

PURPOSE OF EXISTENCE

Suspension Bridge

- To connect forest and Pantai Kerachut
- To provide an extensive view of Tasik Meromiktik
- To act as a clear border between the sea and the lake

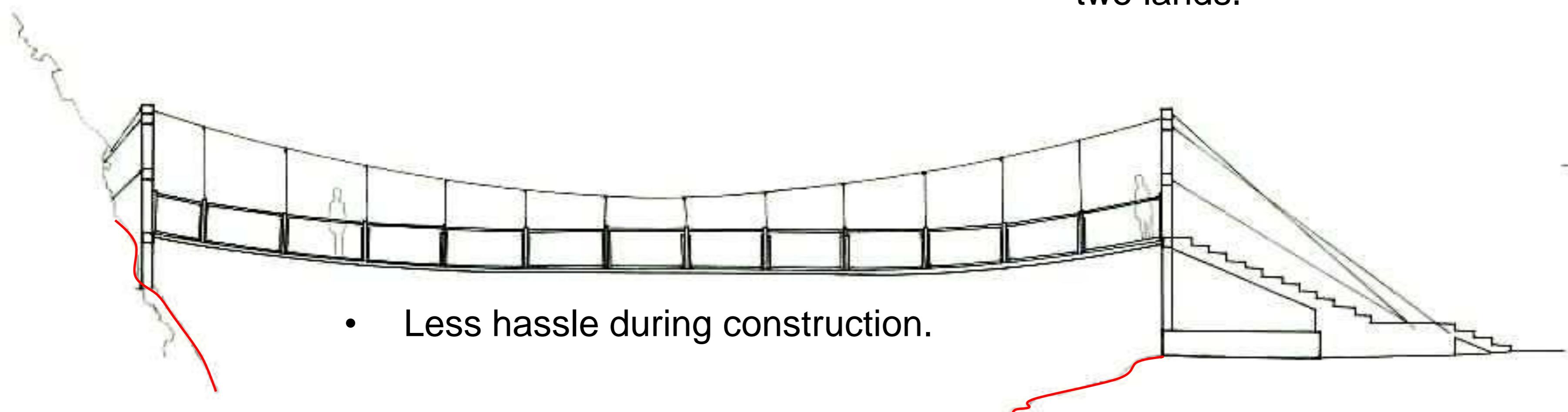


REASON OF CHOICE

Suspension Bridge

- Difference in height between the two lands.

- Less hassle during construction.



SCALE 1:100

MATERIALS USED

Suspension Bridge



Platform
Fibre Cement Board



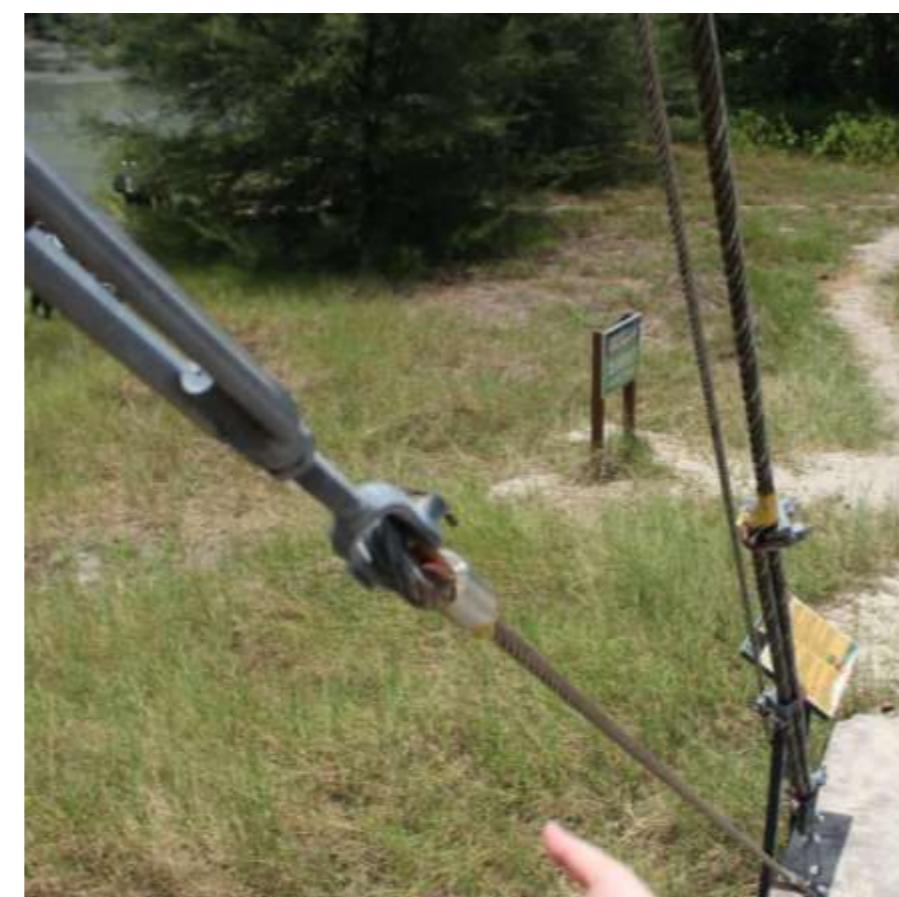
Handle
Polyvinyl Chloride



Base
Concrete



Columns
Concrete



Supporting Cables
Steel Cable



Supporting I – beams
Galvanized Mild Steel

REASON OF CHOICE

Suspension Bridge



EXISTING STRUCTURE

PURPOSE OF EXISTENCE

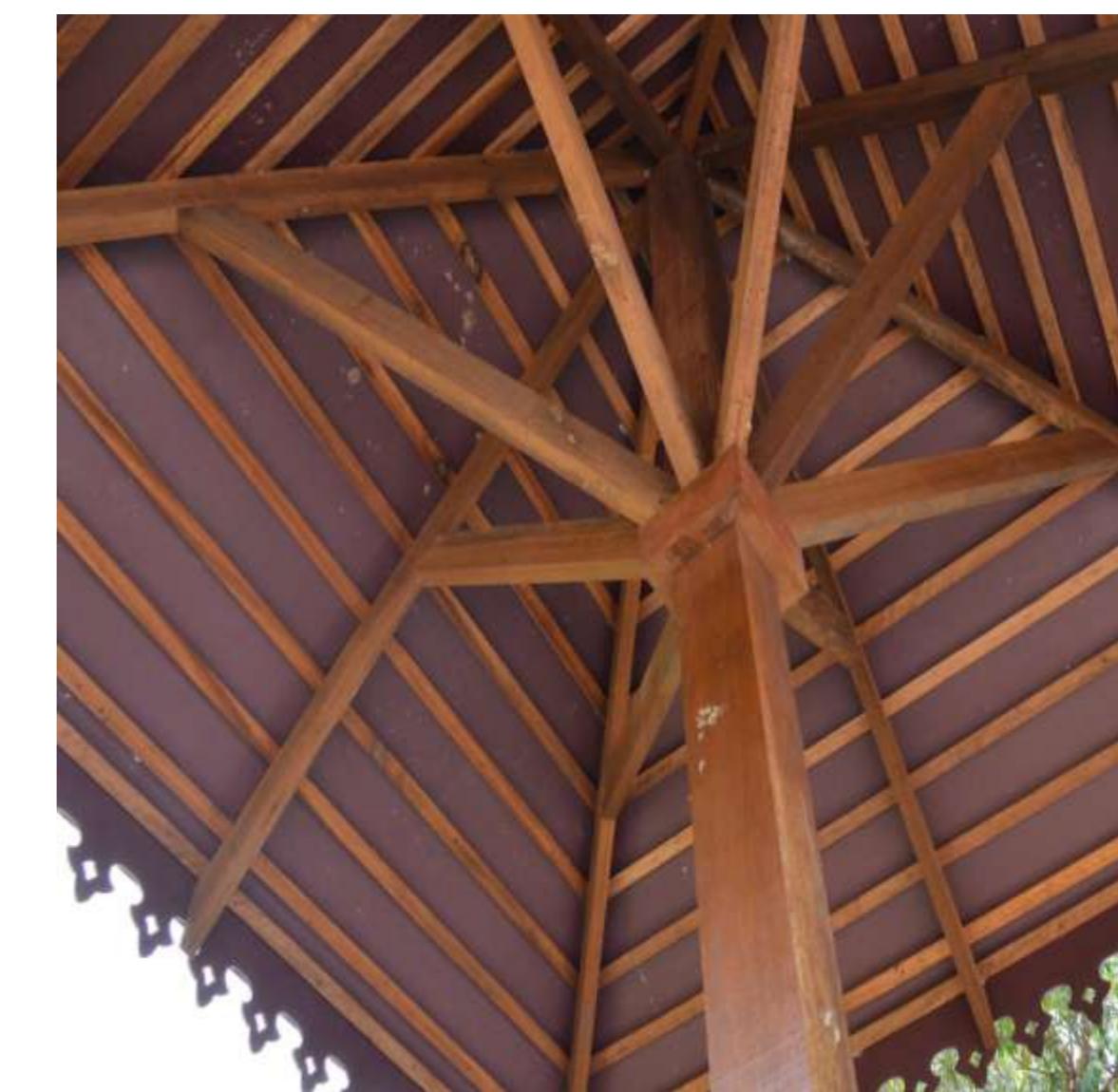
Shelter

- Acts as a shelter during sunny or rainy days
- To allow mountain hikers and beach lovers to have a nice place to rest
- To bring the Malay traditional flavours to Pantai Kerachut



MATERIALS USED

Shelter



Kapur Wood – Shellac coated

PURPOSE OF EXISTENCE

Guard Post

- To provide security
- To ensure cleanliness
- To carry out registration



MATERIALS USED

Guard Post



Kapur Wood – Shellac coated

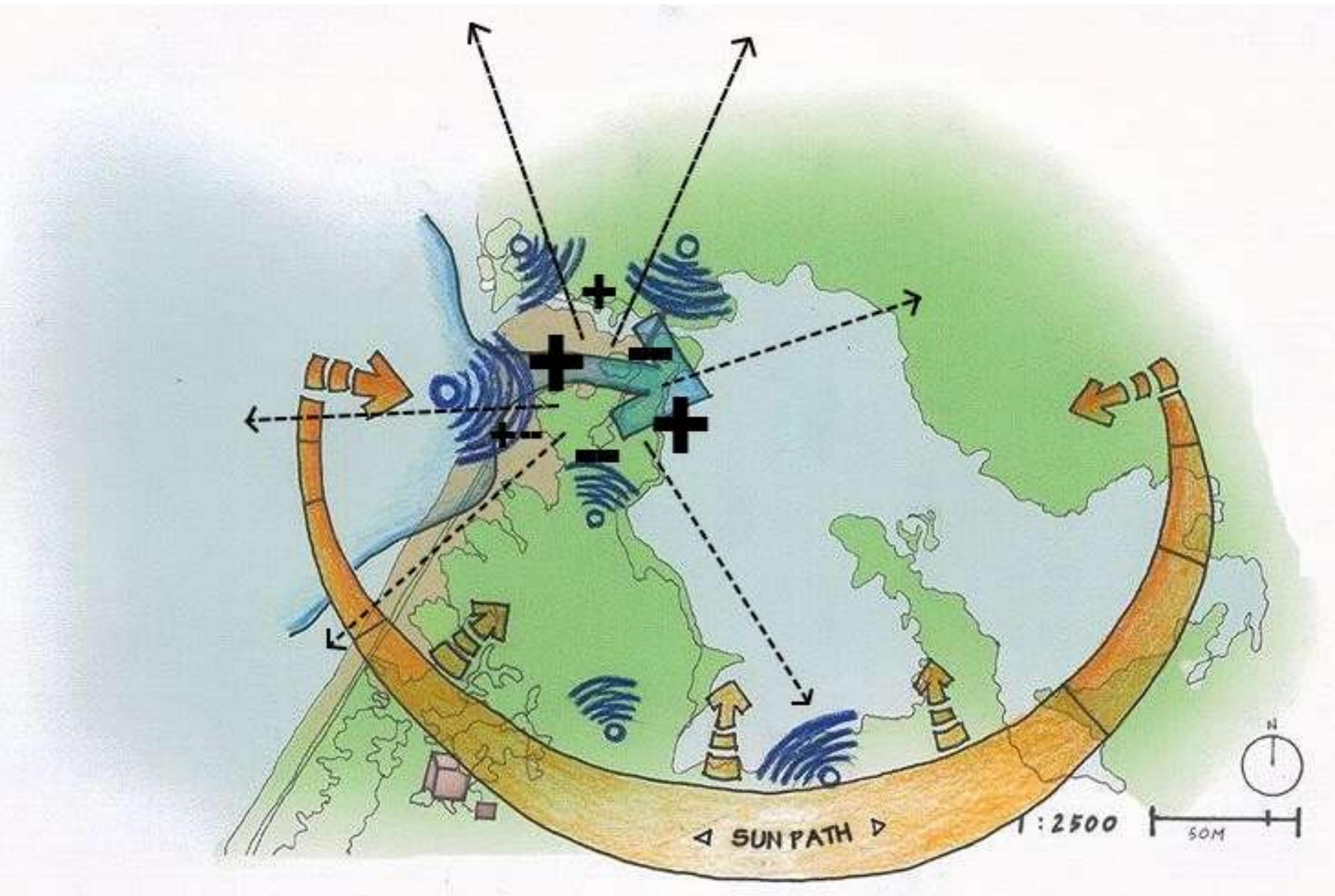
PURPOSE OF EXISTENCE

Sign Boards



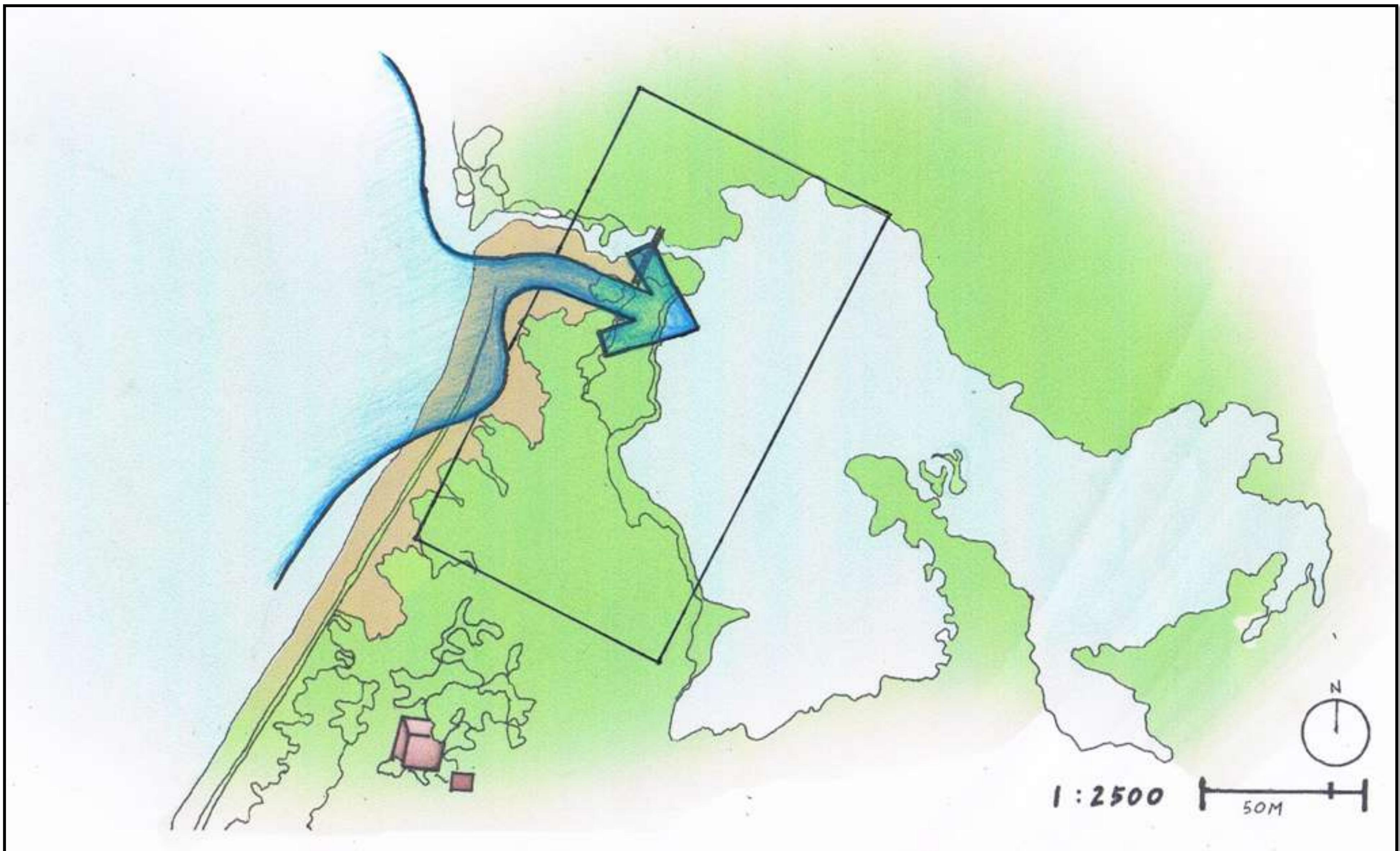
EXISTING STRUCTURE

SITE ANALYSIS



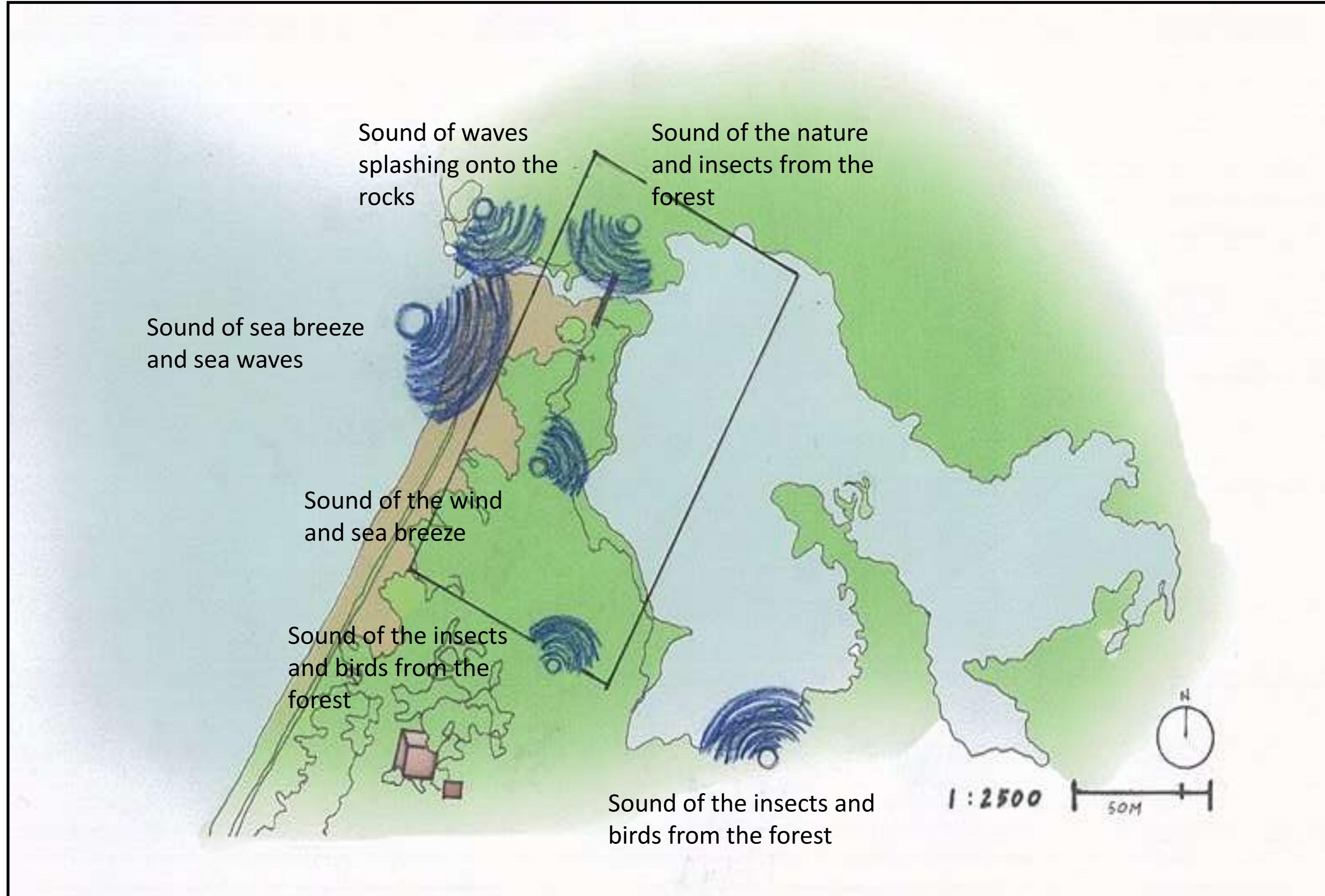
VIEWS AND SENSORY

WIND

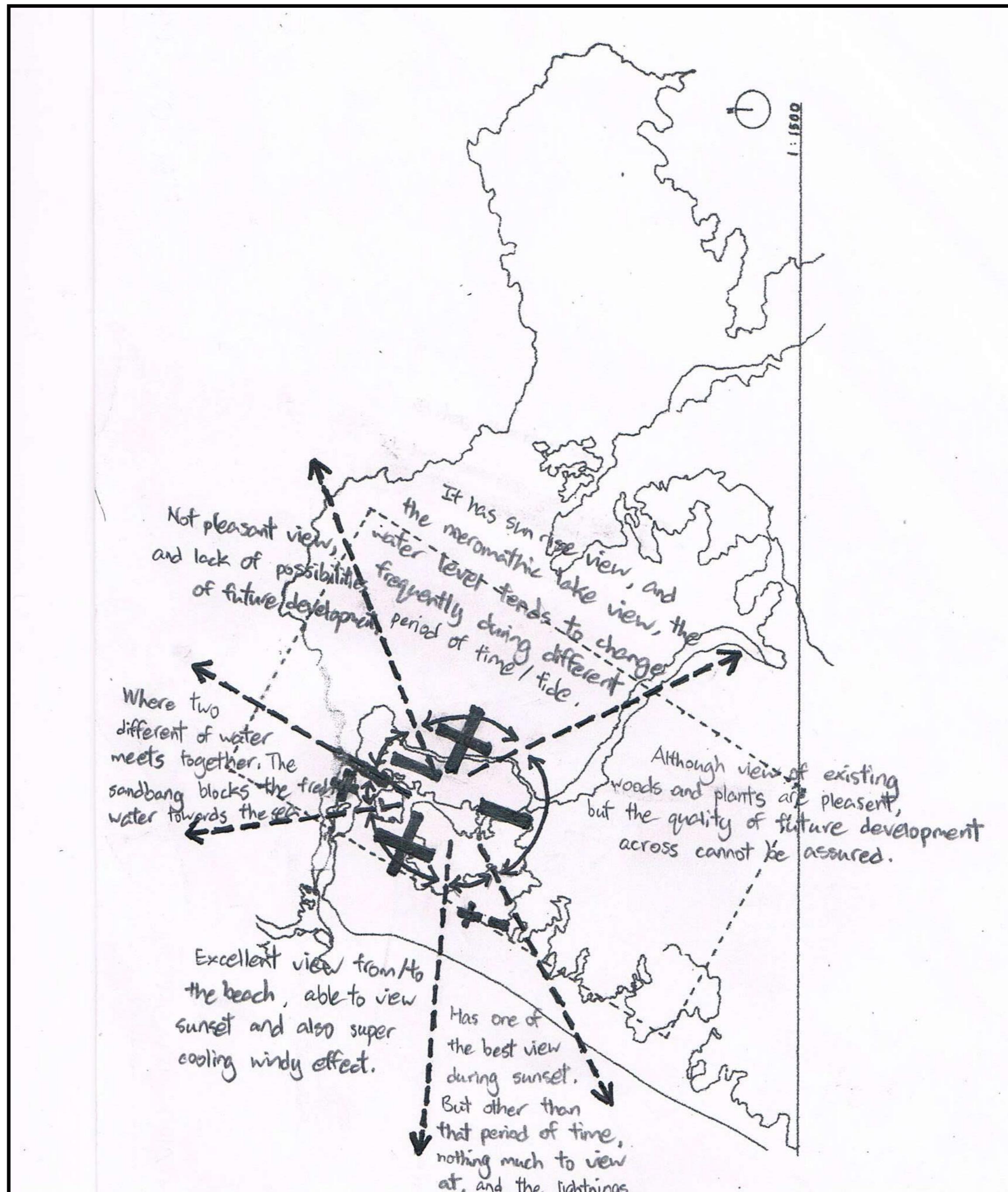


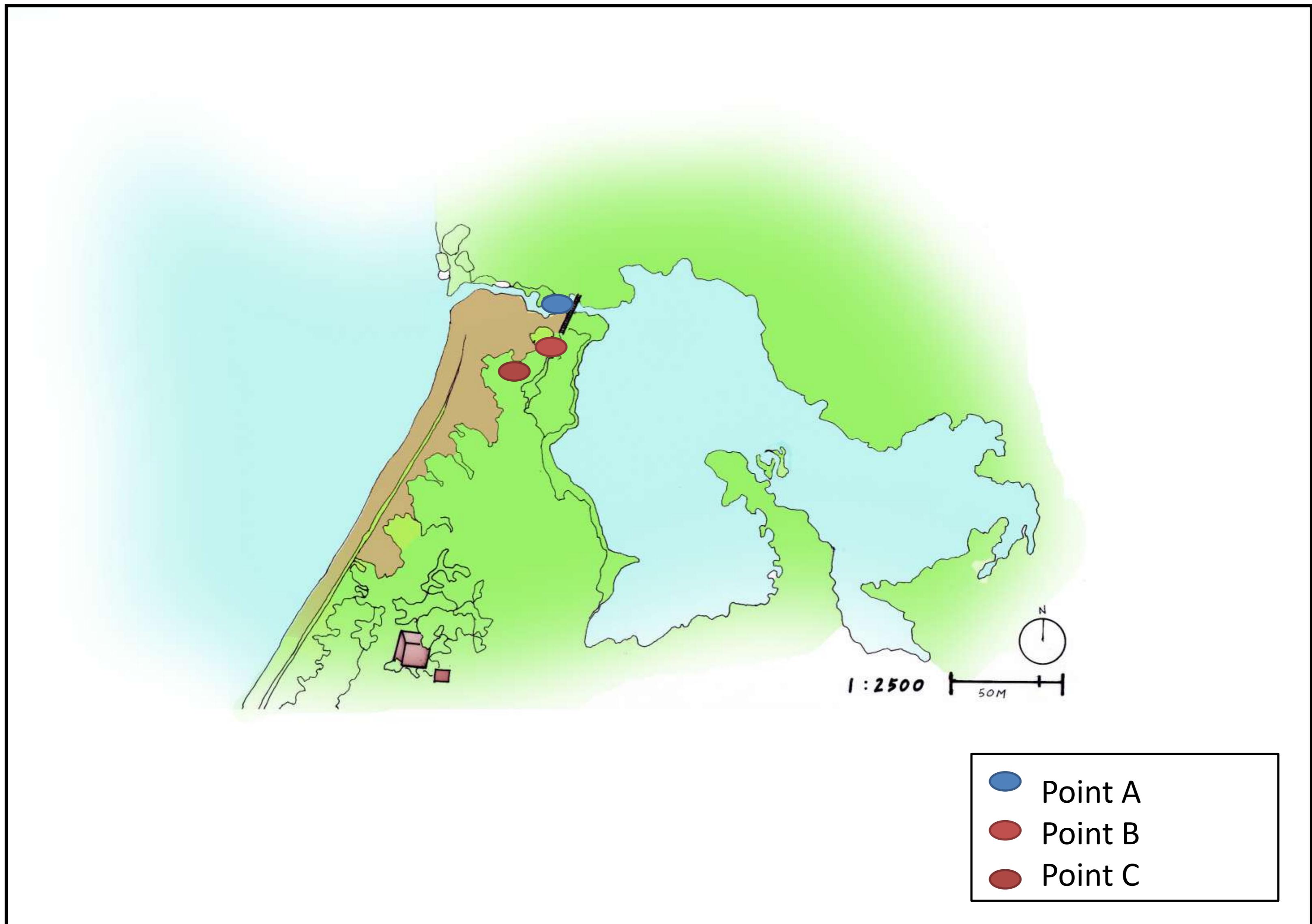
IEWS AND SENSORY

NOISE

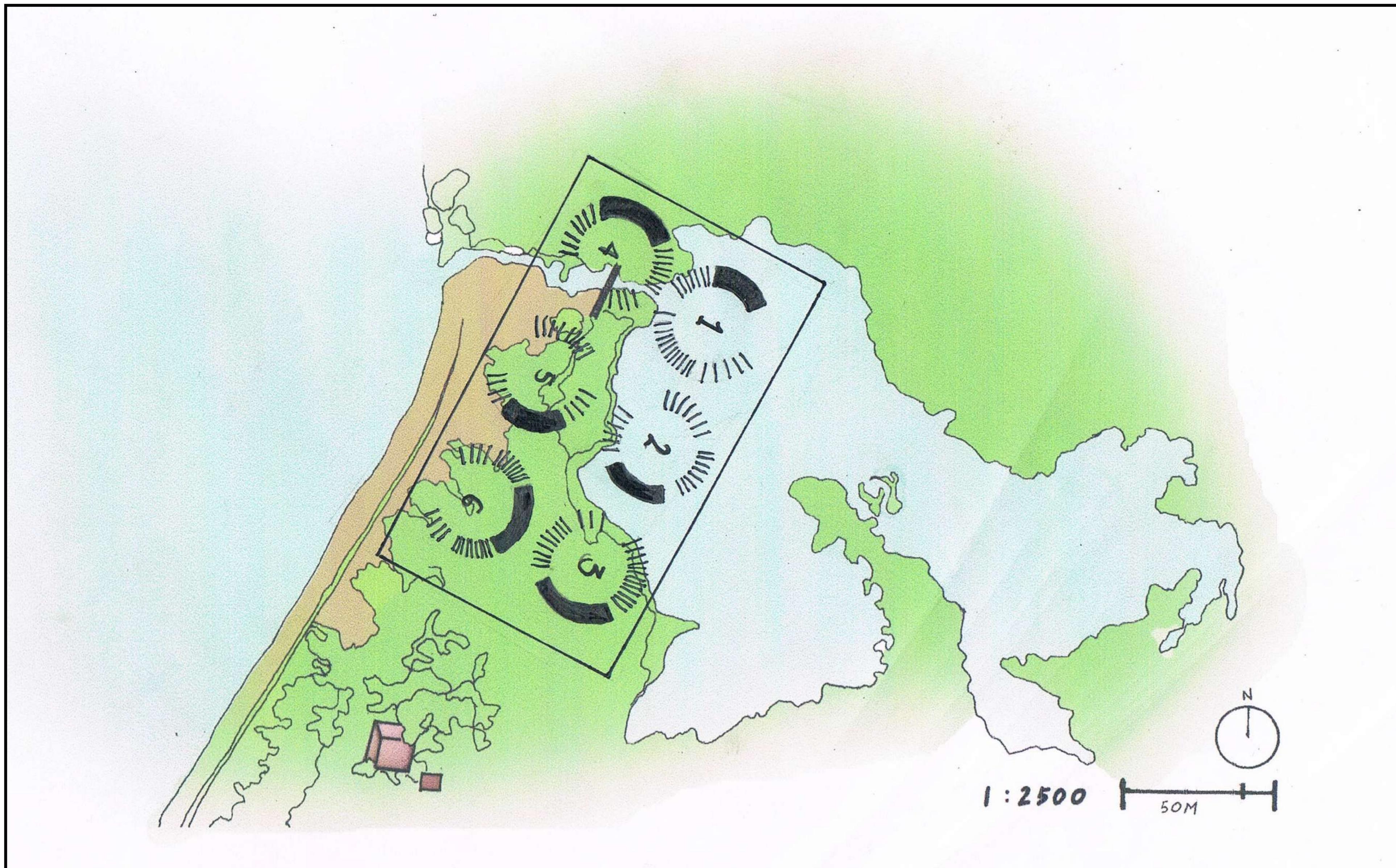


VIEWS FROM THE SITE



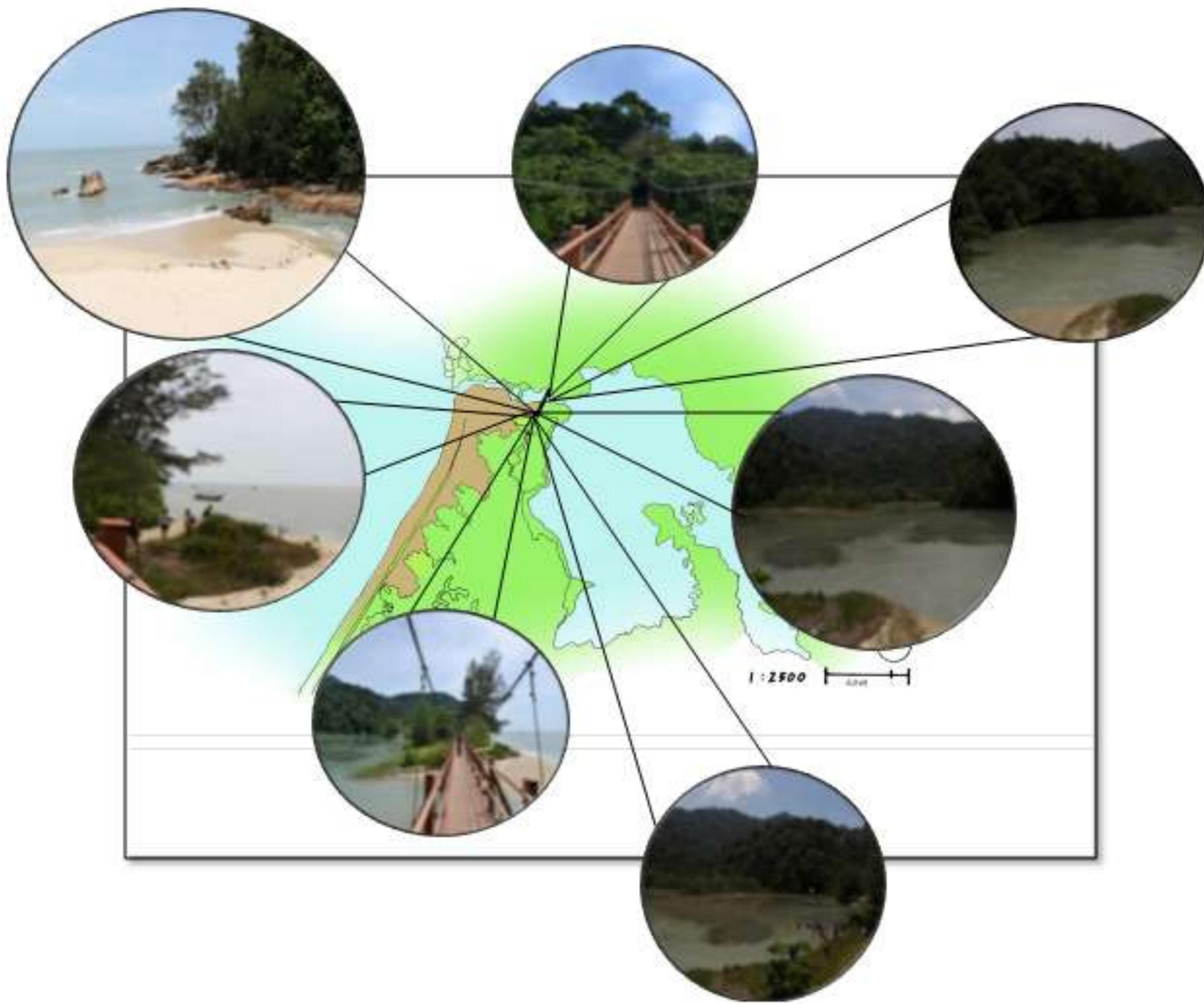


VIEW QUALITIES FROM SITE

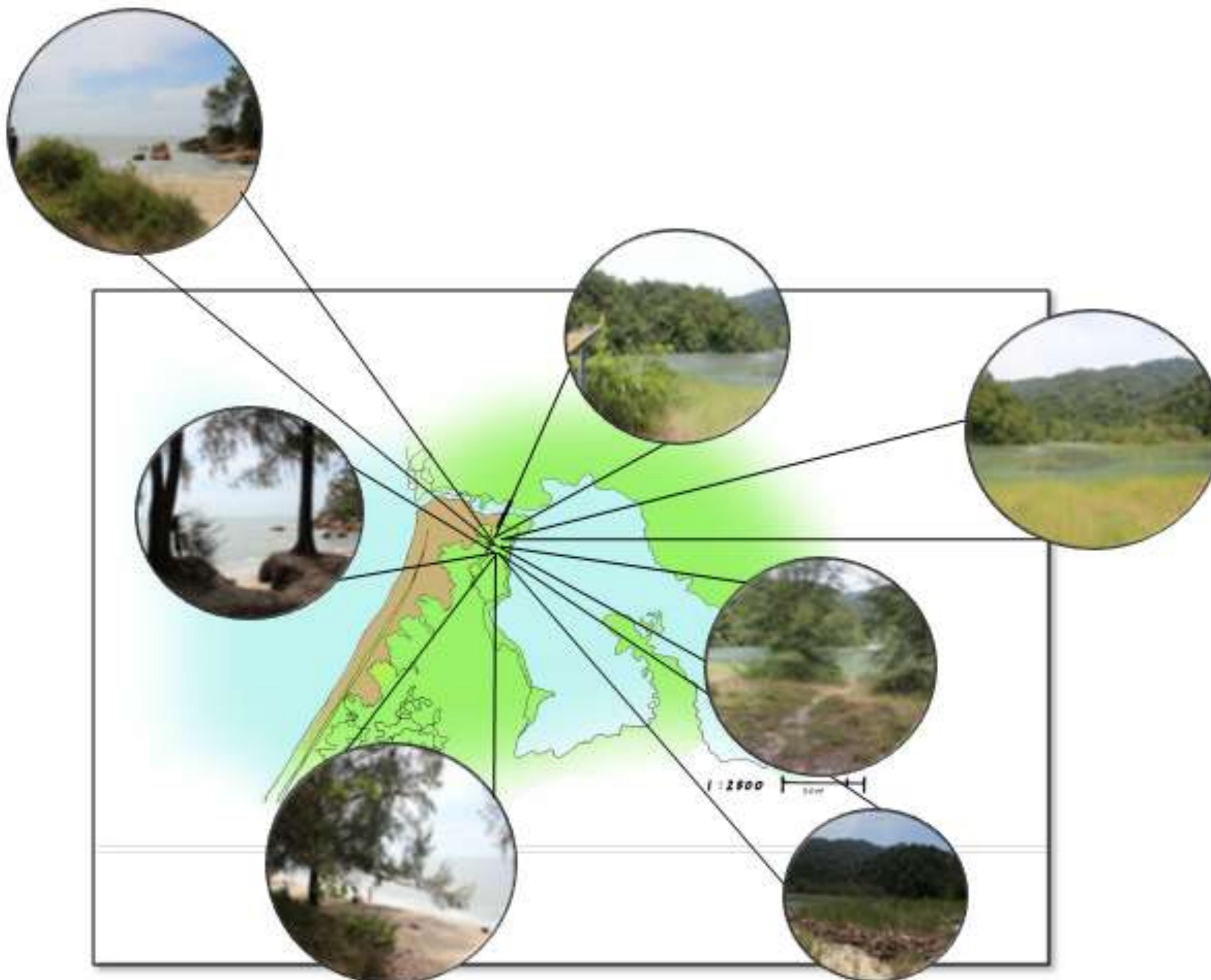


IEWS AND SENSORY

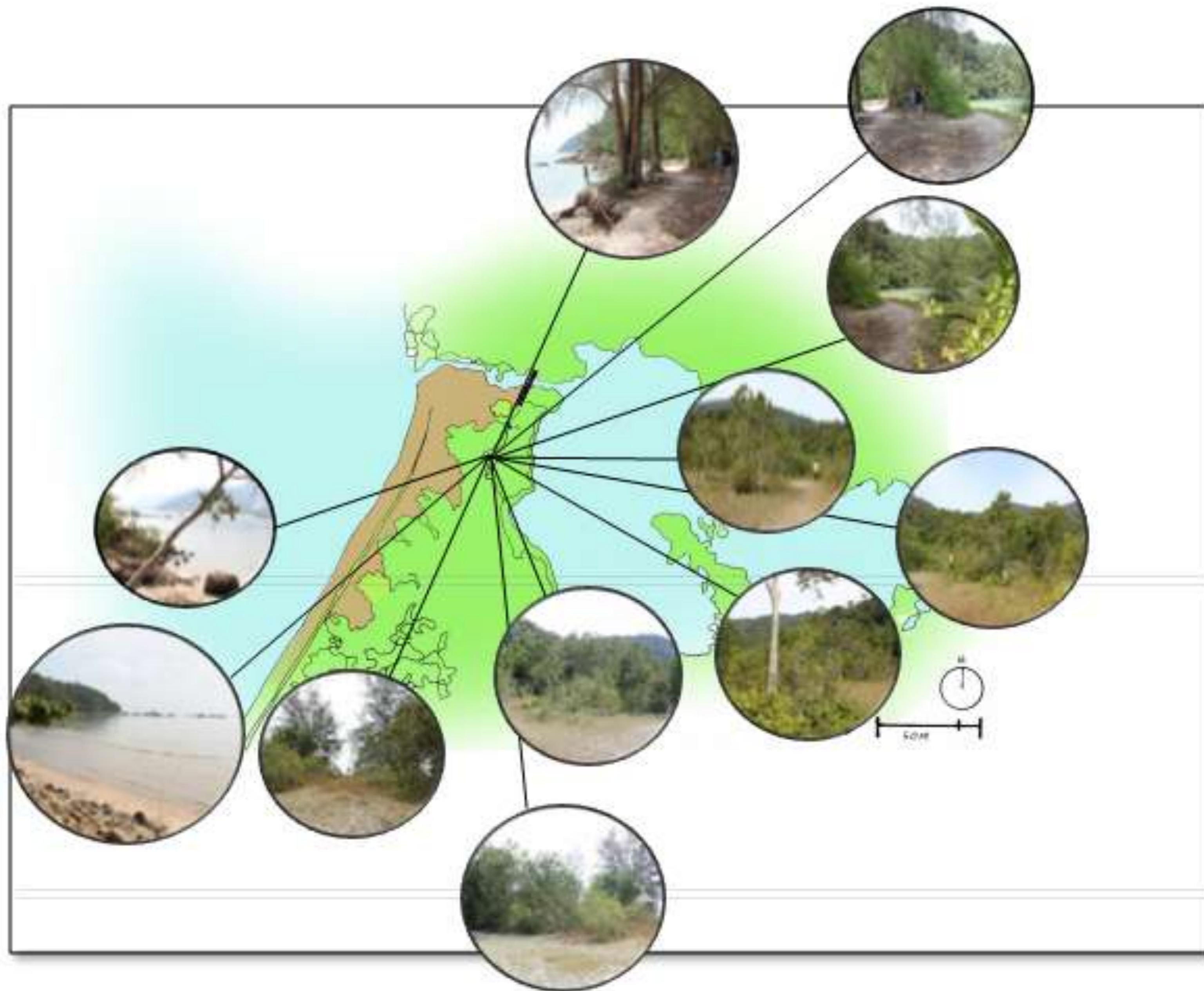
POINT A (VIEWS FROM BRIDGE)



POINT B (VIEWS FROM LAKESIDE)

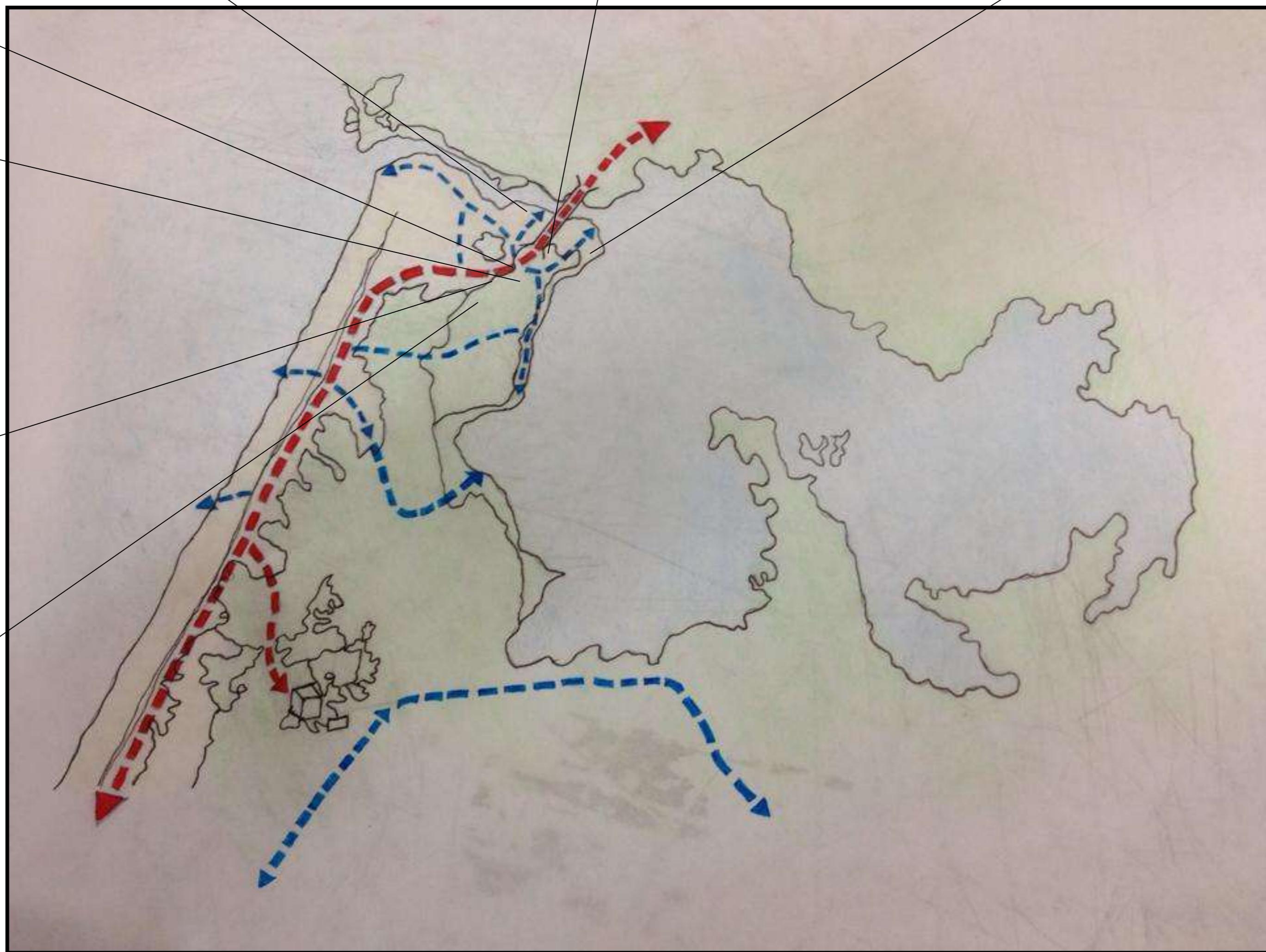


POINT C



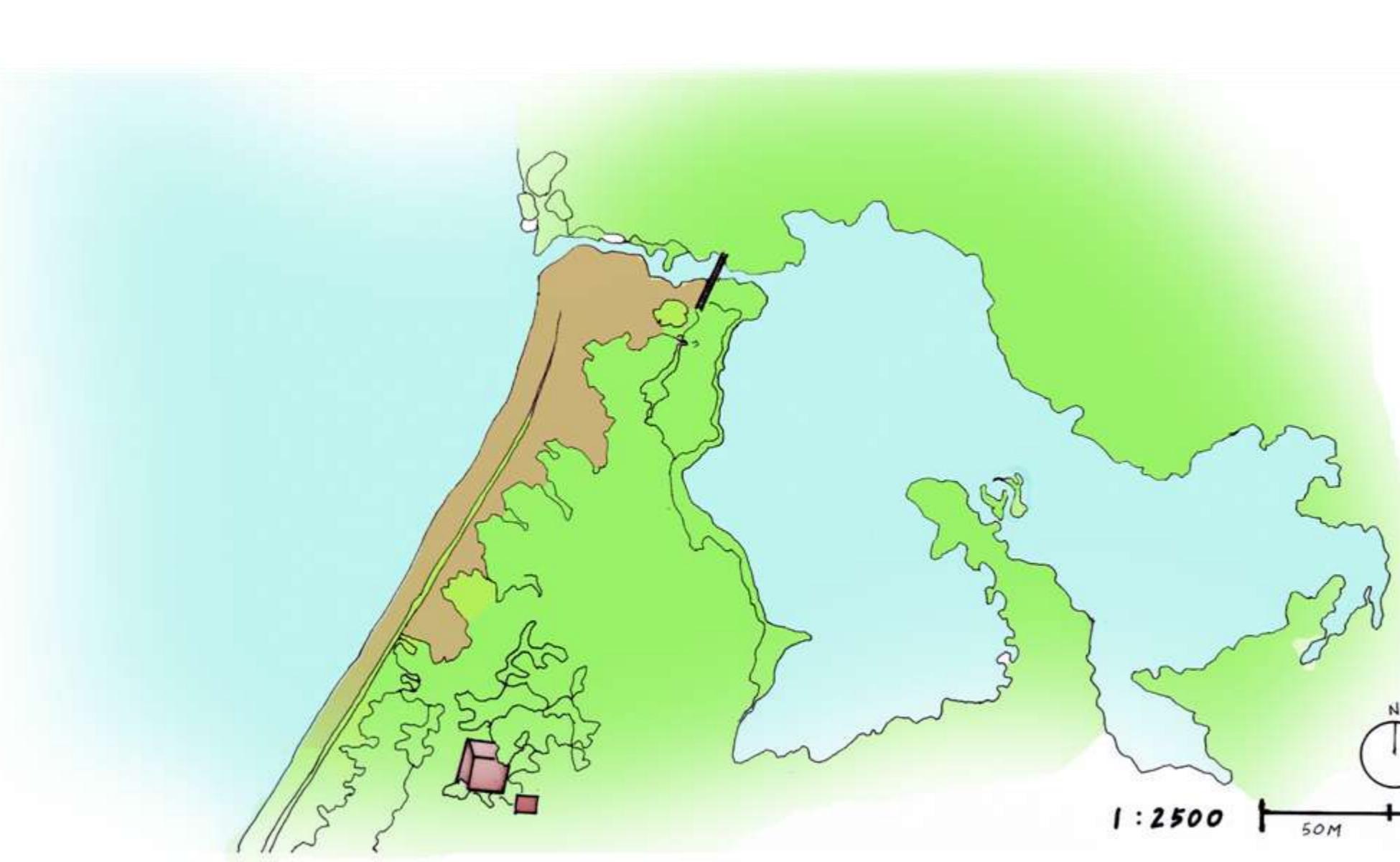
VIEWS AND SENSORY

VIEWS THROUGH THE SITE



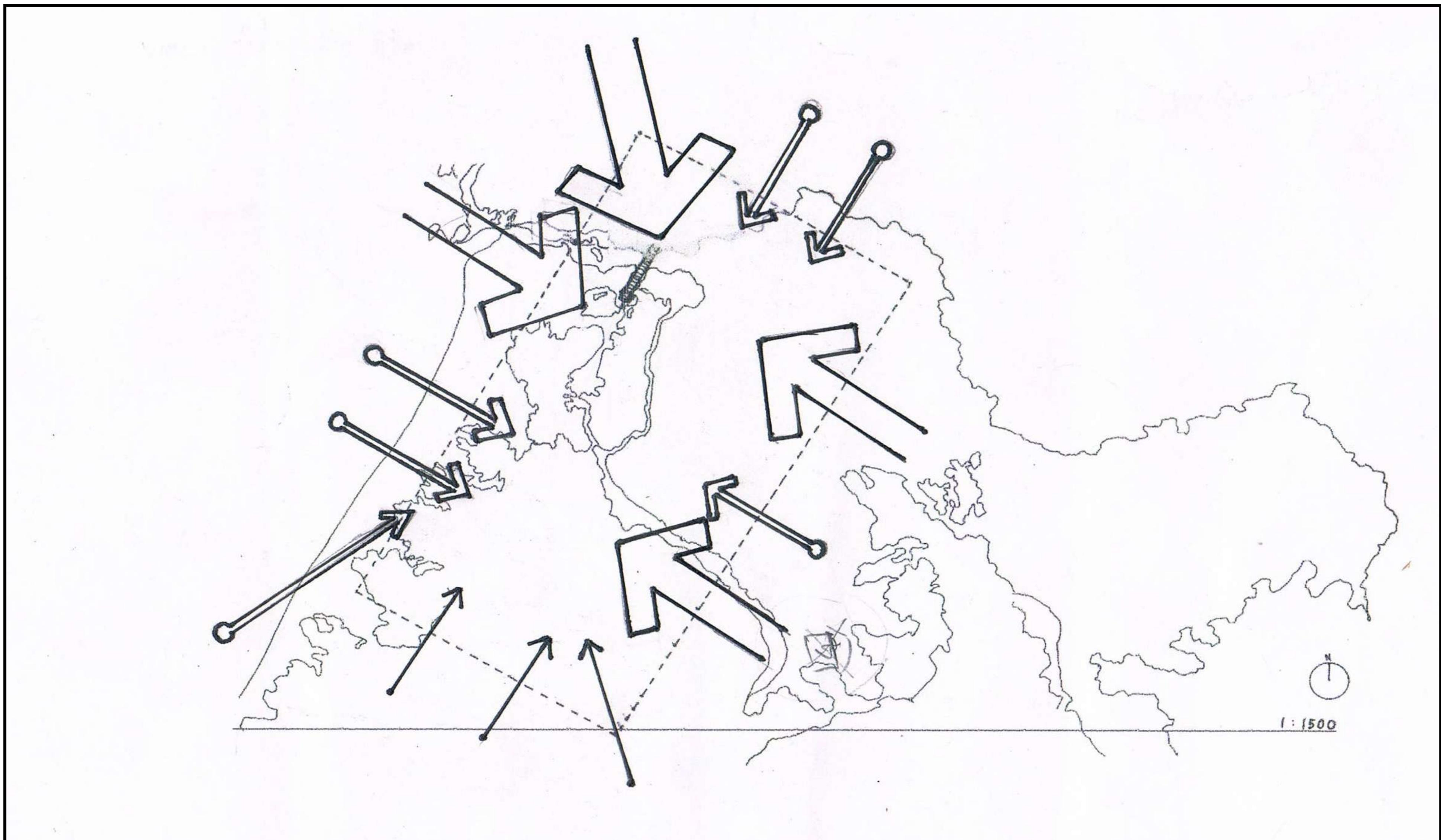
VIEWS AND SENSORY

VIEWS TO THE SITE



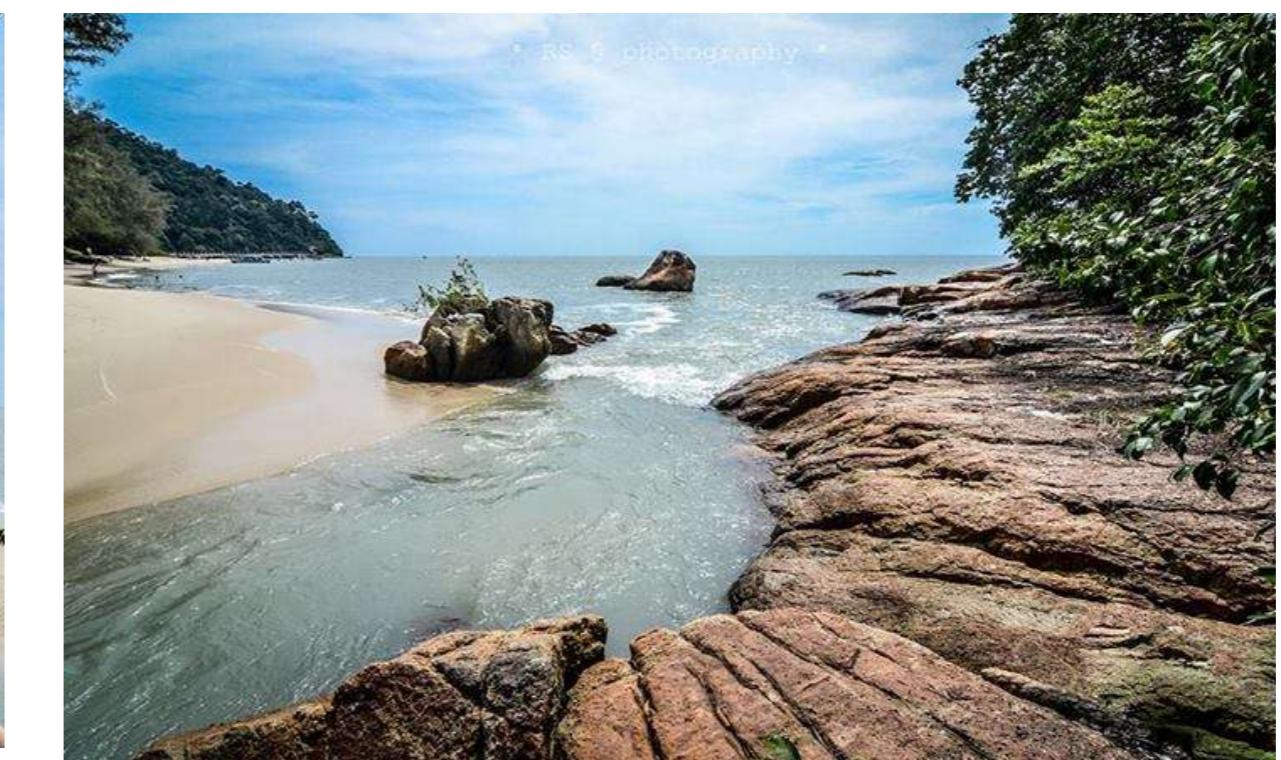
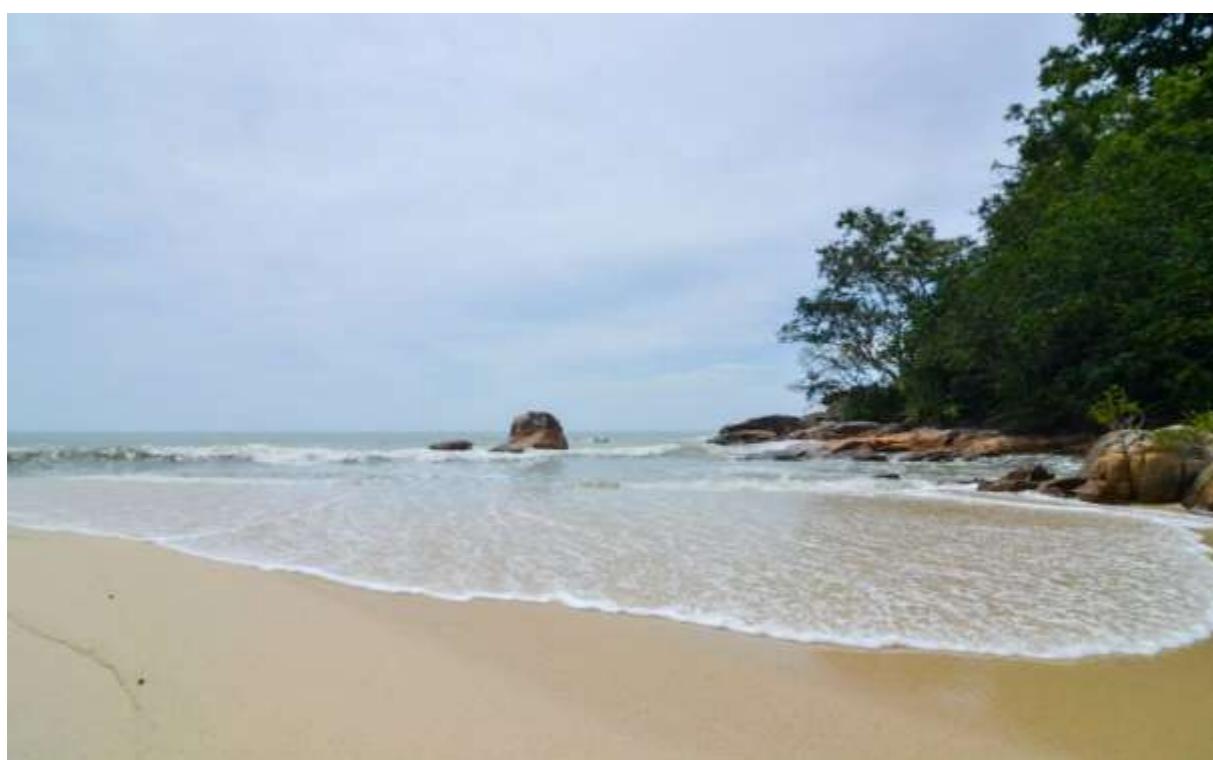
VIEWS AND SENSORY

VIEWS TO THE SITE



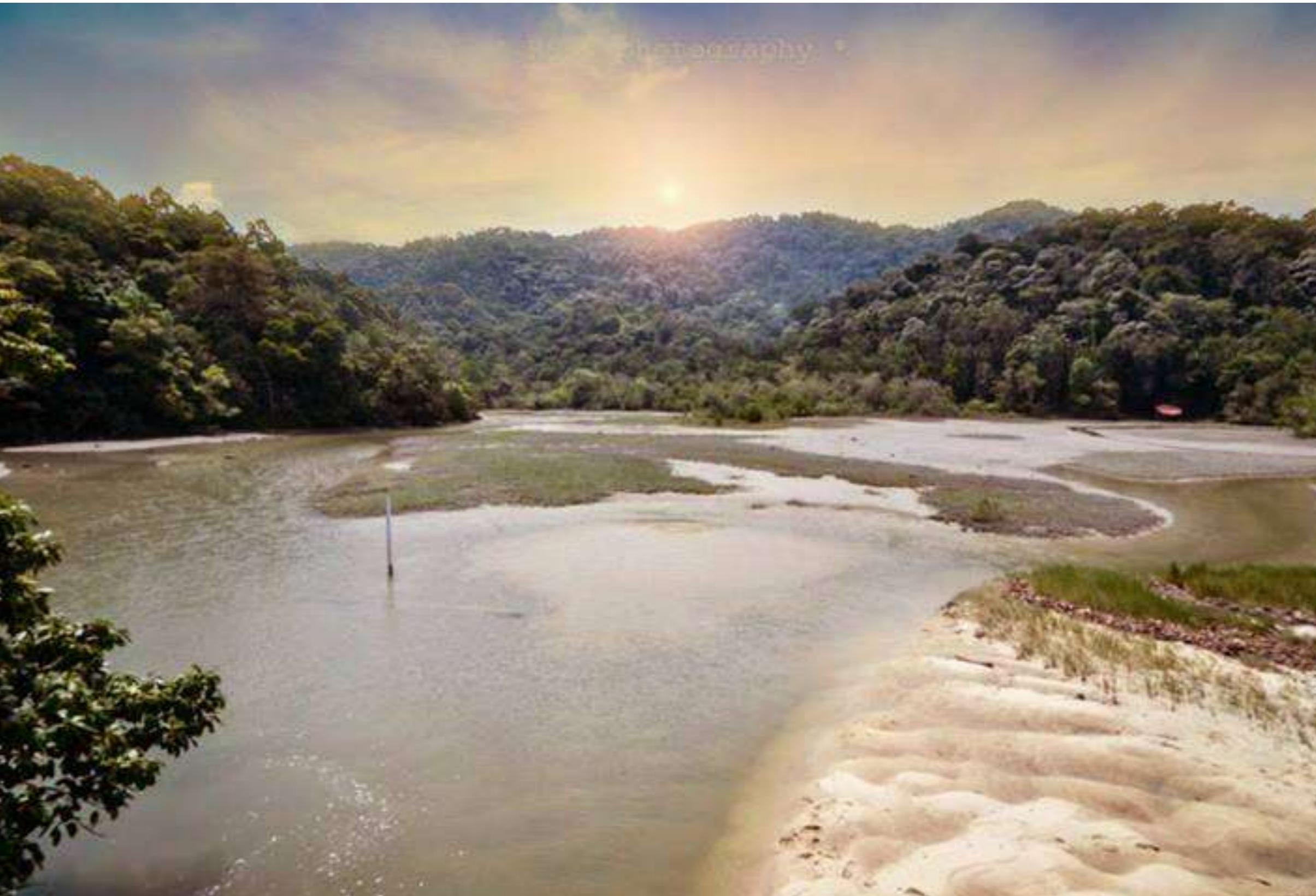
VIEWS AND SENSORY

BEST VIEWS



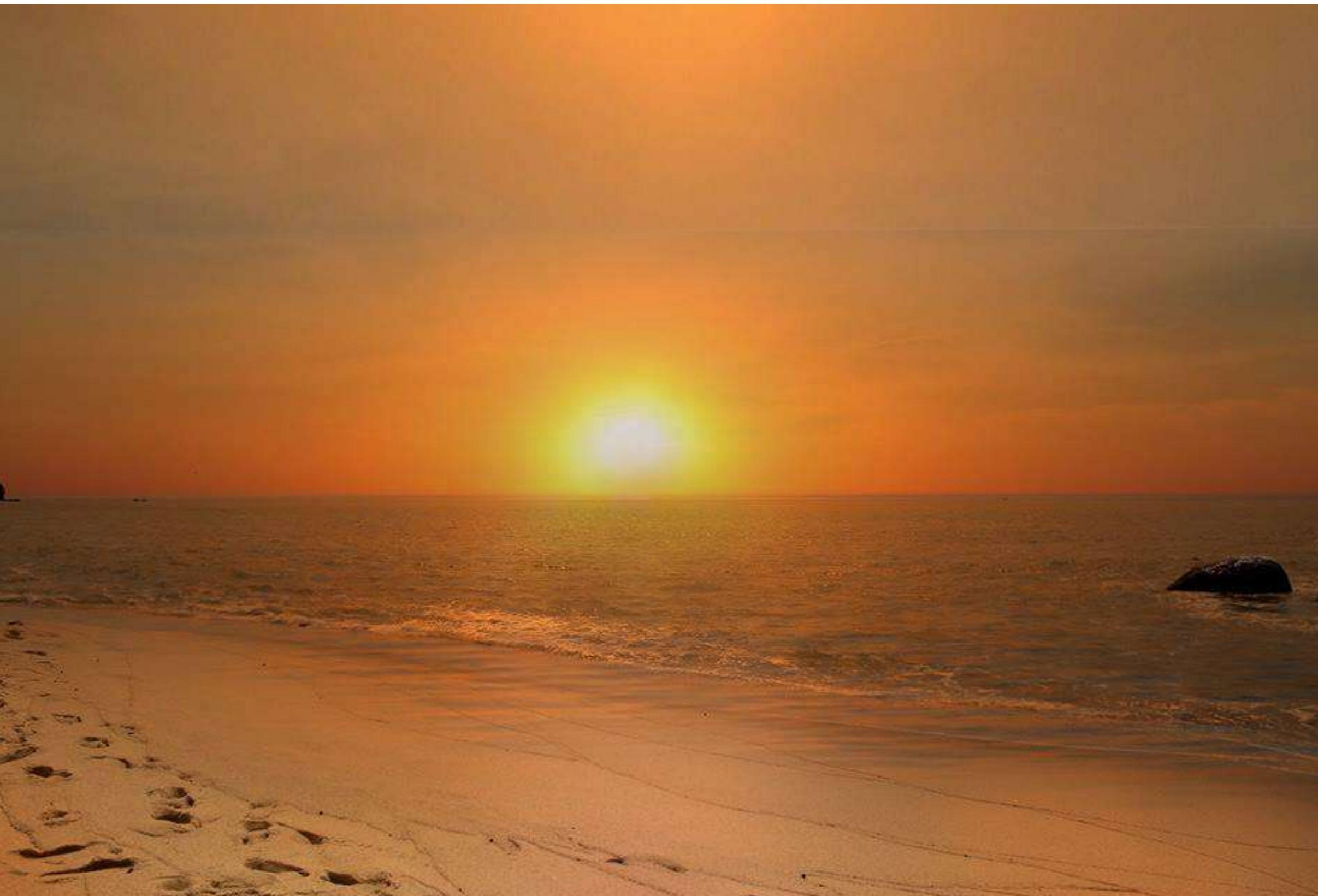
VIEWS AND SENSORY

BEST VIEWS (EAST)



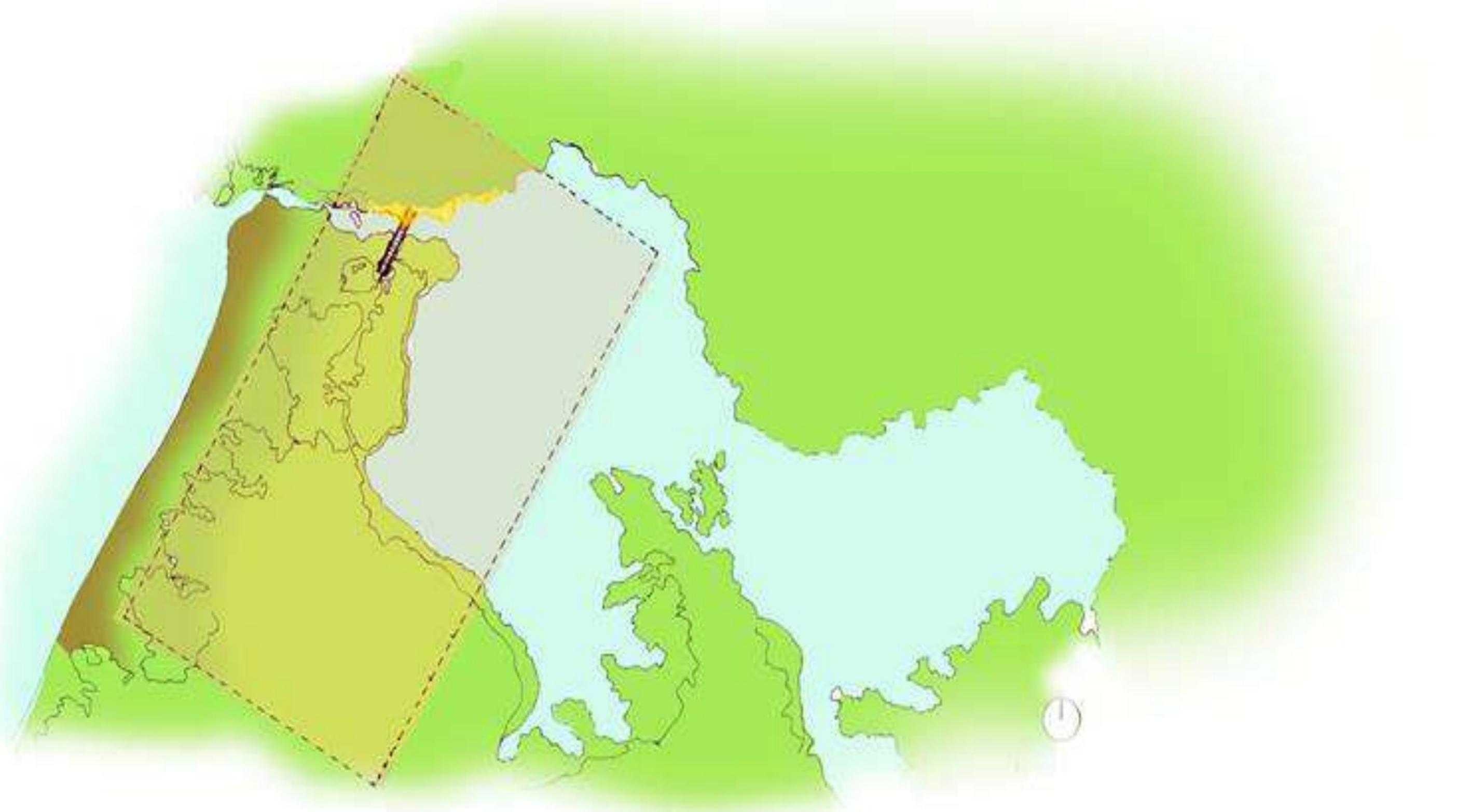
One of the best nature view during 6.45am-7.25am, when the sun rises.

BEST VIEWS (WEST)



One of the best nature view during 5.45pm-7.15pm, when the sun rises.

Site Plan (1:1500)



Forest Ranger

A forest ranger is a person entrusted with protecting and preserving forests

DUTY

- To protect the park resources for future generations
- To protect park visitors.

SKILLS

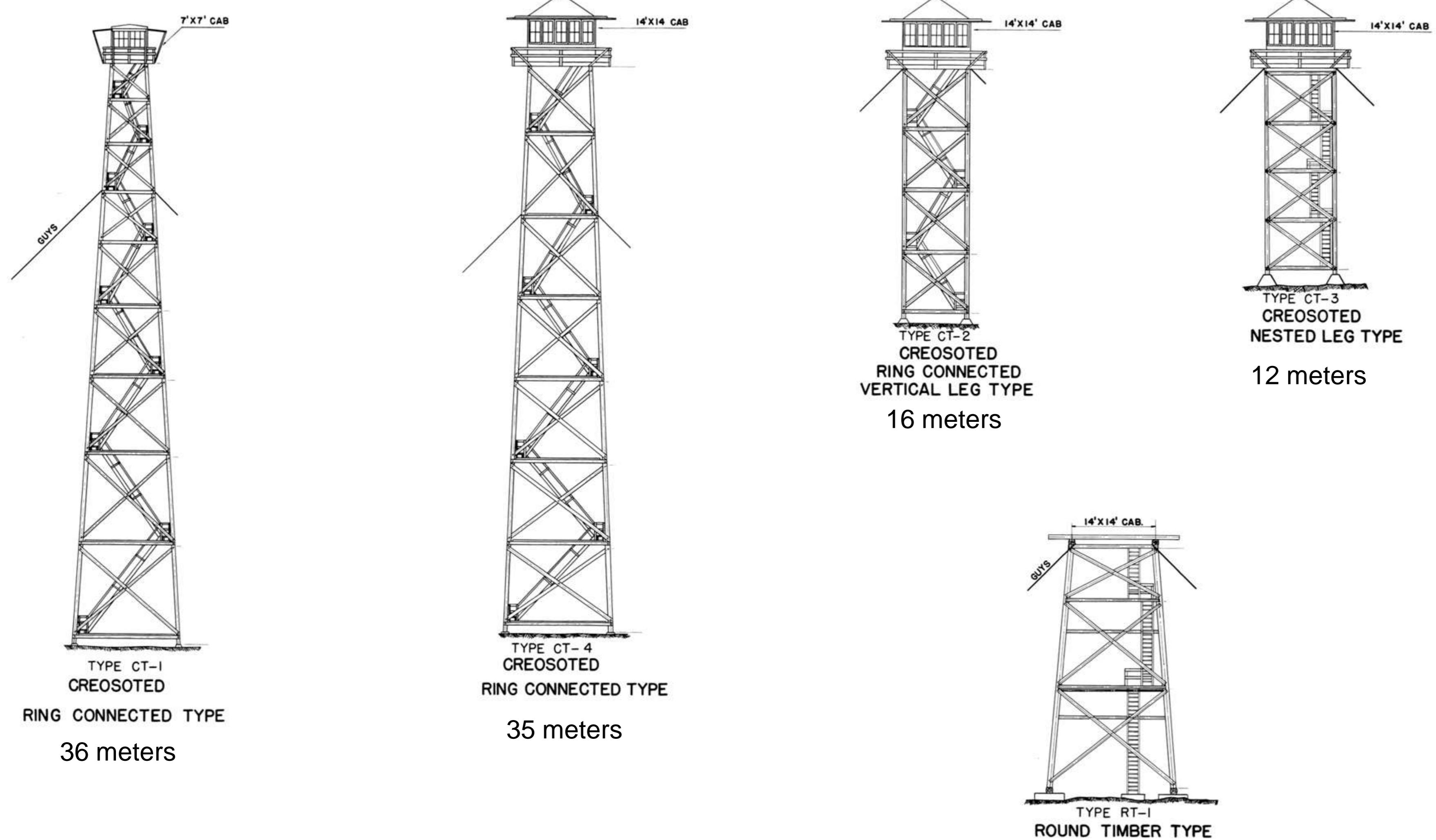
- Have strong communication and leadership skills
- Physically fit
- Have knowledge of basic first aid, surviving skills

EQUIPMENTS

- First Aid kit to rescue visitors if any emergency happened.
- Fire-fighting tools to prevent forest fire if there is any.
- Torch light, matches or lighters
- Knife
- Safety Boot
- Water Bottle
- Rope
- Other appropriate gears



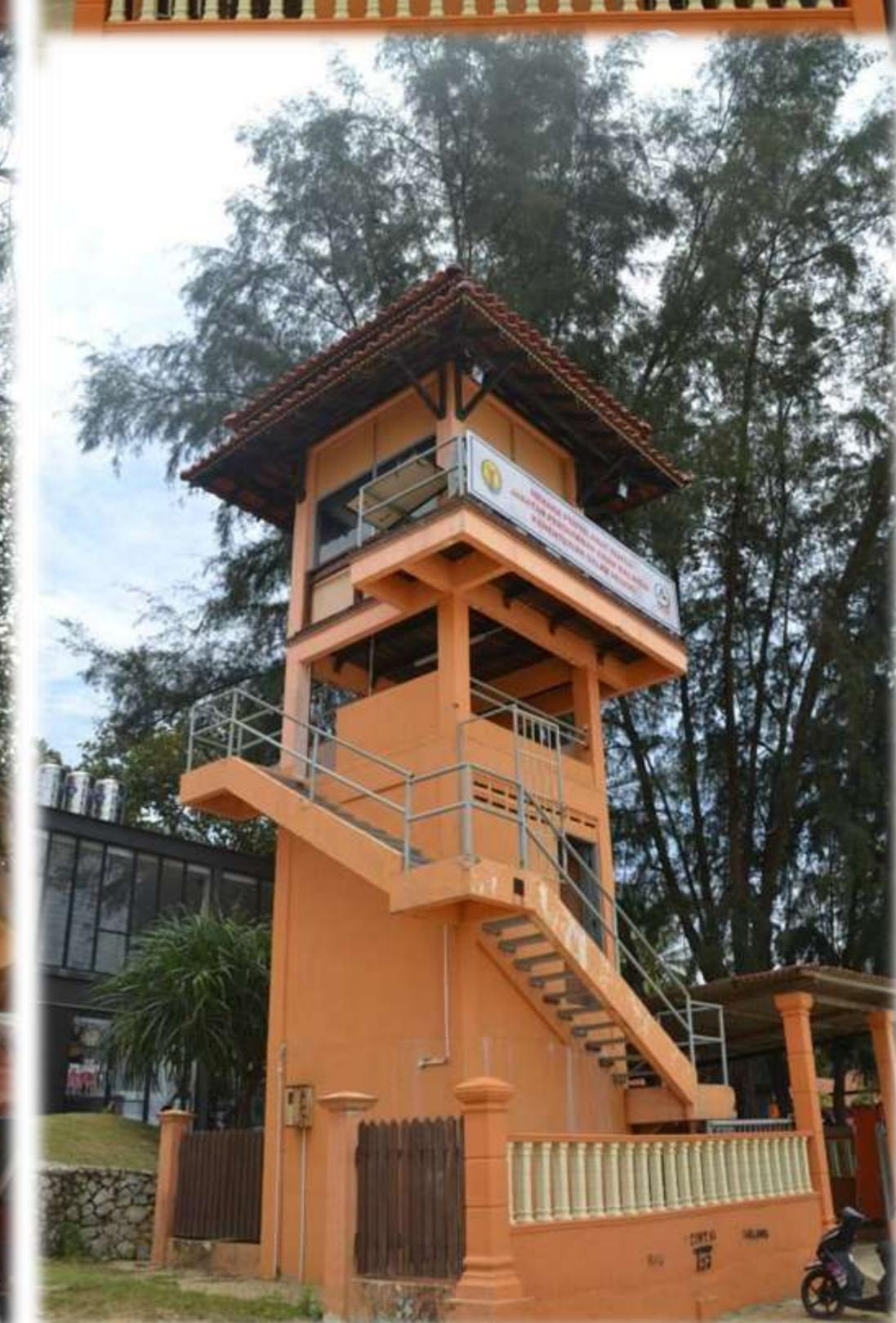
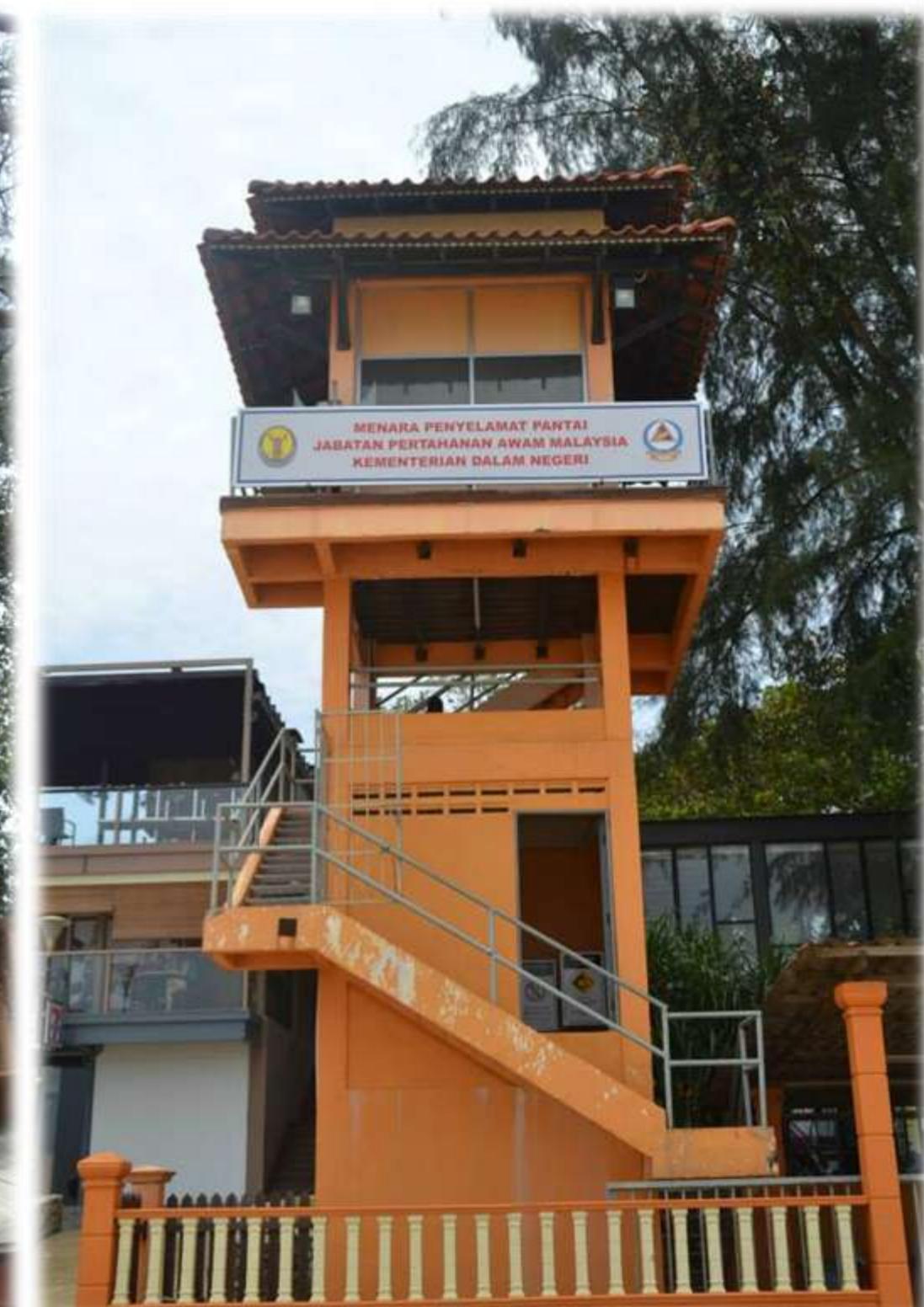
Standard Lookout/ Observation Towers



Standard lookout towers with different heights and constructional structure (bracings)
A zig-zag or staircases to go up and down with one space at the top for observation.

Simple Local Guard Towers

- Located in Teluk Cempedak Beach, Kuantan
- Constructed with concrete and consists of wooden or steel handrails for stairs
- Simplest structure with one staircase around the tower to go up and down
- Located between Hyatt Hotel and Commercial street nearby Mc Donald Restaurant
- Provide good overall view of the sea for safety purpose

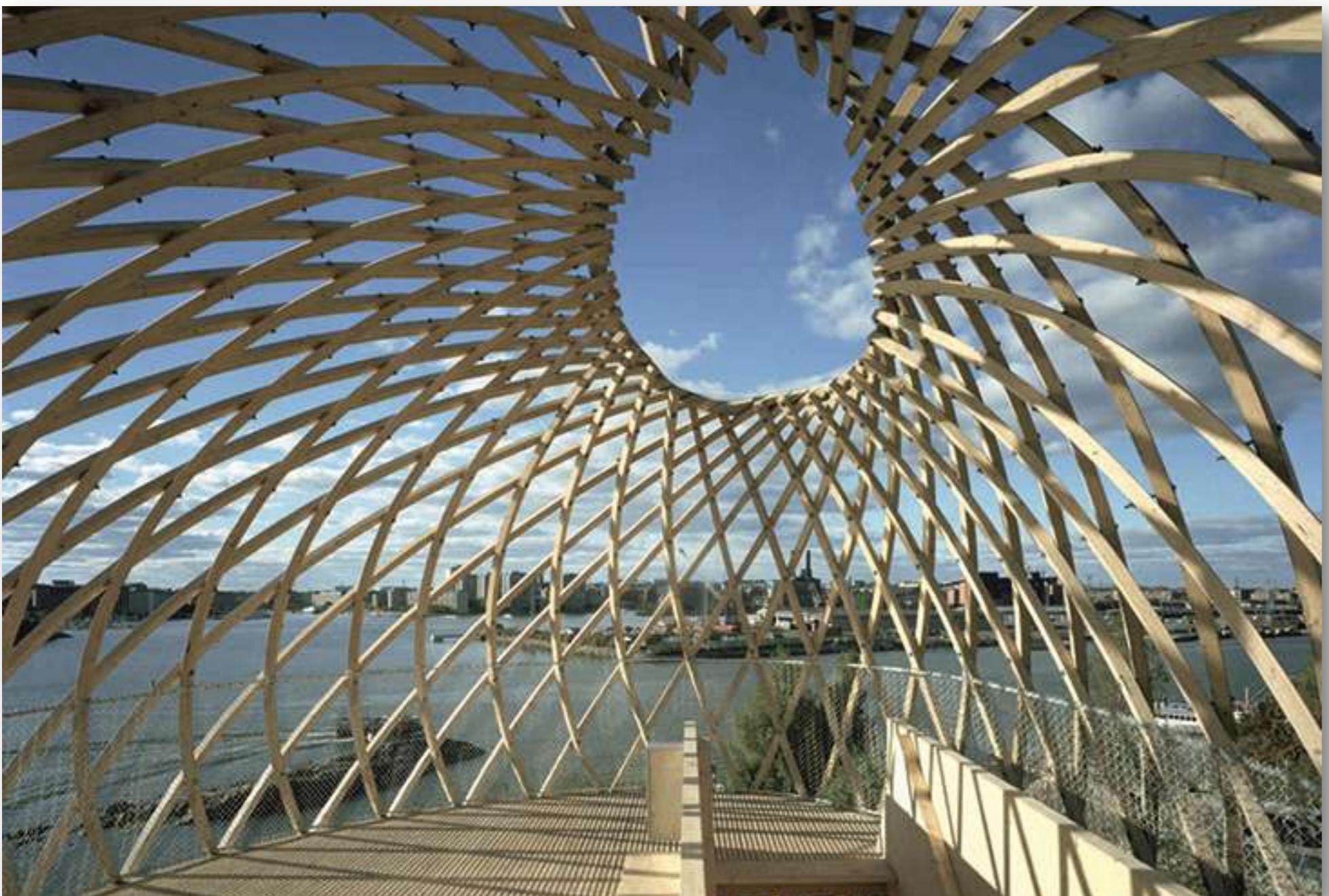
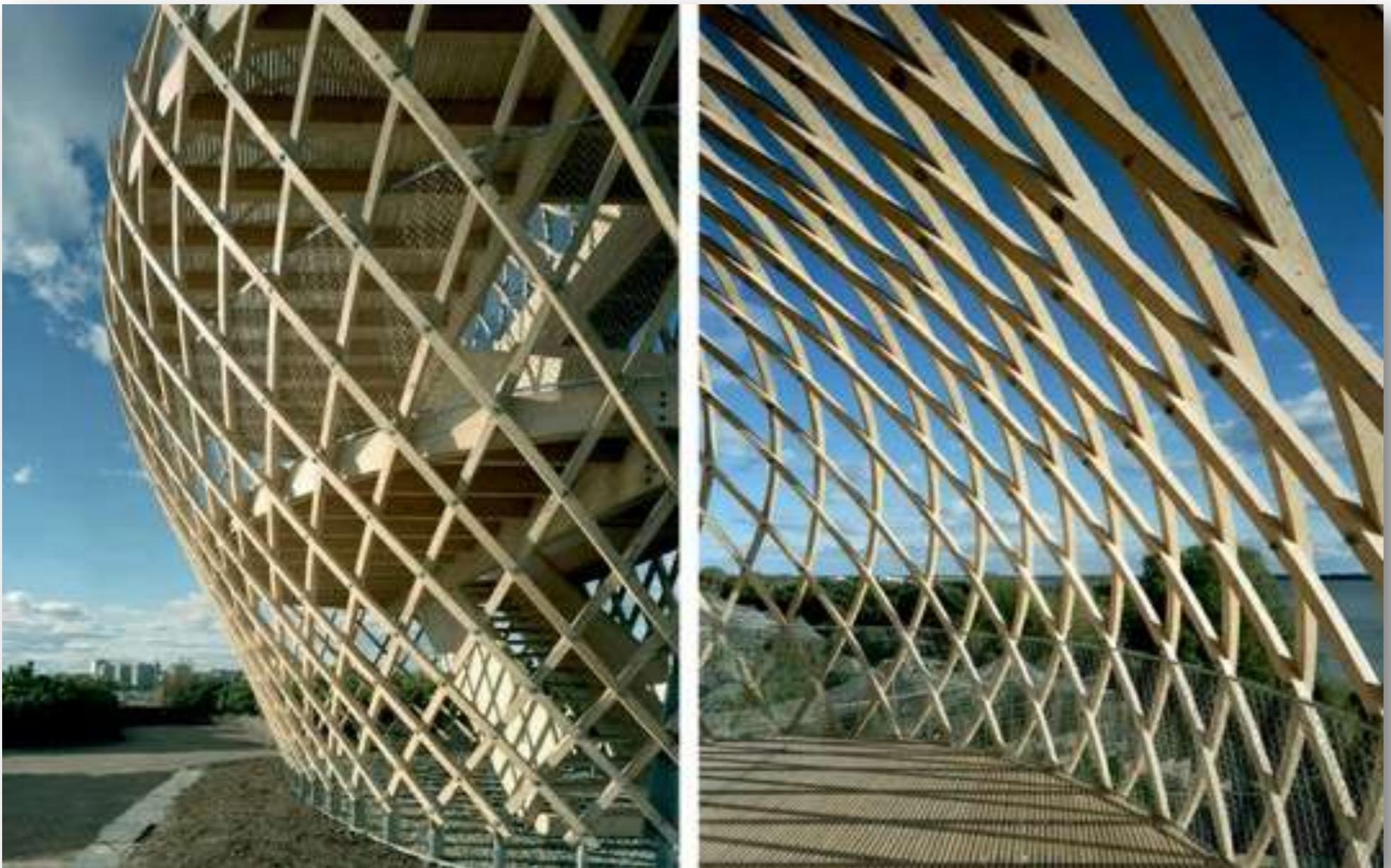


Korkeasaari Lookout Tower



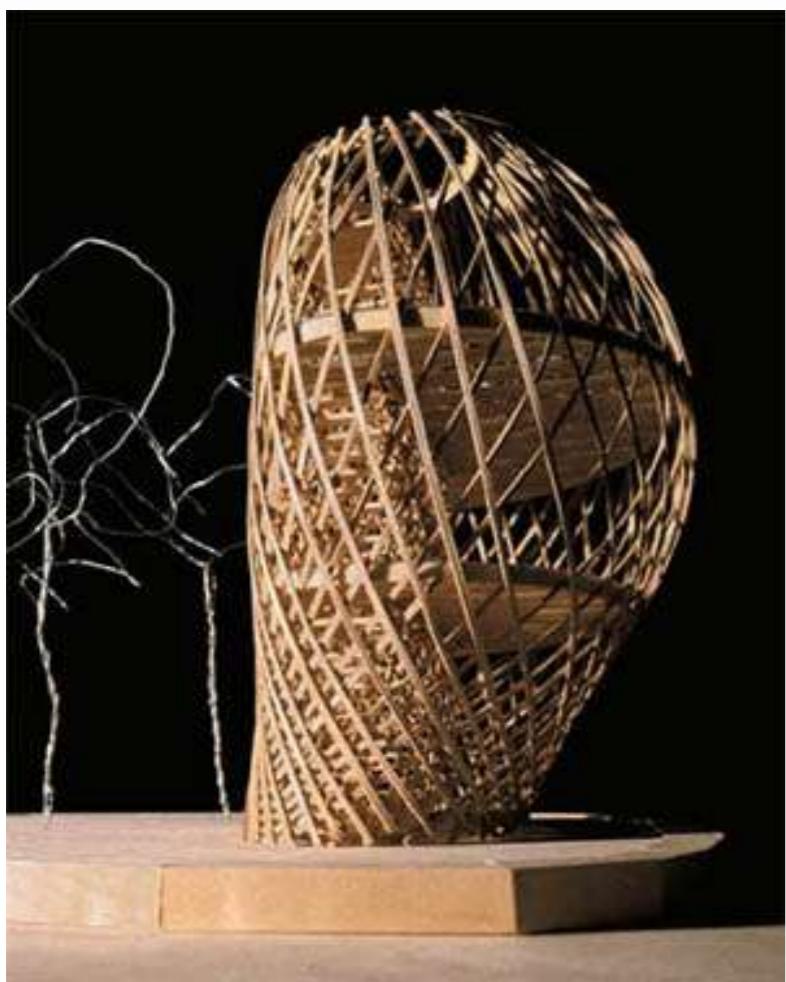
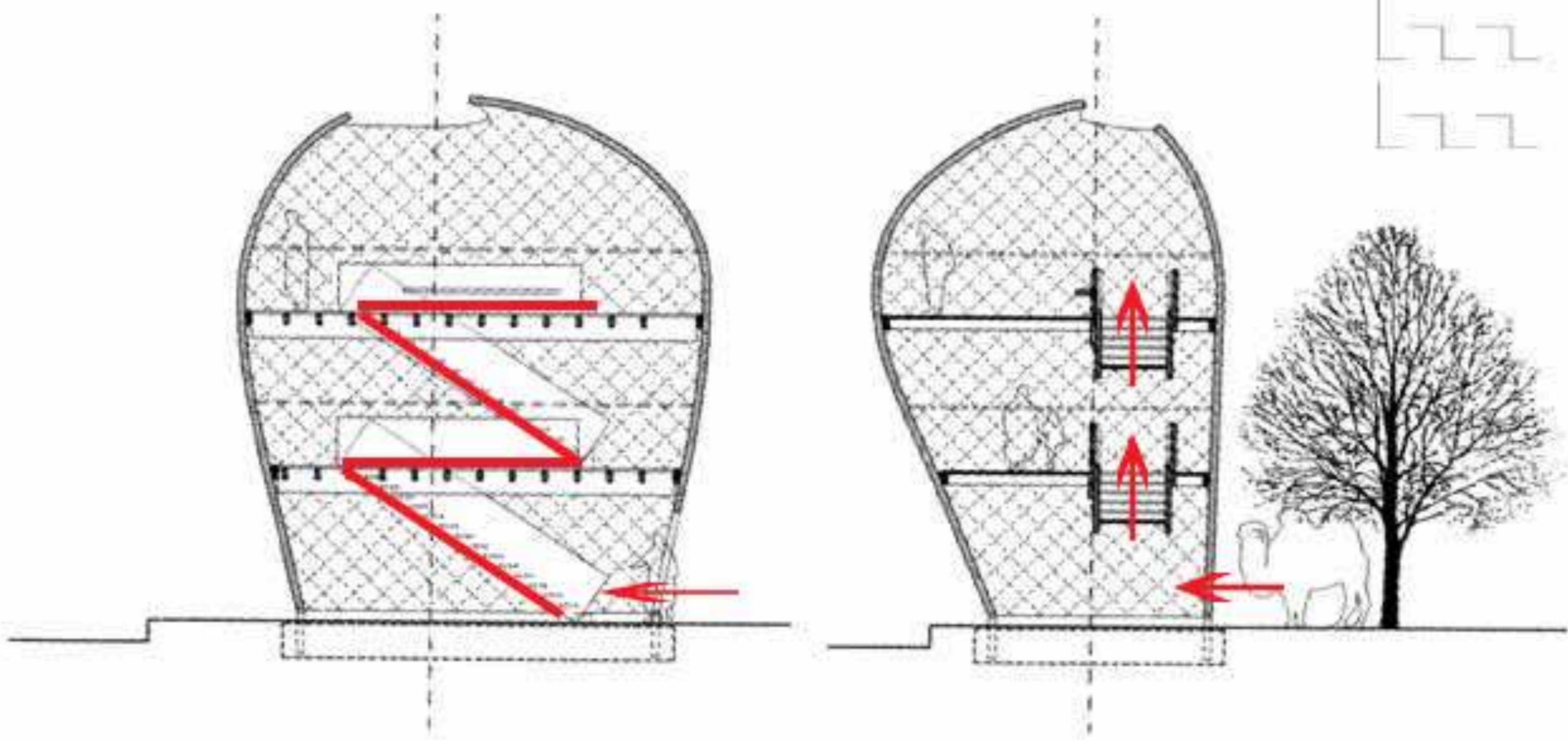
Ville Hara
Helsinki, Finland

- Situated on a site 18 meters above sea
- Competition for design of Ten meters high Timber Tower
- Provide spectacular views of the sea and city of Helsinki
- Landmark of Korkeasaari Island



- The load bearing structure consists of 72 long battens, with a section of 60mmx60mm, that are bent and twisted on the site from seven pre-bent types.
- Over 600 bolted joints hold the shell structure together.
- The wood is treated with a linen oil-based wood balm with UV-protection.

Case Study





- A batten is a thin strip of solid material, typically made from wood, plastic or metal.
- Battens are used in building construction and various other fields.
- Ideal for external cladding and facades
- Light and strong material

JeJawi Tower, Pulau Ubin, Singapore



- Located at Chek Jawa Wetlands,
- Big attraction for bird watching and view most of greenery in Pulau Ubin
- 21 meters tall viewing tower
- Includes 7 storeys of 3-meter risers and at each storey, there is a small deck for observing the surroundings

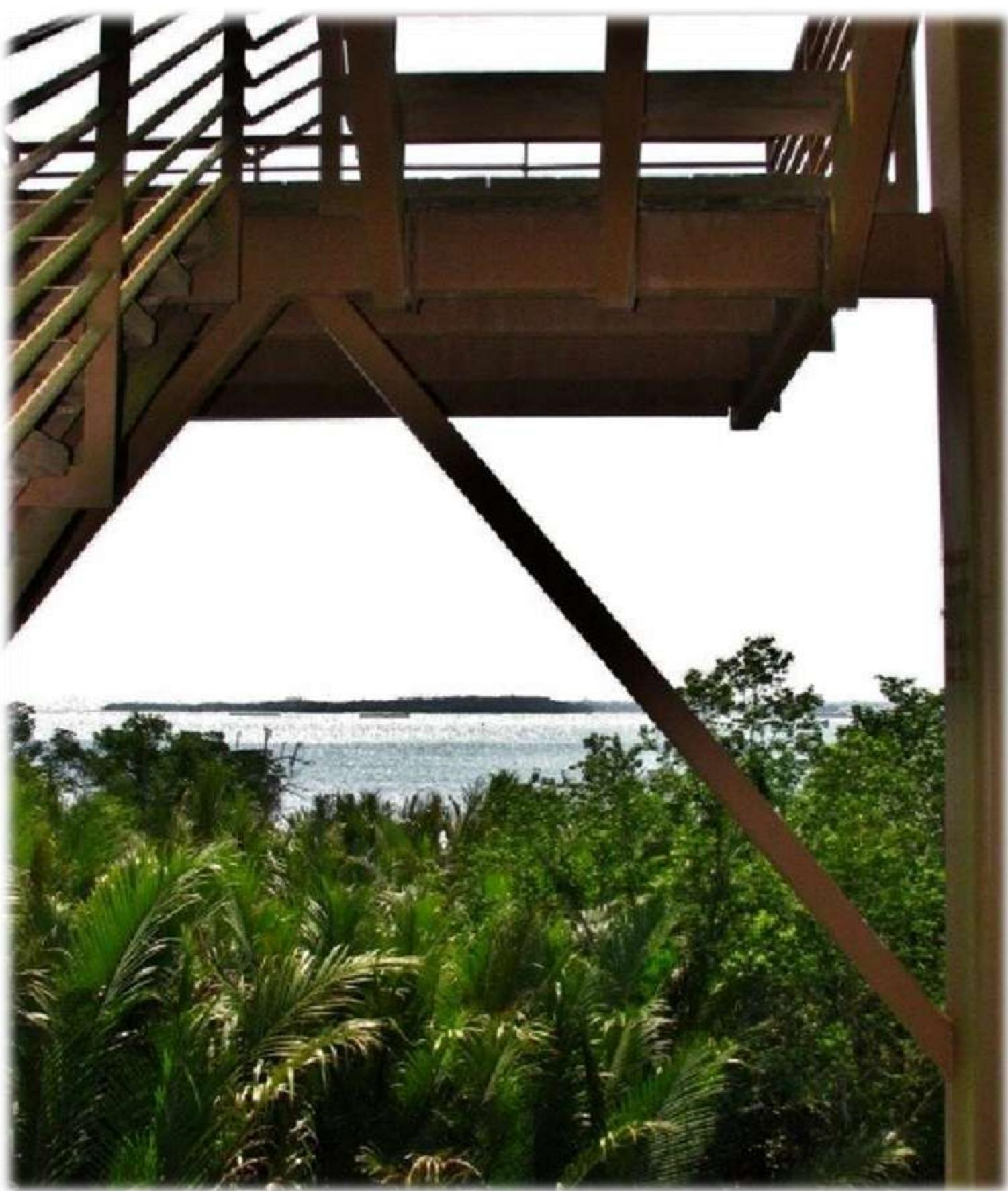




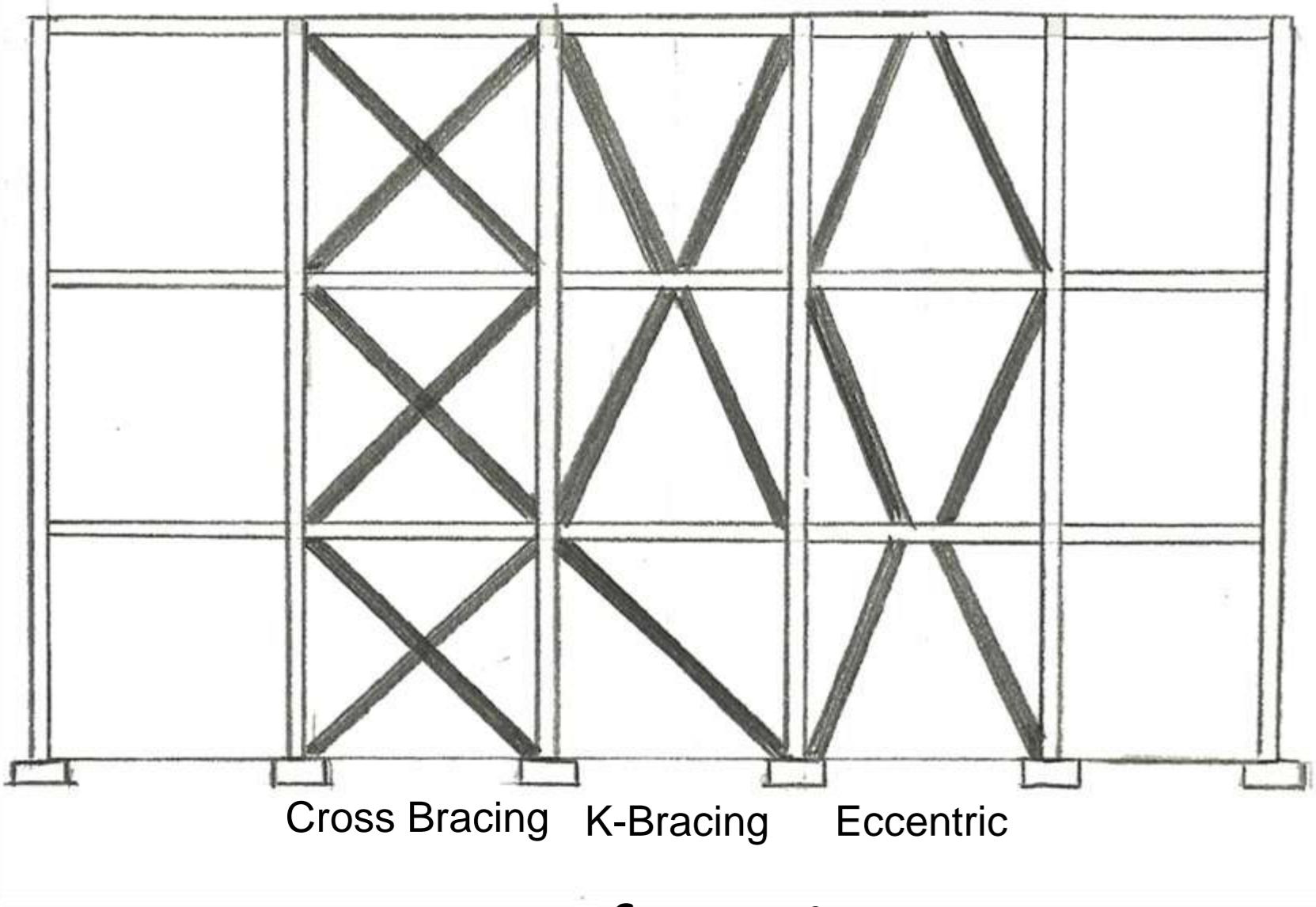
- There is one staircase to go up and come down.
- Can accommodate 20 people at the top cabin.
- Materials – Steel and Timber



Case Study



- Construction includes diagonal bracing from the base to the top.
- Consists of Four primary post columns with bracings



Types of Bracing



Killesberg Tower

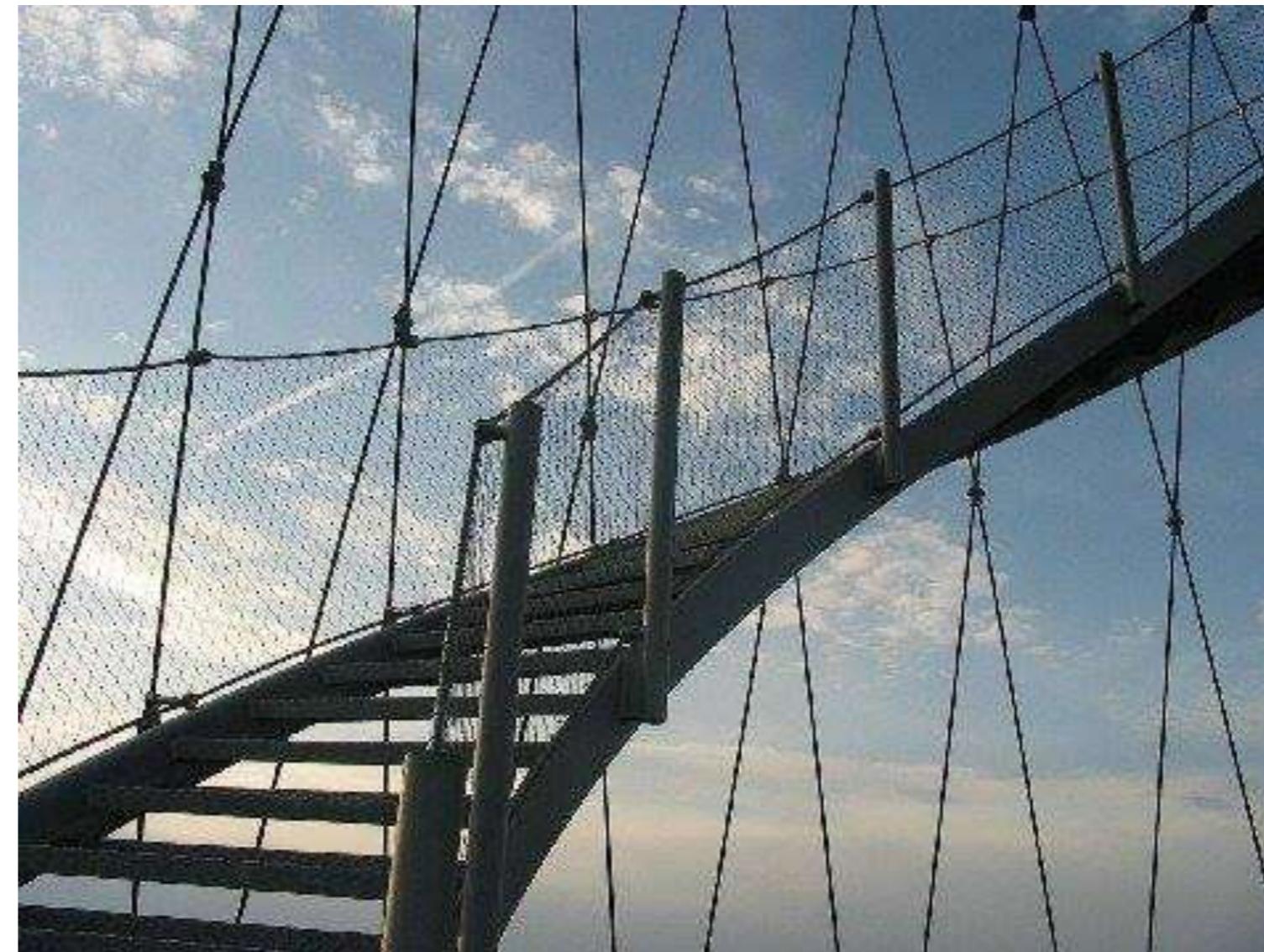


- Observatory Tower completed in 2000, designed by Jorg Schlaich
- Consists of 5 floors above the ground
- 40.3 meters high and base width is 21 meters
- Landmark of Stuttgart

Stuttgart, Baden-Wurttemberg, Germany



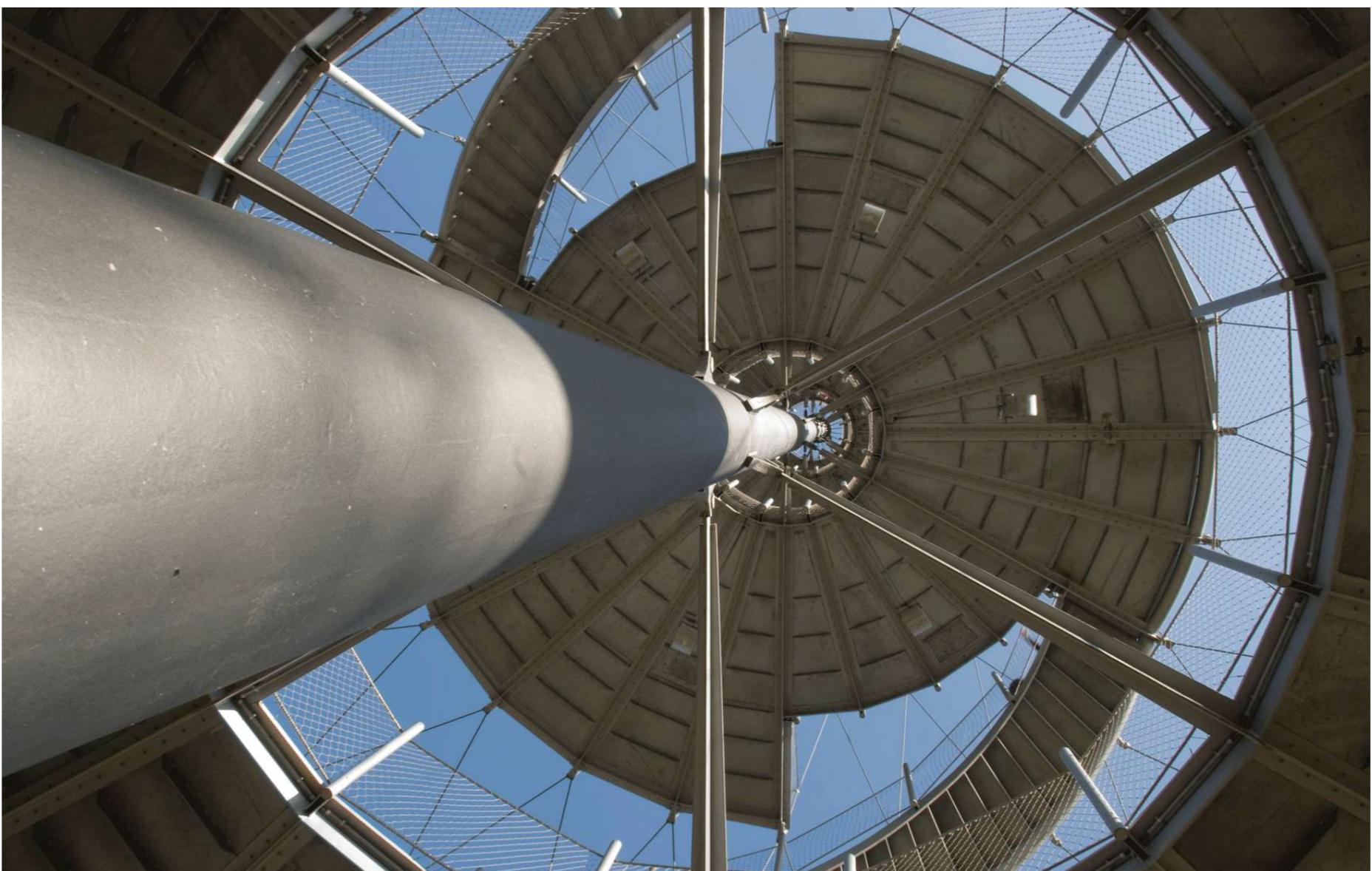
- The tower is accessed by two open-air spiral staircases : One to go up and one to go down.
- 4 platforms and 2 counter-rotating stairs (348 steps)
- Height to observation deck from ground – 31 meters
- The tower has different heights in viewing platforms – 8 m, 16m, 24m, 31m.



Case Study



- Main Material used is Steel.
- Constructed with steel mesh and pre-stressed cable net type with an open lattice structure.
- There are 48 cables.



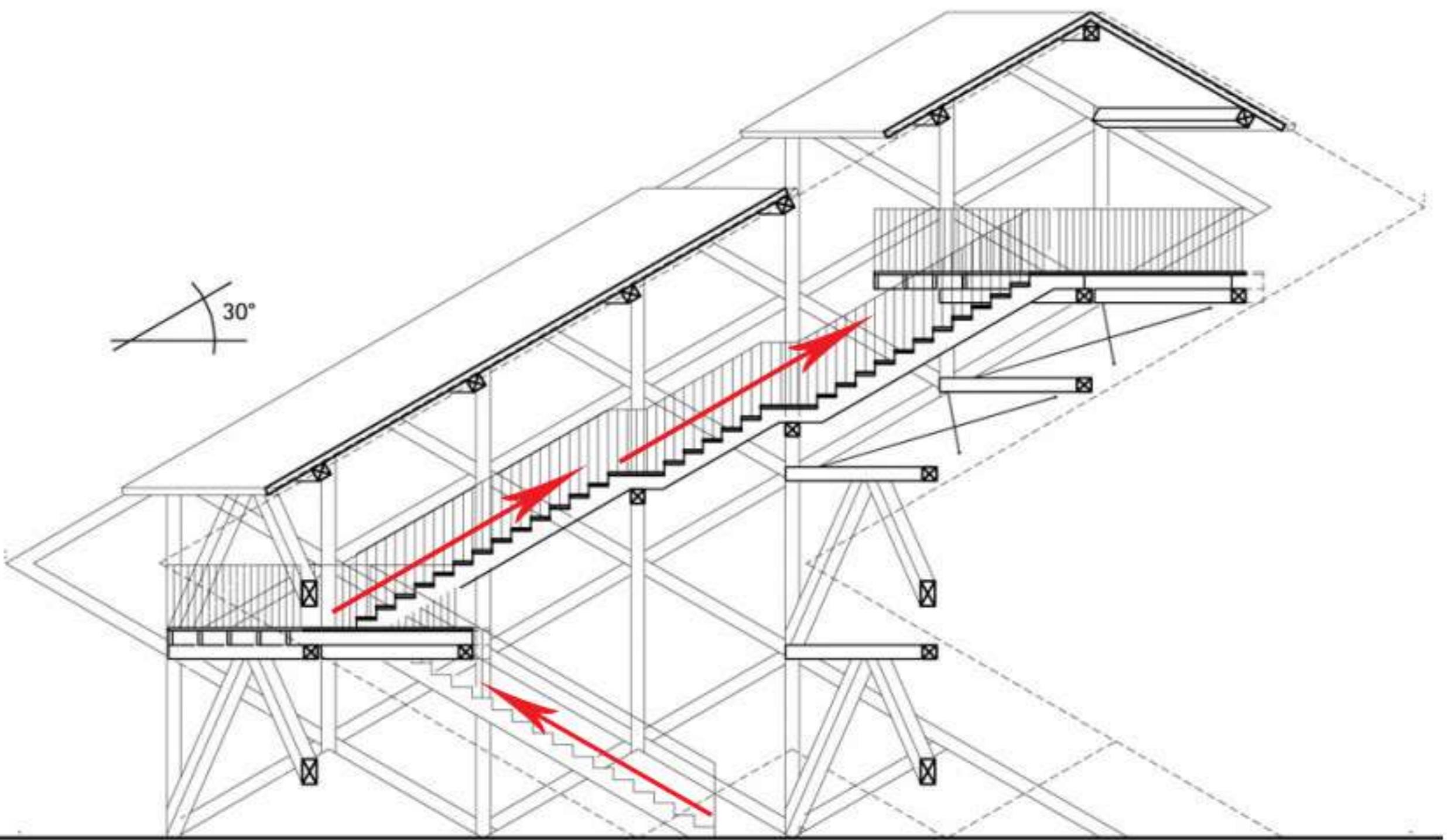
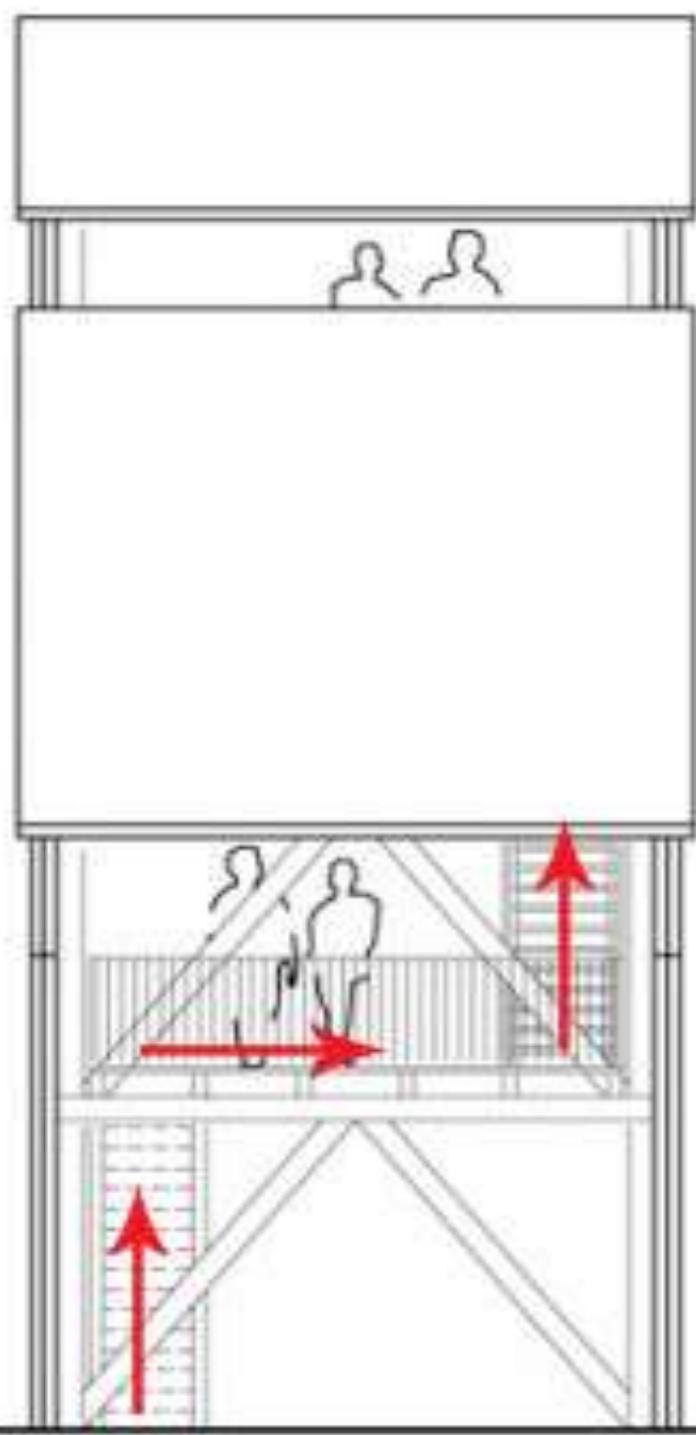
Bird Observation Tower



- Designed by GMP architects
- Located on the far-projecting peninsula Graswarder, Heiligenhafen, Germany
- 12.5 meters high
- Gross External Area : 48 meter squared
- Wooden construction made of Siberian Larch

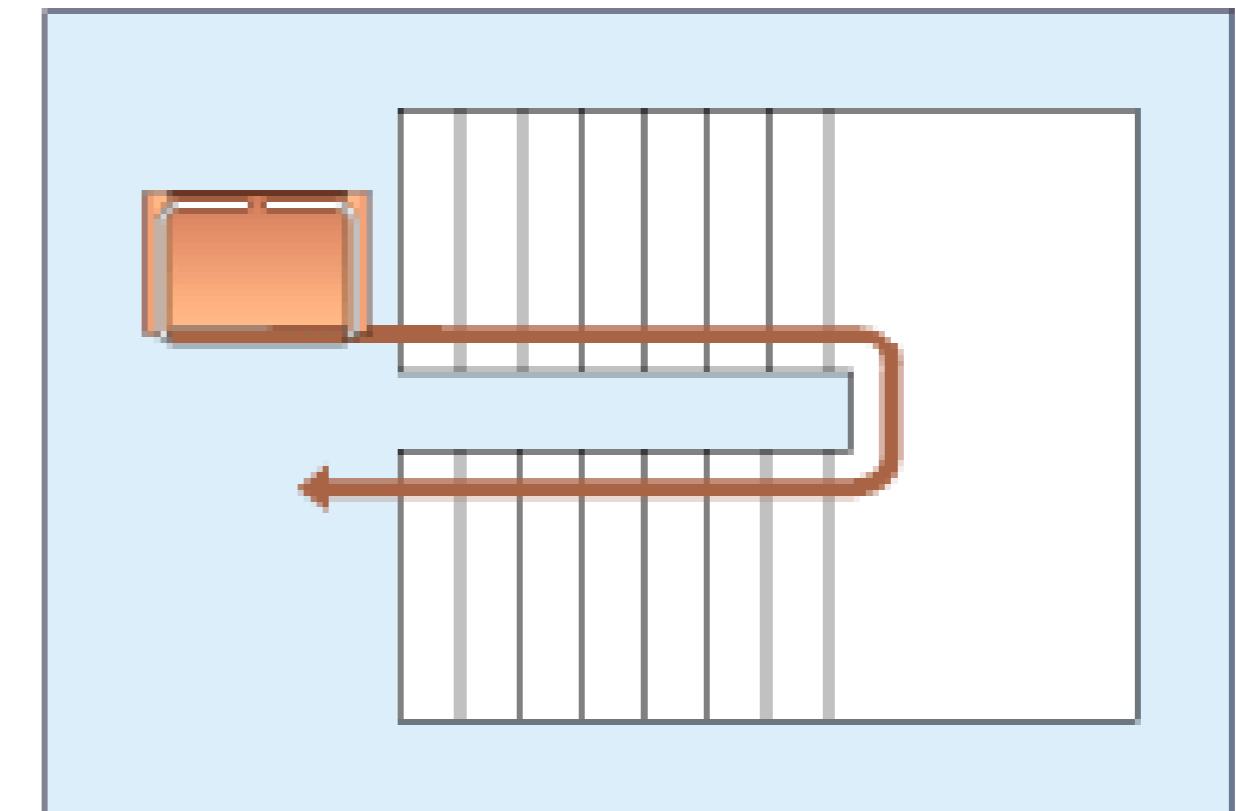


Heiligenhafen
Germany



Two flight staircase providing access to the tower

Type of staircase – Half-Landing Stairs

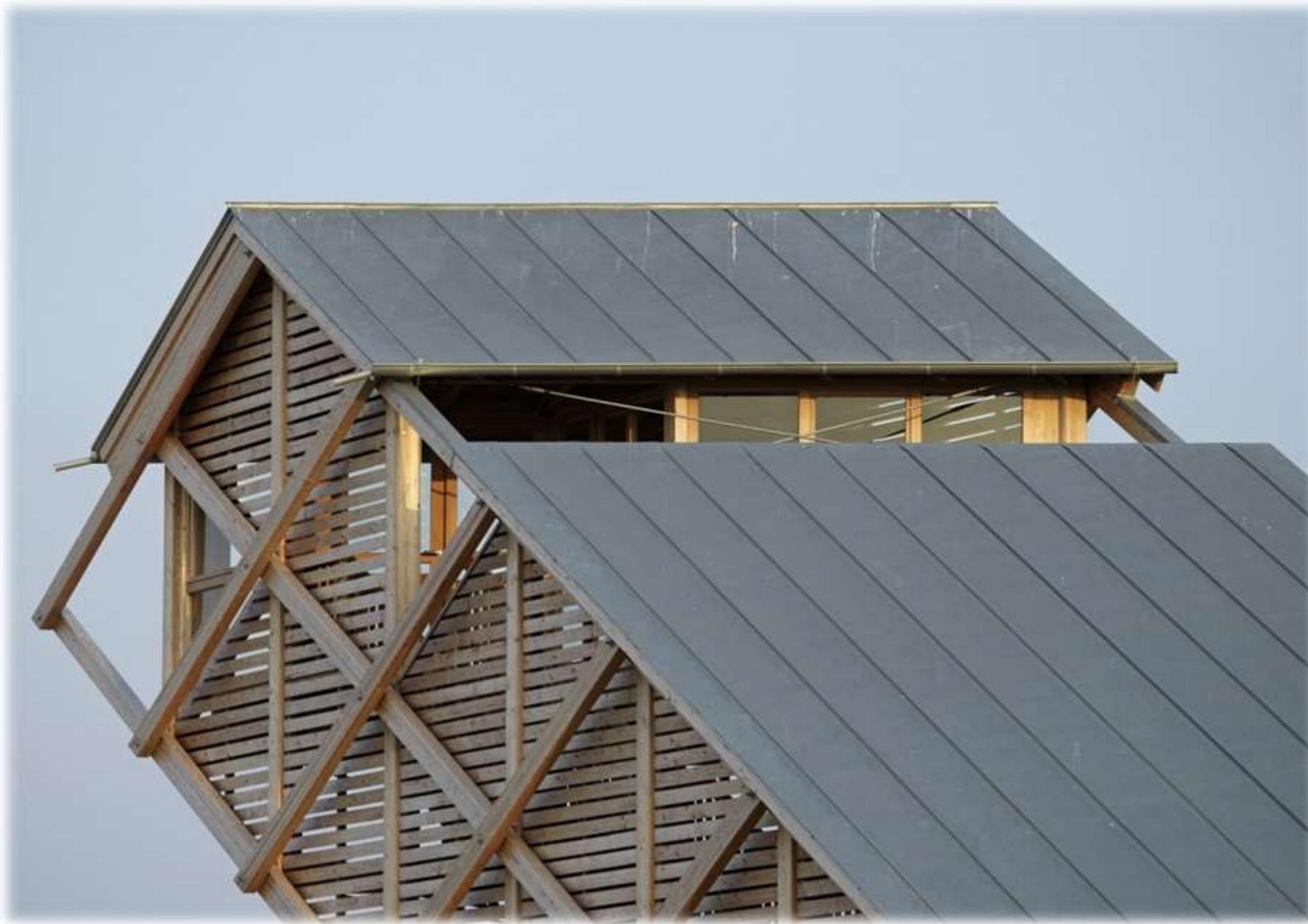




Siberian Larch Wood is used for Decking and Siding.

With great stability, durability, and its natural resistance for decay are the most impressive features.

A type of hard wood with high density and they are aesthetically beautiful with natural color.



Inspirations



Vienna Jubilaeumswarte



Observation Tower on the River Mur,
Border of Austria and Slovneia



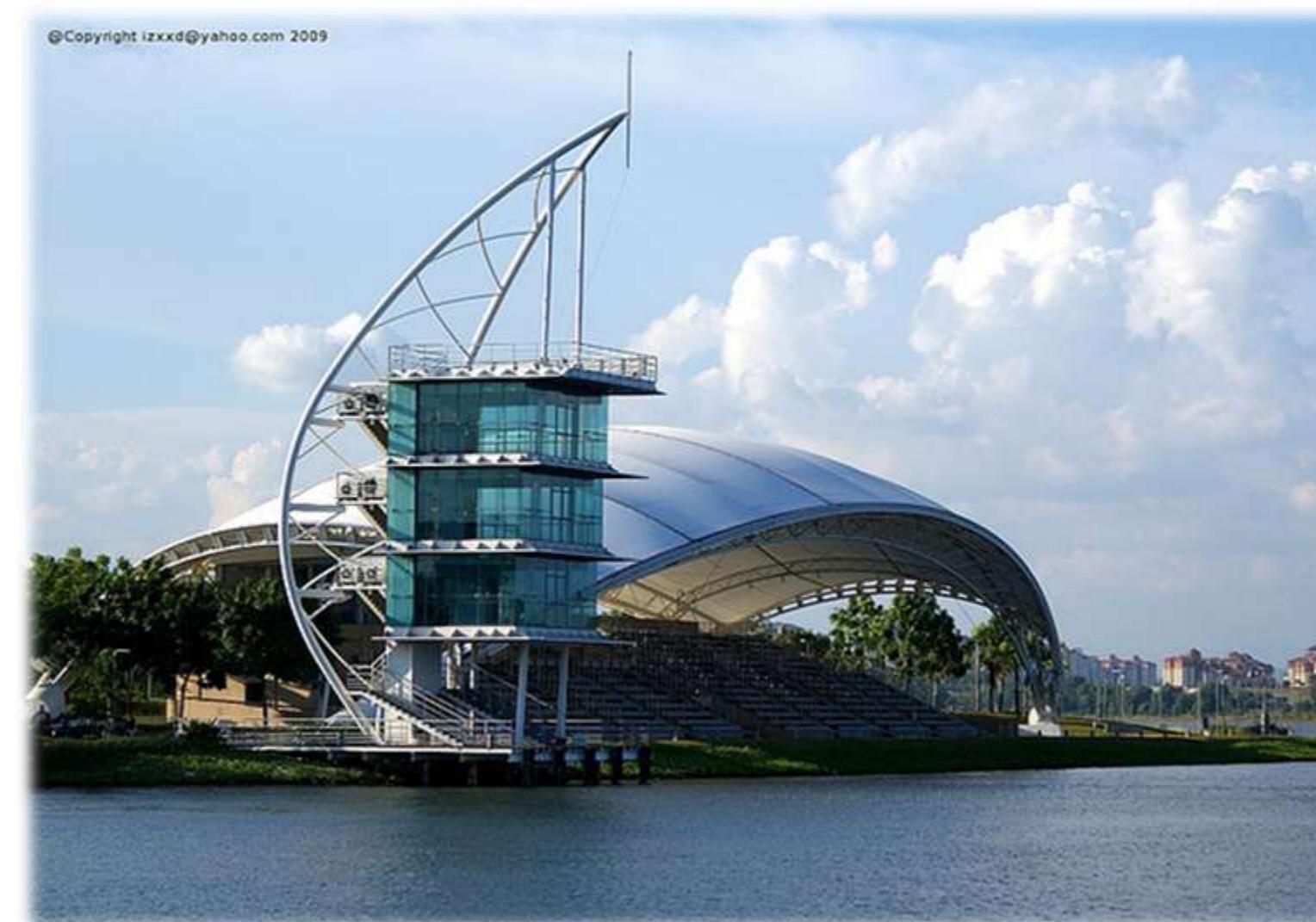
The Jübergtower, Germany



Lookout tower at
Pipestem Resort,
West Virginia



Tower at Honda Wetlands, Ohio



Observation Tower at
Putrajaya Water Sports Complex



Bird-watching Tower in Heitasaari Island,
Finland