

ARCH 402  
Mersin Tevfik Sırrı Gür Stadium  
Re-development Project



An aerial photograph of a large stadium under construction. The stadium's seating bowl is visible, with a red running track and a green field in the center. The surrounding area is a mix of urban and undeveloped land, with some roads and buildings visible. The sky is overcast and grey.

# Contents

Literatur Review

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Site Analysis

Project Design





# Literature Review

# New Urbanism




**Walkability**

- Pedestrian friendly design
- Front porches
- Tree lined streets
- 10 minute walk radius




**Connectivity**

- Interconnected street grid network
- Narrow streets, boulevards, and alleys



**Mixed-Use & Diversity**

- Live, work, shop within within blocks, and within buildings
- Diversity of people - of ages, income levels, cultures, and races



**Mixed Housing**

- A range of types, sizes and prices in closer proximity



**Quality Architecture & Urban Design**

- Creating a sense of place;
- Placement of civic uses and sites within community.
- Human scale architecture



**Traditional Neighbourhood Structure**

- Public space at center
- A range of uses & densities within 10-minute walk
- Transect planning: Highest densities at town center
- Create mix of natural habitats & urban settings.



**Increased Density**

- More buildings, residences, shops, and services closer together
- A more efficient use of services and resources.
- To create a more convenient, enjoyable place to live.



**Green Transportation**

- A network of high-quality mass transit connecting cities, towns, and neighborhoods
- Pedestrian-friendly design that encourages a greater use of bicycles, rollerblades, scooters, and walking as daily transportation



**Sustainability**

- Minimal environmental impact of development and its operations
- Eco-friendly technologies & value of natural systems
- Energy efficiency
- Less use of finite fuels
- More local production



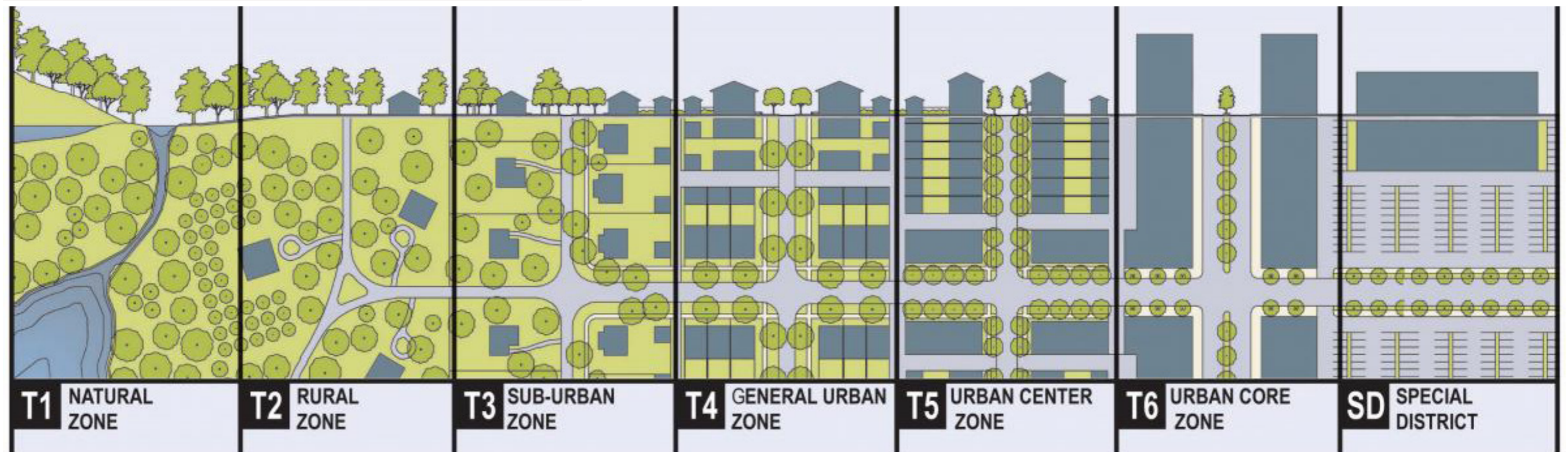
**Quality of Life**

- Pride in sense of place
- Healthier spaces that contribute to wellbeing.

## PRINCIPLES OF URBANISM

## Principles of Urbanism

- Walkability, all the thing that can be needed should be in 10 minutes of walk from home, therefore the need for a car is minimized.
- Connectivity, A proper street grid decreases the car usage.
- Mixed-use and Diversity, the building in the neighbourhood consists of different usages therefore residents have opportunity to reach everything and it creates diversity.
- Mixed Housing, different types of housing and house prices.
- Quality Architecture and Urban Design, the buildings attract people with their aesthetics and creation of meaningful spaces.
- Traditional Neighbourhood Structure, Neighbourhoods have everything that could be needed including open spaces therefore everything is in close ranges.
- Increased Density, All kind of uses of spaces and buildings close to eachother therefore they are in range of 10 minutes walkability.
- Smart Transportation, different kinds of transportation choices and network
- Sustainability, eco friendly technologies, energy efficiency and minimal effect on the environment.
- Quality of life. procedures to increase, enrich and quality of human life and living.





# Smarth Growth



## Smarth Growth Design Implications

- Walkable Neighbourhood
- Mixed Land Usage
- Attractive Communities with a Strong Sense of Place
- Preserve Open Space, Farmland, Natural Beauty and Critical Natural Environments
- Provide a Variety of Transportation Choices
- Strengthen and Direct Development Towards Existing Communities
- Take Advantage of Compact Building Design

## Central Park

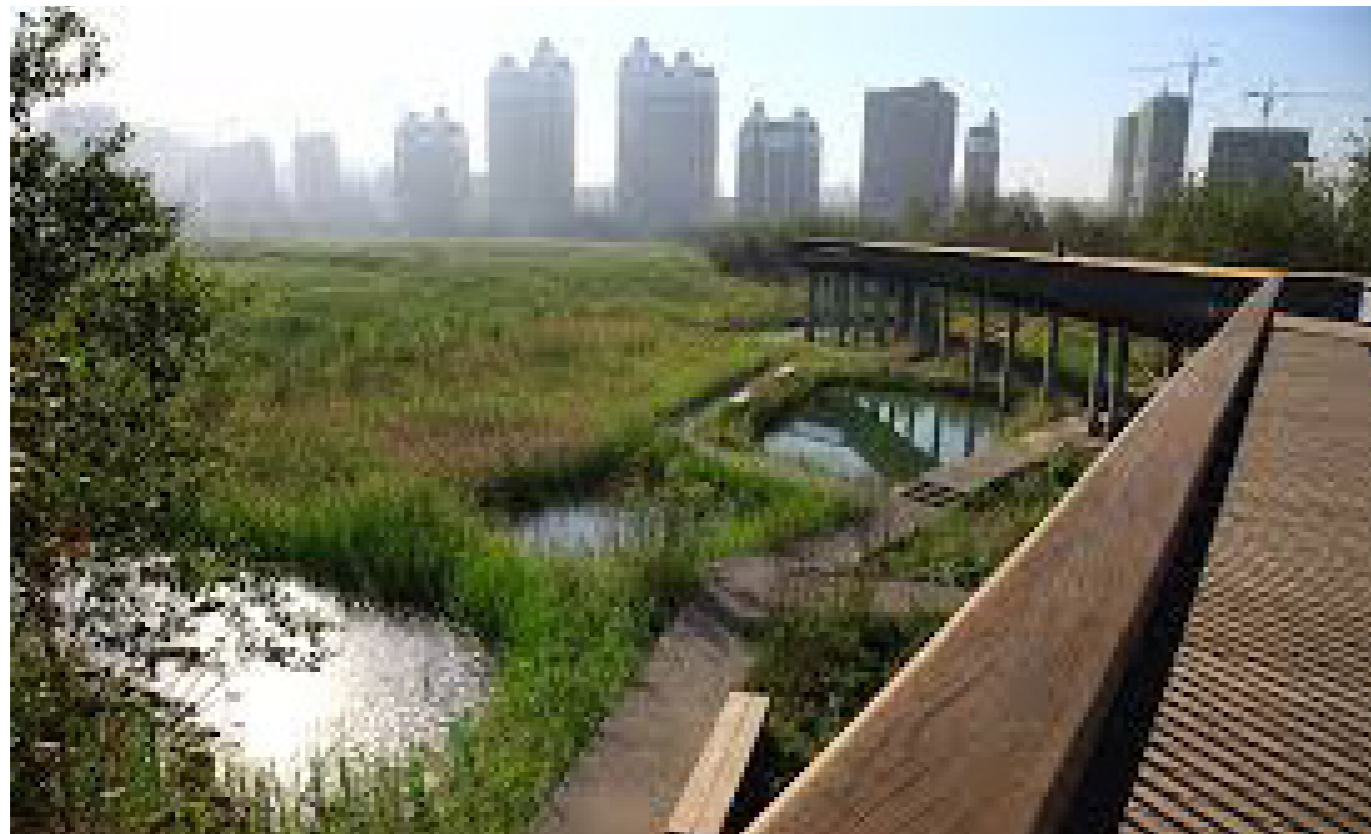


One of the best examples of smarth growth happened because of Central Park, New York. The effect of central park to New York is mind blowing. Since it is built it effected the city in means of it became the backbone of the city. It had an enourmous effect to the economical and urban development of the city. It became the favorite destination for visitors all around the world, therefore it became a tourist attraction for the city, it includes many events and activities inside. Also the value of the properties near to the park is higher and the high density greenary became the lungs of the city. In the design of this project, the aim is to achieve what Central Park does to New York.





# Wetlands



Wetlands are essential for water cleaning to because the filter out the water and clean it from the polutuants and give it back to the river, therefore the water stays clean. they also trap the toxic material that come from the agricultural activity and clean the water. They also decrease the ratio of the shoreline erosion by the help of the plants in the wetlands holding up the soil on the shoreline and they contribute to the aesthatic of th shoreline.



# Urban Agriculture



- Education
- Workshops
- Volunteers
- Old and young collaboration
- Contribute to the city activity and economy

## Battery Urban Farm



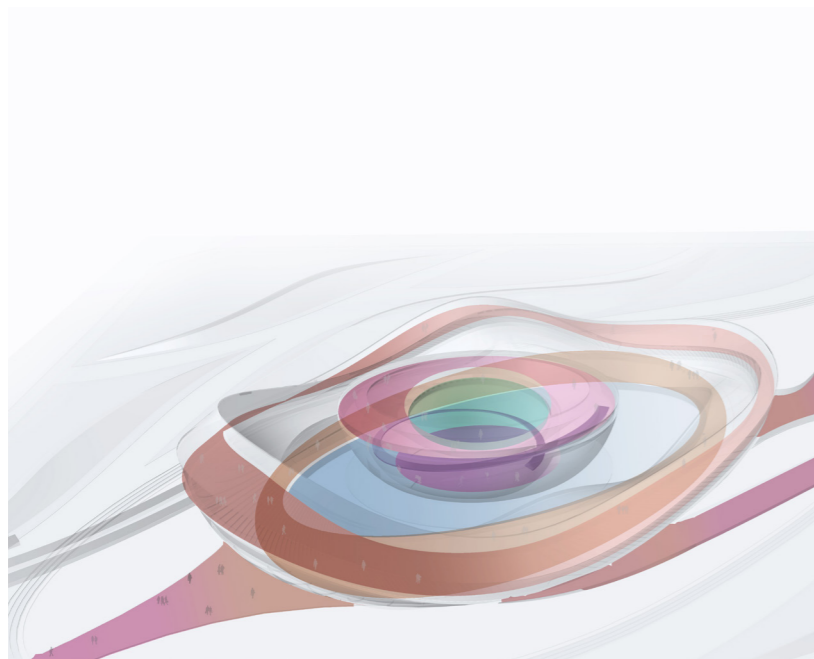
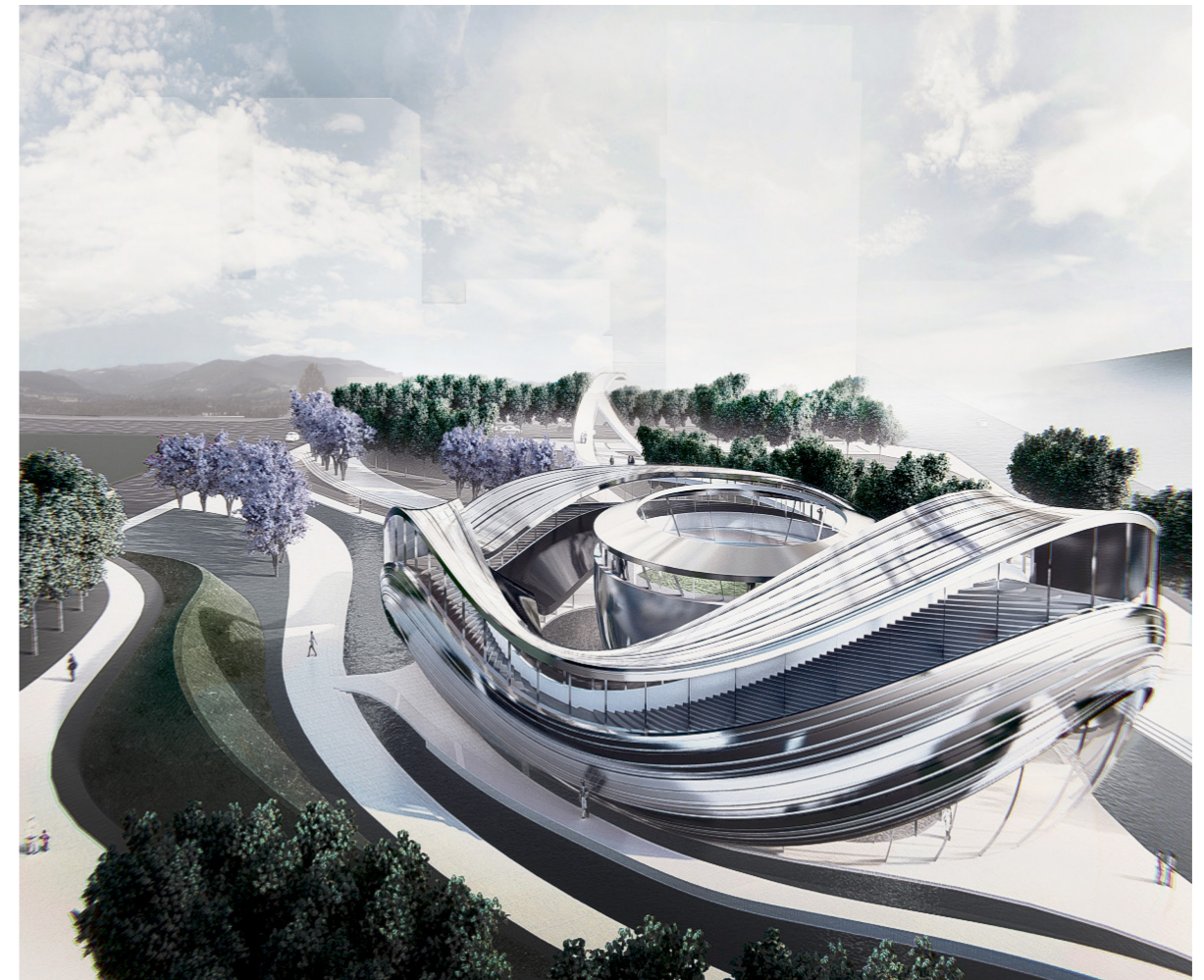
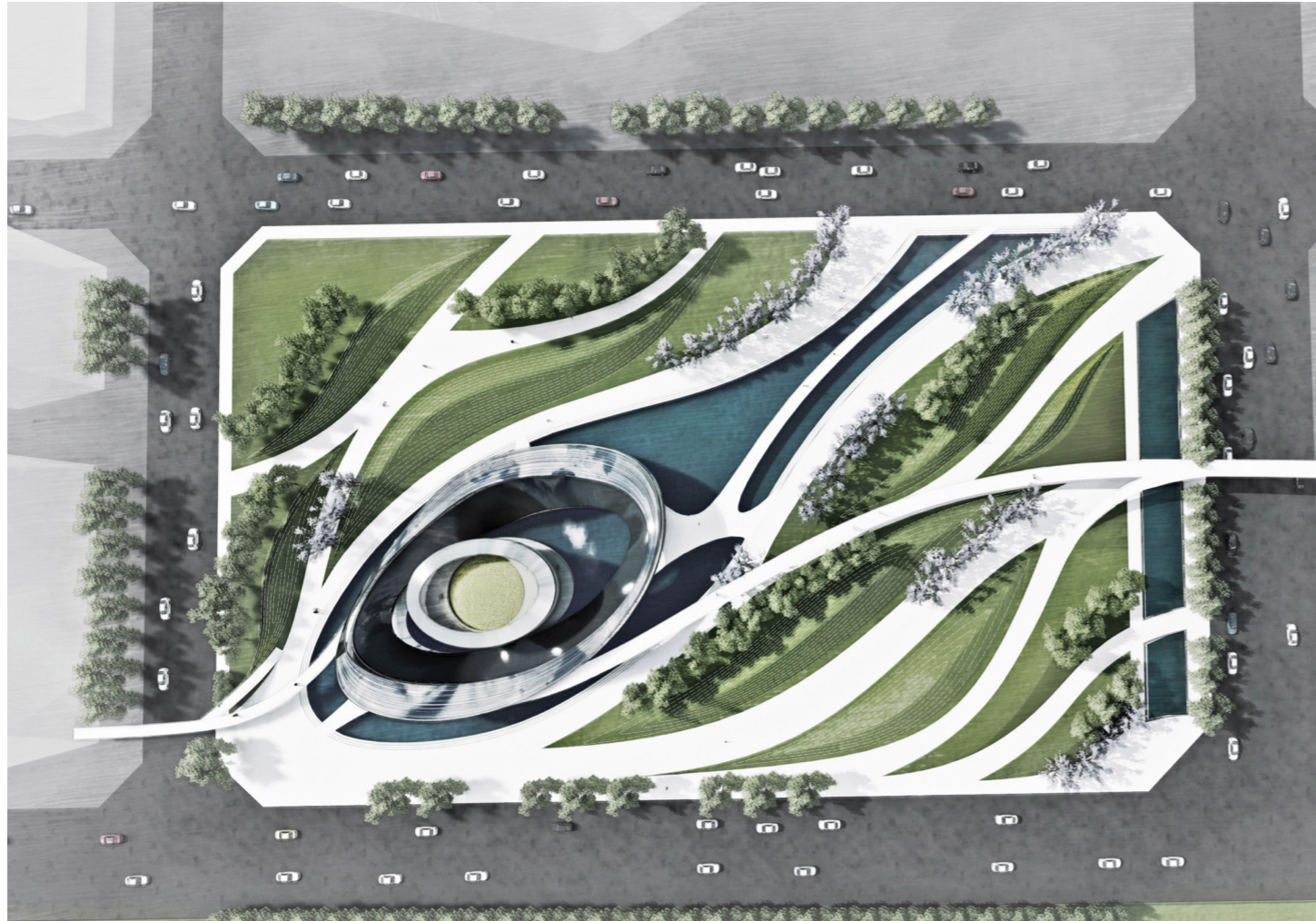




## Case Studies



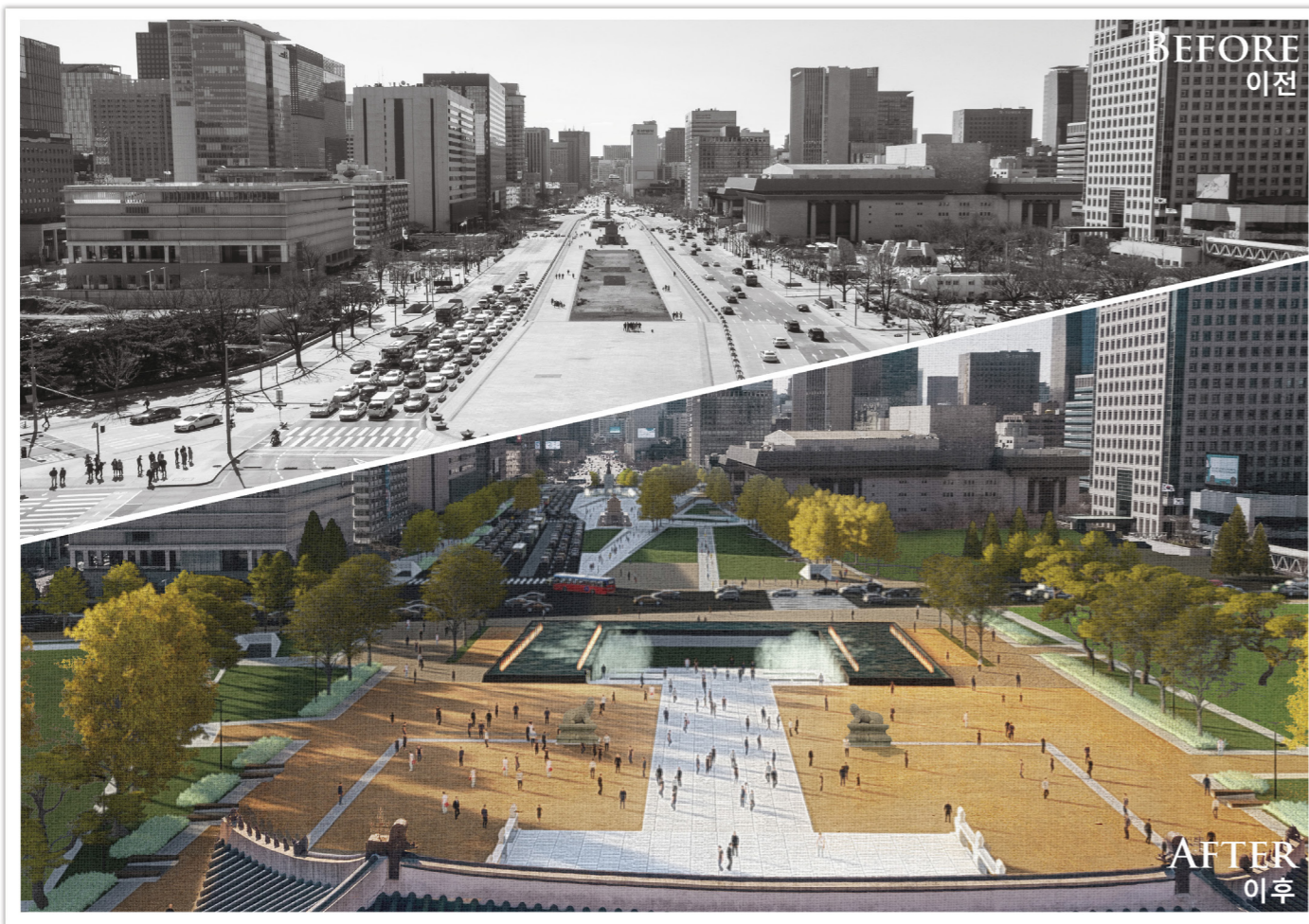
# Sichuan International Innovation & Design Park Community Center-Energy Bowl



It is a concept project designed by BEHIVE Architects. With this design, they investigate the boundary of future architecture and what kind of an energy will the future buildings bring to the people. They searched about the nature and human's relationship, and they aimed to create a building which is part of the nature. The design responds and moves with the nature. Therefore it contributes to the energy movement and transmission. Water comes into the building and the circulation responds to it as well.



# New Gwanghwamun Square International Competition



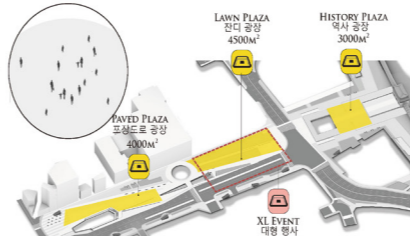
## YEAR-ROUND EVENT-ING SCENARIOS 연중 행사 시나리오

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### OPEN-GROUND EVENTS

오픈 그라운드 이벤트

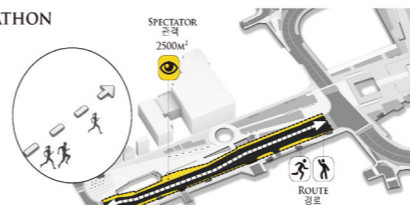
- Mulh-making 소개팅
- Ice skating rink 아이스링크
- L-Protest 시위 활동
- Winter Wonderland 겨울 동화나라



### PARADES & MARATHON

퍼레이드 & 마라톤

- Liberation Parade 광복 퍼레이드
- Meeting Historical Figures 역사적 인물을 만나기
- Green City Parade 녹색 도시 퍼레이드
- Color Run Marathon 컬러런 마라톤



### FOOD TRUCKS

푸드트럭

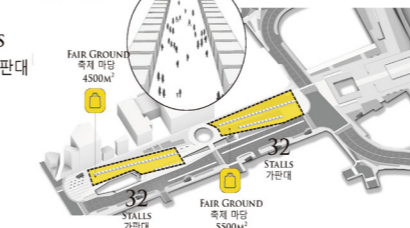
- Lunchbox Food Truck 점심 푸드트럭
- International Food Festival 국제 음식 페스티벌
- Top30 Restaurant Week 탑 30 레스토랑 주간



### FESTIVE FAIRS & STALLS/STANDS

축제 행사 & 노점 / 가판대

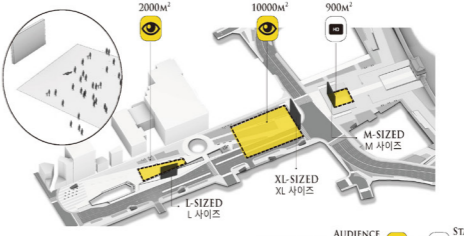
- Traditional Food Market 전통 음식 시장
- Family Carnival 가족 축제
- Children's Food Fair 주니어 음식 축제
- Promotional Fairs 홍보 부스



### GIANT SCREEN GATHERING

대형 스크린 모임

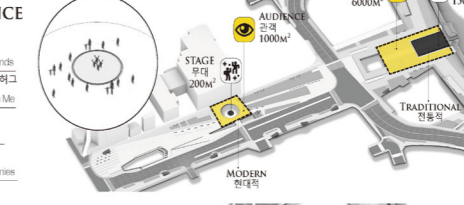
- World Cup Broadcast 월드컵 방송
- Outdoor Movies 야외 영화
- Public Speaking 대중 연설
- Formal Ceremony 공식 행사



### PERFORMANCE

퍼포먼스

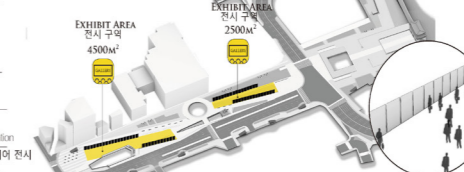
- Play with Line Friends 라인프렌즈 프리리그
- Comics Dance with Me 나와 함께 춤출래
- Ganggangsullo 강강술래
- Memorial Ceremonies 기념식 행사



### EXHIBITION

전시

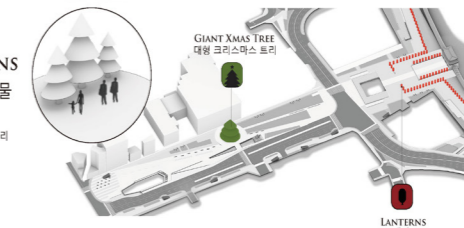
- Outdoor Library 야외 도서관
- City Gallery 도시 미술관
- Interactive Installation 인터랙티브 미디어 전시
- Hangul Exhibition 한글 전시



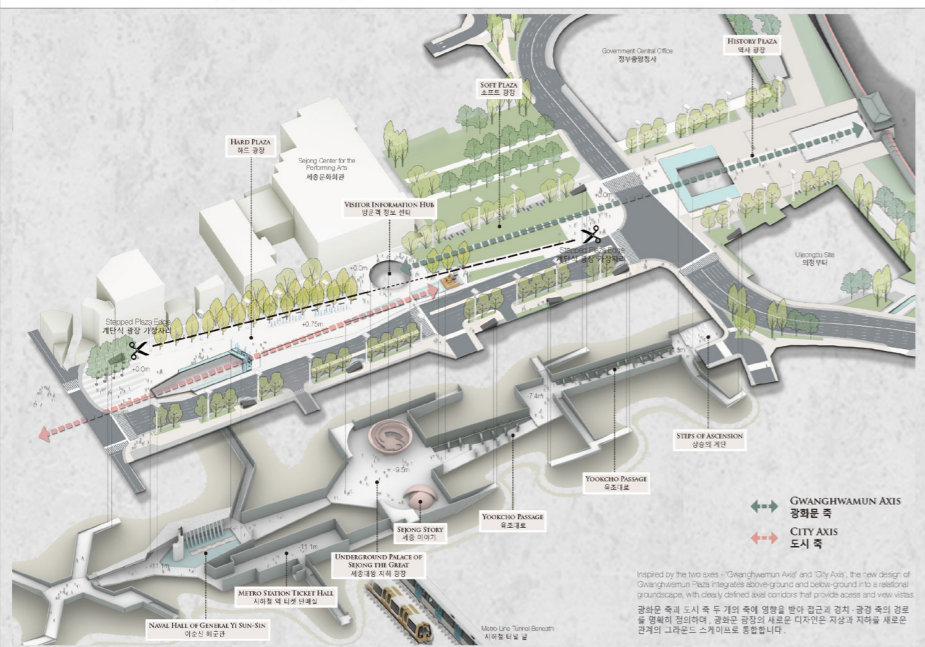
### FESTIVE INSTALLATIONS

축제 · 기념 설치물

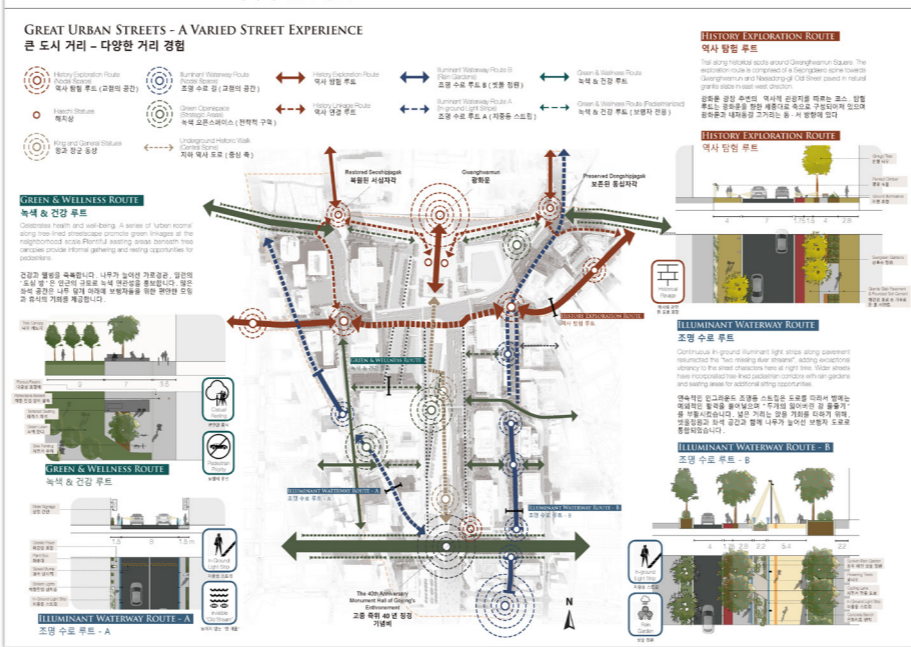
- Giant Xmas Tree 대형 크리스마스 트리
- Light Installation 조명 설치
- Pop-Up House 팝업 하우스
- LANTERNS 램판



## AXIAL GROUNDSCAPE 축의 그라운드 스케이프



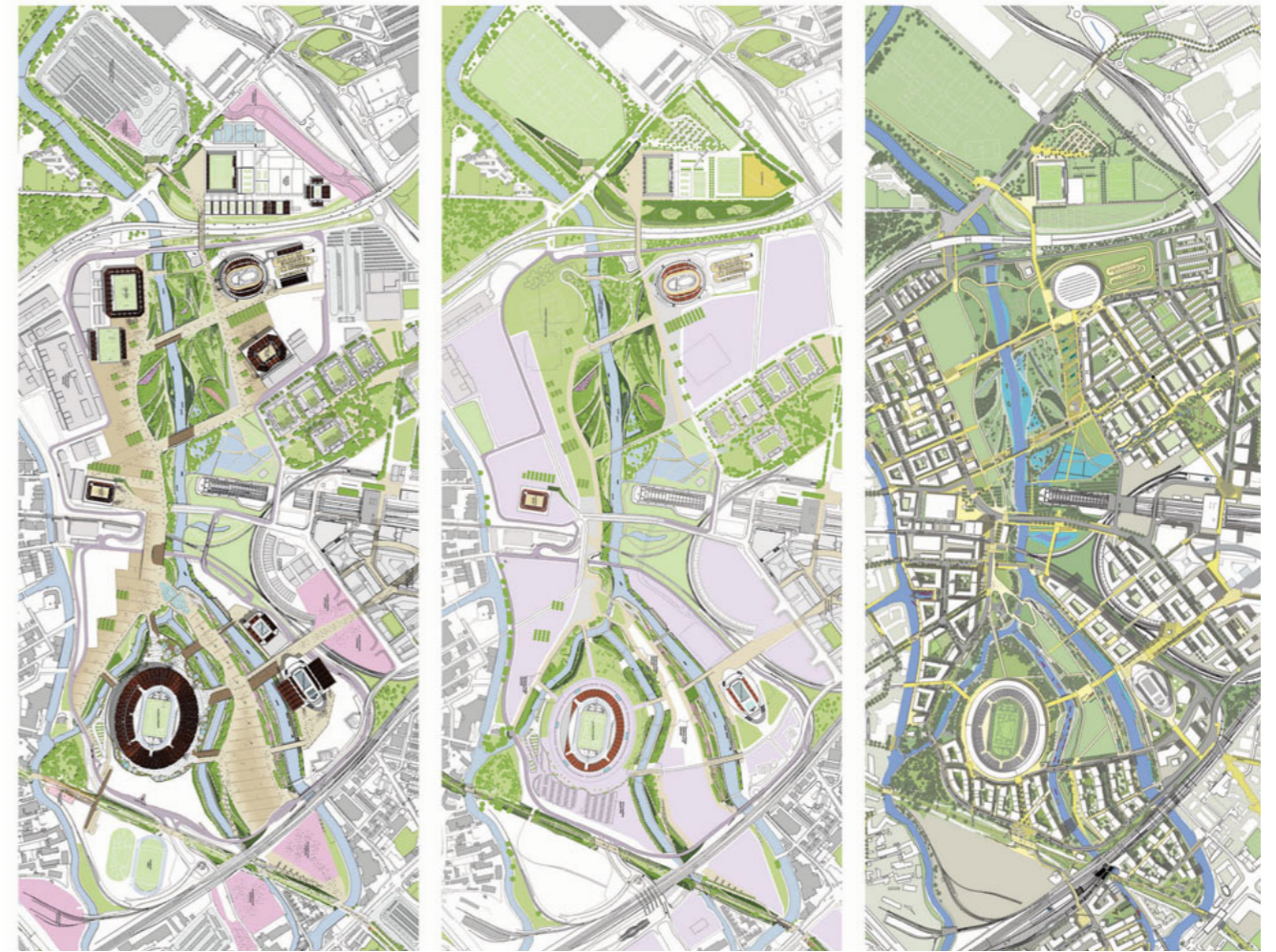
## A THEMATIC EXPERIENCE 테마가 있는 경험



In the design of new Gwanghwamun Square, the BEHIVE Architects, aimed to reflect all phases the site has undergone. By creating level differences on the site and creating an open air museum, they reveal the historical layers. On the new design the site becomes mostly pedestrian and by having cultural routes and activities, the design contributes to the economical value of the site. The square develops in means of social, aesthetical, economical, environmental aspects.



# London 2012 Legacy Communities Scheme



After the London 2012 Olympic and Paralympic Masterplanning work, the company Aecom works on a project that redevelops the urban district in London. Design centralizes around the sport facilities built on the Olympics and by increasing the greenaries around the river and created one big park which is named Queen Elizabeth Olympic Park. Since the circulation around is pedestrianized, they tried develop to strategies in relation to social infrastructure, housing, employment, leisure & culture, town planning, transport, water, waste, strategic sustainability, infrastructure, energy and climate change.



The complexity of Gwanghwamun Plaza can be understood through unraveling the underlying genes embedded in its history. The site has undergone different phases of historical eras, each with very particular social and economical backgrounds.

Feng-Shui or Geomancy has profoundly influenced the orientation when the palace was built. Even though the city developed over time deviated from the original axis, the orientation of Gwanghwamun remains consistent and forms an intriguing relationship with the city axis.

Sejongdaero was the widest road in the city, and spatially as a symbol of absolute power and governance where common citizens may feel separated from. The width and its axial dominance signifies its importance to the people, the city and the nation.

Today's Gwanghwamun Plaza celebrates "public engagement" where people are free to congregate and make their voices heard. Nowadays people actively participate in political, social and all kinds of events, and the plaza has becoming an iconic destination that celebrates modern democracy and freedom of choice. While fulfilling modern-day functions of today's Gwanghwamun Plaza, the historical aspects of this site's specificity must also be memorized and respected.



© 2005 Google





Site Analysis



City Development analysis

Because of the dense immigration, Mersin growth rapidly, resulting the city center shifting and old center has lost its value.

Problems

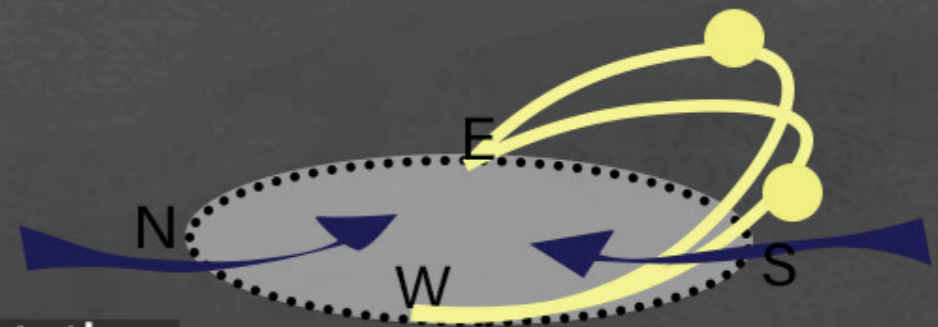
- Lacking the integration of green with the city
- Sea becomes only an image
- With the loss of value of the old center, the area becomes dead.

Old City Center

Project Area

Old Stadium

City Development Orientation





Important Nodes

City Square



Beach Park



Pier



Protected area



Old Stadium



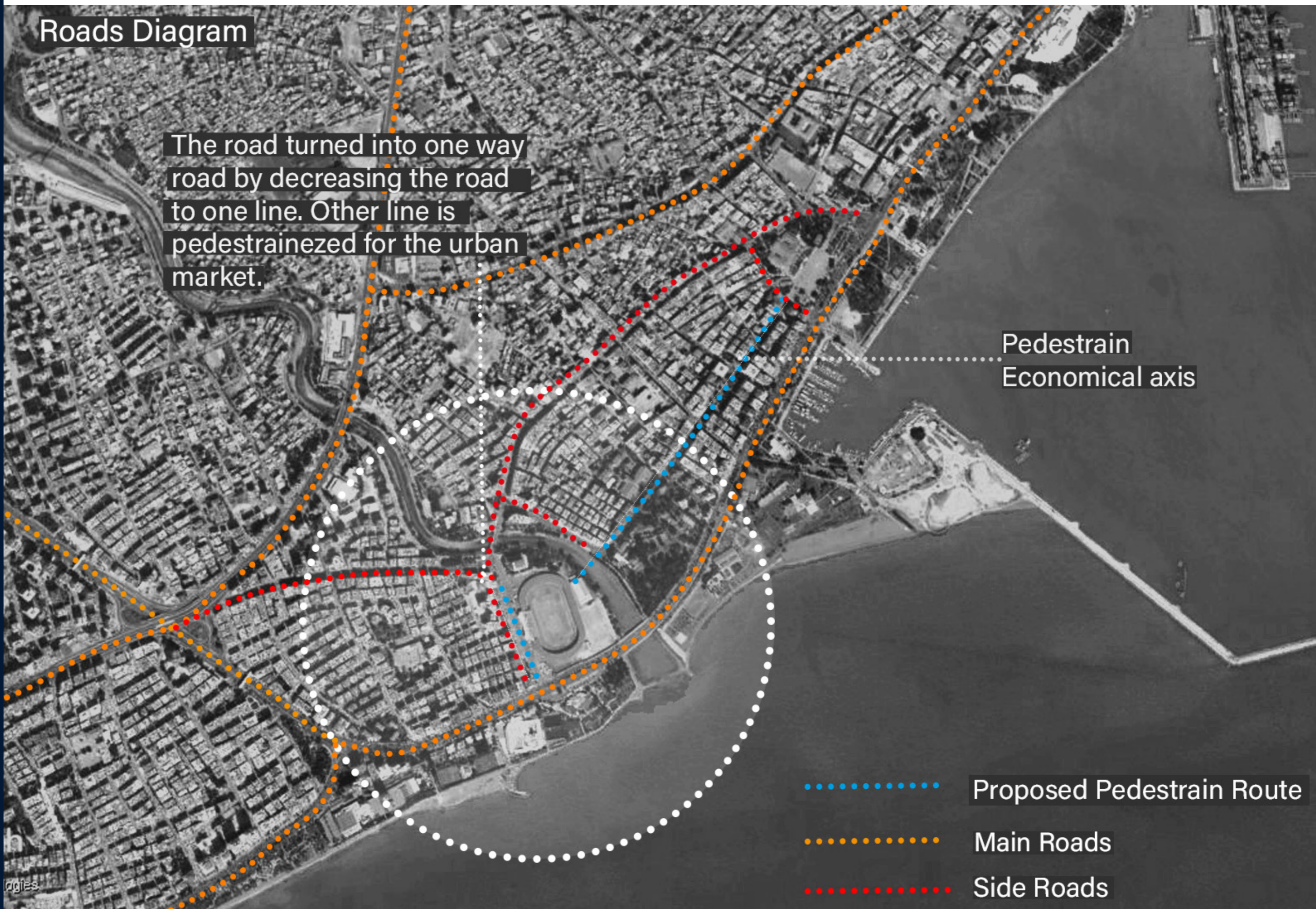


Roads Diagram

The road turned into one way road by decreasing the road to one line. Other line is pedestrainezed for the urban market.

Pedestrain  
Economical axis

- Proposed Pedestrain Route
- Main Roads
- Side Roads





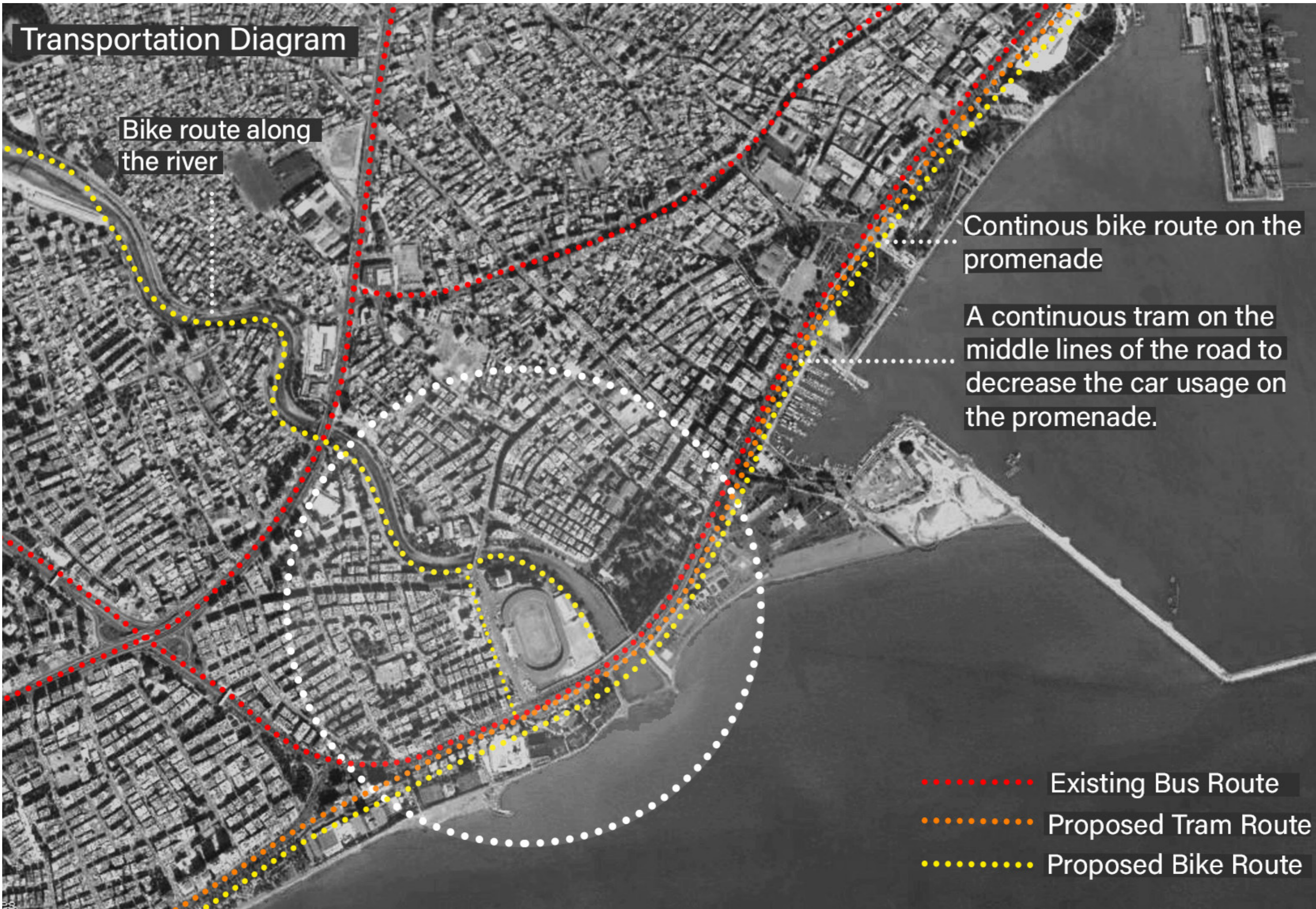
# Transportation Diagram

Bike route along the river

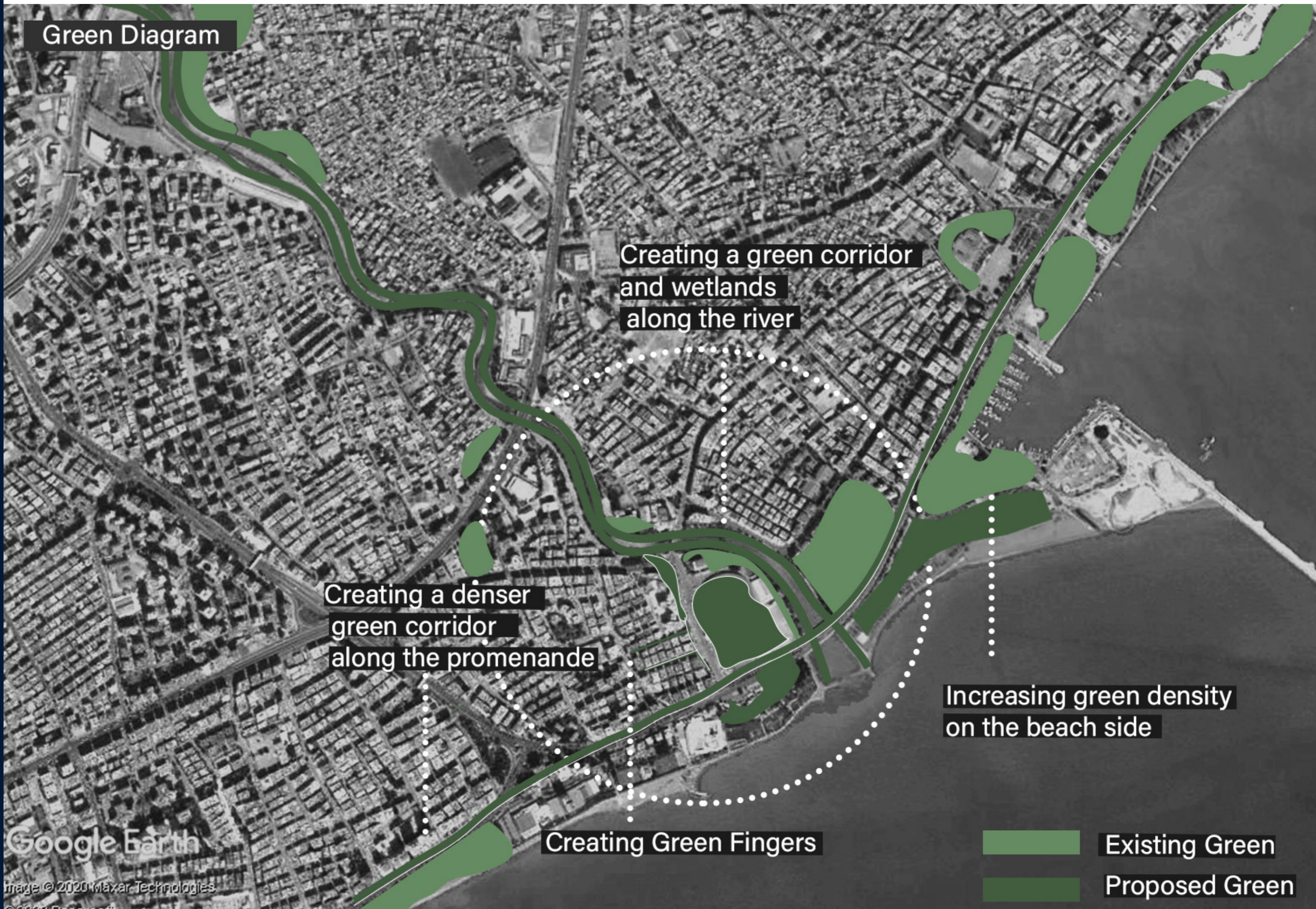
Continuous bike route on the promenade

A continuous tram on the middle lines of the road to decrease the car usage on the promenade.

- ..... Existing Bus Route
- ..... Proposed Tram Route
- ..... Proposed Bike Route

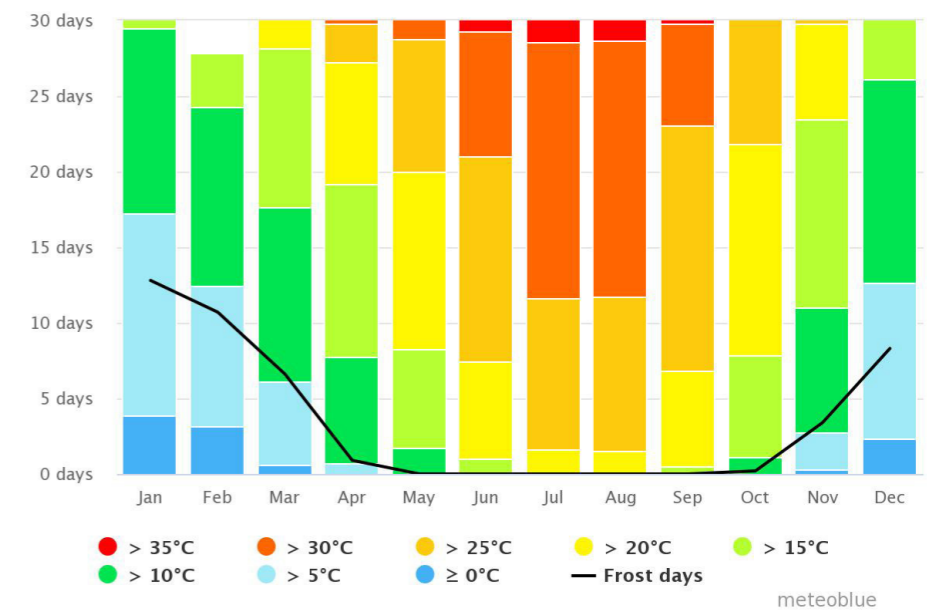
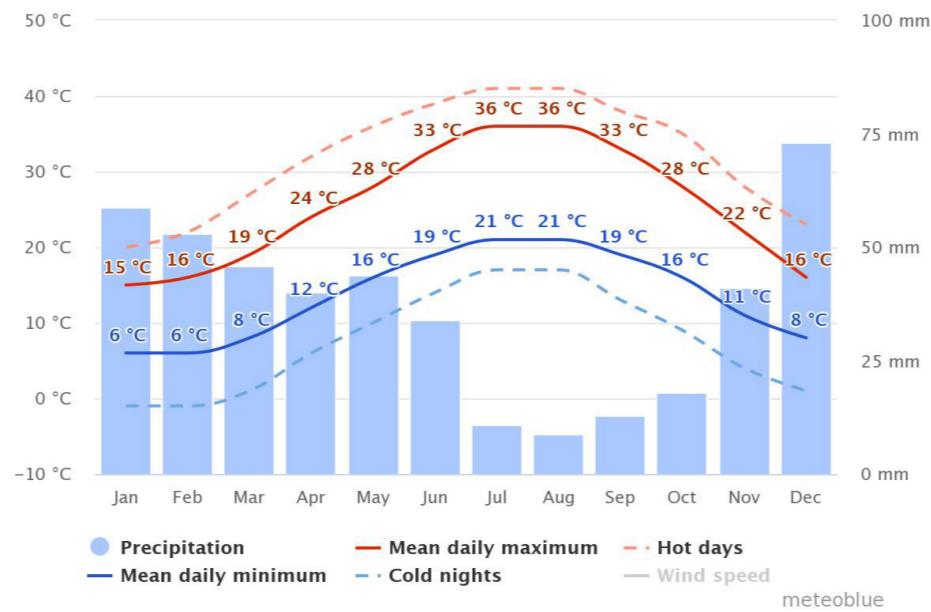
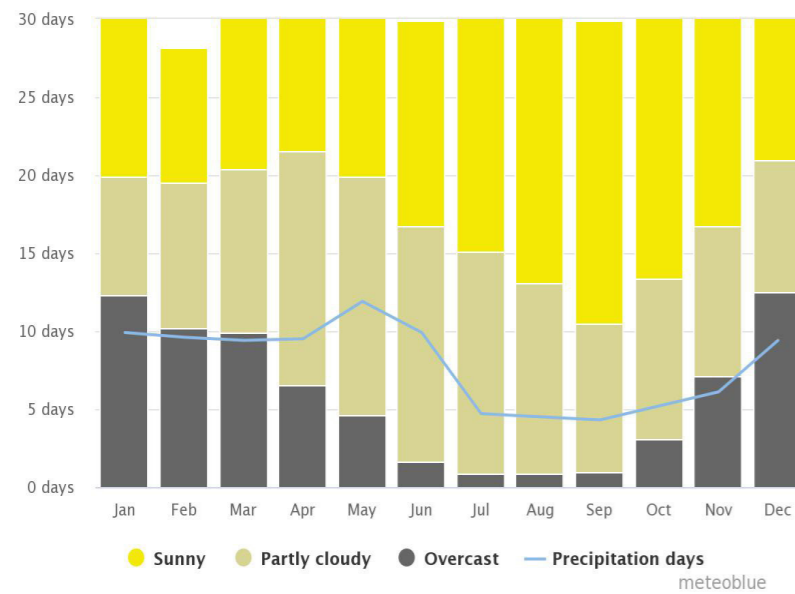
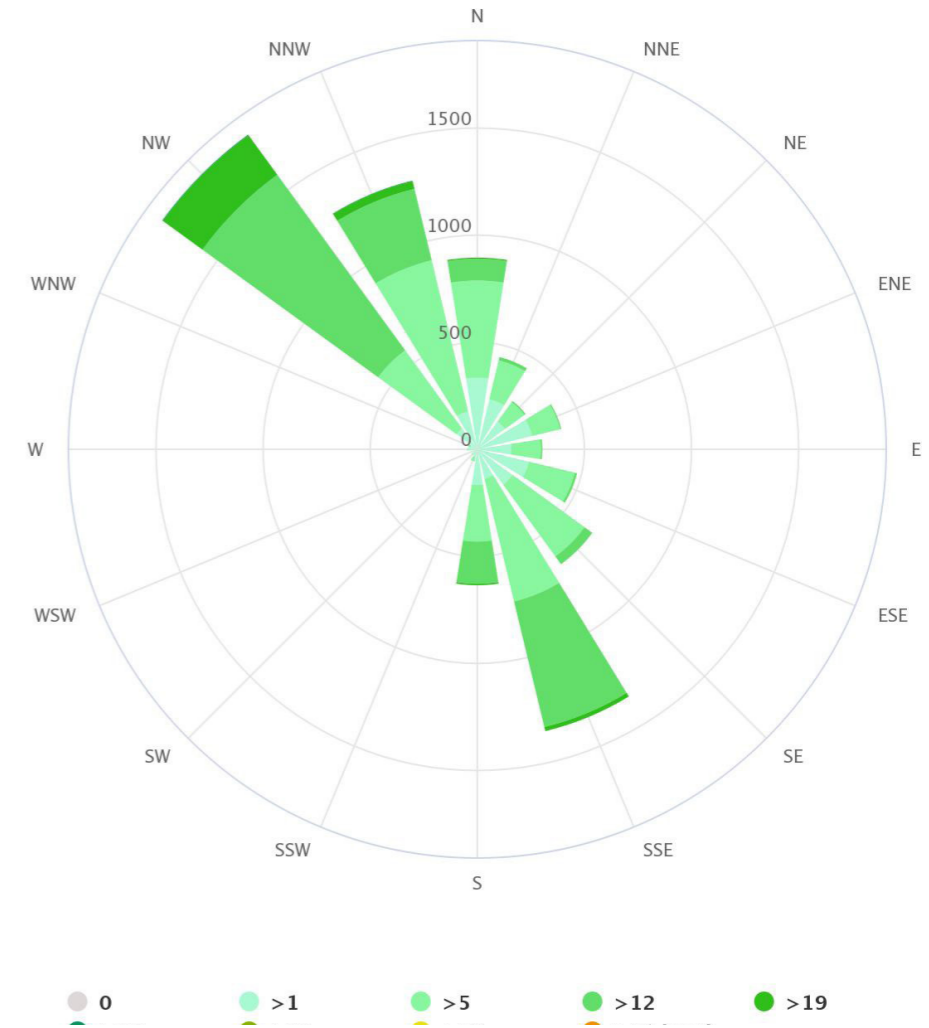
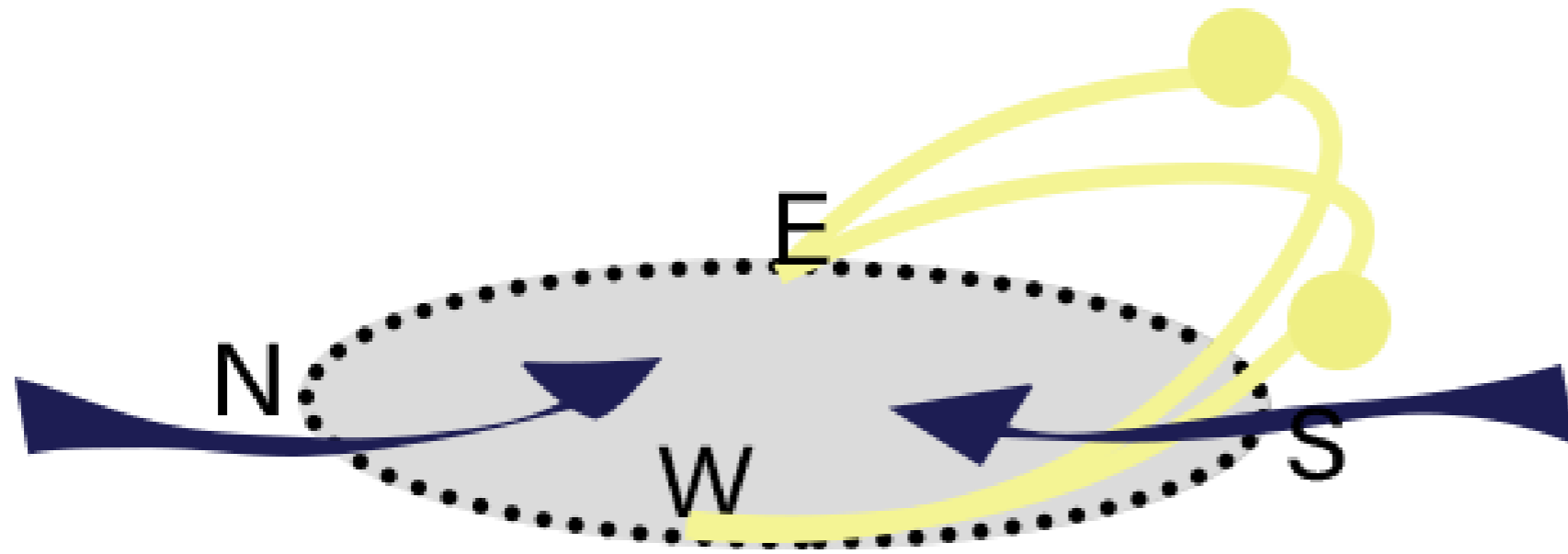








# Climate





# Mersin Sports Complex and Rehabilitation Center

Contents

Literatur Review

Case Studies

Site Analysis

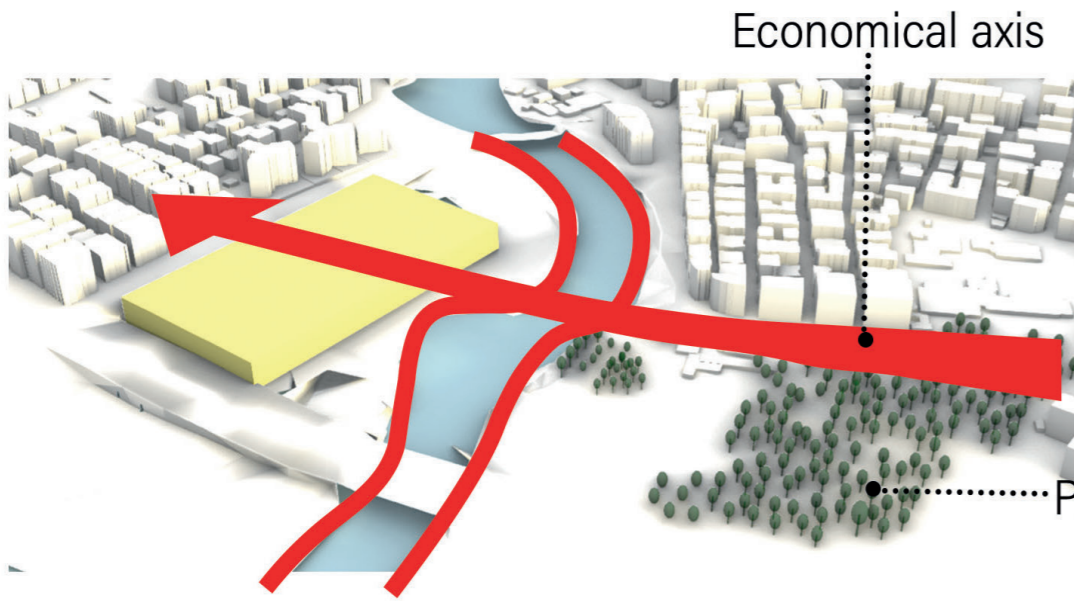
Project Design



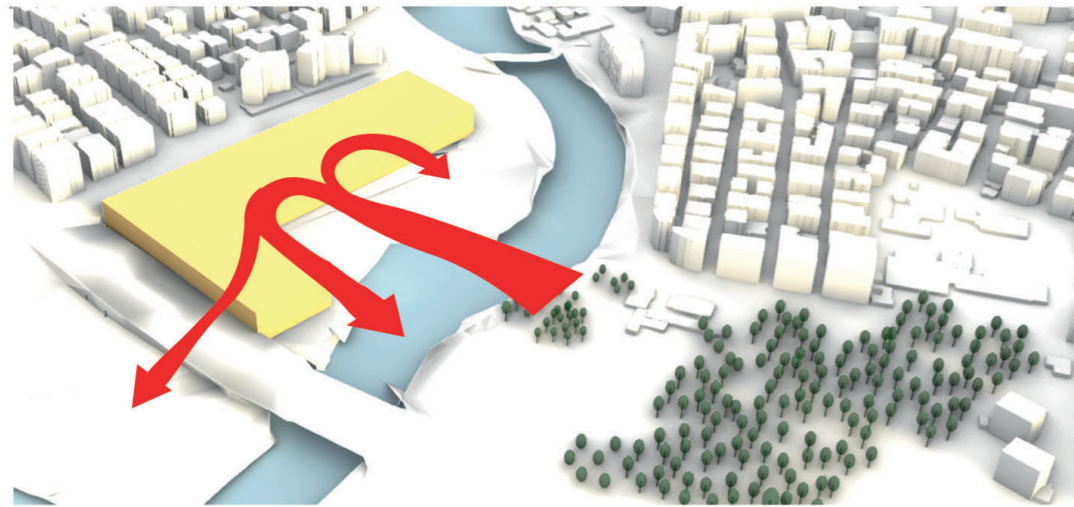
Diagrams



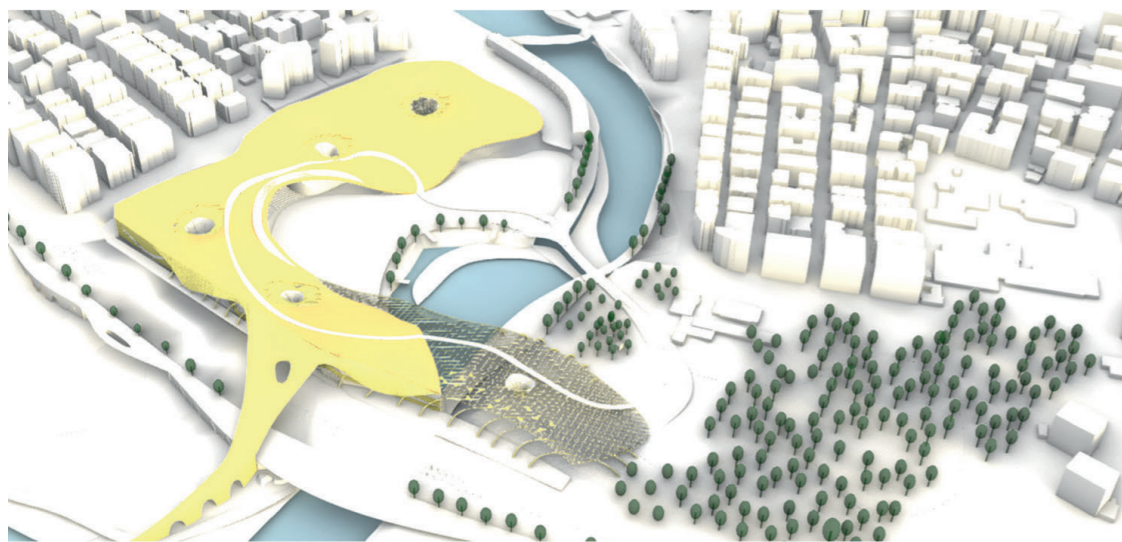
# Process Diagram



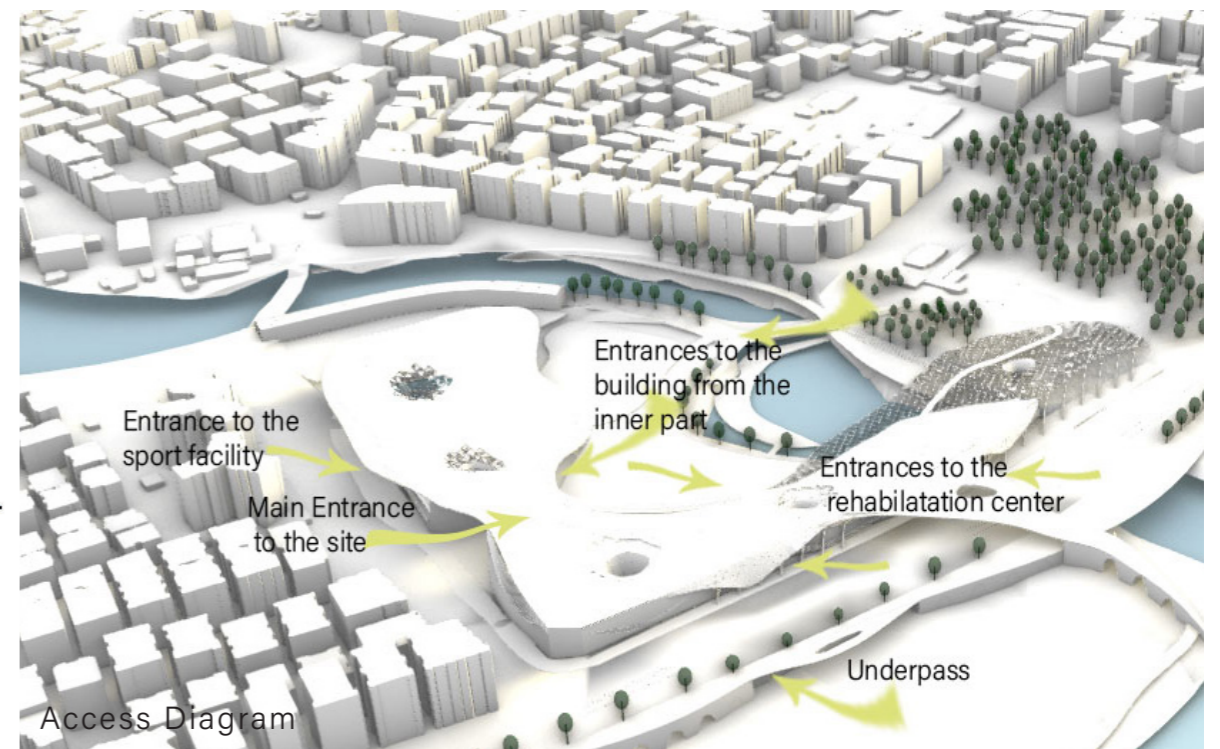
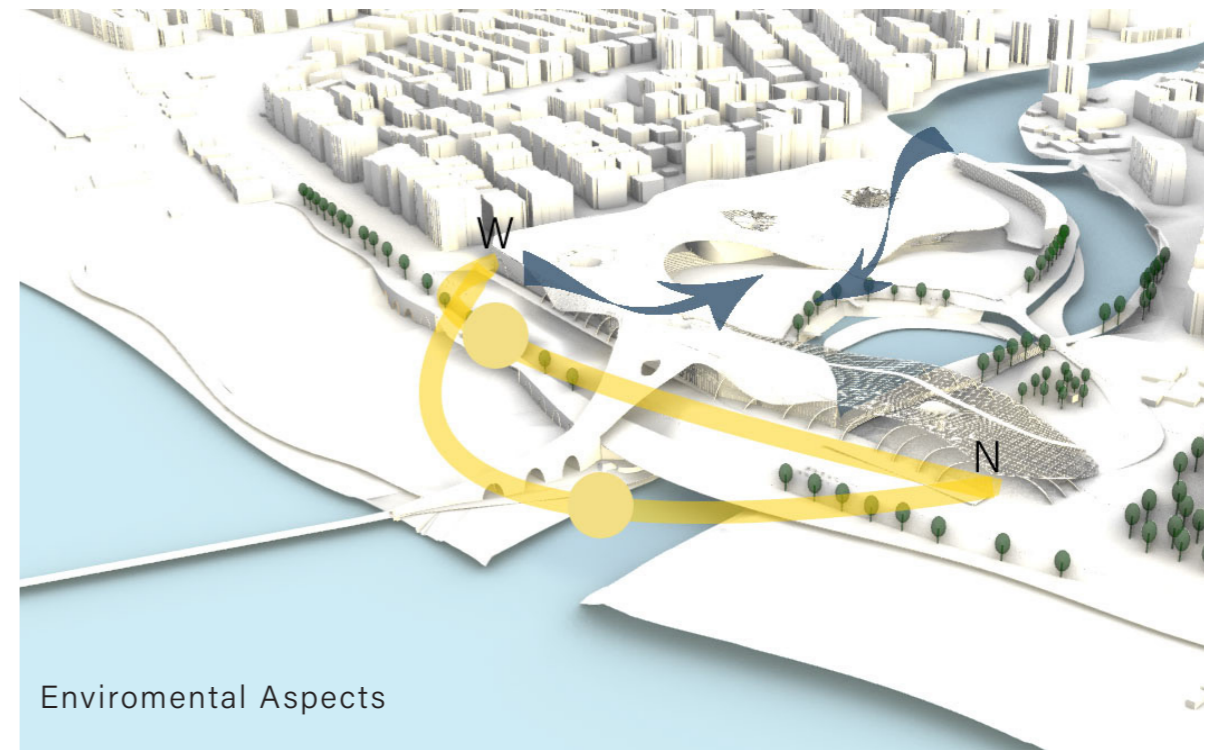
Pedestrian economical axis leading to the mass and the stream bed forming according to it, also responding to the protected area.



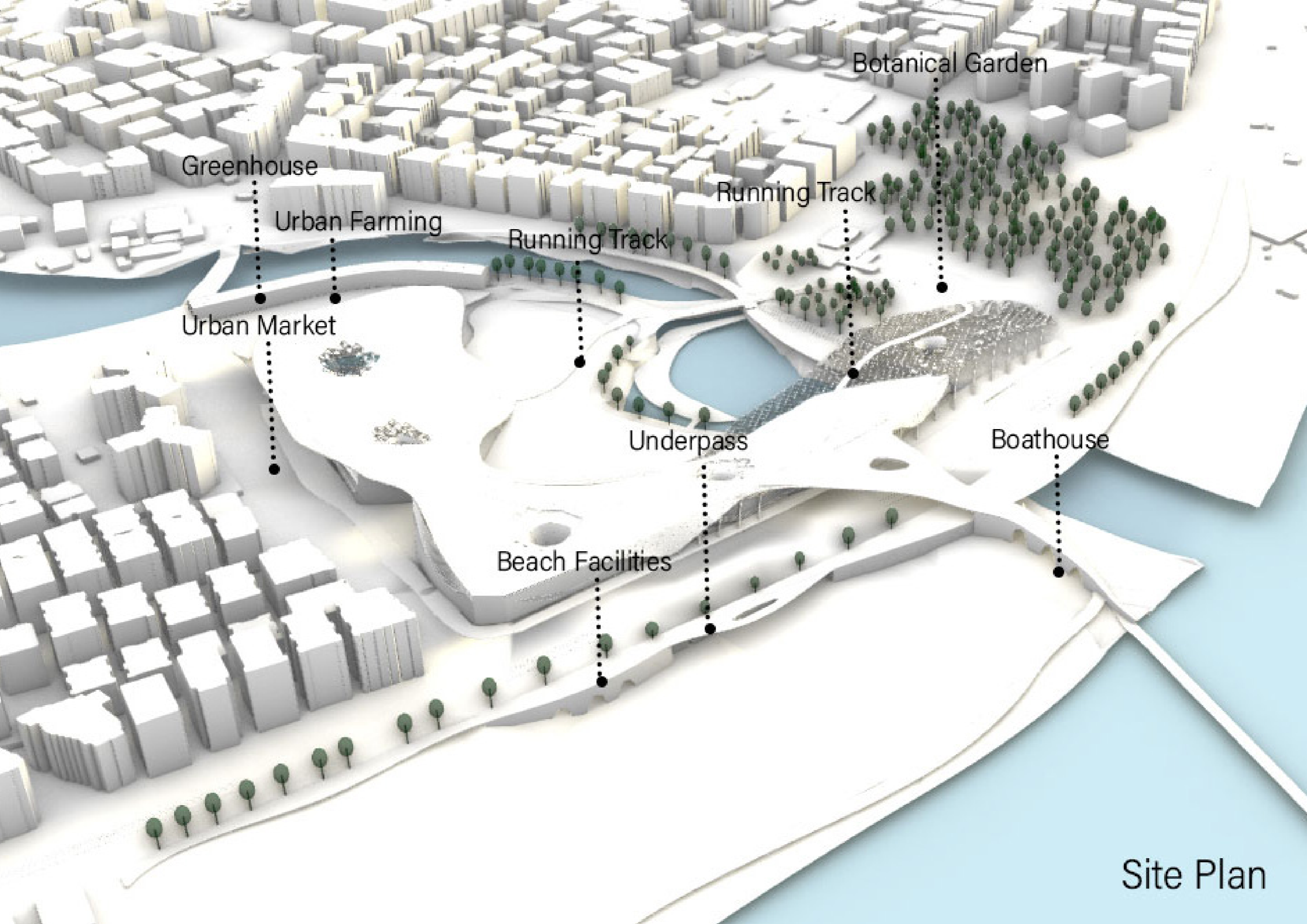
Mass shape responding to the natural and urban layer of the city. Growing in 3 direction: forest-sea-river



The inner part of the building becomes organic while the street elevation responds the built environment.







Botanical Garden

Greenhouse

Running Track

Urban Farming

Running Track

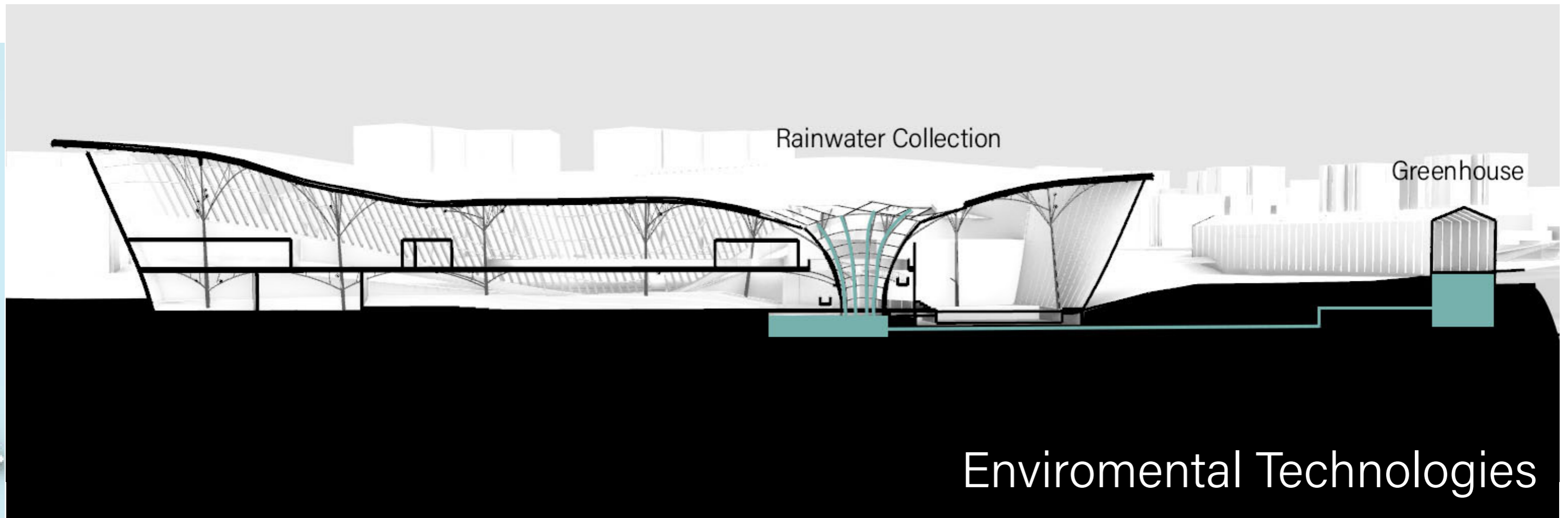
Urban Market

Underpass

Boathouse

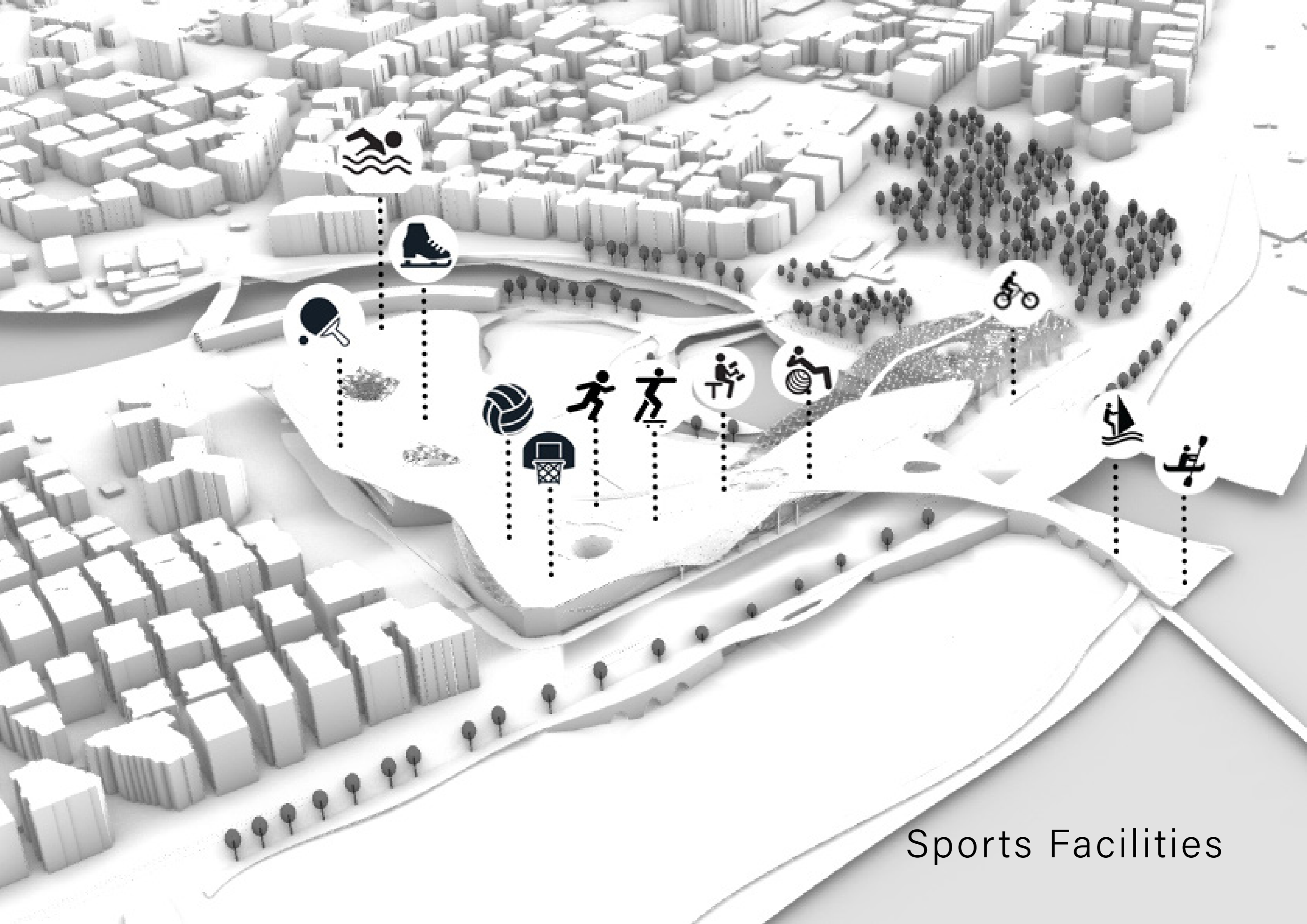
Beach Facilities

Site Plan



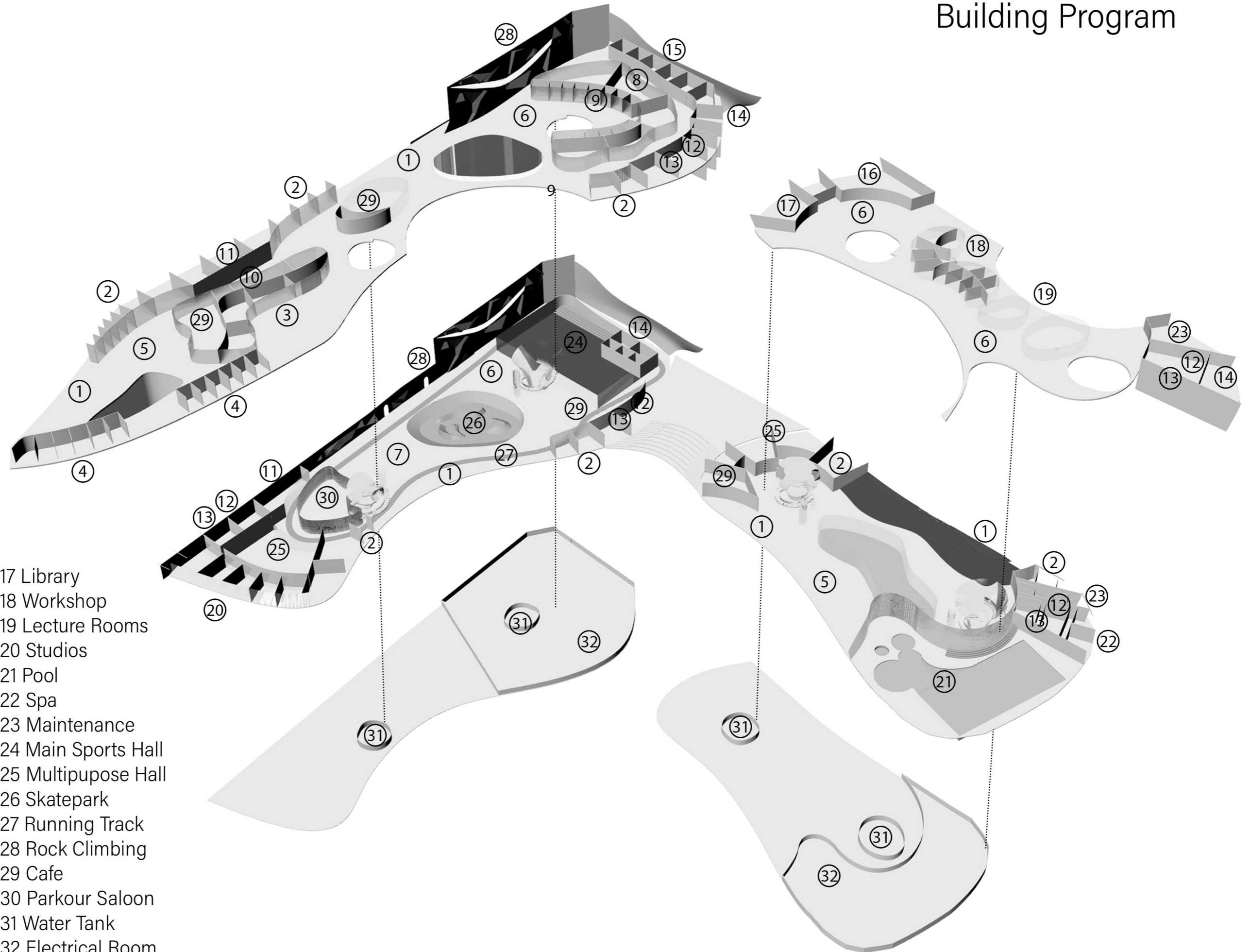
Environmental Technologies





Sports Facilities

# Building Program



- |                     |                     |
|---------------------|---------------------|
| 1 Entrances         | 17 Library          |
| 2 Offices           | 18 Workshop         |
| 3 Doctor's Lounge   | 19 Lecture Rooms    |
| 4 Recovery room     | 20 Studios          |
| 5 Lobby             | 21 Pool             |
| 6 Leisure Area      | 22 Spa              |
| 7 Gym               | 23 Maintenance      |
| 8 Training room     | 24 Main Sports Hall |
| 9 Consultation room | 25 Multipupose Hall |
| 10 Massage room     | 26 Skatepark        |
| 11 Staff room       | 27 Running Track    |
| 12 Toilets          | 28 Rock Climbing    |
| 13 Changing Room    | 29 Cafe             |
| 14 Storage          | 30 Parkour Saloon   |
| 15 Laboratuary      | 31 Water Tank       |
| 16 Auditorium       | 32 Electrical Room  |

# Exploded Structural System

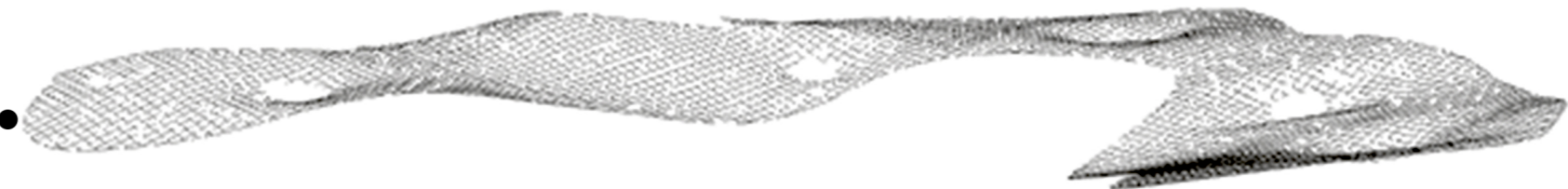
Photo Voltaic Panels .....



Green Roof .....



Steel Diagrid Structure .....



Steel Columns and Beams .....



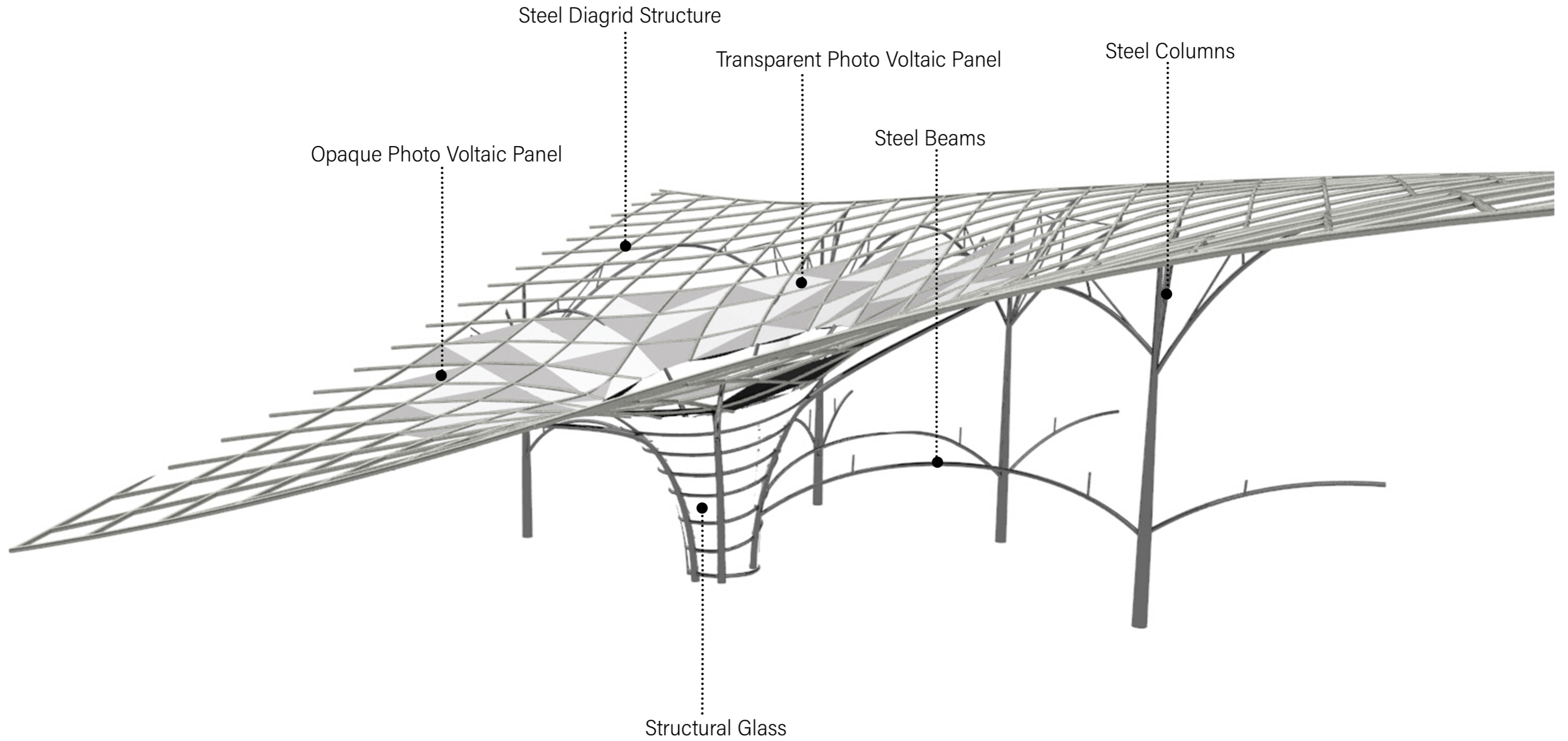
Aluminum Profiles and Tempered Glass .....



Polycarbonate Louvers .....

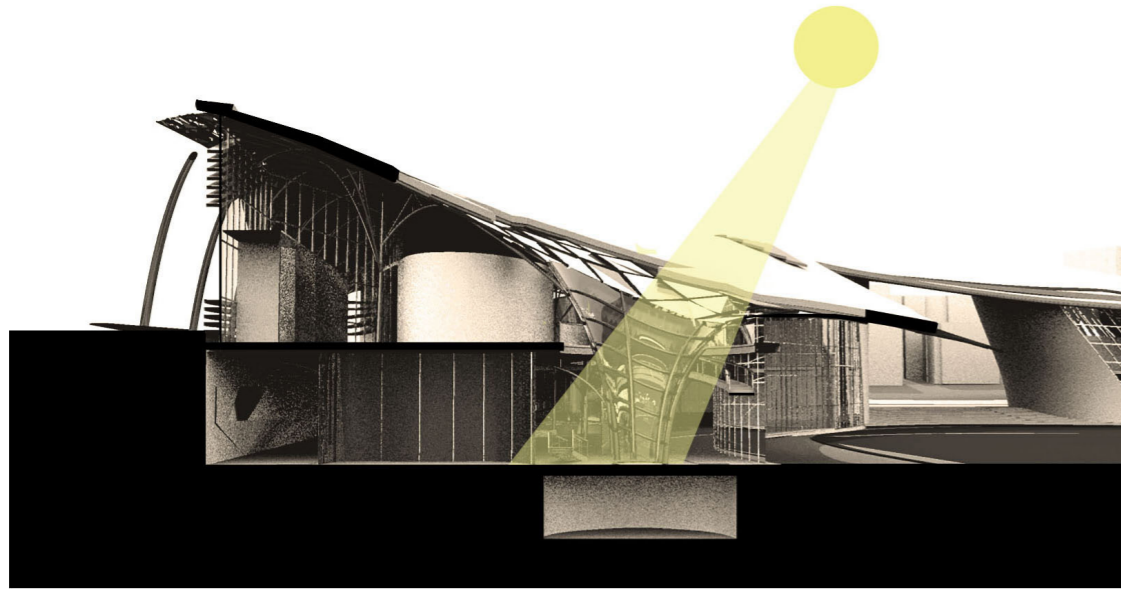


# Main Column Detail

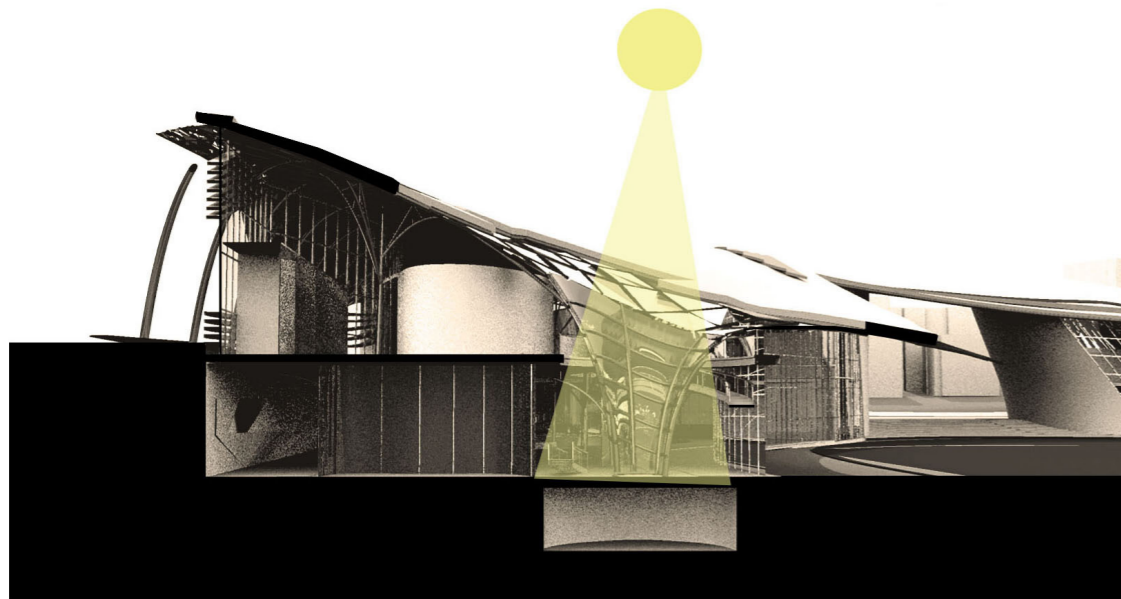




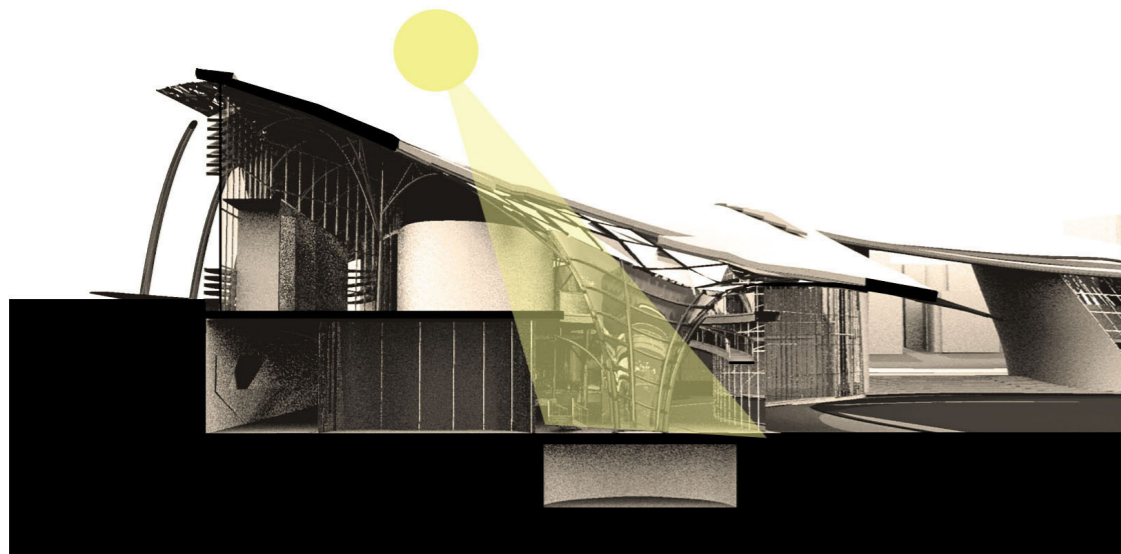
Light column diagram



Morning

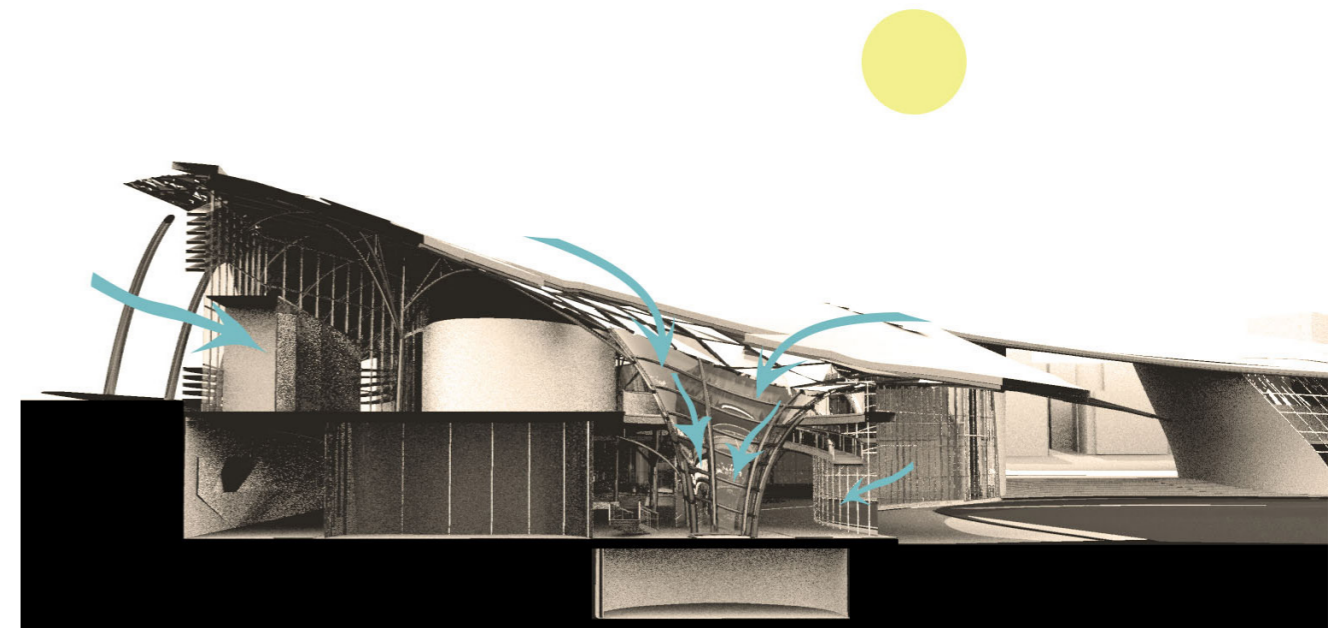
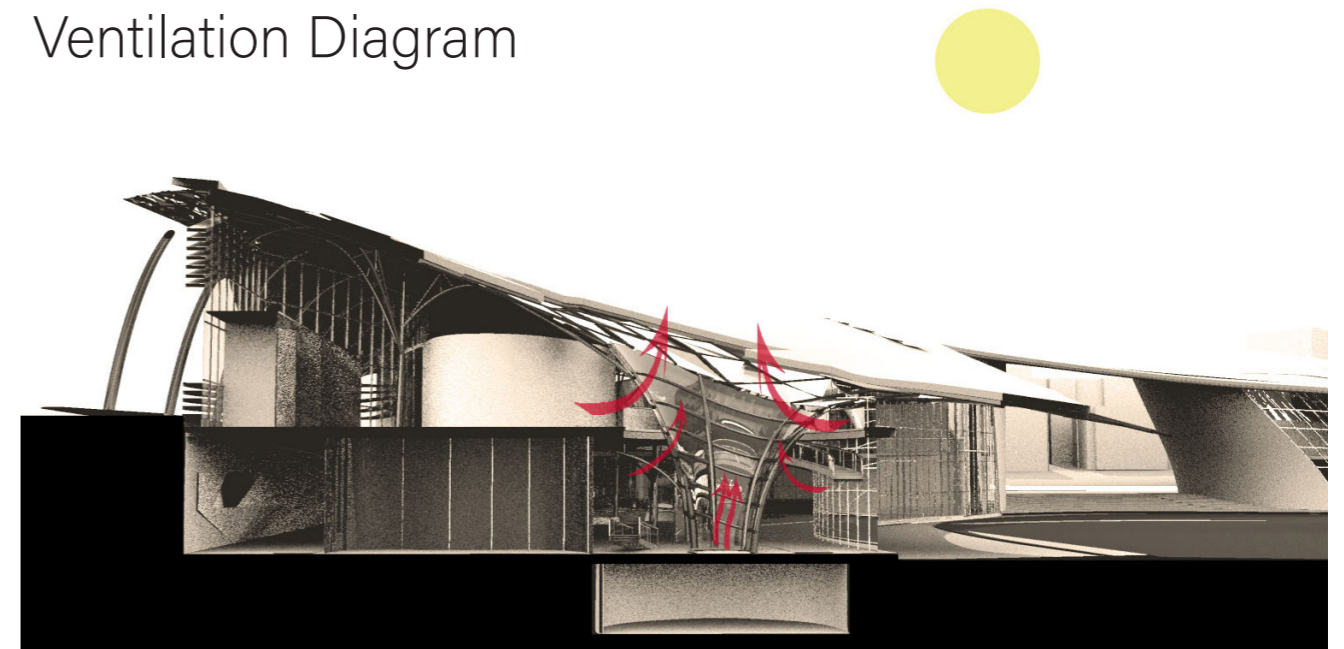


Noon

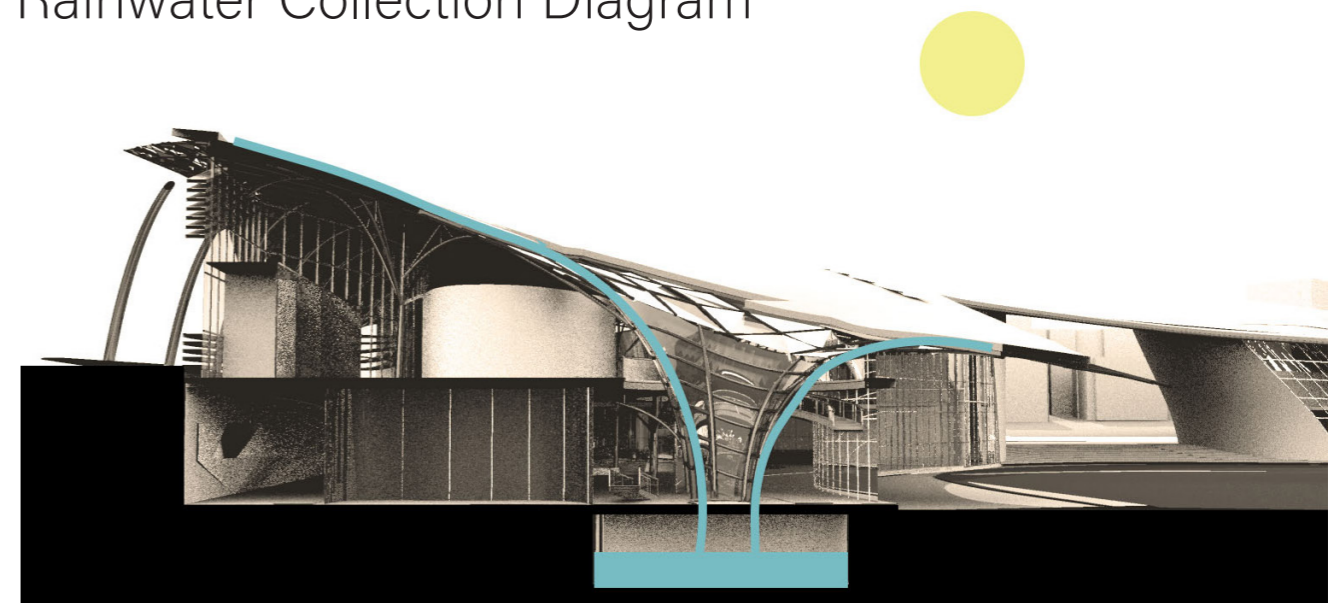


Afternoon

Ventilation Diagram

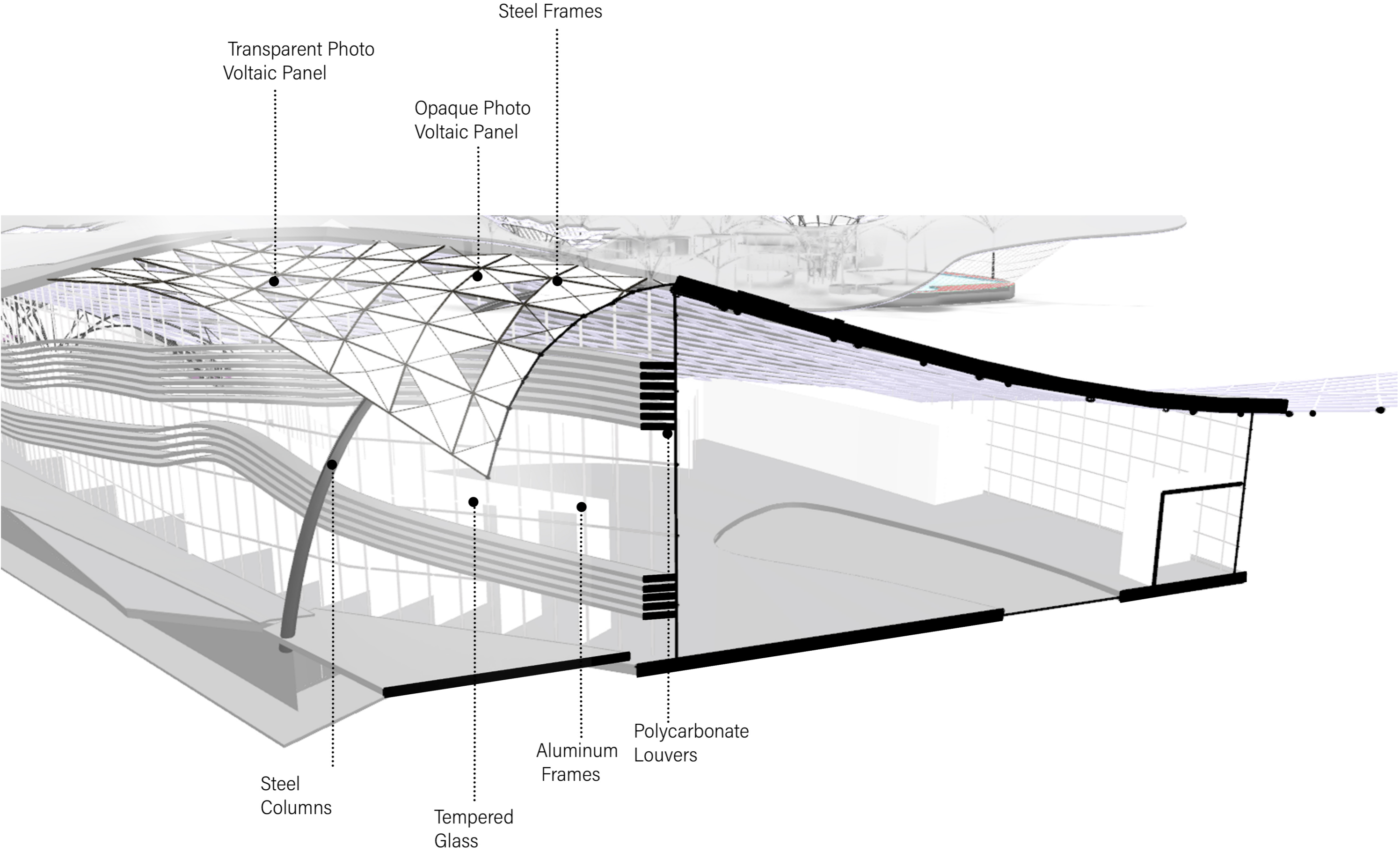


Rainwater Collection Diagram



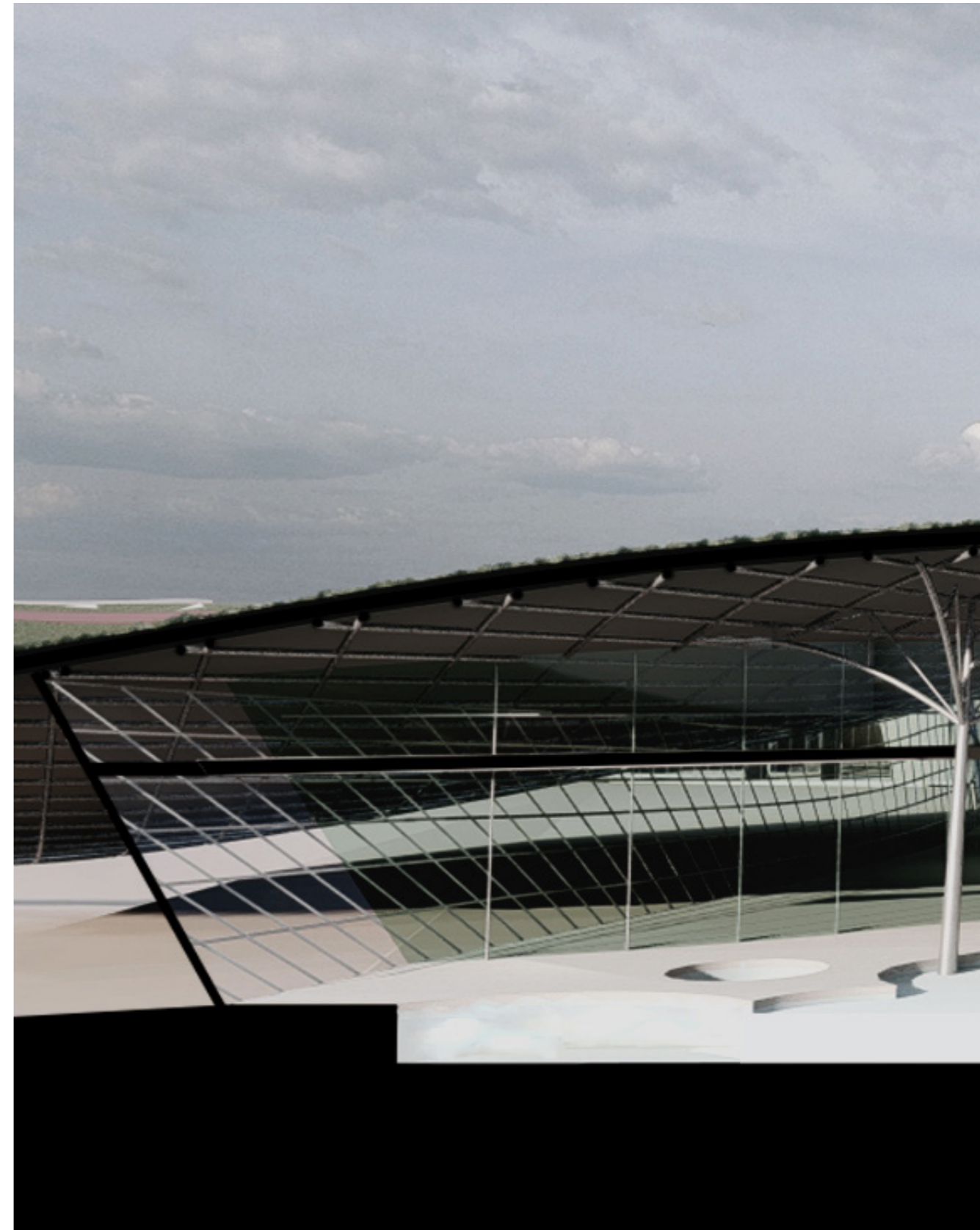


# South Facade Detail

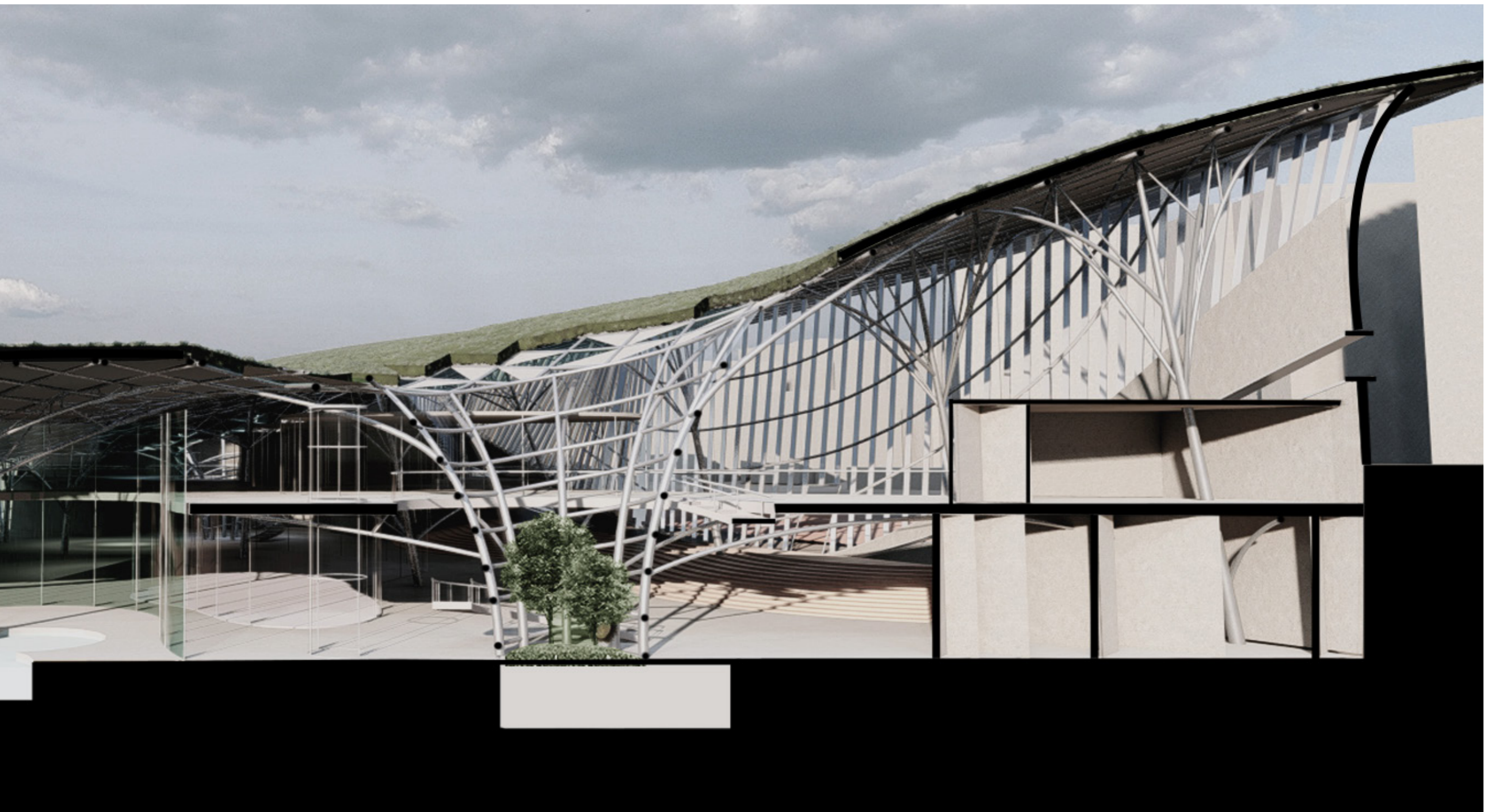




# Sections







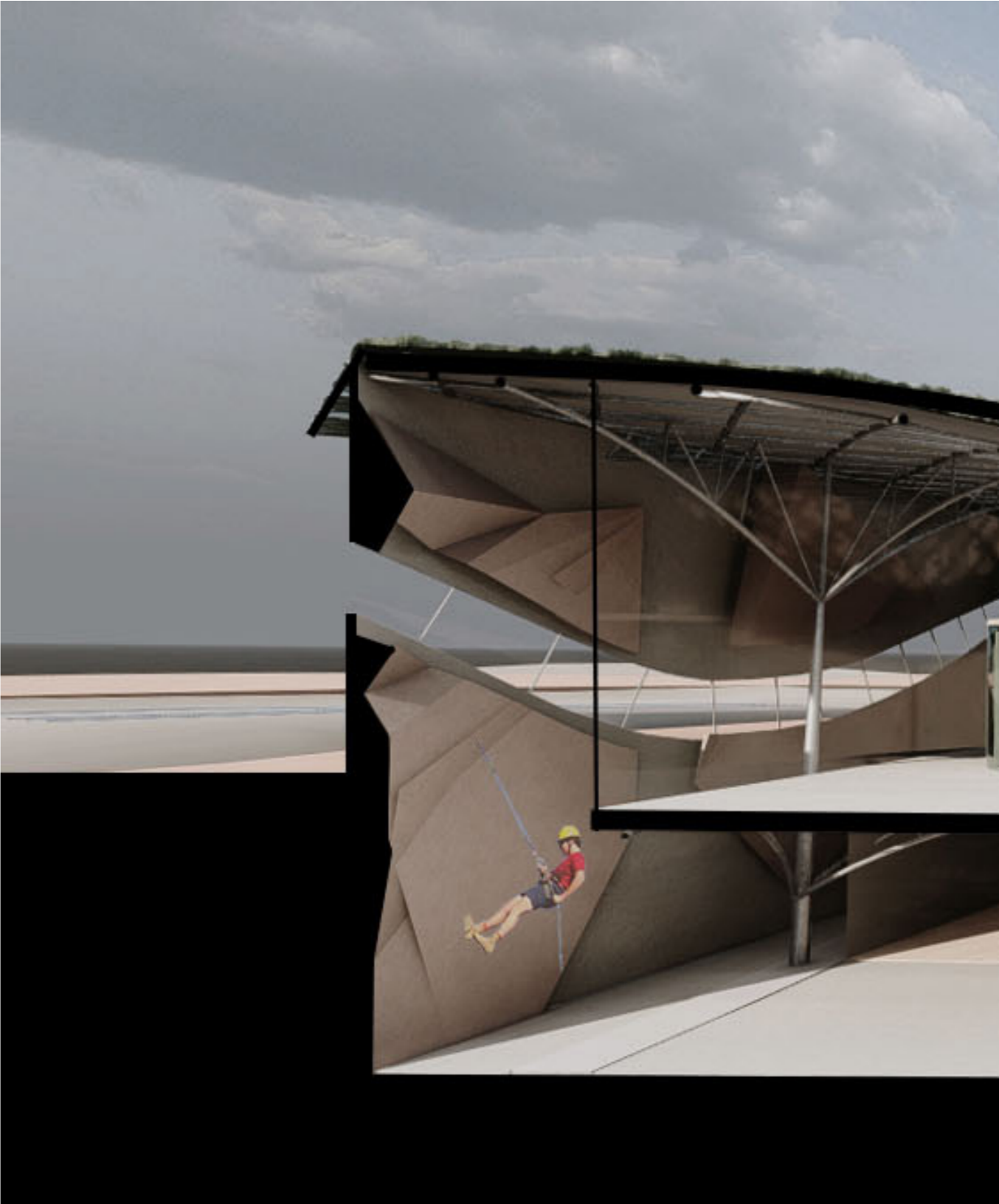




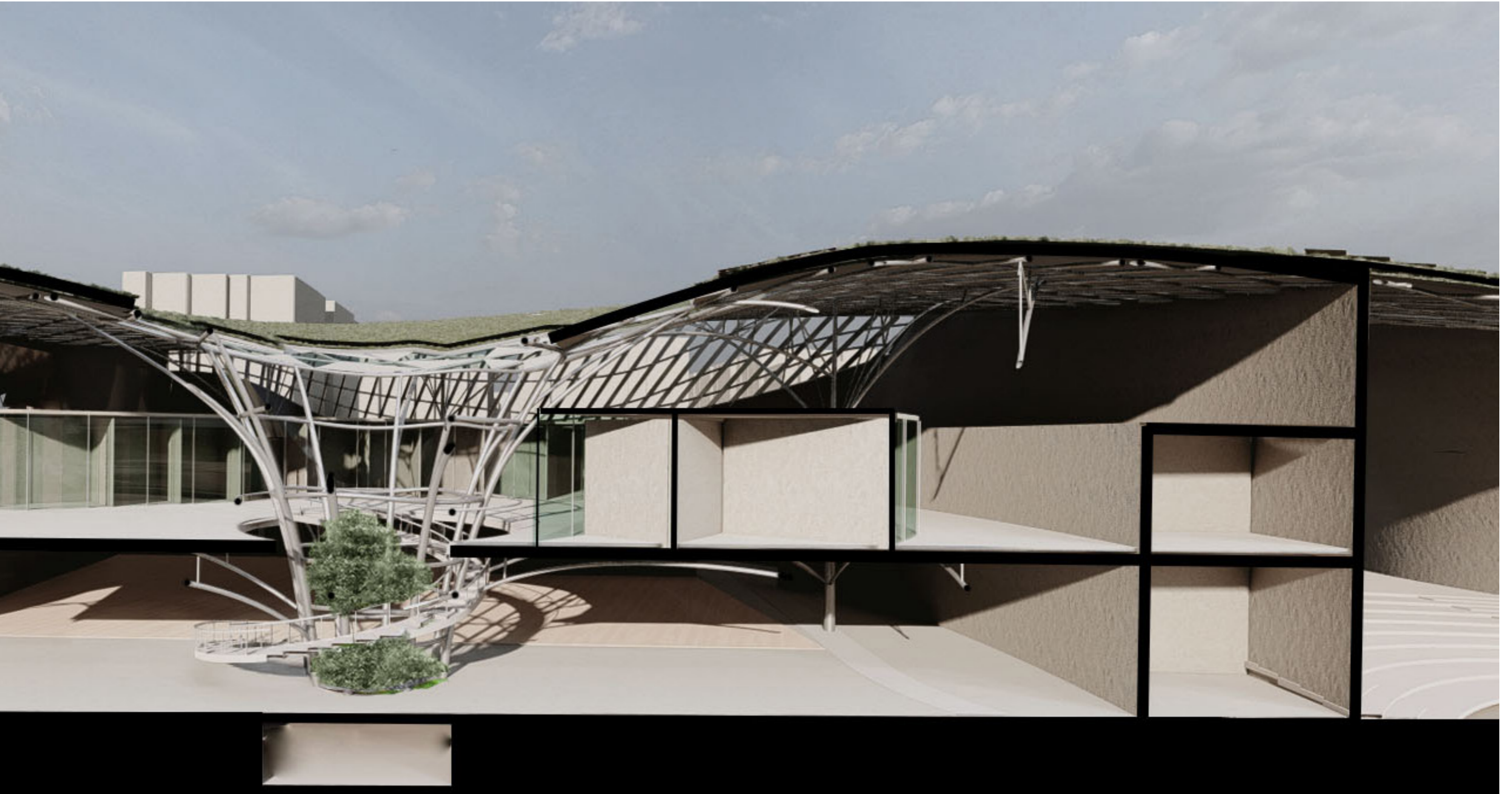




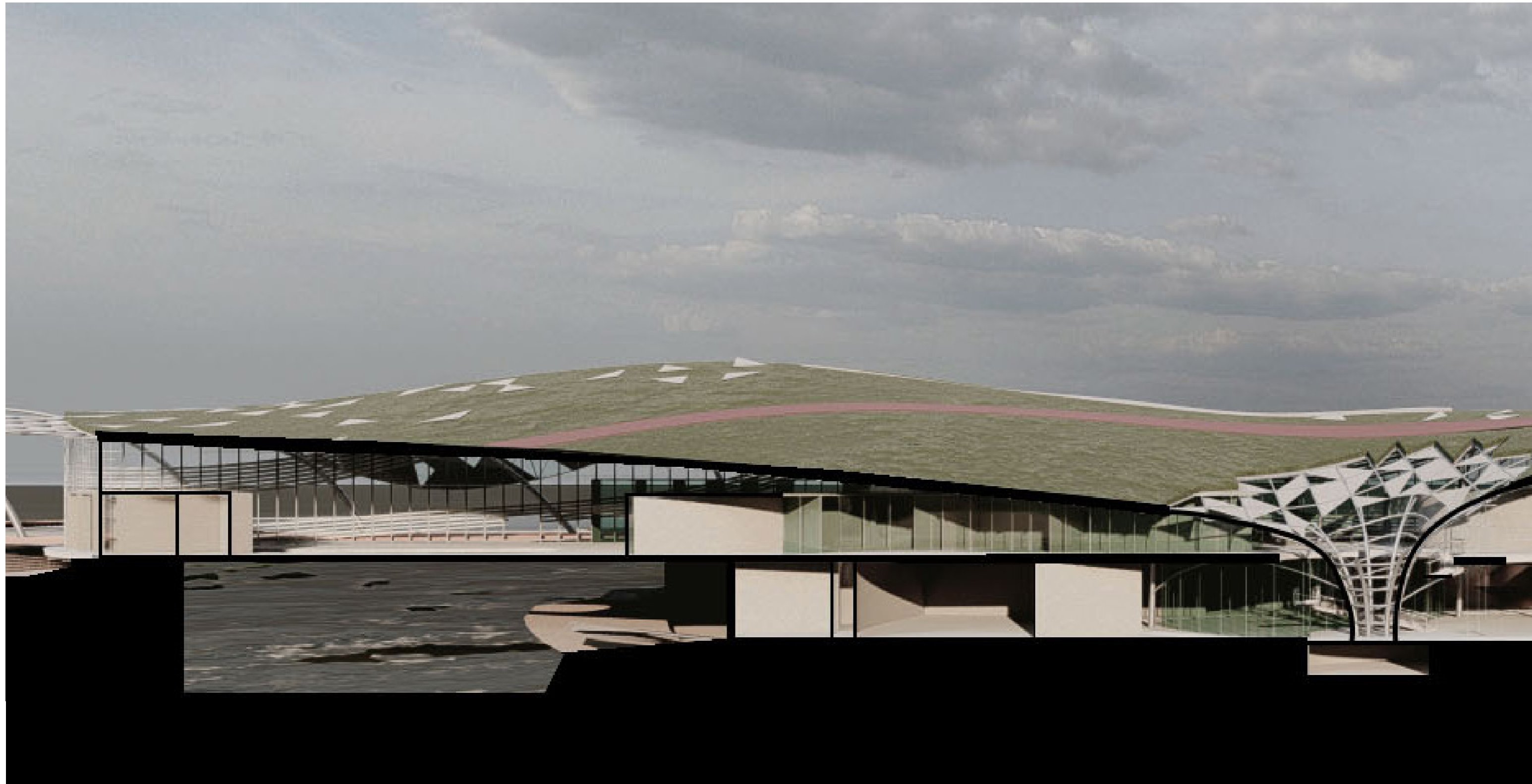




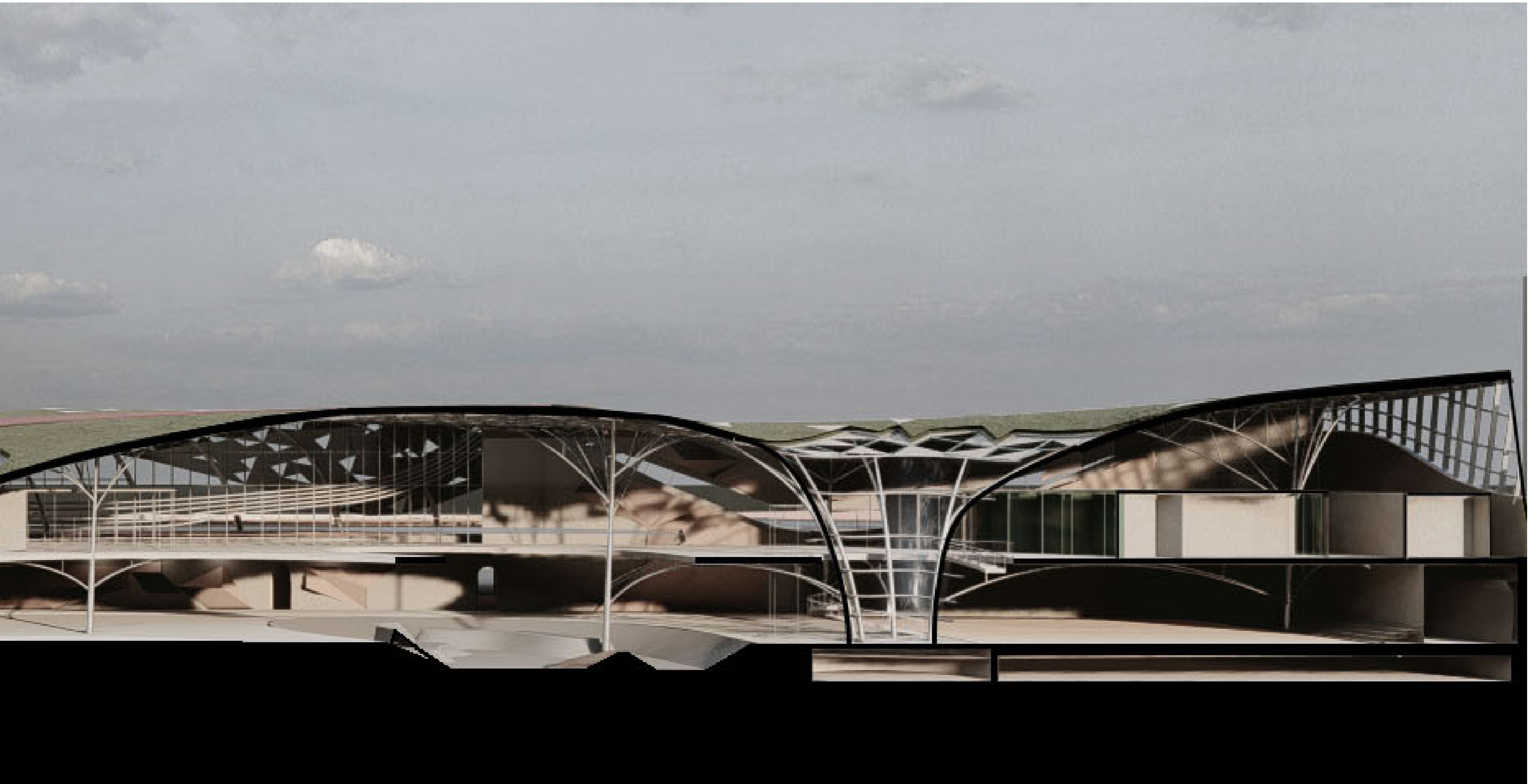










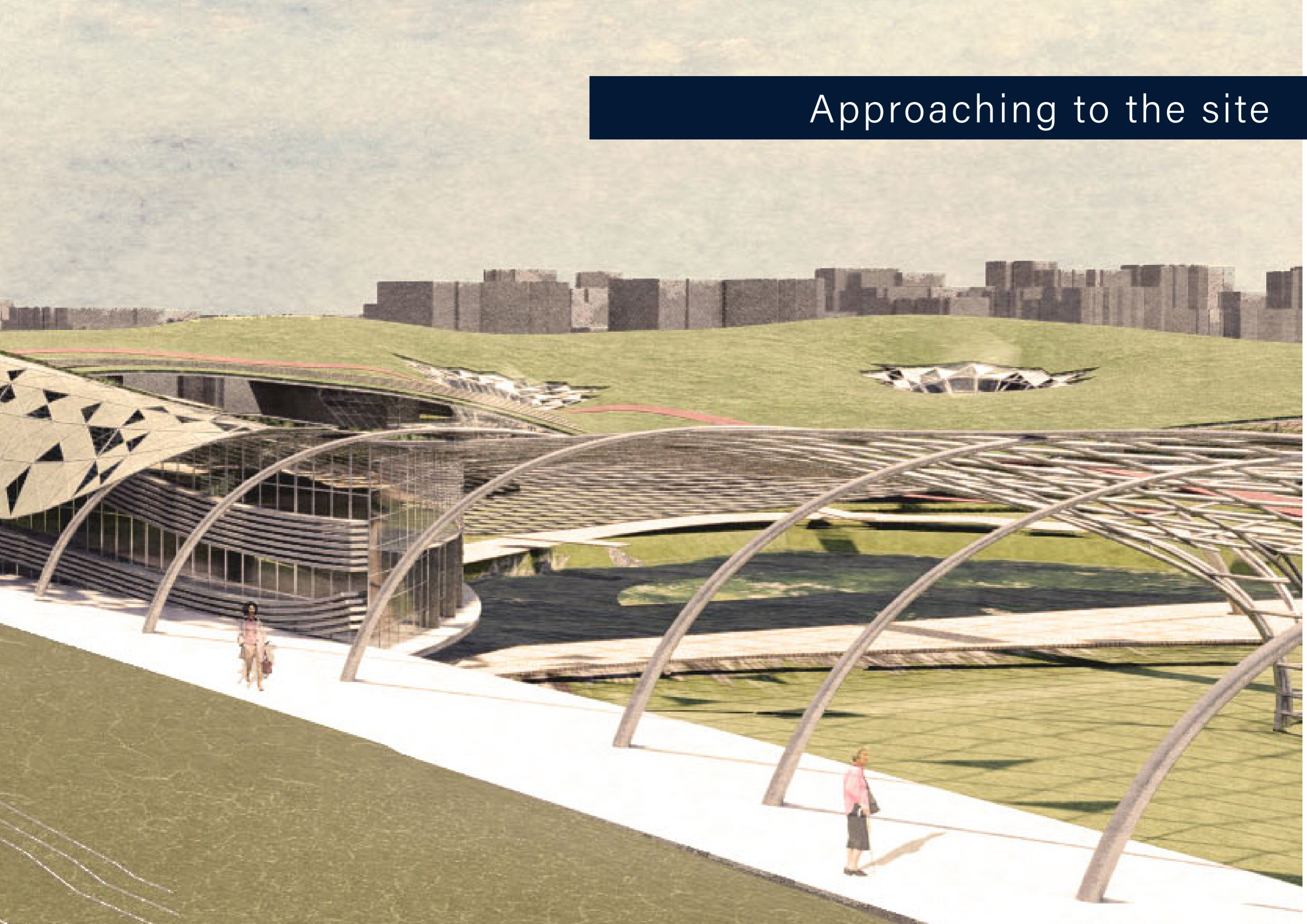




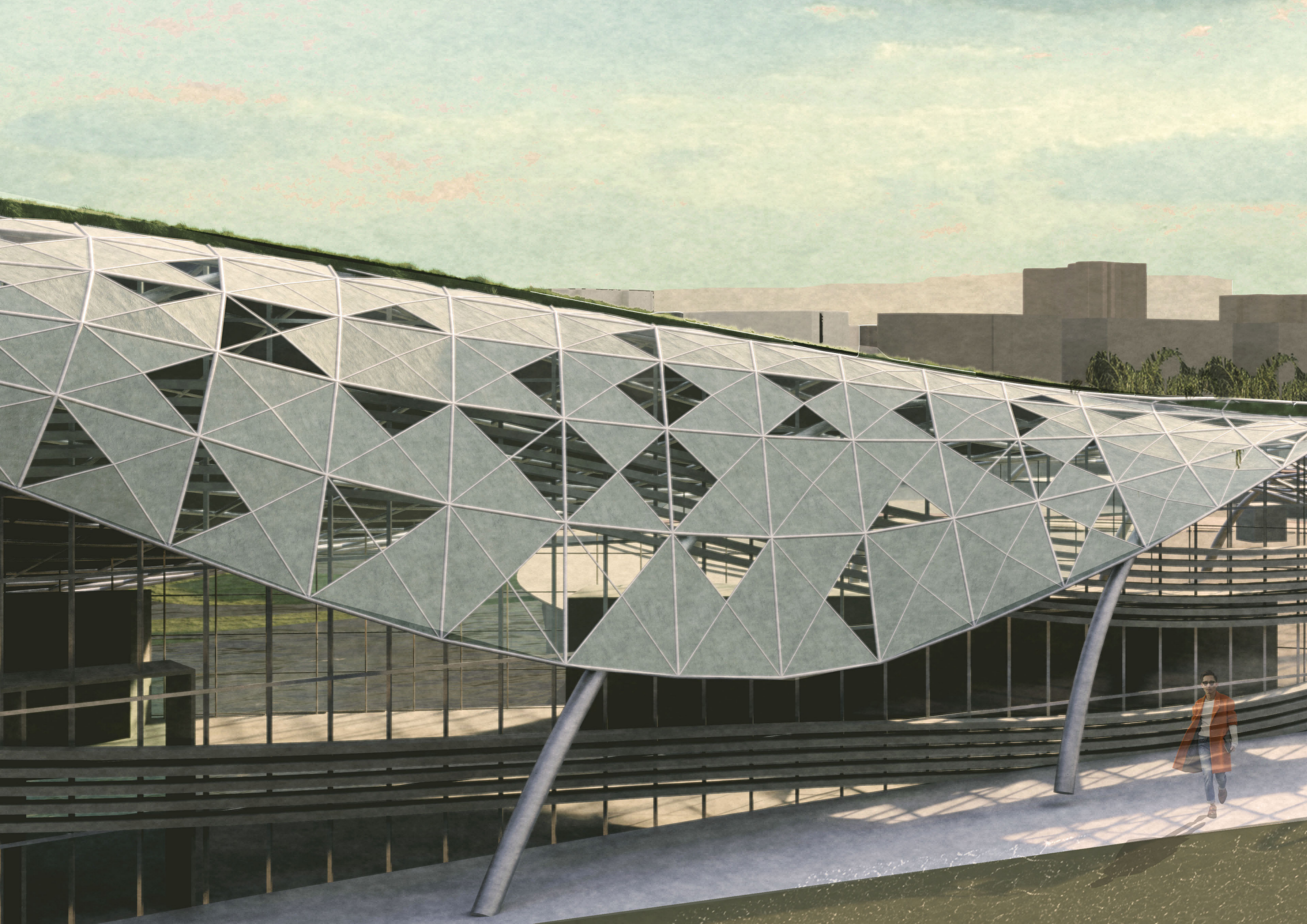




# Approaching to the site

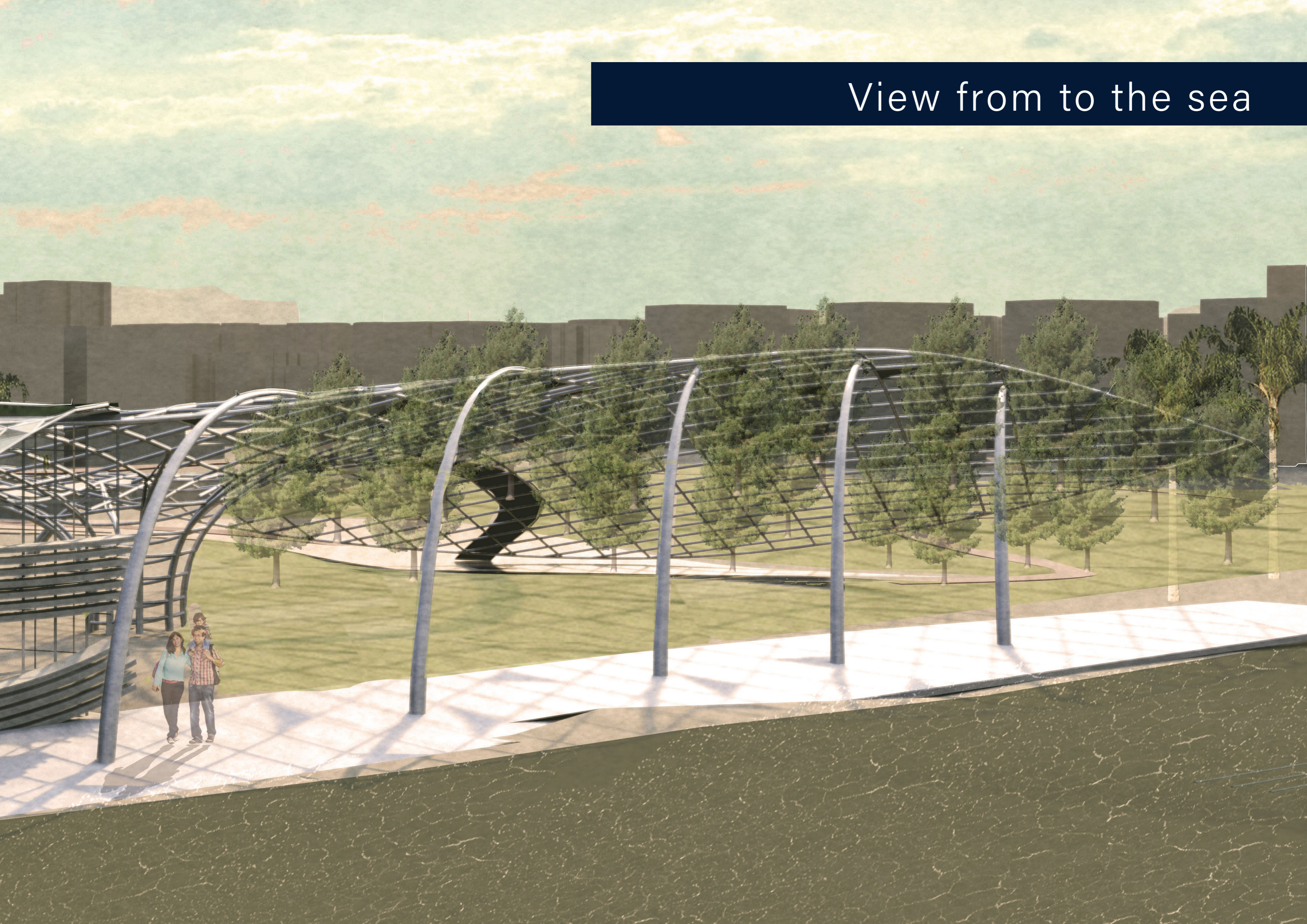




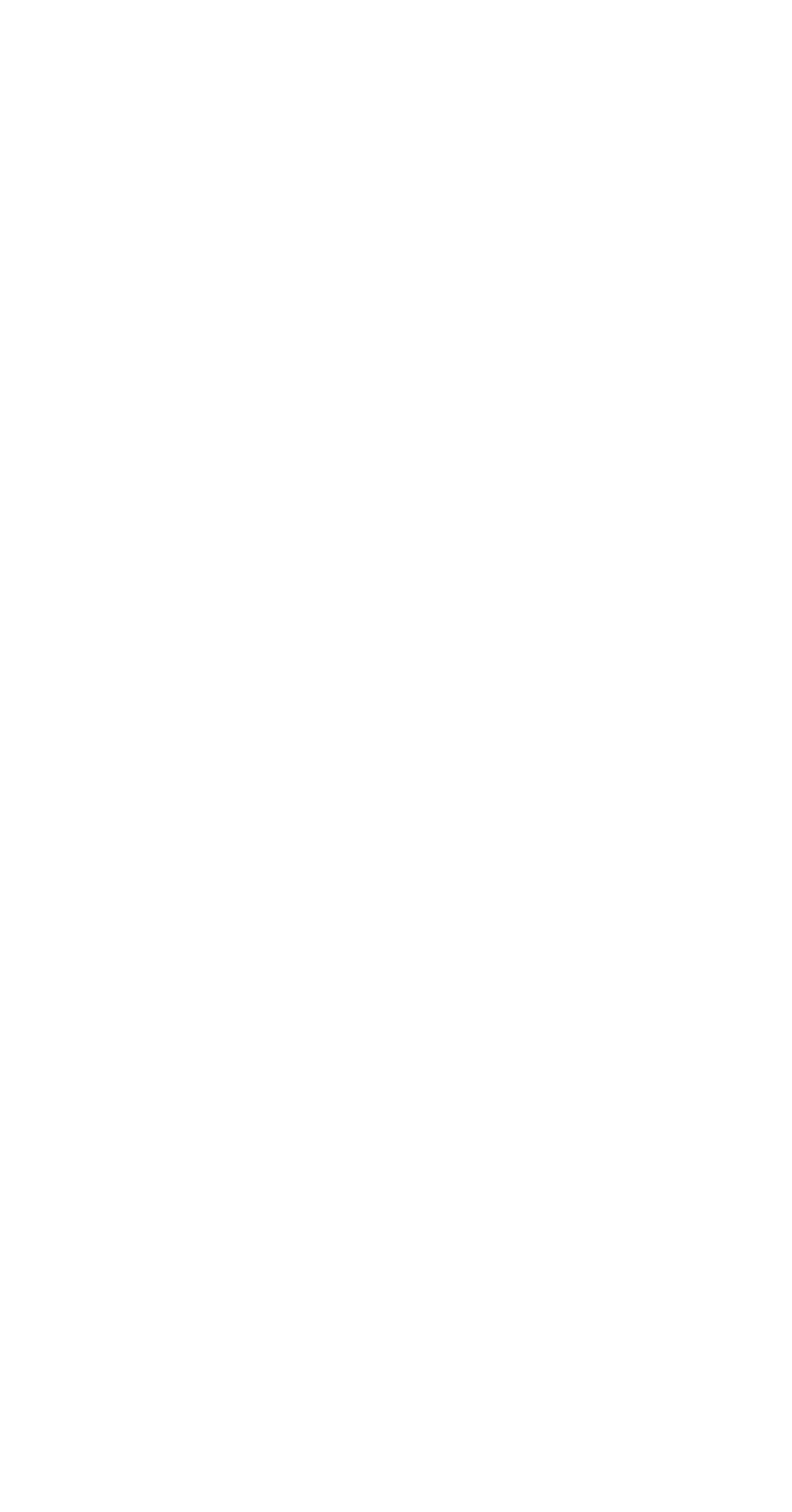




View from to the sea







Inner court view



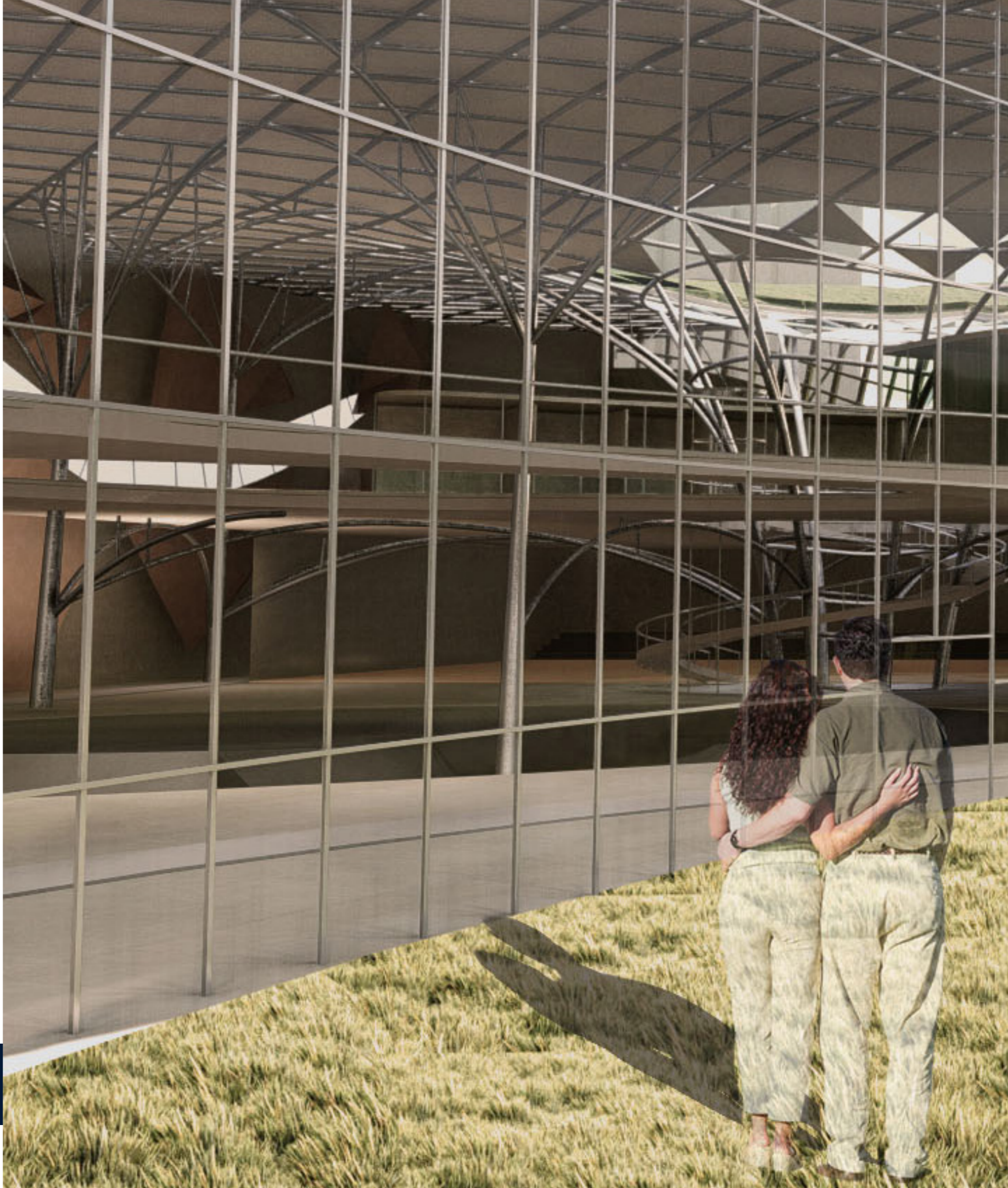




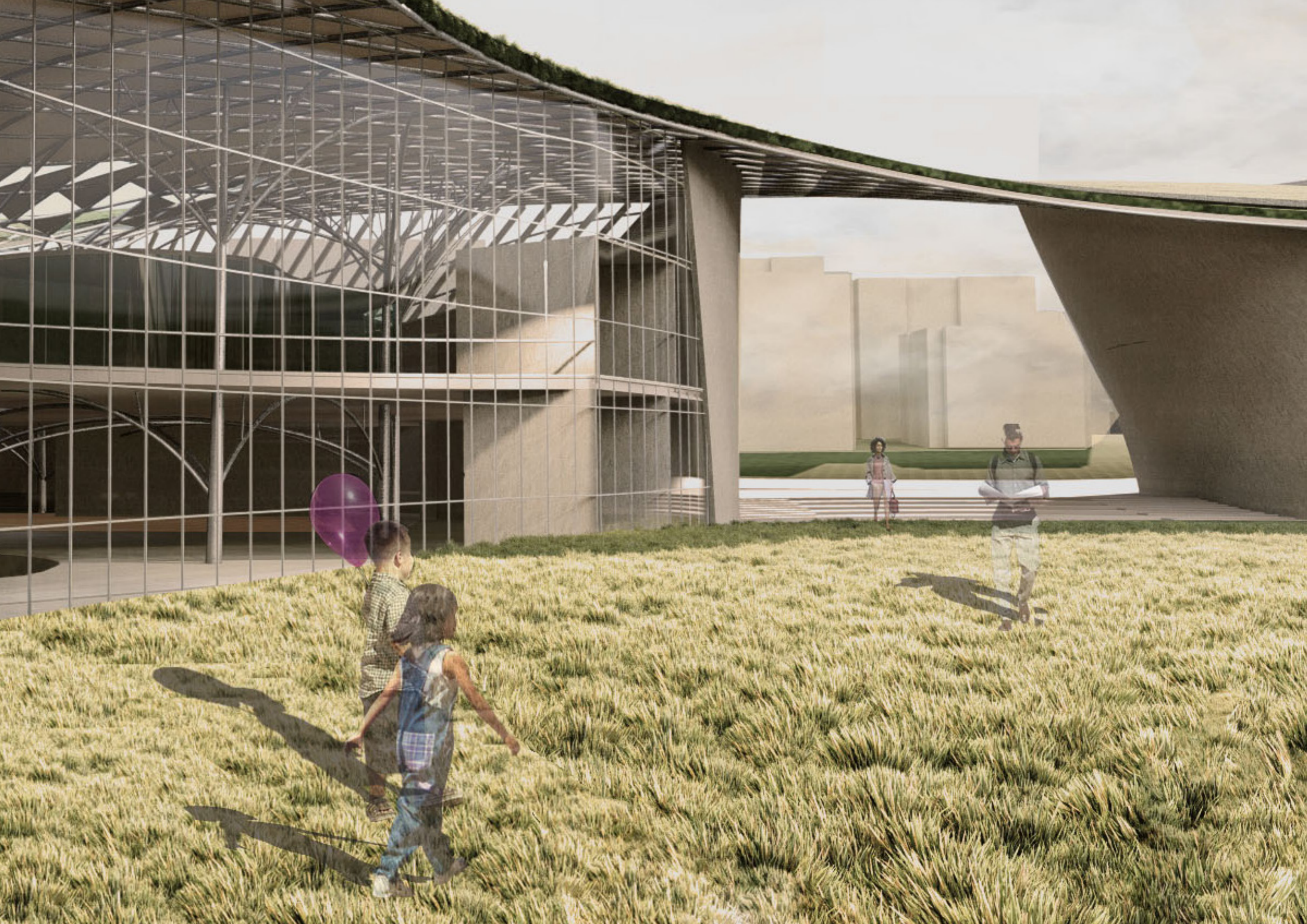




Inner court view and





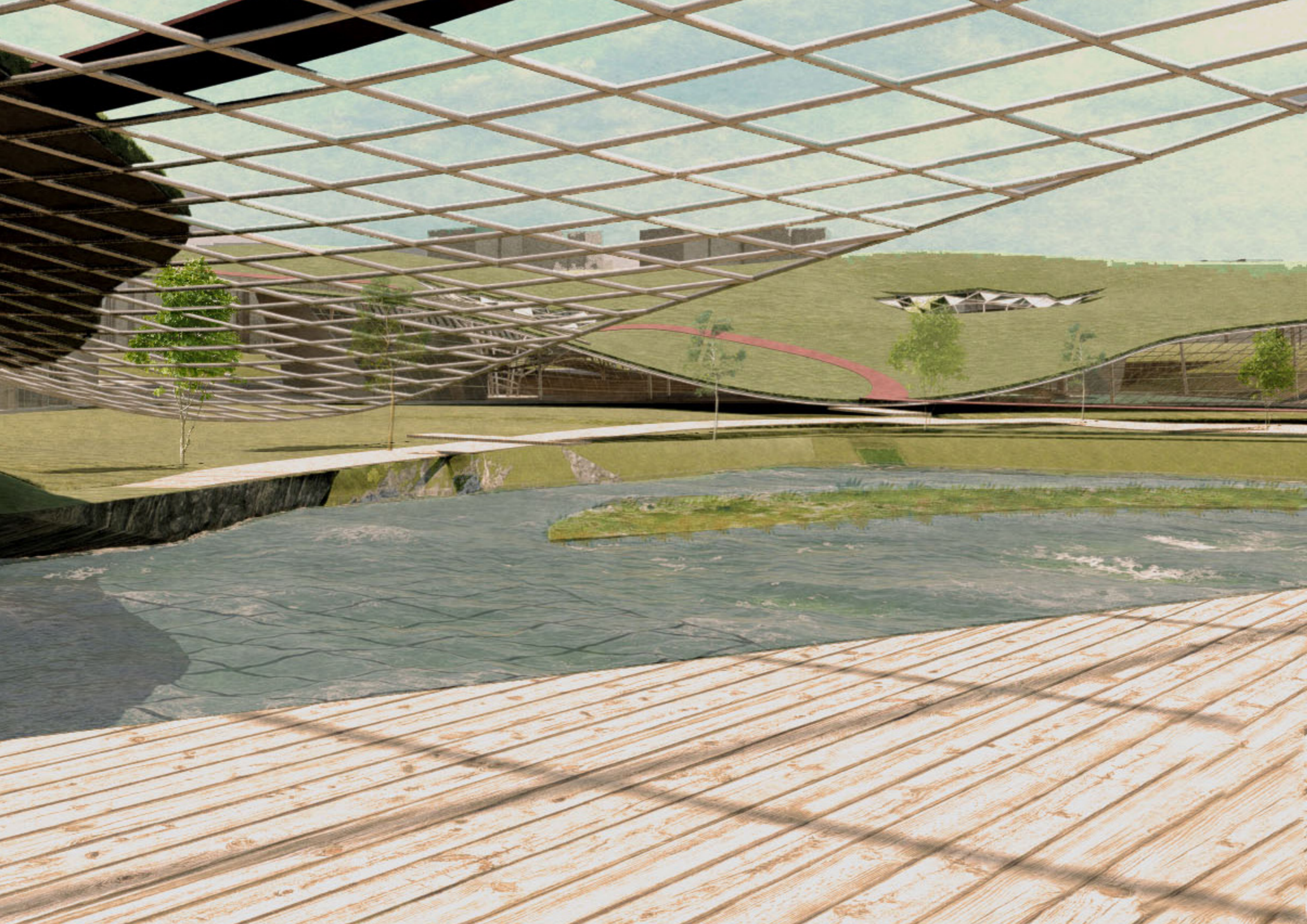






View from accross th



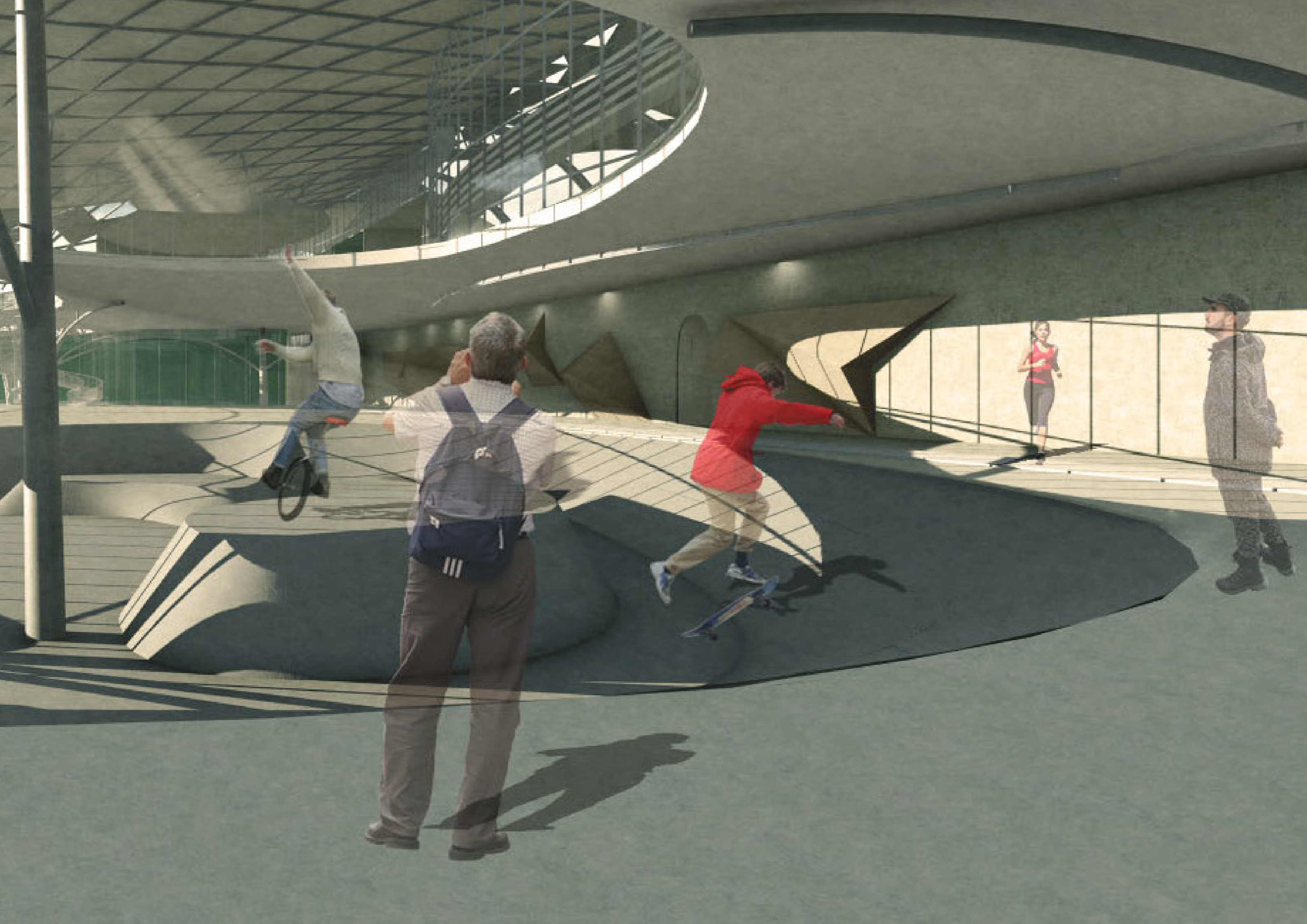






Inner skatepark



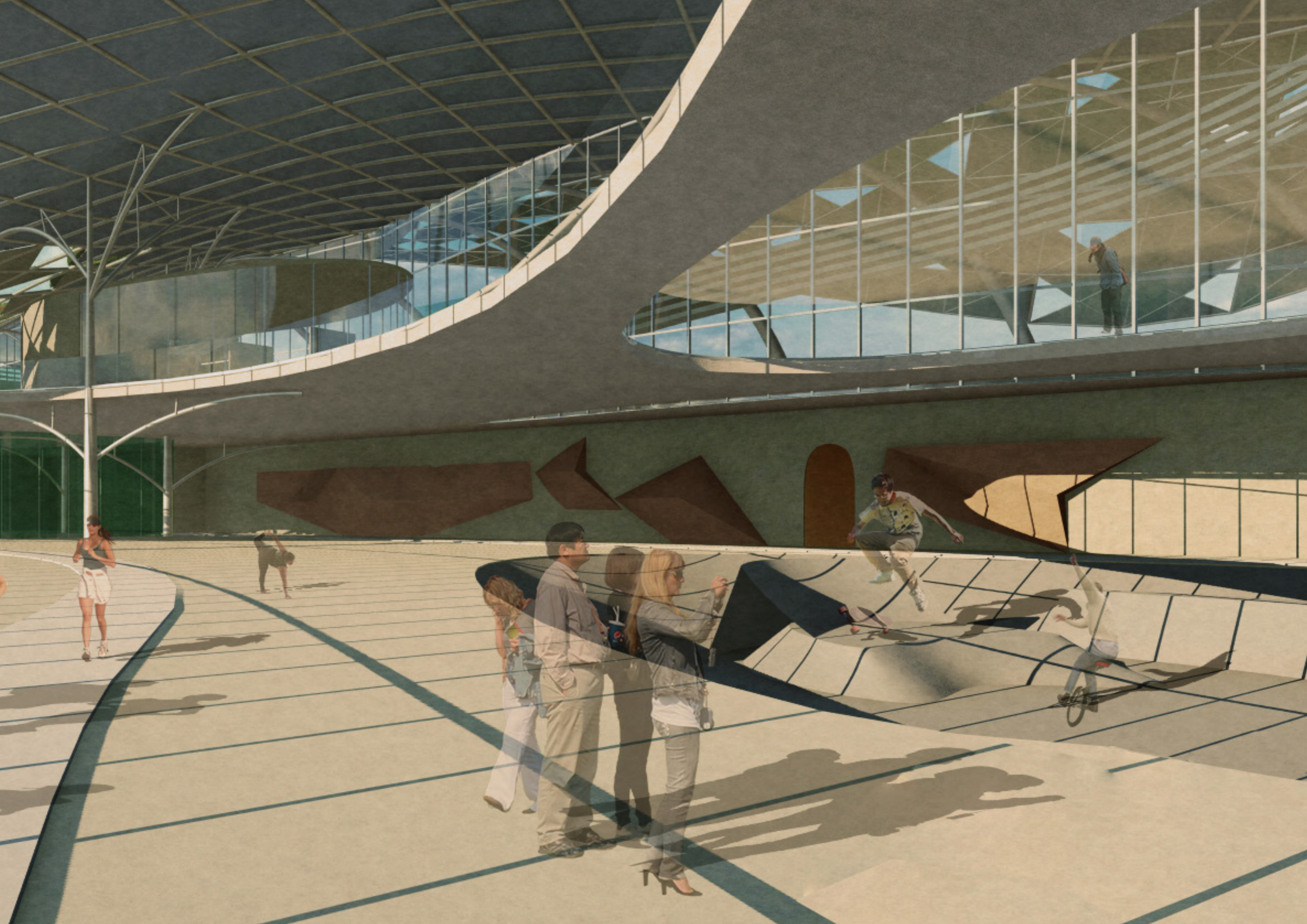






Running track and skate



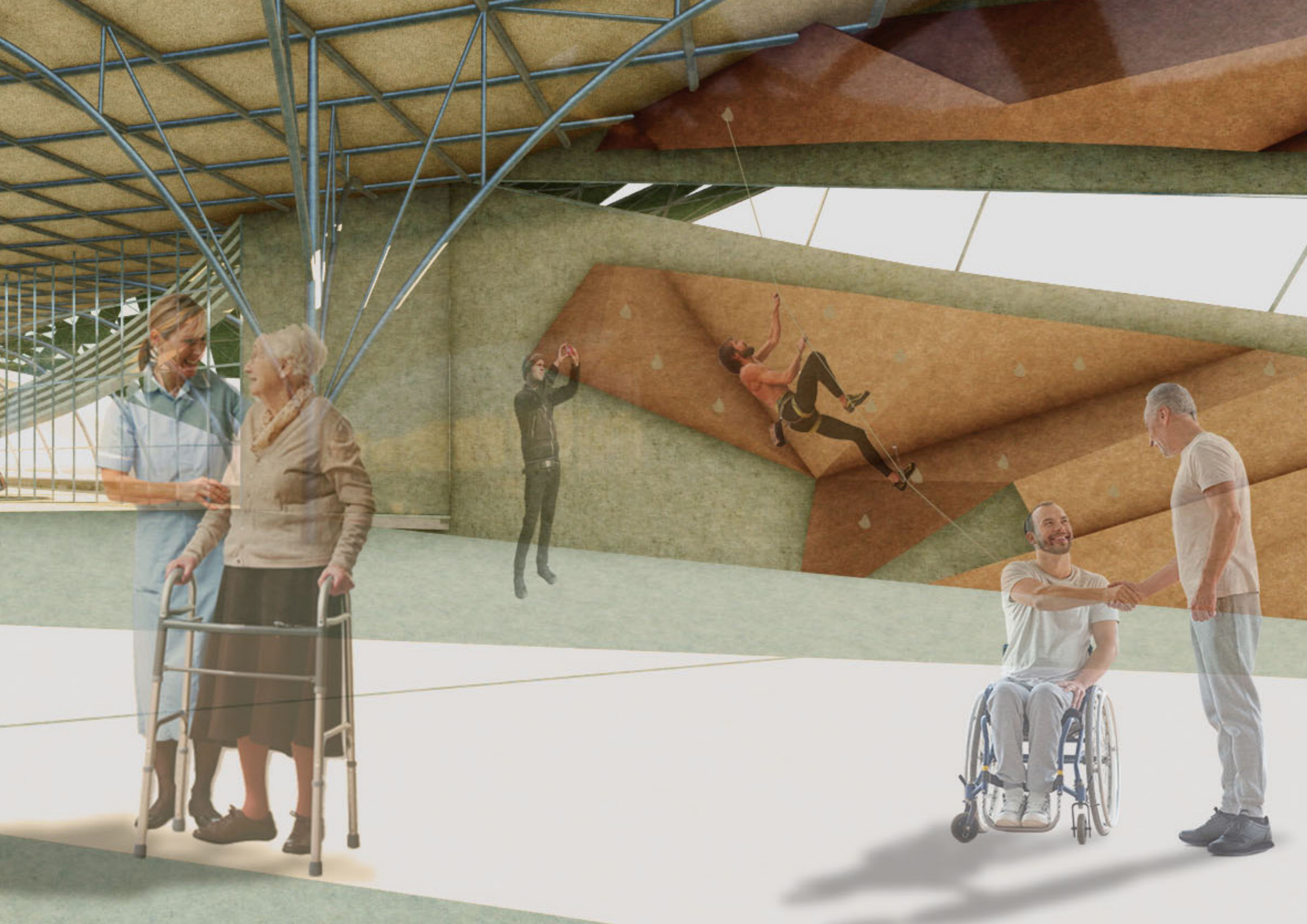




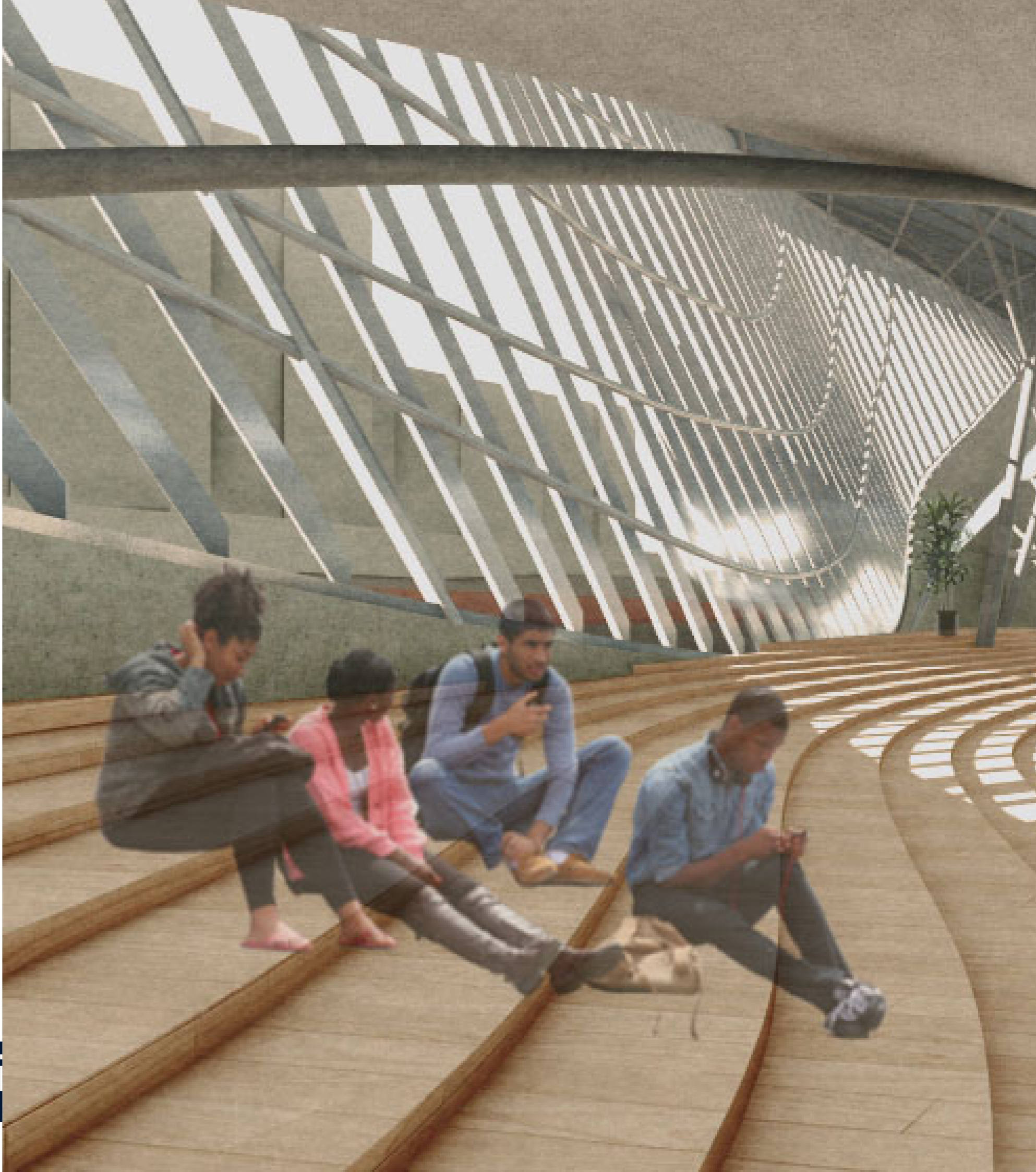


Physical rehabilitation







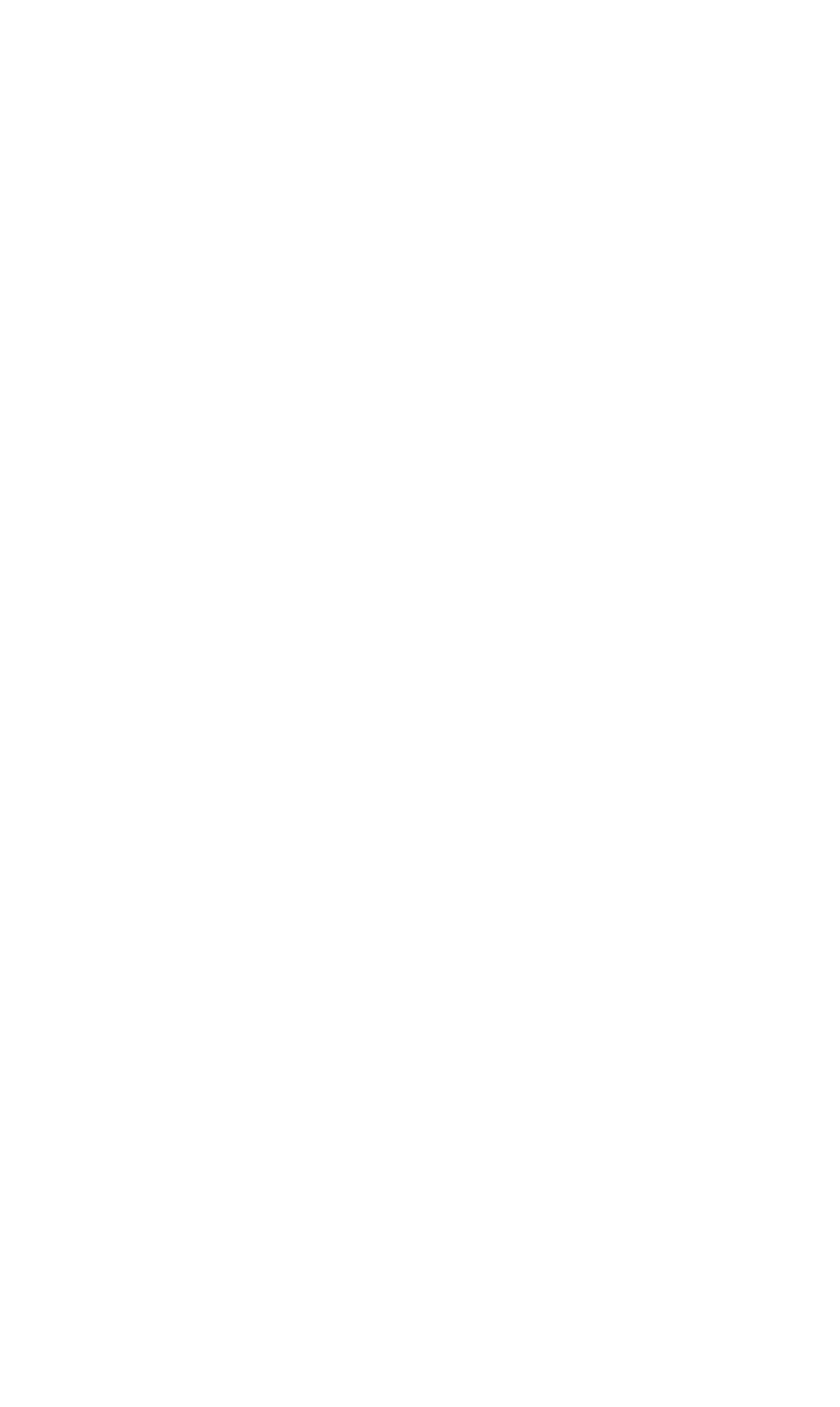


Entrance stairs and



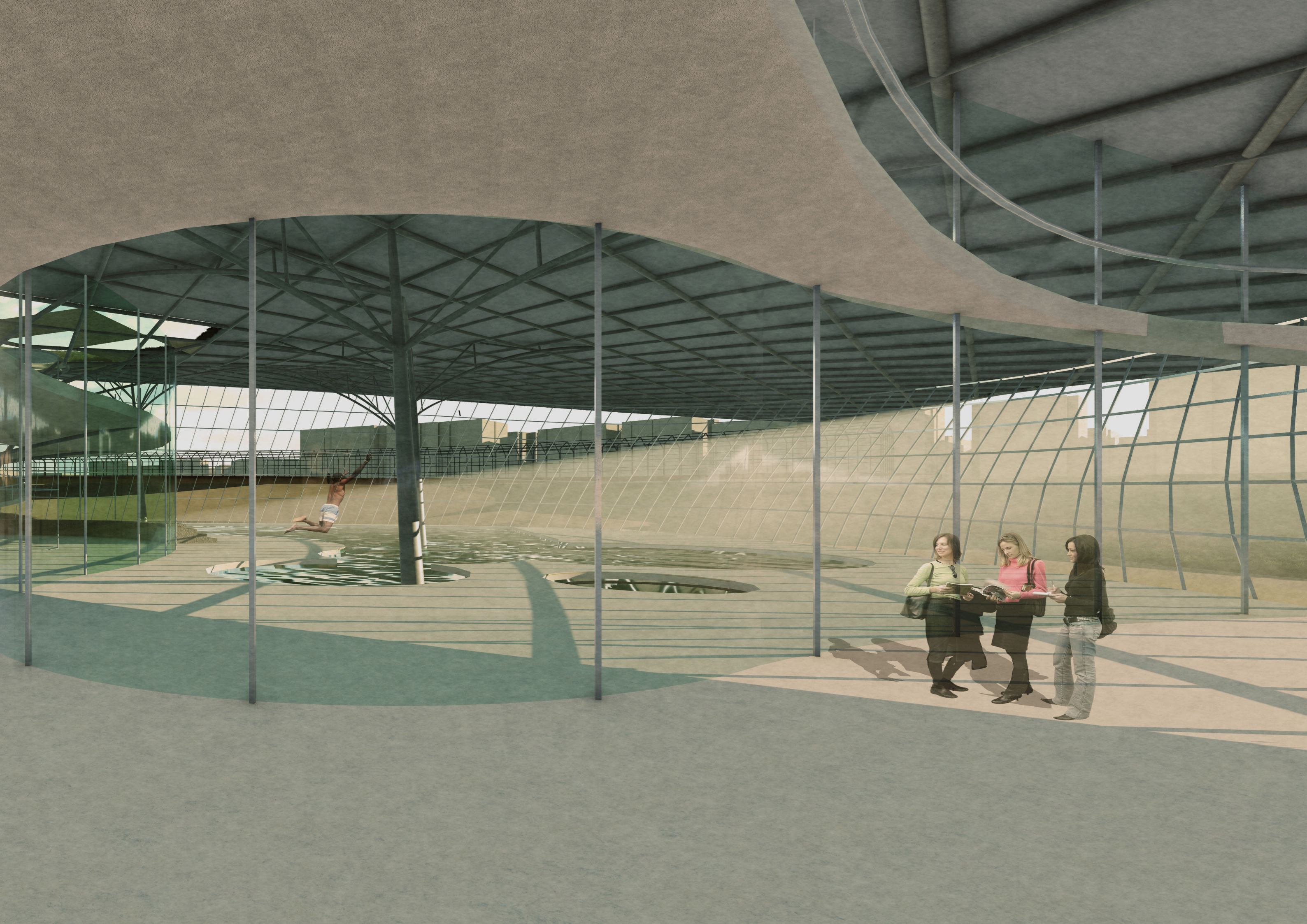






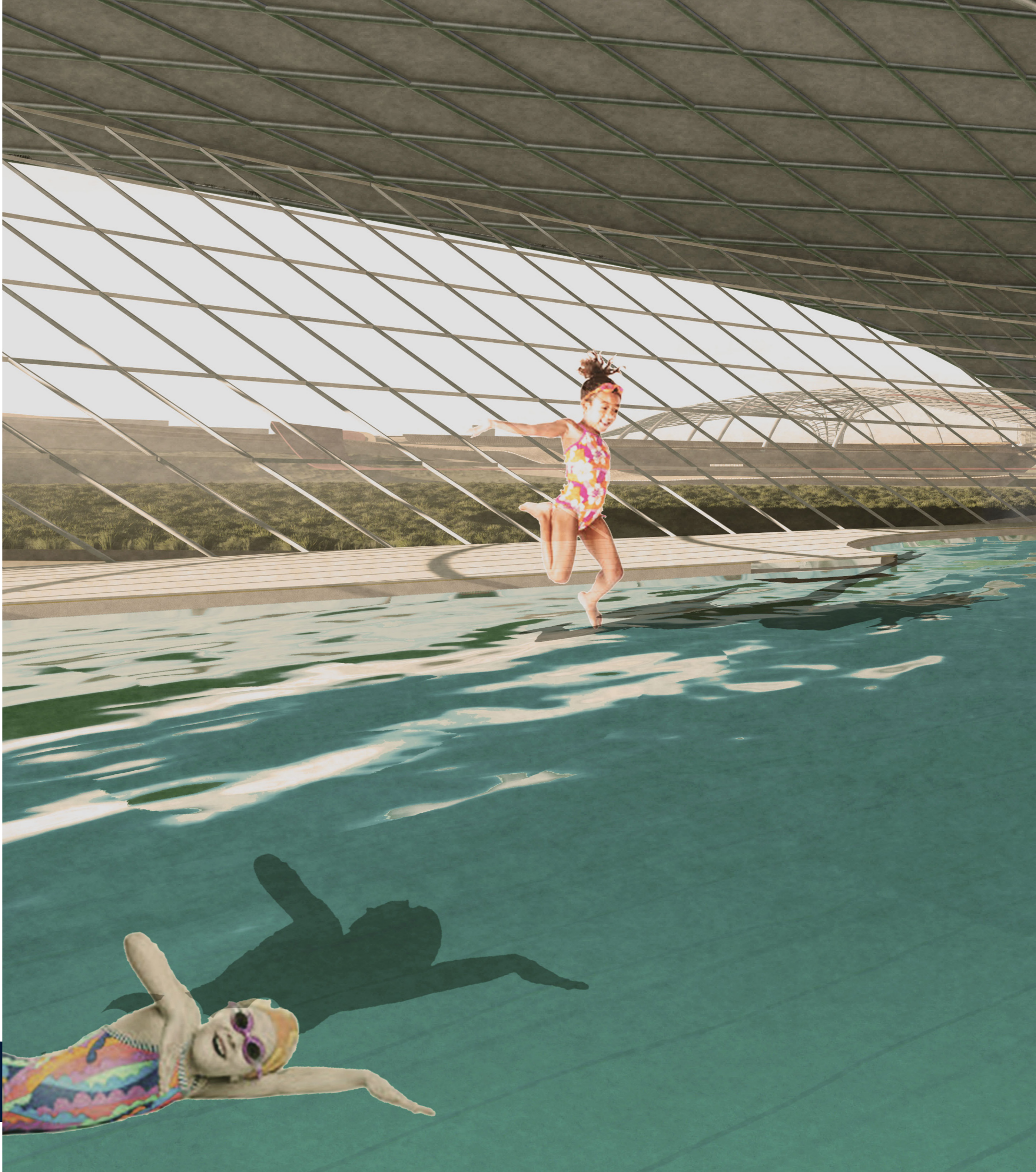
Ice ring and pool rela



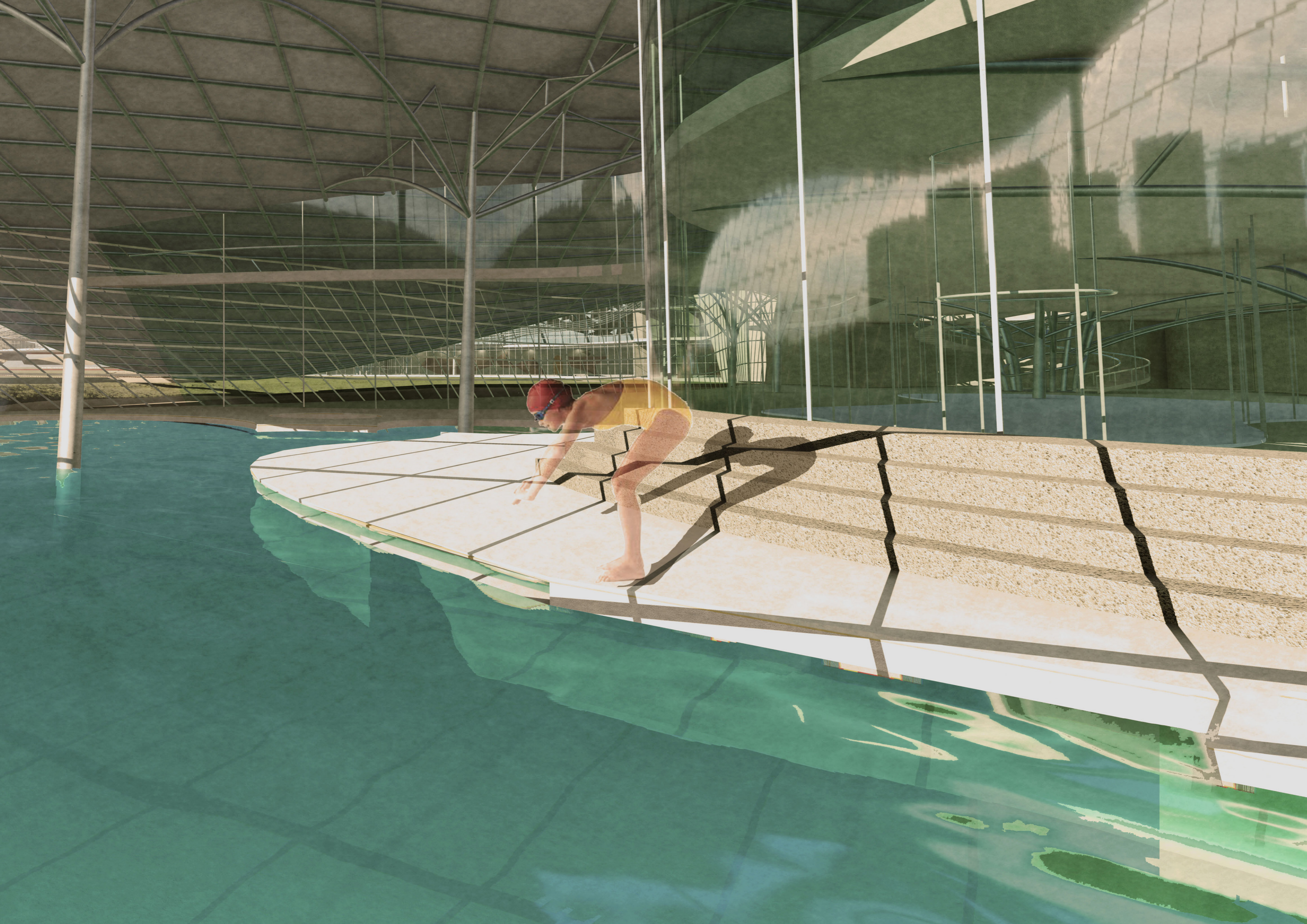




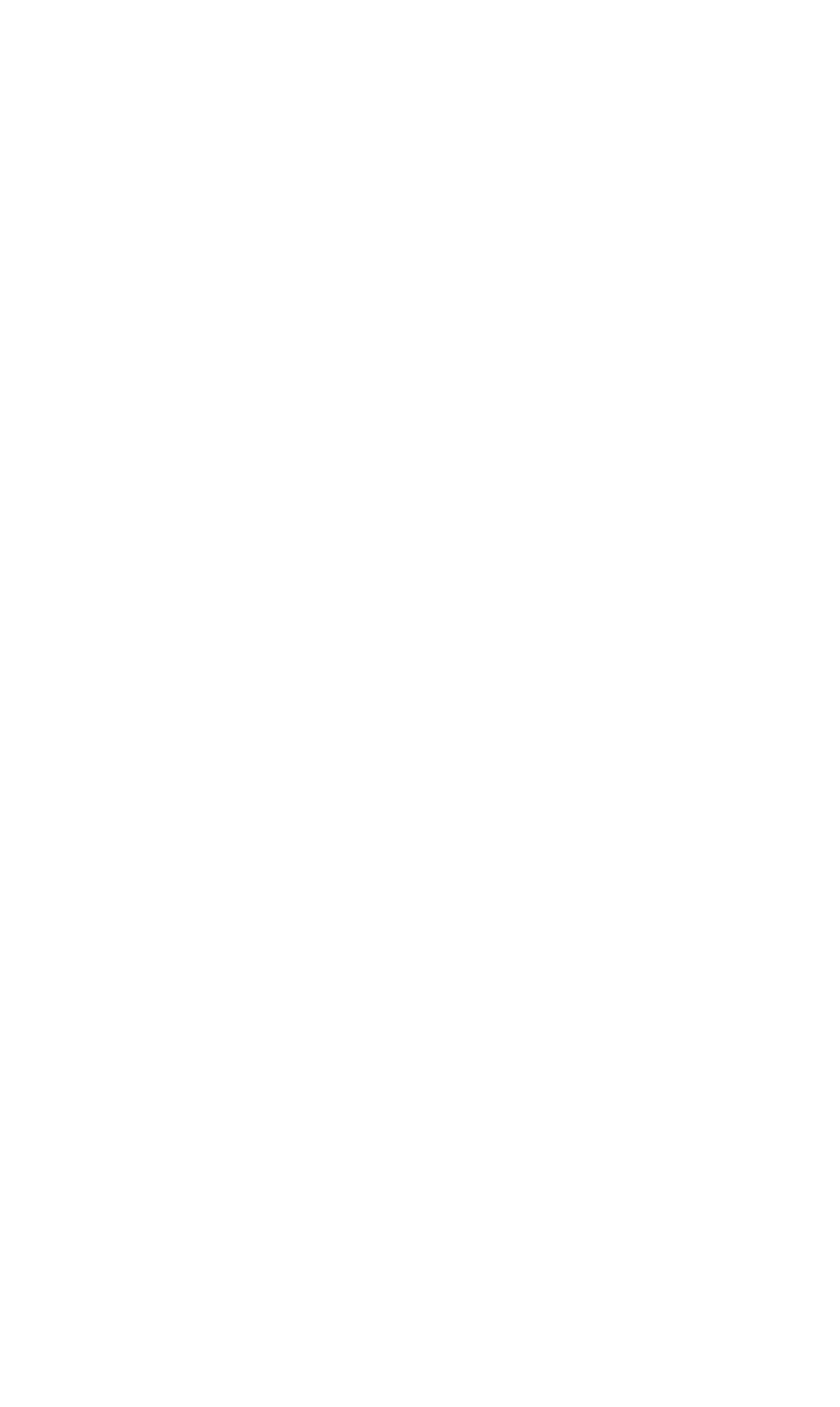
Pool view











Circulation in education



