

Telaga Batu Arang Resort

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Design of Resort in Sangatta with the Approach to Critical Regionalism
Architecture



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Final Architectural Design Studio
Department of Architecture
2020 / 2021

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**UNIVERSITAS
ISLAM
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Telaga Batu Arang Resorts

Design of Resort in Sangatta with the Approach to Critical Regionalism Architecture



Department of Architecture

Faculty of Civil Engineering and Planning

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Final Architectural Design Studio Entitled :

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Design of Resort in Sangatta with the Approach to Critical Regionalism Architecture

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Herein, I declare the originality of thesis; I have not presented anyone else's work to obtain my university degree, nor have I presented anyone else's words, idea, or expression without acknowledgement. All quotation are cited and listed in the bibliography of the thesis. If in the future this thesis statement is proven false, I am willing to accept any sanction complying with the determined regulation or its consequences.

Sangatta, 11 July 2021



Nela Dwianti

PREFACE

Assalammu'alaikum warahmatullahi wabarakatuh.

Praise the presence of Allah SWT, The One True God for the abundance of grace, His gift, and His power so the preparation of the final project report titled, "Telaga Batu Arang Resort with The Approach to Critical Regionalism Architecture" can be completed. The author realizes that the process of drafting and implementing the Final Bachelor Project can be done inseparable from the support of many parties, therefore the author wants to express appreciation gratitude to :

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

Wassalammu'alaikum warahmatullahi wabarakatuh.

Sangatta, 11 July 2021



Nela Dwianti

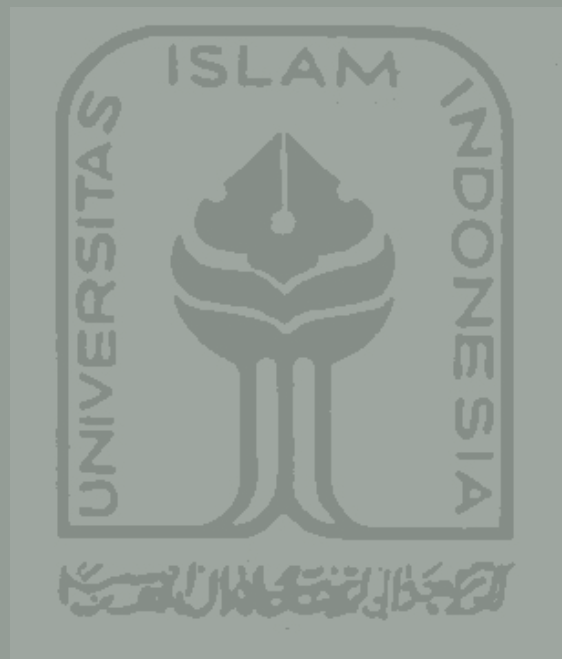


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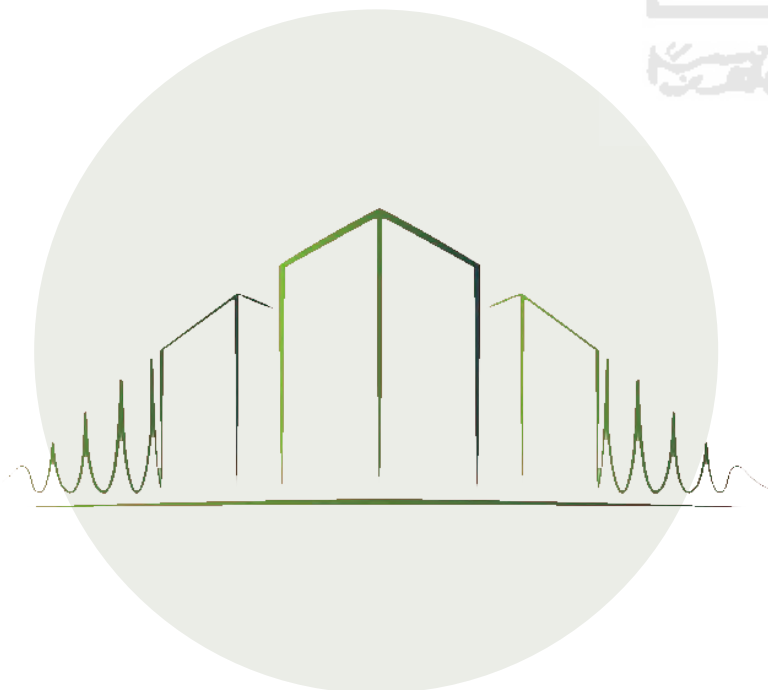
design premise

resort

This design will provide the place where people can enjoy the nature not just in the day time but also in the night time. And with using “Critical Regionalism” as the theme of the design, this place will be designed by paying attention to the surrounding natural conditions so that this place will be more integrated with nature. And can give users the experience of falling asleep and waking up in the middle of nature.



critical regionalism



Regionalism architecture is a concept that emphasizes the identity of a region in contemporary architecture. The aim of the regionalism approach is to raise the values of local wisdom and climate conditions and the surrounding environment without leaving modern technology.



ecotourism

Ecotourism is catering for tourists wishing to experience the natural environment without damaging it or disturbing its habitats. It is a form of tourism involving visiting fragile, pristine, and relatively undisturbed natural areas, intended as a low-impact and often small scale alternative to standard commercial mass tourism. It means responsible travel to natural areas, conserving the environment, and improving the well-being of the local people.



telaga batu arang



Telaga Batu Arang is reclaimed into an ecotourism area which is designed as a tourist park with educational features, and its management is community-based so that it can support the economy of the surrounding community. Besides the lake which is the main feature of TBA's tourist attraction, several areas / clusters that can be visited are Bukit Pandang, here visitors will be spoiled with beautiful views in various directions such as Kutai National Park (TNK), Sangatta River, KPC mine, and the beauty of the lake.



design premise

Located in an area whose main regional income comes from coal mining companies, East Kutai Regency is very dependent on this mining company. 90% of the population living in East Kutai work as employees in mining companies, both the main mining company, Kaltim Prima Coal, as well as its other subsidiaries.

But of course this won't last long. Coal is a natural resource that is not renewable. One day it will run out. Therefore, it is very important for the government to start taking the initiative to take steps, looking for alternatives to increase regional revenue to replace income from mining companies. Who may not know when, will be closed.

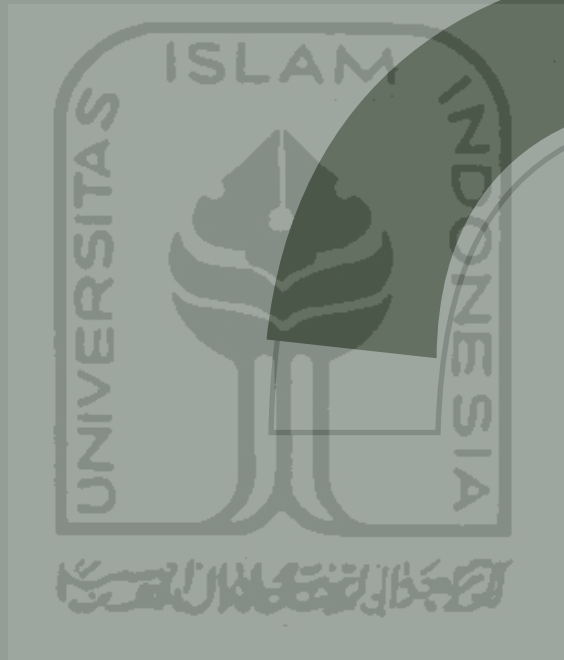
There are many things the government can do for that. One of them is by developing natural tourism objects in East Kutai. The various kinds of flora and fauna in East Kutai and the natural beauty that not many people know, constitute a great potential for the government to be able to exploit it so that employment opportunities for the community will increase.

Telaga Batu Arang, a former mine site that has been successfully reclaimed by KPC, is one of the high potential tourism spots in East Kutai. Located in a high-lying area, making this location an attractive place to enjoy the natural beauty of East Kutai.

And also as a buffer zone of the Kutai National Park, making this place a very natural location. Where wild animals often roam to stop for a moment at this place. And also because it is near a protected forest area, this location can provide a refreshing experience for visitors who want to spend time on vacation in nature.

This place itself is actually an ecotourism where the attractions that visitors can enjoy here are the beautiful views of the ex-mining lake, where there is a fish pond, a natural atmosphere with endemic plants, and several additional facilities that are already available. These facilities are, a dairy farm, commercial agriculture, the office, and also the mess for the employees.

Unfortunately, the natural potentials that exist are still not being utilized properly. Apart from providing facilities for a place to see all over the area, from the city, the mine to the Kutai National Park. A more interesting experience if visitors can enjoy nature for 36 hours or more, where visitors can enjoy nature in the morning, follow the activities provided by this place until late afternoon, then can enjoy the sunset at the location of the hill of view, and when night falls, enjoy and learn how the night world is in the middle of the wild, fall asleep amidst the hum of crickets and other animals in the forest, then in the morning the next day, awakened by the sunlight coming in through the cavities of the trees, enjoying how the sun slowly rises and illuminates green nature around visitors.





design problem study

Sanggata, a district that developed because of coal mining
Telaga Batu Arang, post mining area turned into beautiful lake

National Kutai Park, the center of biodiversity in east kutai

Sanggata,

East Kutai, East Borneo, Indonesia

When asked to name a mining city in Indonesia, most people would say Timika in Papua or Belitung, both of which have become household names courtesy to the novel *Laskar Pelangi*.

However, few people are aware that a metropolis has grown up in Borneo's forest as a result of nearby mines being opened. Sanggata is the name of the creature. It is now the capital of the East Kutai Regency.

When it comes to its history, this town was once only a little village inside the Kutai Regency's administrative jurisdiction (before the expansion). There were no paved roads in the 1990s. The river, which connected Sanggata with Bontang, the nearest large city, was the principal mode of transit at the time. As a result, the riverbank became the busiest spot at the time. Now the area is called "The Old Sanggata".

PT Kaltim Prima Coal (KPC) had been created since 1982, when it was awarded a Coal Mining Concession Work Agreement (PKP2B) contract and commenced operations in 1992. This company is prospecting for "black gold" not far from Sanggata's current city center.

The existence of KPC has gradually increased economic activity in this city. The settlement was modest at first, but as it grew in importance, it was elevated to the level of a district. Sanggata was chosen as the capital of the new district of East Kutai before the regional autonomy policy took effect and the Kutai Regency was split.

This city's reliance on KPC is enormous. This is acceptable given that the bulk of Sanggata's working-age population works for KPC or its contractors and subcontractors. This Bakrie Group subsidiary is also responsible for a variety of public facilities and infrastructure in East Kutai.

Sanggata, on the other hand, must immediately look for alternative sources of income other than mining. KPC's coal reserves are predicted to run out in 2041. The tourism industry has the potential to grow.

East Kutai Regency is one of the East Kalimantan Province's regencies. It features a number of tourism attractions with a lot of promise. Unfortunately, some tourism attractions are less appealing to visitors due to a lack of suitable infrastructure.

KPC has tapped into this potential by converting post-mining area into ecotourism and cattle ranching. Telaga Batu Arang was the name given to it subsequently.





Telaga Batu Arang Area
(Source: detik.net)

Telaga Batu Arang

Former Mine Turned Into Beautiful Lake

Land is frequently left with numerous drilled holes as a result of mining activity. Post-mining reclamation is an endeavor to rehabilitate land so that it may be used and productive again, with tourism being one of the possibilities.

“Excellent post-mining reclamation demonstrates that the corporation is concerned about environmental sustainability, both for the land and for the development of the local community. If properly managed, natural tourism and education, for example, can create jobs for the local community” said the Head of the Communication Bureau, Public Information Services and Cooperation of the Ministry of Energy and Mineral Resources, Agung Pribadi in Jakarta, Saturday (14/11).

Telaga Batu Arang is a former coal mine location in Sangatta, East Kalimantan, that was transformed into an eco-tourism area by PT Kaltim Prima Coal (KPC). Because the area used to be a coal mining location, the name was chosen. The lake is situated in Pit Surya, the site of KPC’s first mine, which was first exploited in 1992. The coal reserves in that area are currently depleted. KPC’s post-mining program then attempts to return the land to as close to its original form as possible.

According to KPC’s official statement, the lake in TBA, which was once a sedimentation pond, has transformed into a major tourist attraction, and biodiversity has attracted a variety of indigenous animals through land rehabilitation.

BPPT classifies water from the lake as class A, i.e. drinking water raw water, and it can be used as PDAM water. Apart from the lake, Bukit Pandang, which gives views in all directions, including the Kutai National Park (TNK), Sangatta River, KPC Mine, and the beauty of the lake as a whole, is a popular tourist destination today.

Telaga Batu Arang is presently developing infrastructure and testing many existing tourism objects, thus it can only be utilized for corporate and limited-circle events for the time being. When the post-mining reclamation site is ready to be used as a tourist attraction, it is intended that it would boost the local economy.

However, KPC has used this place for rowing events on multiple occasions. Several sports communities, such as motocross and mountain biking, also use this region on a regular basis.

National Kutai Park,

East Kutai, East Borneo, Indonesia

Kutai National Park is a nature protection area in East Kalimantan Province that represents a lowland tropical rain forest habitat with elevations ranging from 0-400 meters above sea level. Lowland forest types include ironwood (*Eusideroxylon zwageri*), meranti (*Shorea sp*), and lime (*Dryobalanops sp*), swamp forest with perupuk plants (*Lophopetalum sp*), mangrove forests with *Rhizophora mucronata*, *R. apiculata*, *Sonneratia alba*, *S. caseolaris*, and others, Shell forest, and coastal forest. This area is significant for the protection of flora and animals because of its vast biodiversity. With an extent of around 2 million hectares, the Kutai National Park region was first proposed by a Dutch geologist named H. Witkamp.

The tremendous biodiversity of this area, on a genetic, species, and ecosystem level, is one of the key grounds for its designation as a national park. This area is home to more than 1,200 plant species, including ironwood (*Eusideroxylon zwageri*) and eight of the world's top ten Dipterocarpaceae species, including: *Anisoptera sp.*, *Cotylelobium sp.*, *Dipterocarpus sp.*, *Dryobalanop ssp.*, *Hopea sp.*, *Parashorea sp.*, *Shorea sp.* and *Vatica sp.* Kutai National Park boasts a diverse range of animals in addition to its vegetation. This area is home to 80 percent of Borneo's bird species, 380 in total, including both resident and seasonal migratory birds. Hornbills or hornbills come in eight different varieties. In addition, Kalimantan is home to an endemic bird species, namely the blue-headed paok (*Hydrornis baudii*) which is one of the indicators of Kutai National Park as an Important Area for Birds.

In addition, there are also more than half of Borneo's mammal species, as many as 80 species and among them are 11 of the 13 Bornean primate species, including the orangutan (*Pongo pygmaeus*) and the endemic species of Borneo, namely the proboscis monkey (*Nasalis larvatus*). The orangutan that lives in the Kutai National Park is *Pongo pygmaeus morio* which is a sub-species of the Bornean orangutan and only lives in the eastern part of the island of Borneo. Several other mammal species found in Kutai National Park include banteng (*Bos javanicus*), sambar deer (*Cervus unicolor*), deer (*Muntiacus muntjak*), mouse deer (*Tragulus kanchil*), sun bear (*Helarctos malayanus*), pangolin (*Manis javanicus*), clouded leopard (*Neofelis diardi*). Dozens of reptile species including the estuarine crocodile (*Crocodylus porosus*), 195 butterfly species including the protected *Troides helena*, *Troides amphrysus*, and *Trogonoptera brookiana*, 32 species of ants, 25 species of frogs, as well as hundreds of insects and other animals that have not been identified as living in this area.

The Ulin tree, discovered in Kutai National Park in 1993, is one of Indonesia's largest plants. It is thought to be 1,000 years old, and in the 20 years following its discovery, its diameter has grown from 2.41 to 2.47 meters. After a lightning strike, its height was decreased from 30 meters to only 20 meters.



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design study preliminary essay

Critical Regionalism

The Needs for Tourism Development

Design Site Location

Climate, Topography and Site Inventory



Gallery of Seashore Library
(Source: ArchDaily)

Critical Regionalism

The architectural notion of regionalism first appeared during the modern era, when buildings began to be created in a modern style that was inspired by European architecture and demonstrated current technology. The concept of regionalism was born out of a desire to preserve local identity by reintroducing native architectural characteristics. One of the architects who employs the concept of regionalism is Hassan Al-Fathy. The design school in Talkha, a city on the Nile's banks, was built with a regionalist approach, including local materials, architectural characteristics, and the community's construction system. Hassan Al-Fathy uses this architecture with the aim of uplifting human dignity by appreciating and empowering existing local potentials (Kurniati, 2015).

Kenneth Frampton, with his book *Critical Regionalism: Modern Architecture and Cultural Identity*, is the next figure of regionalism architecture. According to Frampton (2007), features of cultural specificity and modernism can be combined into a single design. When developing a structure, it is preferable to draw inspiration from the past by preserving the components of the existing neighborhood while also including modern elements. Technological advancements, science, and politics are all examples of modernity.

Matters about critical regionalism architecture according to Kenneth Frampton:

1. Culture and Civilization
2. The rise and fall of the Avant-Garde
3. Critical Regionalism and World culture
4. The resistance of the Place Form
5. Culture Versus nature: Topography, Context, climate, light and Tectonic Form.
6. The Visual Versus the Tactile

Which can be summarized as:

1. Place Making
2. Architectonic Composition
3. Nature Experience
4. Tactile Experiment

10 Principal of Critical Regionalism Design :

- 1. Site Contextual Analysis:** Use the location of your building to inform the grand gesture of your concept. The context around you will provide you with incredible direction, inspiration, and resources from which to develop an excellent design.
 - 2. Weather Pattern Response:** Weather-responsive architecture can be constructed to perceive and respond to weather patterns. Consider what it would be like if a building could change its own behavioral language in response to solar, precipitation, or wind strength.
 - 3. Biomimicry in Design:** Many design lessons may be found in nature, which can be used to help one innovate strategically within a design. For example, by seeing and evaluating how nature solves difficulties with its own materials, one might create new methods to use materials or frame a problem.
 - 4. Integrate Occupant-Nature Relationships:** It is beneficial to learn more about your tenants' interaction with nature while building surroundings. Understanding how your tenant prefers to interact with nature will help you better design for their working or living environment. One resident, for example, may enjoy rainy days while another enjoys sunny days.
 - 5. Push Materiality Further:** You may push what your building materials can do inside your design even further if you understand their nature. Consider the following question: What can this material do to convey and produce an environment that radiates the utility and beauty that my clients would enjoy?
 - 6. Consider Boundary:** The intrinsic limits you create in settings can either divide or unify people from nature. It's useful to be aware of limits that allow for visual nature (glass partition) or sound nature (acoustic nature) in your own ideas (open window). Consider what sensory modality limits are separating residents from nature or linking them to it.
 - 7. Injecting Natural Elements:** Nature can be incorporated as micro-elements into living or working situations. When possible, bring nature inside with a stone sculpture that can be handled by residents or a semi-indoor garden that releases lovely scents. Interior and external surroundings can complement one another to create built places that incorporate nature as a unifying factor.
 - 8. Nature Immersion:** Your building's design can also be tailored to blend in with nature, taking your occupants on a journey to fully appreciate nature. One could wonder, in such a scheme, where the building ends and nature begins.
 - 9. Nature for Approach and Departure:** Consider the role and design of nature in your architecture as it supports the way your occupants arrive and exit your building.
 - 10. Interaction with Transient Natural Elements:** When the sun travels across the sky, the wind changes direction, or the temperature drops, your building can interact with nature on a temporary basis. Ask yourself this question as you design: How can this architecture "dance" with nature to provide occupants completely different experiences?
-

Architecture as Place Making

- The building is part of a site so that it appears to be one with one another.
- Site is the 'starting point' of the building.

Architecture as Architectonic Composition

The materials and constituent components, ways of making them, as well as the traditions and ideas behind them can reveal the identity of the building.

Architecture as Nature Experience

- Architecture must be able to develop the experience of users and interactions with nature.
- Climatological characters (temperature, humidity, wind, natural light, etc.) and topography can be considered to add to the experience of every visitor who visits a building so that the building gives the impression / experience of visitors.

Architecture as Tactile Experience

- Building can be felt by human senses.
- The experience felt by visitors can be done tactile (touch / touch) on an architecture.

Nature Experience

According to Frampton (2007), "Critical regionalism must involve a more direct dialectical relationship with nature, more than just the abstract formal traditions that make modern avant-garde architecture possible."

According to Frampton, the simultaneous demand for these two aspects creates an architectural structure that connects local culture and landscape quality. Rather of constructing a free-standing object without a concept, an architectural structure in a natural setting requires the two aspects to be merged to generate a design concept. The biological, climatic, and symbolic features of the location will be determined by geographical factors and cultural legacy. It is what distinguishes society by creating a "place-form" equilibrium between the natural environment and cultural legacy.

In his thesis, Orozco (2007) contrasts the natural laws according to Frampton and Curtis. Frampton strives for a balance between the use of artificial technology to increase quality of life in an artificial environment and the use of local regional climate variables in a building to develop a sense of place. Like Frampton, Curtis is also looking for adequate solutions to an area's natural climatic conditions.

The difference is that, while Frampton's critical regionalism seeks a balance between artificial and natural, Curtis contends that linguistic principles address natural conditions as the most appropriate way to manage climate concerns, relying less on artificial solutions. Authentic regionalism seeks a more responsive reaction to people's and cultures' healing ability as it pushes back into their identities. Curtis emphasizes the balance between humanity, culture, and nature through accepting past ways of existence and protecting the environment, in contrast to Frampton's balancing of artificial and natural.

As a result, according to Frampton, how nature is in regionalism is how both residents explore and utilize the natural environment to increase connections to places and solve certain environmental problems, such as considering the use of natural light from homes, ventilation, and plants, and identifying artificial components that are inside buildings. Curtis, on the other hand, works with traditional methods and beliefs that help to create harmony between local culture and the environment.

Based on this study, the characteristics of the Critical Regionalism building as a Nature Experience are:

1. Geographical conditions are considered in the design
2. More concerned with design solutions with the surrounding climate / nature
3. Cultural background balanced with climatological conditions



The Needs for Tourism Development

The tourism sector is a sector that has the potential to provide input for Regional Original Income (PAD) and is able to provide a multiplier effect for the development of related sectors, such as agriculture (flowers, fruit, fisheries), the handicraft industry, trade (for example restaurants), and services. (lodging, tour guide, transportation, and so on). So that the development of this sector, the level of welfare of the community, especially those living around tourist areas, can increase.

East Kutai Regency has a variety of tourism objects, both natural tourism, agro-tourism and cultural tourism. Nature tourism in this area includes the beauty of the sea and the vast mountains, dense tropical forest tourism, with the diversity of flora and fauna in the Kutai National Park, as well as cultural tourism including historical relics and diversity of traditions, interesting local arts.

Nature tourism which consists of marine tourism, beaches, adventure and artificial nature tourism. This tourism is located along the coast of East Kutai Regency, and especially for marine tourism that will be developed is in Sangkulirang District (Birahbirahan Island). And for beach tourism which is the destination of tourists is Lombok Bay Beach and Aquatic.

Cultural tourism consisting of traditional dances, theater arts, bands, dramas, Malay orchestras, tingkilan music, tambourines, hadrahs and arts from immigrant communities that have developed in the East Kutai Regency include: Kuda Kepang, Ludruk, Ketoprak, Wayang Kulit, Barongsai, Dance and Modeling, Sandur, Karawitan, Reog, and Sinden. This tourism object develops in the area of East Kutai Regency and is spread across all districts.

Tabel 2.2

Potensi Objek Wisata di Kabupaten Kutai Timur

Kecamatan	Obyek Wisata
1. Sangatta Utara	Pantai Aquatik
	Bukit Pandang Pelangi
	Telaga Batu Arang



The number of tourists both domestic and foreign who visit East Kutai Regency has increased every year. Until 2013, the number of tourists entering East Kalimantan reached 33,172 people, an increase of 6775 people compared to 2011, which was 26,397 people.

With the increasing number of tourists coming to East Kutai, supporting facilities such as lodging / hotels are needed. In 2013, the number of inns / hotels in East Kutai reached 91, consisting of 1 three-star hotel, and the remaining 90 non-star hotels.

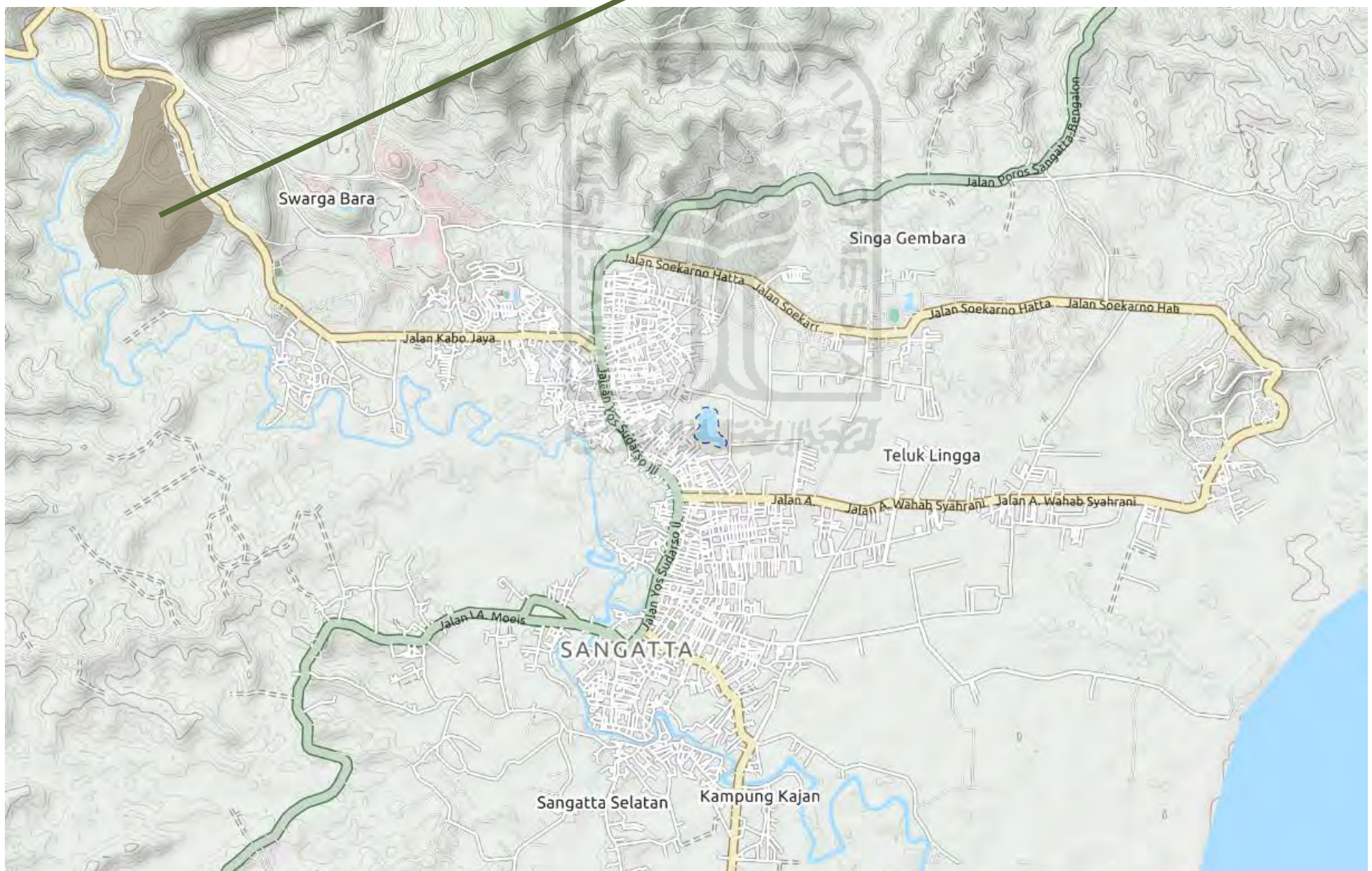
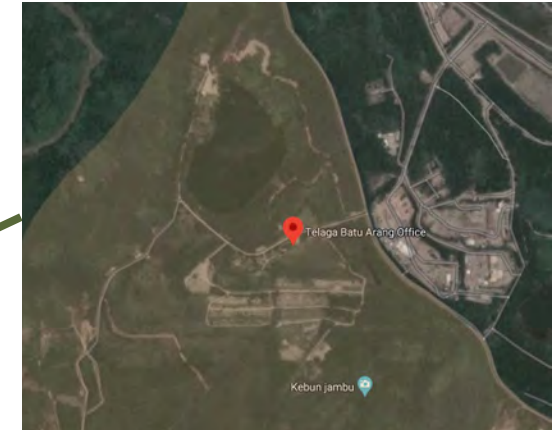
Tabel 2.3
Sarana dan Prasarana Wisata di Kabupaten Kutai Timur Tahun 2011 - 2013

Saran dan Prasarana Wisata	2011	2012	2013
(2)	(3)	(4)	(5)
Akomodasi			
Hotel	86	91	91
Jumlah Kamar	1.310	1.460	1.460
Jumlah Tempat Tidur	1.900	2.240	2.240
Hutan Lindung Wisata Alam (Wehea)	1	1	1
Event Budaya	6	6	6
Peninggalan Sejarah dan Purbakala (Situs)	38	38	38
Art Galeri	1	1	1
Desa Kerajinan Tradisional	2	2	2
Taman Nasional	1	1	1
Taman Wisata Laut	5	5	5
Hutan Mangrove	5	5	5
Bukit Pandang Pelangi	2	2	2
Agrowisata Kobo Jaya	1	2	2
Danau/Telaga	3	4	4
Taman Pesawat Bukit Pelangi	1	1	1

Sumber: Dinas Pemuda, Olah Raga dan Pariwisata Tahun 2013

Design Site Location

Telaga Batu Arang, Swarga Bara, North Sangatta, East Kutai Regency, East Kalimantan 75683



Telaga Batu Arang Area

As the post mining area, this lake and ecotourism place located near the coal mining area. But not just that, this area also located near National Kutai Park and even become the buffer zone of the park. From this area, people can enjoying the view of coal mining area, the city and settlements of Sangatta, and also the biodiversity from National Kutai Park.

Coal Mining Area

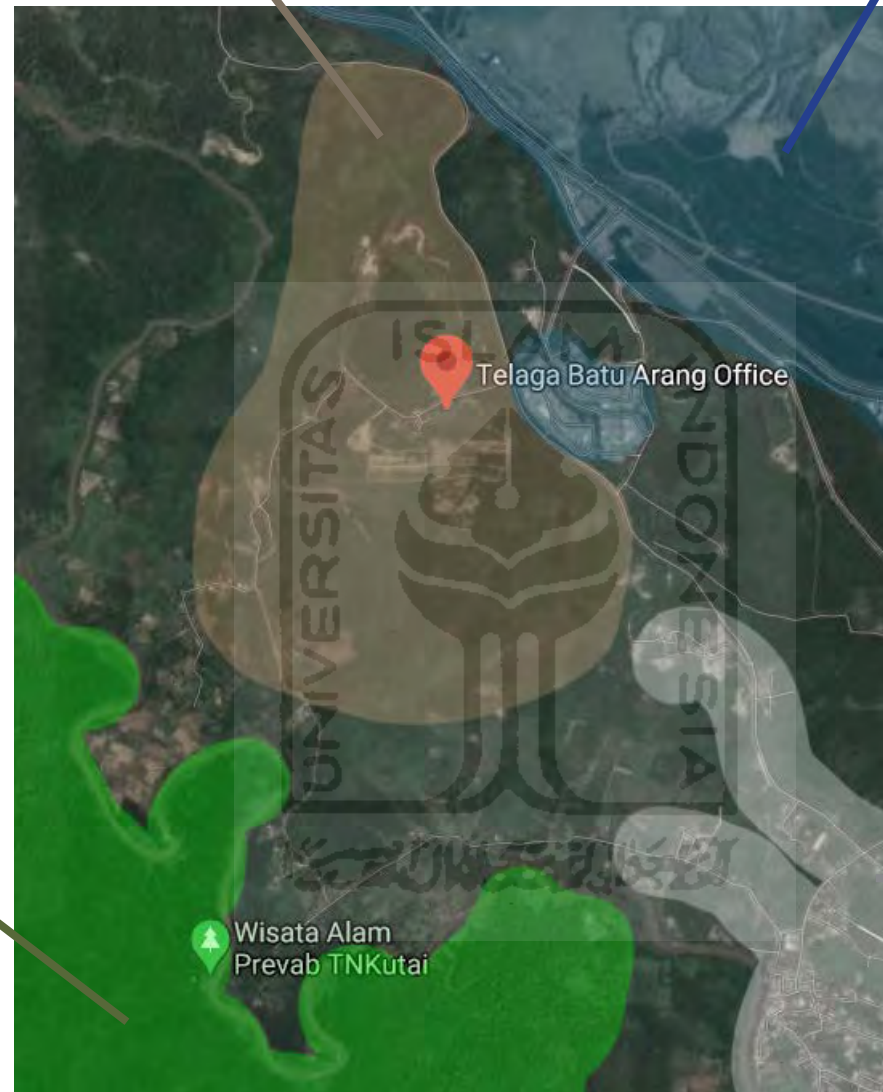
PT. Kaltim Prima Coal (PT. KPC) is located in District Sangatta, East Kutai Regency, East Kalimantan Province and has an area of PKP2B 90,960 Ha. In operation, the coal mining area is located in the Sangatta and Bengalon while PT. KPC mining only operates in Sangatta that has only 3 departments, department bintang (pit Bendili), department Pit J (pit Pinang South), and the department Hatari (K-West pit and pit Inul East).

National Kutai Park

National Kutai Park area scattered all over the district. With the concern of the community to protect the biodiversity in this protected forest, until now human being and the wild animals have coexisted well. Orang Utan until Enggang sometimes still seen flying or passing in several areas in this district.

City and Settlements

Sangatta, East Kutai Regency is not a big district so the distance between one place into another is not too far away. And the access to go to certain places such as tourist attractions is already easy and proper to access. There is the settlements located near the mining area which the settlements for employees of the mining companies.



Topography

The topography of East Kutai Regency varies in the form of sloping plains, undulating to hilly and mountainous and beaches with land elevations ranging from 0 - 7 m to more than 1000 meters above sea level. Most of the area of East Kutai Regency has a slope of more than 15%, with a total area of 2,516,233 Ha (76.37% of the total land area).

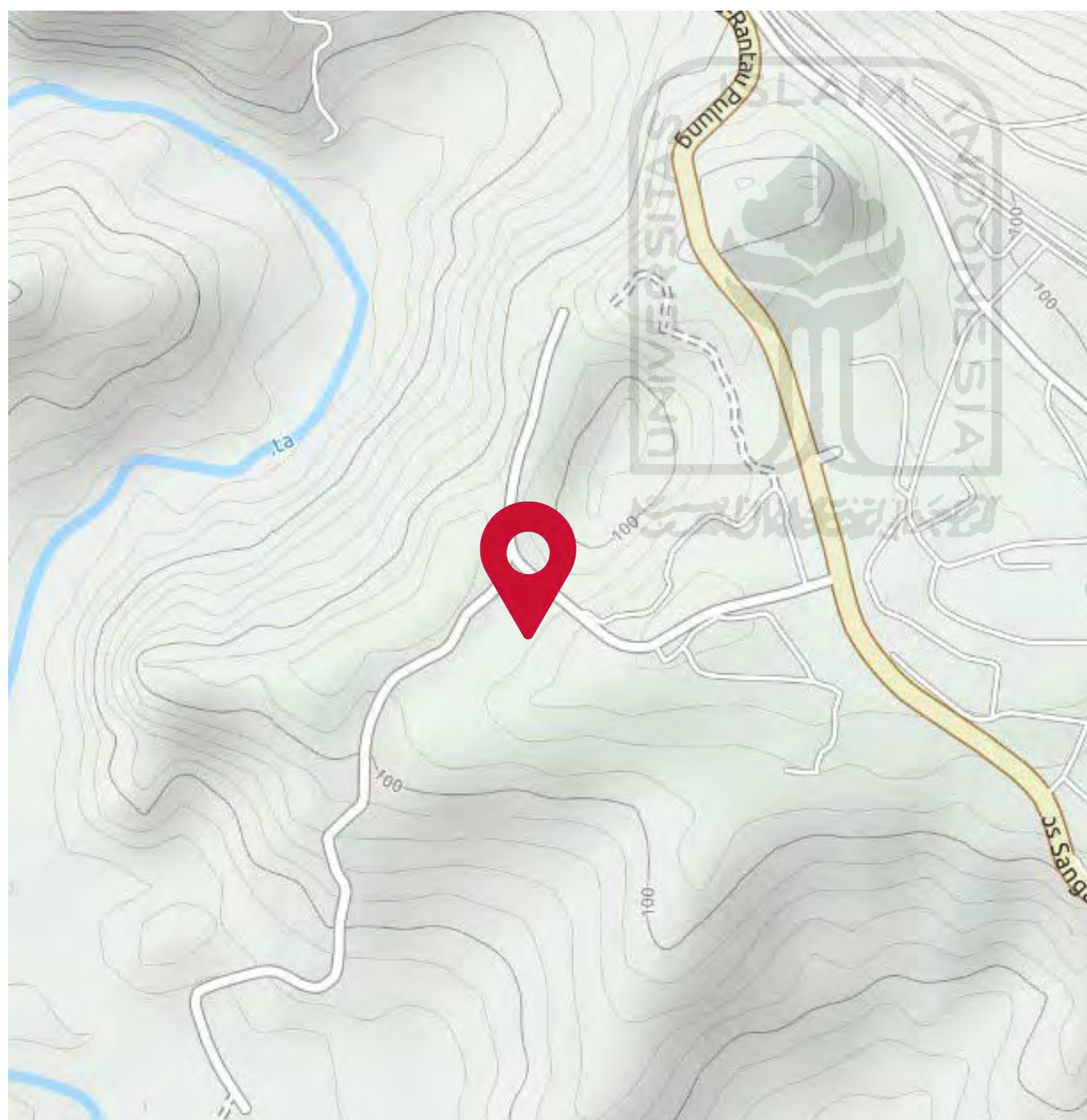
Areas with a slope of more than 40% have a fairly wide area, scattered throughout the region, especially concentrated in the northwest with an altitude of more than 500 meters above sea level. Areas with topographic characteristics like this are included in critical land category which has the potential to experience environmental degradation in the form of soil erosion.

Areas with slopes below 15% (<2 to 15) are relatively flat and sloping areas, with an area of 778,686 Ha (23.63%). This area is only found in Sangatta, Muara Bengkal, Muara Ancalong and parts of Muara Wahau and Sangkulirang. The area bordering Berau Regency in Sangkulirang, Muara Wahau and Muara Ancalong Districts is a limestone mountain area. Areas with mountainous and hilly areas have the largest area, namely 1,608,915 Ha and 1,429,922.5 Ha.

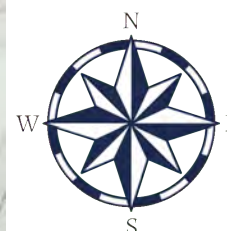


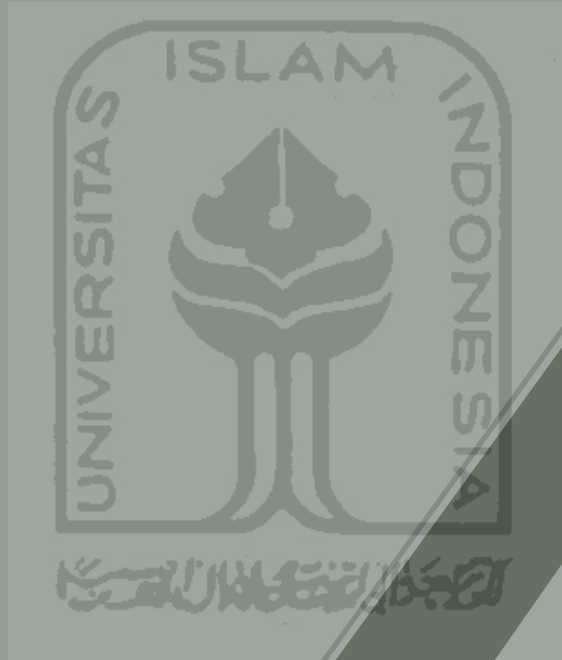
Climatology

East Kutai Regency has a humid tropical forest climate with an average temperature of 26° C, where the difference between the lowest temperature and the highest temperature reaches 5° - 7° C. The rainfall in East Kutai Regency varies from the coastal area to the interior which is increasing. The average amount of rainfall in this district ranges from 2000 - 4000 mm / year, with the average number of rainy days being 130-150 days / year. The average temperature ranges from 26° C with a difference between day and night between 5 - 7 degrees Celsius.



N0°33'18", E117°28'8"
Asia/Makassar (+08:00)
Sunrise: 6:18
Sunset: 18:25
Dusk: 18:45
Altitude: 115m (377ft)





4



design typology and precedent essay

Säynätsalo Town Hall, Finland

Olive Garden Villa, Turkey

Heritance Kandalama, Dambulla

Lunuganga Estate, Sri Lanka

Lesson Learnt from Precedents

1. Säynätsalo Town Hall, Alvar Aalto (1949)

Parviaisentie 9, 40900 Säynätsalo, Finland

The Säynätsalo Town Hall is a multipurpose building complex with two main buildings arranged around a central courtyard: a U-shaped council chamber and town hall with administrative offices, and a community library with flats. The rectangular library block and the U-shaped government building make up the complex, which is made up of two wood-framed brick buildings. These two structures serve as a retaining wall, allowing Aalto to fill the central courtyard with soil excavated from the site's slope, raising it one story above the surrounding terrain.

Depending on whether one is inside the courtyard or outside, the variation in elevations creates two distinct experiences of the building. Outside observers see an imposing two-story facade, much of which is monolithic, unembellished brick. Inside the courtyard, the facades of the surrounding library and office spaces are only one story tall; however, outside observers see an imposing two-story facade, much of which is monolithic, unembellished brick. The two staircases that lead up to the courtyard from ground level are also stylistically distinct. Two flights of perfectly hewn granite make up the eastern staircase, which is formal and rectilinear. The western staircase has a more uneven footprint and is composed of terraced sod held back by wooden boards rather than stone or brick.

This futuristic structure is designed to blend in with the surrounding woodland by Aalto. Bricks, wooden flooring, stairs, and irregular faces are all used. According to Frampton, Aalto's use of natural and local materials in this project is a statement of critical regionalism - the honesty of materials and designs. These materials stimulate the human senses, not just the eyes, but also the sense of touch, which may be felt.



Säynätsalo Town Hall / Alvar Aalto
(Source: ArchDaily)



2. Olive Garden Villa 17.Sok Kumkoy Ilica Mahallesi, 07200 Manavgat/Antalya, Turkey

Olive Garden is a complex of villas in Turkey that aims to alleviate tourism's impact on natural beauty. This series of villas, designed by Studio Alhadeff, takes a Critical Regionalism approach, integrating traditional building materials with contemporary design features (Aga Khan Awards, 2007). Natural elements from Turkey, such as olive trees, big boulders, the sea, and the sky, compliment the structure. It demonstrates the architect's idea for attaining sustainability in the area when combined with a low-energy plan.

The homes are situated on a slope that slopes down to the sea. With a wooden louvre offering shade and views towards the activity space or the sea, there is a game of shading and lighting brought up.

Characteristics

1. Using local resources and modern shapes (geometric forms) (Hatay stones).
2. Use water, trees, and rocks to create a realistic representation of Turkey's natural environment.
3. Considering the energy element by incorporating solar cells and thermal insulation made from locally sourced materials (Hatay stone).
4. Incorporate existing shapes and vistas into your arrangement.



3. Heritance Kandalama, Geoffrey Bawa

Geoffrey Bawa's best creation, Heritance Kandalama in Dambulla, is a true architectural marvel that is the ultimate of environmentally friendly design with tropical modernism in full swing. The project was designed to be built around a large boulder, with nature and green construction elements incorporated into every component. The hotel was designed by Geoffrey Bawa with the sensitivity of the surrounding terrain in mind (Seow 2012). The entire hotel structure is covered in flora, and the hotel is built on a platform that allows for a constant flow of stream, wildlife, and vegetation beneath the structure (Seow 2012). Natural rock formations were also incorporated into the design, which can be observed in the hotel's corridor.

4. Lunuganga Estate, Geoffrey Bawa

Geoffrey Bawa's private house, which he designed in 1958, exemplifies his concentration on nature in architecture. Bawa's residence has an interior and architectural design that reflects his evolving style. The phrase "tropical modern" suggested that the colonial effort would continue in the years leading up to and after independence. Local conditions and climate in South Asia, on the other hand, challenged the "tropical modern's" ideas and rationale, and Bawa began to develop a new style of constructing. This technique and development is known as "critical vernacular" or "critical regionalism." A contemplative maze of chambers and garden courtyards that provide the impression of infinite space. Inside and outside have no meaning here; rooms have no roofs and roofs have no walls; instead, they are connected by a complex matrix of axes and internal vistas. He experimented with the interaction of building and landscape, as well as the relationship between inside and outside space, which is consistent with tropical modernism.

Classical Greco-Roman statues pose insolently, and bacchanalian grotesque sculptures flash from tangles of foliage, blending elements of Italian Renaissance gardens, English landscaping, Japanese garden art, and ancient Sri Lankan water gardens. Precise, orthogonal lines give way to baroque, serpentine shapes abruptly. The vegetation is a deep, seductive green that envelops everything, periodically punctuated by the hues and textures of wrought iron, stone, concrete, and clay. All senses are heightened in Bawa's personal tropical Eden: to the dappled light and shade vistas of the garden and lake, to the sounds of birds and the rustle of leaves, and to the scent of damp earth and grass after rain. Lunuganga is Bawa's most magnificent masterpiece and testament, providing almost overwhelming visual delight.



Building Ideas/Precedent for Lodging in the Forest.



Lunuganga Site Plan



He began by cutting through the dense plants to provide a view north over the lake to an island in the middle. He first cleared a long, wide vista to the south of the house, then rose on the other side of a dip to the garden's highest point - Cinnamon Hill – in a far more intricate and ambitious move.

That descent and rise of grass appears seamless from the house or from the top of Cinnamon Hill looking back to the house. However, there is a road that runs through the middle and ends at the lowest point, leading to another property. It's masterfully hidden. Only upon passing through the covered tunnel beside the Draftmen's House (constructed by Bawa for his helpers) does a little window reveal that you are crossing the road on a bridge. You won't be able to approach the road directly. An impenetrable barrier is created by a dense low planting of bushes and ferns.v



Lesson Learnt from Presedents

No	Project	Building Function	Lesson Learnt
1.	Säynätsalo Town Hall, Finland	Multifunction Building Complex	<ul style="list-style-type: none"> - Aalto aligns this modern building with the surrounding forest. - In this project Aalto uses a model taken from nature and local materials from which these materials can provide a stimulus to the human senses, not only visual senses but also touch that can be felt.
2.	Olive Garden Villa, Turkey	Villas Complex	<ul style="list-style-type: none"> - Blends modern shapes (geometric forms) with local materials (Hatay stones). - Simulate the natural atmosphere of Turkey through the elements of water, plants and rocks. - Make use of existing contours and views as part of the composition.
3.	Heritance Kandalama, Dambulla	Hotel	<ul style="list-style-type: none"> - The building can be blending with surrounding environment. - The shape of the building following the situation of the surrounding area, make a harmony between nature and architecture.
4.	Lunuganga Estate, Sri Lanka	Country House	<ul style="list-style-type: none"> - This Bawa design makes the connection between the inner and outer space non-existent and creates a very good harmony between the two. - Maximizing the opening to let in light and wind from outside to come inside the room. - The arrangement of interior elements that support the natural aspects to come in beautifully.





design problematique

Problem Statement
Problem Mapping
Framework of Thinking

FORMULATION OF THE PROBLEM

OBJECTIVES AND OBJECTIVES

General Problems

How to design an accommodation building with the Regionalism Architecture approach in the framework of developing tourism in East Kutai Regency?

Specific Problems

1. How to design a resort building with the Regionalism Architecture approach in the ecotourism area?
2. How to design an accommodation building with an architectural approach to regionalism in the form of:
 - a. How to designing a modern architecture building that having a sense of place ?
 - b. How to designing a building that can following the condition of topography ?
 - c. How to make the tactile and kinesthetic also visual stimulus in the design ?
 - d. How to designing a building that can adjust with the climate condition of the site ?
 - e. How to using the local elements as the design inspiration ?
 - f. How to utilizing the technology according to the era in the building ?

General Target

Designing resort buildings that are able to accommodate the needs of tourism in East Kutai with the Regionalism Architecture approach in the framework of developing the Cultural Landscape of the city of Sangatta.

Specific Target

Designing resort buildings using Critical Regionalism Architecture approach.

Designing an arts and cultural center building with an architectural approach to regionalism in the form of:

- a. Transforming the cultural landscape on the layout of a place or space in a building
- b. Transforming the cultural landscape in the building landscape layout

Aim

1. Able to design resorts that can attract tourists and develop tourism value in East Kutai
2. Able to design resorts with the Regionalism Architecture approach as supporting facilities in the ecotourism area
3. Able to design resorts with a regionalism approach method as a local identity that is merged with modern architecture to attract tourists in the form of:
 - a. Able to designing the building that can use complementary elements with regional characters. (nature and culture) also by applying a color palette that matches the surrounding nature of the site.
 - b. Able to use the topography condition of the area to provide the view and experience of spaces.
 - c. Able to optimizing openings in buildings for natural lighting and ventilation needs.
 - d. Able to using materials with a variety of different textures to stimulate touch. And combining existing textures on site elements with building material textures to bring out contrast or harmony.

Problem Mapping

Non - Architectural Issue

1. The city of Sangatta still lacks suitable tourist destinations for tourists.
2. Sangatta City and East Kutai Regency as a whole have a lot of natural potential for biodiversity that are attractive to tourists.
3. There is a lot of potential to improve the economy apart from mining, which is a non-renewable natural resource.

Architectural Issue

1. Tourism in Sangatta must be developed to help the regional economy.
2. Facilities for tourist attractions in Sangatta are still inadequate.
3. The lack of utilization of the huge natural potential in Sangatta.



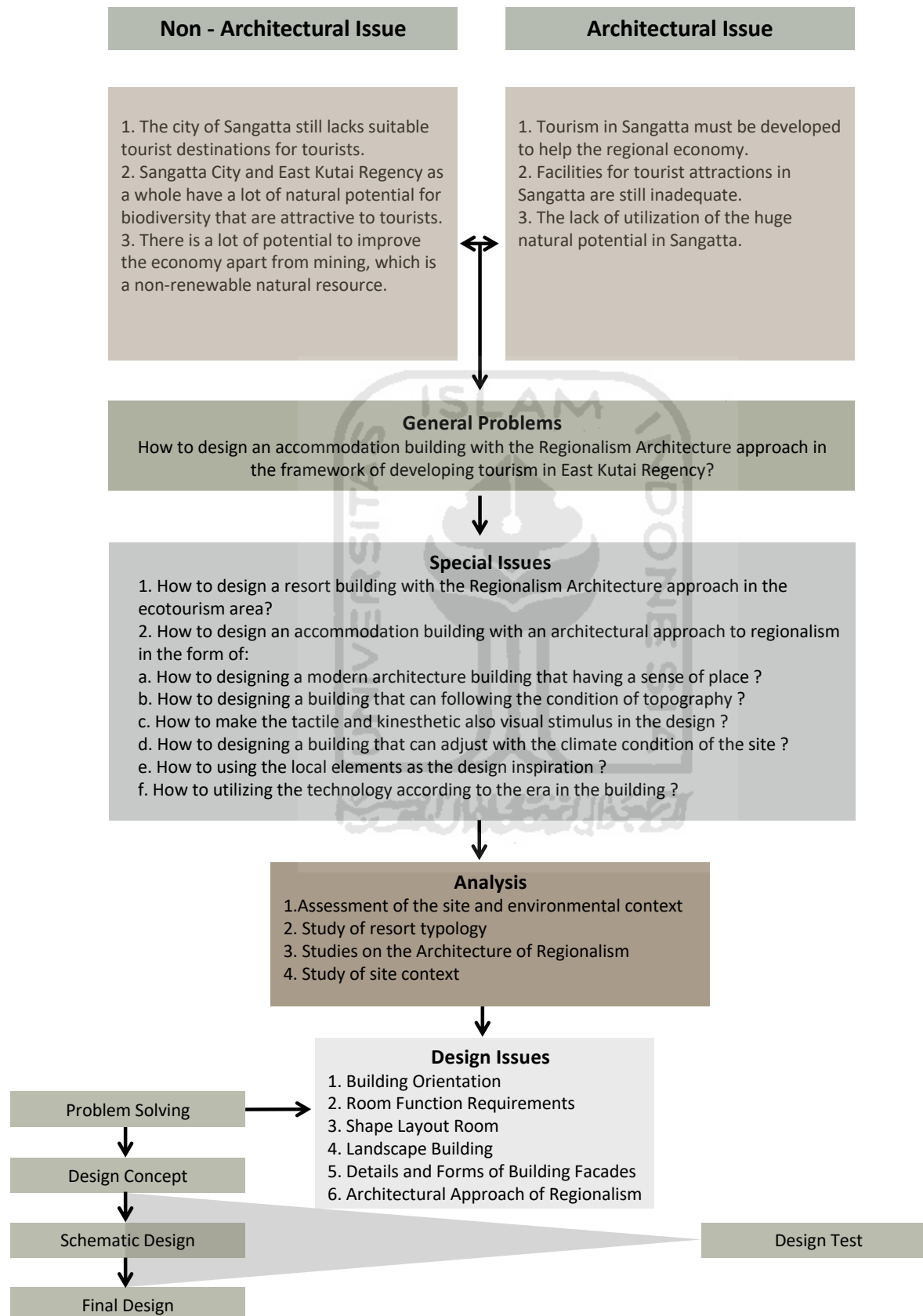
General Problems

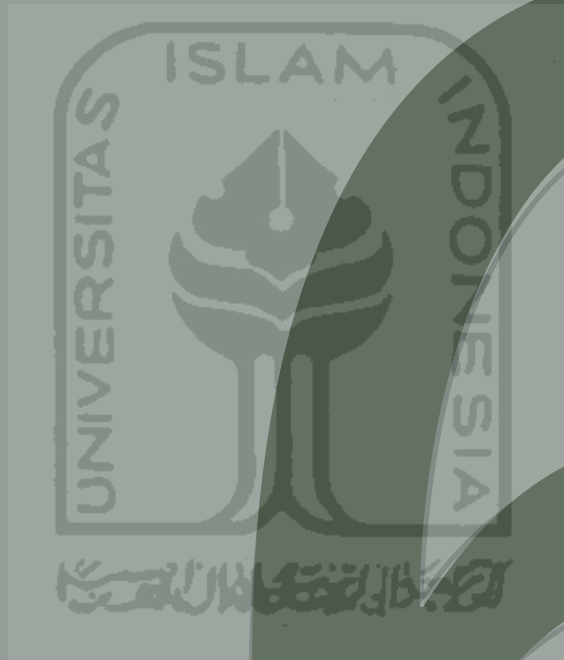
How to design an accommodation building with the Regionalism Architecture approach in the framework of developing tourism in East Kutai Regency?

Special Issues

1. How to design a resort building with the Regionalism Architecture approach in the ecotourism area?
2. How to design an accommodation building with an architectural approach to regionalism in the form of:
 - a. How to designing a modern architecture building that having a sense of place ?
 - b. How to designing a building that can following the condition of topography ?
 - c. How to make the tactile and kinesthetic also visual stimulus in the design ?
 - d. How to designing a building that can adjust with the climate condition of the site ?
 - e. How to using the local elements as the design inspiration ?
 - f. How to utilizing the technology according to the era in the building ?

Framework of Thinking





6



design methods

There are 2 types of methods in designing to collect information and data relating to the problems that will be analyzed later, namely the primary method and the secondary method.

Primary Data Collection Method

Primary data collection method is a method that obtains data directly from the source by means of observation. Observations are made by observing the design location and its condition in terms of facilities and other potentials that will be developed. Other data regarding area conditions, topography, climate and site inventory.

Secondary Data Collection Methods

Secondary data collection methods are carried out indirectly from the source. Thus, the data obtained comes from books, journals, and literature studies.

Design Approach Method

The design approach is the basis for designing buildings by observing and studying literature, namely:

1. The space requirements needed in the resorts building
2. The need for infrastructure and other supporting facilities at resorts
3. Application of Regionalism Architecture at resorts that can attract tourists and develop knowledge of natural conditions within the framework of cultural landscape development

Data analysis method

The method of data analysis in the design of resorts was carried out in two ways, namely the method of macro analysis and the method of micro analysis.

Macro Analysis

Macro analysis was carried out in the Telaga Batu Arang area.

The area analysis consists of conditions and problems that exist today. Macro analysis is also carried out to observe what needs must be met at the resort.

Micro Analysis

Micro analysis is carried out by analyzing the typology of resort buildings in terms of design standards, building layouts, space requirements, layout forms, and building infrastructure which will be a solution to problems that will arise when designing.

Design Test Method

The design test method is carried out with the aim of knowing the design results whether the design results have become a solution to existing architectural issues or non-architectural issues. The design test method can be done by using supporting software and the design exploration to get the best design which can answering all the problems.



design originality and novelty



GRAFIZ+PARTNERS PROJECT, 2014

Project Details

Type : Tourism
Scope : Masterplan
Location : Kalimantan Timur
Owner : PT. Kaltim Prima Coal
Client : PT. Bitu Bina Semesta
Year : 2014

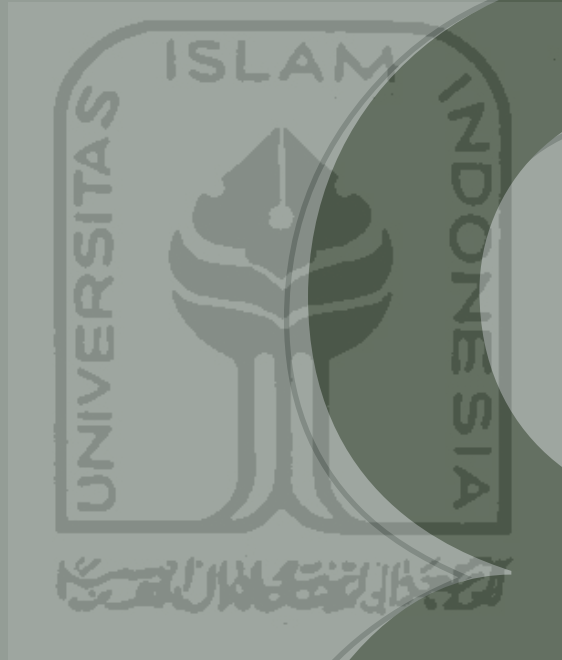
Telaga Batu Arang is a former coal mine that has been transformed into a tourist destination focusing on nature-based tourism and education.

The key draw in this sector is the use of natural themes in the construction of buildings and recreational facilities, as well as social and educational activities. This area's purpose is to serve as an appealing and beneficial tourist destination for families and local communities.





Master Plan Telaga Batu arang Grafiz + Partners Project, 2014





design hypothesis

Site Analysis (Experience, Topography, Sun Direction)

Initial Design

1st Design Development

2nd Design Development

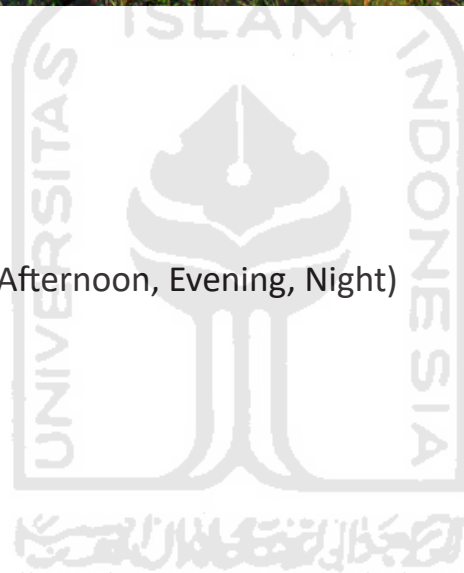
3rd Design Development

Final Design



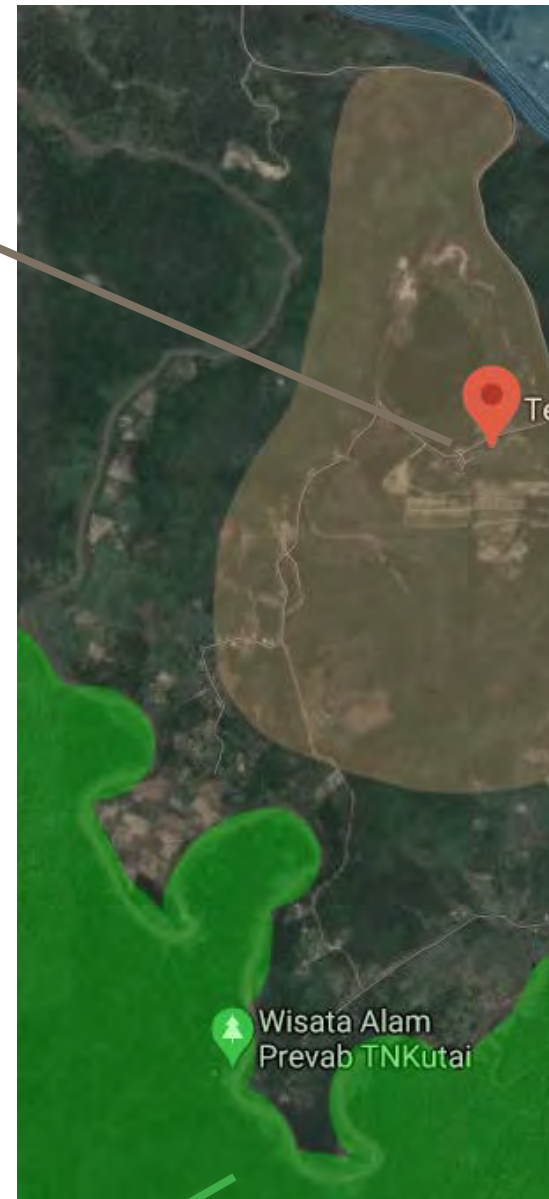
Telaga Batu Arang Area

1. Blue Lake
2. Clear Water
3. Reflection of the Hill and Trees
4. Different reflection each time in a day. (Morning, Afternoon, Evening, Night)



National Kutai Park

The view on south until southwest is the unspoiled hills with green trees and plants. The hills makes the dynamic of the view beautifully where the hills arrange from the low continues to the highest. There are also the rice fields and river which can be seen from this site, which adds to the variety of views offered from this side of the area.





Coal Mining Area

The one that makes this site different with the other ecotourism area or the other resort area is because from this area people can see the view from coal mining. As people can imagine how this area looks like before the reclamation done by the company. And also the color palette from the coal mining, combining with the green from hills and trees also the blue color of the lake and sky makes the beautiful pantone color of the view.

City and Settlements

From the east until southeast view, the area provide the view of the entire city of Sangatta. Which shows the city center, the settlements also the other coal mining area. The light from the buildings from the city and settlements can make a good view in the night. Showing the activity of the city in the day time also in the night time from this site. The area of the site which located higher than the city can makes the fullest view of the city.



Key Qualities of the Site

1.

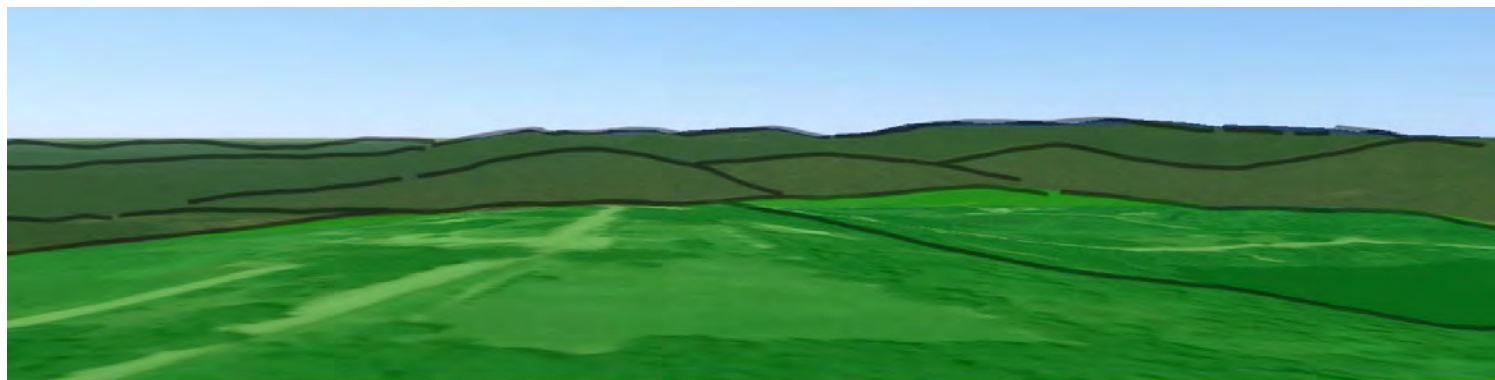


TOPOGRAPHY OF THE SITE

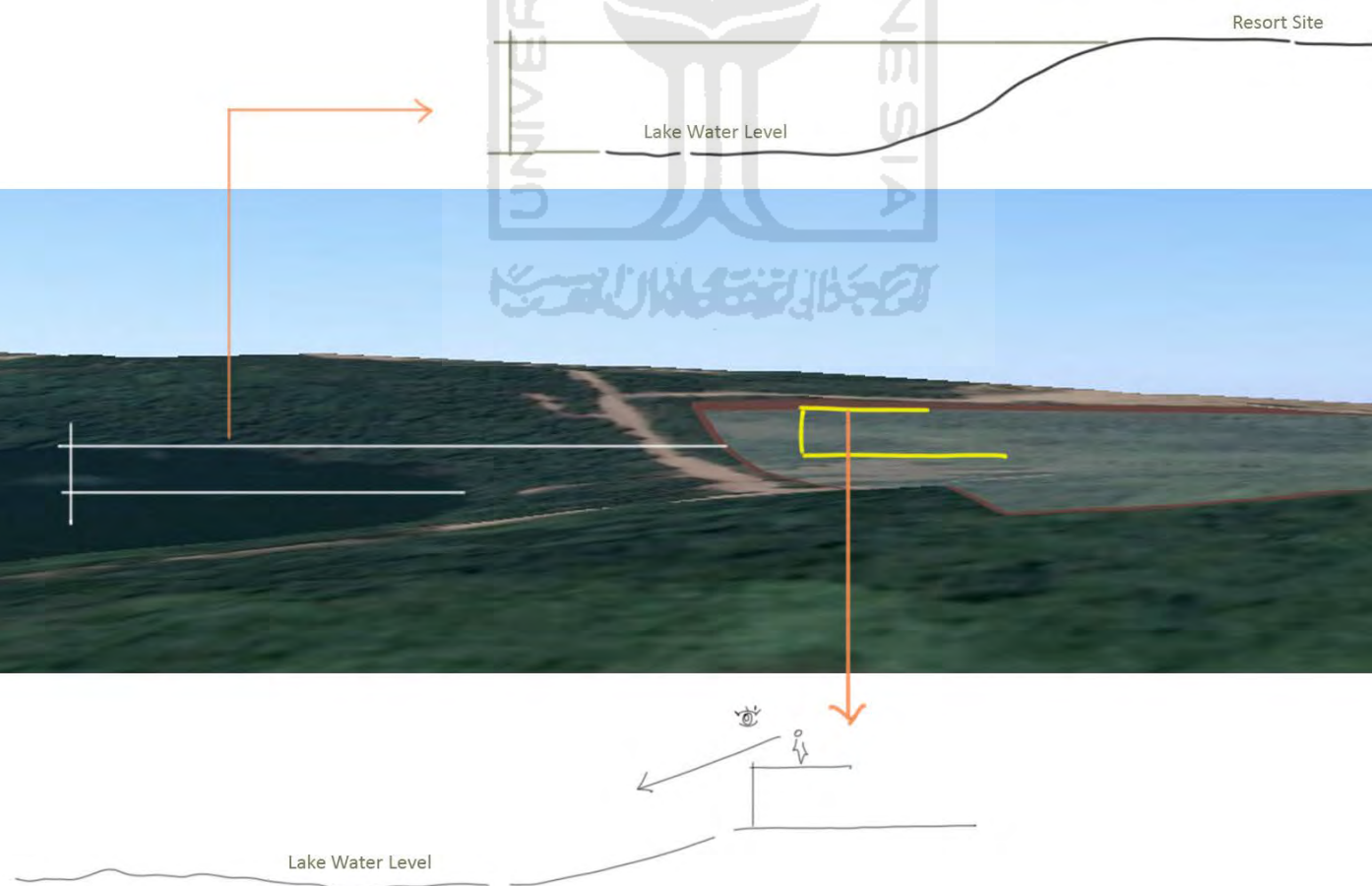
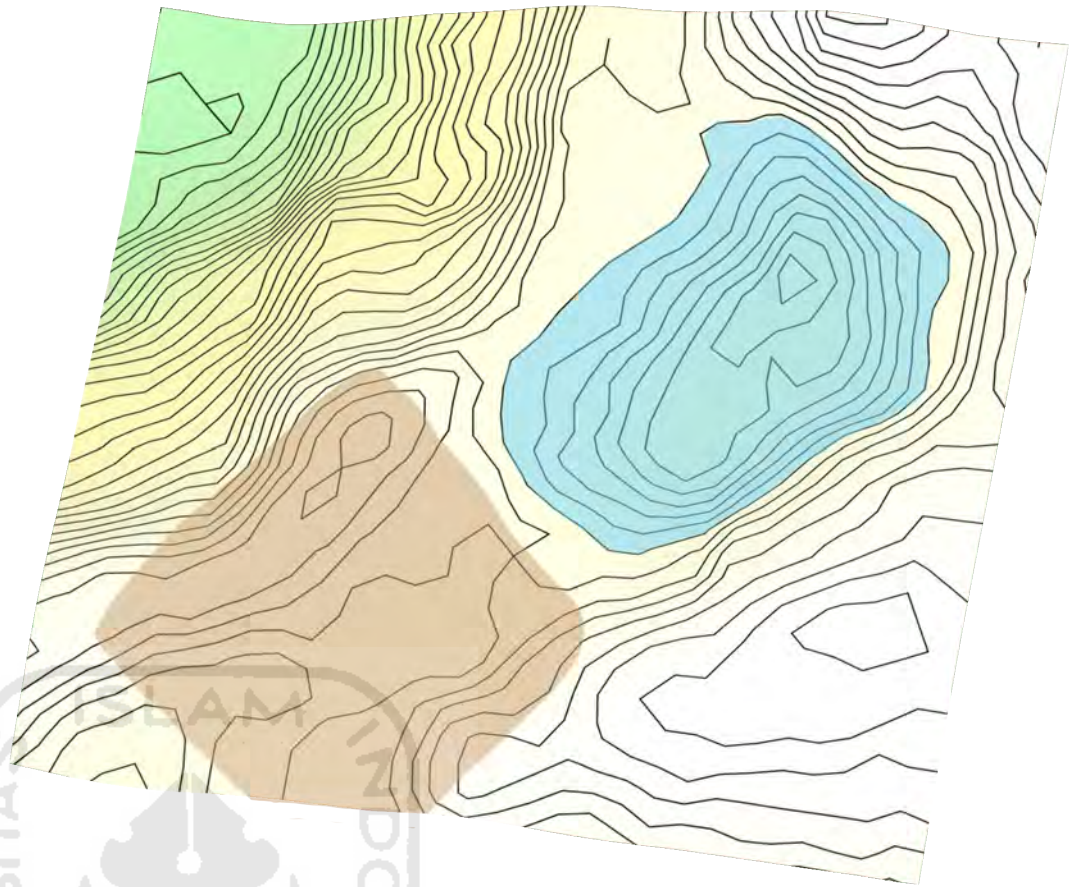
Location of the site surrounded by a collection of hills and forests.

The topographic conditions of the existing hills add to the richness of the texture and shape on the site which can be implemented as the shape of the building.

In accordance with the concept of critical regionalism as a principal in the design of this resort, hilly topography as an element of the site's environmental context will be used as a reference in designing the shape of the building and to determine the user experience.



This is the detail countours of the site with interval of each countour line is 4 meter. From this picture the condition of the site is a highly countour area with hills and lake (the area with blue mark in the picture). The countour of northwest side of the area is really steep rather than the east side. The area for the resort (mark by brown color in the picture) is chosen between these steep area and not really steep area to show the richness of the topography in this place.



The resort site located on the area that higher than the lake so the view to the lake will provide maximum from this area.

SUN DIRECTION

2.



SUNRISE

To give the experience of "Ray of Light" the lodge area will be located on the east side. The sun will come to the site in the morning from east area through the gap between the trees and leaves. Also to give the best sun light which healthy and safe for human, in this case is the user.

3.



SUNSET



The location of the site is really strategic because in this area we can enjoy the sunrise also the sunset. And also the topography of the site which located in the high area of the district also become the good area to experience the sunset.

4.

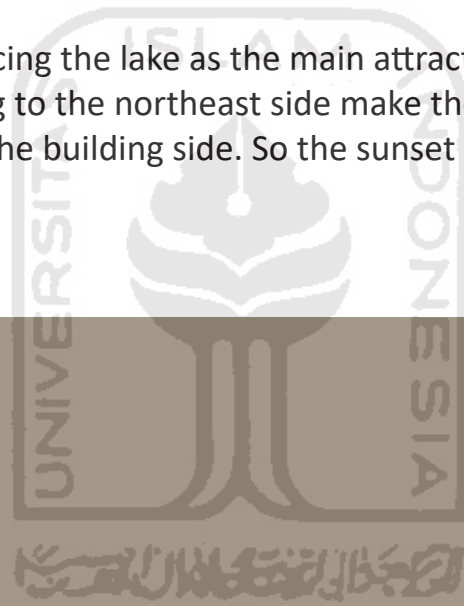


SUNSET

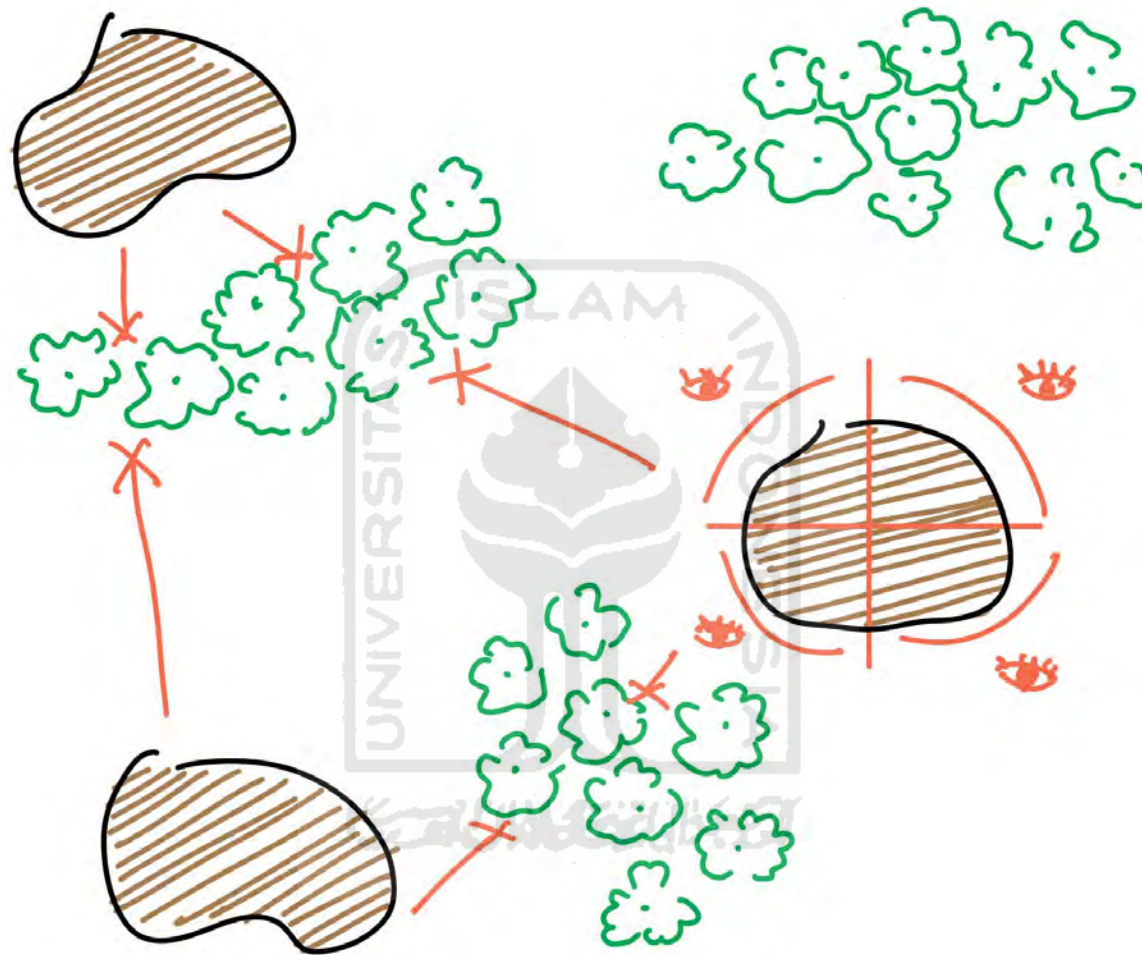


SUNRISE

The direction of the building will be facing the lake as the main attraction of this place. And also this orientation which looking to the northeast side make the building can have the possibilities to having the east and west view in each of the building side. So the sunset and sunrise can be enjoyed in each of the building side.



Preliminary Design Overview



1. Provide the 360 degree view of nature from each room
 2. Sunset view and sun light
 3. Wind = natural cooling system
 4. Give the ambience like waking up in the forest by giving the effect like ray of light in the forest.
-

Visitors can enjoy nature for 36 hours or more, where visitors can enjoy nature in the morning, follow the activities provided by this place until late afternoon, then can enjoy the sunset at the location of the hill of view, and when night falls, enjoy and learn how the night world is in the middle of the wild, fall asleep amidst the hum of crickets and other animals in the forest, then in the morning the next day, awakened by the sunlight coming in through the cavities of the trees, enjoying how the sun slowly rises and illuminates green nature around visitors.

Alternative 1



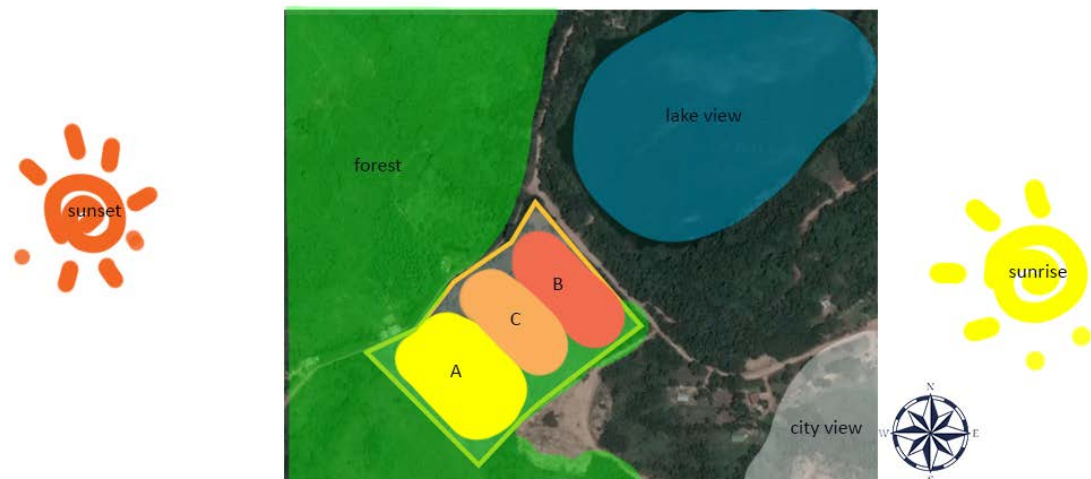
- A = Lodgement Area
- B1 = Lobby, Office, Multipurpose Hall
- B2 = Pool and Gym
- B3 = Restaurant
- C = Spa, Playground

A. Lodgement Area located in the forest area to give the nature experience to the user that they can feel the hum from crickets and in the morning welcomed by the ray of light from gap between the trees.

B. Pool and Restaurant area provide the view from the lake. That in the daytime have the reflection of surrounding hill and trees, and in the night showing the reflection of the moon.

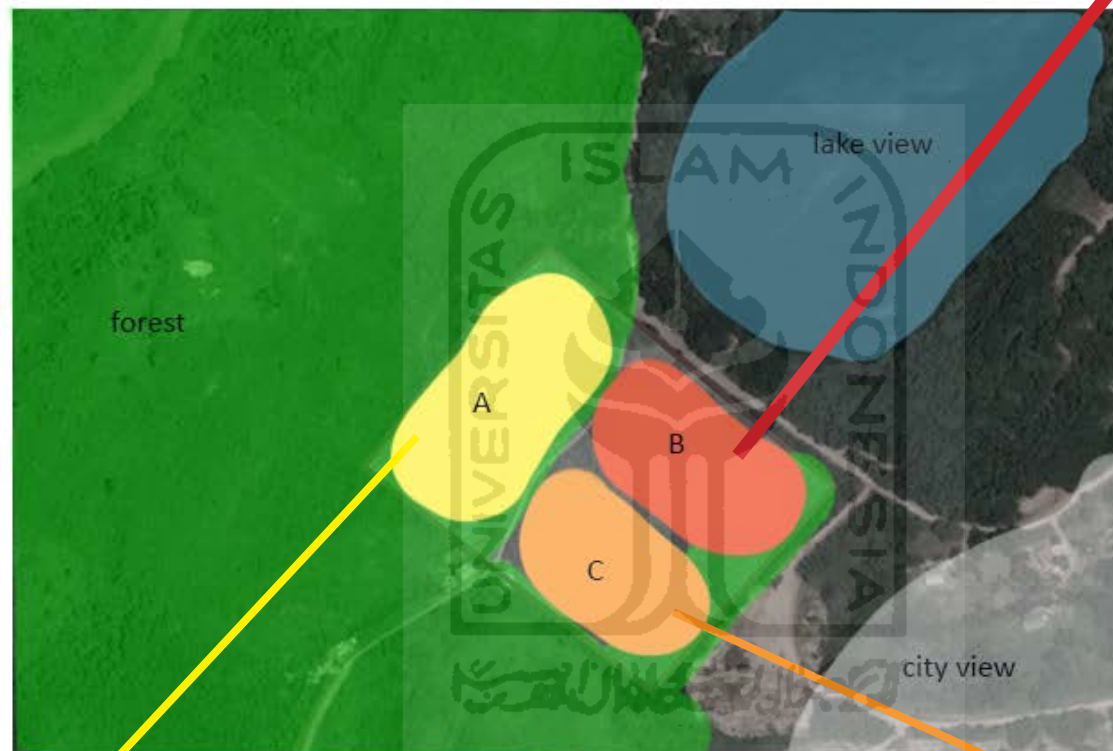
C. For spa and playground area located also in the forest area to give the experience of fresh and calm nature ambient.

Alternative 2



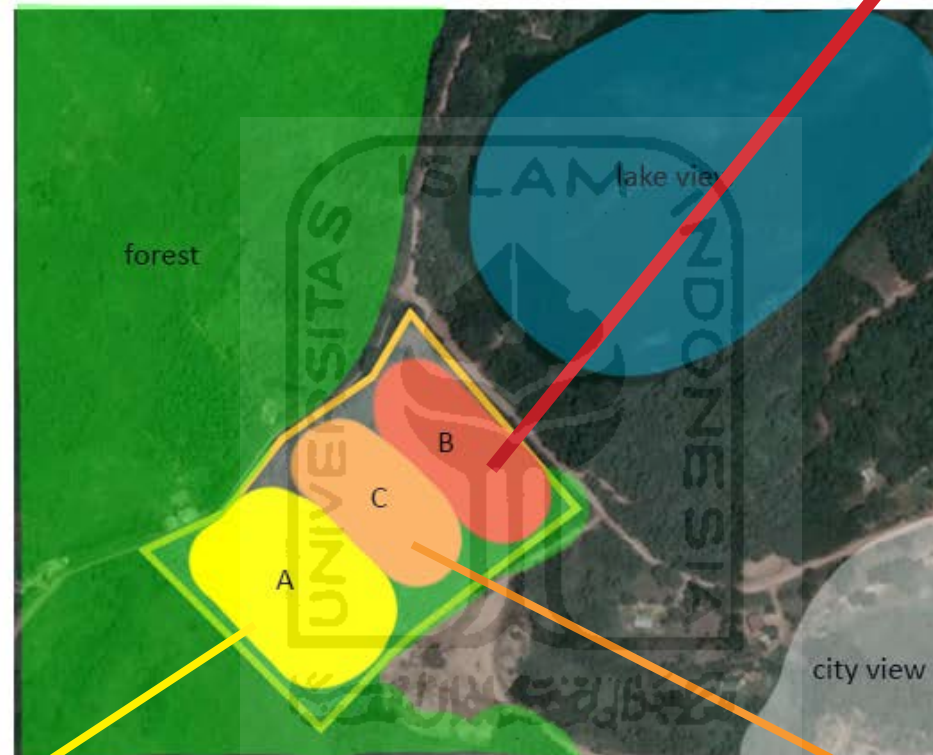
Alternative 1

- A = Lodgement Area
- B1 = Lobby, Office, Multipurpose Hall
- B2 = Pool and Gym
- B3 = Restaurant
- C = Spa, Playground



Alternative 2

- A = Lodgement Area
- B1 = Lobby, Office, Multipurpose Hall
- B2 = Pool and Gym
- B3 = Restaurant
- C = Spa, Playground





Initial **design**

Focused on building plotting and defining the experience for each building by looking at Topography Condition and Climate.

Site Topography/Landscape Design (site alternative 1)



To opening the view to the lake, the trees on the area in front of the resort will be cutting down, and let the grass and other plants that not distracting the view still be there.

And make the way for sunrise light come to the site.

To opening the view to the lake, the trees on the area in front of the resort will be cutting down, and let the grass and other plants that not distracting the view still be there.

To give the view of sunset, the west side trees will be cut down.



Site Topography/Landscape Design (site alternative 2)



To opening the view to the lake, the trees on the area in front of the resort will be cutting down, and let the grass and other plants that not distracting the view still be there.

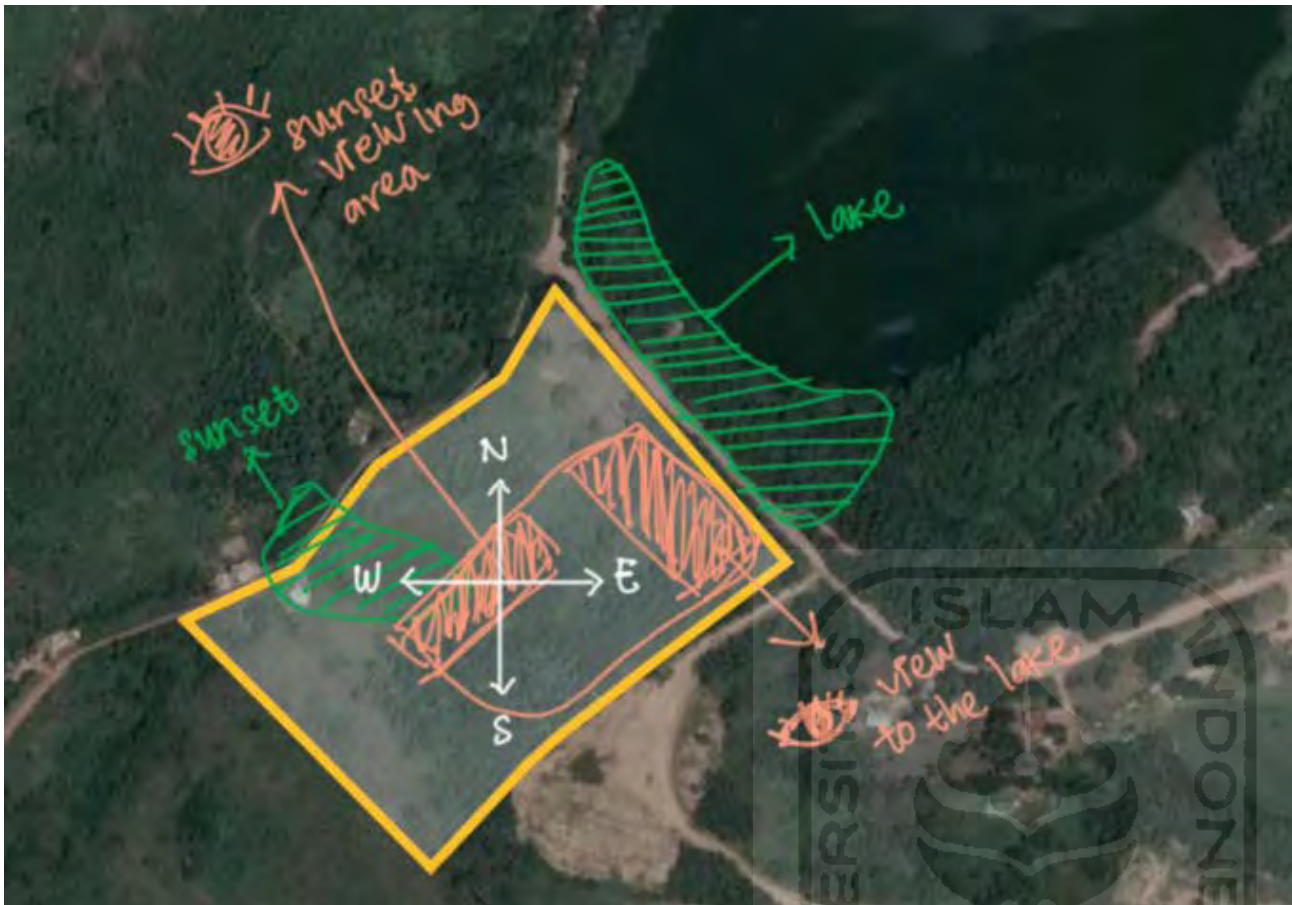
And make the way for sunrise light come to the site.

To give the view of sunset, the west side trees will be cut down.

The lodgement area will be on the part with the trees. And the public facilities area located facing to the lake and directly to the pathway.

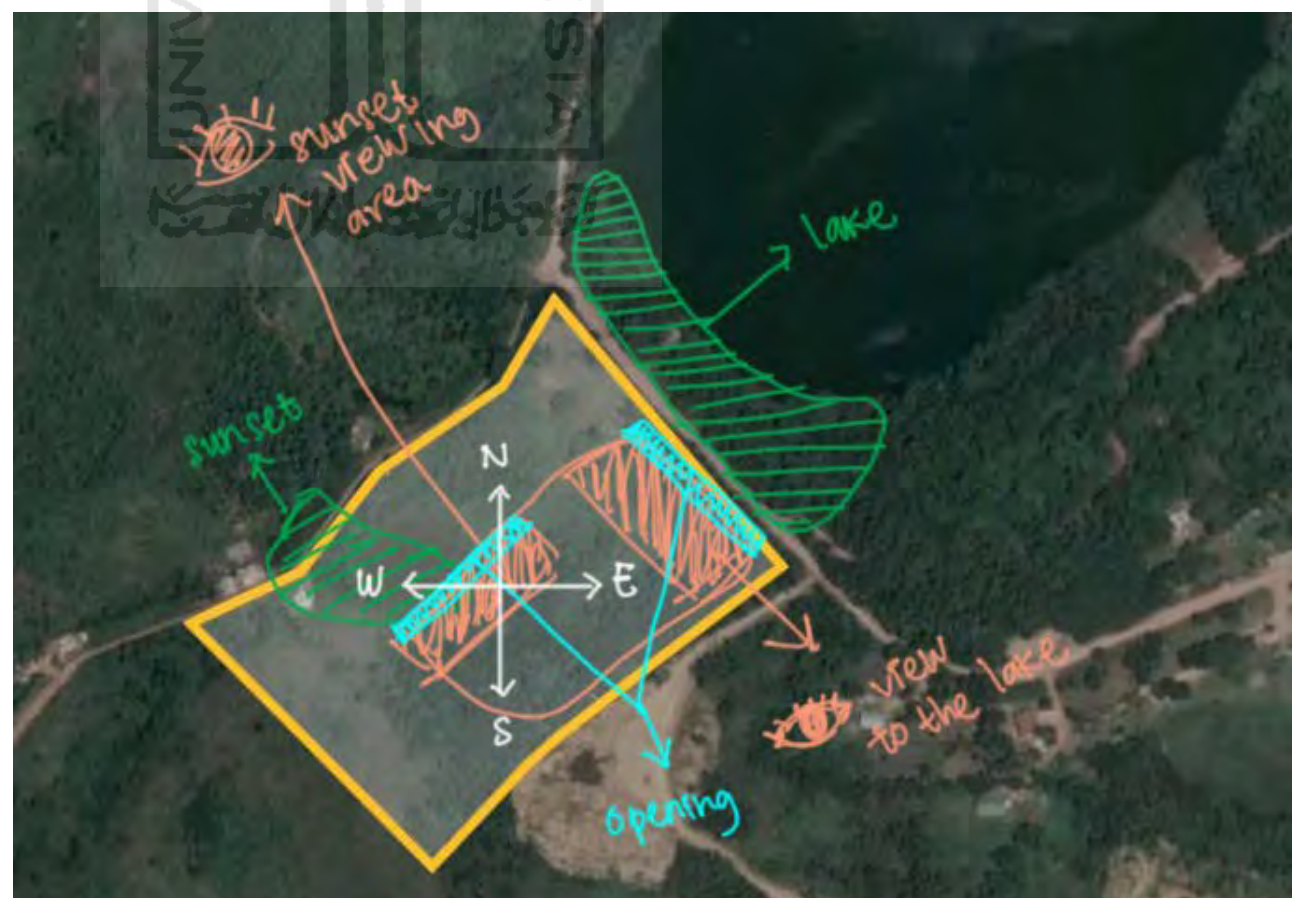


Opening of the Building

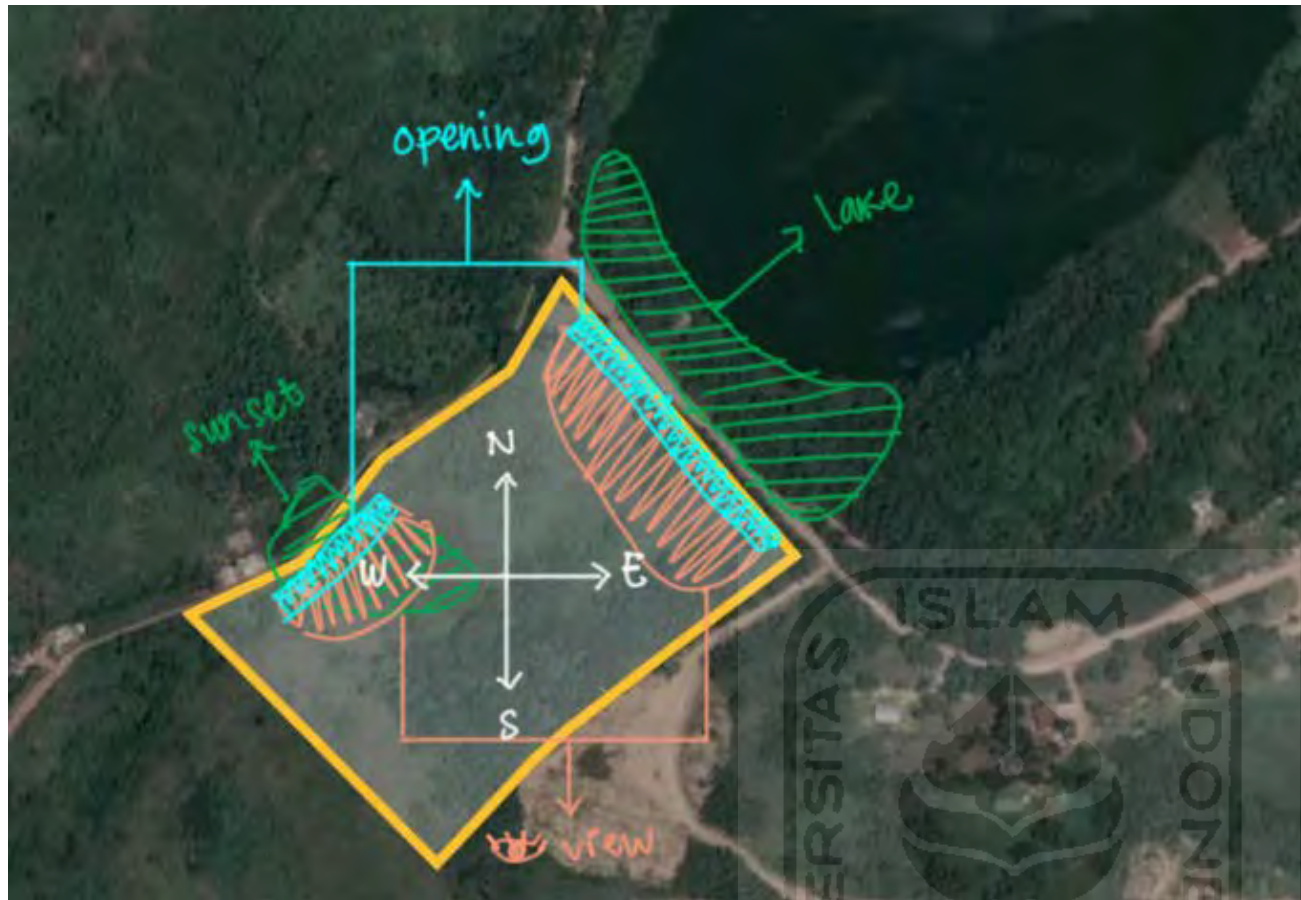


The area to provide the view and experience of lake and sunset.

The need of openings for the area to provide the view and experience of lake and sunset.



Opening of the Building



The area to provide the view and experience of lake and sunset. In this alternative the area will be separated.

For this alternative, the lodgement area will be located in the middle area of the site, which surrounded by the trees that still remaining on the site.



Alternative 1



- (+) Have wider view to the lake
- (+) Have the area for lodgement which having terraced topography

- (-) The area separated by the road
- (-) The lodgement area located on the west side not the east

Alternative 2



- (+) All facilities will be located in one area without separated by anything
- (+) Lodgement area can be located in the east side

- (-) Limited view to the lake
- (-) The area not having a special topography condition

The Topography Condition of The Site (Alternative 1)

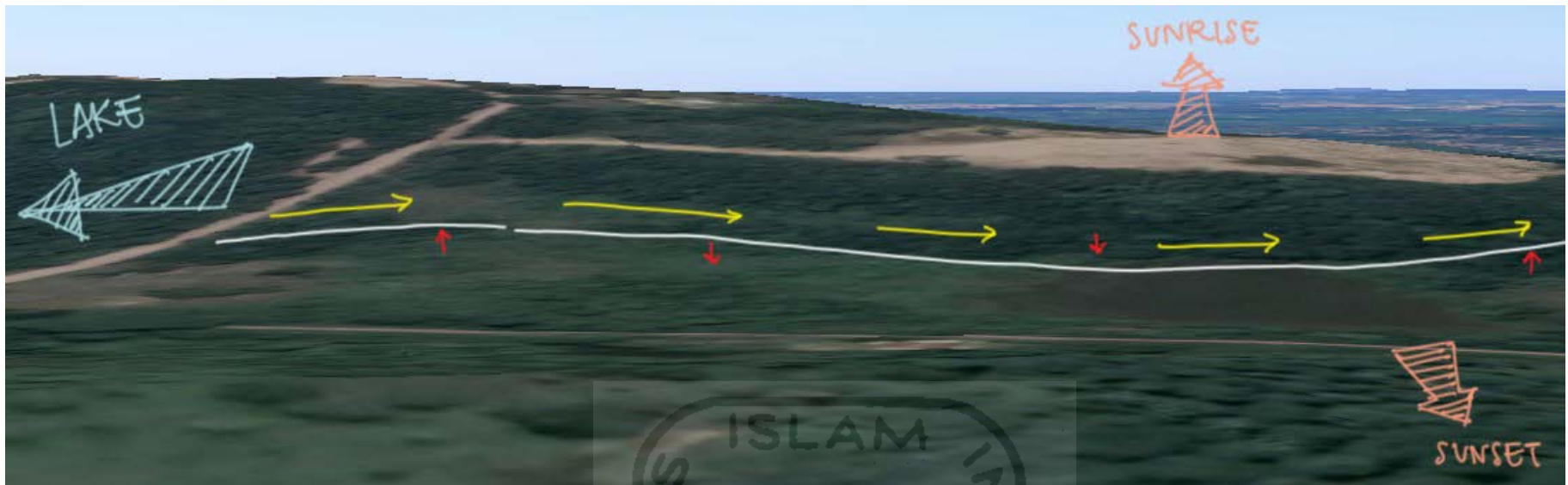


Alternative 1 area have wider area to the lake, which also have varies topography on this side. The alternative 1 area have the topography that higher on east side and gradually lowered on the west side.



To respond to this topography condition, it will be great to located the lodgement area on the more steep area to give more varies experience of nature. And the public facilities or the main building will located more in the highest area which facing directly to the lake as the main attraction and experience which provided for this facilities.

The Topography Condition of The Site (Alternative 2)

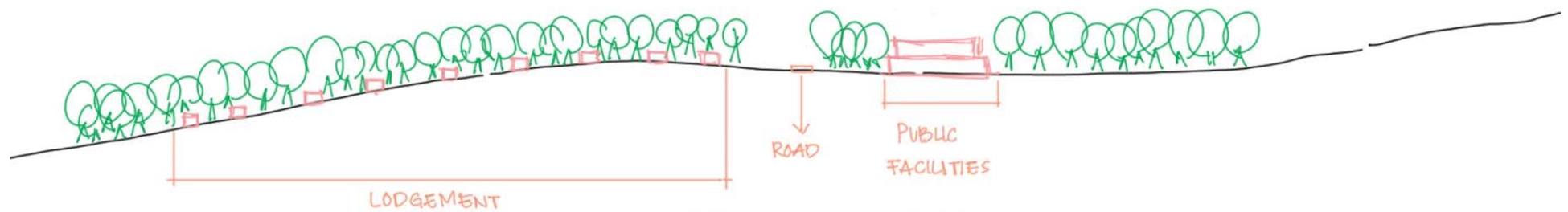


The alternative 2 site is more elongated rather than the first alternative. Which having more area to the South. The condition of the topography of the area quite varies too which from the north side, gradually lower in the middle and go up again on the edge of the area on south side.



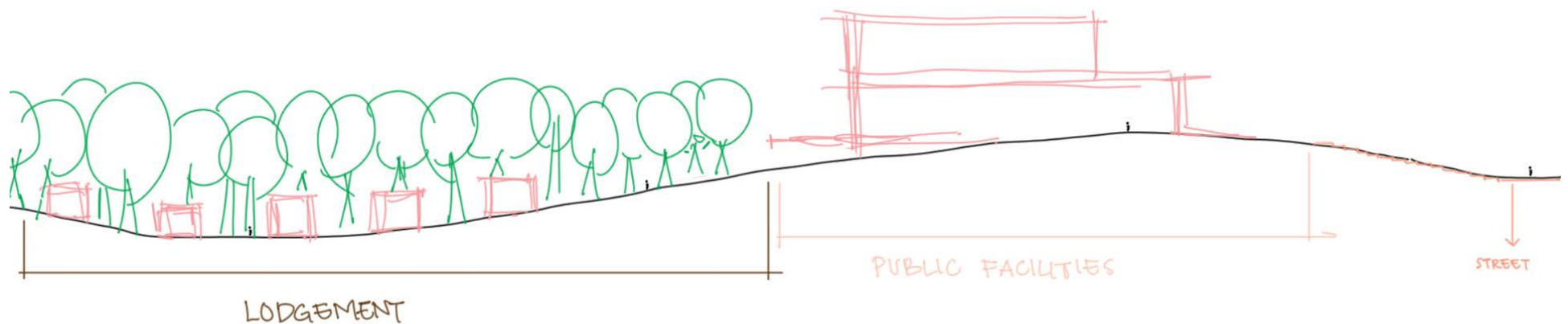
The condition of the topography is good to make good design scenario and suitable with the concept. The entrance and public facilities or main building will located on the north side, facing directly to the lake. Then the lodgement area will located in the back, use the lowest area of the site.

Design Schematic (Alternative 1)



The plotting of the building will be like the picture above, which the public facilities or the main building located on the higher area rather than the lodgement to give the different experience which lodgement area will surrounded by the trees and main building will focus on the view to the lake.

Design Schematic (Alternative 2)



The plotting of the building in this alternative site have the same principal like the first alternative, which having the continous design scenario between two different experience and view of lake in main building and forest in the lodgement area.



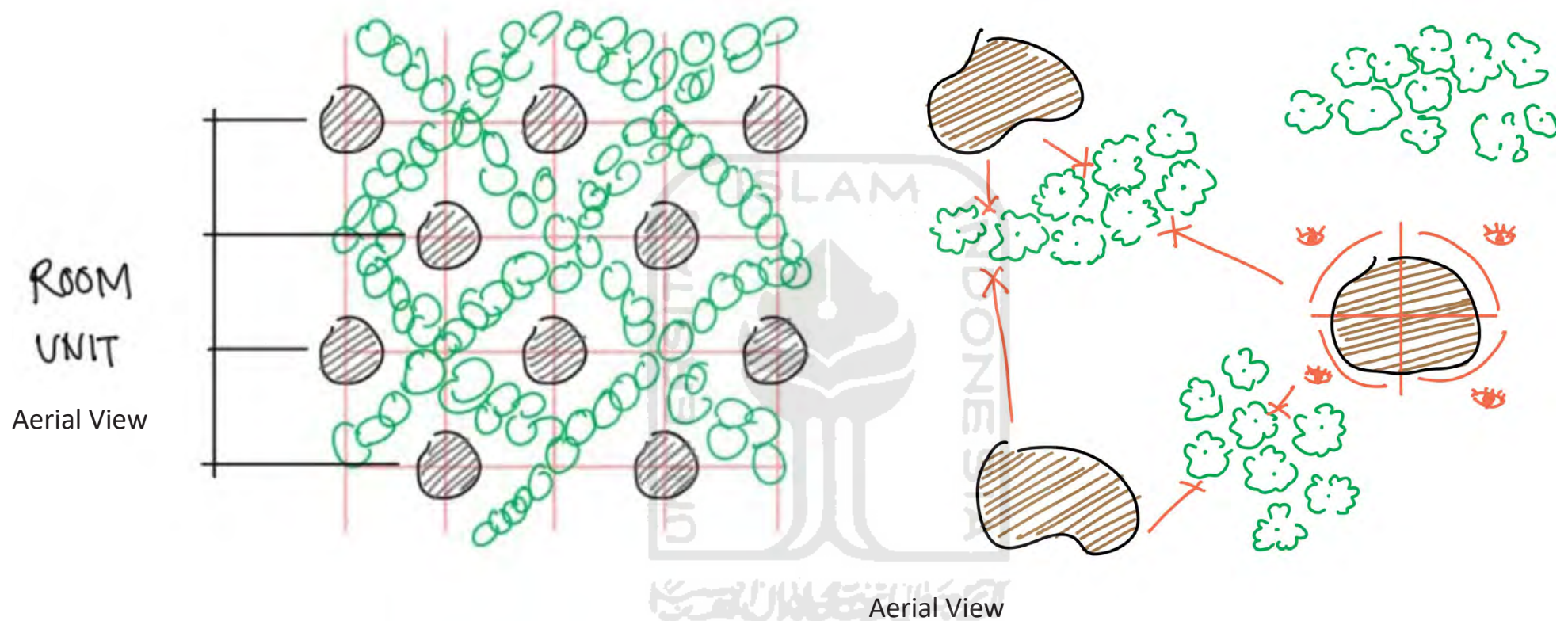
1st design development

Re-Analyze the space programming based on user and functions.

Change the site location to respond the user needs.

Deepening the analysis of building experience based on 5th human senses.

Resort Unit Arrangement Analysis



- (+) Can provide the experience of living in nature more than inside one building
- (+) Feels more private for the user
- (+) Can having 360 view experience to the surrounding area
- (-) The utilities management will be a little complicated because it is separate
- (-) Needs larger area

Target User and Function Analysis



COMPANY'S FAMILY GATHERING

The most frequent activity held in this area is the coal company's family gathering. The event held once a year for every department with the average 60 people/department.



ROWING SPORT

The existence of the lake in this area, as the main attraction also used by the community of rower to sometimes held the event here.



HILL BIKE SPORT

Because the condition of the site topography is hilly and surrounded by nature, this area also often use for the bikers to exercising their biking skill.



MOTOCROSS SPORT

There are the area in this place that hilly and muddy that often used by motocross athlete to exercise in that particular area.



RUNNING SPORT

Having the large area, surrounded by trees and various pathway makes this area also suitable for the runner to have the event here for them to hone their running skills.



HIKING SPORT

The topography condition of the site very interesting to various sport activity. Even some people also trying to hone their hiking skills in this area.

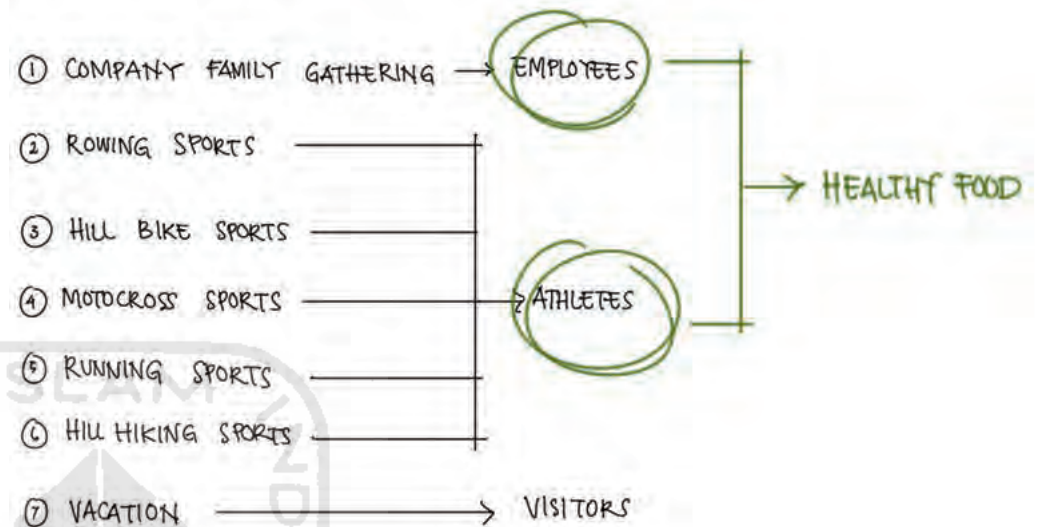
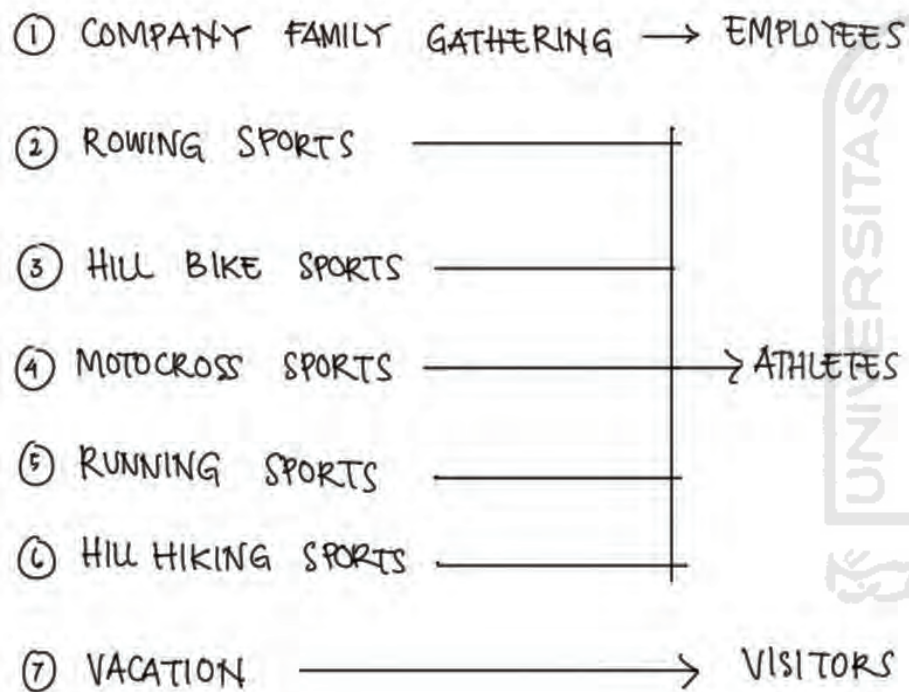
Target User and Function Analysis

NO	ACTIVITIES	EVENTS	DETAIL ACTIVITIES	FACILITIES	NUMBER OF PEOPLE
1.	COMPANY'S FAMILY GATHERING	COMPETITION	Tug of War	Open Spaces	± 60 people
			Rowing	Dock	
			Drawing	Room/Spaces	
		GATHERING	Singing	Room/Spaces	
			Eating	Restaurant	
			Talking	Spaces	
Award	Stages				
2.	ROWING SPORTS	COMPETITION	Rowing Race	Dock	± 30 people / Community
		EXERCISES	Training	Gym	
		REST	Massage / Spa	Spa	
3.	HILL BIKE SPORTS	COMPETITION	Bike Race	Bike Track	± 50 people / community
		EXERCISES	Training , Muscle Building	Gym	
		REST	Massage / Spa	Spa	
4.	MOTOCROSS SPORTS	EXERCISES	Motocross Training	Gym	± 50 people / community
		REST	Massage / Spa	Spa	
5.	RUNNING SPORTS	EXERCISES	Muscle Building	Gym	± 60 people
		REST	Massage / Spa	Spa	
6.	HILL HIKING	EXERCISES	Muscle Building	Gym	± 60 people
		REST	Massage / Spa	Spa	
7.	VACATION	RELAX	Massage , Spa , Yoga	Spa	± 50 people
				Yoga	
		HOLIDAY	Learn Farming and Gardening	Farm and Garden	
			Animal Husbandry	Ranch	
Learning Nature Live	Forest				

Room Programming

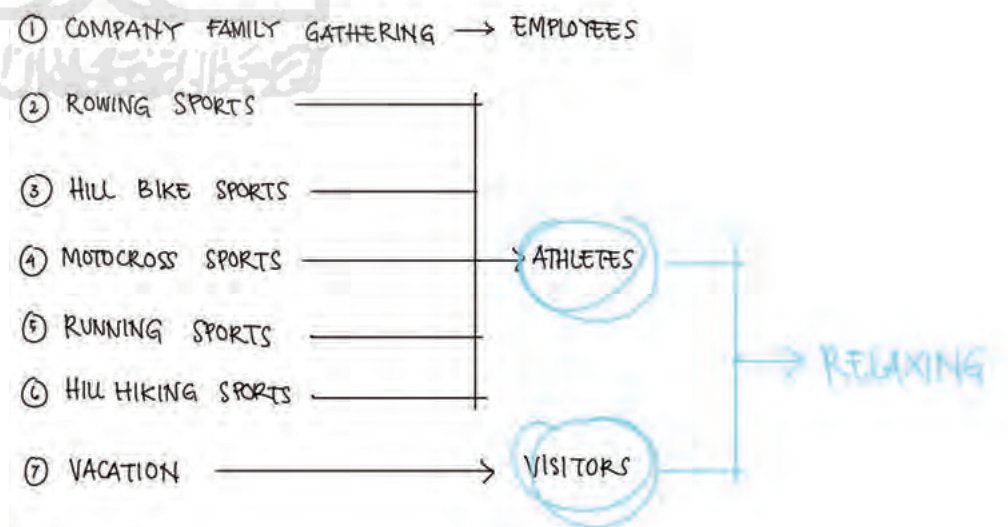
NO	ROOM	NUMBER OF ROOM	ROOM AREA	BUILDING AREA
1.	LOBBY	1	1,2 m ² / Room = 1,2 X 70 = 84 m ²	
2.	FRONT OFFICE	1	5,04 m ²	
3.	LOBBY TOILET	2	80 m ²	
4.	SECURITY ROOM	1	6,4 m ²	
5.	MUSHOLLA	1	20 m ²	
ENTRANCE AREA				195,44 m²
6.	RECEPTION ROOM	1	12,35 m ²	
7.	MARKETING ROOM	1	5,32 m ²	
8.	SECRETARY ROOM	1	5,32 m ²	
9.	HRD ROOM	1	11,7 m ²	
10.	EXECUTIVE MANAGER ROOM	1	2,88 m ²	
11.	GENERAL MANAGER ROOM	1	2,88 m ²	
12.	OFFICE REST ROOM	1	25,2 m ²	
13.	OFFICE TOILET	2	60 m ²	
14.	CUSTOMER SERVICE ROOM	1	8,64 m ²	
15.	OFFICE BOY ROOM	1	14,4 m ²	
16.	HOUSE KEEPING ROOM	1	8,64 m ²	
OFFICE MANAGEMENT ROOM AREA				157,33 m²
17.	LAUNDRY ROOM	1	4,03 m ²	
18.	DRYING ROOM	1	13,44 m ²	
19.	MECHANICAL ELECTRICAL ROOM	1	11,7 m ²	
20.	GENERATOR ROOM	1	30 m ²	
UTILITY ROOM AREA				59,17 m²
21.	MULTIPURPOSE HALL	1	UNIT AREA X NUMBER OF UNIT = 40 X 70 = 2.800 m ²	
MULTIPURPOSE HALL AREA				2.800 m²
22.	EATING ROOM	1	154 m ²	
23.	FOOD DISPLAY AREA	1	6,16 m ²	
24.	FINISHING KITCHEN	1	22,4 m ²	
25.	COMPOUND KITCHEN	1	16,8 m ²	
26.	COOKING KITCHEN	1	16,8 m ²	
27.	REST ROOM	1	25,2 m ²	
28.	HEAD CHEF OFFICE	1	5,18 m ²	
29.	INVENTORY WAREHOUSE	1	5,6 m ²	
30.	TOILET	2	80 m ²	
RESTAURANT AREA				334,38 m²
31.	MAIN ROOM	1	35 m ²	
32.	CHECKROOM / STORAGE ROOM	1	9,8 m ²	
33.	LOCKER ROOM (MEN)	1	12,6 m ²	
34.	LOCKER ROOM (WOMEN)	1	12,6 m ²	
35.	CHANGE ROOM (MEN)	1	18 m ²	
36.	CHANGE ROOM (WOMEN)	1	18 m ²	
37.	TOILET (MEN)	1	30 m ²	
38.	TOILET (WOMEN)	1	30 m ²	
FITNESS CENTER AREA				166 m²
TOTAL AREA				3.712,32 m²

Target User and Function Analysis



The first similarity between 2 type of users is the food that must be provide in this facilities. Which is, the employees and athletes tend to seek more healthy food to maintain their health and fit body.

The analysis above, trying to finding the needs similarity of each of the user community and also to find the right facilities that can be used for every people who come to this area.



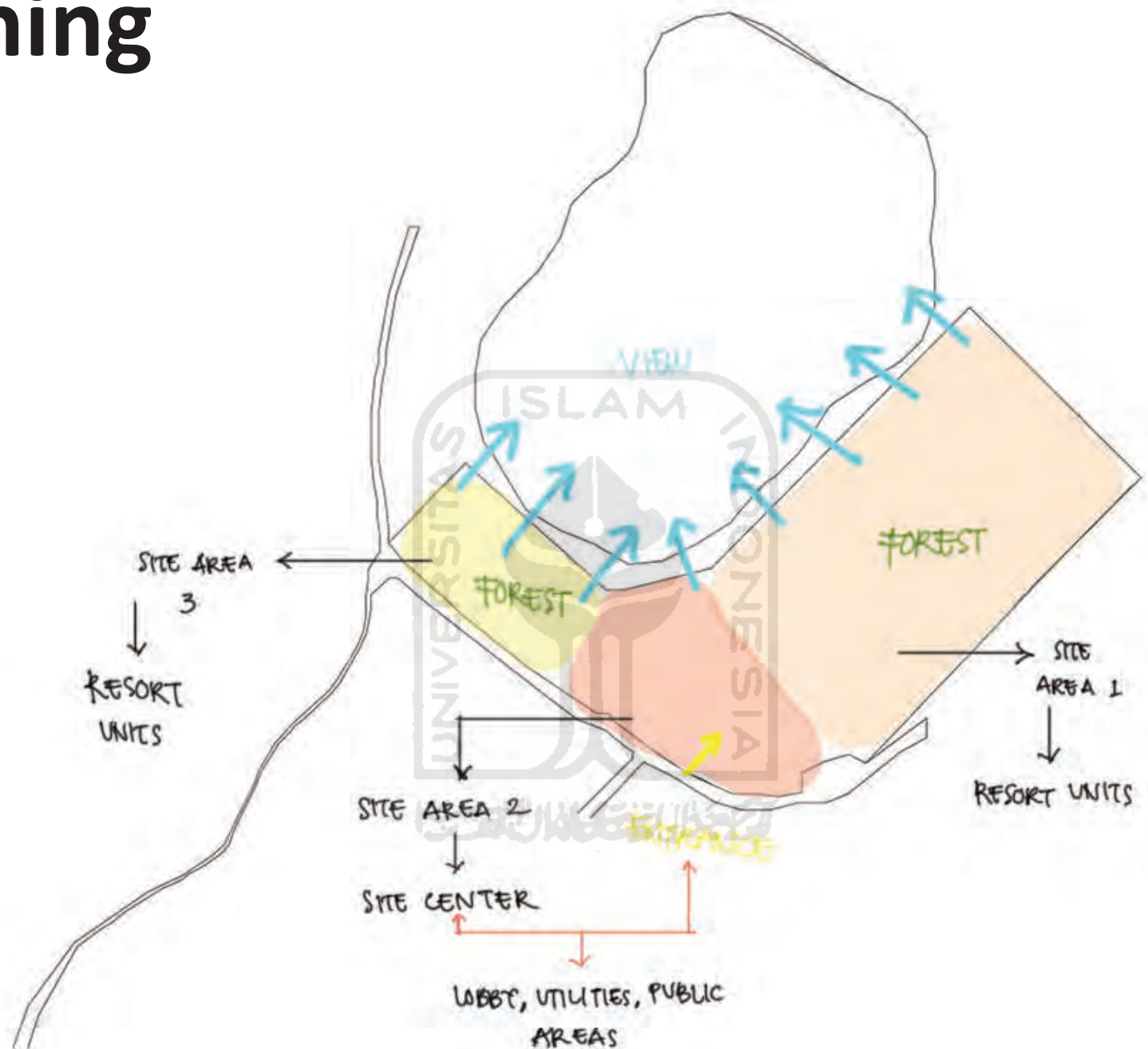
And for this analysis is, the similarity between the athletes and regular visitors who coma to this facilities to get the relaxing and chill time.

New Site Location



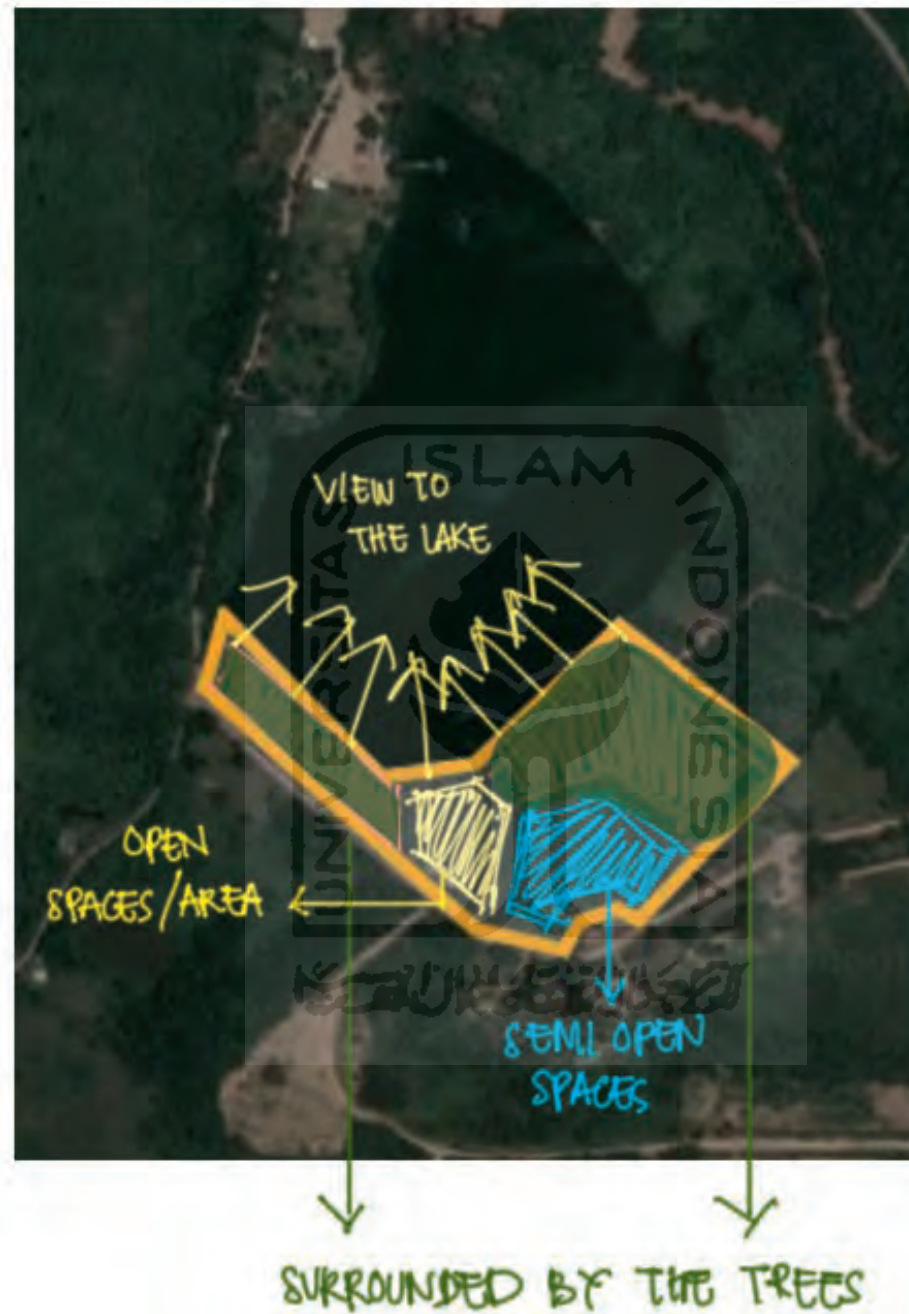
To get more experience and really attach to the uniqueness of the area, the site location move to the waterfront area that located really near the lake. So the experience of view that will be provide to the user is the main atraction itself, which is the lake and the other one, since this area covered by trees and other plants, of course the sense of living inside the forest, or the natural ambience will still can be achieve in this site location.

Site Area Arrangement Planning



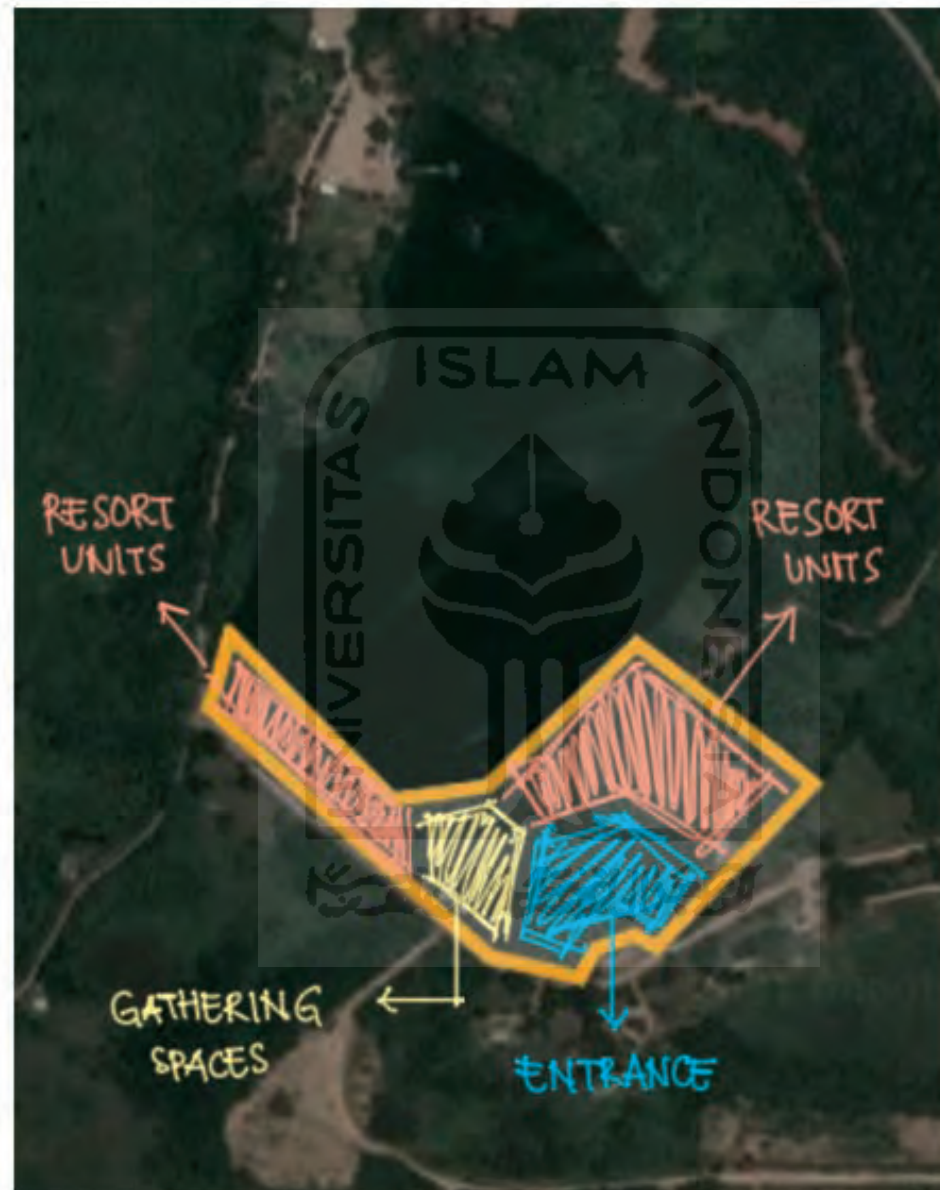
Based on the experience that this site have, this is the planning how to put the function and buildings that will have different experience on each of the building. Dividing the site into 3 area, which 1st area and the 3rd area have the forest experiences, where the area will be surrounded by the trees and other plantation, really suitable for the resort unit to take this area. While the 2nd area of the site, as the center of the site, and also the area that located near the main street, this area will be used as the public area, where the public facilities, the entrance, and the management area located.

Site Experiences Analysis



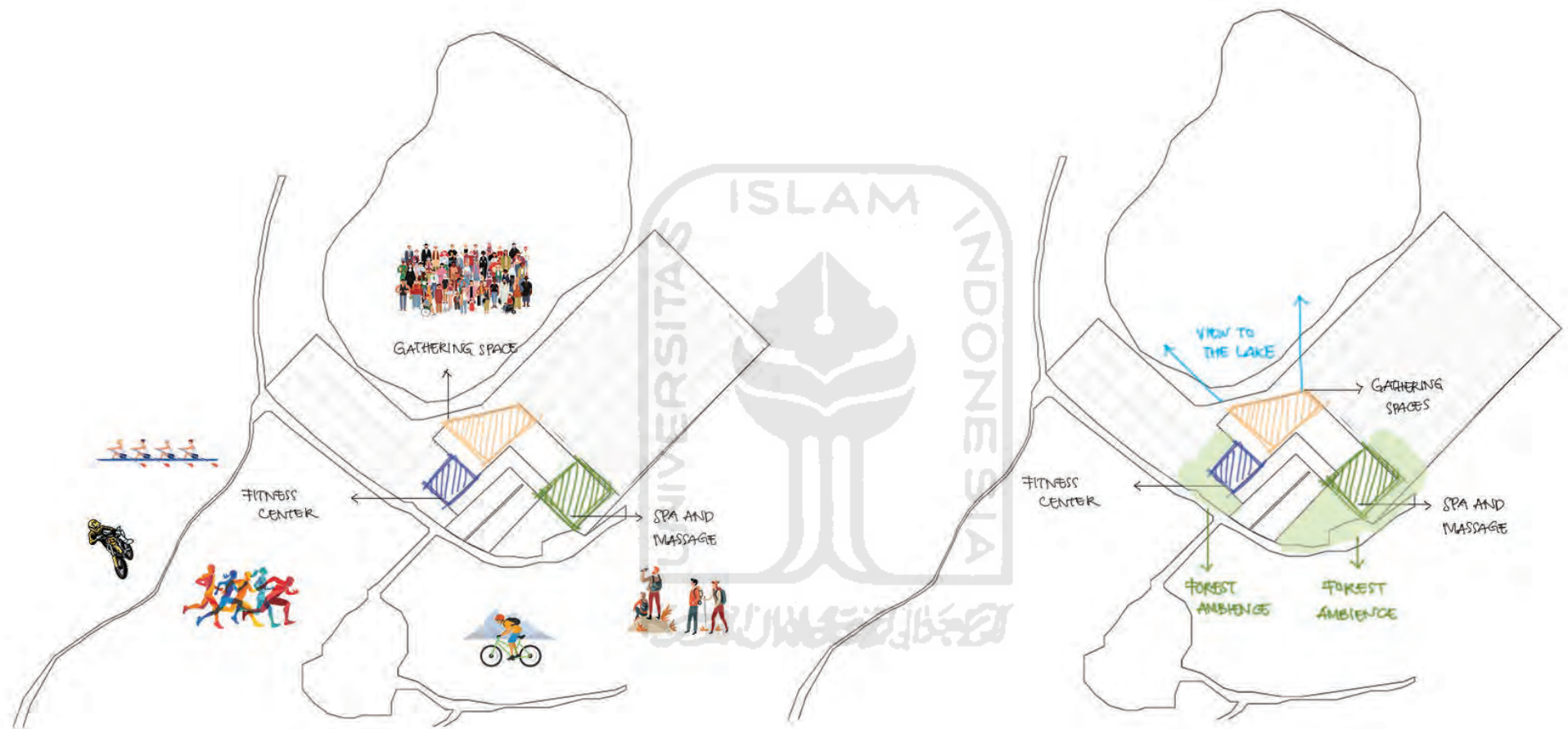
This is the analysis of the experience. Which the area divided into 4 kind of type based on the site condition and experiences that will provided. The main one, the area that surrounded by the trees, will have the experiences that really fresh and having green visual from the plantation color. The other one is the open spaces area to provide the places for people to enjoying the view to the lake. And the last one semi open spaces located near the street as the welcoming area for people.

Site Function Plotting Analysis



From the analysis of the experience and building character before, here is the result of the plotting of each functions. The resort unit will located on the left and right of the site, the entrance as the welcoming area located near the street and gathering spaces will located between the resort unit and facing the lake as the main view to this building.

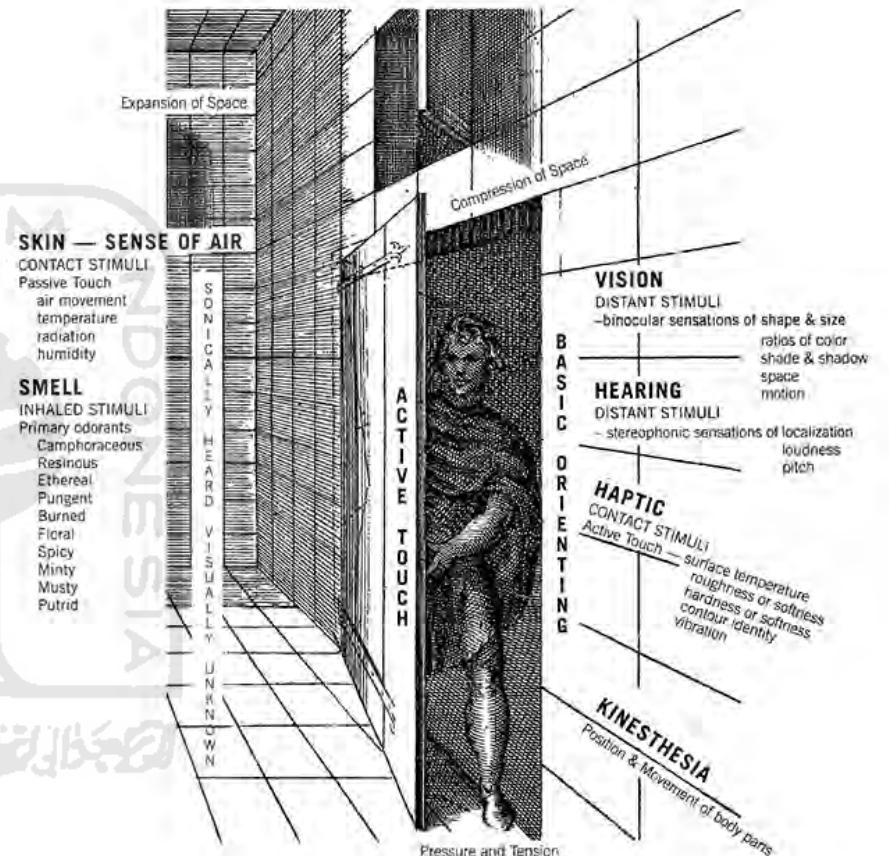
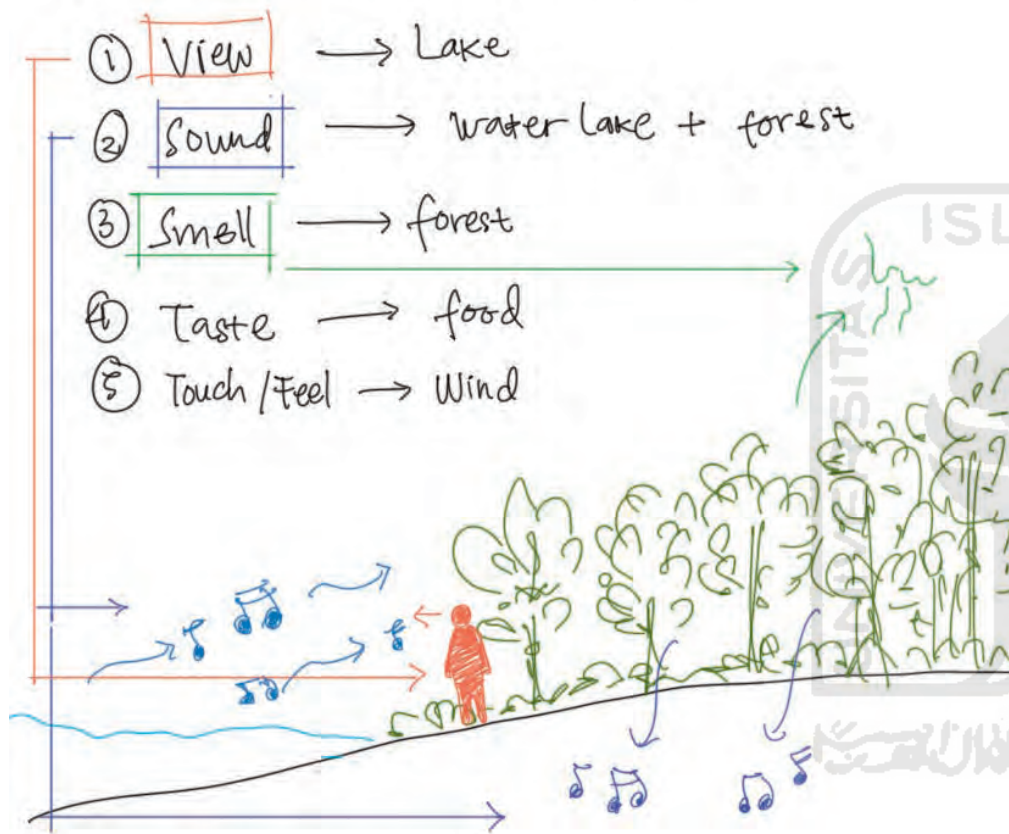
Room Arrangement based on User Needs



This is the analysis of the plotting of each of the function in public spaces. Each room have different ambience which affects by the condition of the site. The spa and massage room will located surrounded by trees area which will enhance the experience of calm and relax. The fitness center room also located in the forest area to let people feel the fresh air while doing exercise. The gathering spaces, facing directly to the lake, to give the full view to the user in this places.

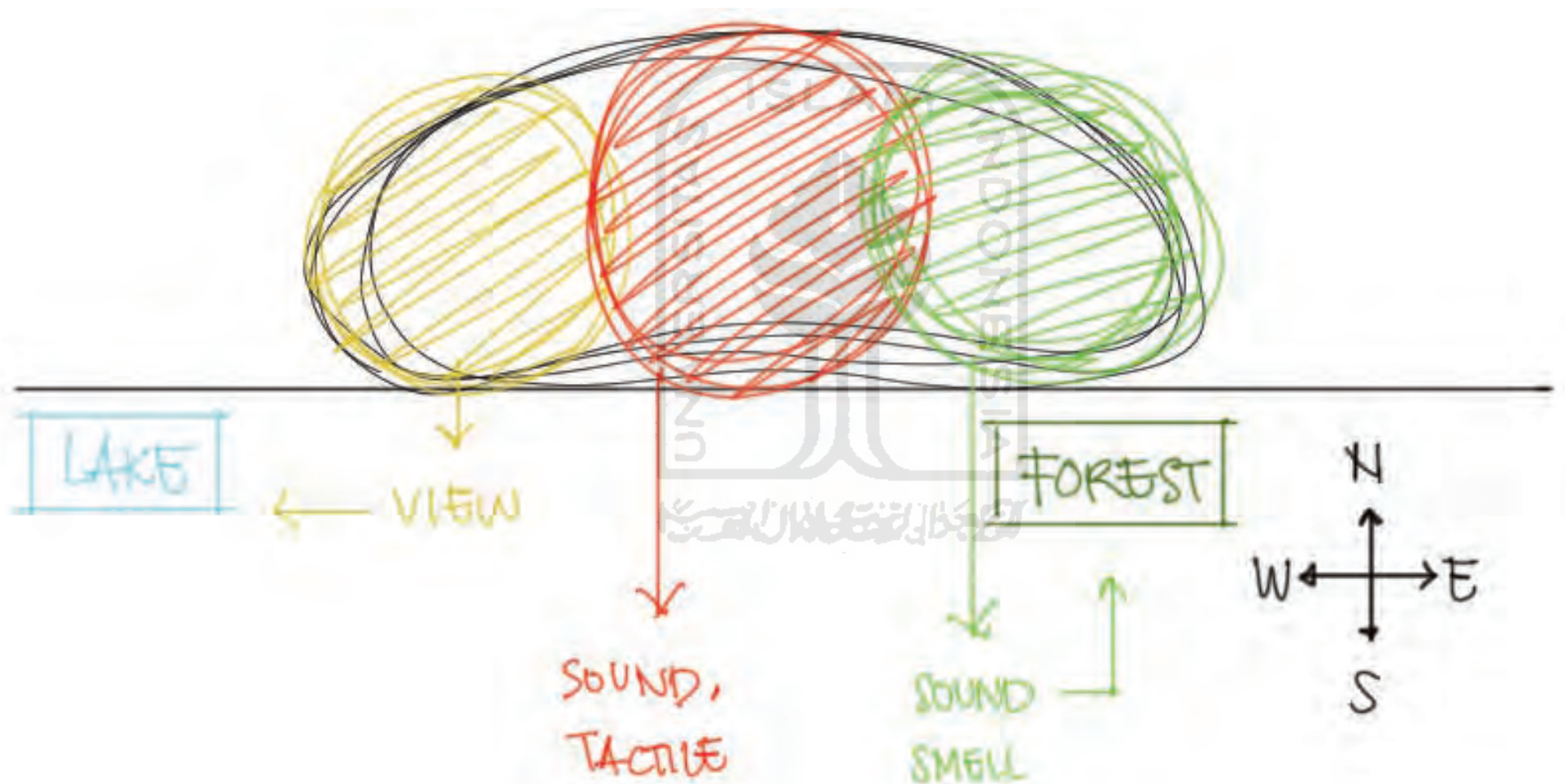
Experiences in Building Analysis

EXPERIENCE OF 5 SENSE =



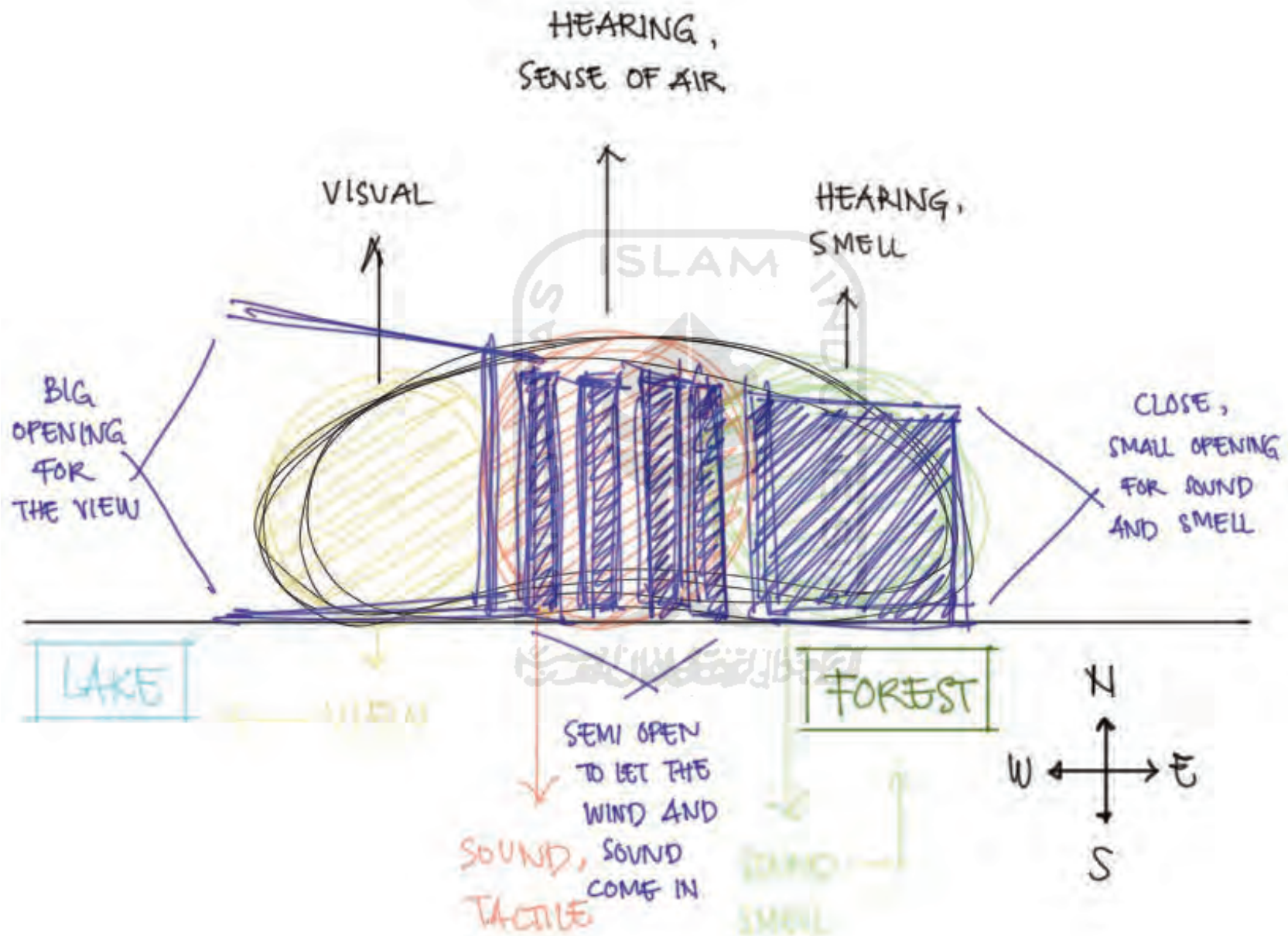
The analysis of the experience that will provide to the user is based on how human 5th sense can experience every natural elements in this area. Starts from the vision, which this area will providing the natural view of the lake and also the hills and trees, continue to the hearing sense which this area have the sound of water lake and the animal sound in the night time. The smell sense that come from the smell of the dew in the morning and also the smell of the water. Next to the taste, the special program that this resort have, which having the healthy food, mostly from the vegetables and fruit, which farmed from this eco-tourism area. The last is the wind, the light wind that flew from the gap between the trees, which come to the building, is the relaxing and calm experience to provide to the user.

Distribution of Experiences in Building



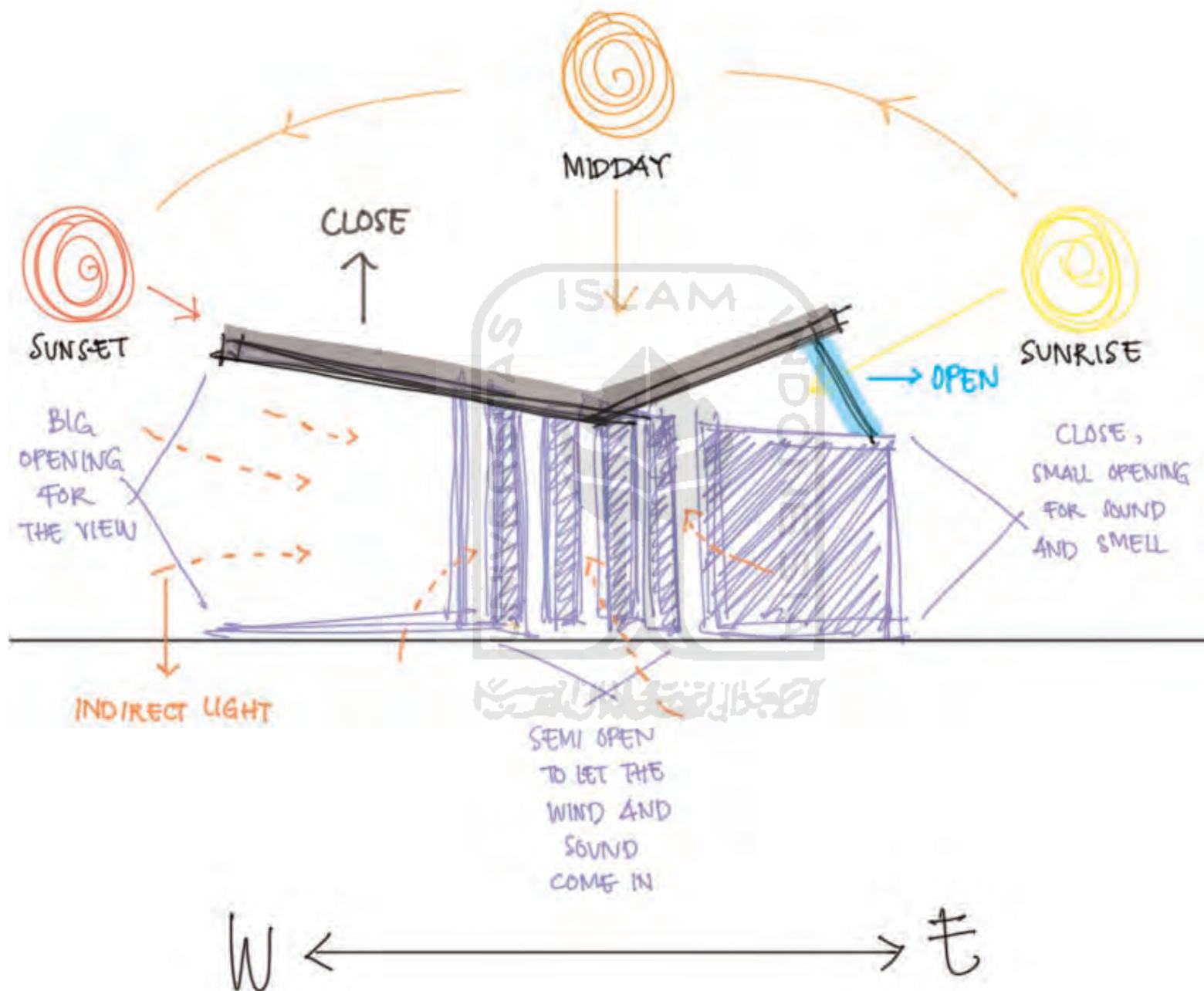
Based on the analysis of the human sense experience, combining with the site condition, the distribution of experience that will provide to the user in the building will be like the picture above, which the east side area will have the forest experience that focusing on hearing and smell senses. The west area, where the lake located, will having have the view experience to the vision sense. And the middle area will have the sound and tactile sense to be explored by the user.

Distribution of Experiences in Building



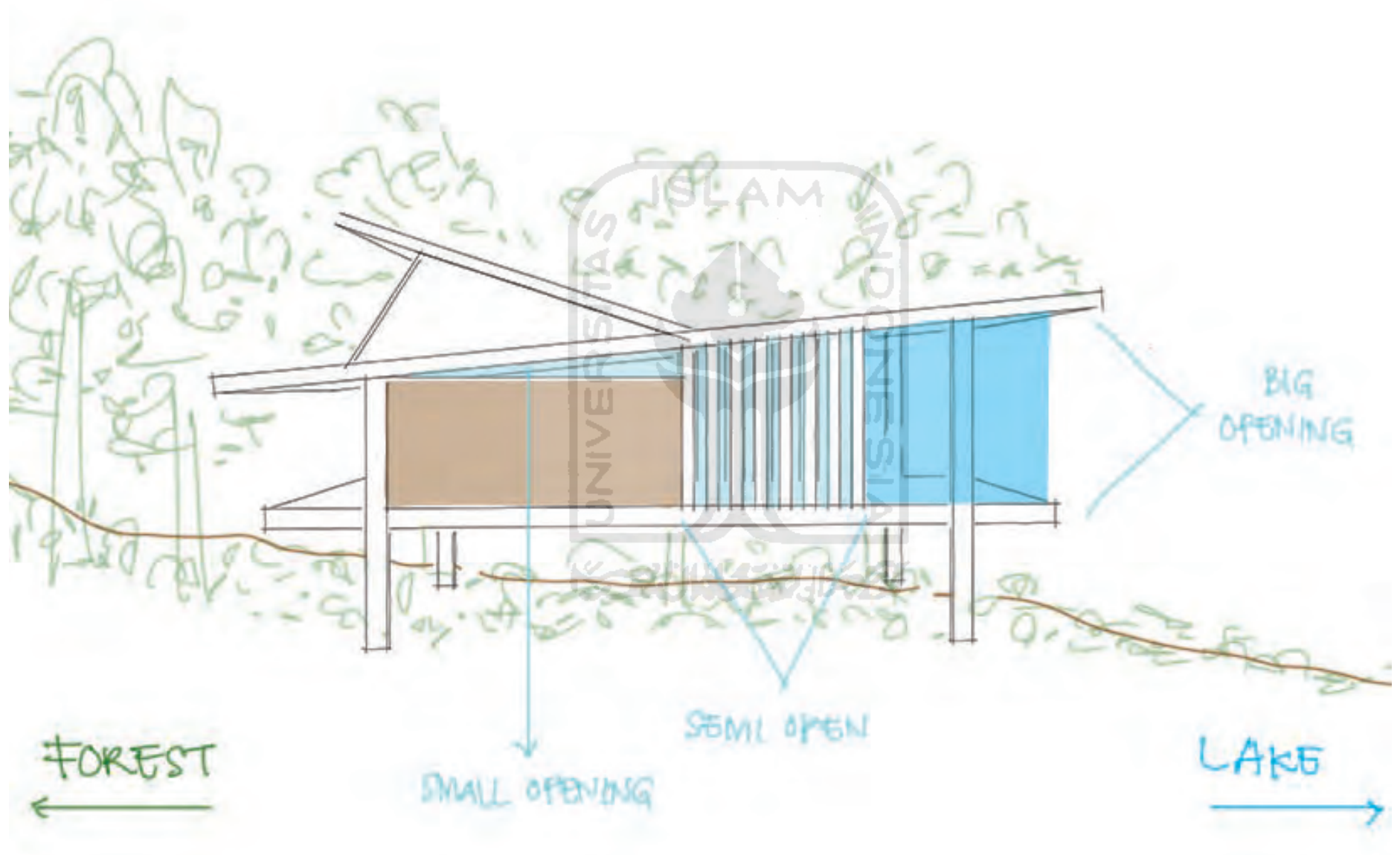
From the distribution of the experience, come up with the solution how to make the building that can afford all of that ideas. Which have this results, that the east building area will have the more close area but with just a small opening to let the sound and the smell come in to the the building. And then the middle area will having the semi open area, to let the wind and sound come in to the buiding. The last one big opening of the west area to enjoy the view to the lake.

Distribution of Experiences in Building



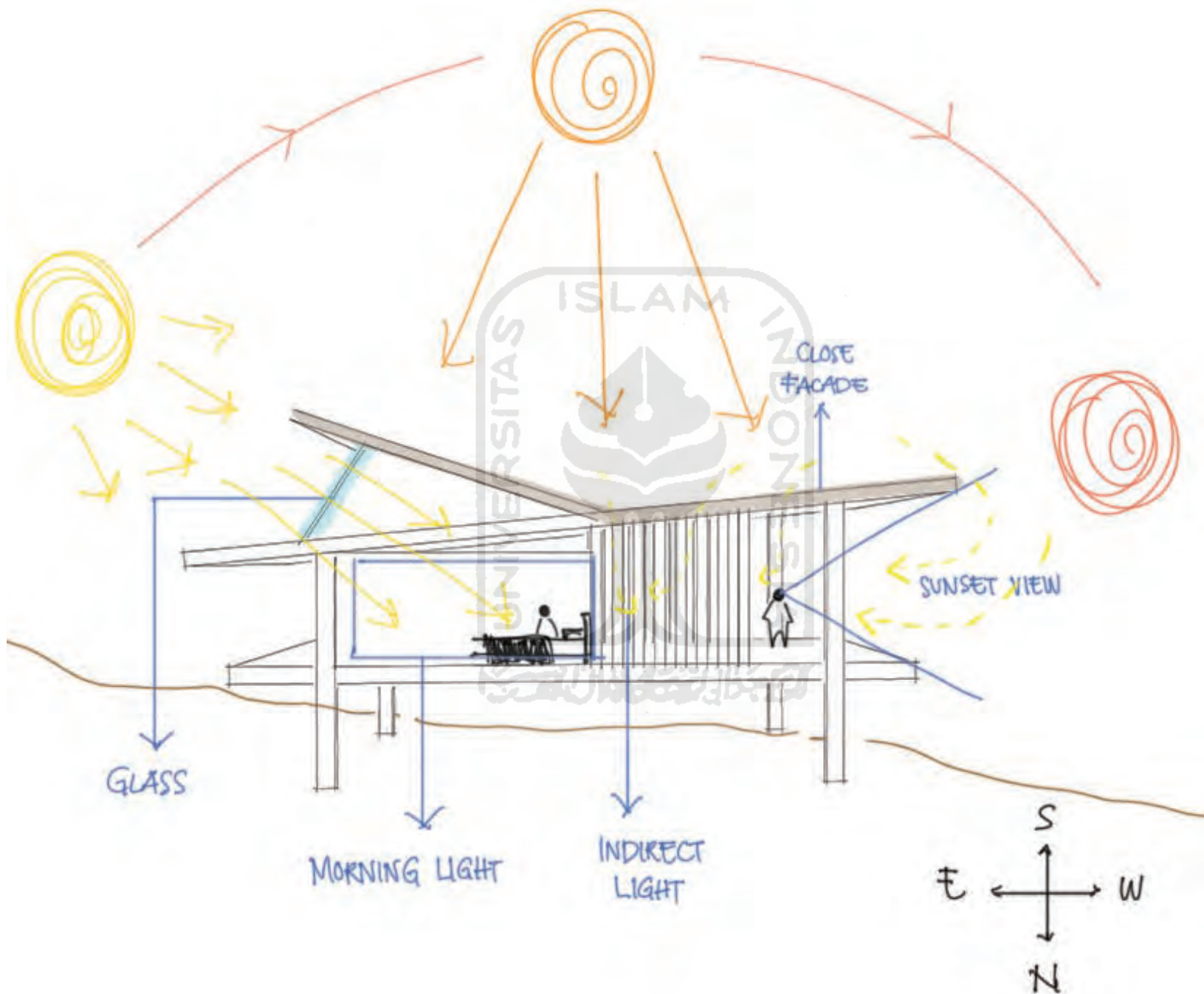
To respond to the climate or the sun light, there will be addition of the building, which is the roof, as the shelter for the building, to cover people from direct sunlight. But the special open area in the east side, will have the opening to let the sunrise come in to the building. To create the ray of light experience.

Distribution of Experiences in Building



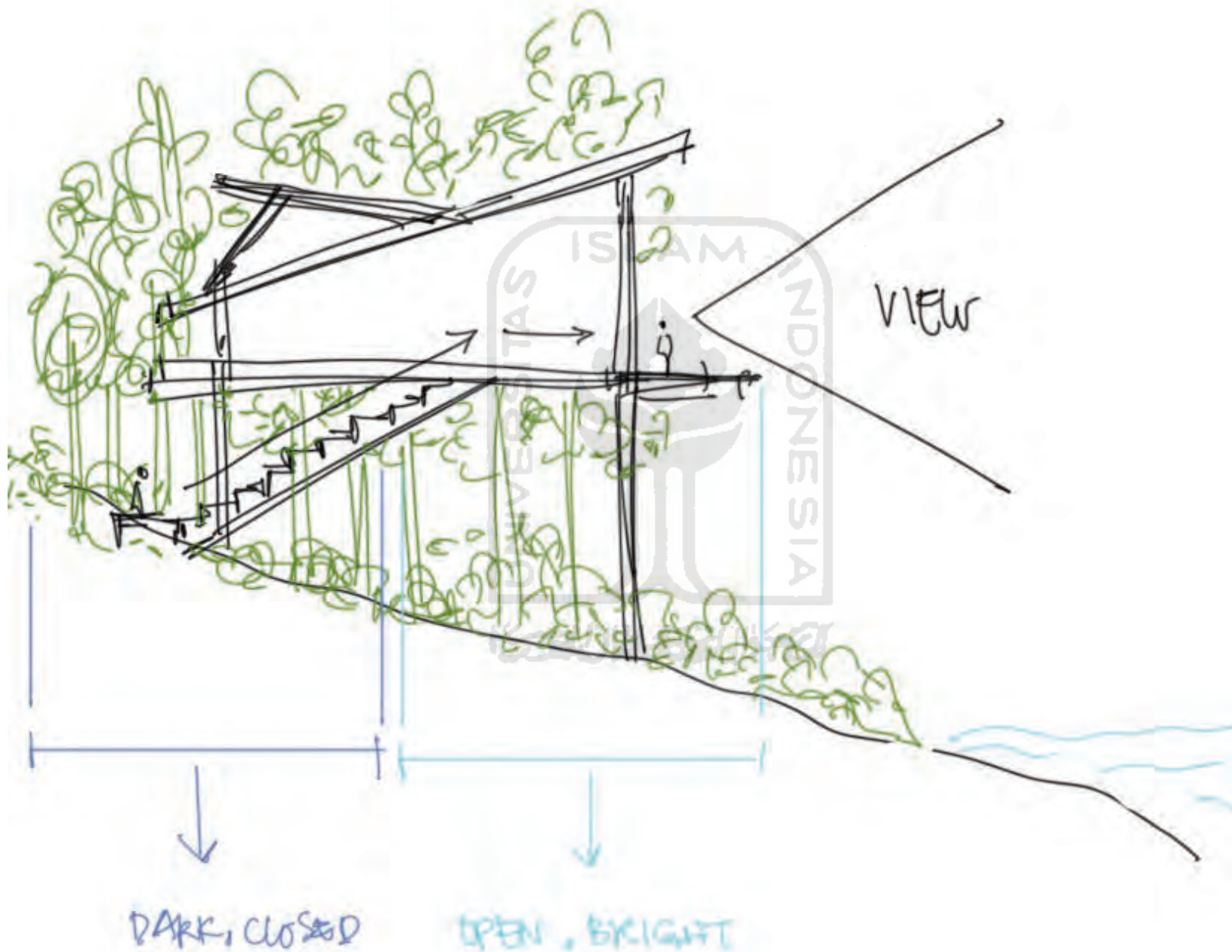
This is how the building will be, after the analysis of experience, the distribution of the experience, and how to deal with that distribution.

Distribution of Experiences in Building



This is the combination of the result of experience analysis and sun light analysis. Which create the shape of the building and how the light will come inside the building.

Building Design Scene Experience



This is the design scene experience that the user will have. Which they started to walk surrounded by the trees in the more dark, and closed ambience, and then they will take the stairs up inside the building and slowly started to see the lights, and when they come up to the balcony, they finally can see the view of the lake and the whole area of Telaga Batu Arang.

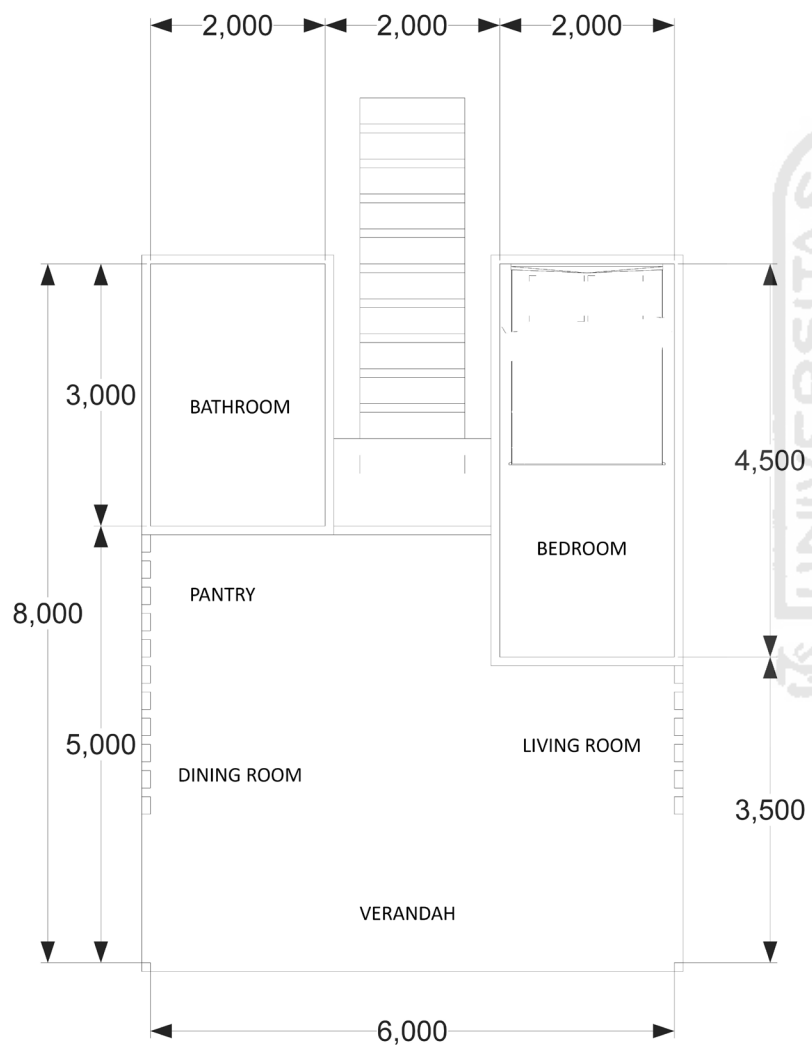


2nd **design development**

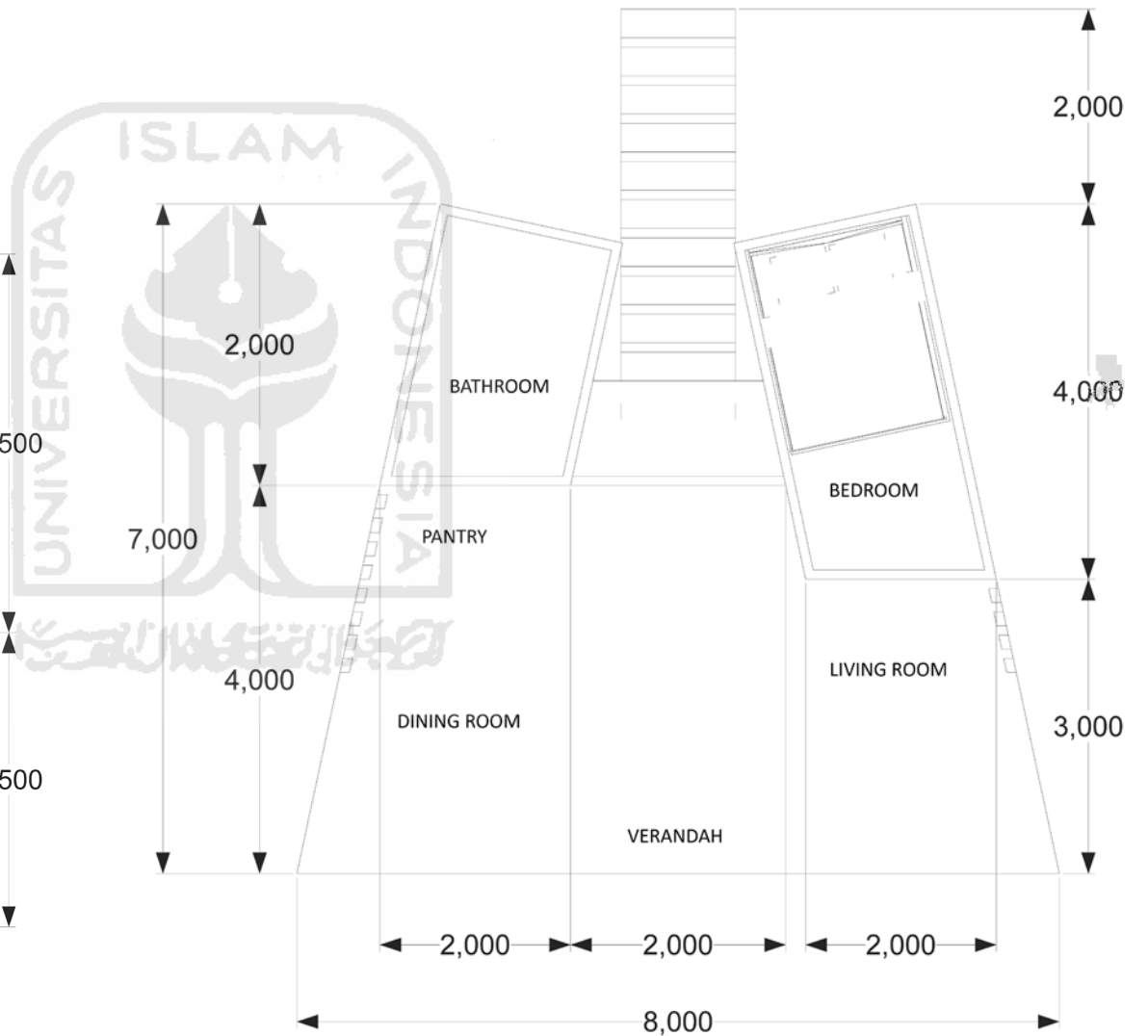
Analysis all the experiences of nature to all of the buildings, from the resort unit to the public buildings.

Resort Unit Floor Plan

RESORT UNIT PLAN (ALTERNATIVE 1)



RESORT UNIT PLAN (ALTERNATIVE 2)



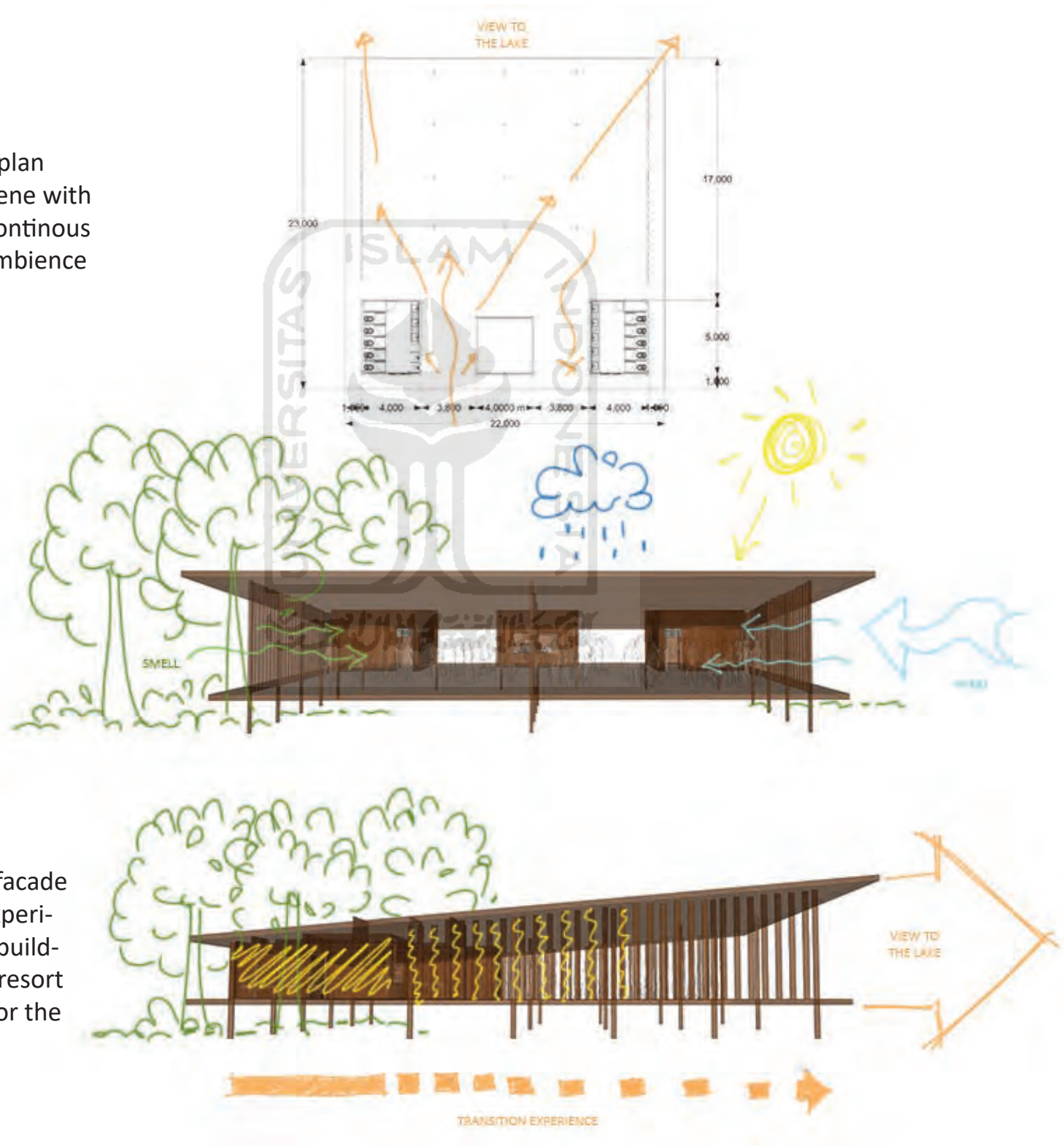
This is the floor plan that based on the design scene experience. Which they started to walk surrounded by the trees in the more dark, and closed ambience, and then they will take the stairs up inside the building and slowly started to see the lights when they open the door, and when they come up to the balcony, they finally can see the view of the lake and the whole site area.

Multipurpose Hall Floor Plan Analysis

This multipurpose hall floor plan having the similar design scene with the unit, which it have the continuous from dark to slowly bright ambience inside the building.

The experience of this multipurpose hall is focusing a lot on the view to the lake and whole entire area, but also still having the experiences of forest and wind.

The distribution of how the facade of the building affects the experience for the user inside the building also similar to what the resort unit have, but more bigger for the view experience.

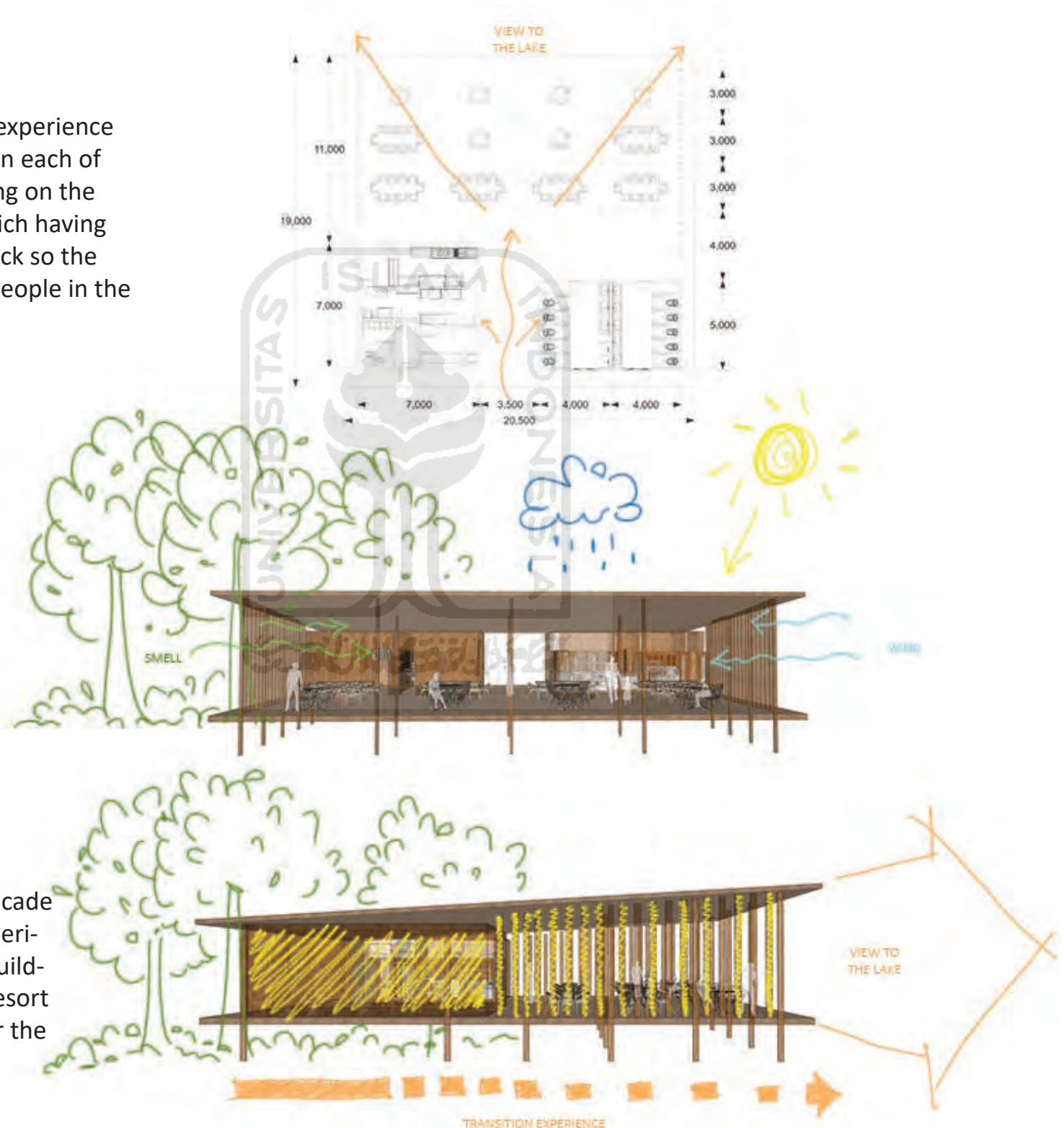


Multipurpose Hall Floor Plan Analysis

Having particularly the same experience which have the design scene in each of the building, but more focusing on the arrangement of the table, which having more crowded area on the back so the view will not be blocked by the people in the front area.

The experience of this restaurant also focusing a lot on the view to the lake and whole entire area, but also still having the experiences of forest and wind.

The distribution of how the facade of the building affects the experience for the user inside the building also similar to what the resort unit have, but more bigger for the view experience.



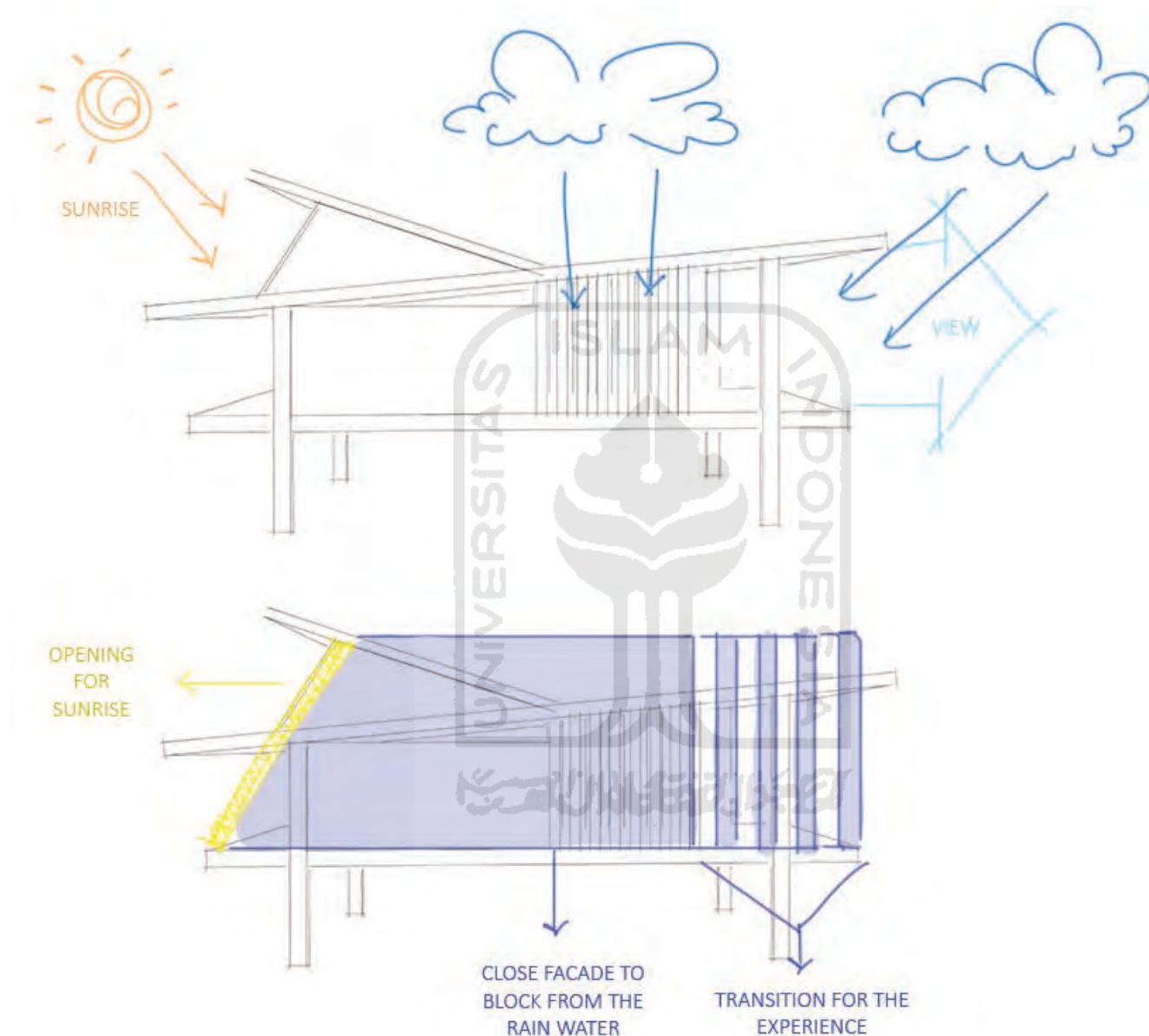


3rd design development

Re-arrange the building to responds the climate.

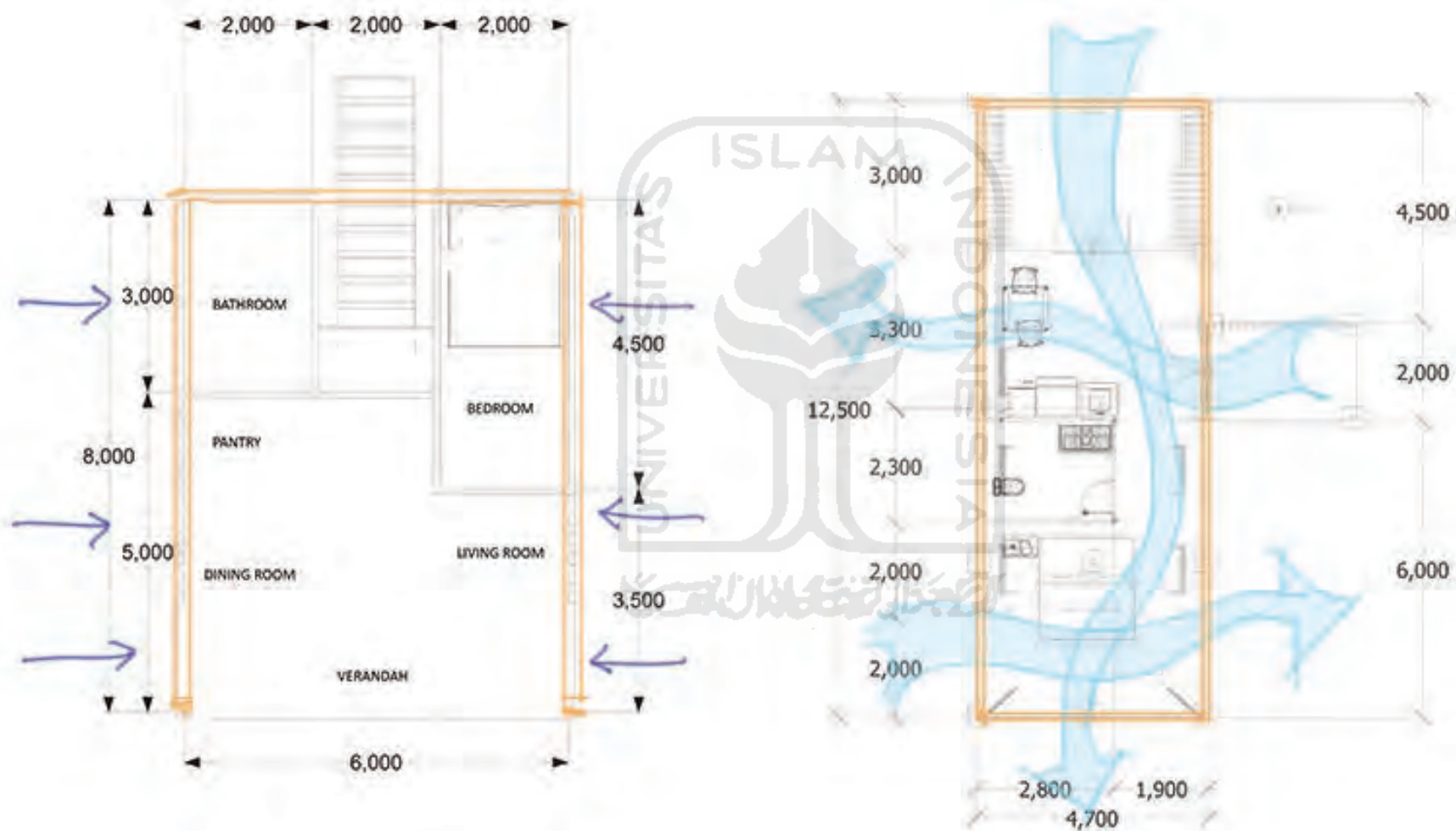
New site planning.

Building Shape respond to Climate Analysis



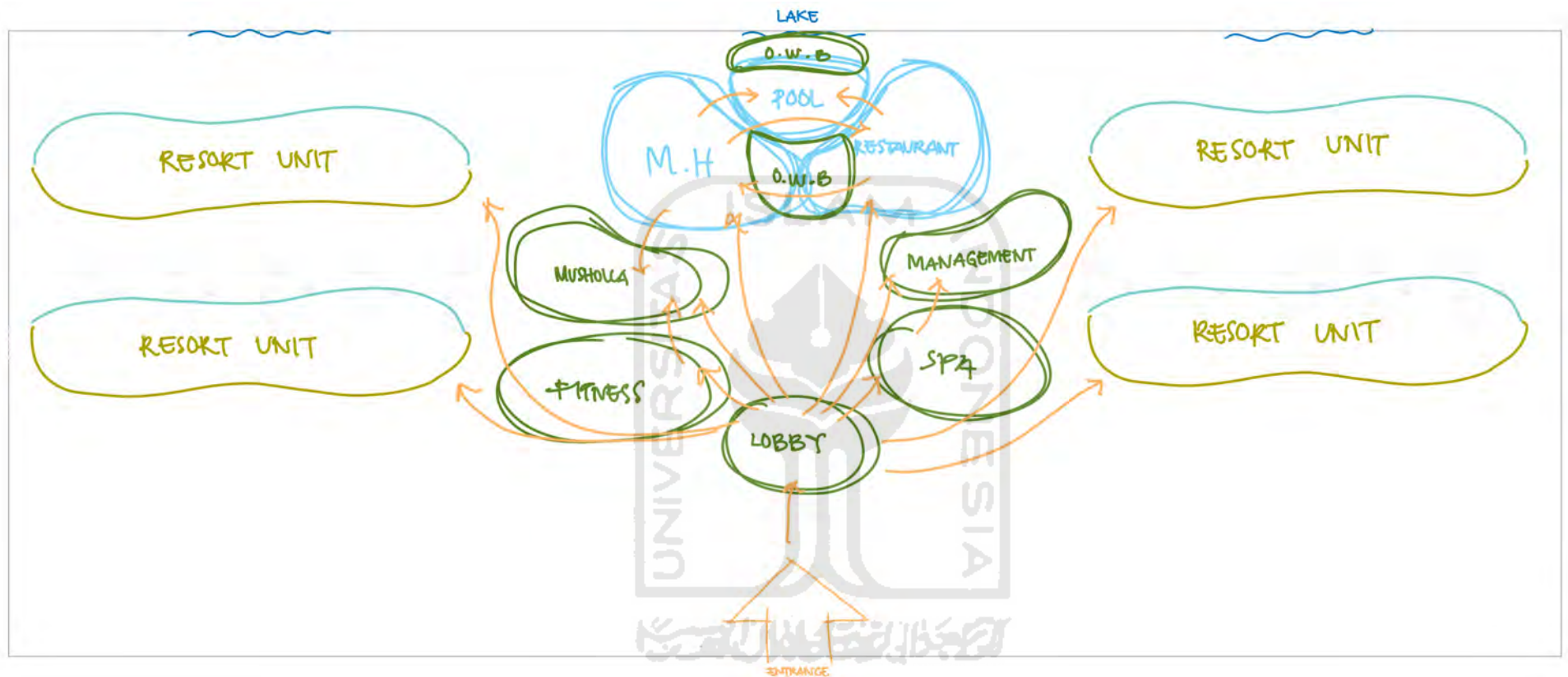
The previous building ideas come up not really suitable with the climate condition of the area. Which the rain can come into the building and it will be bothering the user. So the further analysis taken, and the new building shape created. With more closed facade and glass for the opening.

Building Floor Plan respond to Climate Analysis



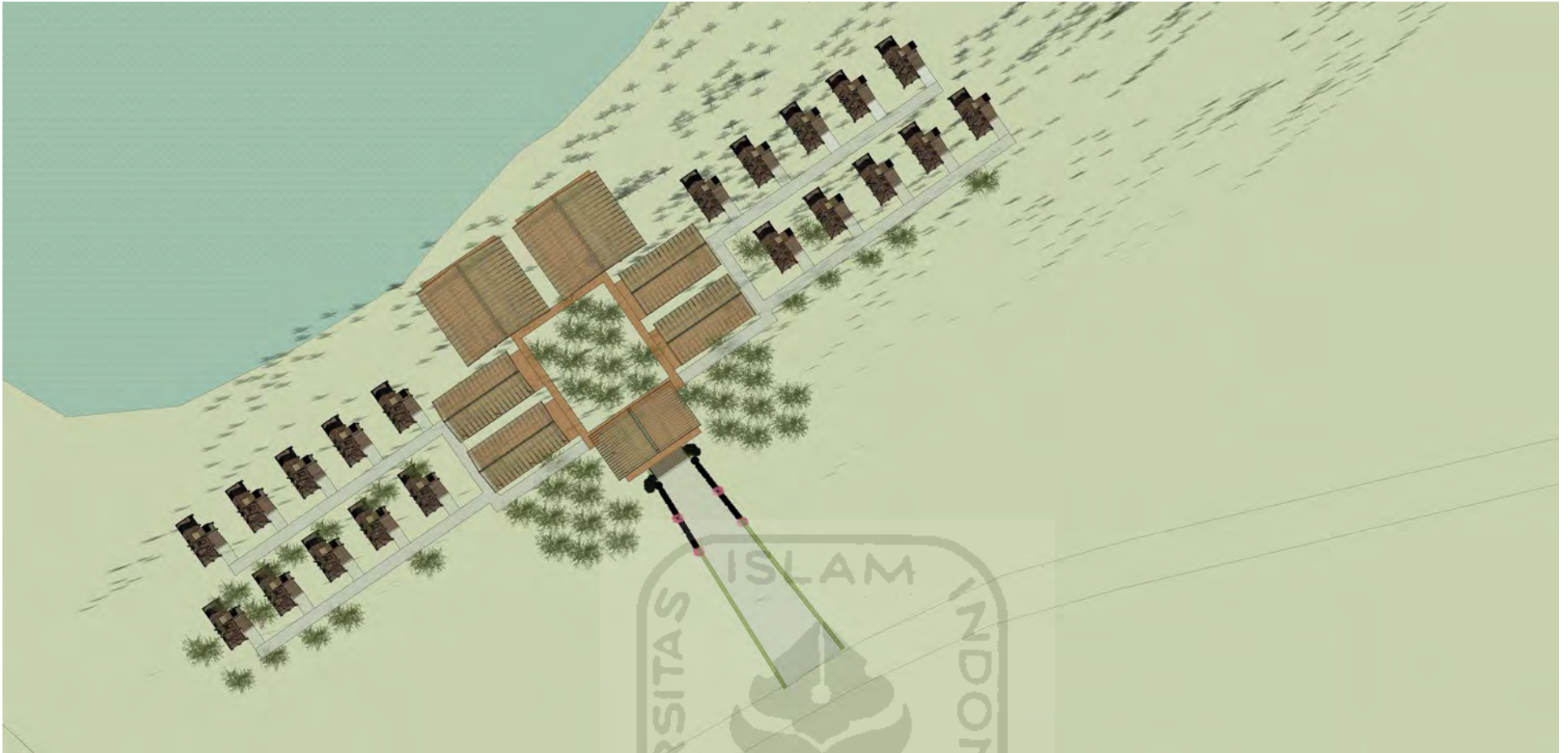
The floor plan also changed due to this comprehensive analysis on climate. This building is supposed to not using artificial air conditioning, so the cross ventilation is really important to be achieve so the building will become comfortable enough to be used.

New Site Planning Analysis



The new plotting of the site also been done to achieve all of the needs and experience in this area. Which by decreasing the number of the unit from 70 to 20, to achieve more nature experience and also to make sure all of unit can have the same experience.

And also new arrangement of the other building function so all of it can be easily access to all of the user.



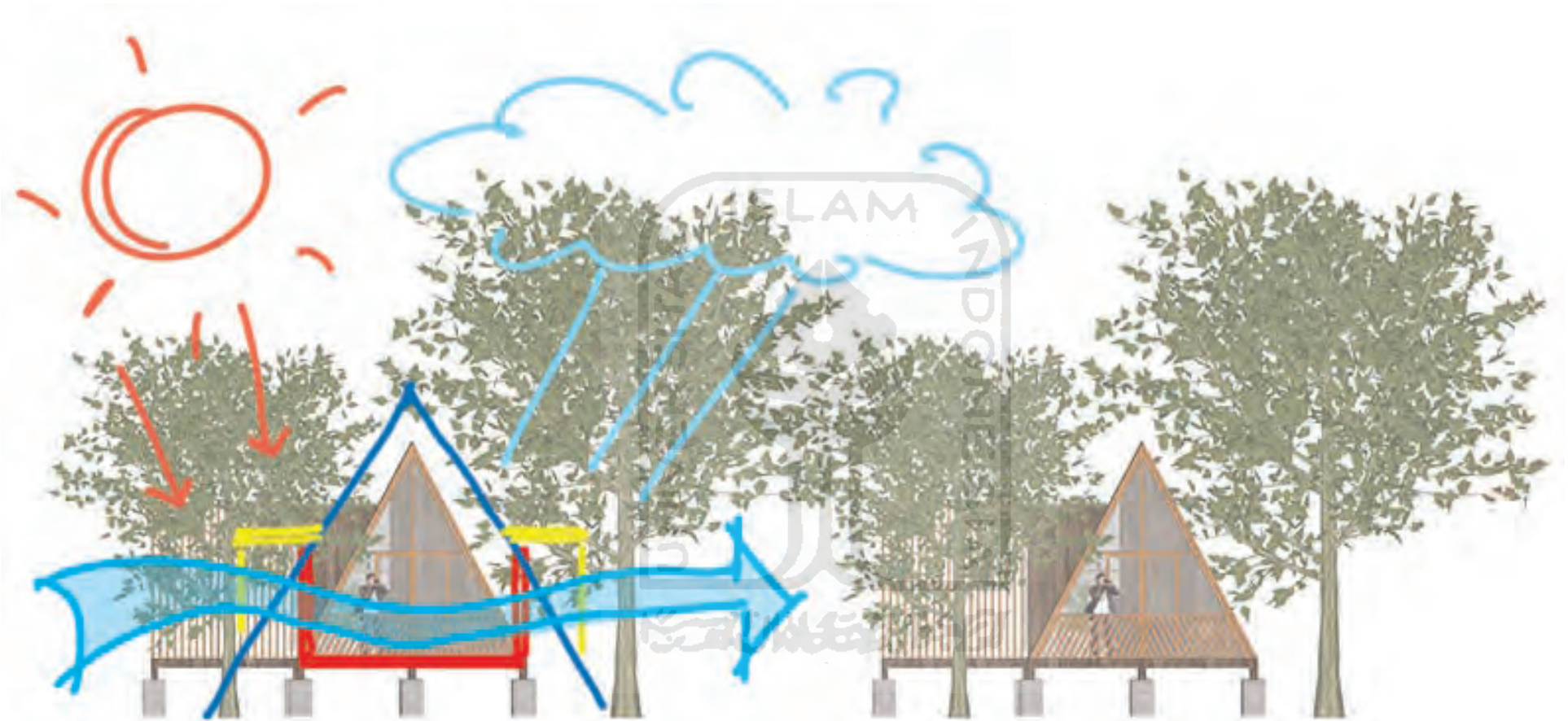
The plotting and the location of the site will be looks like this two picture. Which all of it facing through the lake as the main view and still surrounded by the trees to give the natural ambience and experiences in this resort.





Final **design**

Building Shape respond to Climate Analysis

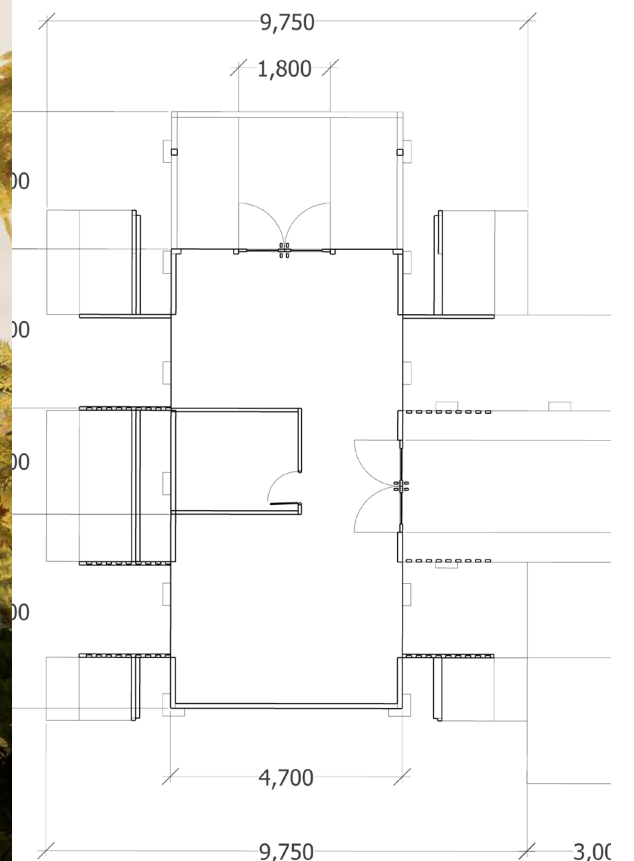


The final analysis for the building, which added more shade to protect the user from the rain and the direct sunlight in the midday time, which uncomfortable for human.

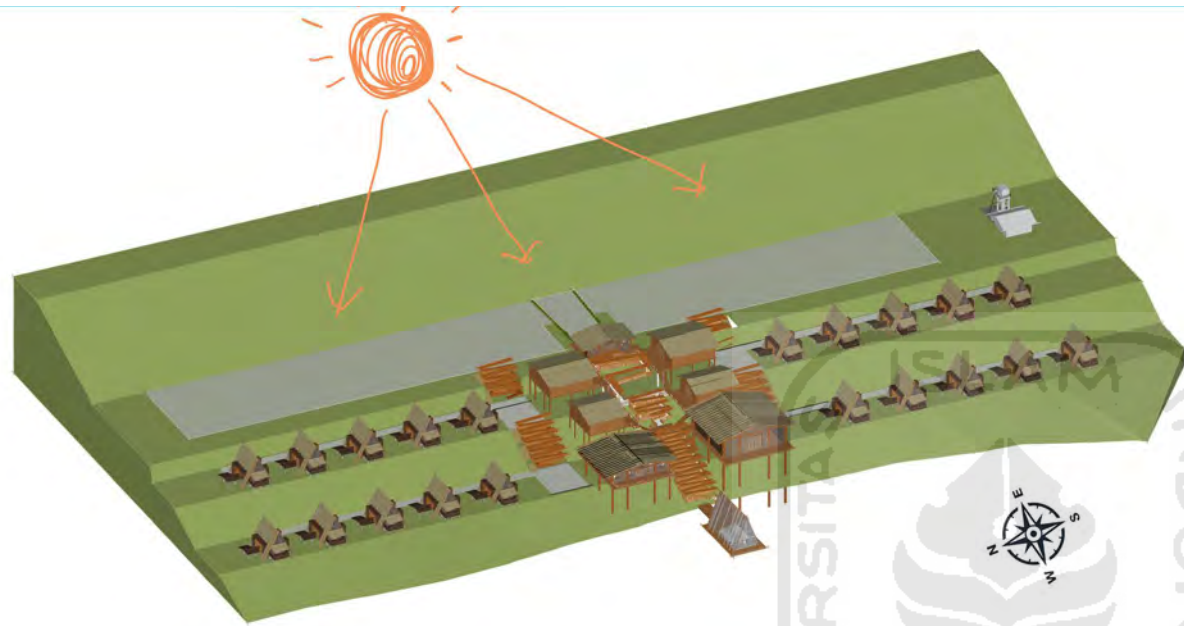
Final Building Form and Floor Plan



And then come up this new and final building form, having the A framed cabin unit, which also having the access to cross ventilation and balcony to experienced the view to the lake.



Morning Light Experience inside the Building



The ideas of ray of light that people can experience in the morning will be provided in the bedroom area. The opening to let the light come in located 45 degree from human sleeping body so the lights can be enjoyed by people while they are lying down on the bed. The opening facing to the east side where the morning sun light rising.

Sunset and Lake View Experience

As the main attraction of the area, the big lake also being the most valuable aspects that the resort must have the spaces for people to enjoying the view, feel the breezes and hear the sound of water from the lake. The building have the balcony that having the free view to the whole area where the user can experienced it.



Public Building Experience and Ambience



The natural experience and ambience is the main ideas on this resort design. Which every spaces, every room, every building must have the natural ambience that people can experienced it.

Every building, every function must be engaging people to appreciate the nature and having the time enjoying nature in the warm also fresh feelings.

Not to mention also every spaces or room have different function and ambience to achieve.

The differentiation of how the warm and cozy feelings in the restaurant and the more sacred and wisdom by let the natural lights come in to the building to create all of that ambience and experience.



The building and the nature blended in to make the harmony between building and natural elements. The building side by side with the surrounding nature, giving the experience to living inside the natural area where the interaction and appreciation from human to nature will be improved.

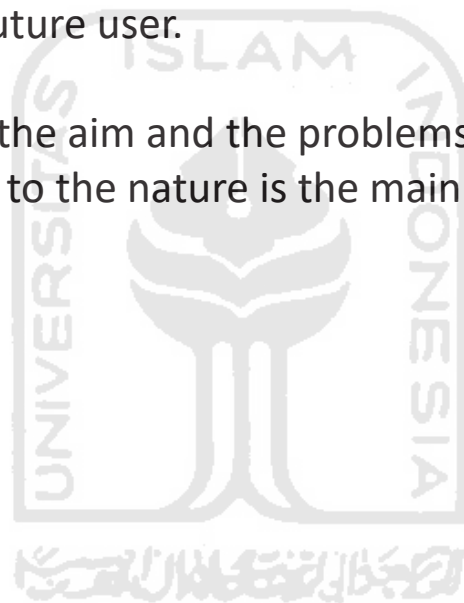


Conclusions and Design Results

The aim of this design is to providing the places where people can enjoying the nature closely, by experiencing every elements of nature, from day to day again. From sunrise, sunset, and sunrise again. From the sound of the lake water to the sound of crickets in the forest at night.

By analyzing the site location, all potentials and also some consideration on the climates, the topography condition, the plotting of the building, etc. this design finally finished and come up with providing the best solution and experience for the future user.

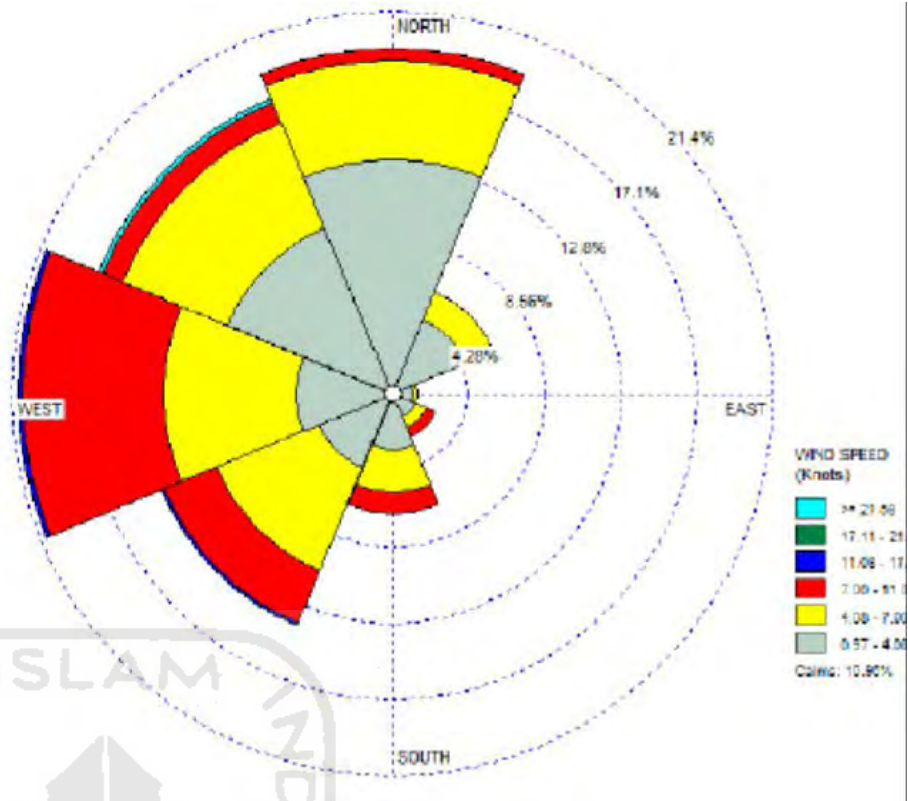
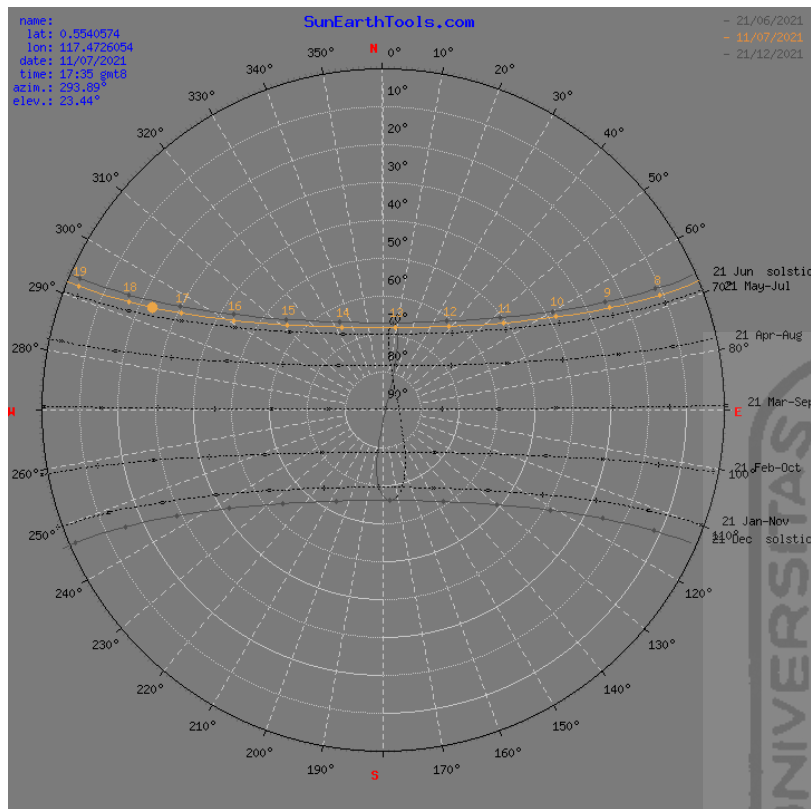
The final building design, is the answer of the aim and the problems of all considerations and needs for the user. The experience and appreciation to the nature is the main things in this design. Which already achieved in this resort design.



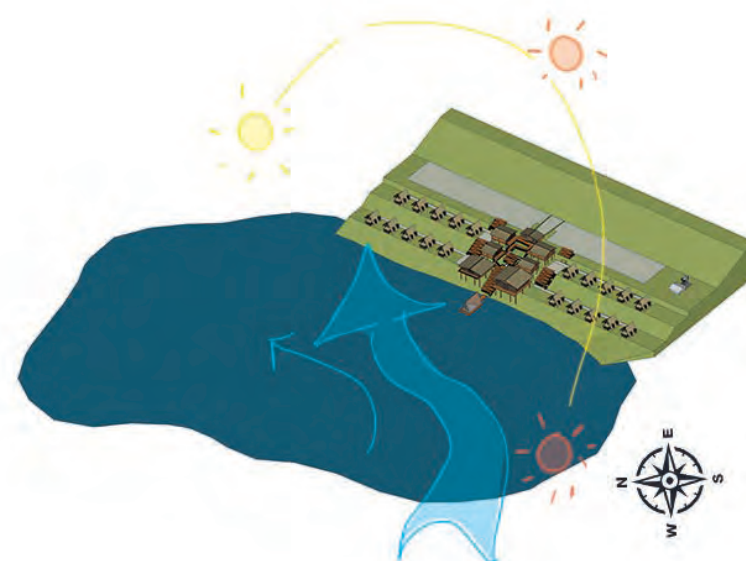
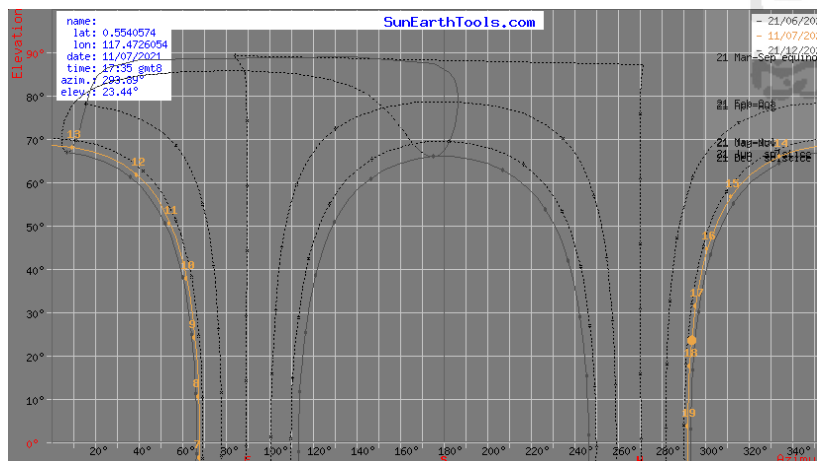
Final **design evaluation**



Design based on Climate Analysis

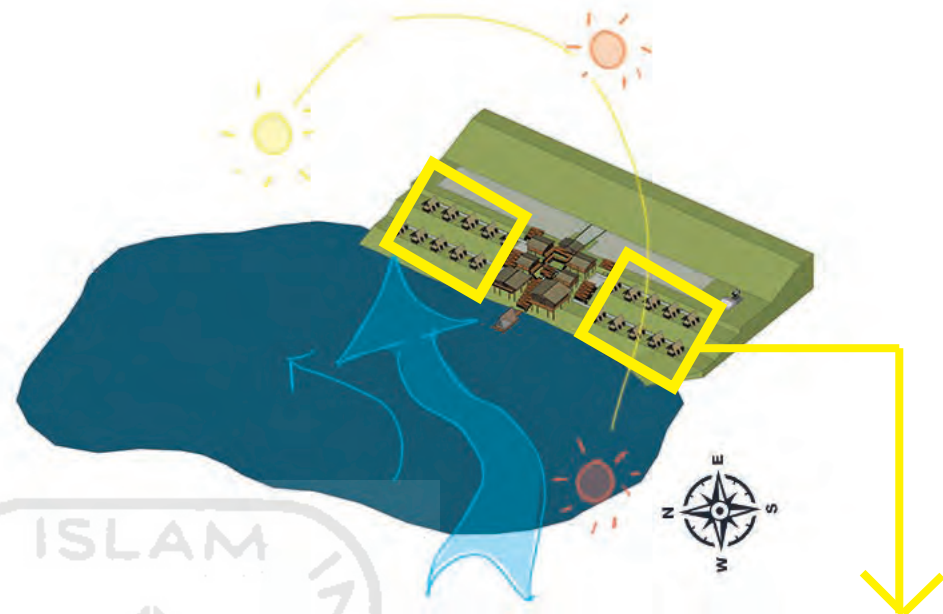


The data of the climate of the area can be seen on these picture. Where the elevation is 23,44 with 293,89 azimuth. And the data of the wind for this area is, the wind tends to have high velocity from the west to the north side. Also there are also the strong enough wind from south side.

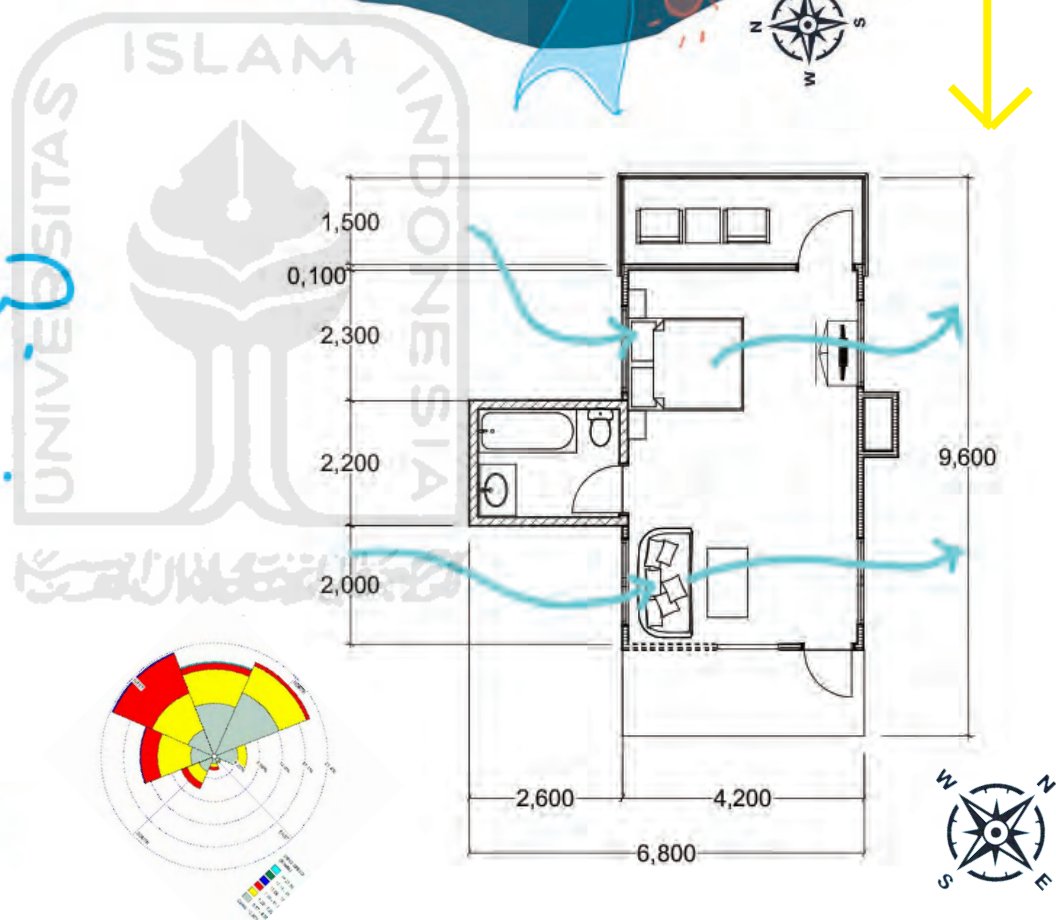


Design based on Climate Analysis

From the climate data of the site and also with the consideration of the experience for the user, the building form and facade has been made. The chosen of A frame as the roof of the building is because the area is the tropical area which having high number of precipitation and rain. So the rain water will falling through the roof surface and reduce the possibility of leakage.



Building Form to Rain Water



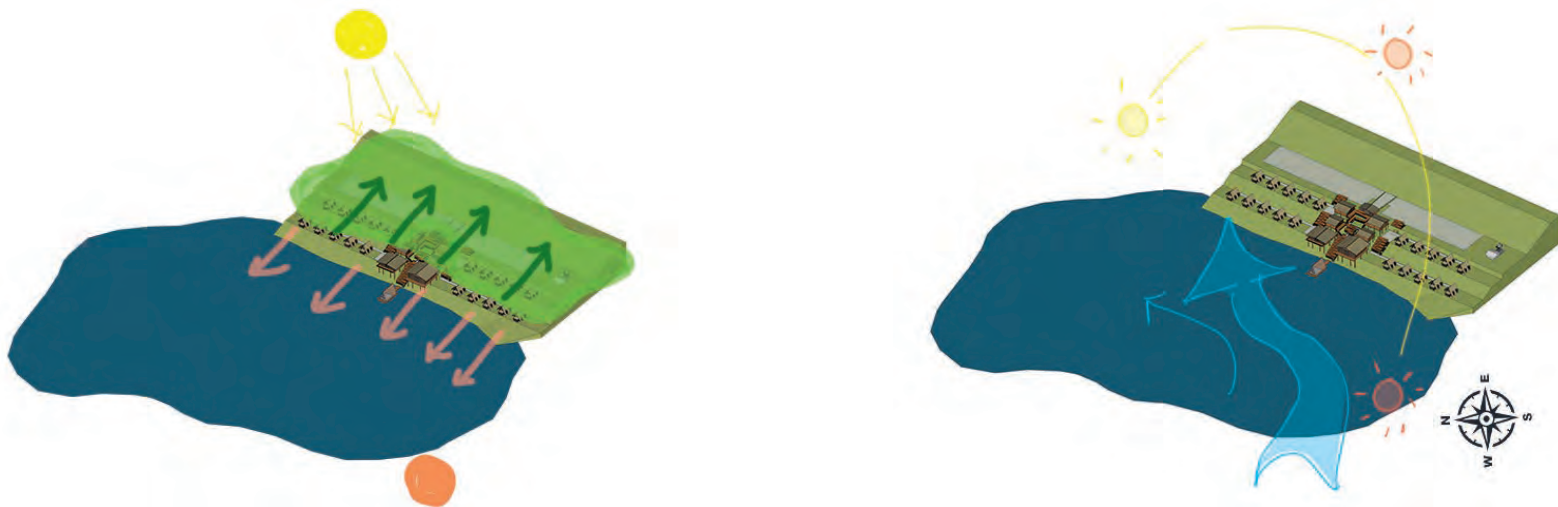
And also considering user's comfort, not only safe from the rain water, the air in the building also must be cool enough since the building will not use the air conditioning. So the arrangement of the window in building is important to achieve the cross ventilation so the air circulation in the building will be in a good flow, so the air will still be cool even though the building not use air conditioner. The location of the window also considering the source of the wind, which is mostly from the south, west to the north.

Design Experience with Climate Analysis

East Side

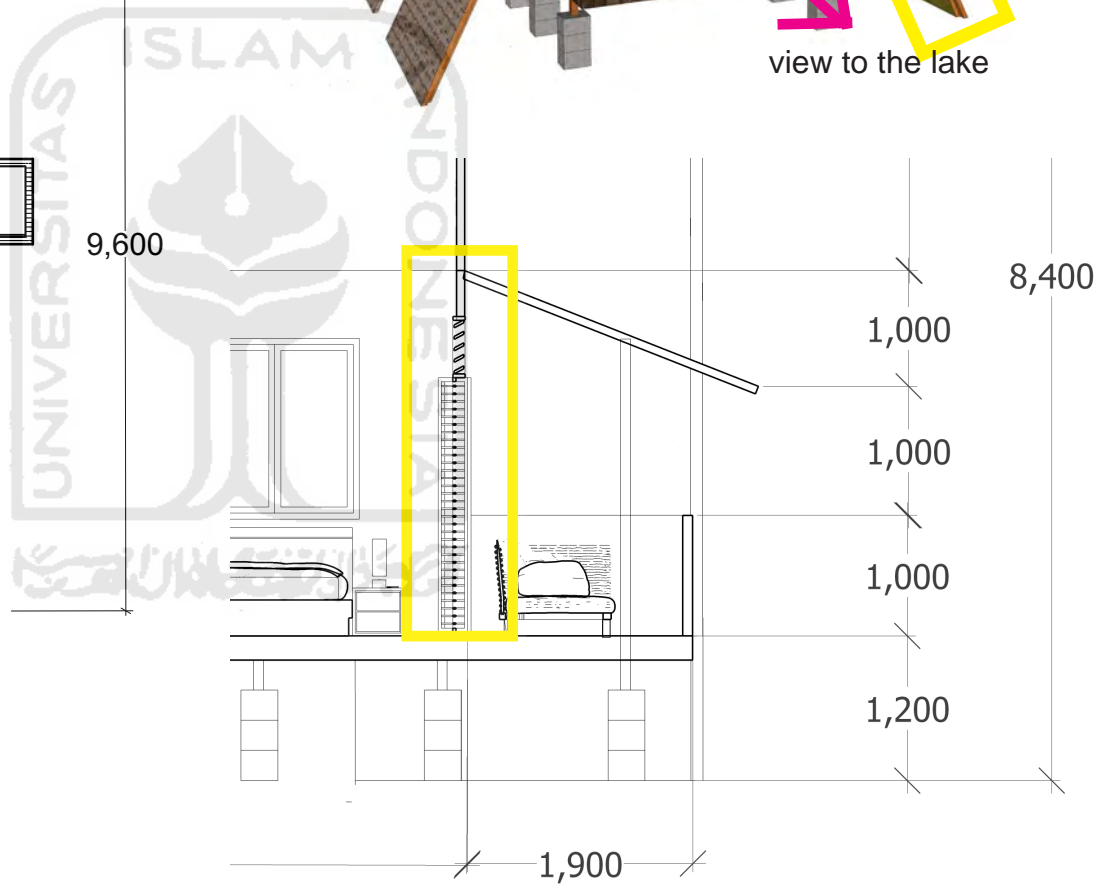
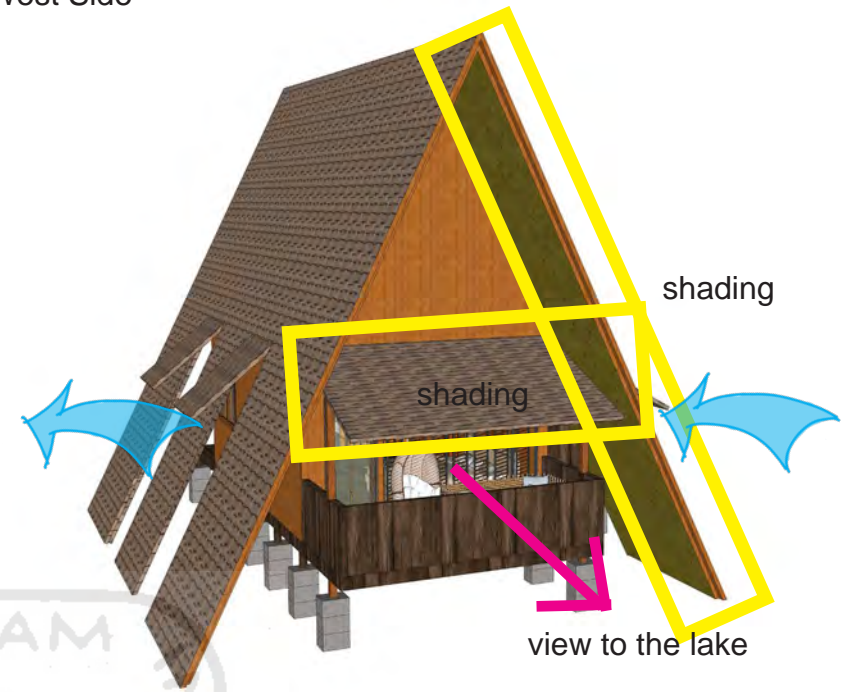
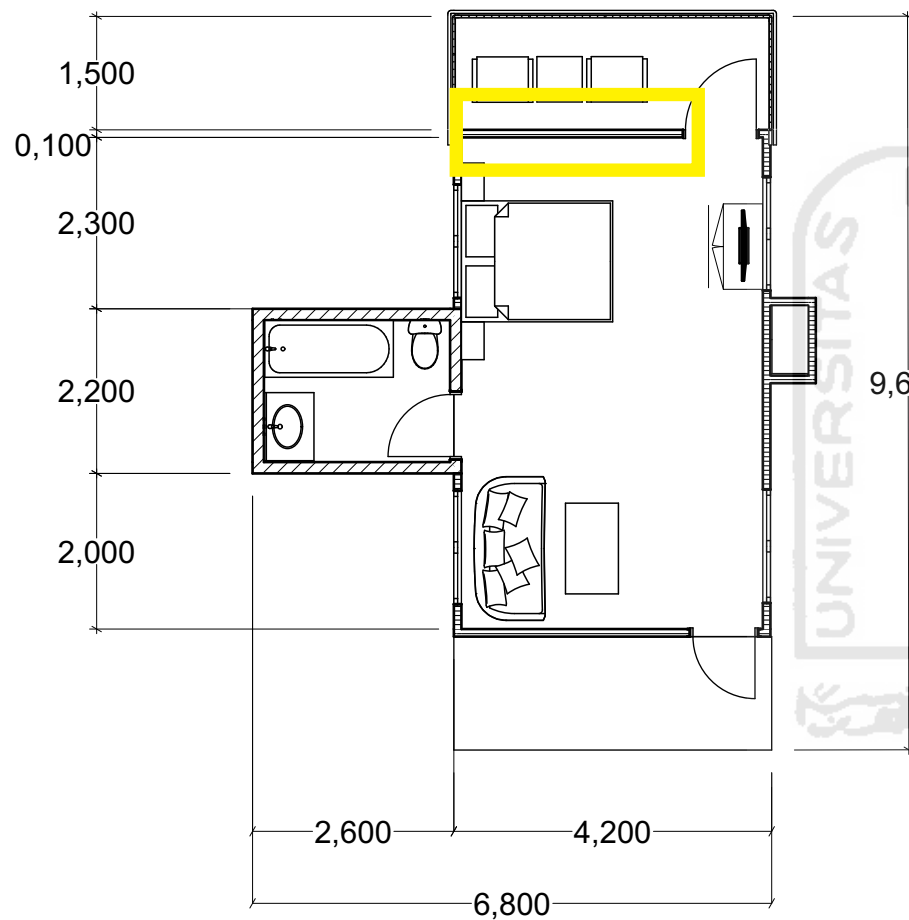


The experience of this area is having 2 different type of experience. Which the east side having forest surrounded experience, while the west side having the view experience of the lake. The east side area, which having the experience of forest, having open facade that use wooden block louver to let the wind comes in to the room and for the view, this side have vertical windows that let the light in the morning, that went through the trees trunk and leaf. To responds to the climate data, the big opening in this side will not dazzle the user inside. Since the sun that comes through is the morning sun which relatively unobtrusive. And to protect the area of louver which semi open to let the wind comes in, the 3 meter height of the louver have glass and the rest is open to the wind access. And to protect the opening, the roof have 1,9 meter shading.



Design Experience with Climate Analysis

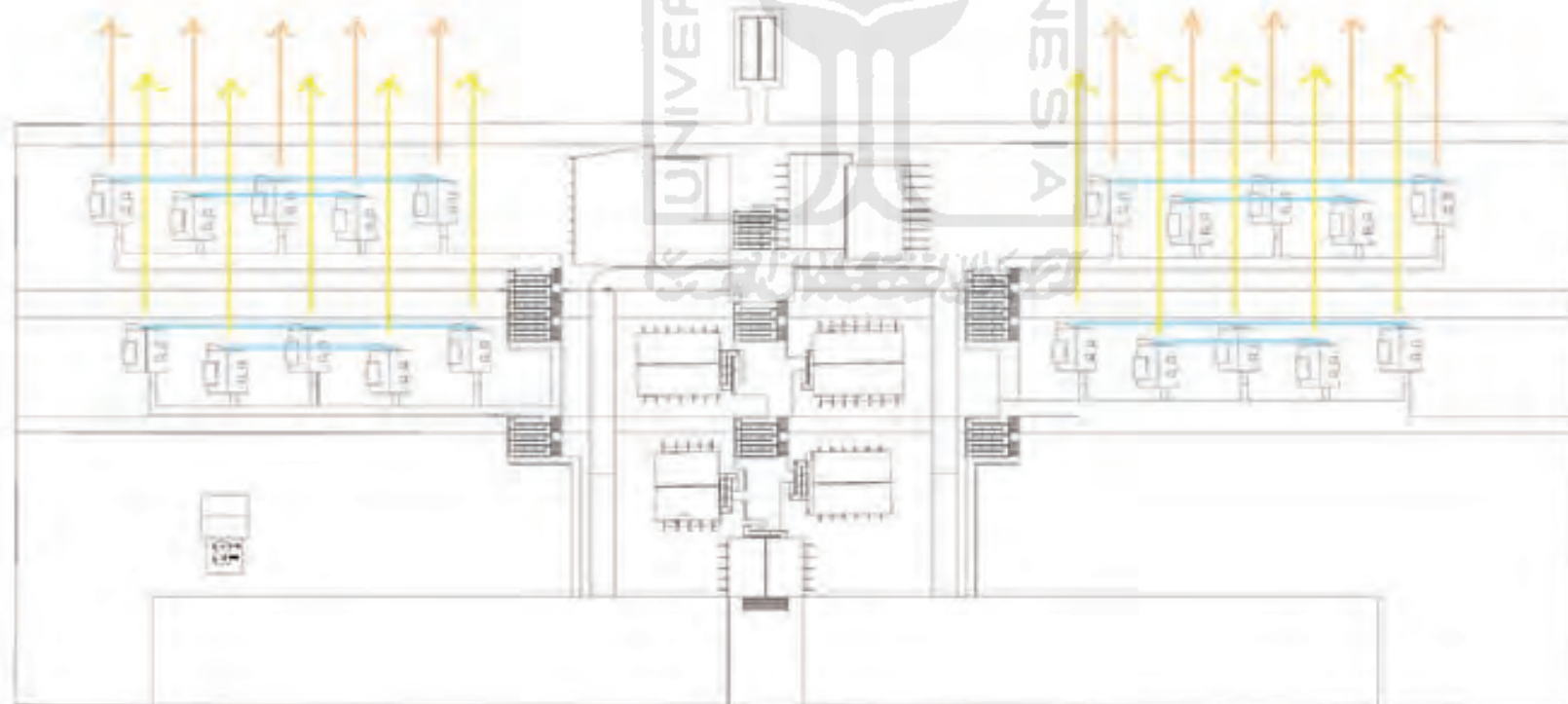
West Side



To give the experience of view to the lake on this side of the unit, the louver chosen to be used as the customized opening which can be open according to user preferences. It can be open fully when they want to see the full view of the lake and if the sun too bright it can be close or open in half.

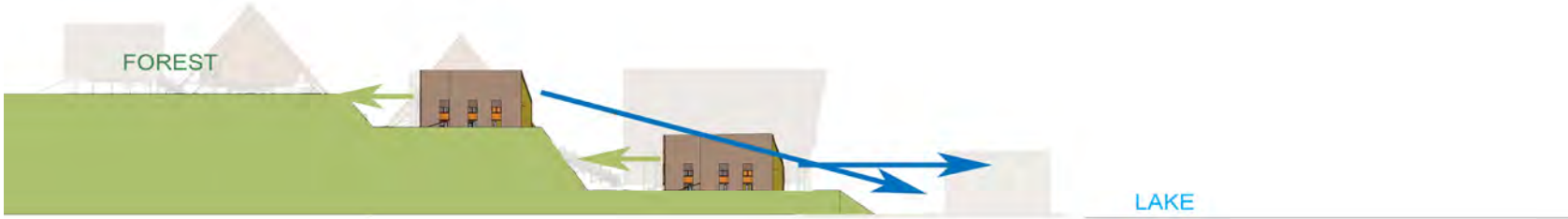
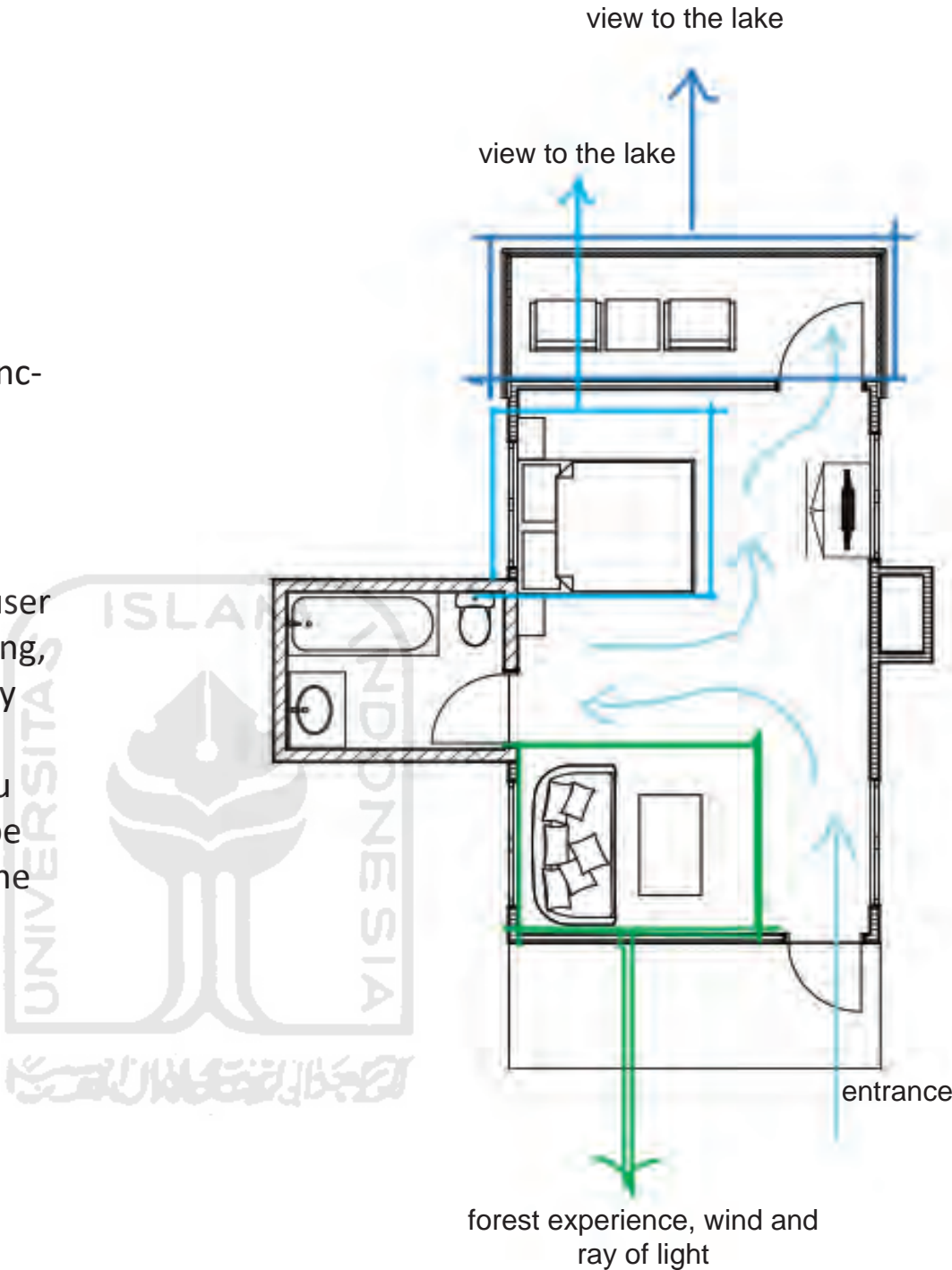
Resort Unit Plotting And Arrangement

Each of the unit arranged so all of it can get the view experience to the lake and whole Telaga Batu Arang area. The level differentiates of each unit line so none of unit block by another unit. The arrangement of one unit line also having the zig-zag arrangement so the view for adjacent unit still have the privacy gap between each unit. And also there are the trees and other plantation located between each unit also to give the natural boundaries to each unit.



Resort Unit Room Layout

The layout of the unit divided into 2 experiences based on the location of the surrounding nature. The entrance located on east side of the building which having the experience of the forest, the experience user have experience since their way to the unit. When the user started to walk to the west side of the building, the experience slowly change from the shady forest into bright surrounding with the view to the lake and the entire area of Telaga Batu Arang area. The experience of the lake can be experienced from the bed by looking from the louver, or by sit and chill in the balcony.



Lesson Learnt from Defense Evaluation

The things that I learnt from the defense evaluation :

1. Be more clearly to showing all the data and explanation of each problem solving in the design.
2. Study deeply about the theme of the design to better understanding and to get the best results that suitable with all of the criteria of the design theme or approach.
3. Pay more attention to each detail of the design, the behaviour of the human as the user, not just focusing on one particular activity, but thinking about other possibilities that will happen in the future.



references

A Dwelling in Nature. (2019, November 26). Designdetail.In. <http://designdetail.in/a-dwelling-in-nature/>

Agnesia, N. (2021). TIPOLOGI BANGUNAN. Retrieved 11 January 2021, from <https://nadineagnesiaa.wordpress.com/2016/10/27/rumah-adat-kalimantan-timur/>

Architectural Tours of Geoffrey Bawa Works of Art. (2017, November 9). Transco Travels. <https://transcotravels.com.au/architectural-tours-of-geoffrey-bawa-works-of-art/>

Frampton, K. (2007) Modern Architecture: A Critical History. London: Thames & Hudson Lts.

Frampton, K. (2007) Modern Architecture: A Critical History. London: Thames & Hudson Lts.

KPC Bangun Ecotourism di Sangatta Pasca Penutupan Tambang - TopBusiness. (2021). Retrieved 10 January 2021, from <https://www.topbusiness.id/43445/kpc-bangun-ecotourism-di-sangatta-pasca-penutupan-tambang.html>

Ksdae, D. (n.d.). Mengenal Flora dan Fauna Taman Nasional Kutai - Ditjen Konservasi Sumber Daya Alam dan Ekosistem. Kementerian Lingkungan Hidup Dan Kehutanan. Retrieved February 4, 2021, from <http://ksdae.menlhk.go.id/berita/8638/mengenal-flora-dan-fauna-taman-nasional-kutai.html>

Luke Fiederer. "AD Classics: Säynätsalo Town Hall / Alvar Aalto" 09 Mar 2016. ArchDaily. Accessed 18 Feb 2021. <<https://www.archdaily.com/783392/ad-classics-saynatsalo-town-hall-alvar-aalto>> ISSN 0719-8884

Lunuganga | Geoffrey Bawa Country Estate. (n.d.). Lunuganga. <https://www.lunuganga.com/>

Rahman, A. (2017). Sangatta, Kota Tempat Tambang Batu Bara Terbuka Terbesar di Dunia | Ekonomi - Bisnis.com. Retrieved 10 January 2021, from <https://ekonomi.bisnis.com/read/20170629/44/666775/sangatta-kota-tempat-tambang-batu-bara-terbuka-terbesar-di-dunia>

"Seashore Library / Vector Architects" 02 Jun 2015. ArchDaily. Accessed 18 Feb 2021. <<https://www.archdaily.com/638390/seashore-library-vector-architects>> ISSN 0719-8884

Top 10 Ways Architecture and Nature Can Harmonize. (n.d.). MLL Design Lab. Retrieved March 4, 2021, from <https://www.mlldesignlab.com/blog/top-10-ways-architecture-nature-can-harmonize>

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Pembimbing : Dr. Ir. Revianto Budi S, M. Arch
Fakultas / Prodi : Teknik Sipil Dan Perencanaan/ Arsitektur
Judul Karya Ilmiah : Telaga Batu Arang Resorts with the approach to critical regionalism
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Yogyakarta, 23 Juni 2021

Direktur



Joko S. Prianto, SIP., M.Hum

12.2 Architectural Presentation Board

Telaga Batu Arang Resorts

with the approach to critical regionalism architecture

Telaga Batu Arang, a former mine site that has been successfully reclaimed by KPC and made it into an eco-tourism area, is one of the high potential tourism spots in East Kutai. Unfortunately, the natural potentials that exist are still not being utilized properly. Apart from providing facilities for a place to see all over the area, from the city, the mine to the Kutai National Park.

This resorts is the place for people to experience and enjoy nature for 36 hours or more, where visitors can enjoy nature in the morning, follow the activities provided by the place until late afternoon, then can enjoy the sunset at the location of the hill of view, and when night falls, enjoy and learn how the night world is in the middle of the wild, fall asleep amidst the hum of crickets and other animals in the forest, then in the morning the next day, awakened by the sunlight coming in through the cavities of the trees, enjoying how the sun slowly rises and illuminates green nature around visitors.

resort



This design will provide the place where people can enjoy the nature not just in the day time but also in the night time. And with using "Critical Regionalism" as the theme of the design, this place will be designed by paying attention to the surrounding natural conditions so that this place will be more integrated with nature. And can give users the experience of falling asleep and waking up in the middle of nature.

critical regionalism



Regionalism architecture is a concept that emphasizes the identity of a region in contemporary architecture. The aim of the regionalism approach is to raise the values of local wisdom and climate conditions and the surrounding environment without leaving modern technology.

ecotourism



Ecotourism is catering for tourists wishing to experience the natural environment without damaging it, or disturbing its habitats. It's a form of tourism, involving visiting fragile, pristine, and relatively undisturbed natural areas, intended as a low-impact and often small scale alternative to standard commercial mass tourism. It means responsible travel to natural areas, conserving the environment, and improving the well-being of the local people.

telaga batu arang



Telaga Batu Arang is reclaimed into an ecotourism area which is designed as a tourist park with educational features, and its management is community-based so that it can support the economy of the surrounding community. Besides the lake which is the main feature of TBA's tourist attraction, several areas / clusters that can be visited are Bukit Paving, here visitors will be treated with beautiful views in various directions such as Kutai National Park (TMS), Sangatta River, KPC mine, and the beauty of the lake.

Design Site Location

Telaga Batu Arang, Swarga Bara, North Sangatta, East Kutai Regency, East Kalimantan 75683



Telaga Batu Arang Area

As the post mining area, this lake and ecotourism place located near the coal mining area. But not just that, this area also located near National Kutai Park and even become the buffer zone of the park. From this area, people can enjoy the view of coal mining area, the city and settlements of Sangatta, and also the biodiversity from National Kutai Park.

National Kutai Park

National Kutai Park area scattered all over the district. With the concern of the community to protect the biodiversity in this protected forest, until now human being and the wild animals have coexisted well. Orang Utan until Engage sometimes still seen flying or passing in several areas in this district.

Coal Mining Area

PT. Kalbin Prima Coal (PT. KPC) is located in District Sangatta, East Kutai Regency, East Kalimantan Province and has an area of PAKZB 90.560 Ha. In operation, the coal mining area is located in the Sangatta and Bangolan while PT. KPC mining only operates in Sangatta that has only 3 departments, Department of Mining (for Research, Department of Mining (for Mining South), and the Department of Mining (for Mining East).

City and Settlements

Sangatta, East Kutai Regency is not a big district so the distance between one place into another is not too far away. And the access to go to certain places such as tourist attractions is already easy and proper to access. There is the settlements located near the mining area which the settlements for employees of the mining companies.

Framework of Thinking



The analysis of the experience that will provide to the user is based on how human 5th sense can experience every natural elements in this area. Starts from the vision, which this area will providing the natural view of the lake and also the hills and trees, continue to the hearing sense which this area have the sound of water lake and the animal sound in the night time. The smell sense that come from the smell of the dew in the morning and also the smell of the water. Next to the taste, the special program that this resort have, which having the healthy food, mostly from the vegetables and fruit, which farmed from this eco-tourism area. The last is the wind, the light wind that flow from the gap between the trees, which come to the building, is the relaxing and calm experience to provide to the user.

Key Qualities of the Site

1. **TOPOGRAPHY OF THE SITE**
Location of the site surrounded by a collection of hills and forests. The topographic conditions of the existing hills add to the richness of the feature and shape on the site which can be implemented as the shape of the building. In accordance with the concept of critical regionalism as a principal in the design of this resort, hill topography as an element of the site's environmental context will be used as a reference in designing the shape of the building and to determine the user experience.
2. **SUNRISE DIRECTION**
To give the experience of "ray of light" the lodgement area will be located on the east side. The sun will come to the site in the morning from east area through the gap between the trees and leaves. Also to give the best sun light which healthy and safe for human, in this case is the user.
3. **SUNSET DIRECTION**
The location of the area is really strategic because in this area we can enjoy the sunrise also the sunset. And also the topography of the site which located in the high area of the district also become the good area to experience the sunset.
4. **SITE DIRECTION**
The direction of the building will be facing the lake as the main attraction of this place. And also this orientation which looking to the northeast side make the building can have the possibilities to having the east and west view in each of the building side. So the sunset and sunrise can be enjoyed in each of the building side.

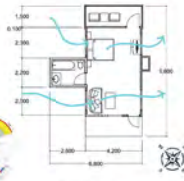
Site Area Arrangement Planning



Based on the experience that this site have, this is the planning how to put the function and buildings that will have different experience on each of the building. Dividing the site into 3 area, which 1st area and the 3rd area have the forest experiences, where the area will be surrounded by the trees and other plantation, really suitable for the resort unit to take this area. While the 2nd area of the site, as the center of the site, and also the area that located near the main street, this area will be used as the public area, where the public facilities, the entrance, and the management area located.



12.2 Architectural Presentation Board



From the climate data of the site and also with the consideration of the experience for the user, the building form and facade has been made. The choice of A frame as the roof of the building is because the area is the tropical area which having high number of precipitation and rain. So the rain water will falling through the roof surface and reduce the possibility of leakage.

And also considering user's comfort, not only safe from the rain water, the air in the building also must be cool enough since the building will not use the air conditioning. So the arrangement of the window in building is important to achieve the cross ventilation so the air circulation in the building will be in a good flow, so the air will still be cool even though the building not use air conditioner.

Design Experience with Climate Analysis

The experience of this area is having 2 different type of experience. Which the east side having forest surrounded experience, while the west side having the view experience of the lake. The east side area, which having the experience of forest, having open facade that use wooden block louver to let the wind comes in to the room and for the view; this side have vertical windows that let the light in the morning, that went through the trees trunk and leaf. To responds to the climate data, the big opening in this side will not dazzle the user inside. Since the sun that comes through is the morning sun which relatively unobtrusive.

And to protect the area of louver which semi open to let the wind comes in, the 3 meter height of the louver have glass and the rest is open to the wind access. And to protect the opening, the roof have 1,9 meter shading.

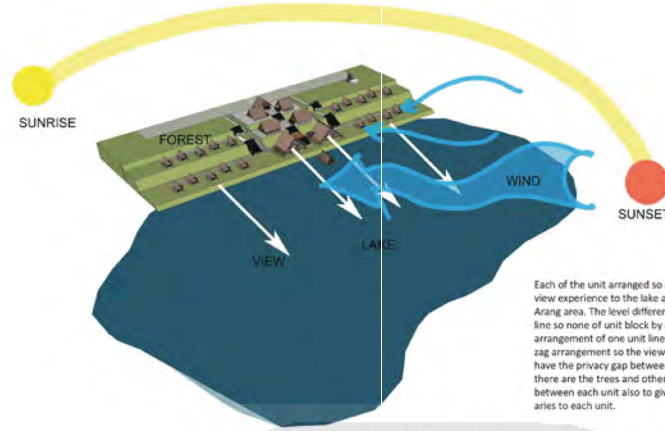
Resort Unit Experience and Ambience

From the distribution of the experience analysis, come up with the solution how to make the building that can afford all of that ideas. Which have this results, that the east building area will have the more close area but with just a small opening to let the sound and the smell come in to the building. And then the middle area will having the semi open area, to let the wind and sound come in to the building. The last one big opening of the west area to enjoy the view to the lake.

The building and the nature blended in to make the harmony between building and natural elements. The building side by side with the surrounding nature, giving the experience to living inside the natural area where the interaction and appreciation from human to nature will be improved.



As the main attraction of the area, the big lake also being the most valuable aspects that the resort must have the spaces for people to enjoying the view, feel the breezes and hear the sound of water from the lake. The building have the balcony that having the free view to the whole area where the user can experienced it.



Each of the unit arranged so all of it can get the view experience to the lake and whole Telaga Batu Arang area. The level differentiates of each unit line so none of unit block by another unit. The arrangement of one unit line also having the zig-zag arrangement so the view for adjacent unit still have the privacy gap between each unit. And also there are the trees and other plantation located between each unit also to give the natural boundaries to each unit.

The plotting and the location of the site is facing through the lake as the main view and still surrounded by the trees and other natural elements to give the natural ambience and experiences in this resort.

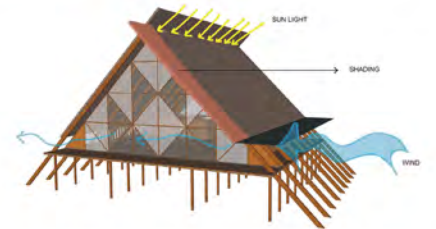
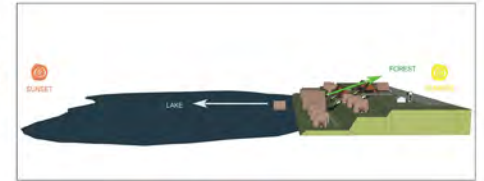


To responds the topography condition of the site, the site planning have been done, by arranging the site into tiered site. Which the resort unit will having the different height: 10 units on 7 m above the water surface, and the other 10 will be on 12 m above the water level. The differentiate of the location to provide the view for all of the unit.

And by doing the tiered site, the experience of the view of each level unit will be different. The lower level unit will having the full view of the area and the lake. Which the higher one will having the view by between the trees or from the tip of the trees. And also the higher one can have the view of how the unit below it aesthetically having harmony with nature around it.

Public Building Experience and Ambience

The natural experience and ambience is the main ideas on this resort design. Which every spaces, every room, every building must have the natural ambience that people can experienced it. Every building, every function must be engaging people to appreciate the nature and having the time enjoying nature in the warm also fresh feelings. Not to mention also every spaces or room have different function and ambience to achieve. The differentiation of how the warm and cozy feelings in the restaurant and the more sacred and wisdom by let the natural lights come in to the building to create all of that ambience and experience.



This multipurpose hall floor plan having the similar design scene with the unit, which it have the continuous from dark to slowly bright ambience inside the building. The experience of this multipurpose hall is focusing a lot on the view to the lake and whole entire area, but also still having the experiences of forest and wind. The distribution of how the facade affects the experience for the user inside the building also similar to what the resort unit have, but more bigger for the view experience. Having particularly the same experience which have the design scene in each of the building, but for restaurant building more focusing on the arrangement of the table, which having more crowded area on the back so the view will not blocked by the people in the front area.



12.3 Technical Drawing

Telaga Batu Arang Resorts

Design of Resort in Sangatta with The Approach to Critical Regionalism Architecture

R3 REKA
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RUANG

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Supervisor :
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Final Architecture Studio
Department of Architecture
2020 / 2021

INTERNATIONAL UNDERGRADUATE PROGRAM IN ARCHITECTURE



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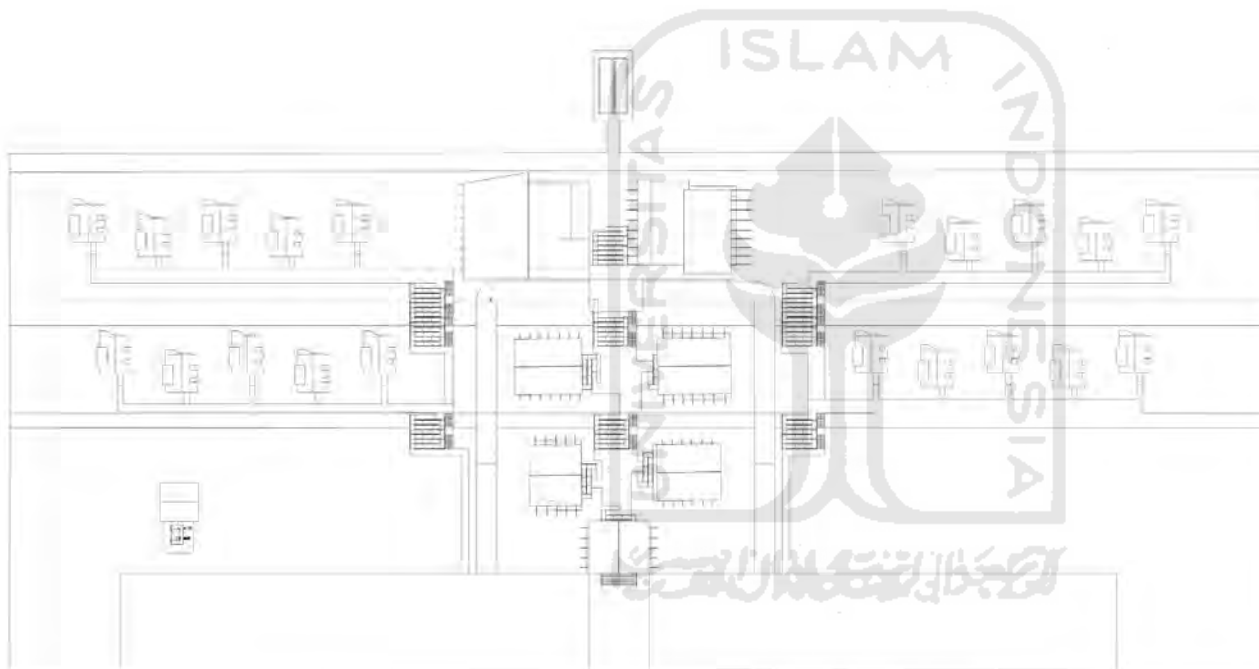




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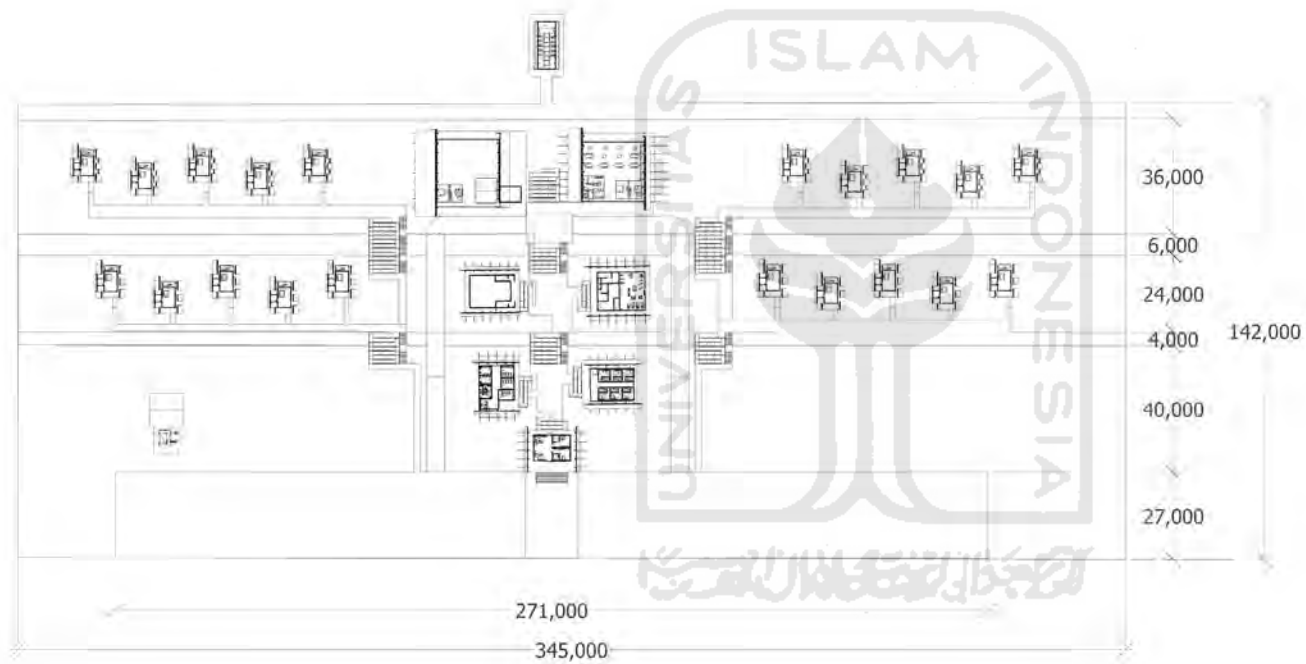


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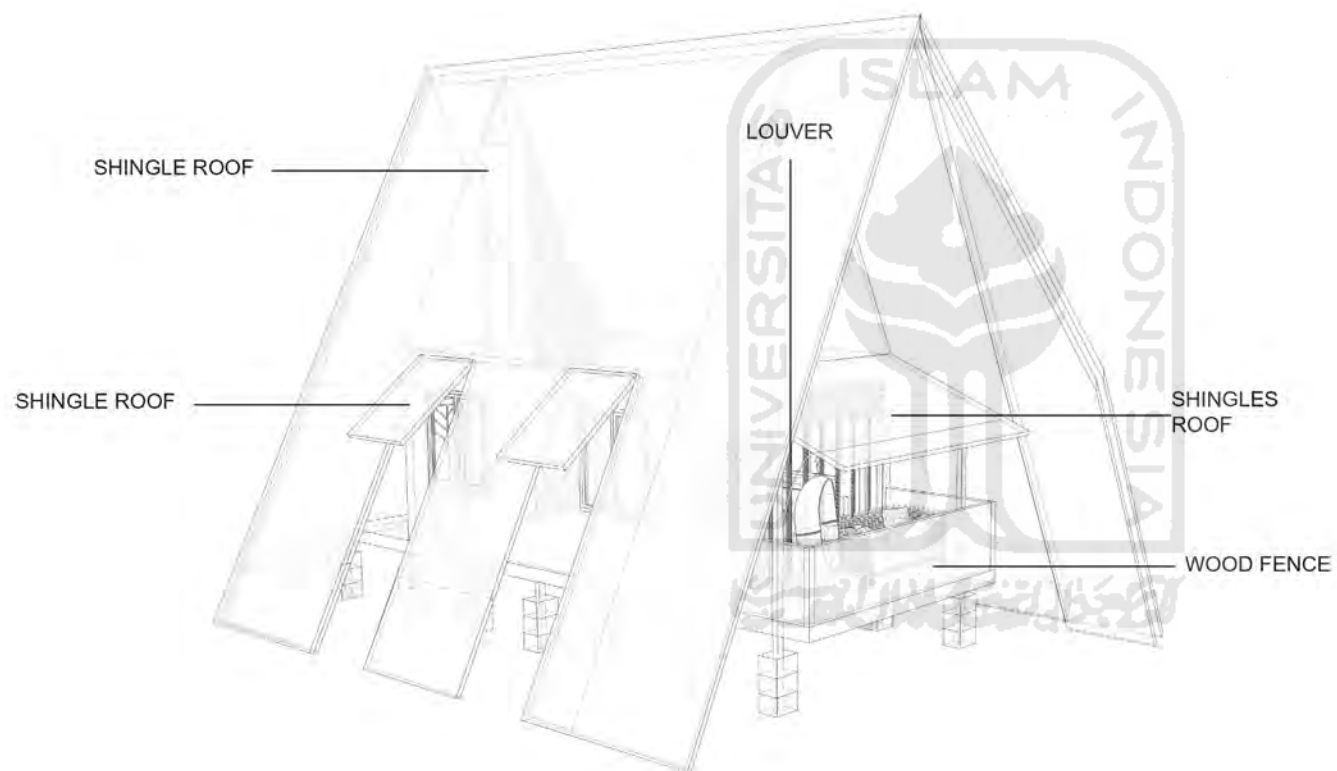
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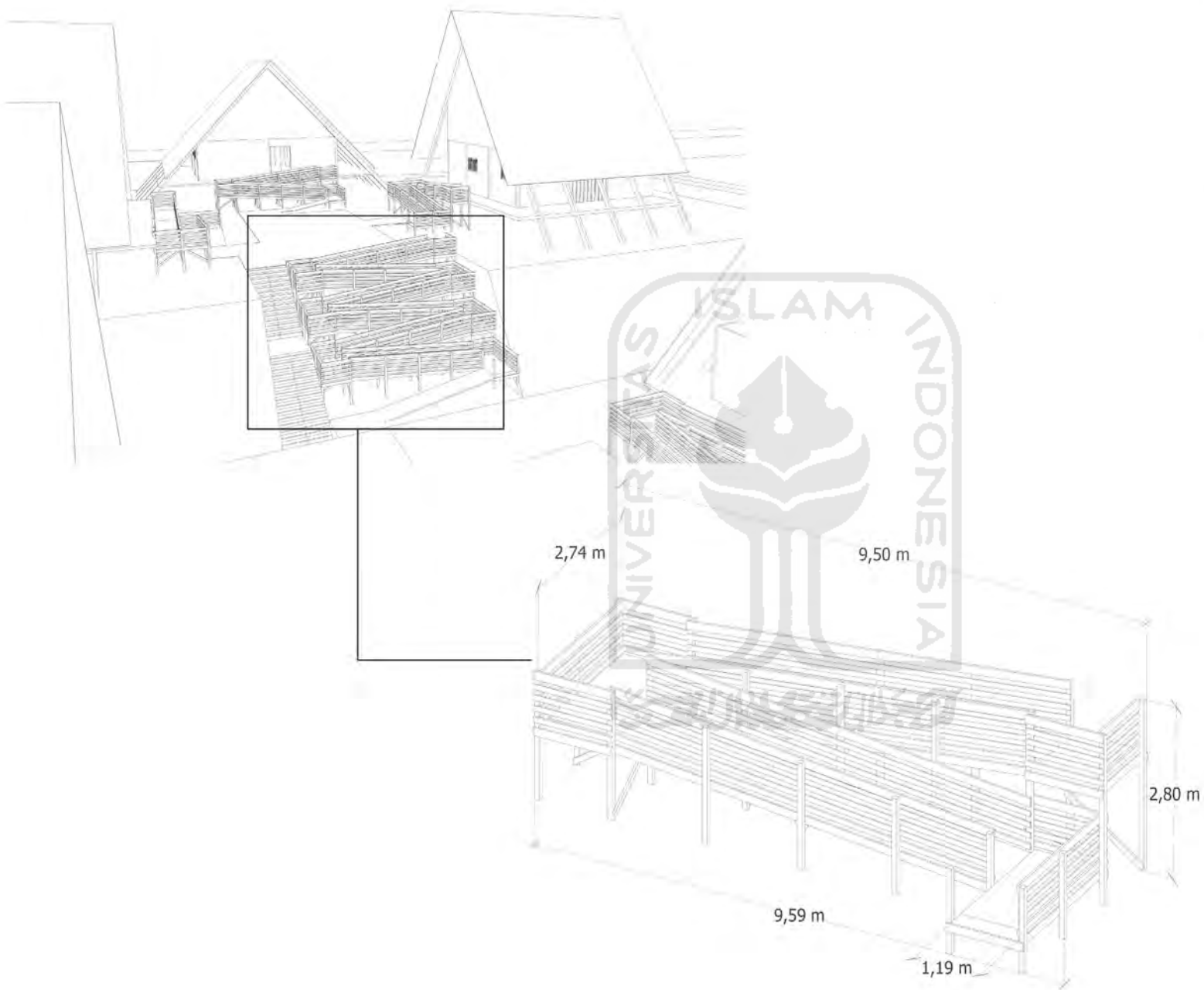
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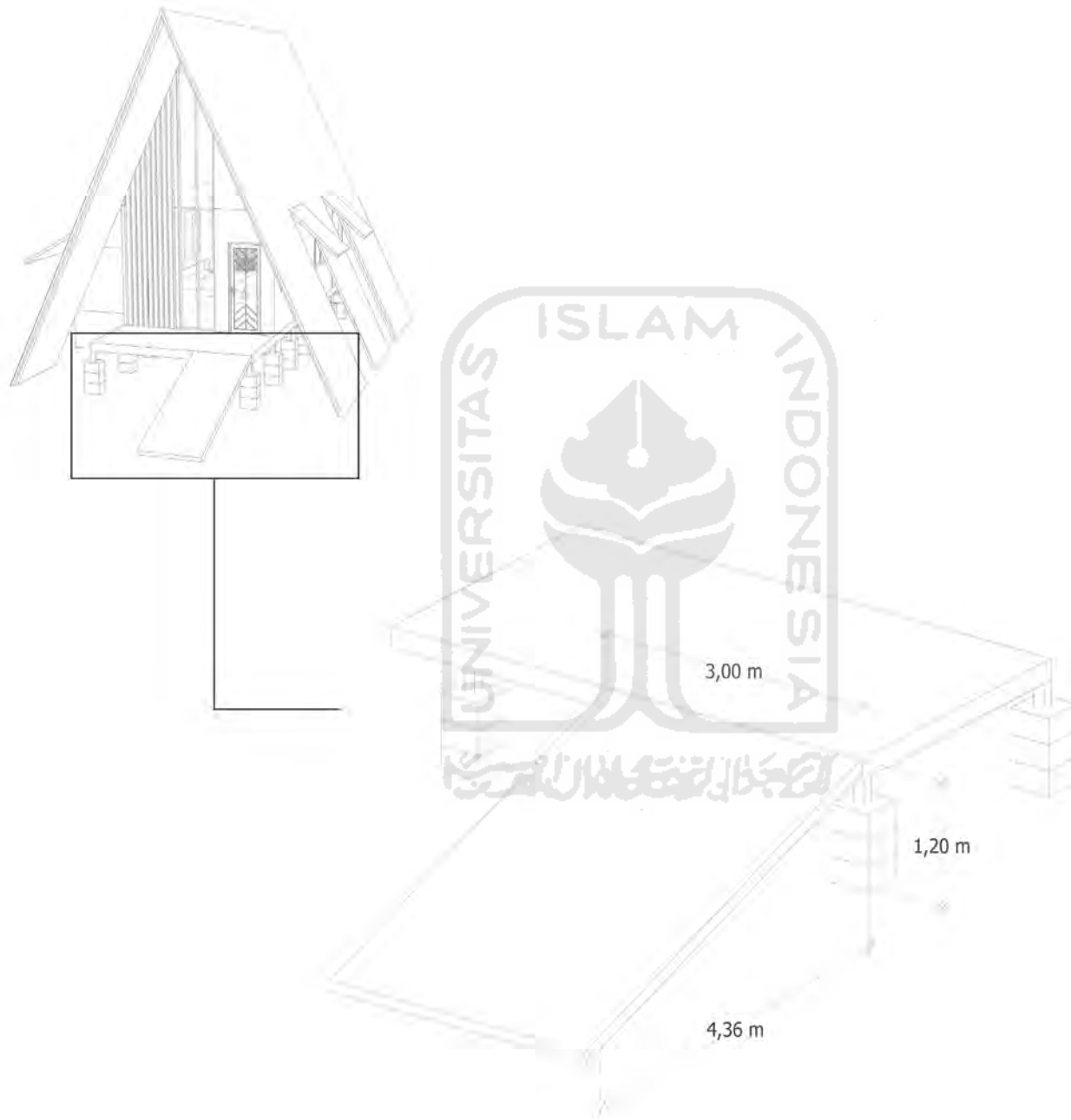
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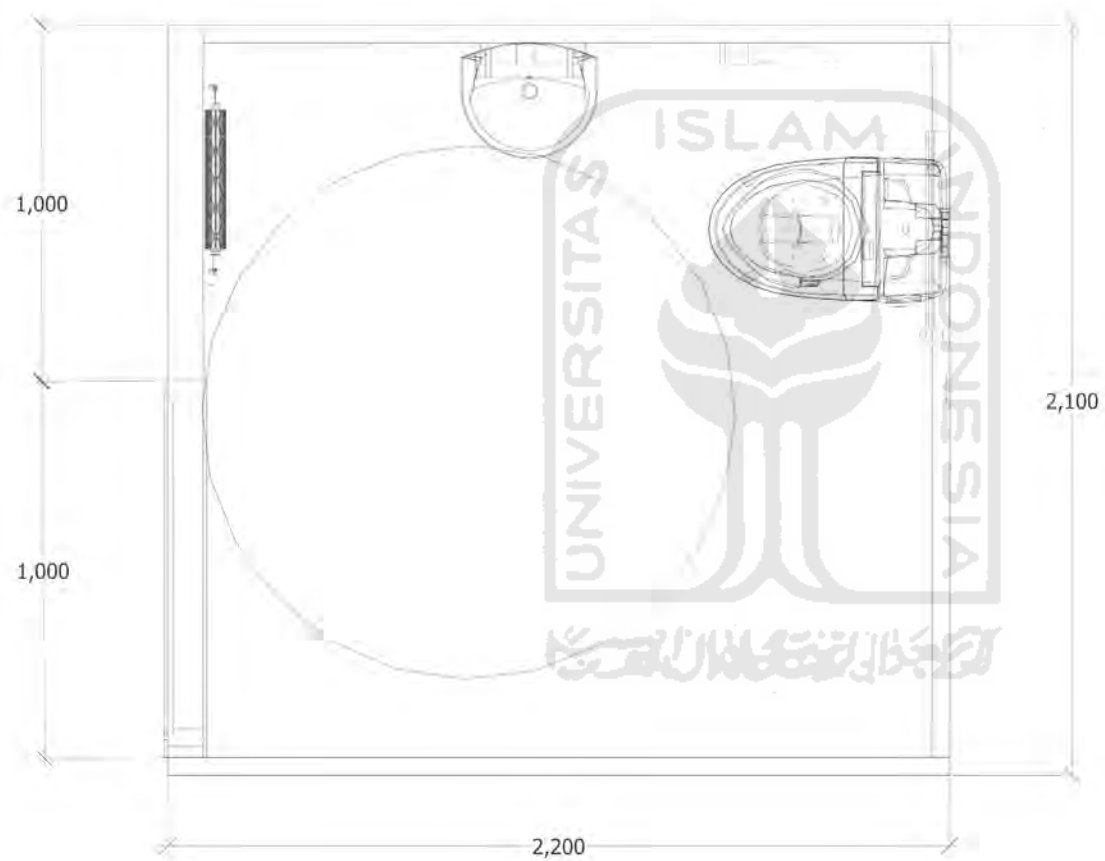
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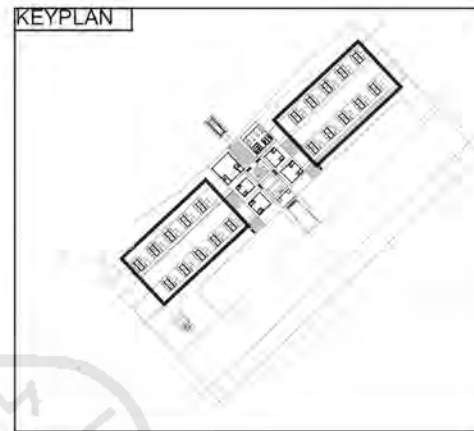
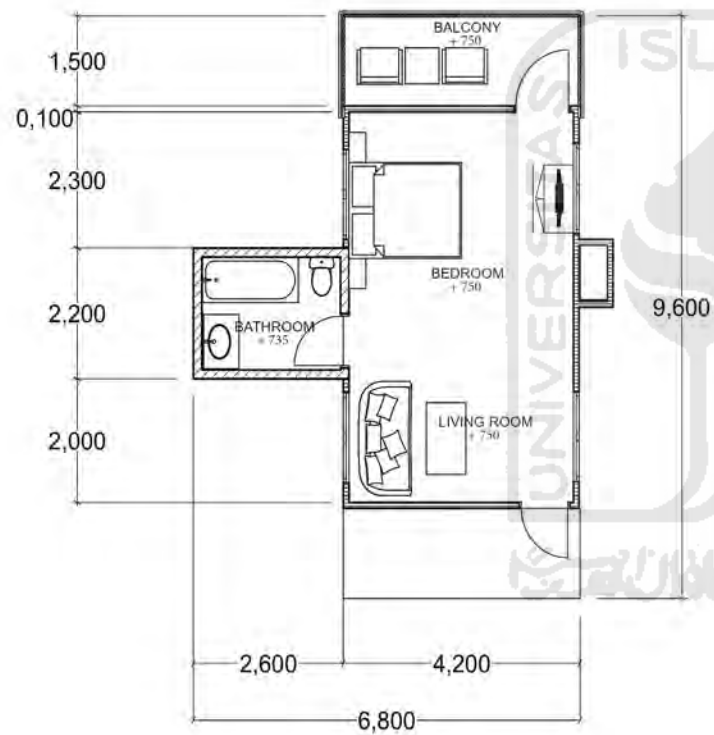
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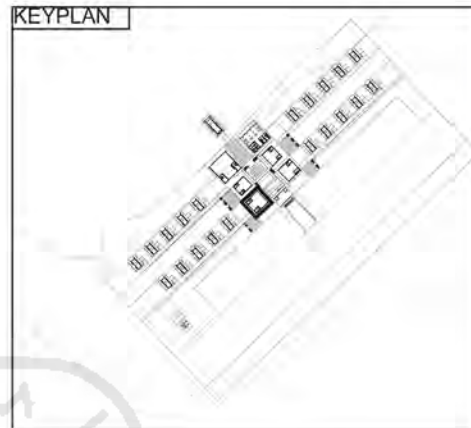
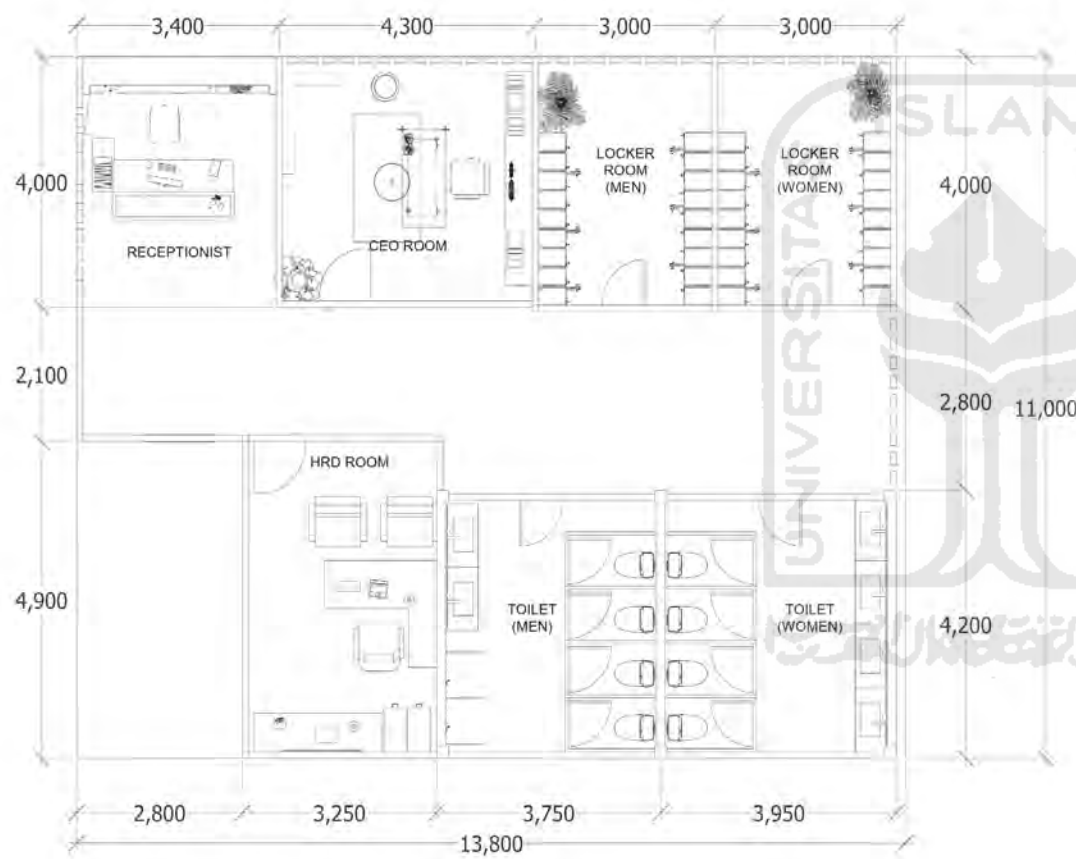
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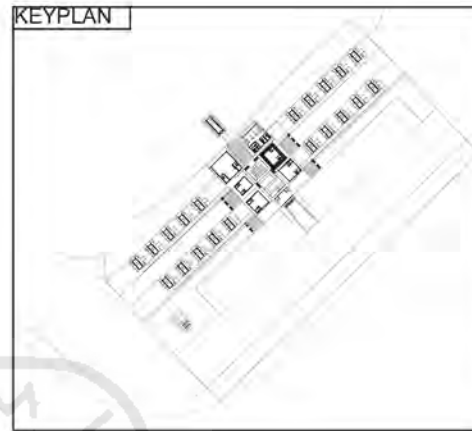
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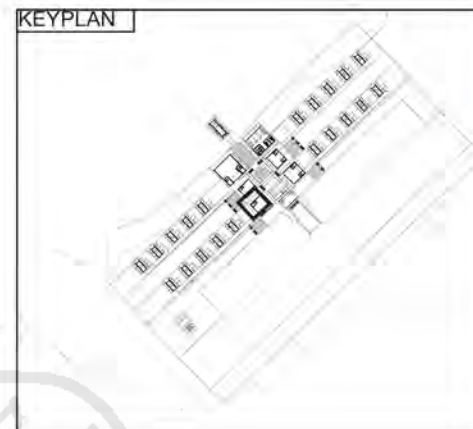
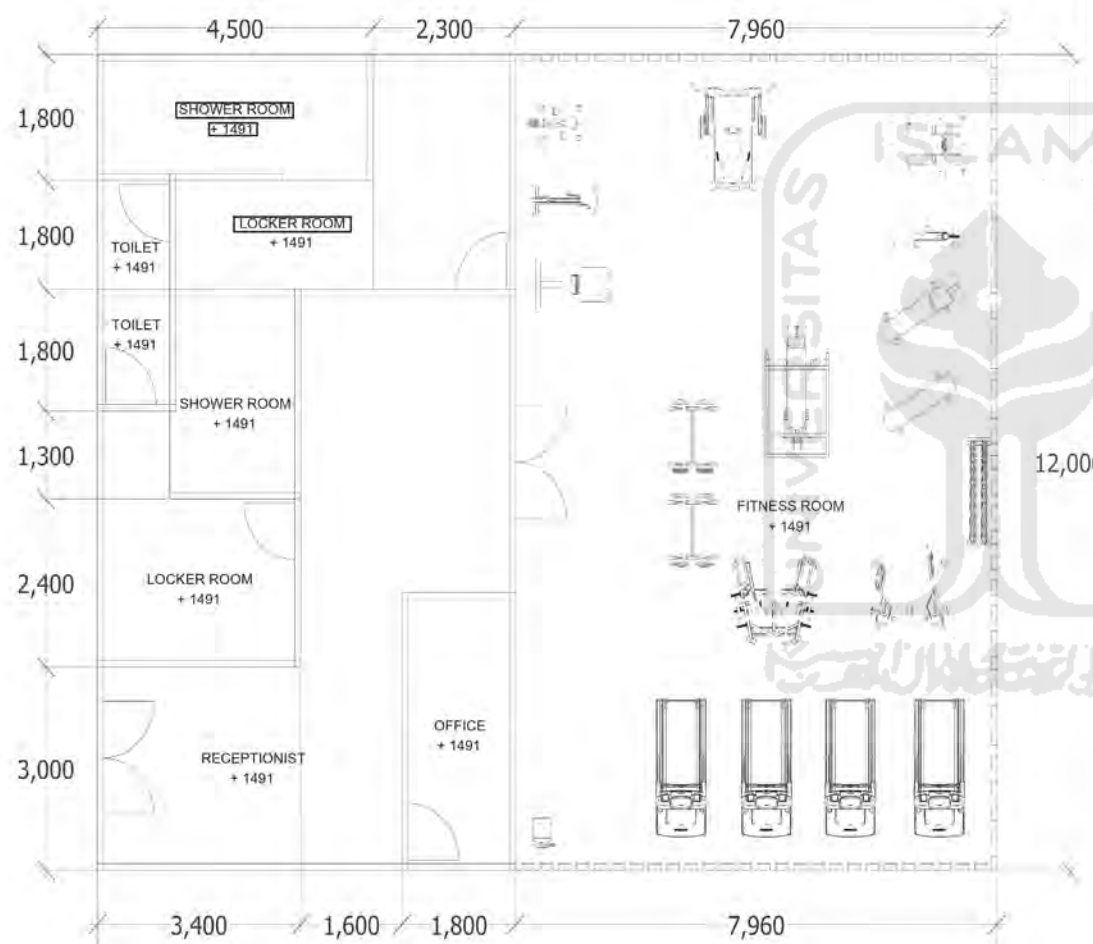
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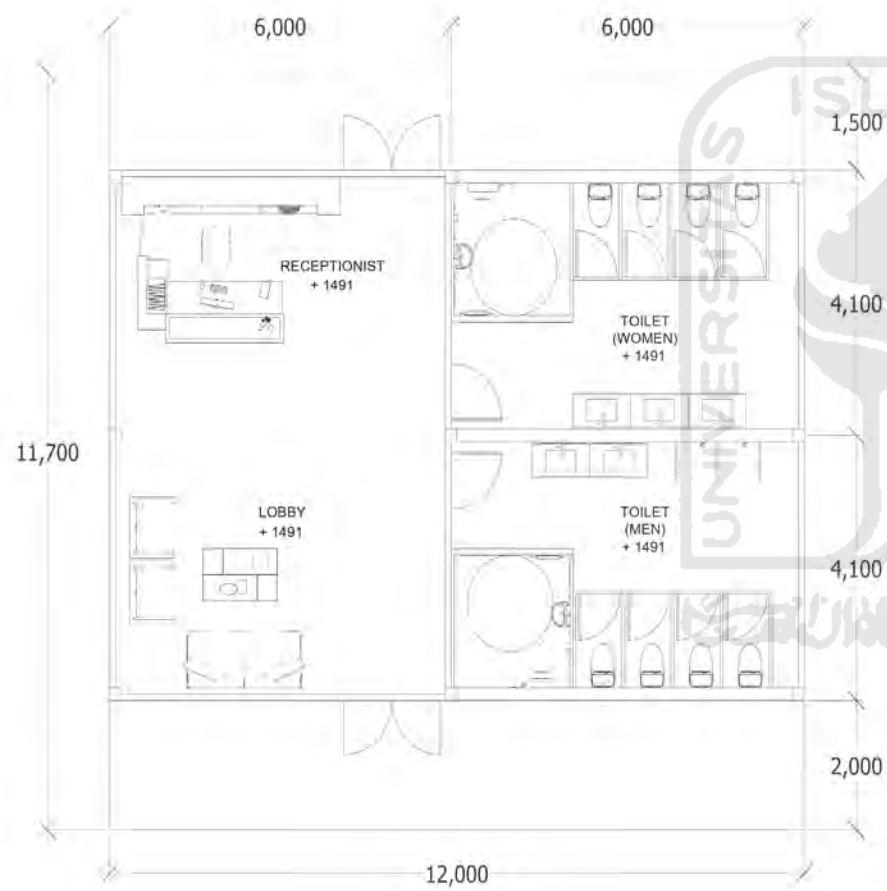
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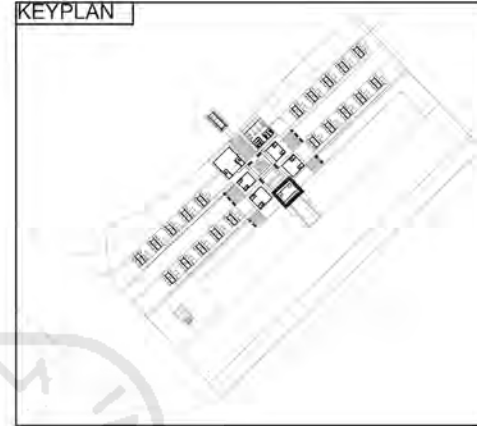
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UNIVERSITAS ISLAM INDONESIA

PROJECT NAME

TELAGA BATU ARANG RESORT

PROJECT ADDRESS

SWARGA BARA, NORTH SANGATTA, EAST
KUTAI REGENCY

SUPERVISOR

DR.-Ing., Revianto Budi Santosa., Dr.,

ARCHITECT

Nela Dwianti

STUDENT NUMBER

17512099

DRAWING TITLE

LOBBY FLOOR PLAN

DRAWING BY

Nela Dwianti



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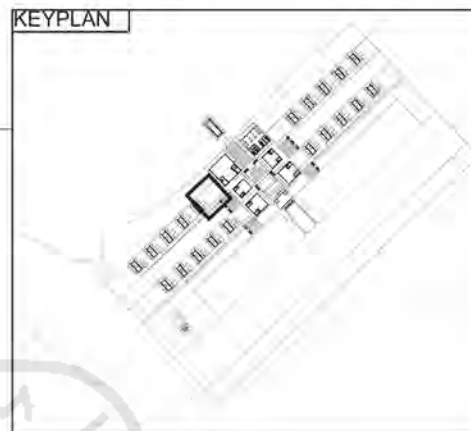
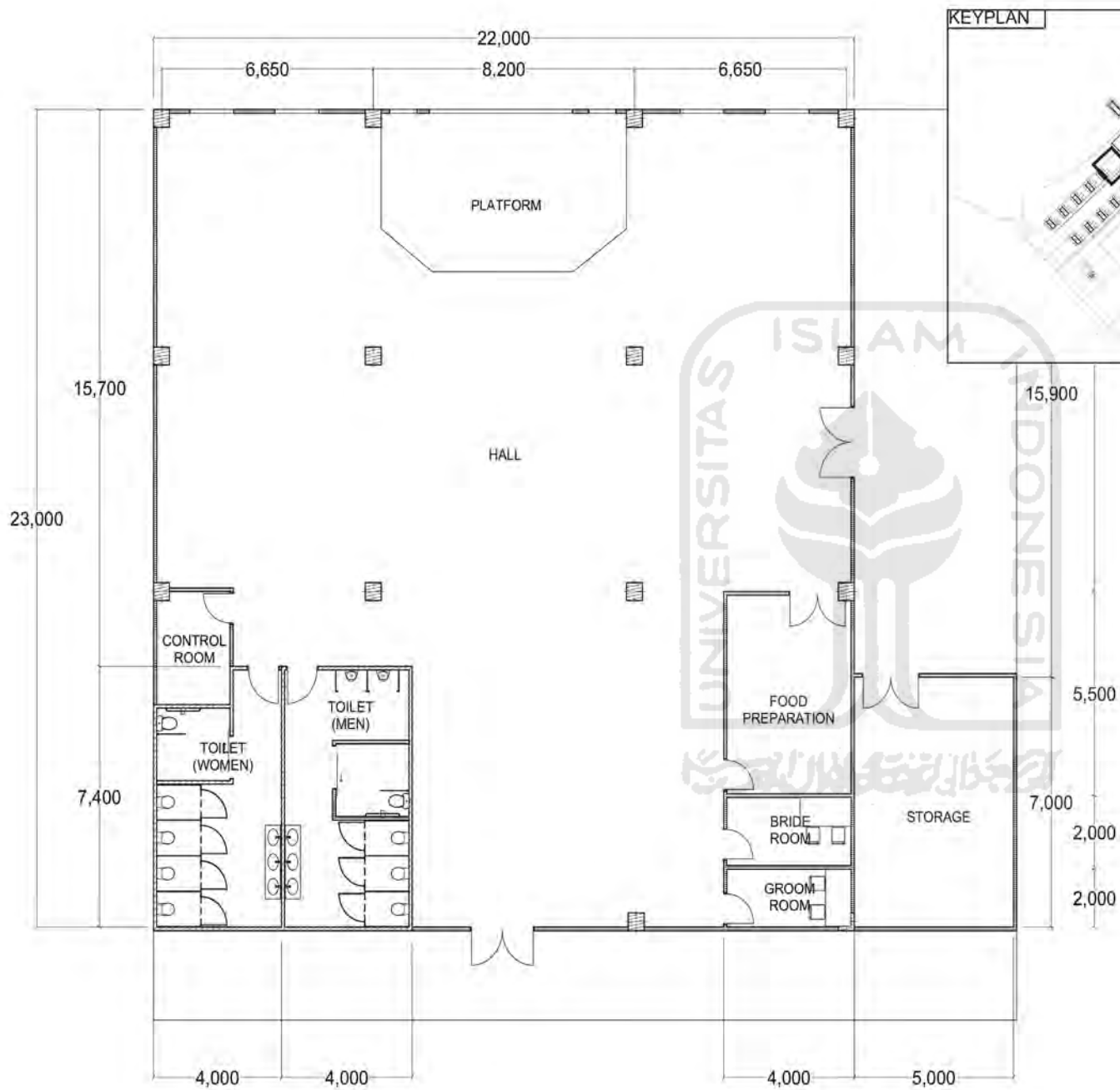
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TELAGA BATU ARANG RESORT

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ARCHITECT

Nela Dwianti

STUDENT NUMBER

17512099

DRAWING TITLE

MULTIPURPOSE HALL FLOOR
PLAN

DRAWING BY

Nela Dwianti



SCALE

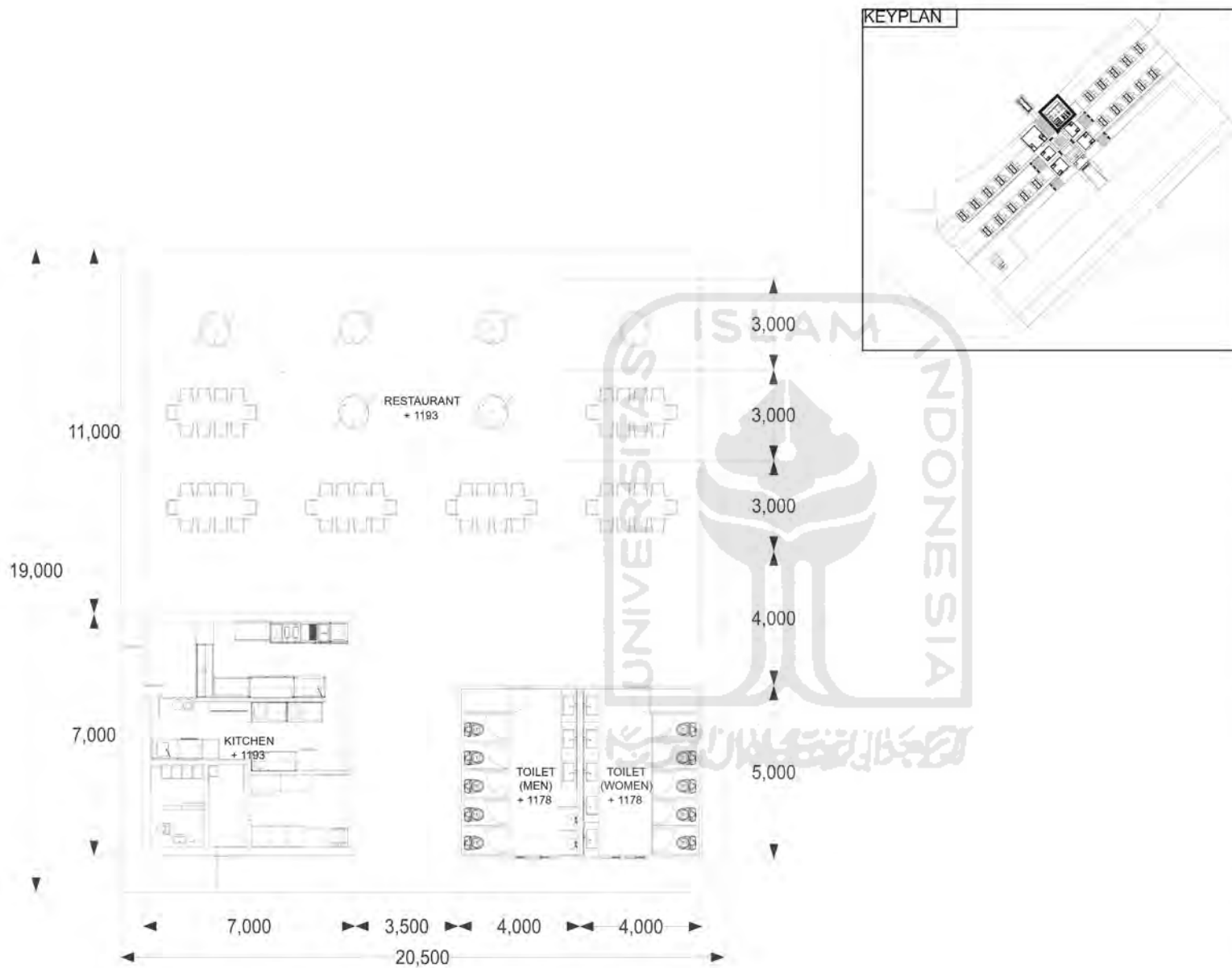
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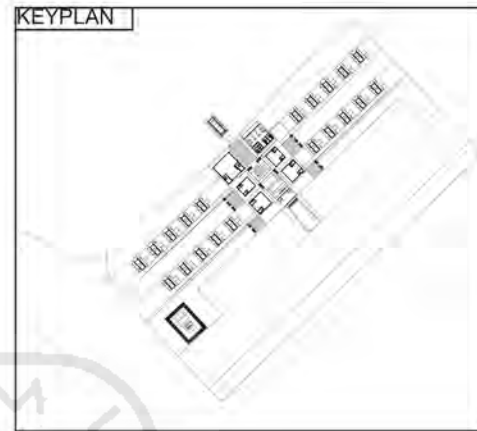
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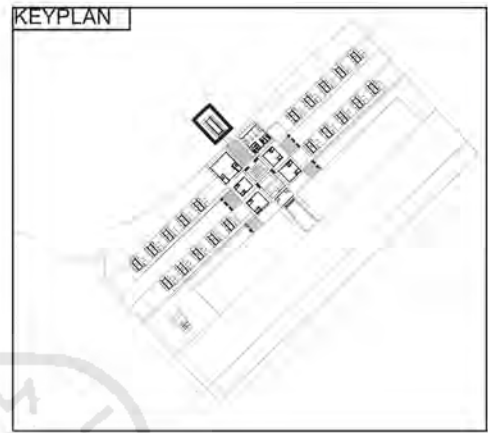
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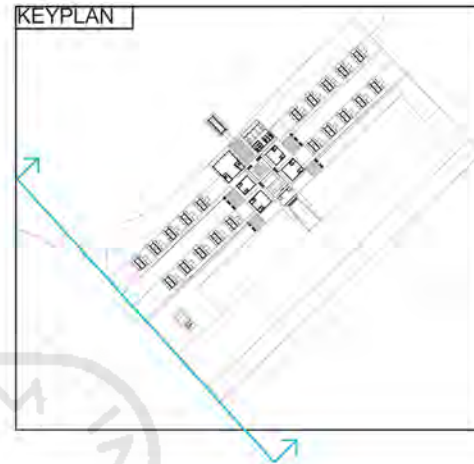
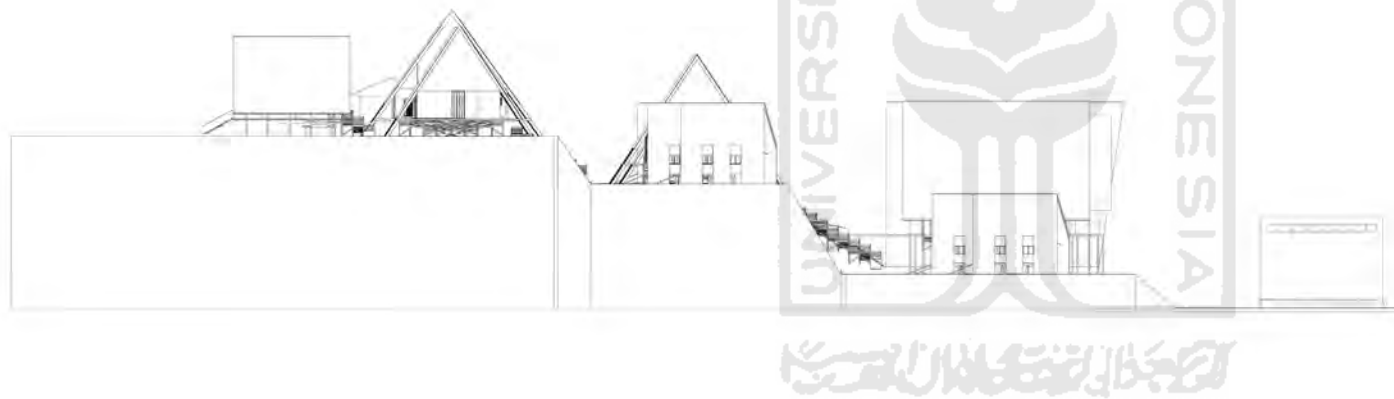
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SWARGA BARA, NORTH SANGATTA, EAST KUTAI REGENCY	
SUPERVISOR	
DR.-Ing., Revianto Budi Santosa., Dr.,	
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Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
RESTAURANT FLOOR PLAN	
DRAWING BY	
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SUPERVISOR	
DR.-Ing., Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
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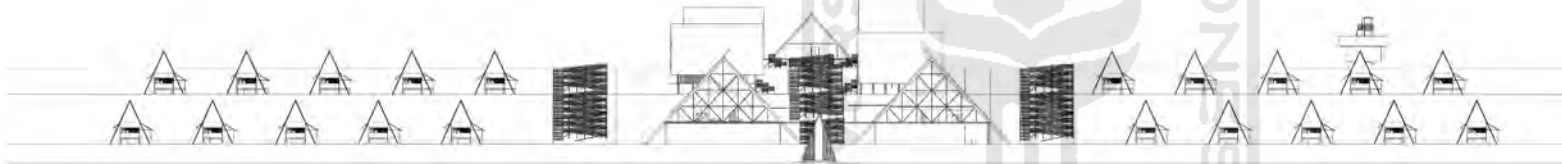
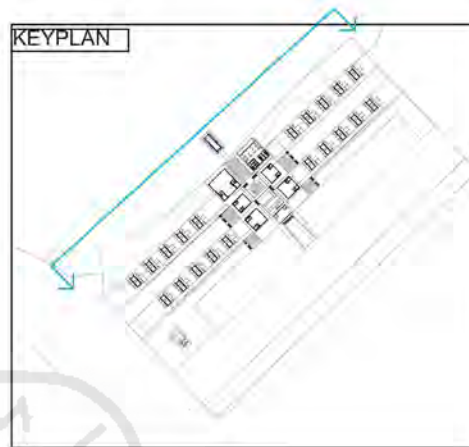


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SUPERVISOR	
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Nela Dwianti	
STUDENT NUMBER	
17512099	
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WEDDING HALL FLOOR PLAN	
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DR.-Ing.,Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
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SITE ELEVATION	
DRAWING BY	
Nela Dwianti	
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KEYPLAN



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STUDENT NUMBER

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DRAWING TITLE

SITE ELEVATION

DRAWING BY

Nela Dwianti



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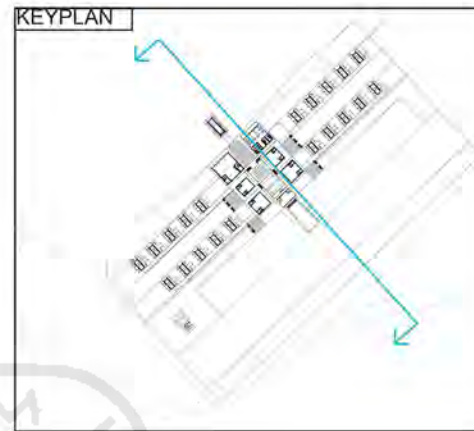
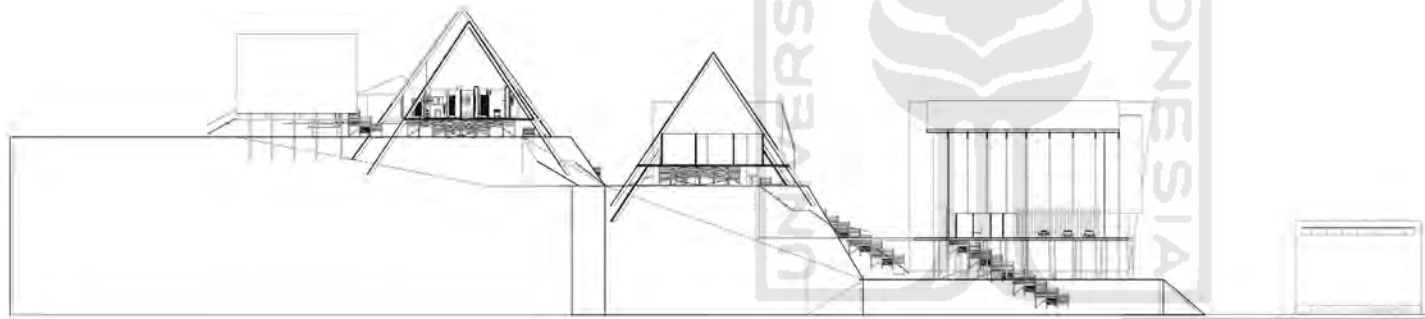
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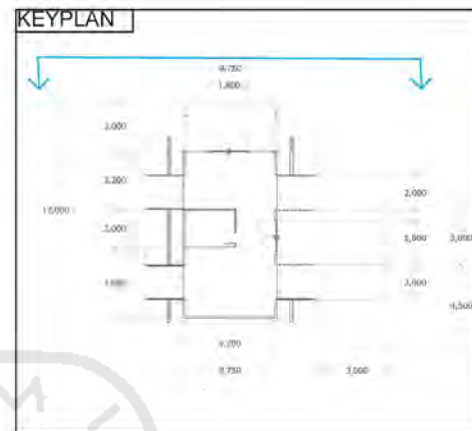
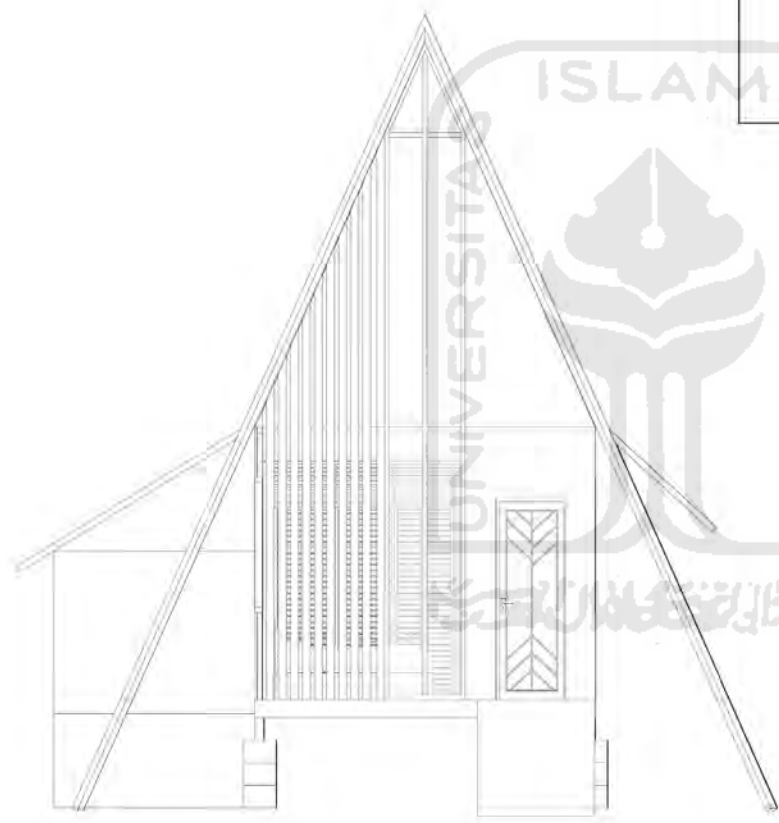
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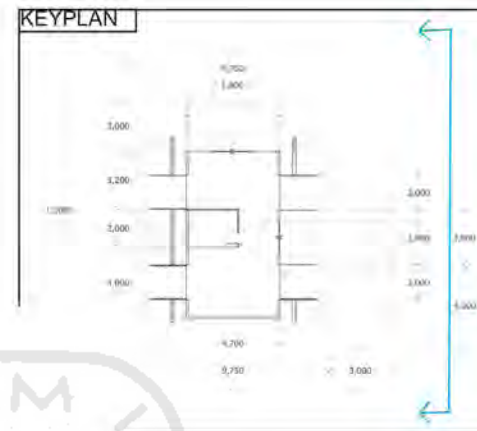
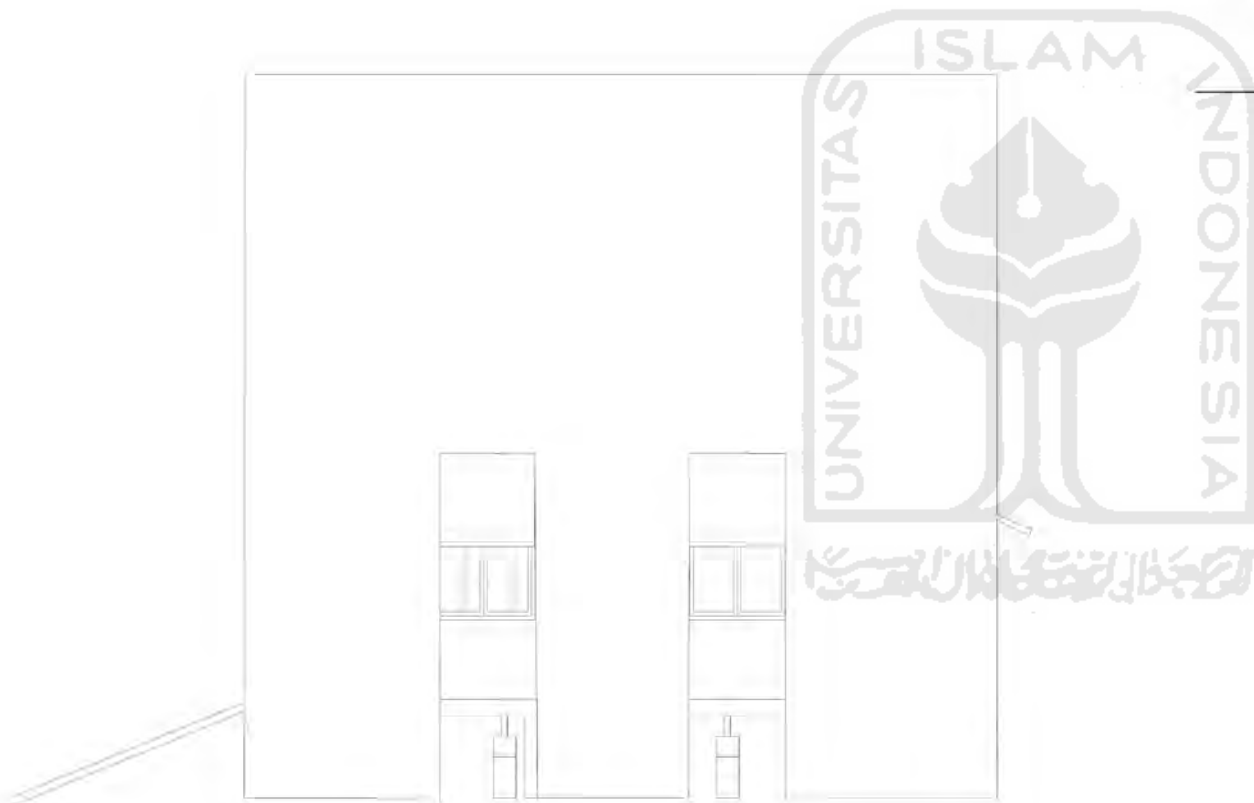
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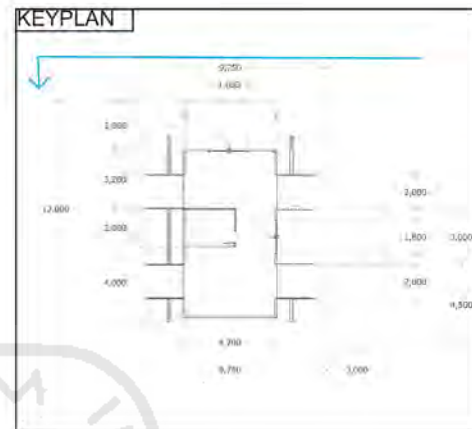
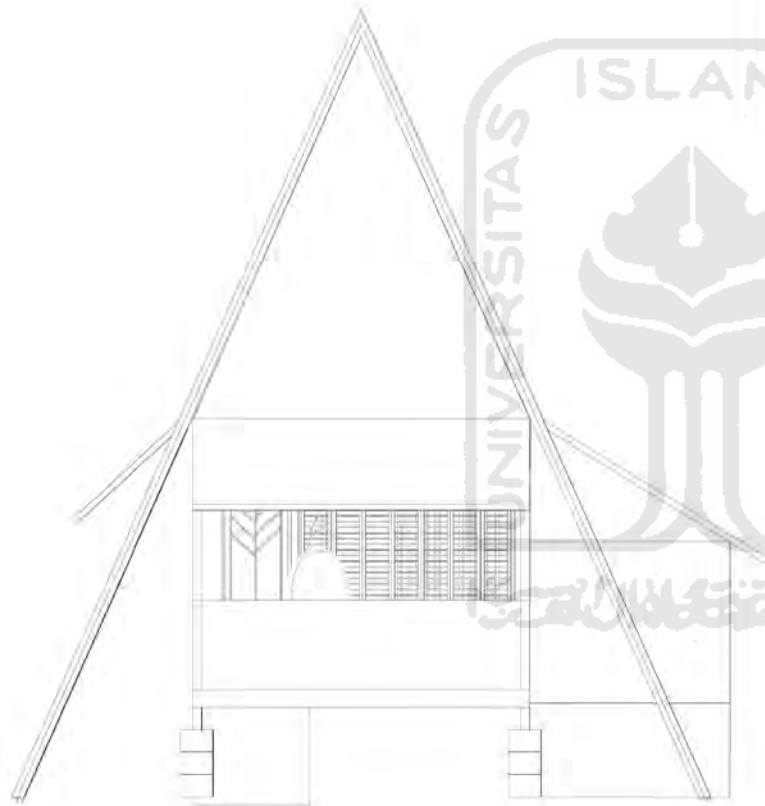
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Nela Dwianti	
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DR.-Ing., Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
17512099	
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RESORT UNIT ELEVATION	
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Nela Dwianti	
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PAGE

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Nela Dwianti

STUDENT NUMBER

17512099

DRAWING TITLE

PUBLIC BUILDING ELEVATION

DRAWING BY

Nela Dwianti



SCALE

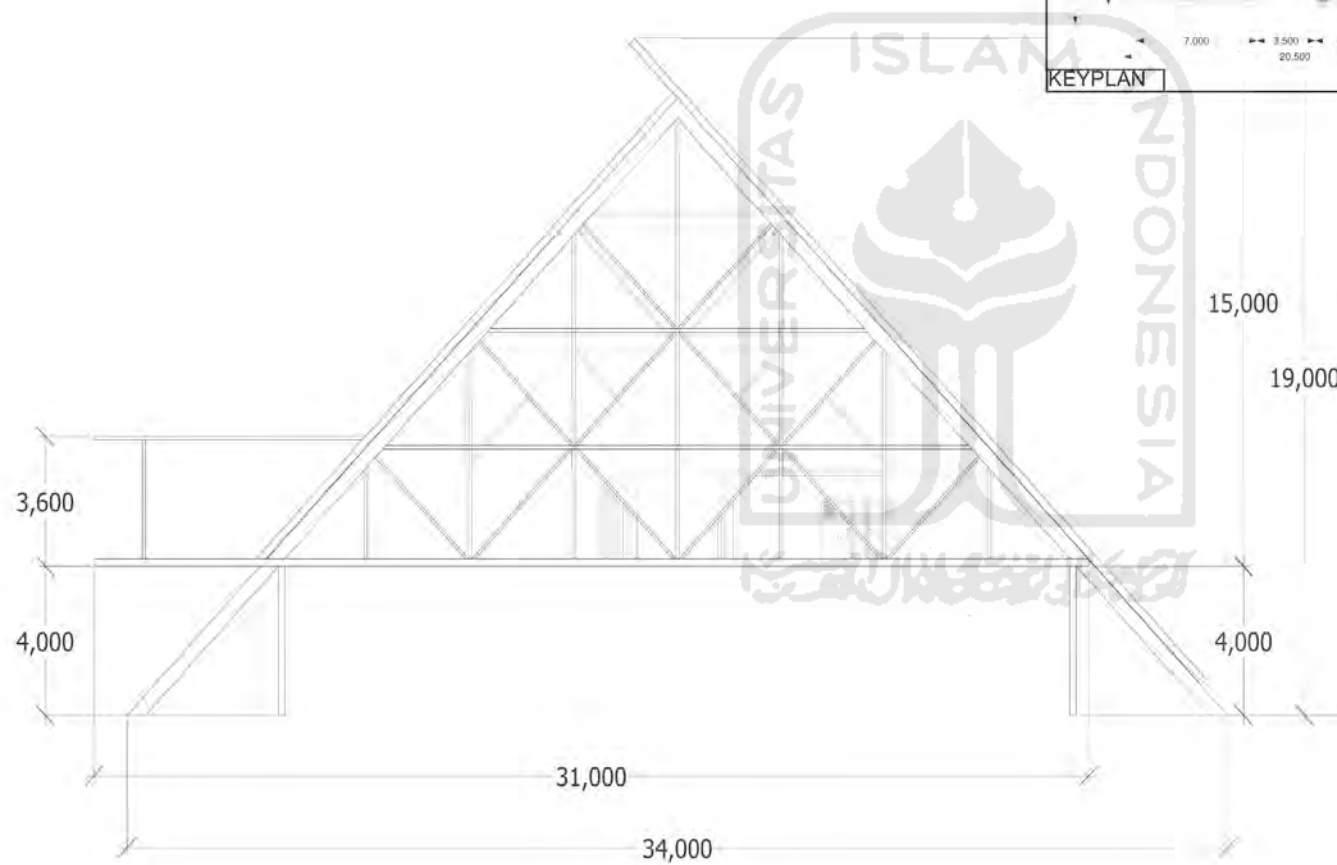
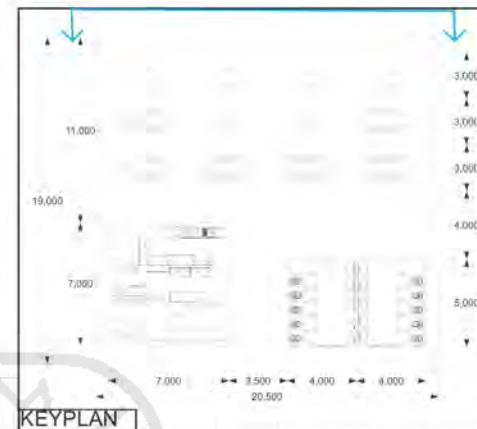
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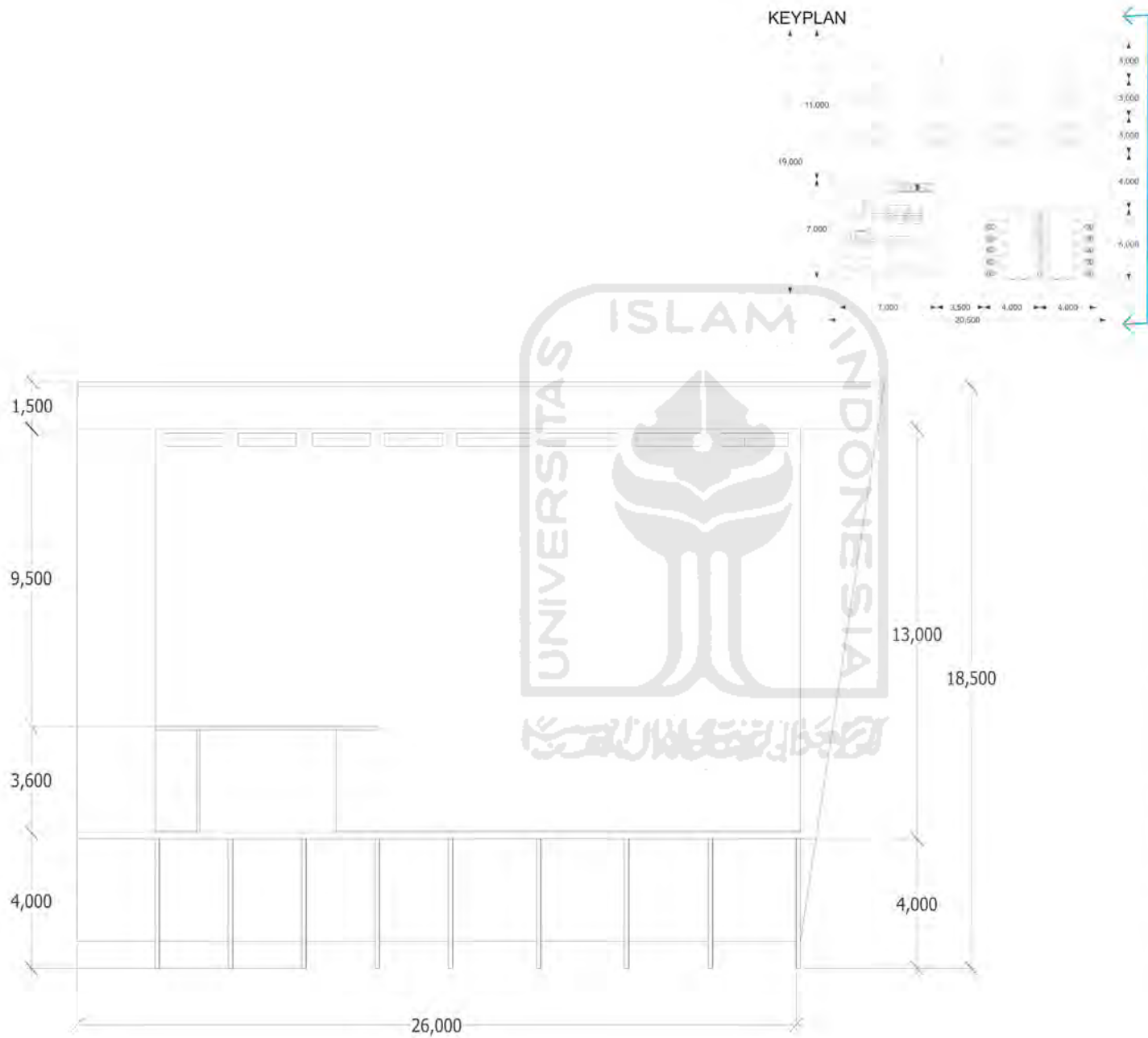
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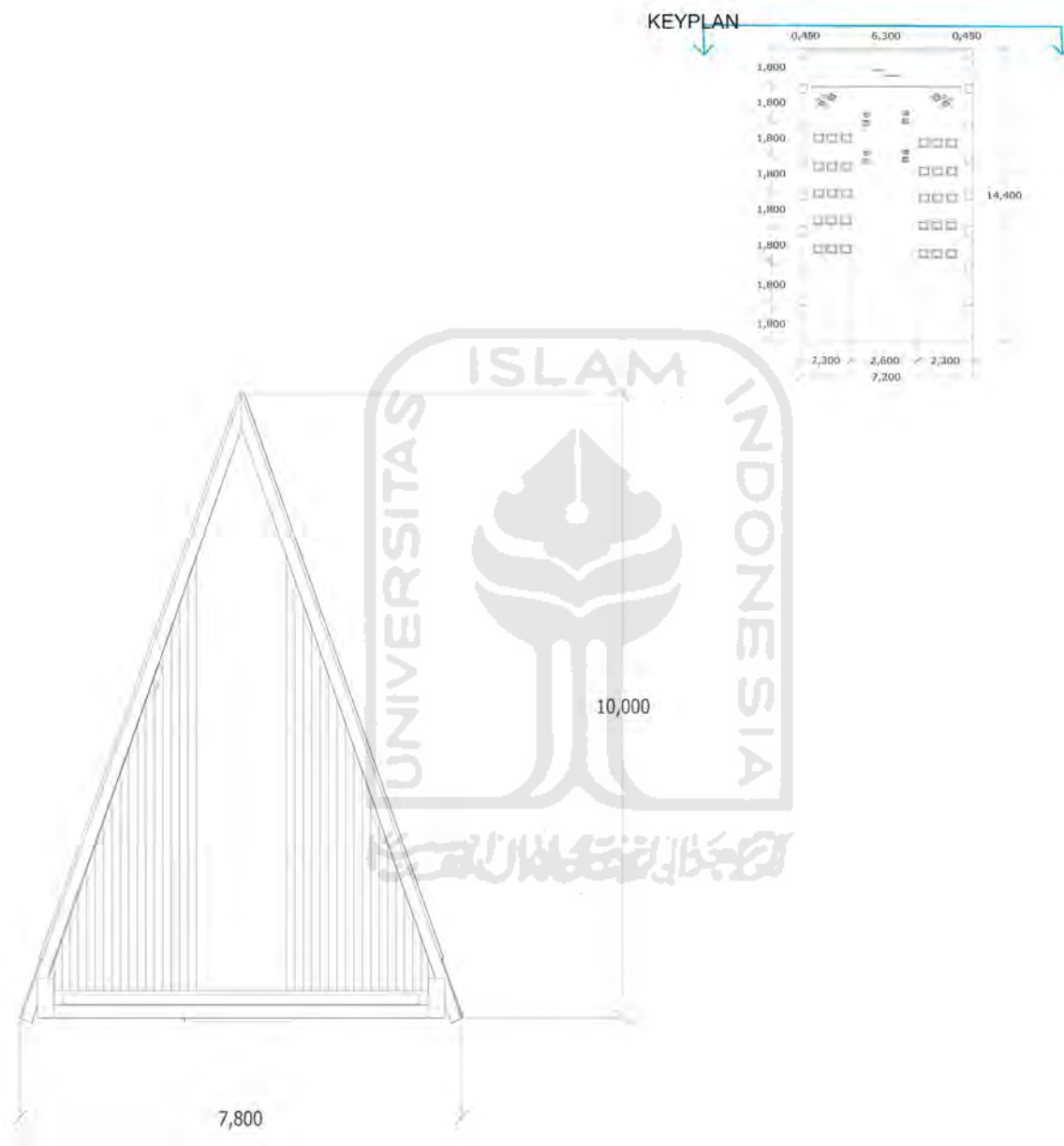
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DEPARTMENT OF ARCHITECTURE UNIVERSITAS ISLAM INDONESIA	
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TELAGA BATU ARANG RESORT	
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SWARGA BARA, NORTH SANGATTA, EAST KUTAI REGENCY	
SUPERVISOR	
DR.-Ing., Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
PUBLIC BUILDING ELEVATION	
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Nela Dwianti	
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PAGE	TOTAL
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UNIVERSITAS ISLAM INDONESIA

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PROJECT ADDRESS

SWARGA BARA, NORTH SANGATTA, EAST
KUTAI REGENCY

SUPERVISOR

DR.-Ing., Revianto Budi Santosa., Dr.,

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STUDENT NUMBER

17512099

DRAWING TITLE

WEDDING HALL ELEVATION

DRAWING BY

Nela Dwianti



SCALE

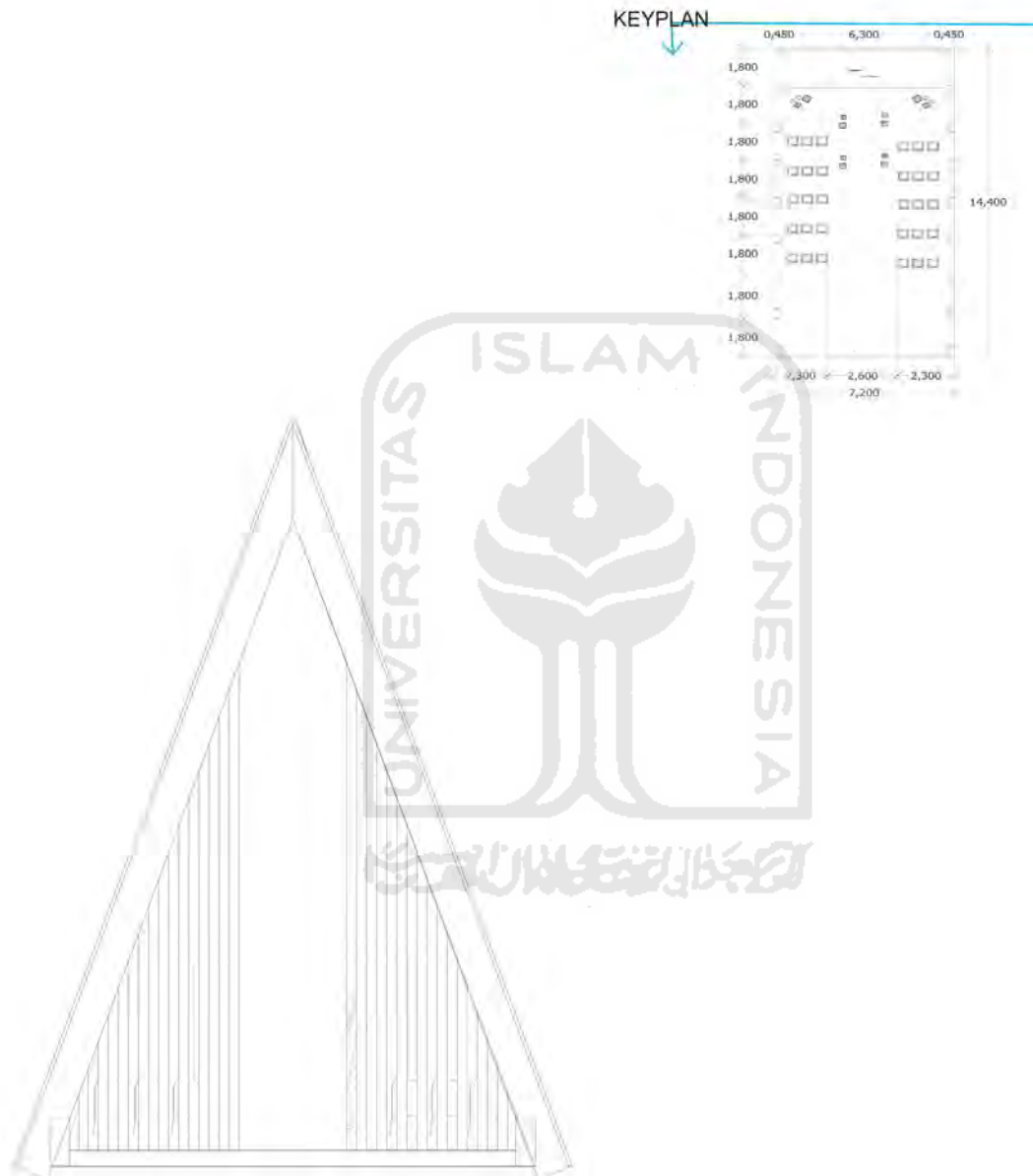
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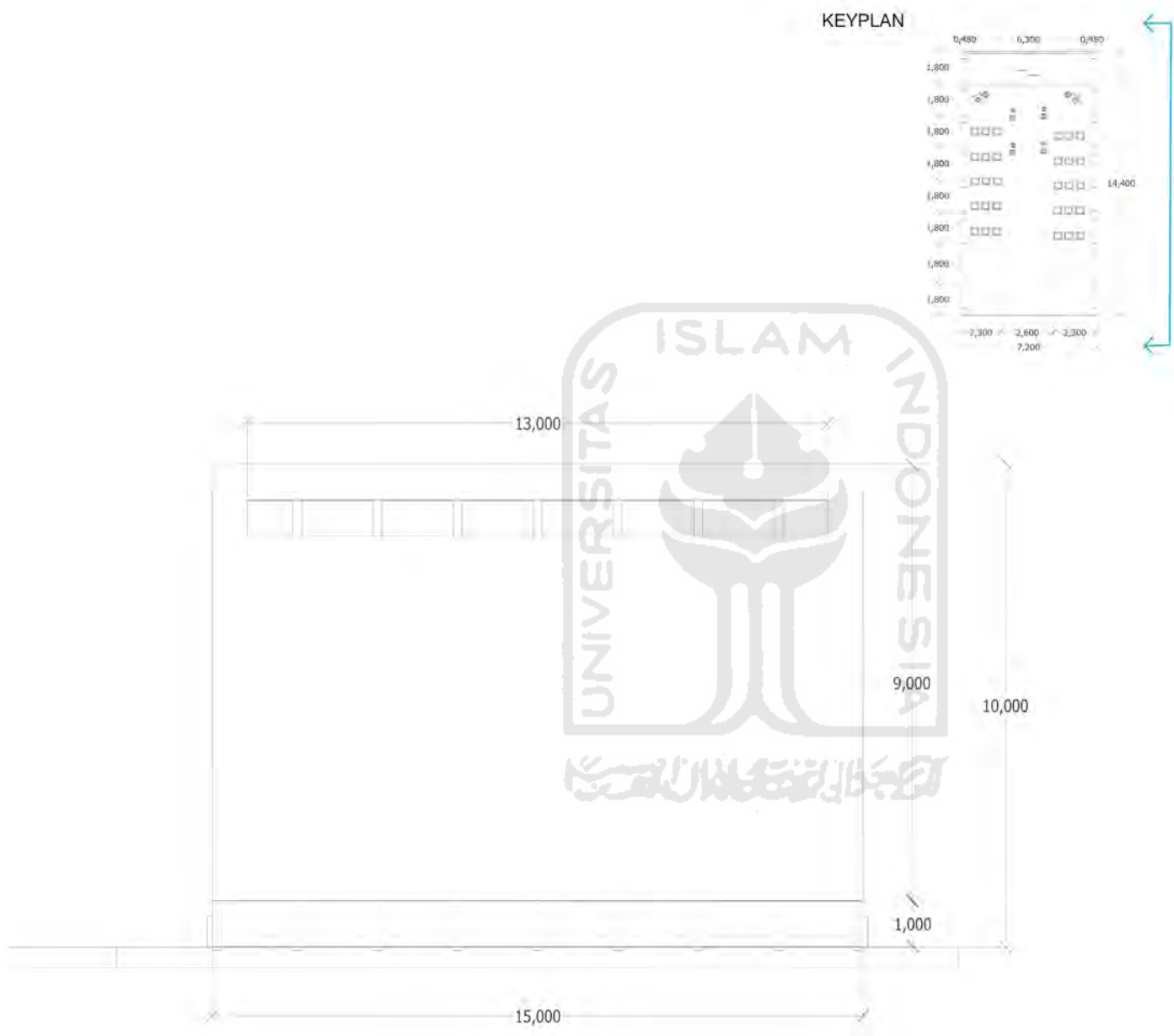
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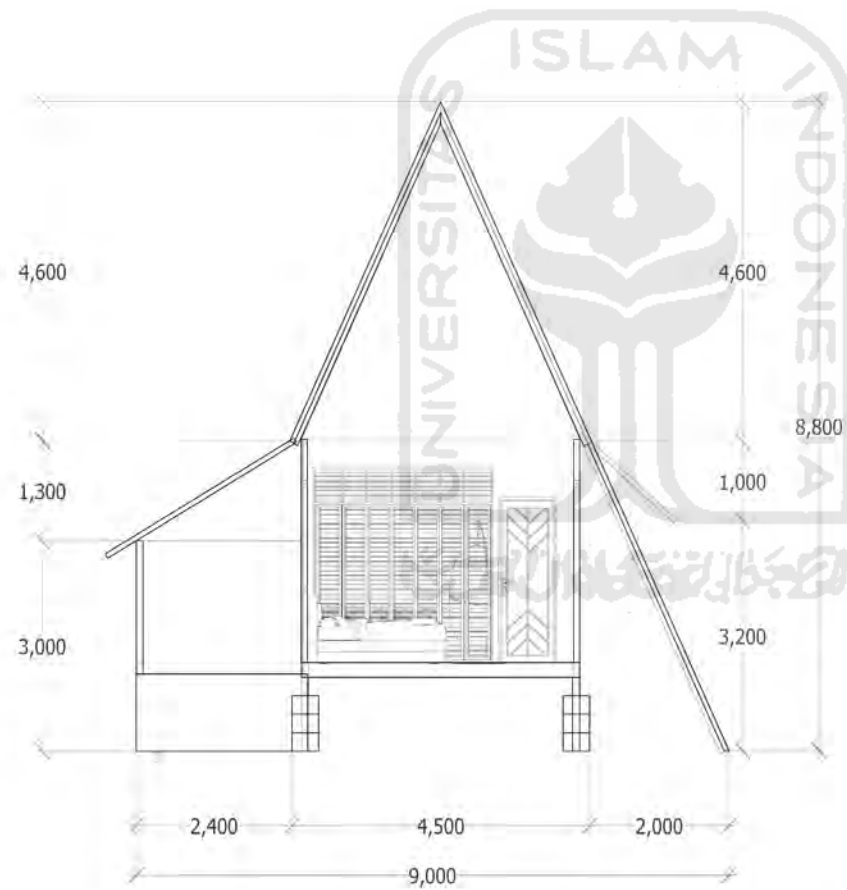
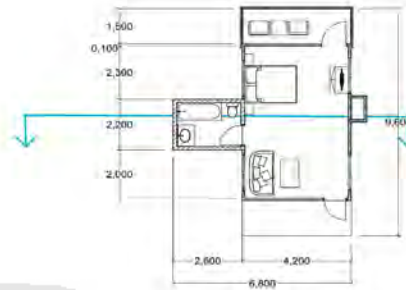


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PROJECT ADDRESS	
SWARGA BARA, NORTH SANGATTA, EAST KUTAI REGENCY	
SUPERVISOR	
DR.-Ing.,Revianto Budi Santosa., Dr.,	
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Nela Dwianti	
STUDENT NUMBER	
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SWARGA BARA, NORTH SANGATTA, EAST KUTAI REGENCY	
SUPERVISOR	
DR.-Ing.,Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
WEDDING HALL ELEVATION	
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Nela Dwianti	
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PAGE	TOTAL
24	40

KEYPLAN



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UNIVERSITAS ISLAM INDONESIA

PROJECT NAME

TELAGA BATU ARANG RESORT

PROJECT ADDRESS

SWARGA BARA, NORTH SANGATTA, EAST
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SUPERVISOR

DR.-Ing., Revianto Budi Santosa., Dr.,

ARCHITECT

Nela Dwianti

STUDENT NUMBER

17512099

DRAWING TITLE

RESORT UNIT SECTION

DRAWING BY

Nela Dwianti



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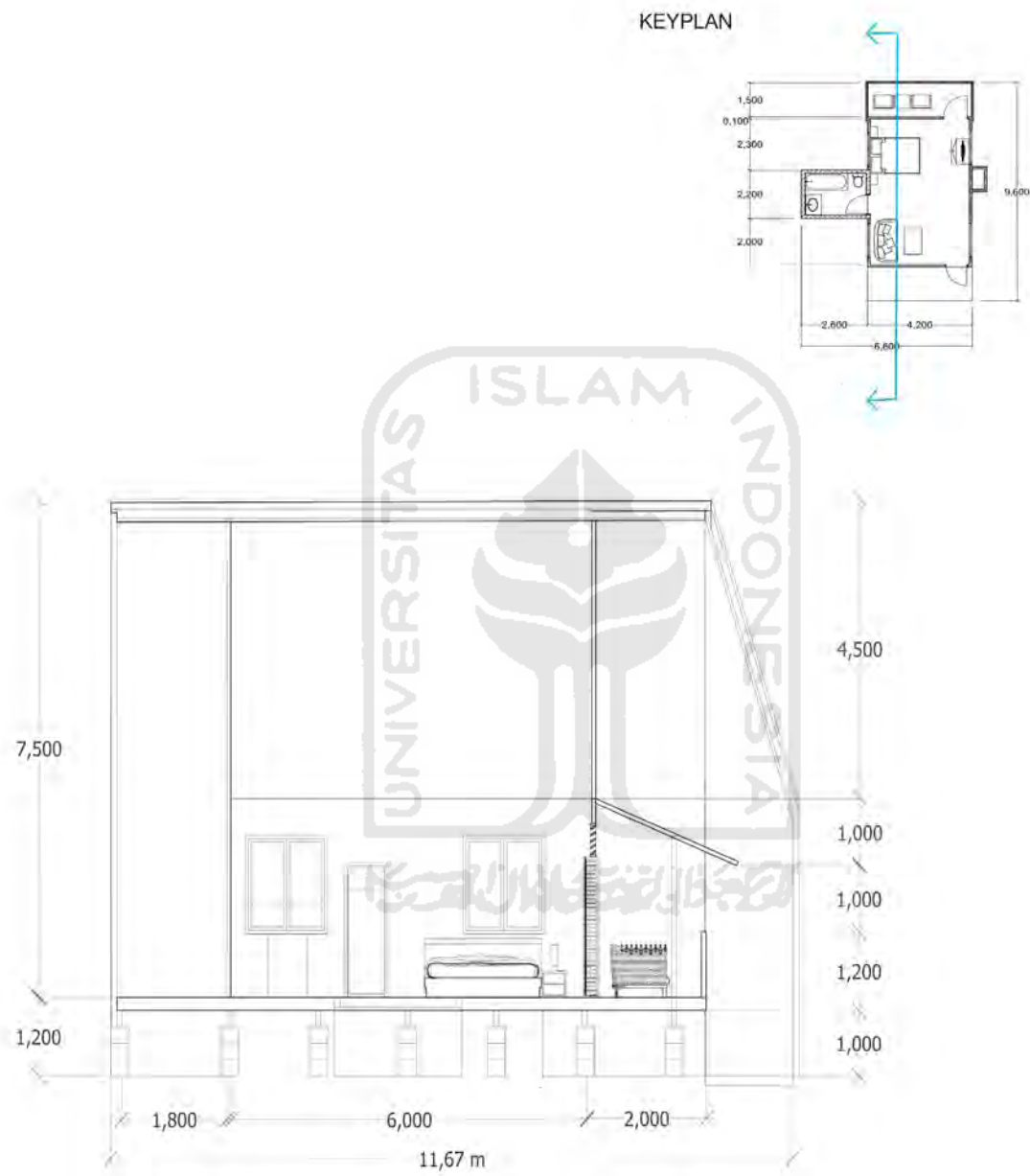
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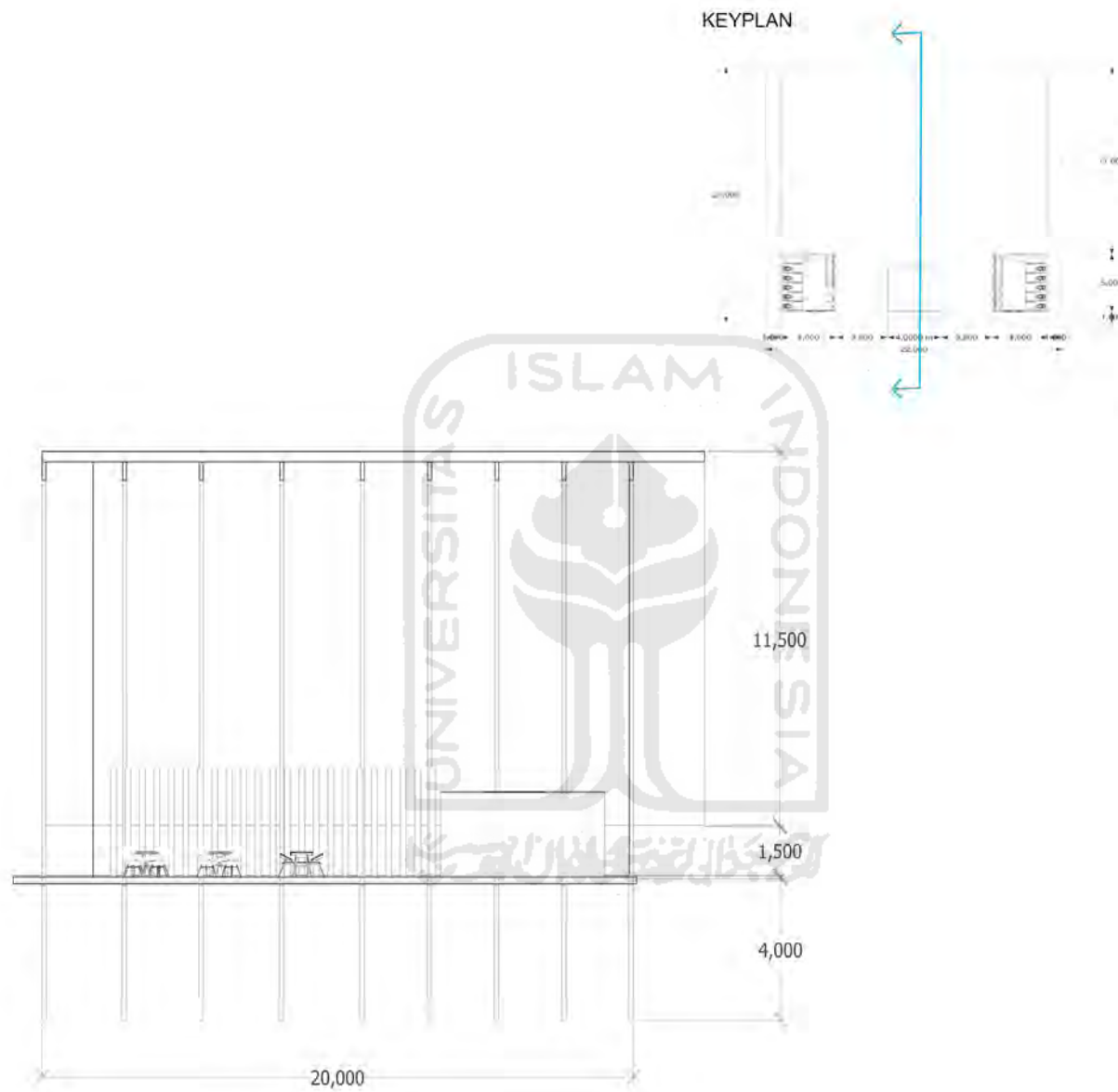
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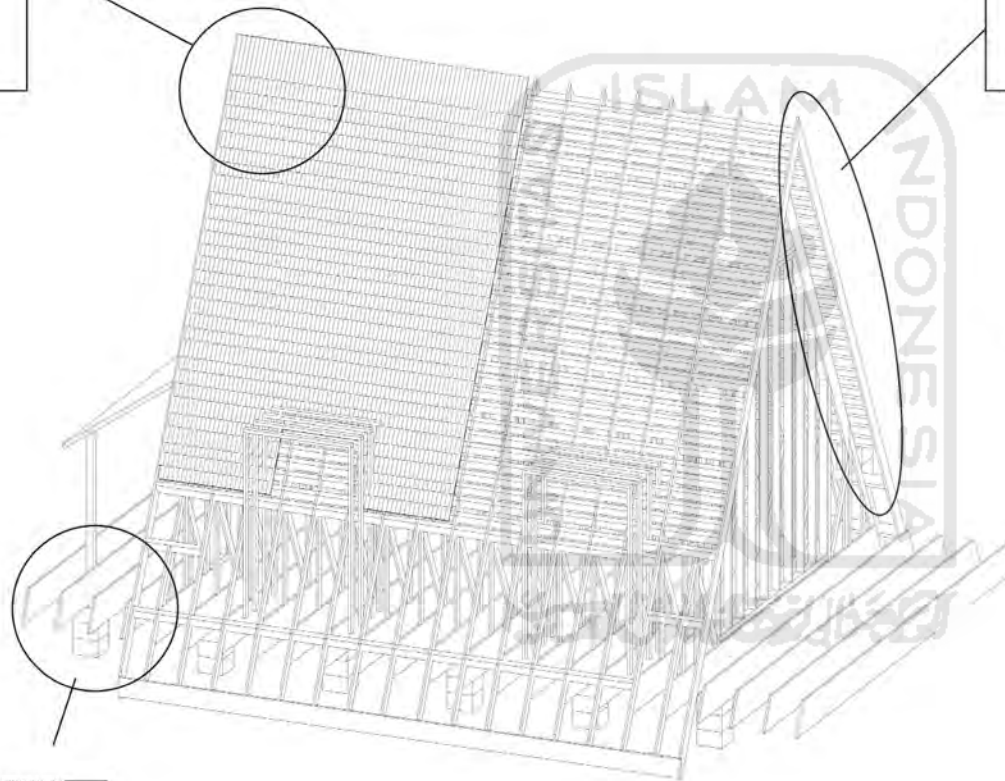
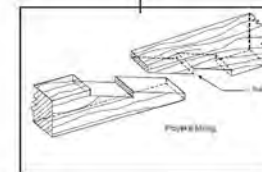
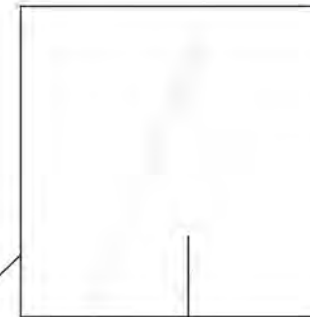
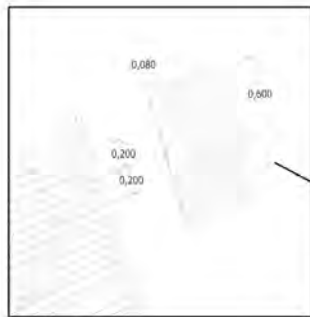
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PROJECT NAME	
TELAGA BATU ARANG RESORT	
PROJECT ADDRESS	
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SUPERVISOR	
DR.-Ing., Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
RESORT UNIT SECTION	
DRAWING BY	
Nela Dwianti	
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PAGE	TOTAL
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SUPERVISOR	
DR.-Ing., Revianto Budi Santosa., Dr.,	
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Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
PUBLIC BUILDING SECTION	
DRAWING BY	
Nela Dwianti	
	SCALE
	1 : 350
PAGE	TOTAL
27	40



1. SIMPSON HOLE CONNECTION DETAIL ATTACHED TO GIRDER IN SIMPSON DISCONNECTOR BRACKET MODEL PLANTING AND FINISHES	2. TRAPLE W/ FINISHES
3. 12"x12" CONCRETE FILL CELLS OVER W/ 400 P.S. CONCRETE GROUT	4. VERTICAL BAR W/ 12" SPACING
5. 10"x10" REINFORCED CONCRETE FOOTING W/ 400 P.S. W/ 10" W/ 10" W/ 10"	



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TELAGA BATU ARANG RESORT

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SWARGA BARA, NORTH SANGATTA, EAST
KUTAI REGENCY

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Nela Dwianti

STUDENT NUMBER

17512099

DRAWING TITLE

RESORT UNIT STRUCTURE

DRAWING BY

Nela Dwianti



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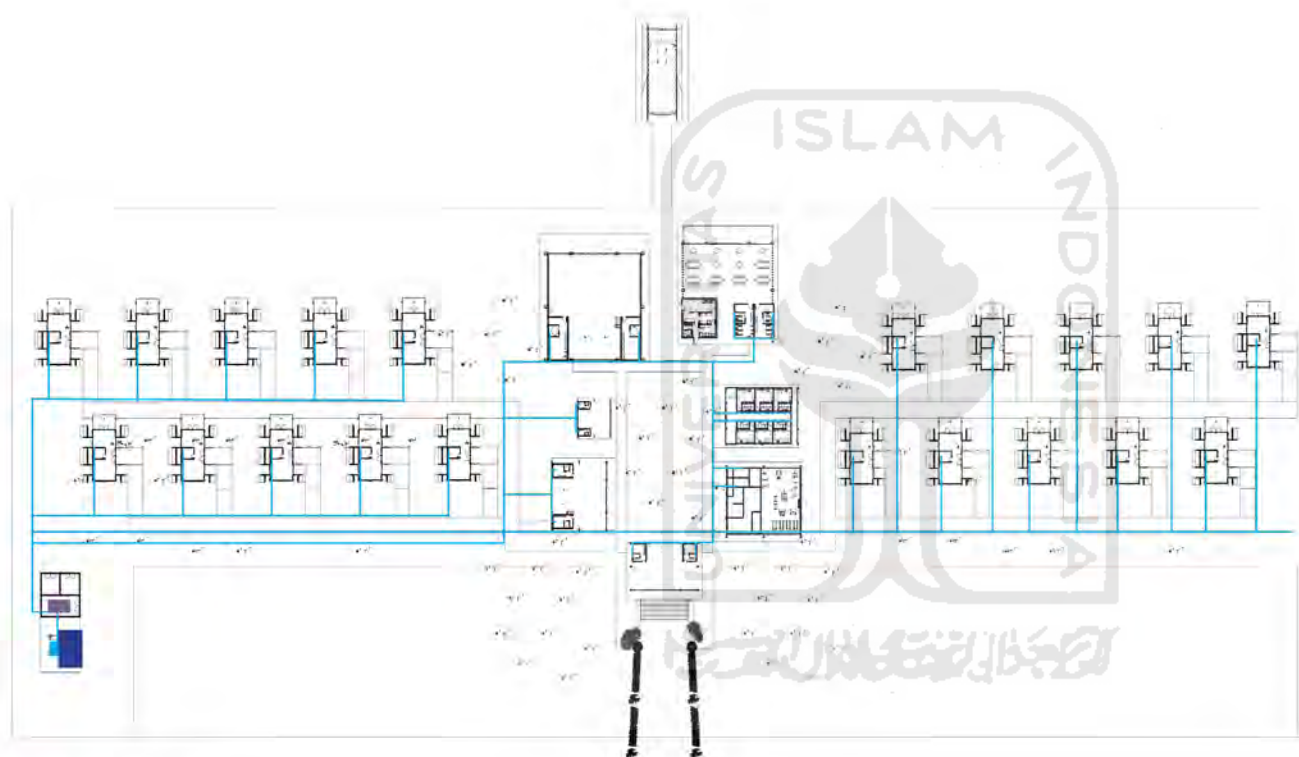
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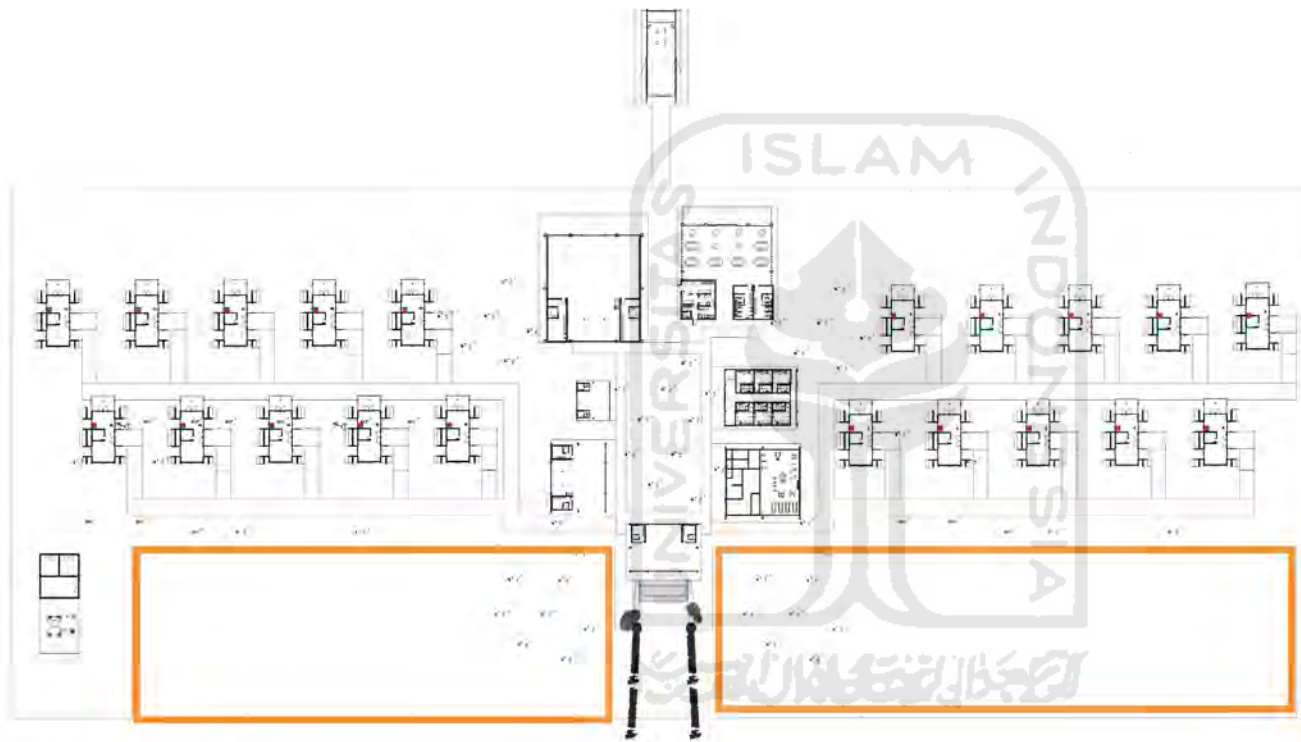
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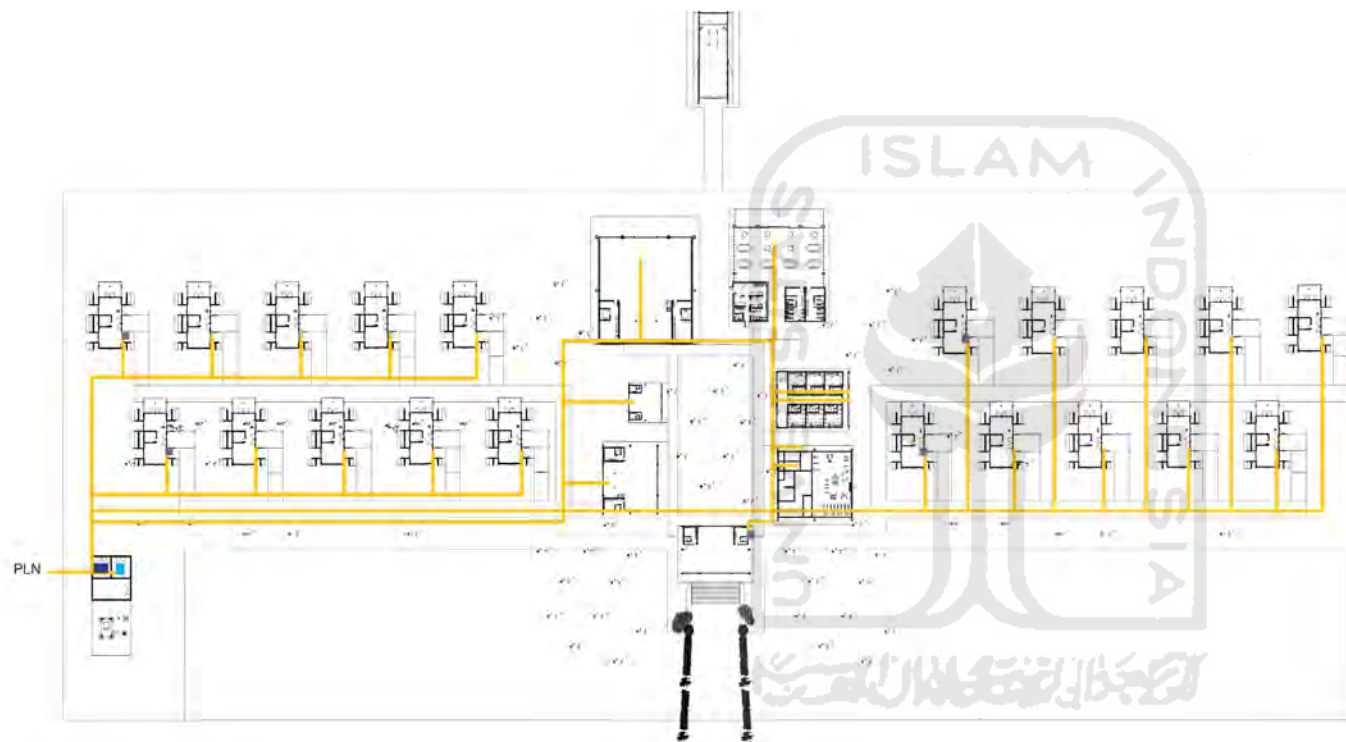
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- GROUND WATER TANK
- WATER PUMP

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DR.-Ing., Revianto Budi Santosa., Dr.,	
ARCHITECT	
Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
CLEAN WATER SCHEME	
DRAWING BY	
Nela Dwianti	
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- FIRE EXTINGUISHER
- EVACUATION AREA



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Nela Dwianti	
STUDENT NUMBER	
17512099	
DRAWING TITLE	
FIRE SAFETY SCHEME	
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Nela Dwianti	
	SCALE
	1 : 3500
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31	40



- GENERATOR
- TRAFU, MDP
- SDP

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DRAWING TITLE

RESORT UNIT EXTERIOR

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DEPARTMENT OF ARCHITECTURE
UNIVERSITAS ISLAM INDONESIA

PROJECT NAME

TELAGA BATU ARANG RESORT

PROJECT ADDRESS

SWARGA BARA, NORTH SANGATTA, EAST
KUTAI REGENCY

SUPERVISOR

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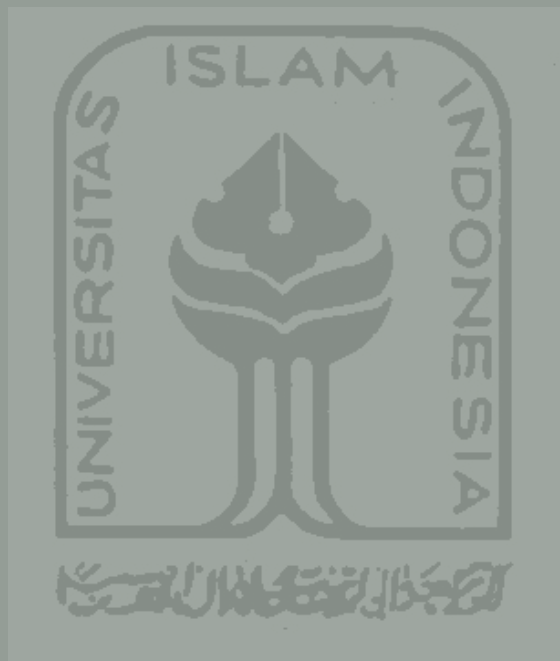
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