

# UNCONVENTIONAL MOSQUE



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2020 SPRING

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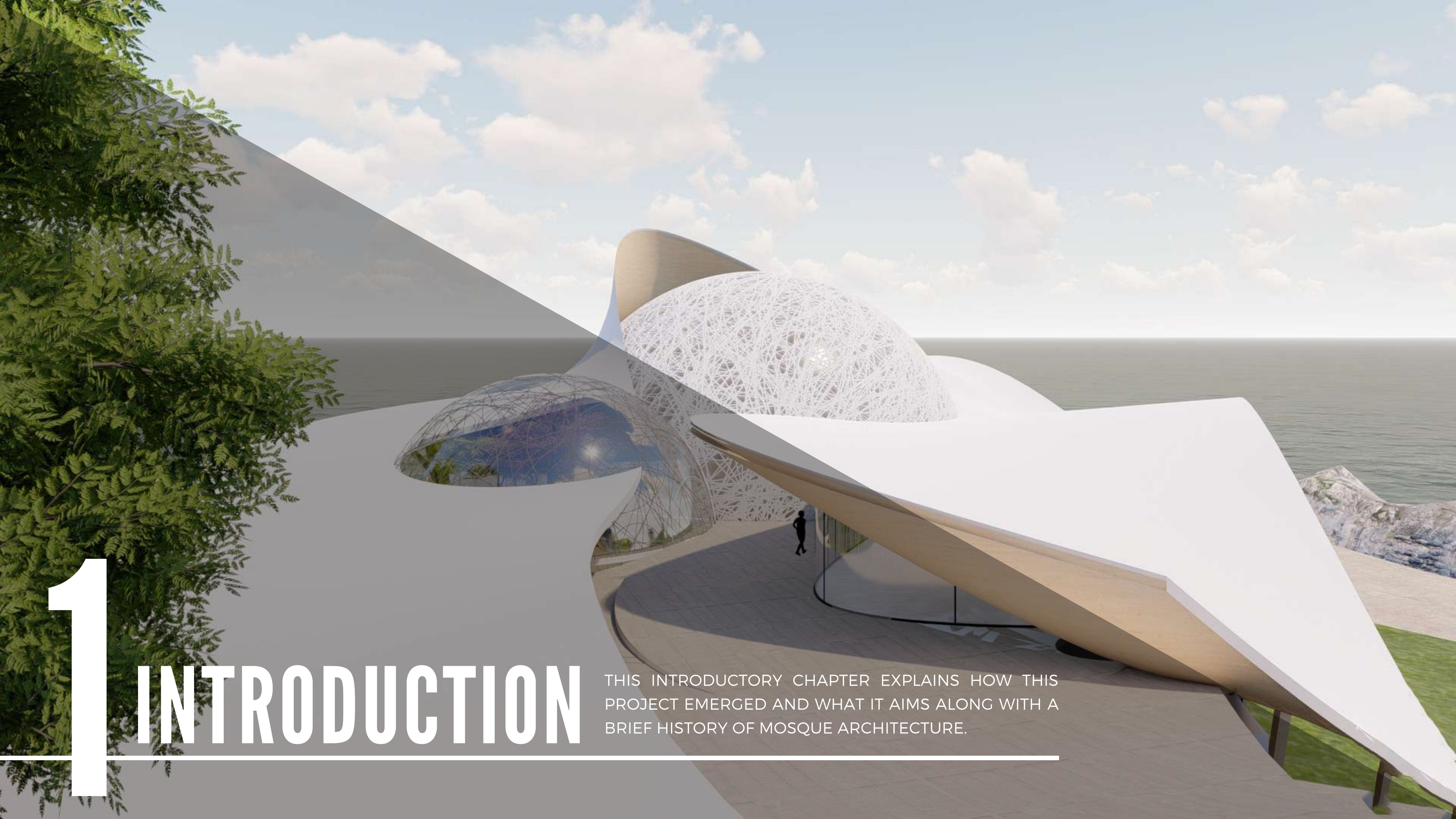
3 - LITERATURE REVIEW

4 - CASE STUDIES

5 - THE PROJECT

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# 1 INTRODUCTION

THIS INTRODUCTORY CHAPTER EXPLAINS HOW THIS PROJECT EMERGED AND WHAT IT AIMS ALONG WITH A BRIEF HISTORY OF MOSQUE ARCHITECTURE.



## DOES TURKEY NEED ANOTHER MOSQUE?

MOSQUES IN TURKEY: 84.684



### MOSQUES IN TURKEY

GENDER EQUAL: 1

UNCONVENTIONAL: 17

### MOSQUES IN THE WORLD

GENDER EQUAL: ?

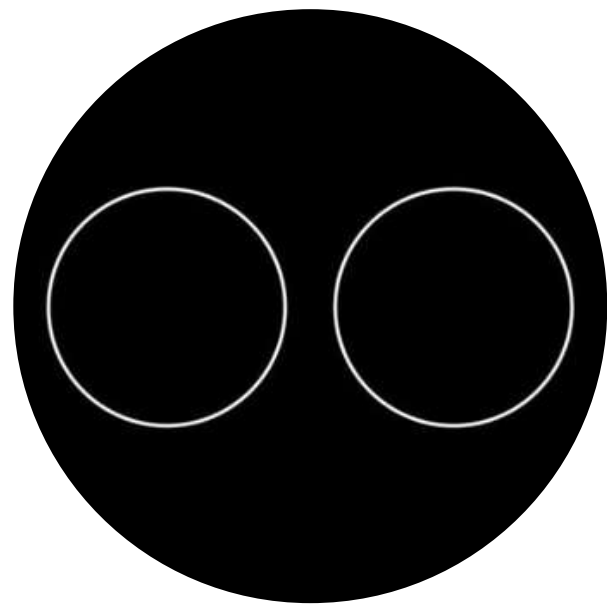
UNCONVENTIONAL: ?

Why I wanted to design a mosque project is because I am saddened by what the mosque architecture has evolved to be today.

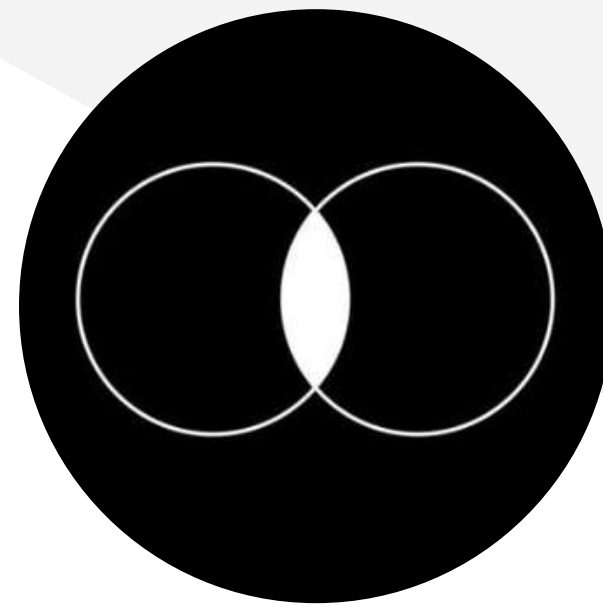
There is more than enough mosques on every corner but how many gender equal mosques are there or how many new approaches to the design rather than the traditional?

So I think maybe Turkey need one more...

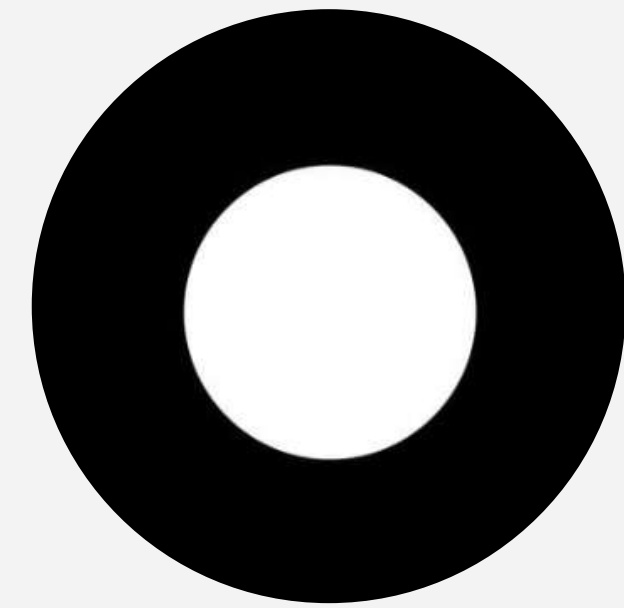
# AIMS



Gender Equality



Welcoming



Not Traditional

## GENDER SEPARATION IN MOSQUES

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The Prophet told Muslims not to forbid women from entering mosques. They are allowed to go in but are they welcomed in the way others are. Many mosques today will put the women behind a barrier or partition or in another room not in the main prayer hall; some mosques do not admit women at all due to the lack of space and the fact that some prayers, such as the Friday Prayer, are mandatory for men but optional for women.

Although there are sections exclusively for women and children, [the Grand Mosque in Mecca is desegregated.](#)



*The main aim of this design is to provide a place for people where they can feel welcomed and comfortable when praying. So it must welcome everyone but also shouldn't be too radical to give them discomfort. There for this mosque will [challenge cultural norms and be different but in a humbling way that it embraces everyone.](#)*

## WOMAN ONLY MOSQUES

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Women's mosques exist around the world, with a particularly rich tradition in China. As Islam has principles of segregating the sexes, many places of worship provide a dedicated prayer space for women within the main building, but in a few countries, separate buildings were constructed. In some cases, women were allowed to become imams. In the 21st century, many countries have seen women-led or women-only mosques created, as part of liberal movements within Islam.



## GENDER SEPARATION IN OTHER RELIGIONS

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A mechitza (Hebrew: מחיצה, partition or division, pl.: מחיצות, mechitzot) in Jewish Halakha is a partition, particularly one that is used to separate men and women.

In Orthodox synagogues, men and women always sit separately. A mechitza (Hebrew: "Division") is used to divide the men and women, and often to block the view from one section to the other.



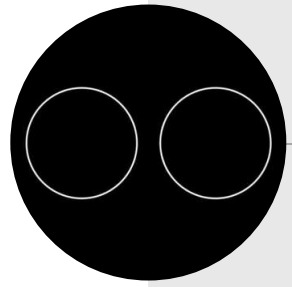
# WOMAN IN TURKEY OVER THE YEARS

*"Women are the pillars of the society and wellspring of the nation. They must bring up, and educate strong new generations but, they can only perform these tasks if they themselves are enlightened. Turkish women must be well educated, virtuous, dignified and capable of gaining respect in the society. Everything we see in the world is the creative work of women."*

*-M. Kemal Atatürk - Women Rights*

So I believe they can set a good example to the world about a new equalistic approach in mosque design that shows how women should be respected.





## GENDER EQUALITY

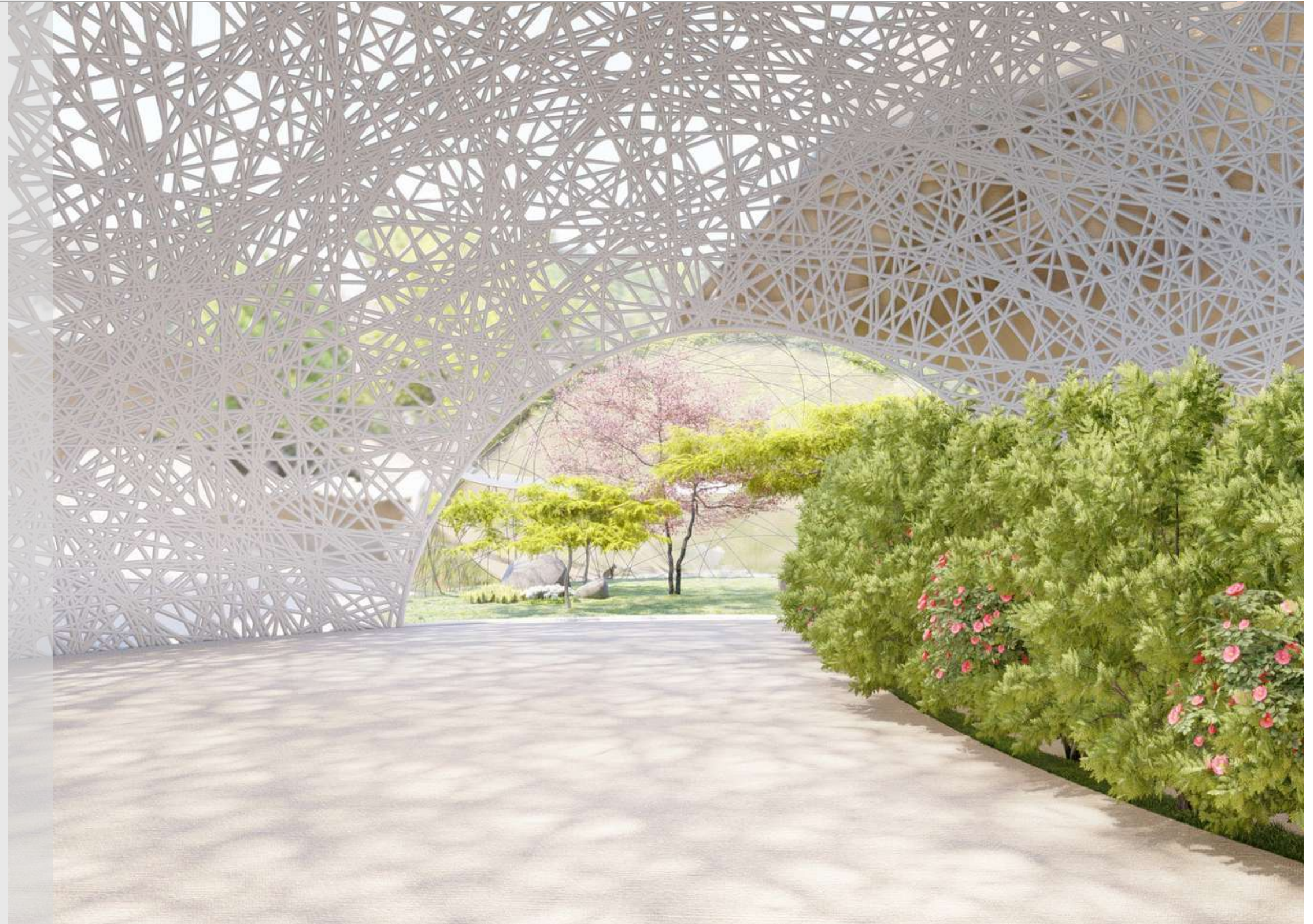
There is nothing written in the Qur'an about the issue of space in mosques and gender separation. However, traditional rules have segregated women and men.

Many mosques today puts women **behind or in another room** not in the main prayer hall; some mosques do not admit women at all. Even though the Prophet told Muslims not to forbid women from entering mosques.

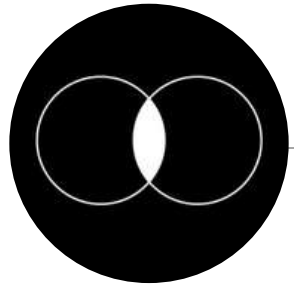
In Turkey the women praying areas are either elevated to balconies or hidden. The balconies may be a better option since they have a good view but it still shows segregation.

**The beautiful areas are not for women**, they are not going into their praying areas by **nice welcoming gateways** but **hidden doors or narrow stairs**.

**They deserve to feel just as welcomed.**







## WELCOMING

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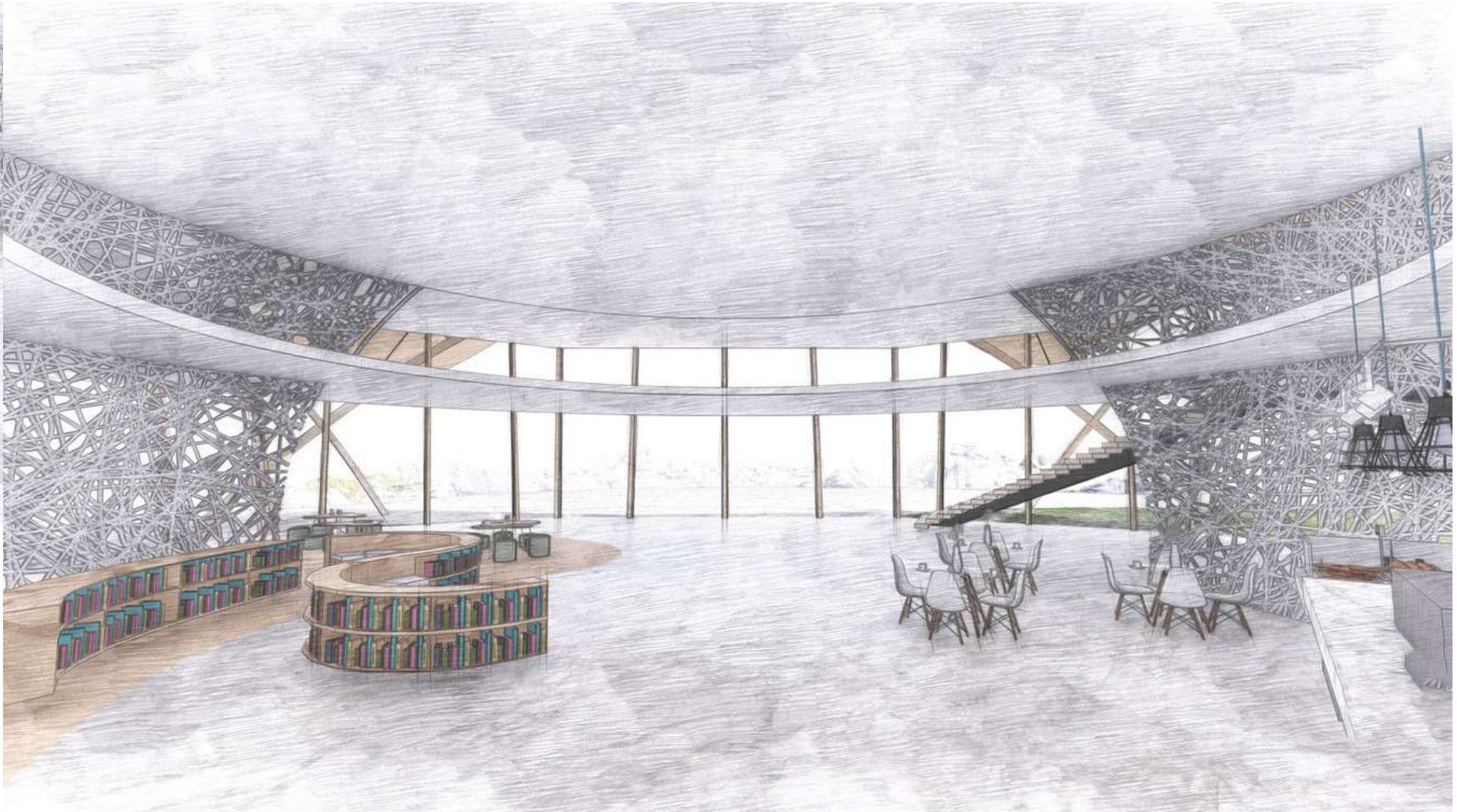
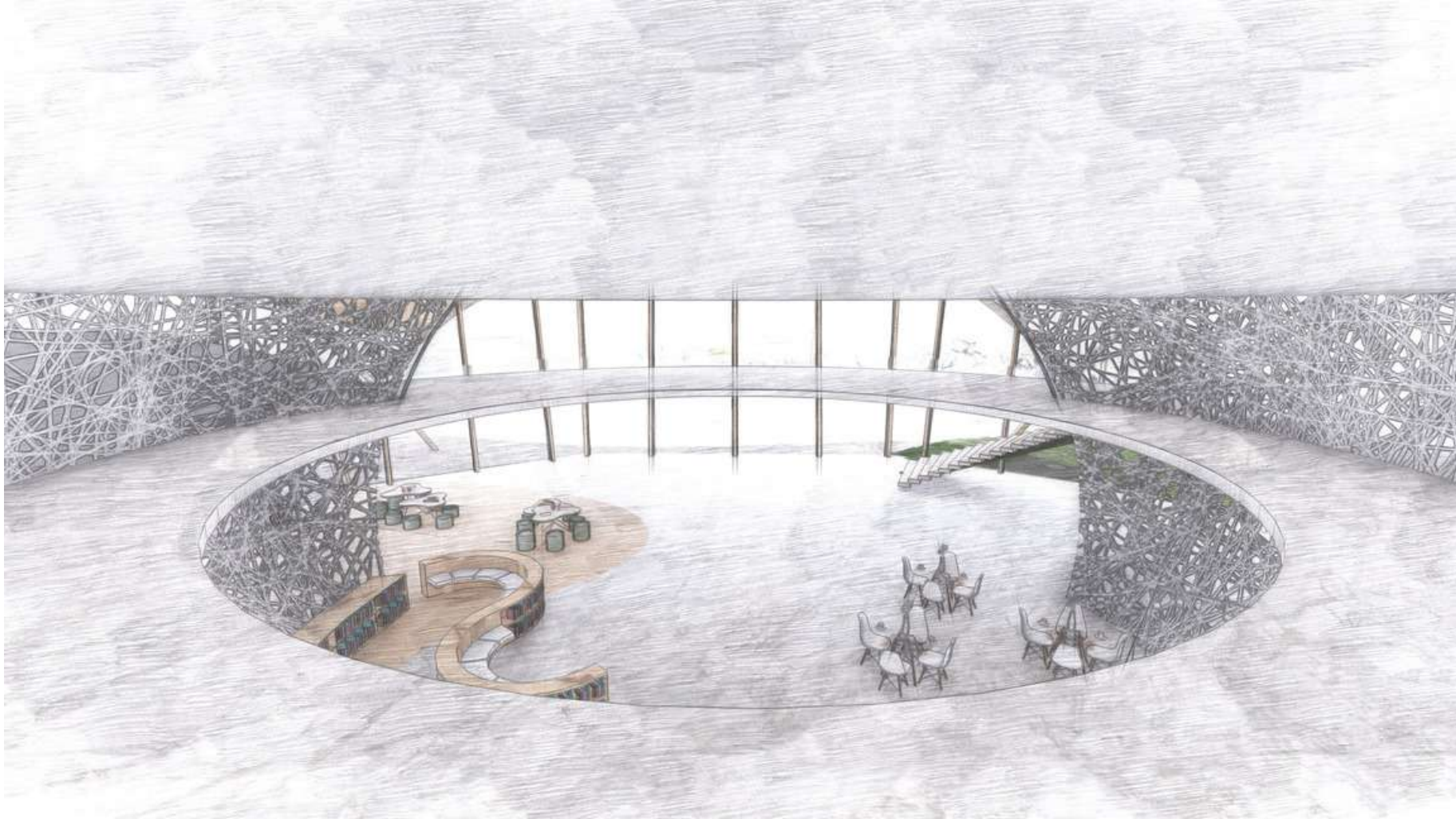
Today, the decision on whether non-Muslims should be allowed to enter mosques varies.

In modern Turkey, non-Muslim tourists are allowed to enter any mosque, but there are some strict rules. Visiting a mosque is allowed only between prayers; visitors are required to wear long trousers and not to wear shoes, women must cover their heads; visitors are not allowed to interrupt praying Muslims, especially by taking photos of them; no loud talk is allowed; and no references to other religions are allowed (no crosses on necklaces, no cross gestures, etc.) Similar rules apply to mosques in Malaysia, where larger mosques that are also tourist attractions (such as the Masjid Negara) provide robes and headscarves for visitors who are deemed inappropriately attired.

There is no kind of segregation in this mosque. It welcomes Muslims and non-muslims.

In the Mosque there is a interactive center that shows the peaceful philosophy of Islam and the aims of this mosque for anyone who is interested.



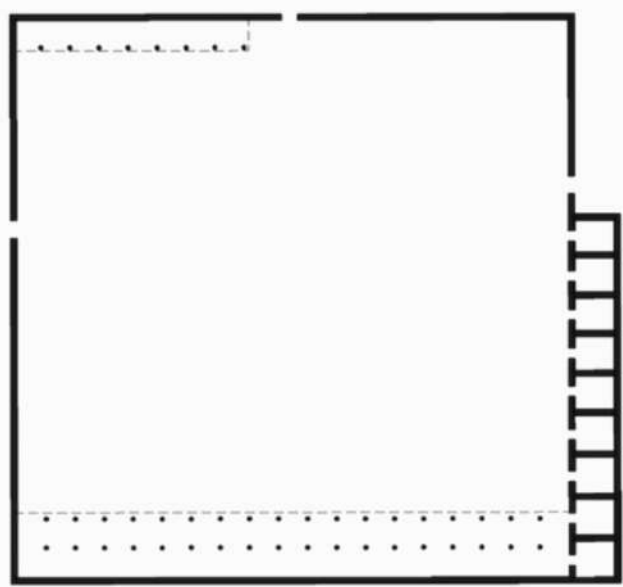


# HISTORY & TYPES OF MOSQUE ARCHITECTURE

Since the 7th century, mosques have been built around the globe. While there are many different types of mosque architecture, three basic forms can be defined.

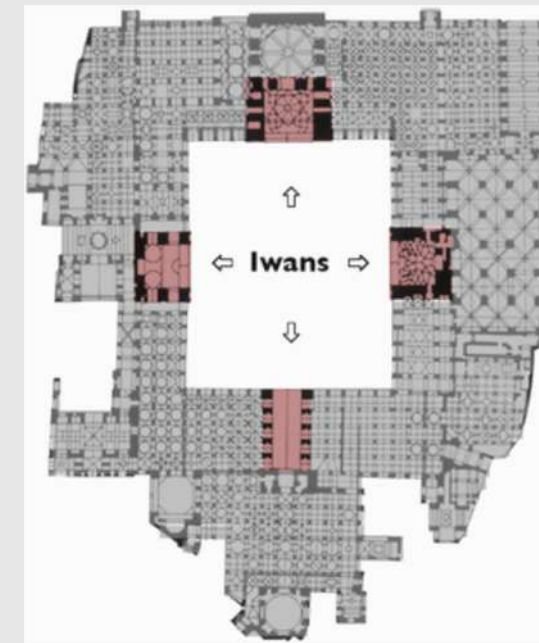
## I - THE HYPOSTYLE MOSQUE

hypostyle hall defined much of mosque architecture of the early Islamic period. It is a large, rectangular stone mosque with a hypostyle (supported by columns) hall and a large inner sahn (courtyard). The three-tiered minaret is in a style known as the Syrian bell-tower, and may have originally been based on the form of ancient Roman lighthouses. The interior of the mosque features the forest of columns that has come to define the hypostyle type.



## II - THE FOUR-IWAN MOSQUE

In 11th century Iran, hypostyle mosques started to be converted into four-iwan mosques, which, as the name indicates, incorporate four iwans in their architectural plan. An iwan is a vaulted space that opens on one side to a courtyard. The iwan developed in pre-Islamic Iran where it was used in monumental and imperial architecture. Strongly associated with Persian architecture, the iwan continued to be used in monumental architecture in the Islamic era.



### III - THE CENTRALLY-PLANNED MOSQUE

While the four-iwan plan was used for mosques across the Islamic world, the Ottoman Empire was one of the few places in the central Islamic lands where the four-iwan mosque plan did not dominate.

When Mehmed II conquered Constantinople, having been a Christian capital for over a thousand years, had a wholly different cultural and architectural heritage than Iran. The Ottoman architects were strongly influenced by Hagia Sophia in Istanbul, the greatest of all Byzantine churches and one that features a monumental central dome high over its large nave.

Many Ottoman mosques in the late 15th and early 16th centuries referenced Hagia Sophia's dome. Mimar Sinan, experimented with the central plan in a series of mosques.



### MOSQUE ARCHITECTURE AROUND THE WORLD

The three mosque types described above are the most common, and most historically significant. Despite their common features, such as mihrabs and minarets, one can see that diverse regional styles account for dramatic differences in the colors, materials, and the overall decoration of mosques.

Even more regional differences appear when one looks beyond the central Islamic lands to the architecture of Muslims living in places like China, Africa, and Indonesia, where local materials and regional traditions, sometimes with little influence from the architectural heritage of the central Islamic lands, influenced mosque architecture.



## UNCONVENTIONAL MOSQUES

Designing a mosque entails very specific challenges for architects: the strict and detailed requirements for the typology were established centuries ago and remain paramount in creating a place of worship for Muslims. Consequently, these buildings have long been associated with conservative styles employing well-recognized traditional forms and aesthetic details.

it is possible to design a modern mosque that speaks to the younger Islamic generation while respecting those age-old traditions.

The domed forms and minimalist detailing form an abstract interpretation of traditional Arabic architecture, a daring move that has been harnessed by a number of firms venturing into the realms of Islamic design in recent times. Here are seven more projects that bring modernism (and occasionally postmodernism) to mosques — each with their own contemporary twist...



THE MOSQUE OF LIGHT BY NUDES



VALIASR MOSQUE BY FLUID MOTION ARCHITECTS



SANCAKLAR MOSQUE BY EMRE AROLAT ARCHITECTURE







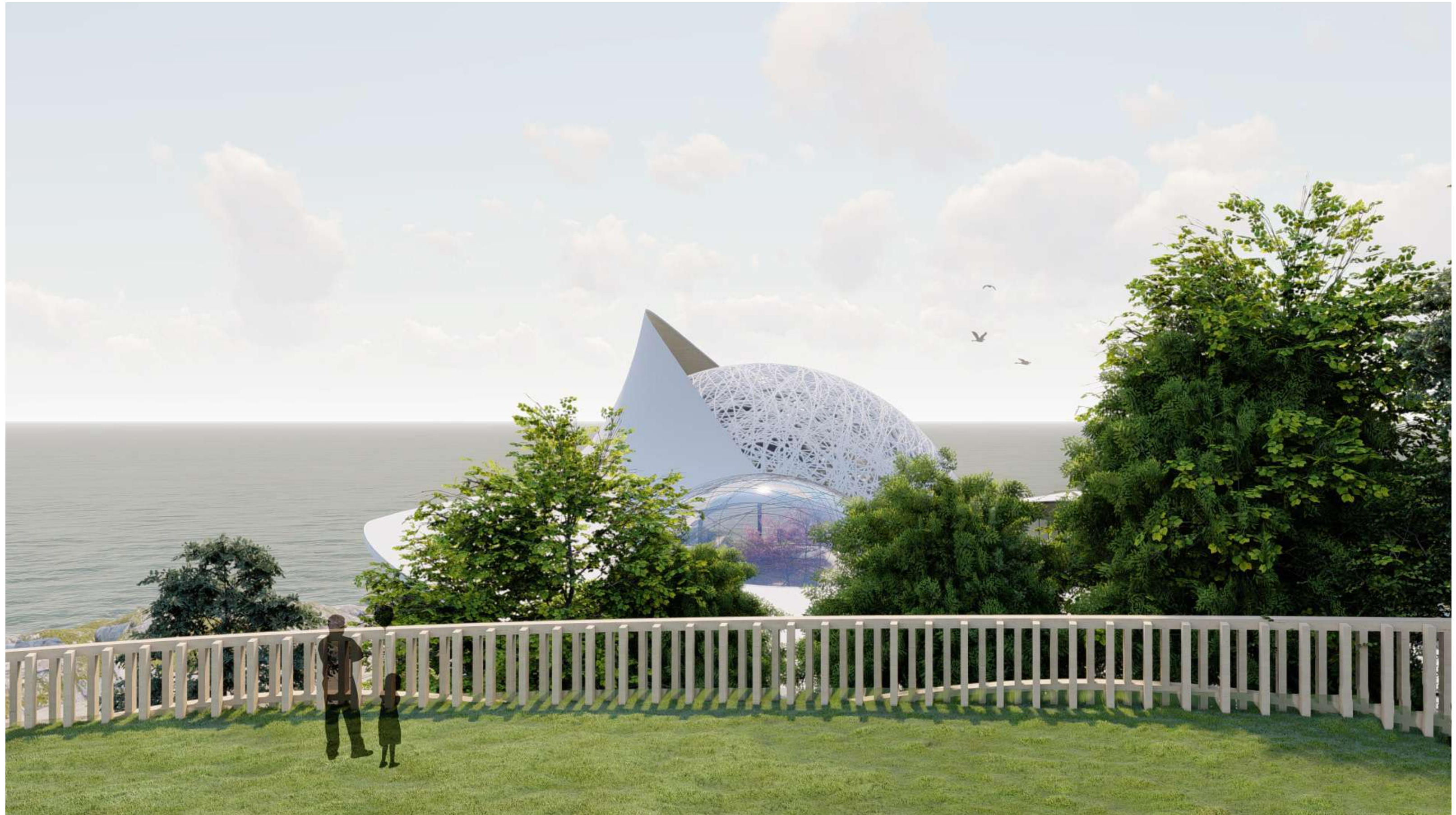
## NOT TRADITIONAL

Inspired by traditional and the surrounding nature.

Traditional dome and Islamic patterns are abstracted in the design.

Nature forms around the site are the serpentine paths created for walking, rocks and the waves crashing in to them.









# 2 THE SITE

THIS CHAPTER PROVIDES AN OVERVIEW OF KARABURUNS HISTORY AND EXISTING CONDITIONS. IT INCLUDES INFORMATION ABOUT LOCAL PEOPLES LIVES & ECONOMIC MARKET. THE MOST IMPORTANT GOAL OF EVALUATING THE AREAS EXISTING CONDITIONS WAS TO DERIVE DESIGN GUIDELINES FOR THE PROJECT.



### KARABURUN - ISTANBUL

Karaburun Village is located on the borders of Arnavutköy, 25 kilometers away from Istanbul. It is the second most visited beach after Kilyos beach on the European side. It is frequently visited by people of Istanbul in the summer. It is the stress relief place for Istanbul residents.

The fact that sea sports such as paragliding, surfing and canoeing were done in the village made it an attractive holiday destination.

## RUMELİ KARABURUN LIGHT HOUSE

The light house is located on the tip of Karaburun. Although the lighthouse was located further on the tip of the cliff it is taken back due to the rocks blasted with dynamite for port construction. It is the third strongest in the world in terms of light power. The rainwater eaves on the sides of the original copper dome are decorated with lion heads. The water gathered in the eaves flows down the lions' mouths.

The lenses are covered during daylight so they are not damaged by the sunlight. The lighthouse is 54 meters above sea level and 12 meters long. The flashlight has a 15-mile range.

The light house is under the General Directorate of Coastal protection as a national heritage.

<https://www.kiyiemniyeti.gov.tr/>







## CIRCULATION & ACCESSIBILITY

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### MAIN ROAD & AIRPORT

Easily accessible from across Turkey with The 3rd Bridge and universally accessible with Istanbul Airport which is 20 km far.



### PUBLIC TRANSPORTATION

The site accessible by bus and it will be more easily accessible when the metro construction from the airport is finished.



### TRAFFIC & PARKING

The site does not have traffic like the rest of Istanbul since it is not populated but since this, a developing part of the city and expected to be crowded in the future. To protect this silent green escape the traffic is not allowed on the nose of the site apart from service circulation. People have to park in the city center and take the tram to experience green areas.

## LOCALS

## ECONOMY

This a small town that has local businesses. Its main job opportunities are mainly, İSKİ (İstanbul Water and Sewerage Administration), fishermen shore safety, and touristic establishments like restaurants, hotels, and water sports facilities.

## ACTIVITIES

Fishing  
Kite  
Paragliding  
Windsurfing  
Swimming  
Picnic  
Sightseeing  
Trekking  
Water Sports



## CLIMATE DATA & DIAGRAMS

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### SEASONS

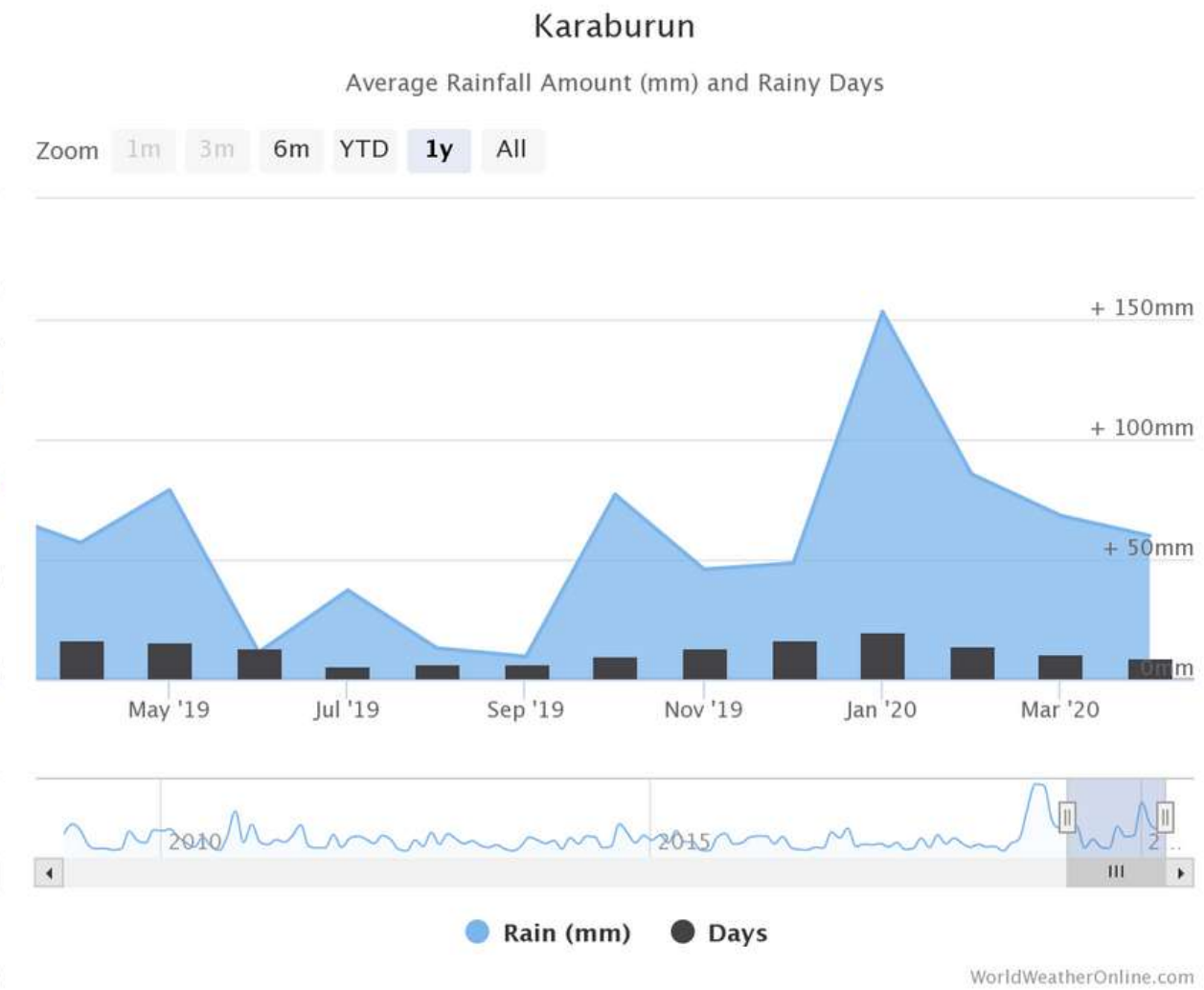
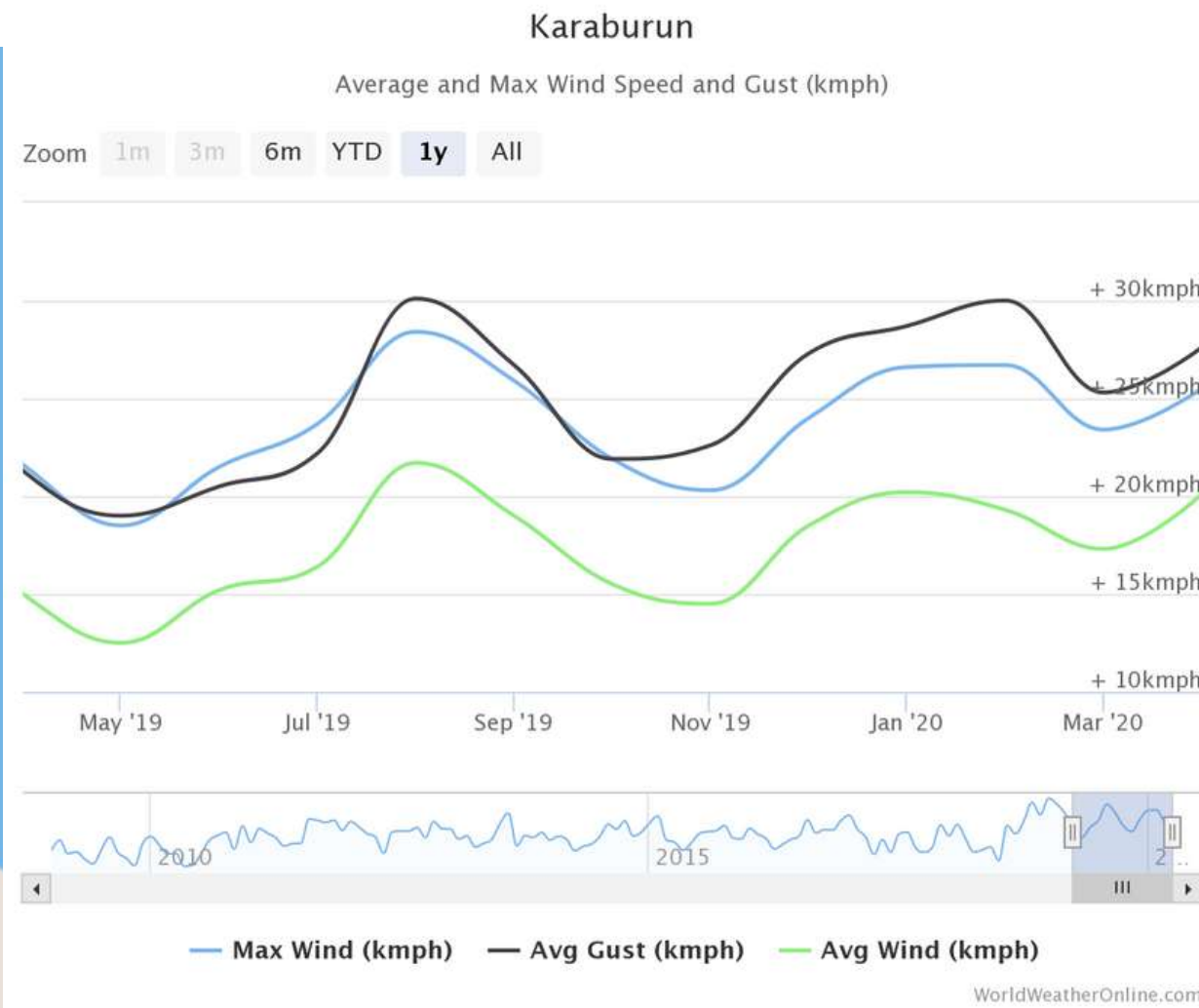
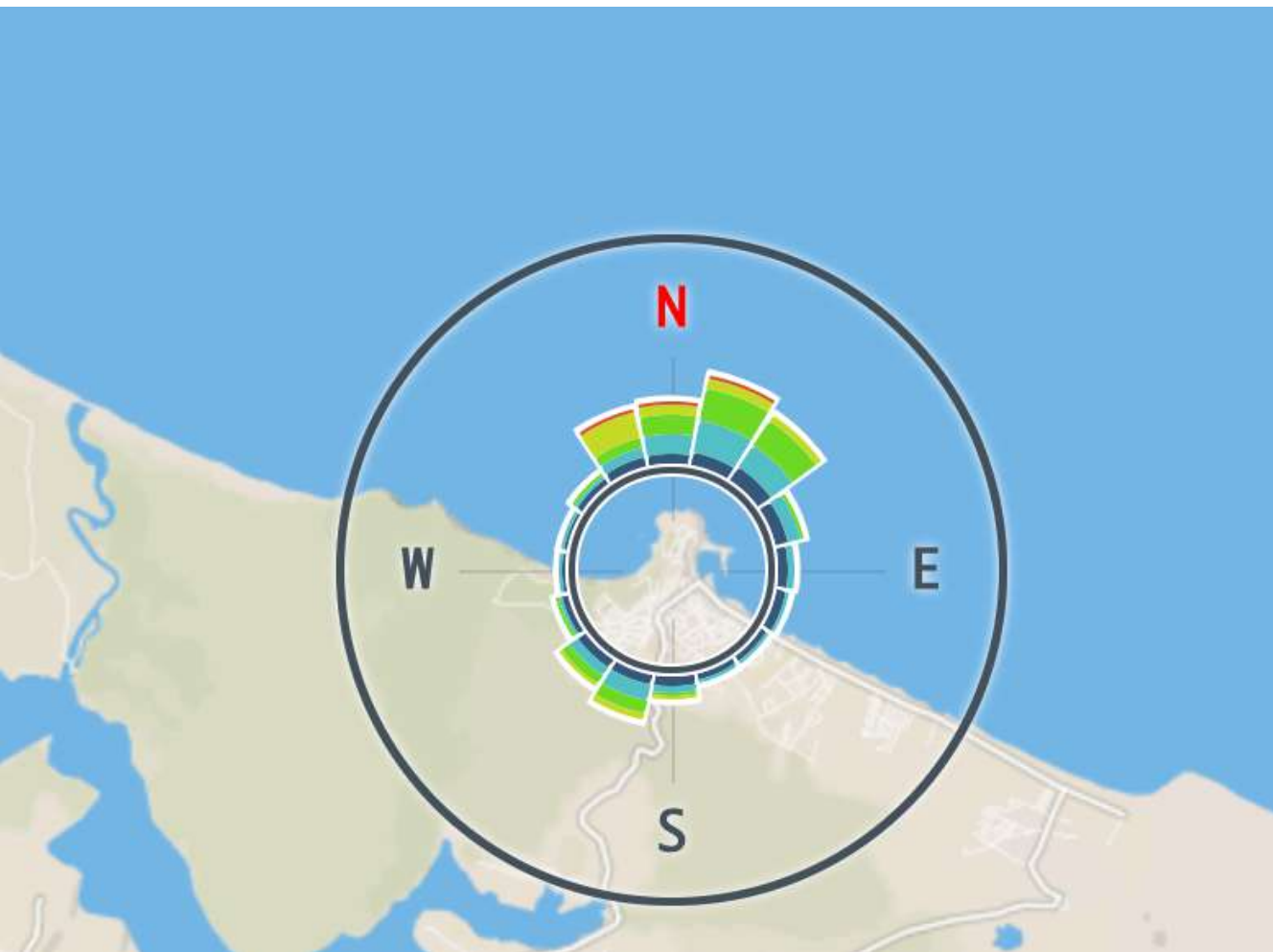
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This site experiences all the four seasons very vividly. It's atmosphere changes accordingly. In the summer it is a tranquil place but in the winter it has very harsh characteristics of Black Sea Region.



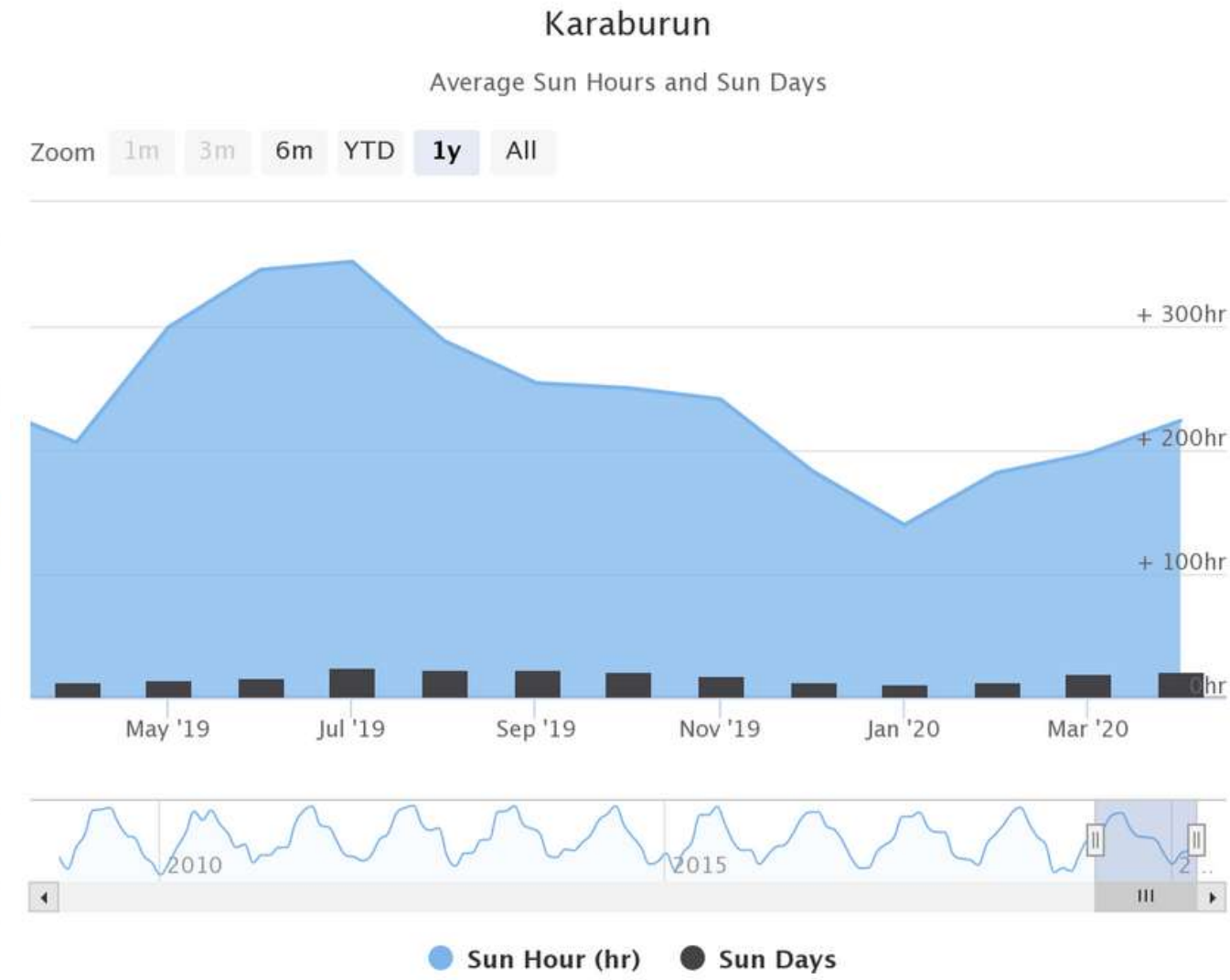
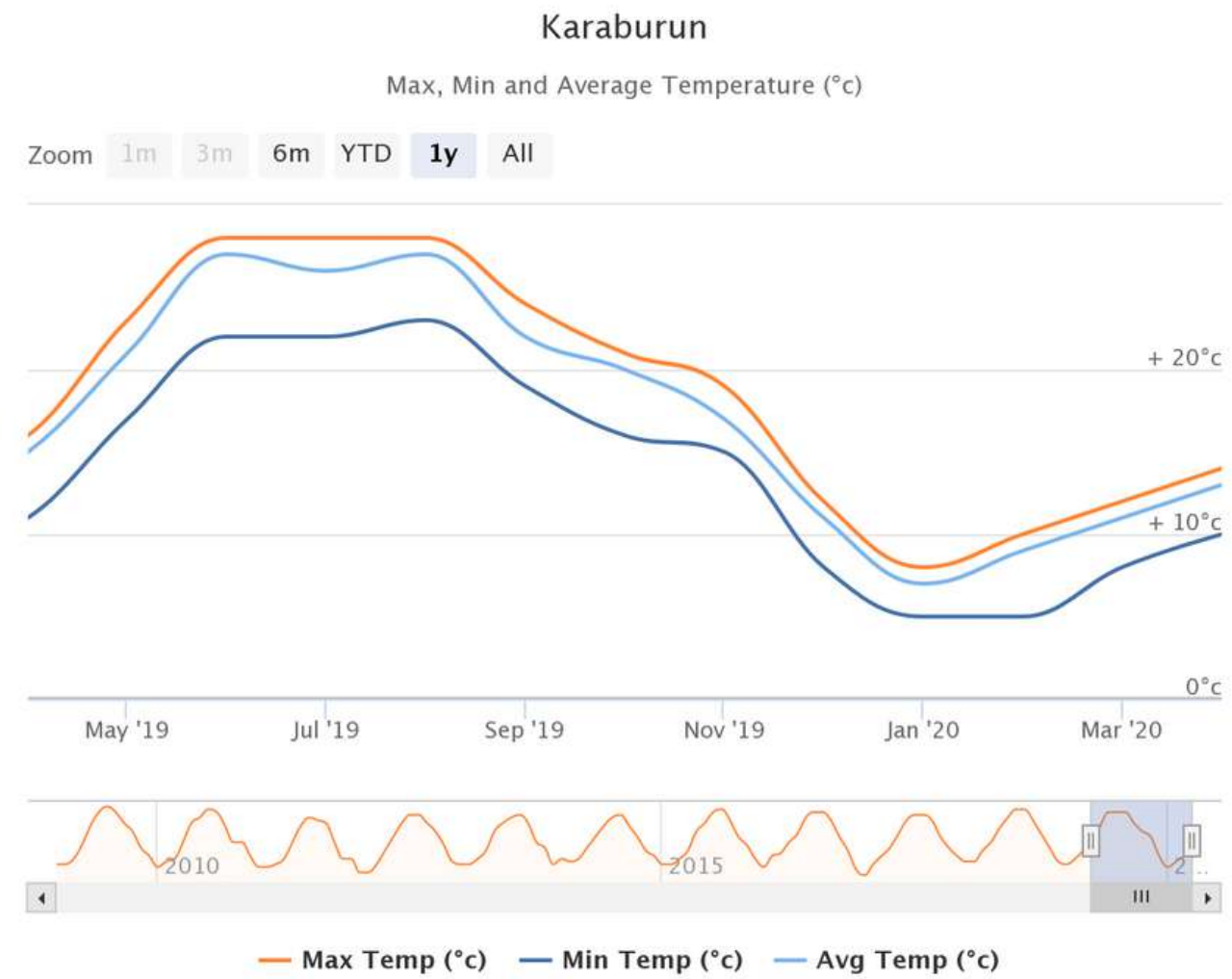
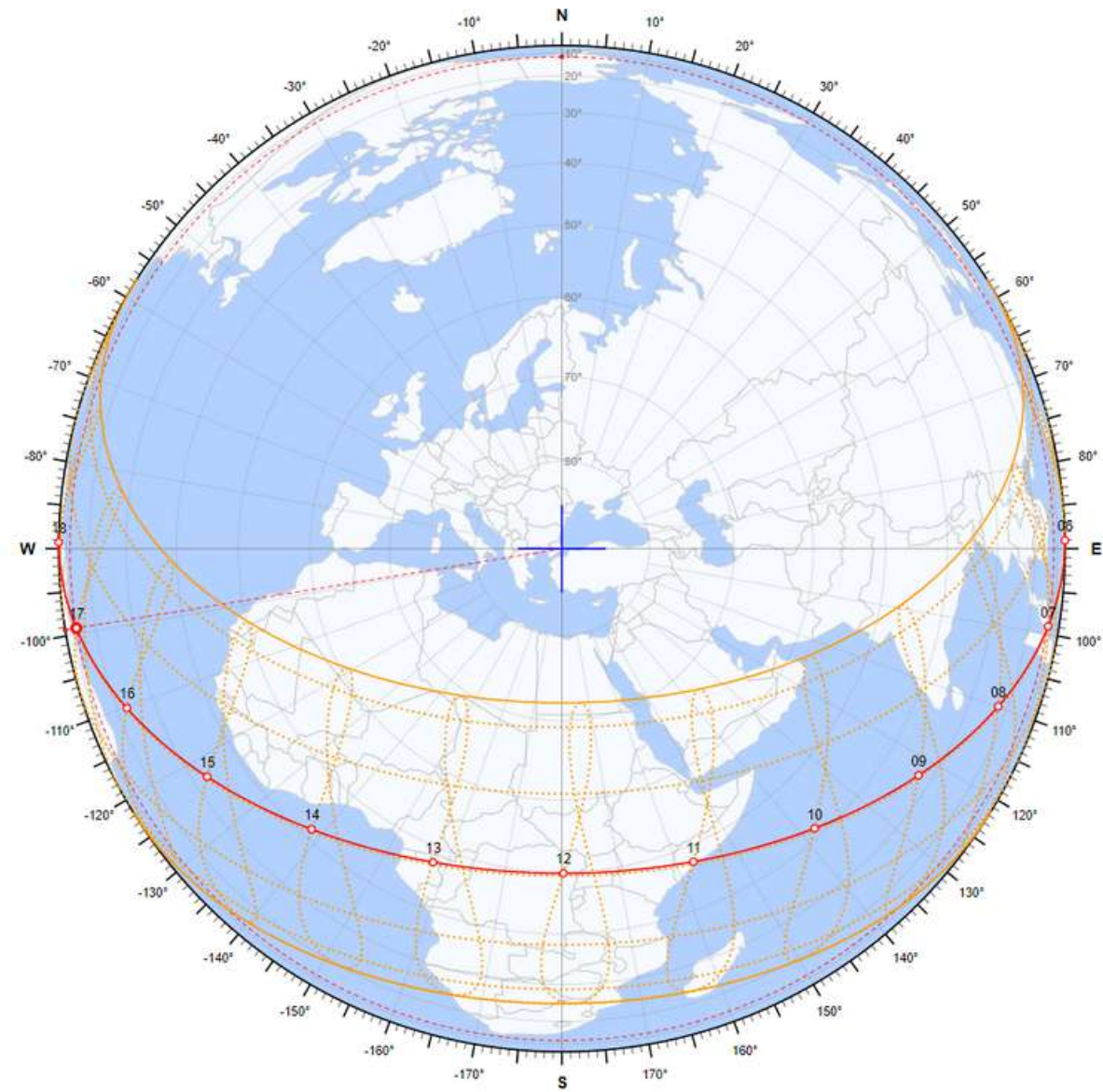
# CLIMATE DATA & DIAGRAMS

## WIND



# CLIMATE DATA & DIAGRAMS

## SUN







# 3 LITERATURE REVIEW

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THE FOLLOWING PAGES DISCUSS THE EXISTING LITERATURE AND DESIGN STUDIES THAT INFLUENCED THIS DESIGN.

## LANDSCAPE URBANISM

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Landscape Urbanism is an urban planning system that focuses on designing landscapes that improve the environment to improve public health, life quality, rehabilitation of soil, and water.

It offers relief from urban life and mental stresses into a green escape. It increases walkability which promotes a healthy life style and increases physical activity. It also creates unplanned social contact which increases contact between different groups of people. It creaces fields for action and stages for performance.

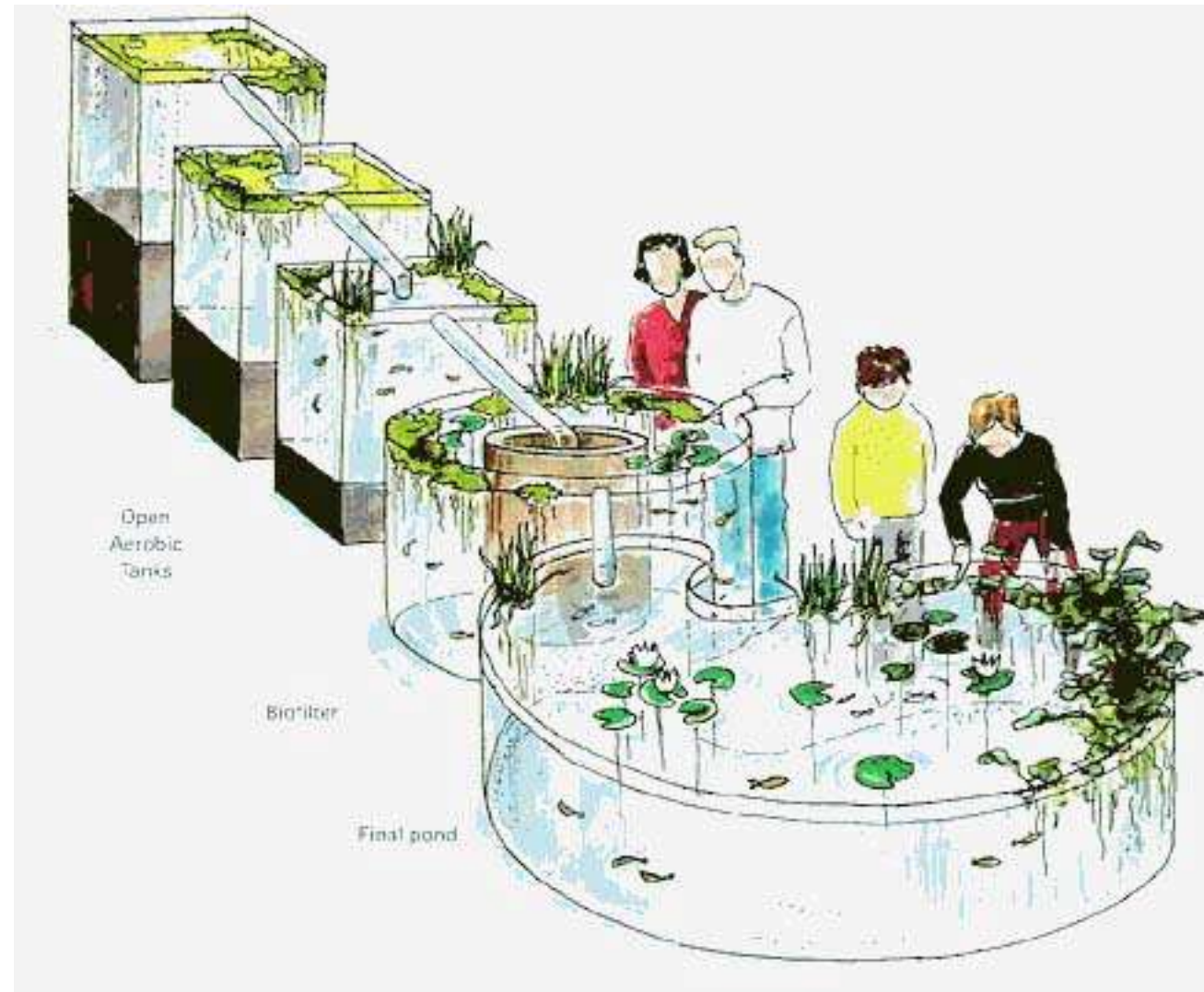
It should solve past and present problems but also problems of future potentials with natural solutions. Therefore this project aims to solve *past problems by healing the damaged land, present problems by adding an active urban life that is much needed to this undeveloped settlement, and future problems by preserving the green area by protecting it from blending into concrete İstanbul.*





## LIVING MACHINE

Is a bioremediation system that produces reuse quality water, plants, energy biomass, animal feed from greywater. It uses wetland plants and bacteria in a slow tidal flow for cleansing functions. It can be built in small and large scale depending on the project.



### **Horizontal (subsurface) flow wetland**

- Located outdoors
- Aggregate-filled with aquatic vegetation
- No visible surfacing water (ponding)
- BOD and TSS removal
- Denitrification

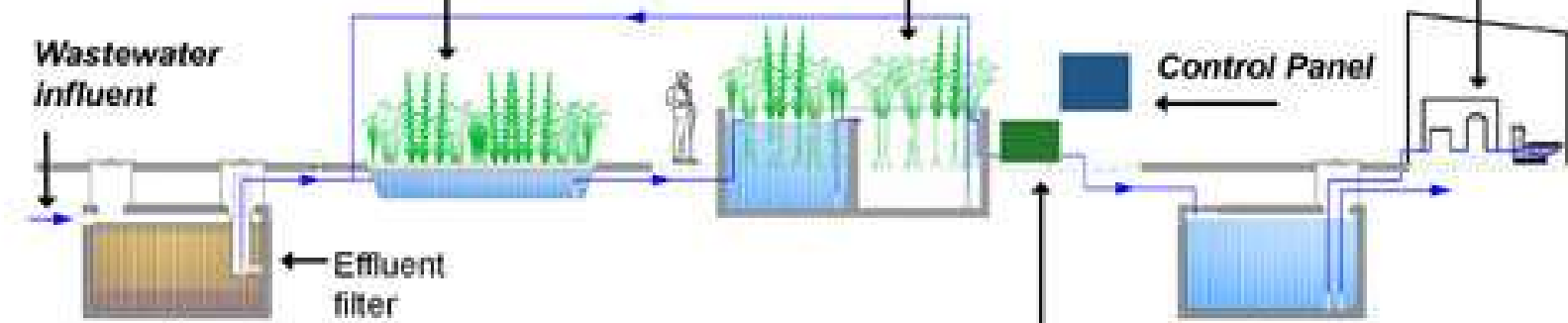
### **Tidal wetland**

- Located in greenhouse, building or outdoors
- Aggregate-filled cells with emergent plant species
- No surfacing water (ponding)
- Nitrification

### **Reuse system**

- Pressure tank for nonpotable reuse
- Water supply for toilet flushing, disposal or landscape irrigation
- Surface or subsurface disposal

Wastewater influent



### **Primary tank**

- Flow equalization
- Buried
- Concrete or plastic
- Solids settling
- Filtered effluent

### **Disinfection system (optional)**

- Located in greenhouse, mechanical room or underground
- May include ultraviolet, ozone, chlorination

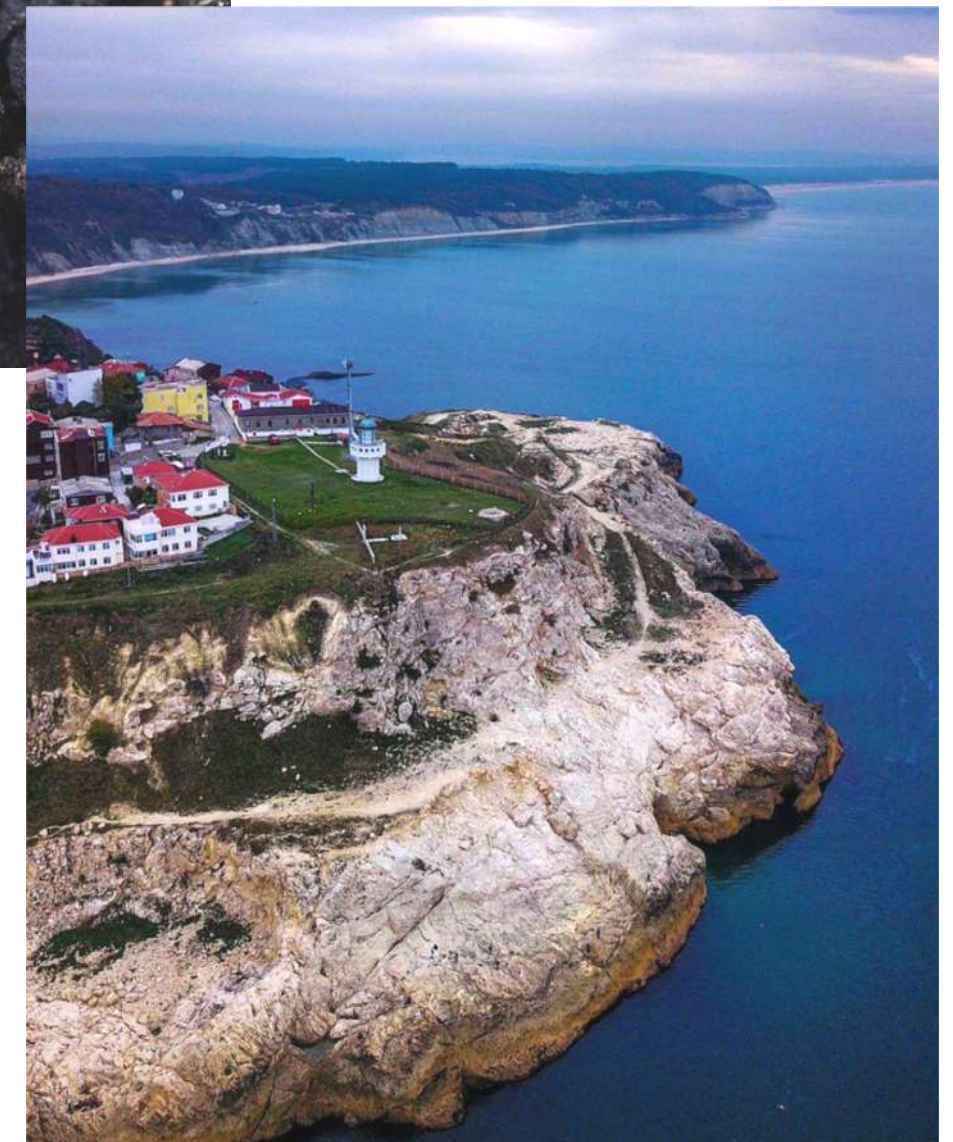
Reuse storage tank

## HEALING THE LAND

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The land is damaged from the use of dynamites for gathering rocks to use in marina construction. It used to be healthy and green now it is very damaged and rough. It will be remediated and added to the green landscape that surrounds the site.

The site will be analyzed by an environmental consultant which will examine the soil, groundwater and surface water with testing the samples and appropriate healing remediation methods will be used.





# 4 CASE STUDIES

THE FOLLOWING PAGES SHOWS THE CASE STUDIES THAT INSPIRED THE DESIGN OF THIS MOSQUE

## SANCAKLAR MOSQUE

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It is an unconventional mosque located in Büyükçekmece, a suburban neighborhood in Istanbul. Its different approach to mosque architecture is appreciated and visited by many people.

The interior is like a cave. It is buried underground to create a feeling of being dead underground while the slits along the Qiblah wall allows daylight to filter into the prayer hall.

The building blends in with the topography and the green roof provides a natural insulation against heat loss and gain.

It is the first mosque in the world that is designed so that men and women can pray on the first row which also inspired this mosque design.



## MARMARA UNIVERSITY FACULTY OF THEOLOGY MOSQUE

Located in Üsküdar, İstanbul this mosque was designed as an interpretation of classical Ottoman architecture tradition by using today's language.

The project is based on the fractal rotational movement which is seen in the universe from micro-scale to macro-scale. Abstraction of tradition in mosque architecture, by combining concepts of "the part in the whole" and "the whole in the part" with fractal form of nautilus and millenary traditional "kırlangiç" ceiling technique.

This abstraction ceiling inspired the design.

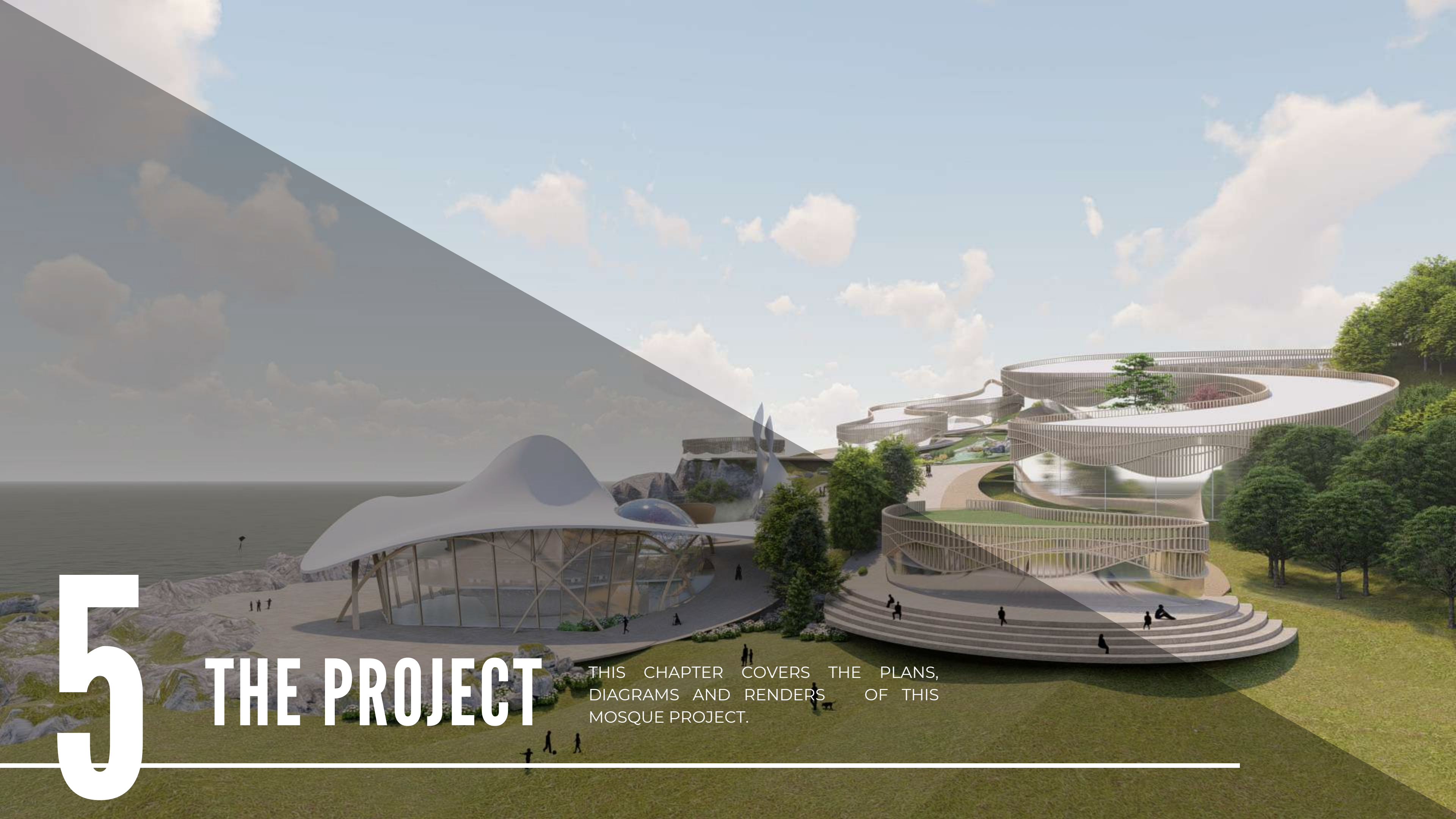




# 5

## THE PROJECT

THIS CHAPTER COVERS THE PLANS, DIAGRAMS AND RENDERS OF THIS MOSQUE PROJECT.







An aerial photograph of a coastal town, likely in the Mediterranean region, showing a dense grid of buildings and streets. A prominent white architectural plan is overlaid on a hillside in the upper center of the image. The town is situated on a peninsula or near a bay with turquoise water. The image is split diagonally from the bottom left to the top right, with a dark teal gradient on the right side.

# MASTERPLAN & PLANS





LIGHTHOUSE

COMMERCIAL

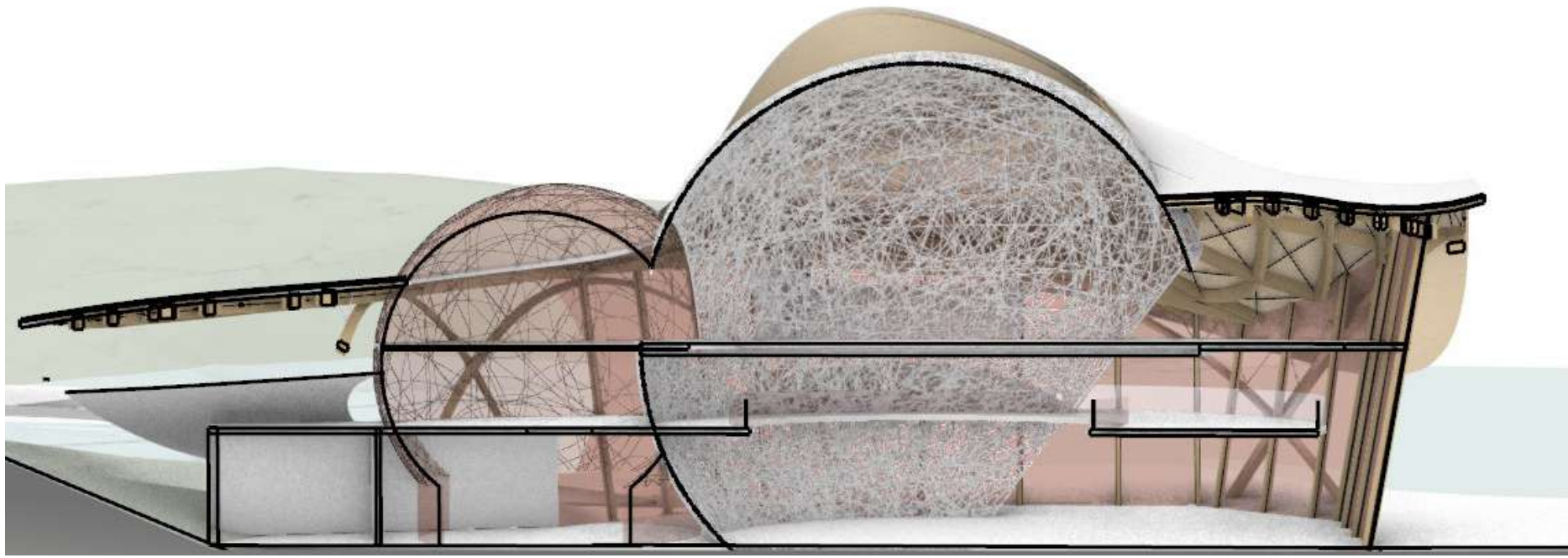
PSYCHOLOGICAL HELP CENTER

RESTAURANT & CAFES

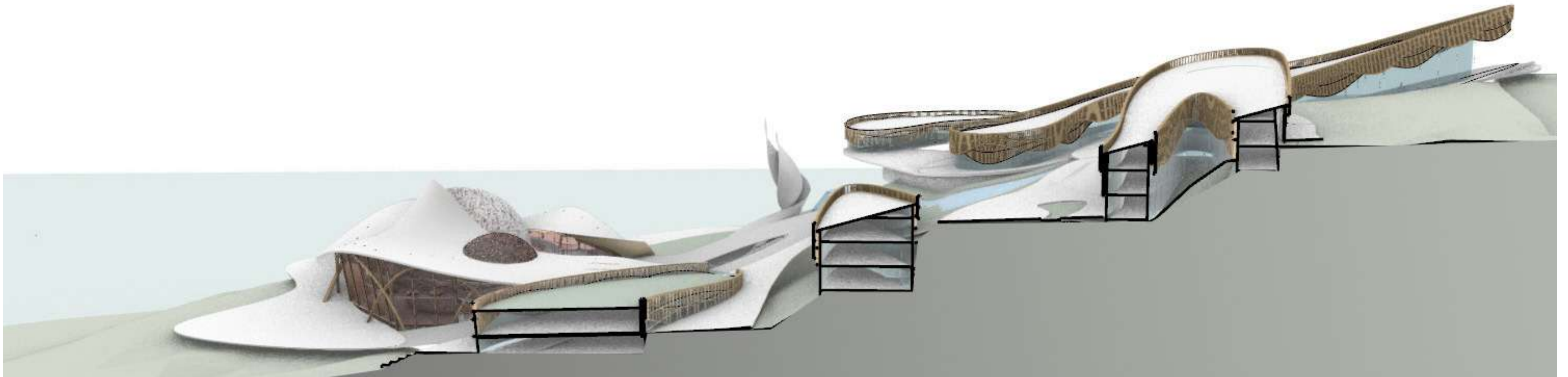
TOURISTIC CENTER

LIBRARY

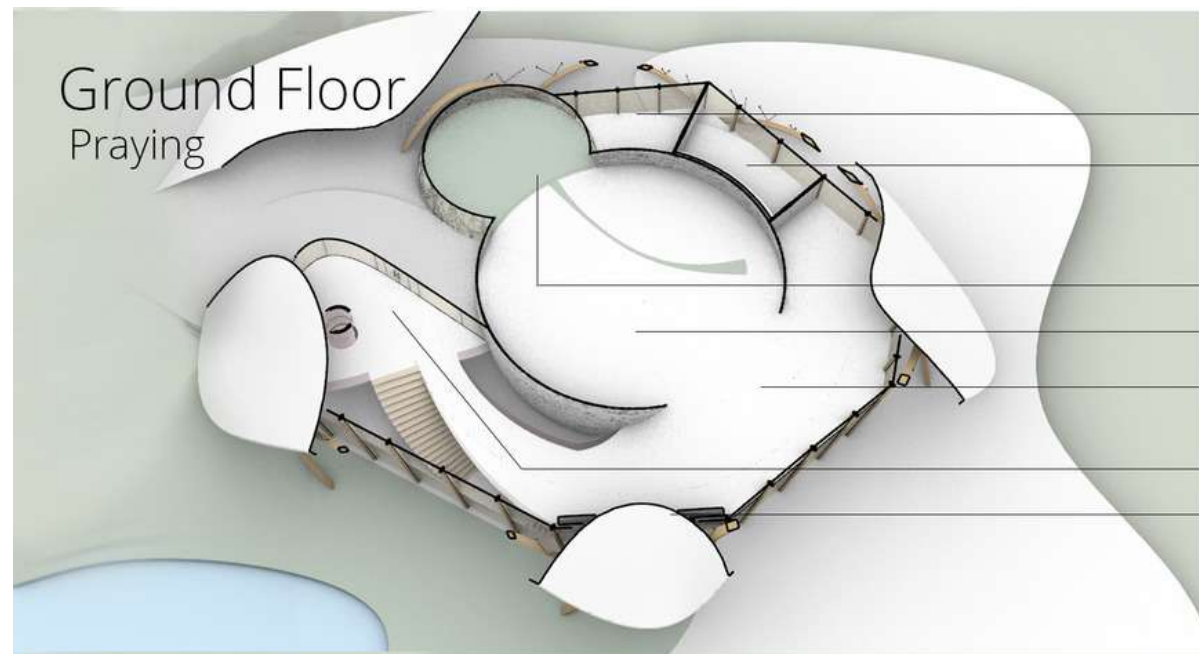
THE MOSQUE



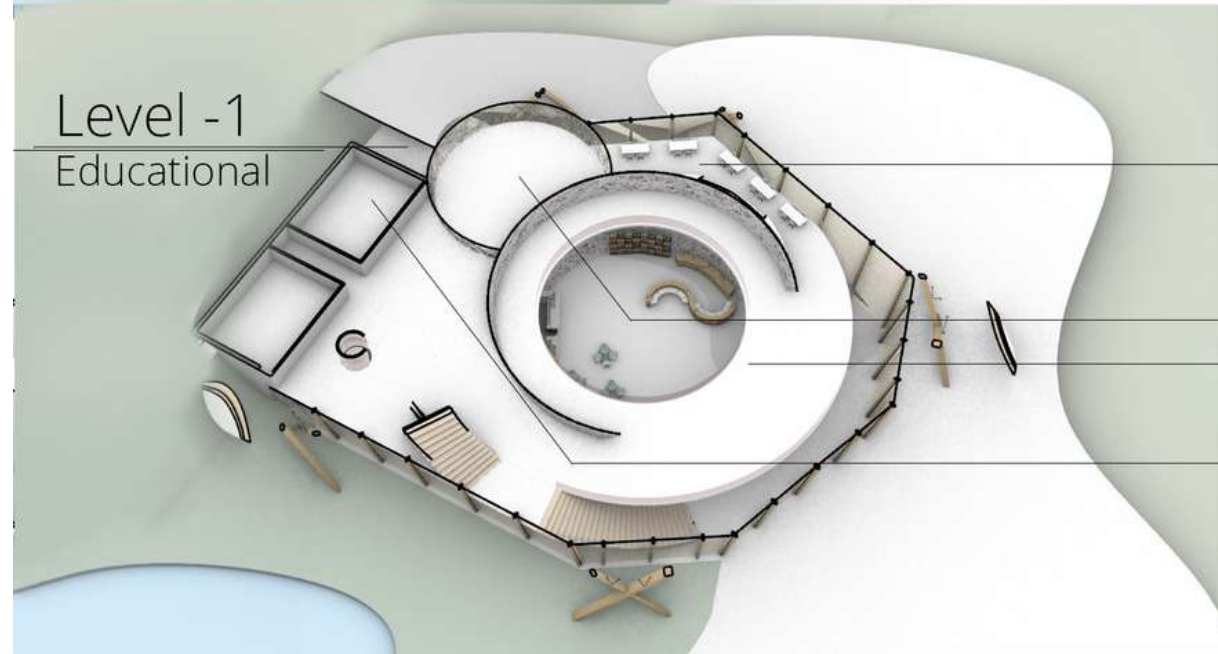
MOSQUE SECTION



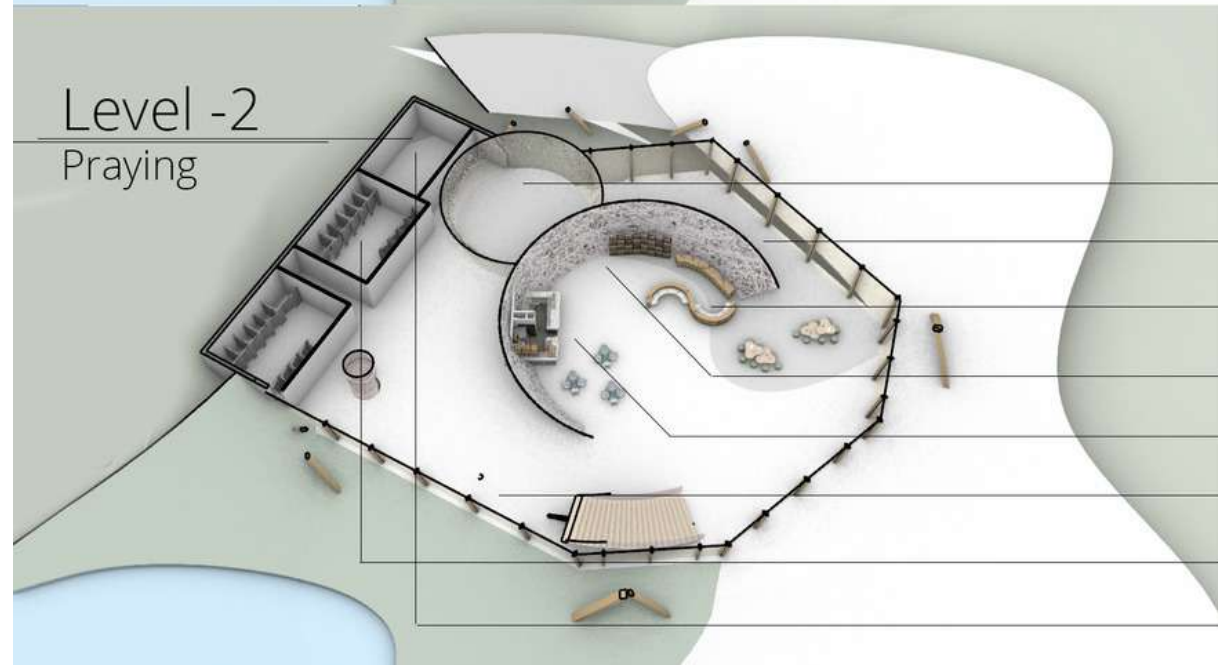
SITE SECTION



- Kitchenette
- Imam & Muezzins Office & Resting Area
- Inner Garden
- Praying Hall
- Narthex
- Entrance Hall
- Shoe Cabinet



- Library
- Documentary Screening Room
- Interactive Exhibition Hall
- Absolution Halls



- Children Documentary Room
- Playground
- Childrens Library
- Bookstore
- Cafe & Seating Area
- Kiosk Store Area
- WC
- Mechanical Room



MOSQUE PLANS & SECTIONS

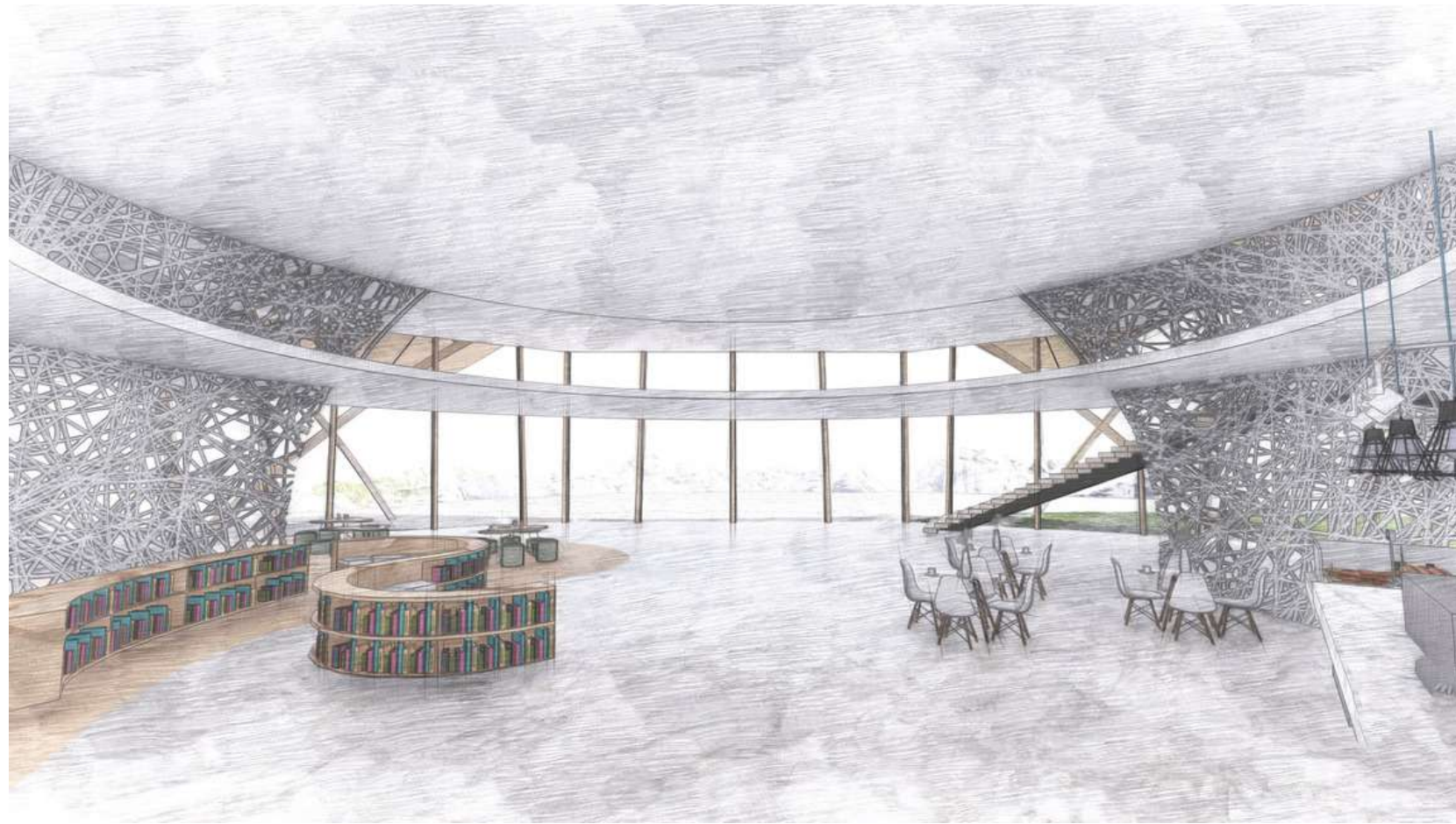
## INTERIOR VIEWS



IMAMS OFFICE



LIBRARY

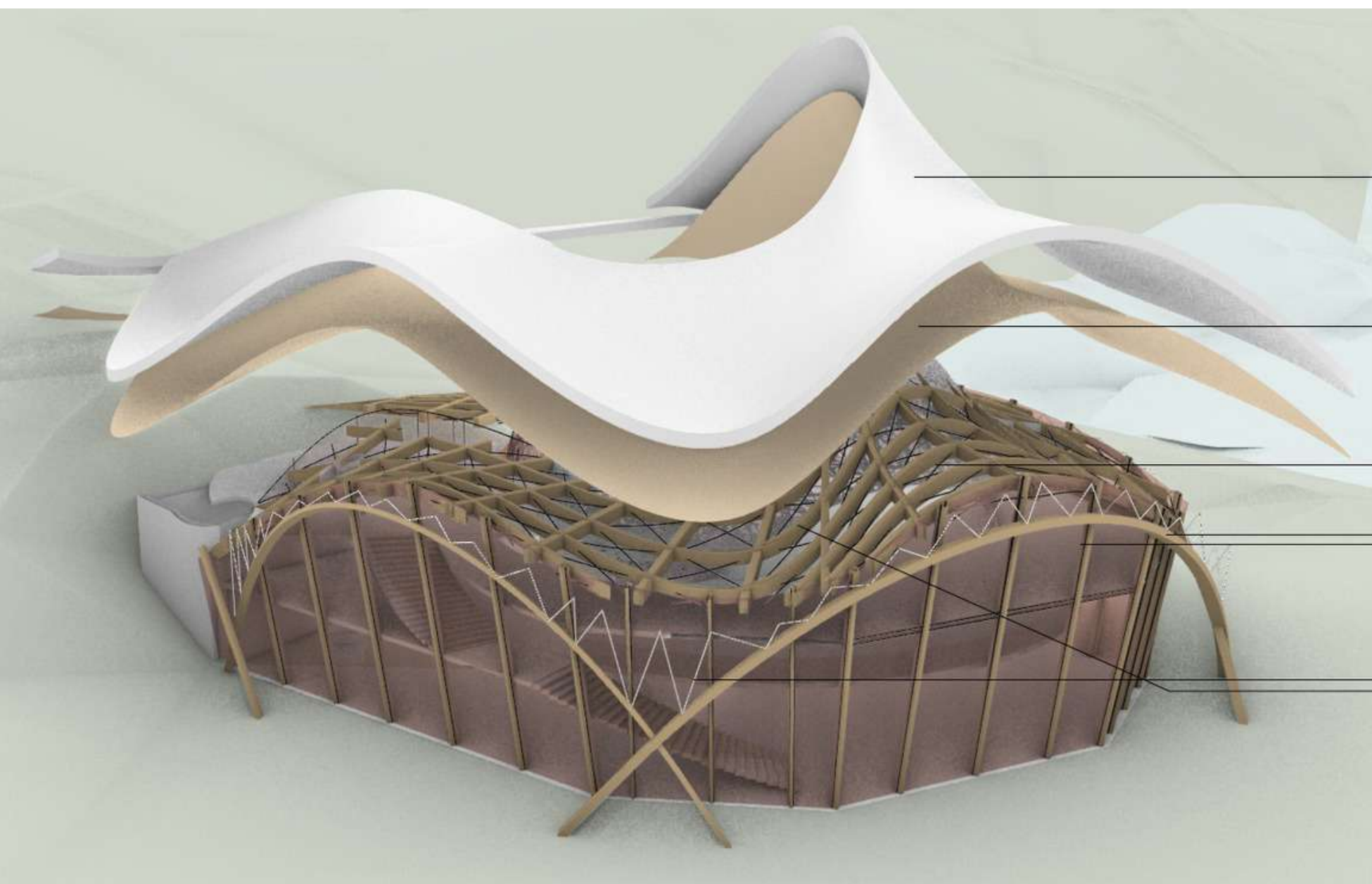


BOOK STORE & CAFE



PRAYING HALL (WOMENS POINT OF VIEW)





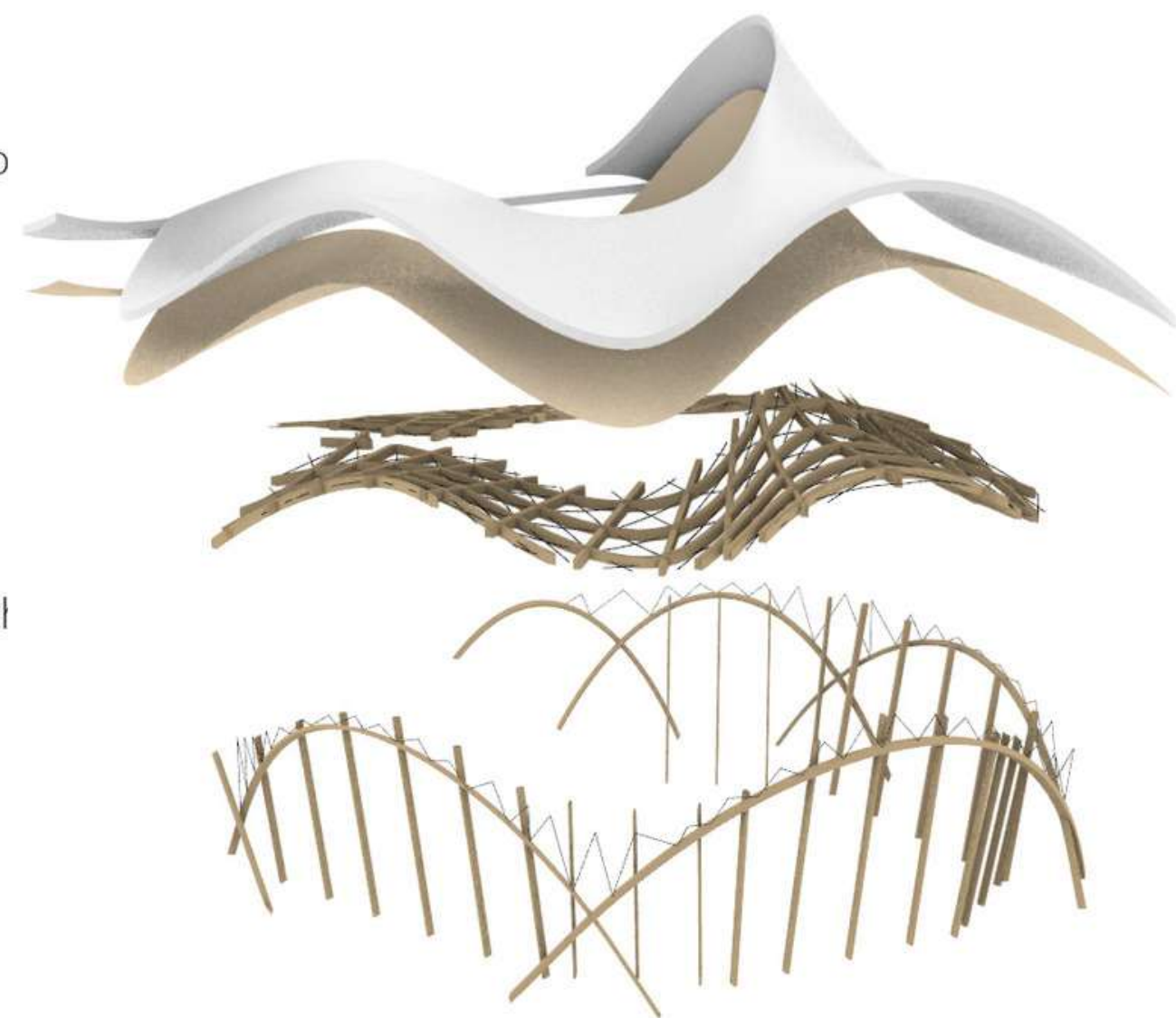
Glass-Fibre Reinforced Co

Interior Wooden Finish

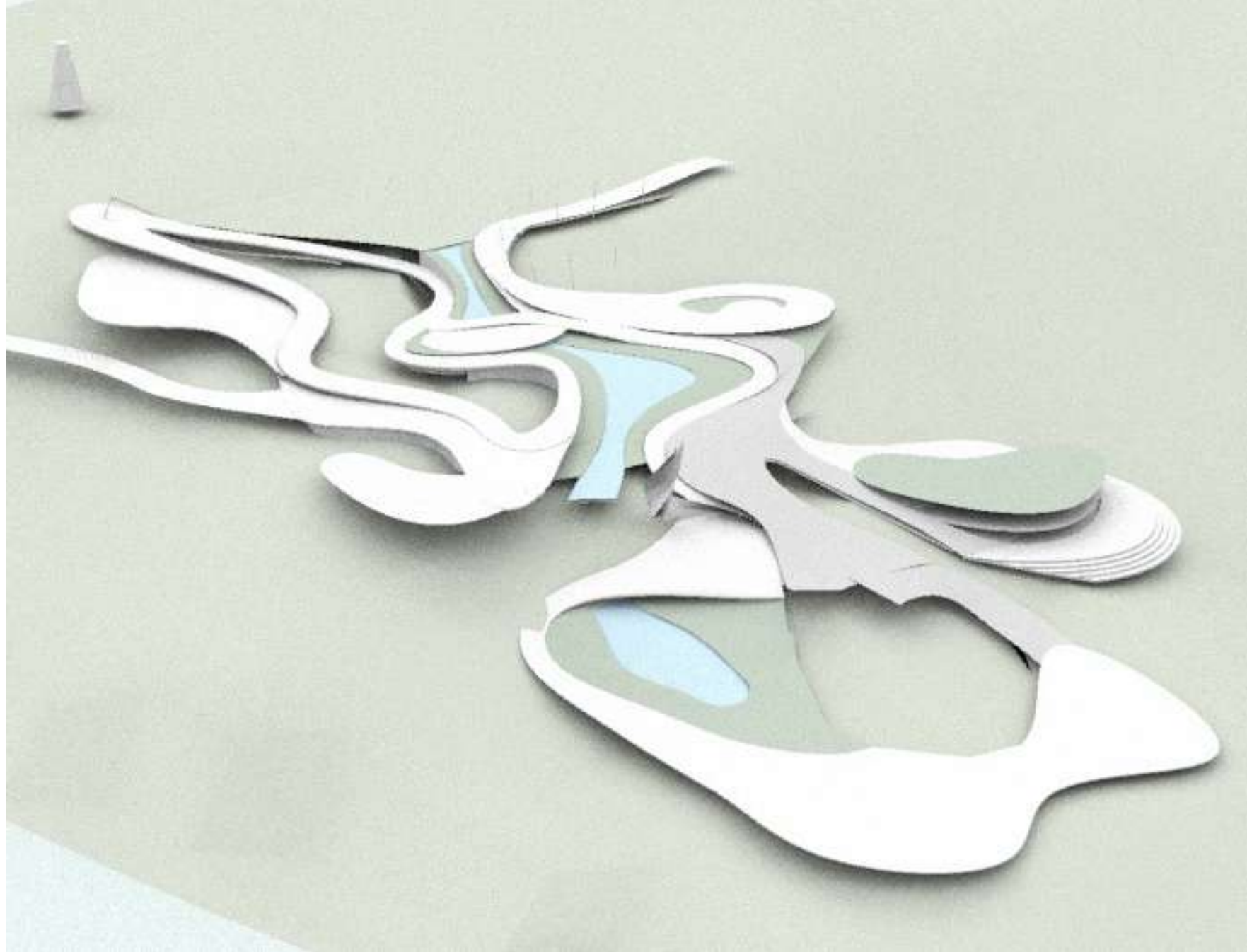
Gluelam Diagrid

Gluelam Columns & Arcl

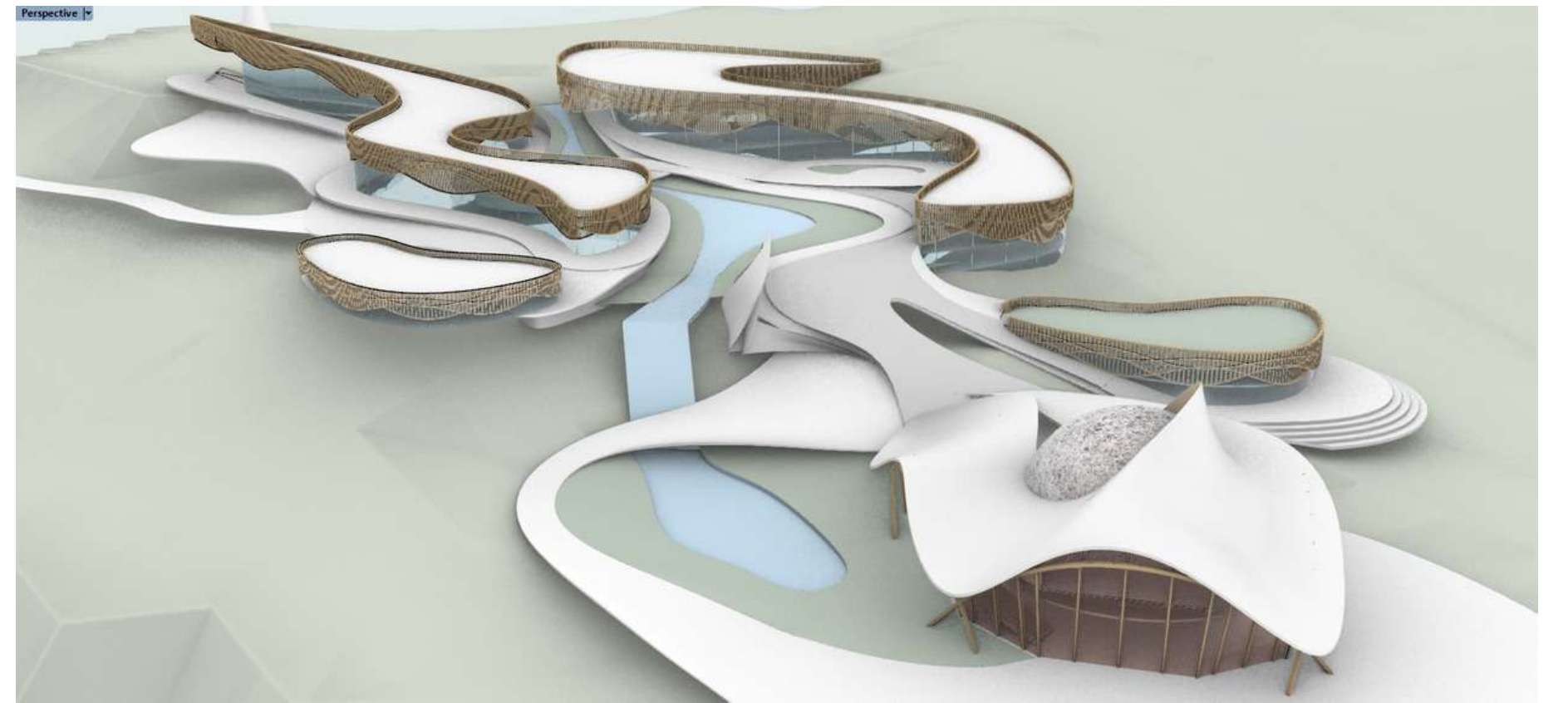
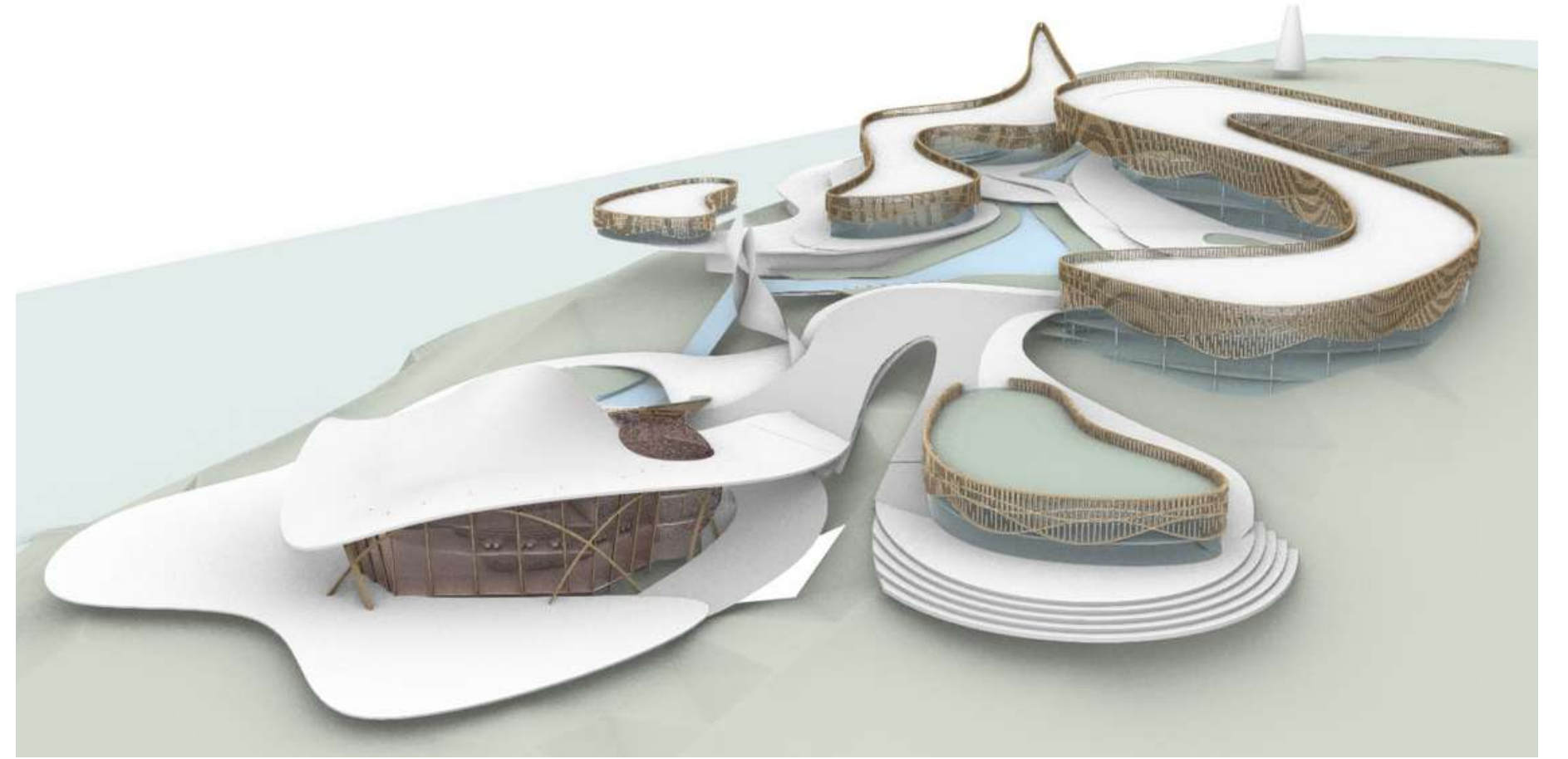
Steel Supports



STRUCTURE

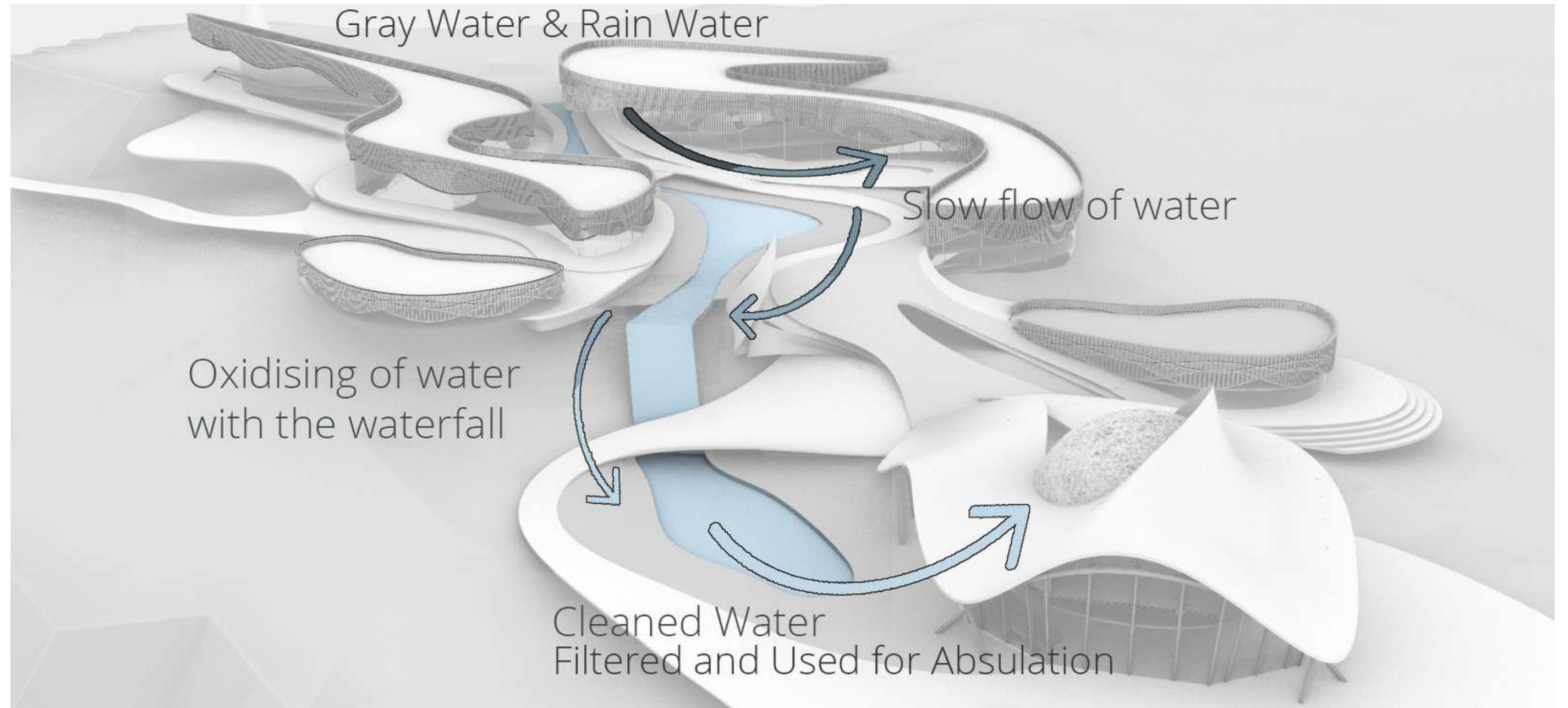


SITE CIRCULATION PATHS

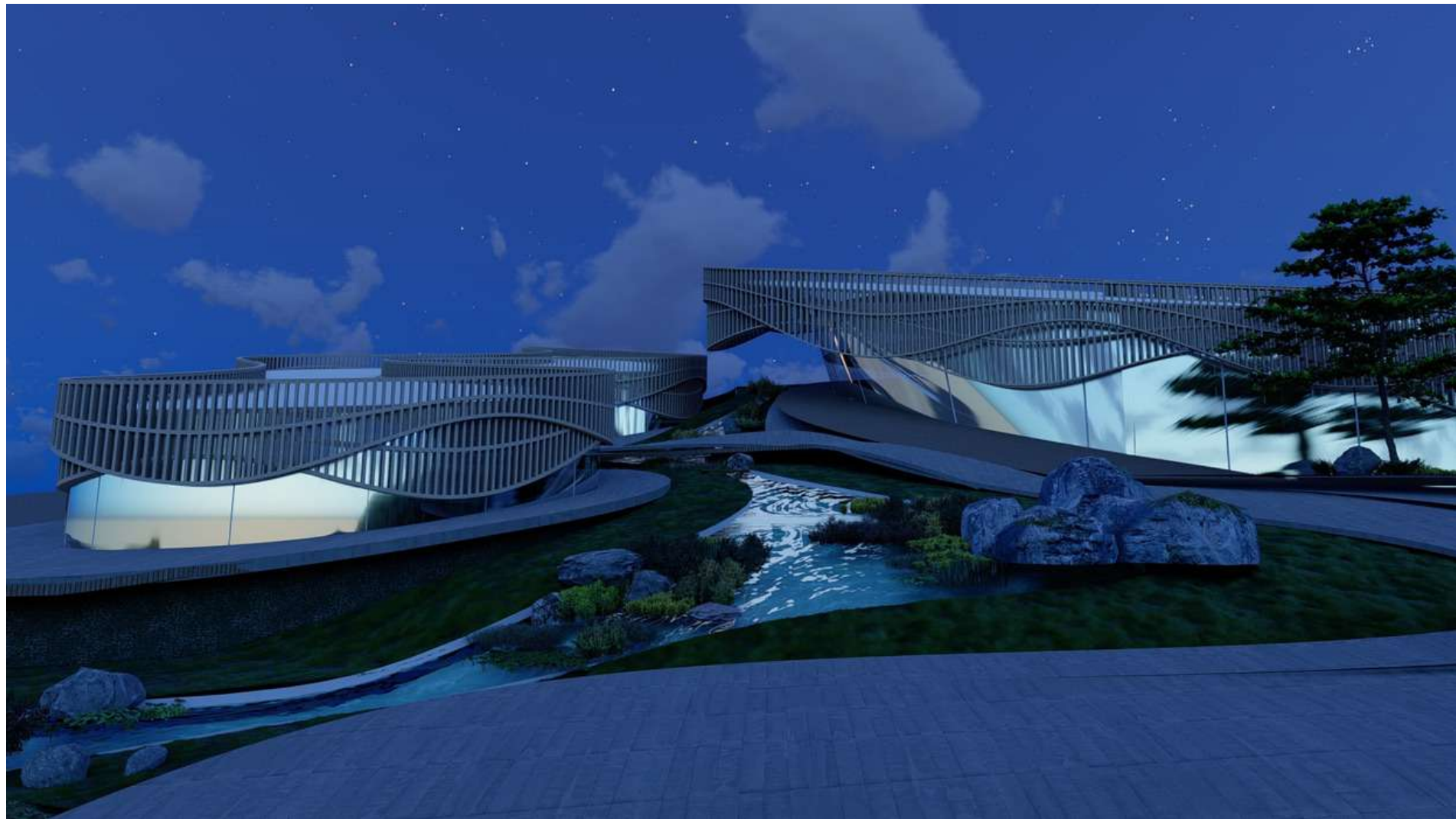


## LIVING MACHINE

Grey & rain water harvesting used in living machine to clean the water to be used in absulation halls.



LIVING MACHINE VIEWS





**RENDERS**



