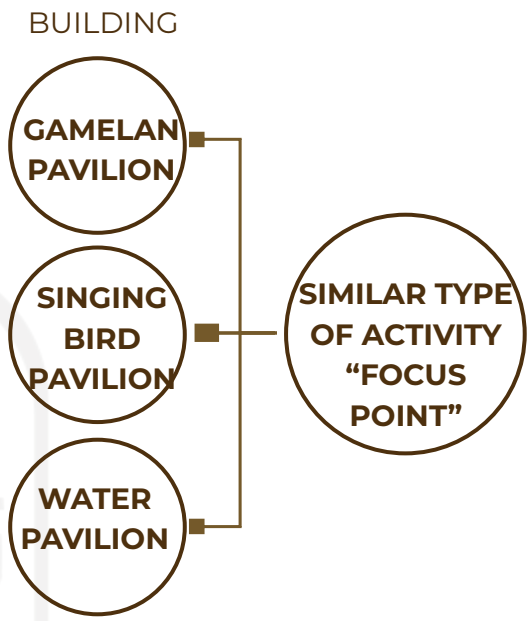
QUESTION

Jury : Putu Ayu P. Agustianananda., Dr.-Ing

2. Please tell me the reason how octagonal plan are the most appropriate to accommodate different programs (gamelan performance, birds singing, batik Making process, water play).

RESPONDS :

There are many consideration to choose the octagonal shape. The MAIN consideration is to have a **BALANCE** and **SIMPLICITY** with the site existing feature such as pathway and water treatment space which having no symmetrical or regular shape (Irregular). The appearance of original octagonal is strong and give a notion to the visitors that it was the new building. Beside, the consideration is activity function within, the heritage place and expression of space in visual.



ASPECT

ACTIVITY/FUNCTION

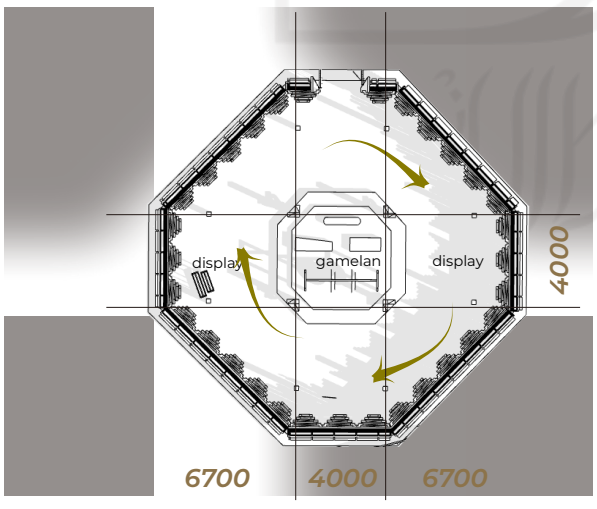
EASE IN ACCESS CIRCULATION & MOVEMENT

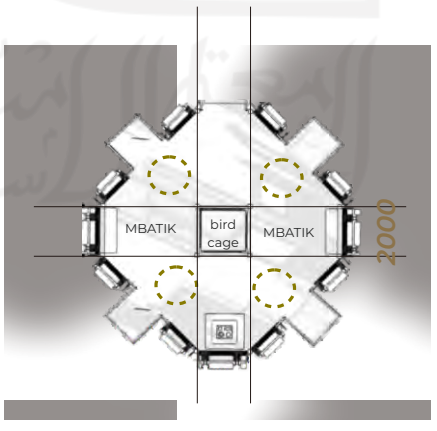
HERITAGE

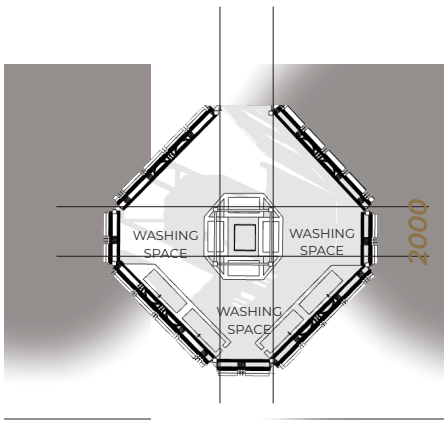
INTEGRATE WITH HERITAGE "AS PLACE IDENTITY"

SPACE EXPRESSION

SHOWING DIFFERENCES EXPRESSION EVERY POINT OF SPACE



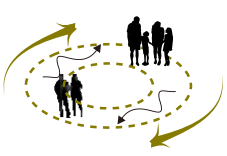




GAMELAN PAVILION

RADIAL MOVEMENT

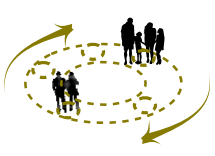
DYNAMIC & TEMPORAL



SINGING BIRD PAVILION

RADIAL MOVEMENT

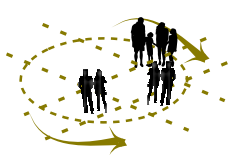
STATIC & PERIOD



WATER PAVILION

NETWORK MOVEMENT

STATIC & TEMPORAL

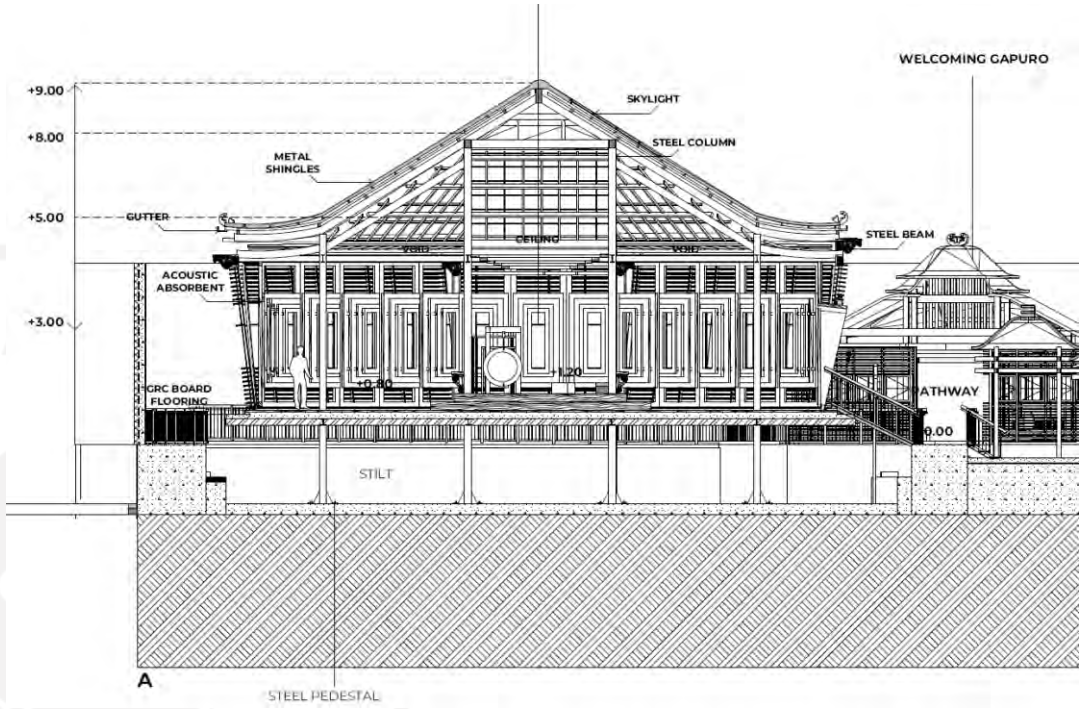


CRITICS AND QUESTION FROM JURORS

QUESTION

Jury : Putu Ayu P. Agustiananda., Dr.-Ing
Prof. Noor Cholis I., S.T., M.Arch., Ph.D., IAI

3. Choose and explain some details that demonstrate how you applied the concepts into designs that answers the problems you set in your design brief.

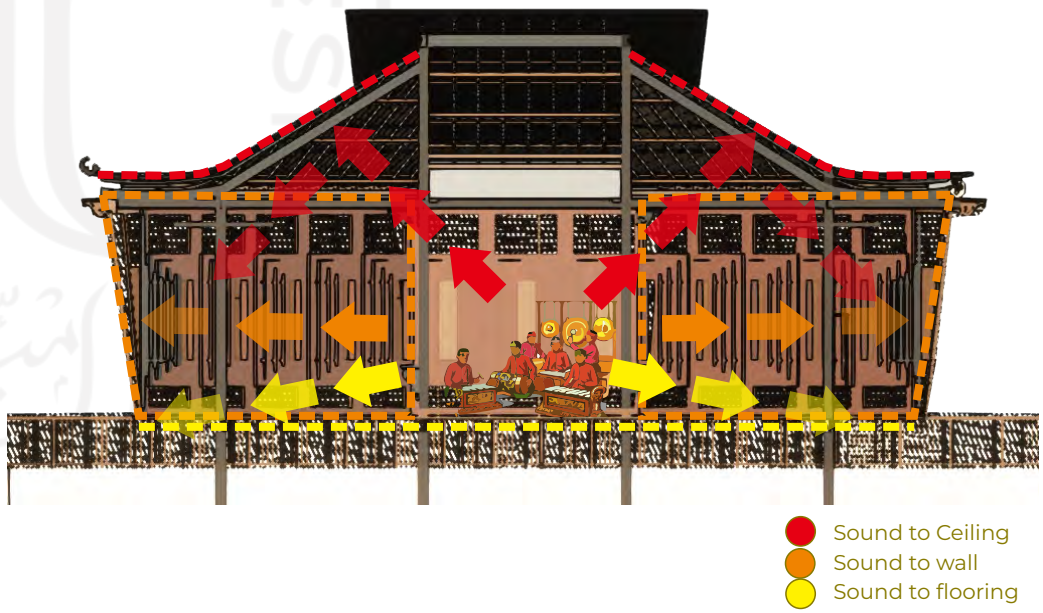


RESPOND :
choose the sound deliver from sound source gamelan to the visitors.
There are 3 main building component that receive the sound.
1. Ceiling
2. Wall
3. Floor

The ceiling is using PVC board material with dense pore characteristic. So, the sound hard to be absorbed. It's more to reflect the sound to the other direction to received by other building element.

The wall (acoustic panel) using wooden material with pore characteristic. So, the sound will easily hold or absorbed by the acoustic panel.

The floor using GRC board material with small pore character. So, the sound will diffused and diminishing the sound deliver.



CRITICS AND QUESTION FROM JURORS

CRITICS AND INPUTS

Jury : Putu Ayu P. Agustiananda., Dr.-Ing

1. The octagonal shape must be developed, not only formed as it is. Needs more development in plan form.

2. The roof shape is similar with Nias **house (Eastern indonesian vernacular) Not yet representing Taman Sari**

3. The transformation of sacred Tumpang Sari **element is not appropriate. Should not transforming the sacred things like that.**

4. The acoustic panel (absorbent) in Gamelan Pavilion is too much. repeated in many number.

Jury : Prof. Noor Cholis I., S.T., M.Arch., Ph.D., IAI

1. The way sound traveling and delivered from source to receiver need to be showed.

2. Shows the diagram or graphic of sound

LESSON LEARNING

CONCLUSION

FORM EXPLORATION

SIMPLICITY is important to be reflected to this project. The COMPLEXITY is needed but must be controlled with some consideration. Have to consider on how the form transformed appropriately and the urgency of taking the form.
Taking the reference of form (fundamental) which related with function. The development of new form or transformation need to be careful. So, that it's more identifiable as a identity of place. Diminish miss understanding and miss recognition to the place identity.



BUILDING COMPONENT

The element of building. The transformation of reference element to the new form need to be considered well and developed properly. Every element have their own characteristic. Not all of unique elements can be changed or transformed easily as decoration of building. May be it will not identifiable from the reference element. The arrangement of decorative building component must be considered. So, it's not over crowded or not competitive one another.



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