

Elif Tüz THESIS PROJECT

An architectural rendering of a modern building with a complex, angular glass facade. The building is situated on a dark, reflective surface, likely water, and is illuminated from within, casting a warm glow. The sky is a deep blue with scattered white clouds, and the sun is setting on the horizon, creating a bright orange and yellow glow that reflects on the water. Three sailboats with white sails are visible on the water in the distance. The overall scene is serene and atmospheric.

TUZLA WETLAND &
BIRD OBSERVATION CENTER

01 THE SITE

04 CONCEPT DEVELOPMENT & STRATEGIES

02 LITERATURE REVIEW

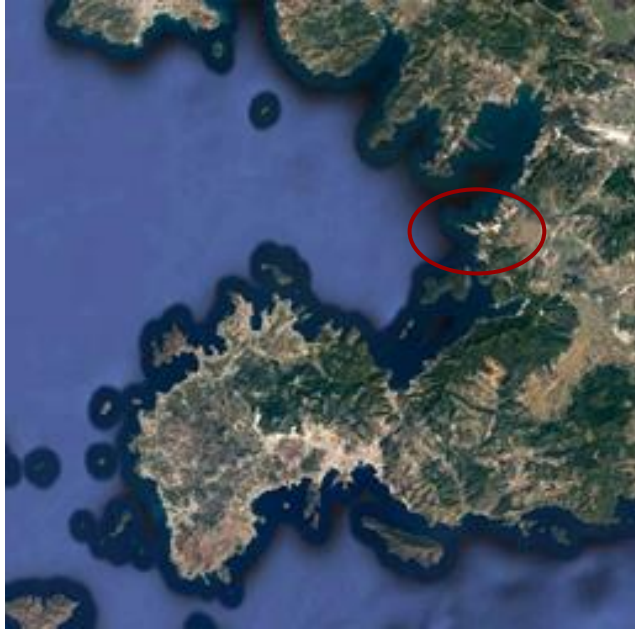
05 MASTER PLAN DEVELOPMENT

03 CASE STUDIES

06 TUZLA WETLAND &
BIRD OBSERVATION CENTER

INDEX

LOCATION



Bodrum Tuzla Wetland Bird Sanctuary, Muğla-Bodrum Road

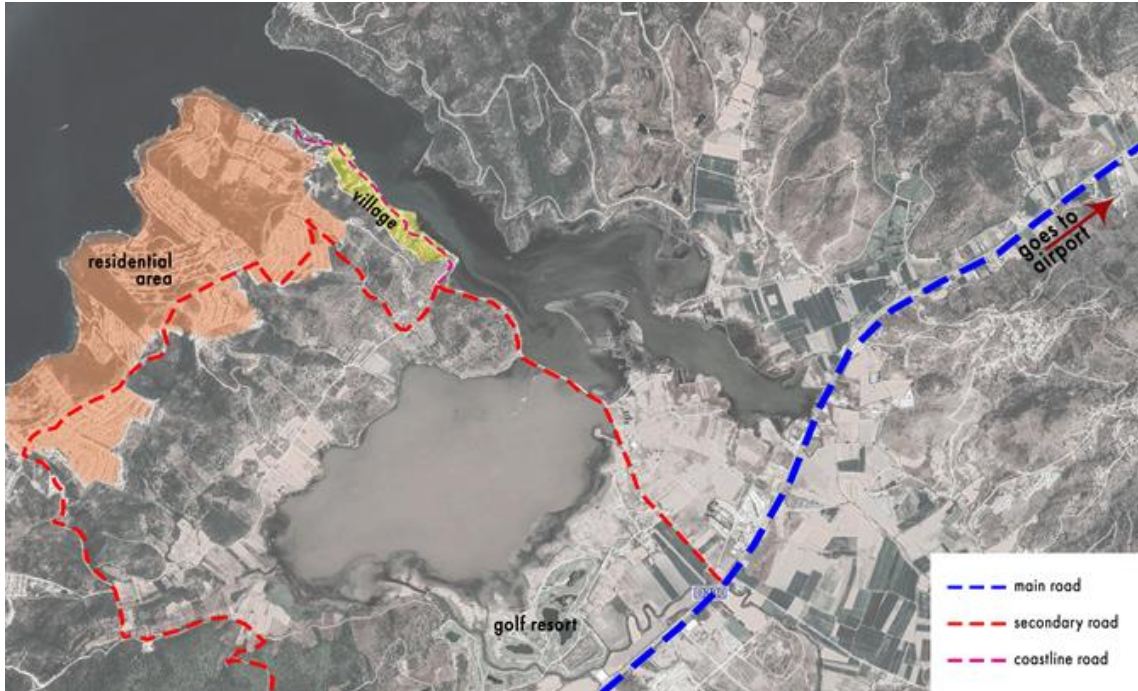


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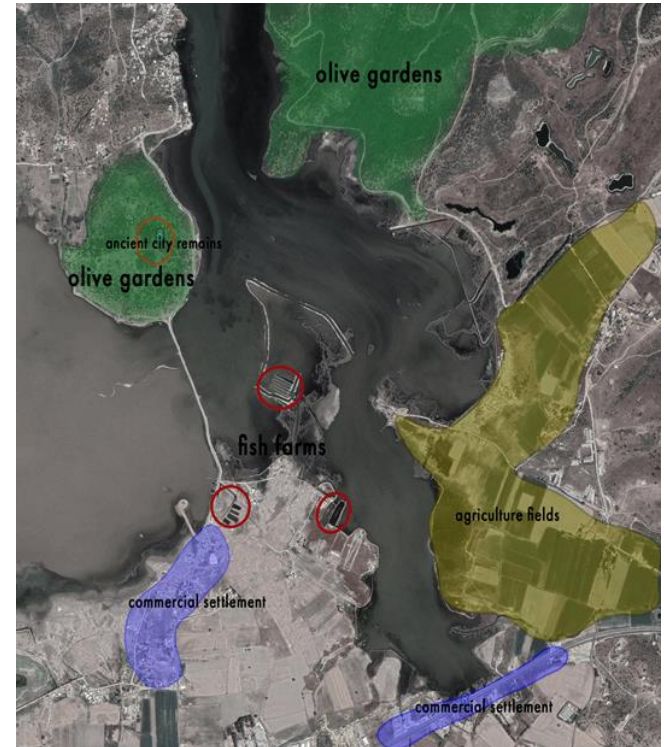
THE SITE

LOCATION

ACCESS



SURROUNDINGS



01

THE SITE

FAUNA



WETLAND VISTAS



01

THE SITE

PROBLEMS

industrialisation of the area around the natural wetland

overdevelopment of hotels, residential buildings and resorts

no proper regulations for agriculture and fish farming



23 Augustos 2015 20:02 *Mazi River is drying up, the birds are disappearing*
Mazi Çayı kuruyor, kuşlar yok oluyor

the river feeding
the lake is drying

The bad smell in Tuzla Wetland, known as the "Flamingo Paradise" in Muğla, made the people feel dismayed: "We cannot sit on the balcony"

Muğla'daki 'flamingo cenneti' olarak bilinen Tuzla Sulak Alanı'ndaki kötü koku halkı canından bezdirdi: Balkonda oturamıyoruz
01 Eylül 2020

their waste spills into the lake

**BIRD SANCTUARY
IS DYING**

water and land
pollution

The danger of pollution and poaching in Bodrum Tuzla Wetland

Bodrum Tuzla Sulak Alanı'nda kirlilik ve kaçak avlanma tehlikesi
DHA 19.11.2016 - 10:27 | Son Güncelleme : 19.11.2016 - 10:28

illegal hunting

01

THE SITE



PROBLEMS

GOLF FIELDS



FISH FARMS



01

THE SITE

According to LEED requirements, in the **wetland and habitat conservation areas**, the *habitat should not be disturbed* and the *design should include a buffer zone around the habitats*.

The *architectural masses should be kept in minimum* and the *functions conserving the water bodies and the wildlife habitat such as water treatment and the animal sanctuaries* should be a part of the design.

02 LITERATURE REVIEW

SLL Credit 9: Site Design for Habitat or Wetland Conservation

1 Point

Intent

Conserve native wildlife habitat, wetlands and water bodies.

Requirements

OPTION 1

Work with the state's Natural Heritage Program, a local fish or wildlife agency, or the state fish and wildlife agency to determine if significant habitat occurs on the site. If significant habitat is found, **do not disturb that significant habitat** or portions of the site within an appropriate buffer around the habitat. The geographic extent of the habitat and the appropriate buffer shall be identified by a qualified biologist, a non-governmental conservation organization or the appropriate state, regional or local agency. Protect significant habitat and its identified buffers from development in perpetuity by donating or selling the land or a conservation easement on the land to an accredited land trust or relevant public agency. Significant habitat for this credit includes:

- Habitat for species that are listed or are candidates for listing under state or federal endangered species acts, or for those classified as G1, G2, G3 and/or S1 and S2 species by NatureServe (see note below about G and S classification); and
- Locally or regionally significant habitat, or patches of natural vegetation at least 150 acres in size (irrespective of whether some of the 150 acres lies outside the project boundary); and
- Habitat flagged for conservation under a regional or state conservation or green infrastructure plan;

OR

OPTION 2

If the project is located on a previously developed site, use native plants for 90% of vegetation, and use no invasive plants on any part of the site;

OR

OPTION 3 – FOR SITES WITH WETLANDS AND/OR WATER BODIES

Design the project to conserve 100% of all water bodies and wetlands on the site; and conduct an assessment, or compile existing assessments, showing the extent to which water bodies and/or wetlands on the site perform the following functions: 1) water quality maintenance, 2) wildlife habitat protection, and 3) hydrologic function maintenance, including flood protection. Assign appropriate buffers (not less than 100 feet) around the development footprint throughout the site based upon the functions provided, contiguous soils and slopes, and contiguous land uses; and protect wetlands, water bodies, and their



LINGANG ECO PARK / BIRD
AIRPORT

BY MCGREGOR COXALL

03

CASE STUDIES



WASIT
NATURAL
RESERVE
VISITOR
CENTER
BY X-
ARCHITECTS



In both case studies, the architects design in a wetland area where the land is a home for a lot of bird species. The buffer zone arranged in both designs in a way that does not include the bird migration roads. The architectural masses have public functions which focus on information, education and observation, however, the architectural footprint is limited and not disturbing the land.

03 CASE STUDIES

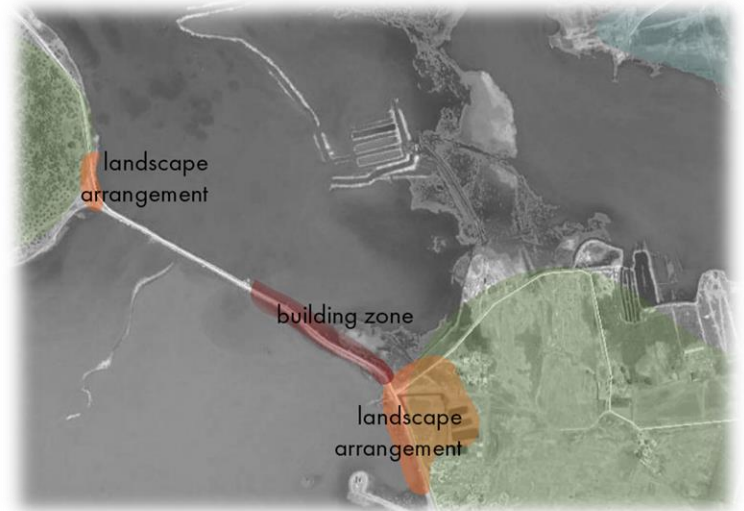




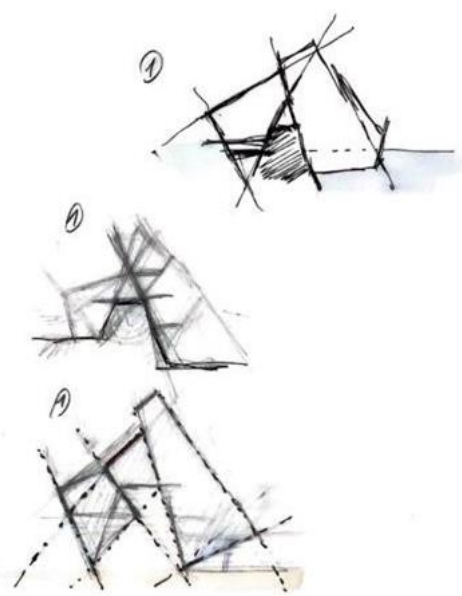
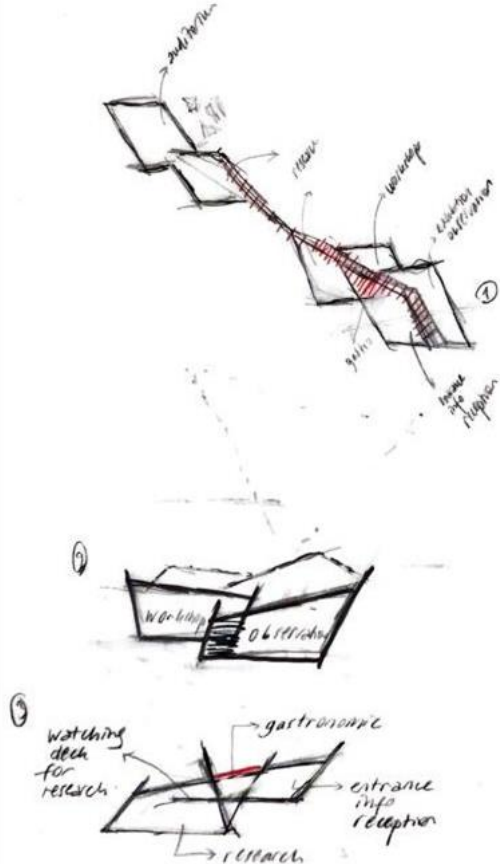
Buffer zone arrangement

Controlled agriculture and
fish farming areas

Building area is on the
barrier



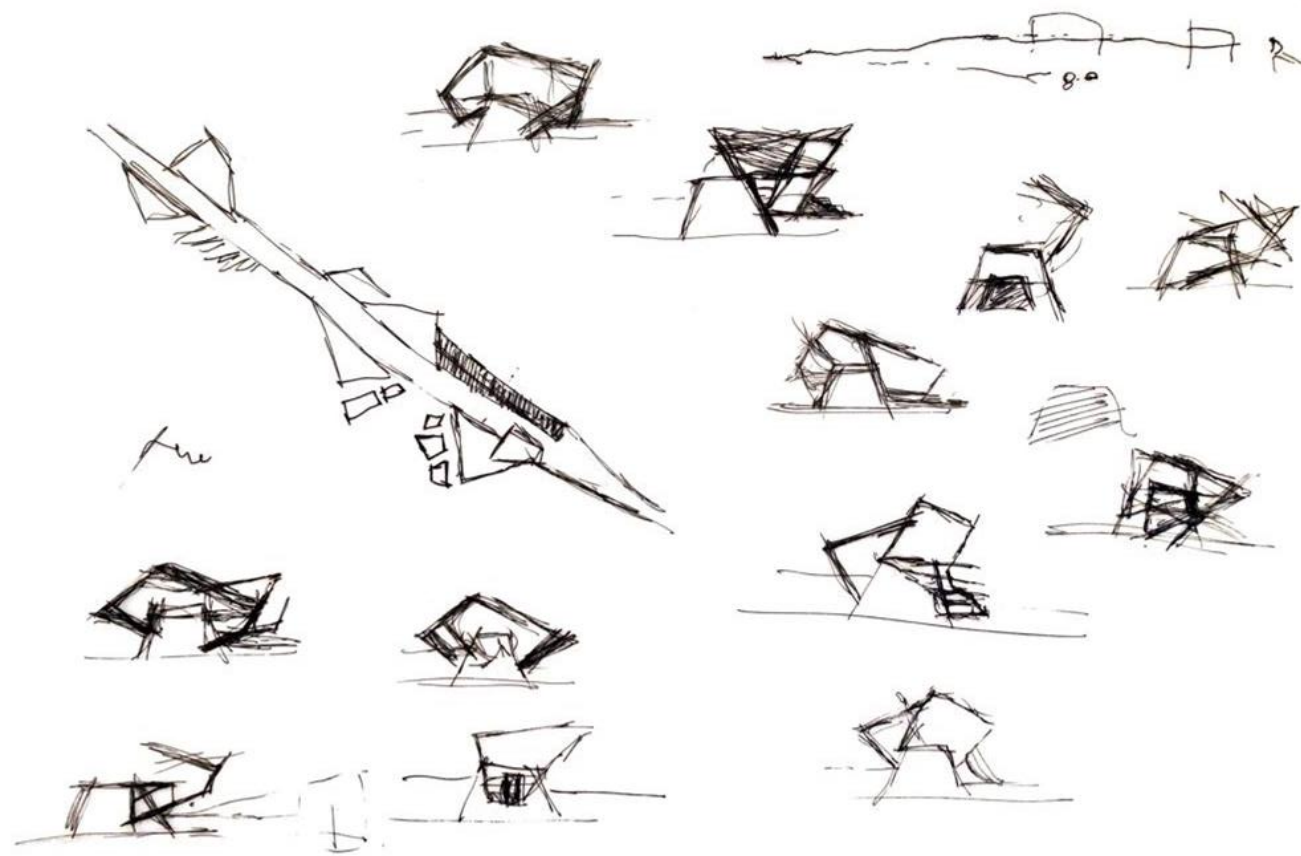
04 MASTER PLAN DEVELOPMENT



Building Area:
 minimum intervention to nature, no additional architectural footprint.
 only construction is on the barrier.

Barrier:
 using the level difference between freshwater and the sea.
 hydro energy for the building.

05 CONCEPT DEVELOPMENT & STRATEGIES



Structure:
all the structure
is connected to the barrier.
no intervention to the nature.

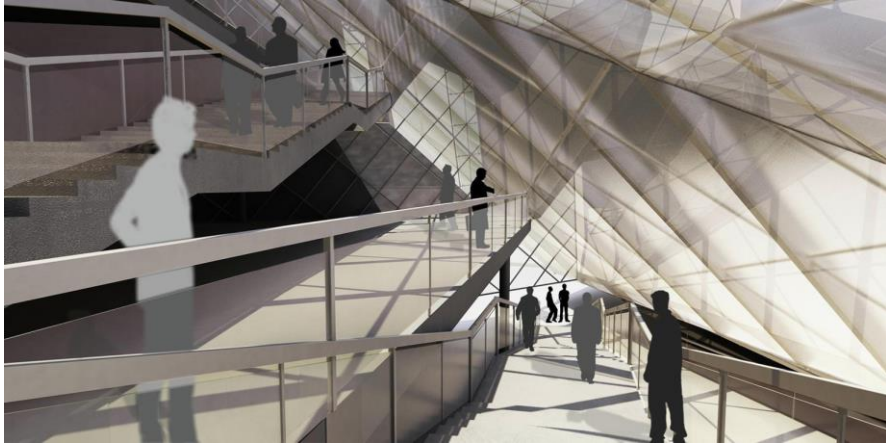
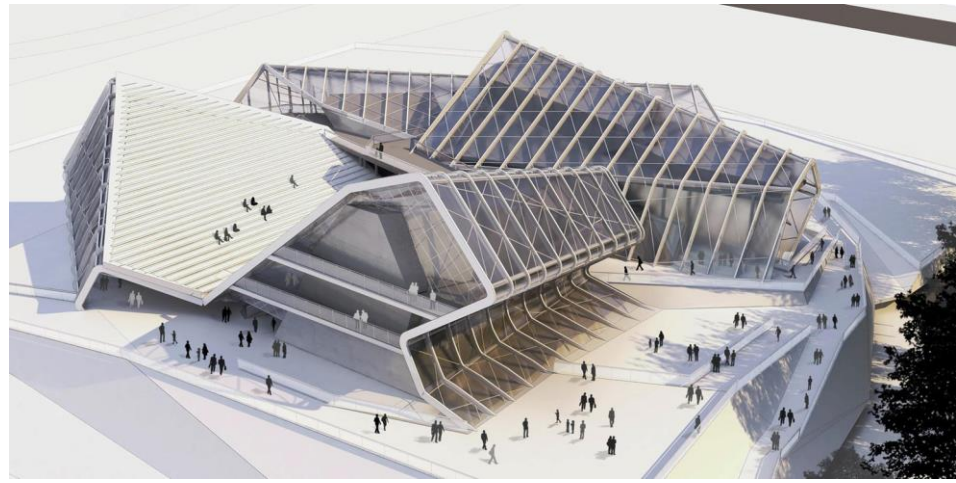
Environmental:
shading strategies.
water collection.
solar panels.

05

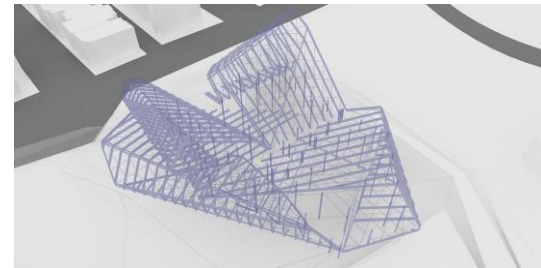
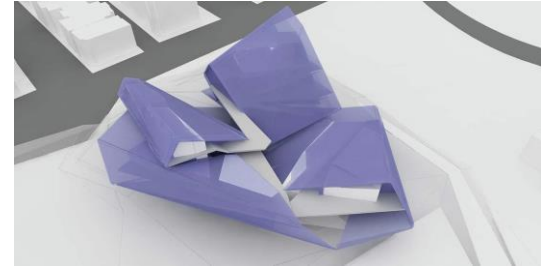
CONCEPT DEVELOPMENT & STRATEGIES

CASE STUDY: MEDIA COMPLEX

BY CAAT STUDIO



This case study shows the structural design possibilities in folded and intersecting geometries.



05

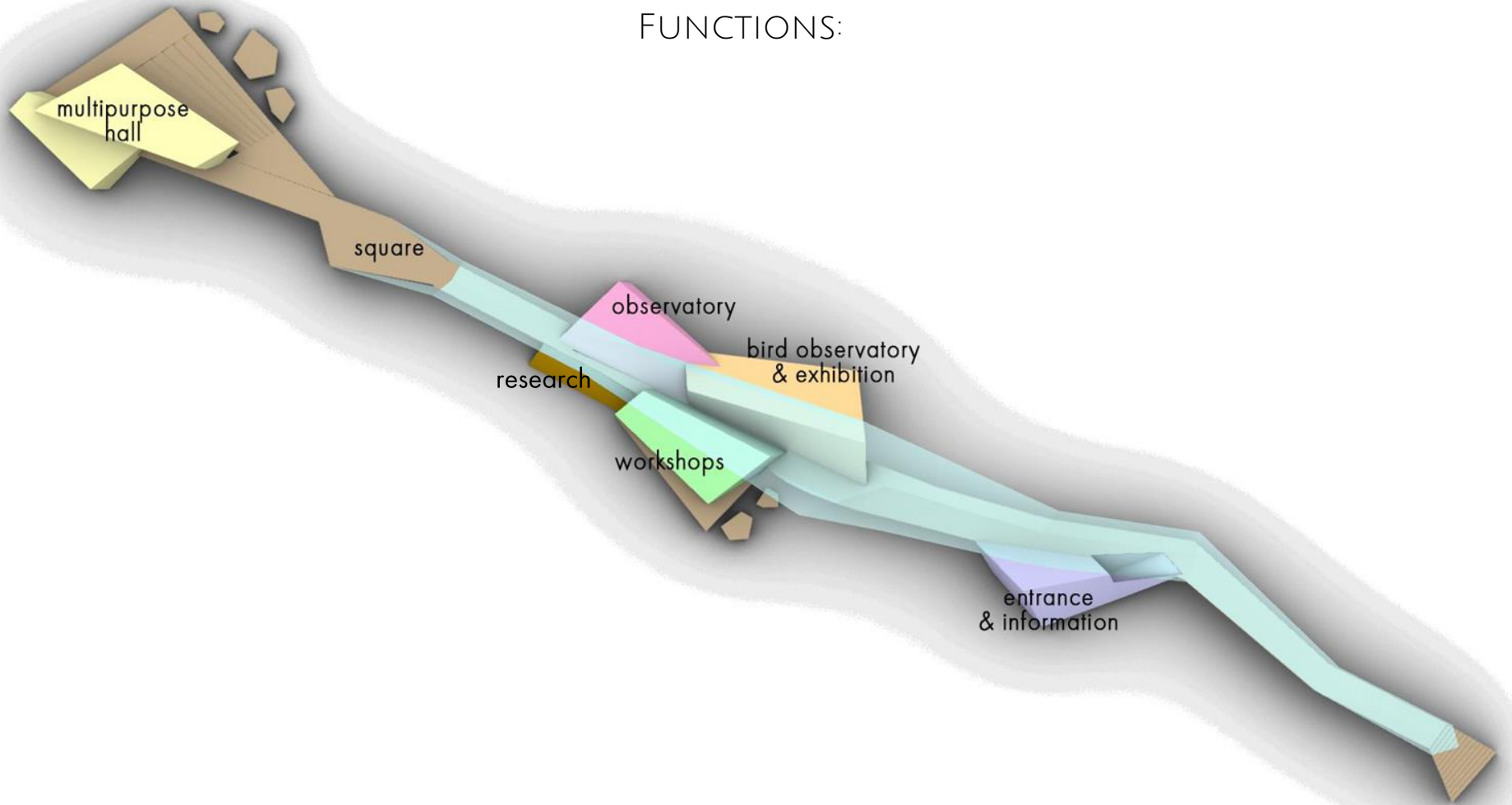
CONCEPT DEVELOPMENT & STRATEGIES



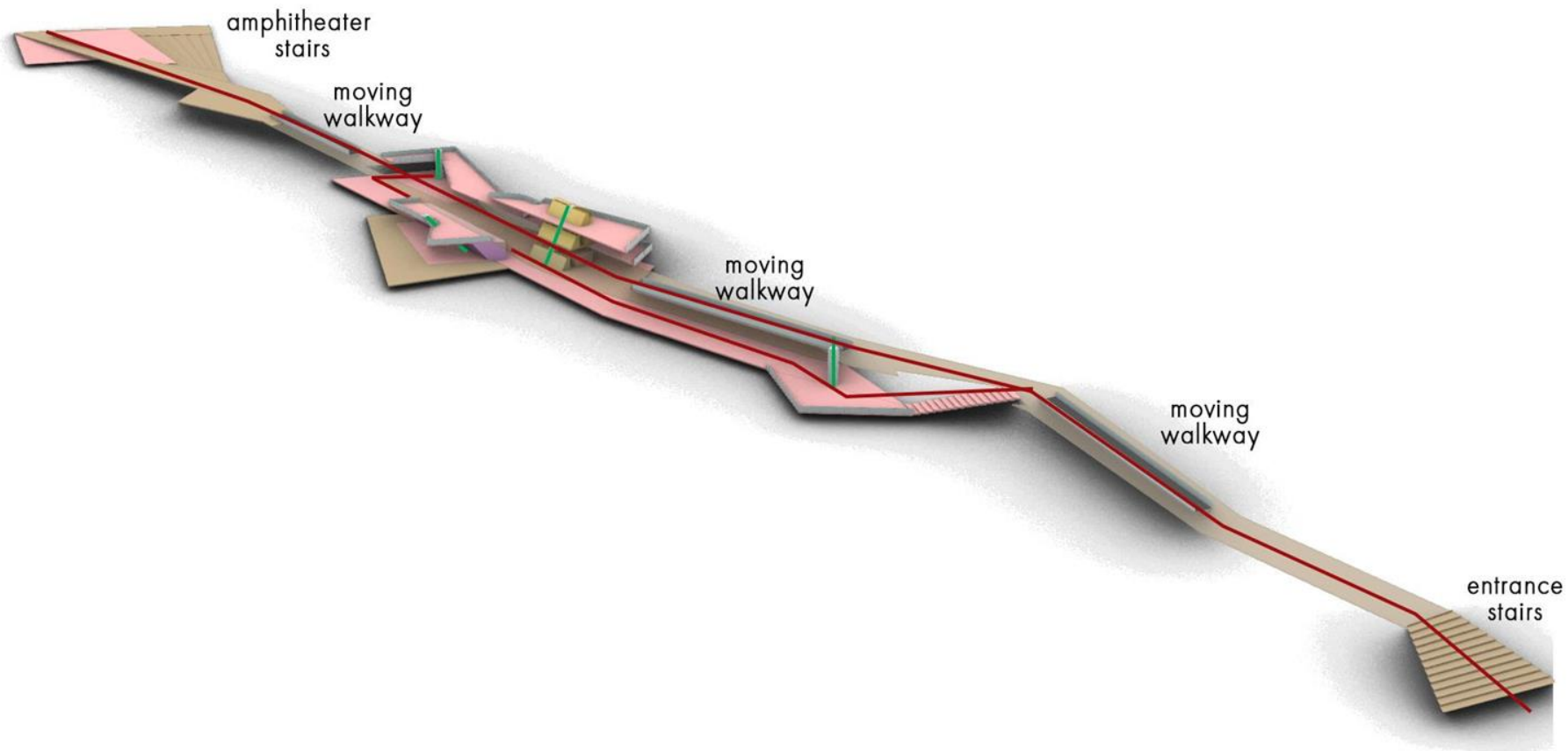
06

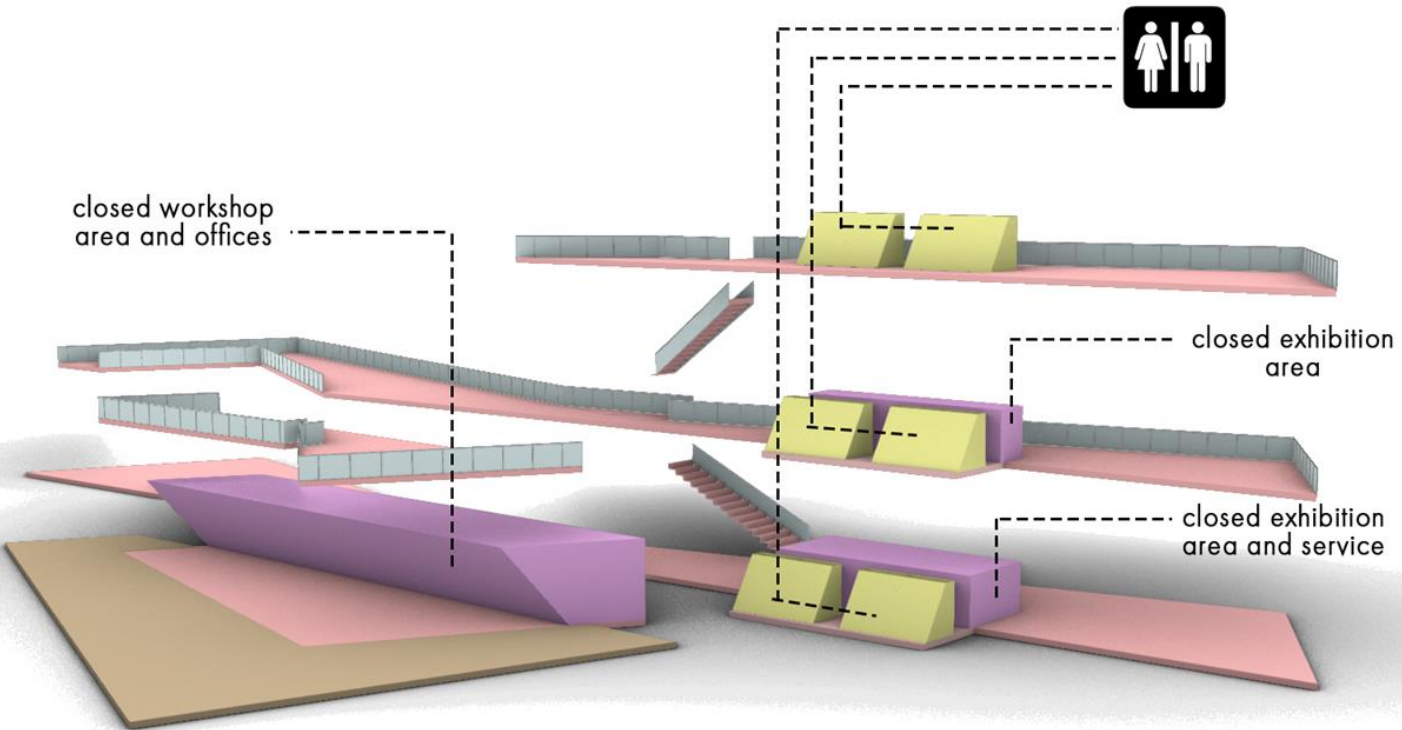
TUZLA WETLAND &
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FUNCTIONS:



CIRCULATION:





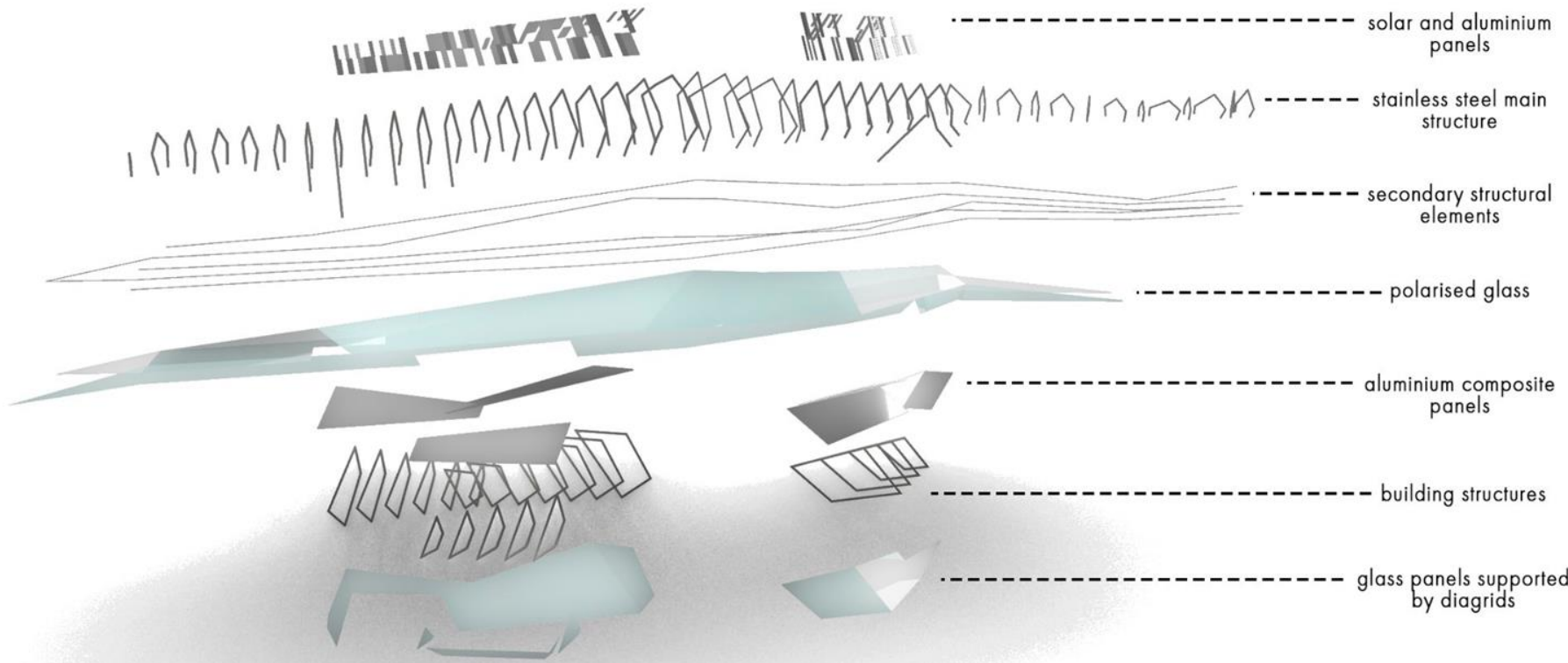
closed workshop
area and offices

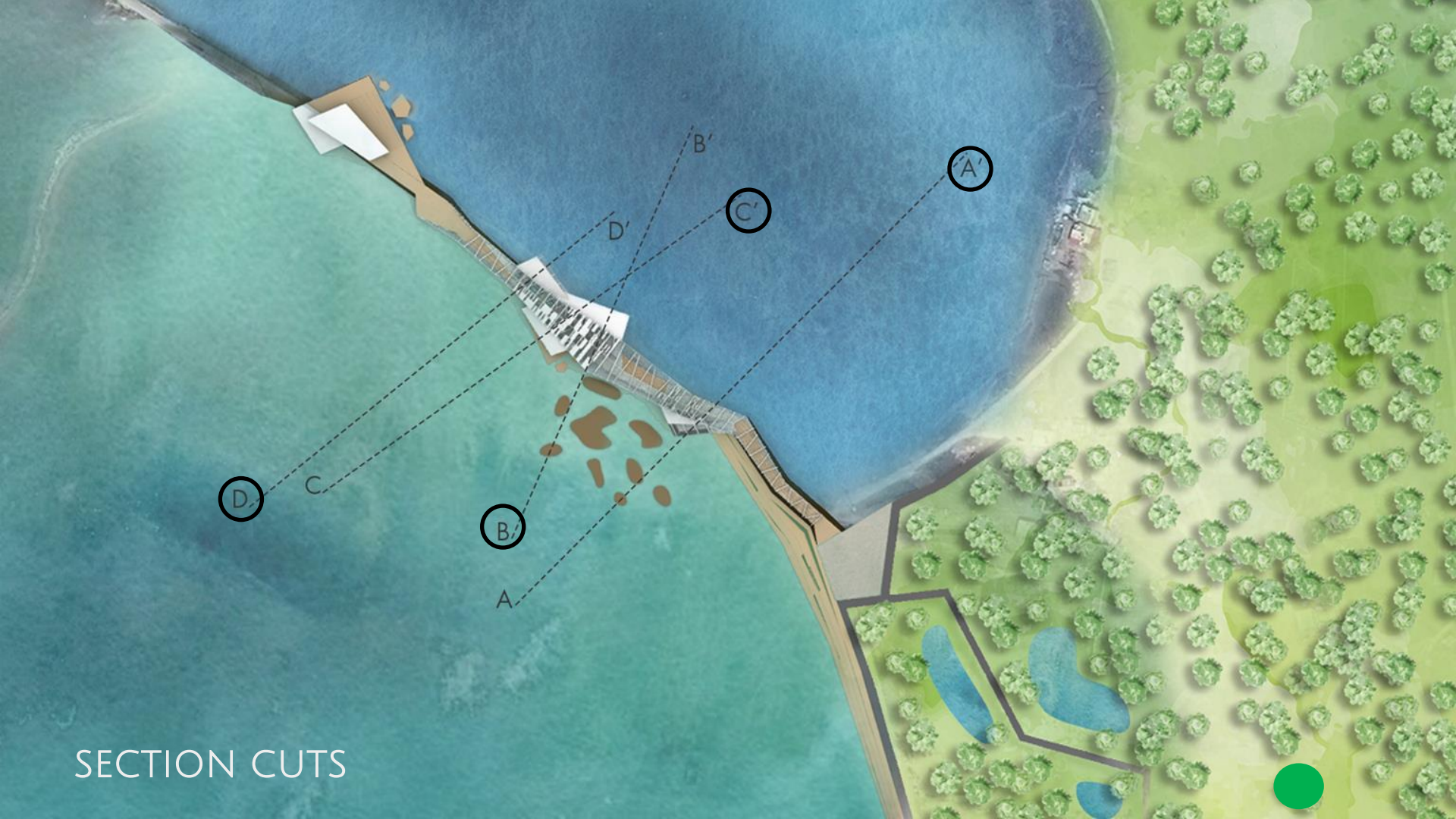
closed exhibition
area

closed exhibition
area and service



EXPLODED DIAGRAM FOR BUILDING STRUCTURE AND MATERIALS:





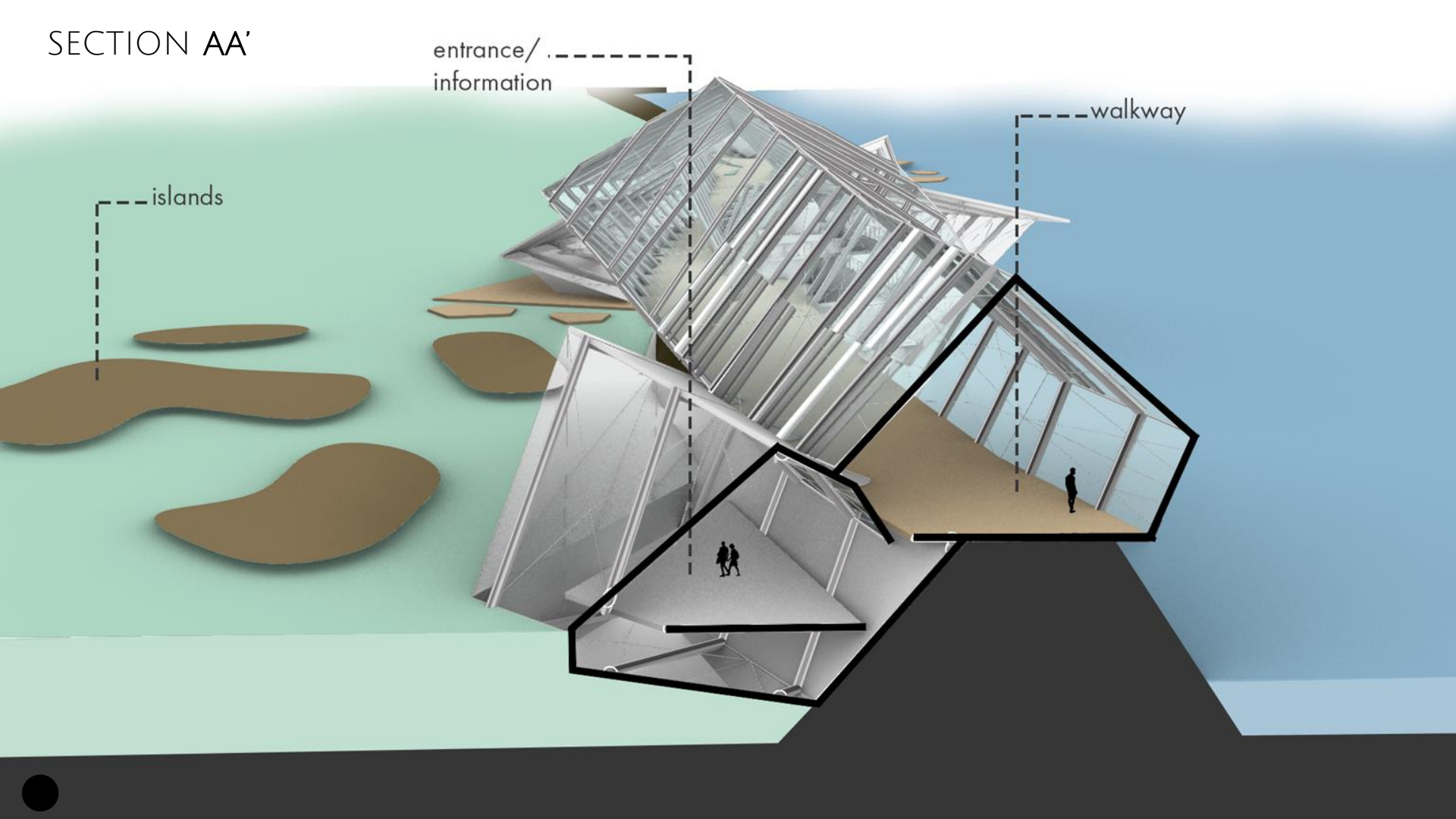
SECTION CUTS

SECTION AA'

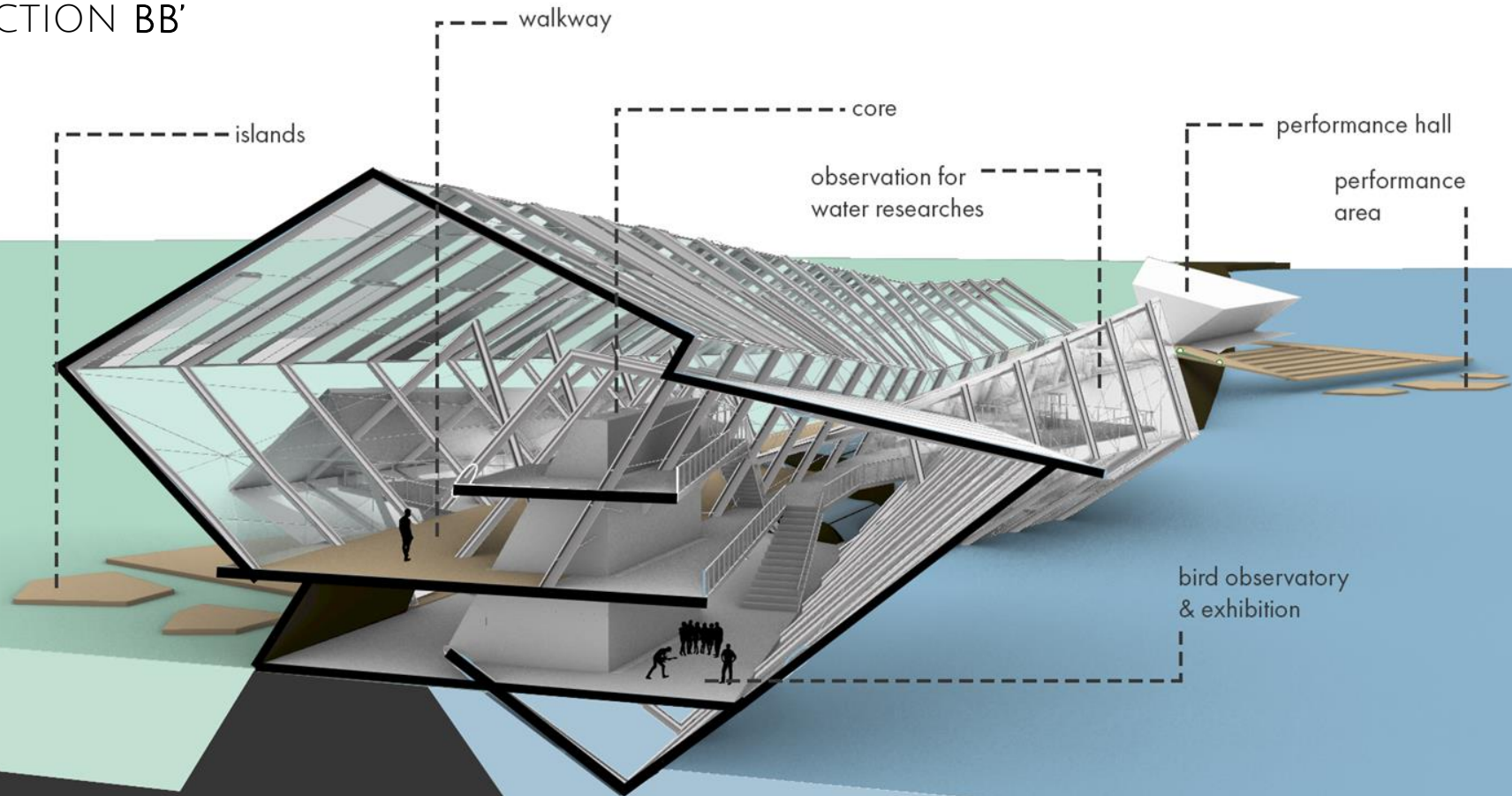
entrance/
information

walkway

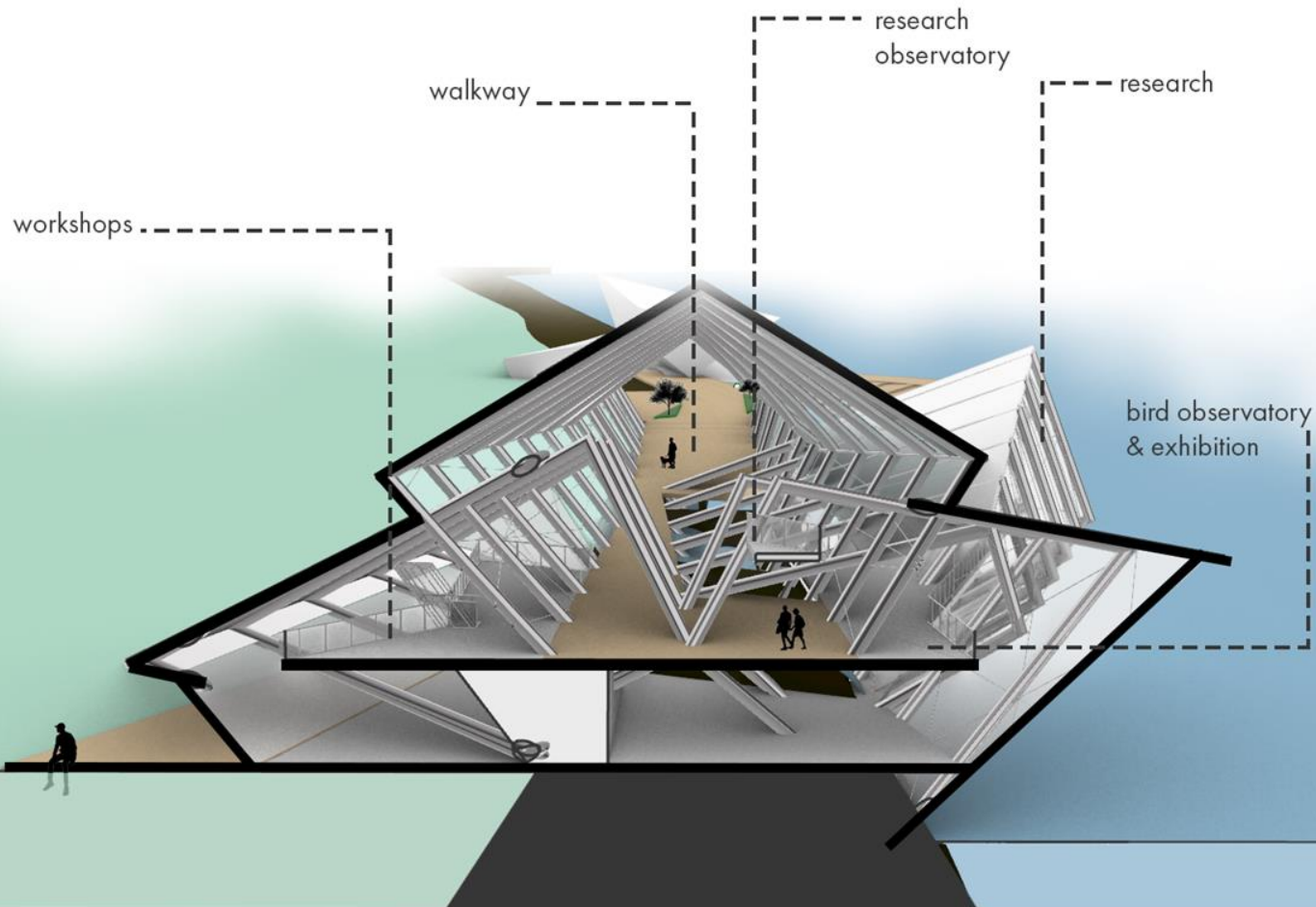
islands



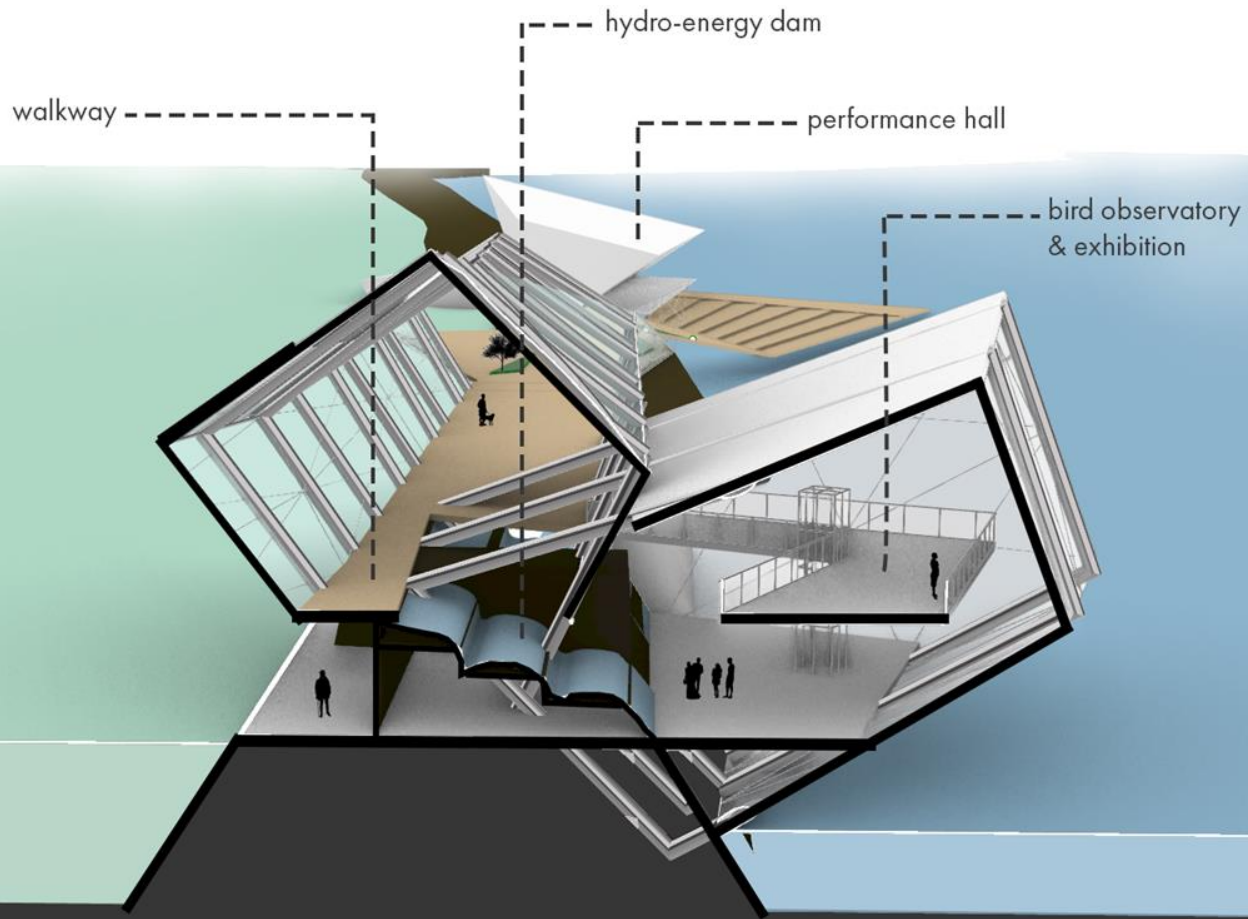
SECTION BB'

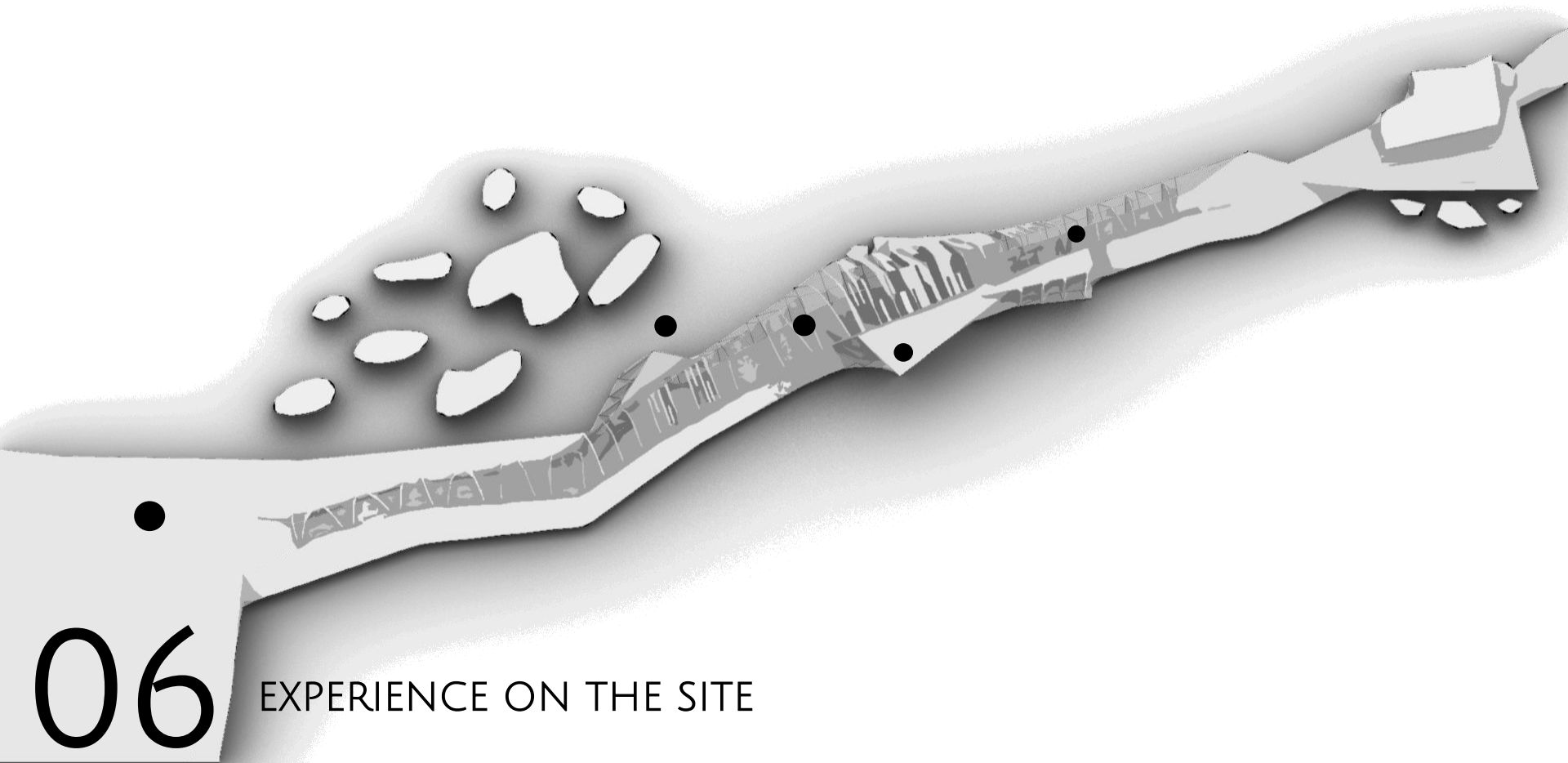


SECTION CC'



SECTION DD'





06

EXPERIENCE ON THE SITE





