

CONCEPT DESIGN

We envision this new center as a place of great importance for the city, recognizing its position as a landmark building and as a dramatic public area that incorporates an integration of human, technology, art and the city's identity synergistically blending with the surrounding nature, pushing Kaunas in the desired direction, growing rapidly as a center of innovation and new thinking.

Located on Nemuno Island, the National Science and Innovation Centre of Lithuania - Science Island appears as an element carved and twisted by the wind and spring water, like a twisted root, putting together nature and technology with the local identity, art and culture. The building acts as a natural energy source, which rises from the earth and mixes in a magical swirl the island, its roots and the desired progress and innovation.

The choice of location is the result of the island's confluences in which we think it is necessary to create a new pole of attraction on the opposite side of the existing Žalgiris Arena. The central link between the two sides takes into account the future pedestrian bridge coming from the congress center and the north existing footbridge.

WEST ELEVATION
1:300

NORTH ELEVATION
1:300

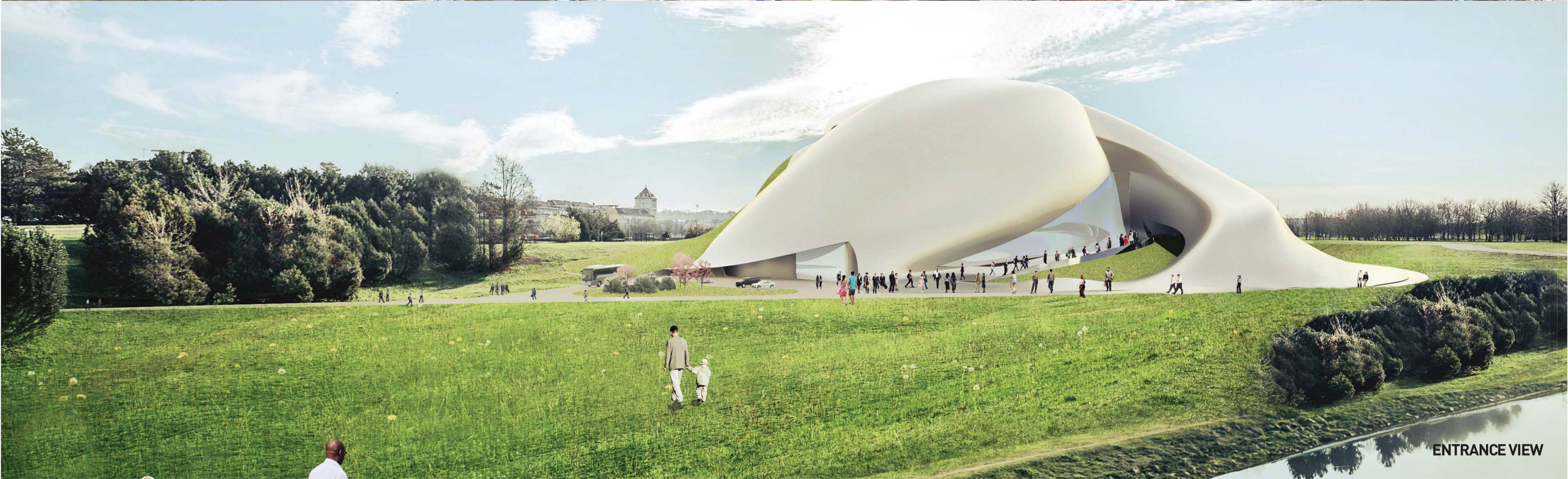
Skin - Perforated Aluminium composite panel

Skin - Aluminium composite panel

Glazing



MASTERPLAN - BIRDEYE VIEW

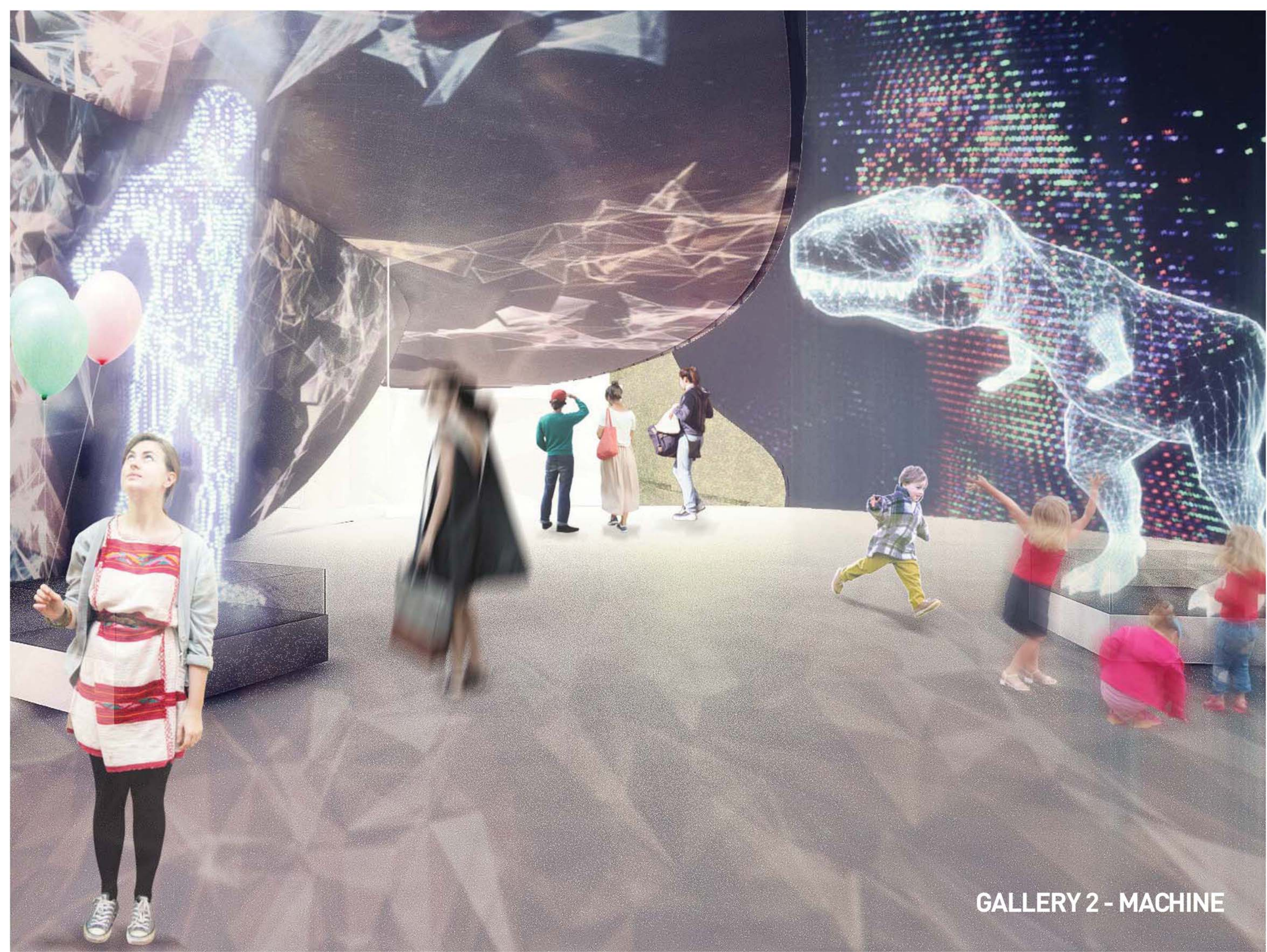
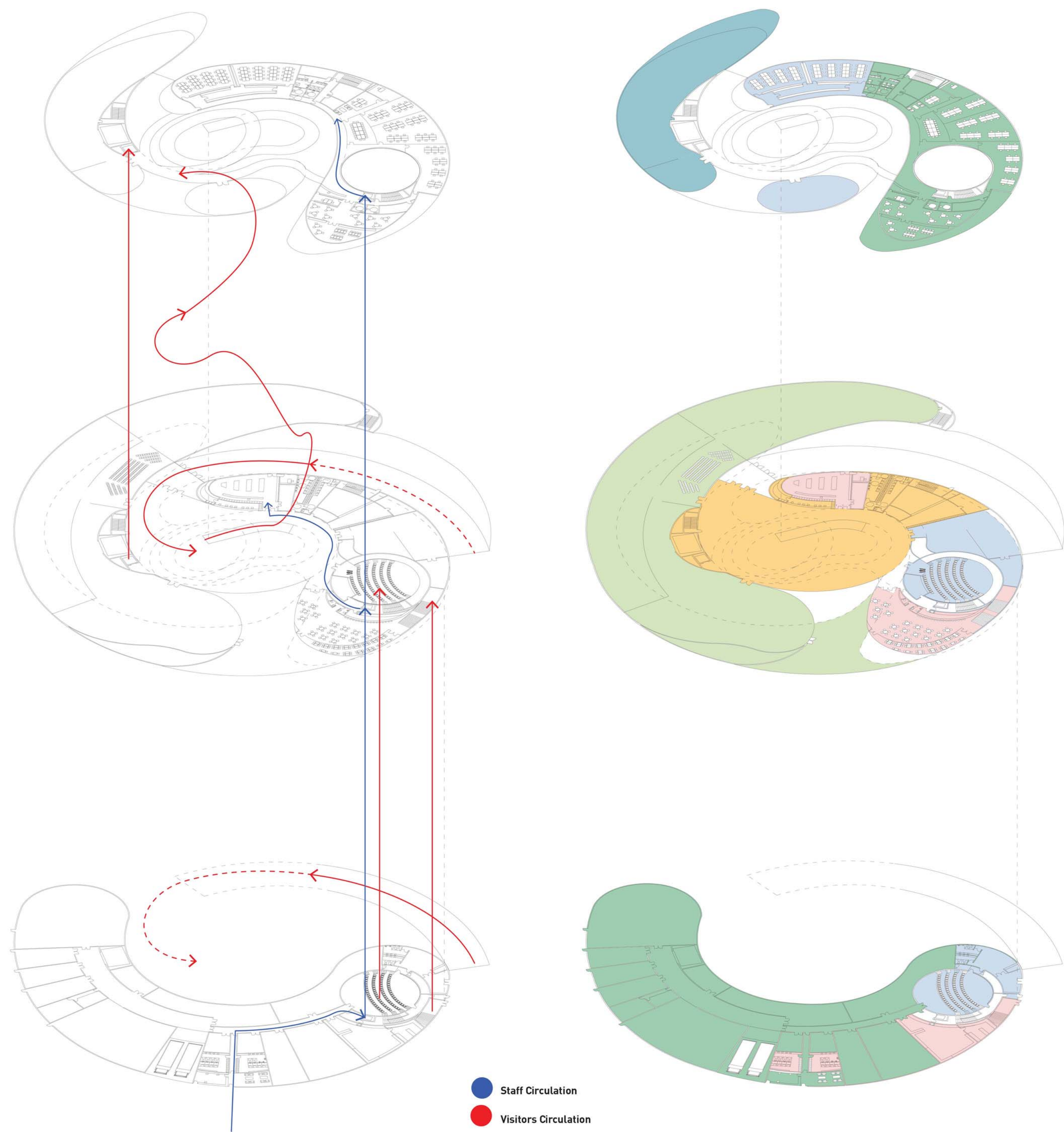


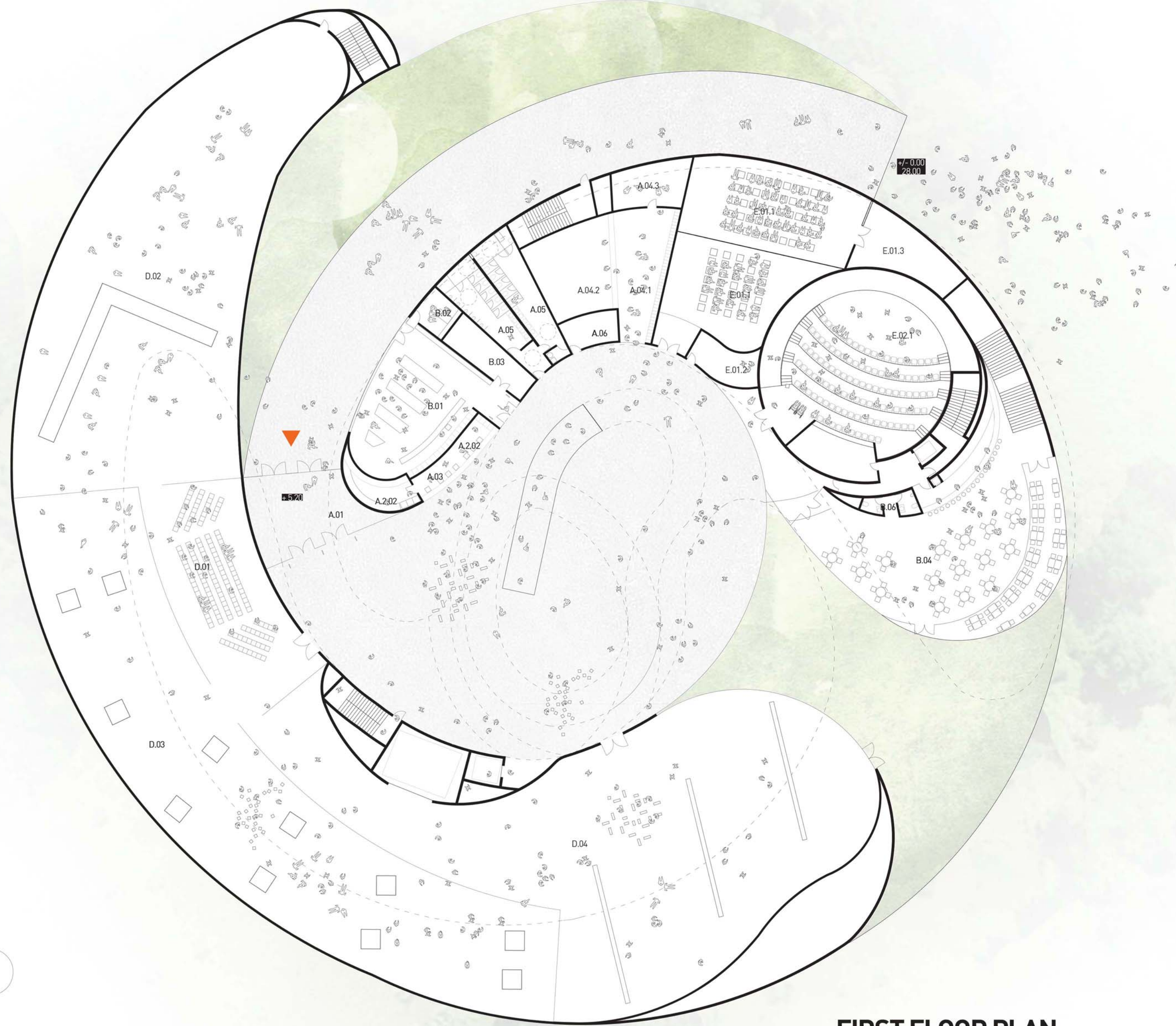
ENTRANCE VIEW



LOGIC WILL GET YOU FROM ONE PLACE TO ANOTHER. IMAGINATION WILL TAKE YOU EVERYWHERE.

ENTRANCE HALL VIEW





FIRST FLOOR PLAN
0 1 5 1:300

A - Front of House

- A.01 - Entrance Hall (including orientation space)
- A.02 - Information Centre/Reception/Ticketing
- A.03 - Security
- A.04 - Cloakrooms
- A.04.1 - Lockers space
- A.04.2 - Cloakroom
- A.04.3 - Group cloakroom
- A.05 - Sanitations Facilities
- A.06 - First Aid Room

B - Visitor Amenities

- Retail Space**
- B.01 - Science Centre Souvenir Shop
- B.02 - Shop Office
- B.03 - Shop Storage
- Food & Beverage**
- B.04 - Cafeteria
- B.05 - Refreshment stations
- B.06 - Sanitation facilities
- B.07 - Main Kitchen
- B.08 - Kitchen Storage

C - Temporary Galleries

- C.01 - Introductory Space
- C.02 - Main Space

D - Permanent Galleries

- D.01 - Introductory/Show Space
- D.02 - Gallery 1 - 'Human'
- D.03 - Gallery 2 - 'Machine'
- D.04 - Gallery 3 - 'Nature/Ecology'

E - Events Spaces

- E.01 - 'Black Box' flexible space
- E.01.1 - Multipurpose space
- E.01.2 - Technical room
- E.01.3 - Storage room
- E.02 - 'Virtual' Planetarium
- E.02.1 - Planetarium
- E.02.2 - Entrance hall
- E.02.3 - Foyer
- E.02.4 - Sanitation facilities
- E.03 - Research Laboratories
- E.03.1 - Laboratories
- E.03.2 - 'Wet' and 'dry' preparation and storage room
- E.04 - Experimentorium

F - Back of House

Staff Spaces

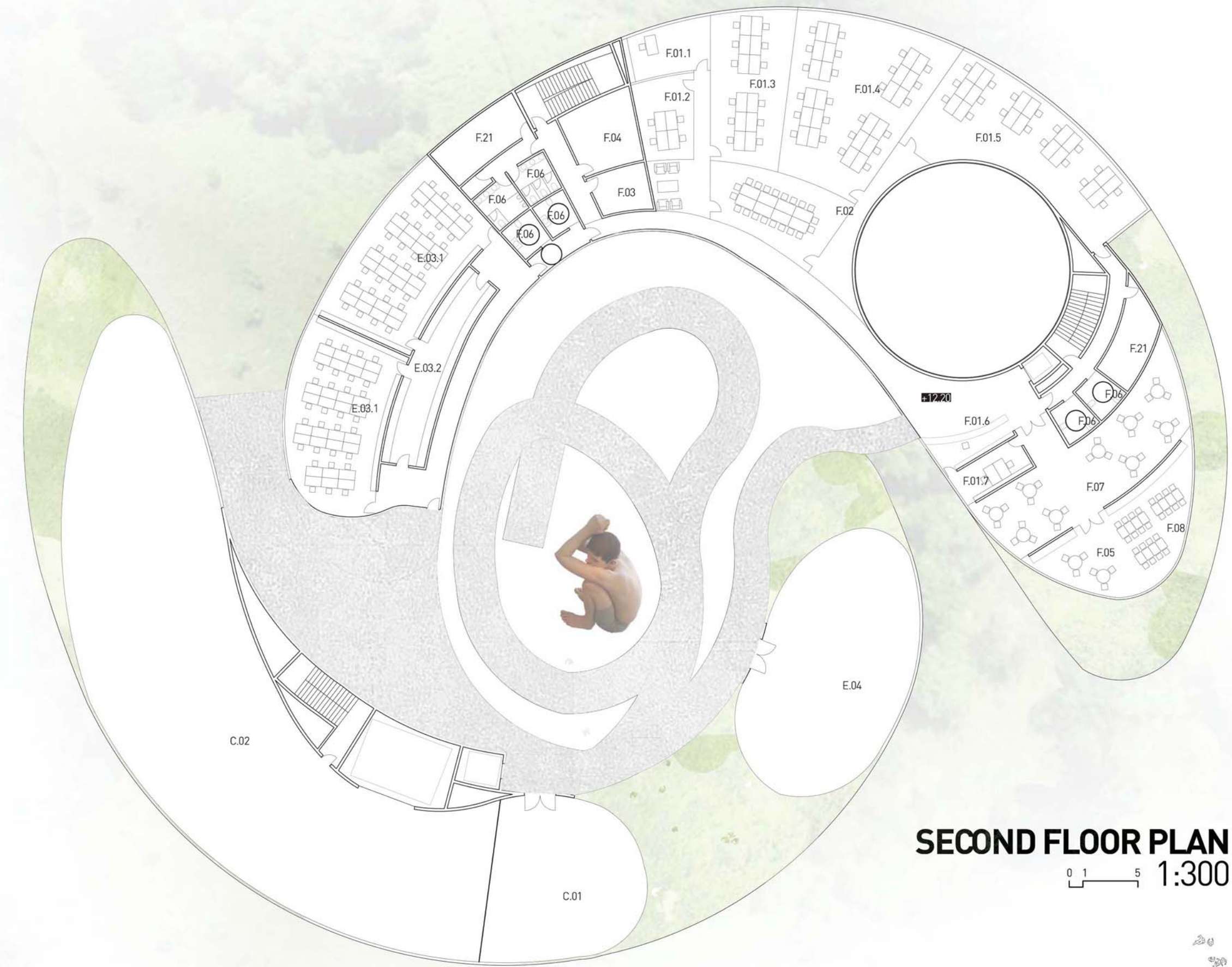
- F.01 - Office Space
- F.01.1 - Director's office
- F.01.2 - Director's management team
- F.01.3 - Administrative staff for HR and facilities management

Back of House

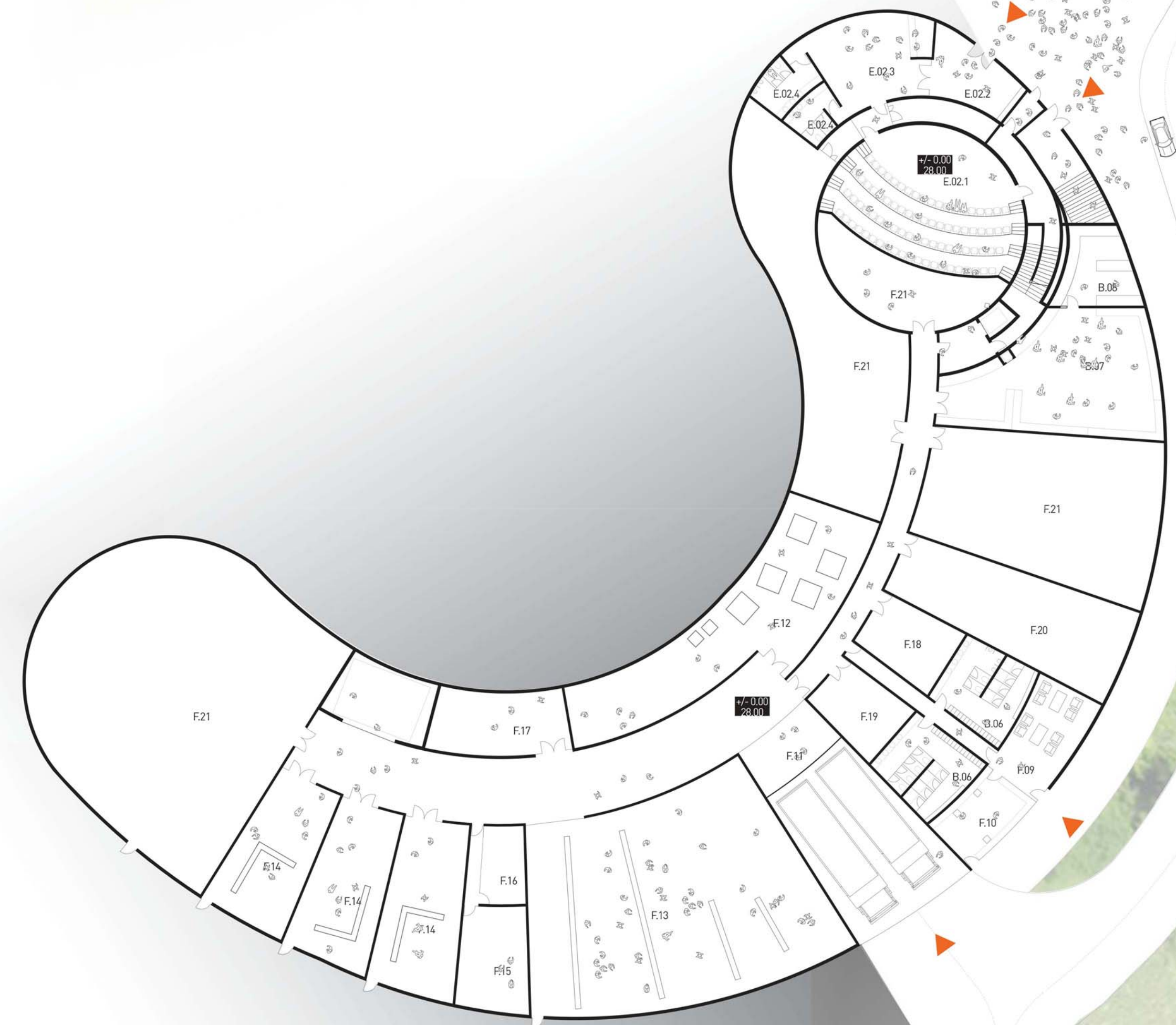
- F.09 - Staff and service entrance
- F.10 - Security
- F.11 - Loading Bay
- F.12 - Delivery, packing, crate storage
- F.13 - Exhibition, preparation space and storage
- F.14 - Workshops
- F.15 - Workshop storage
- F.16 - Workshop office
- F.17 - Furniture storage
- F.18 - Cleaner's room(s)
- F.19 - Refuse room and recycling room
- F.20 - IT room

Plant Spaces

- F.21 - Plant Rooms, Ducts, etc.



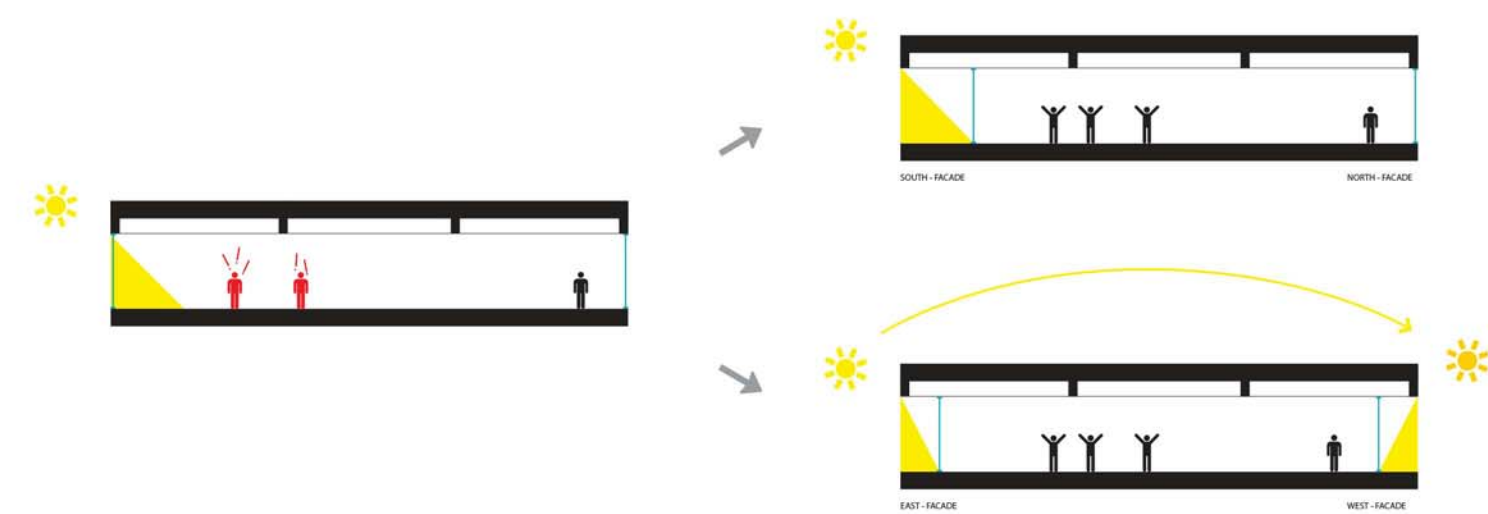
SECOND FLOOR PLAN
0 1 5 1:300



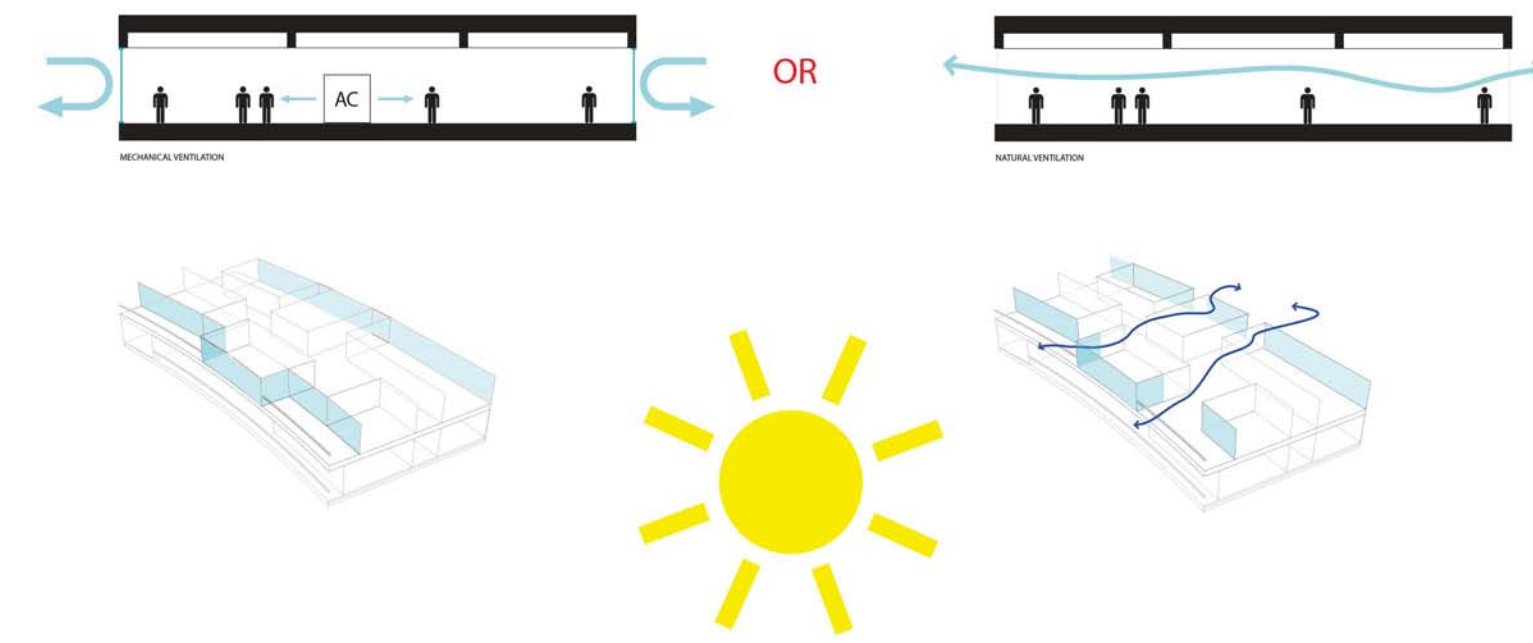
GROUND FLOOR
0 1 5 1:300

As architects and designers we believe that the best way to ensure sustainability relies in permanent attitude of drawing and research with respect for nature and its values and Human Life. Also, the resources that the environment features should be used in its most pure and natural origin - air, wind, sunlight and water - consuming only their artificial forms, where it is justified. Sustainability requires an understanding that local changes affect the global environment, the current context, and the construction impact on the environment. Sustainable decisions are incorporated at all stages of our work, from initial workshops, to the design of our models, material usage and advice on site. By implementing principles of sustainability at the design stage, optimizing the project risk assessment for the building results in minimal environmental consequences. The concept of this project is born precisely of this sense, sustainability requires an understanding of local changes affecting the global environment and the impact of construction on the site, in this context, our first sustainable decisions focused on respect for territory minimizing and moderating impacts. As previously mentioned the architectural form is a natural continuation of the environment, becoming gradually landscape. With this design we strive to find new architectural expressions for effective sustainable solutions by intelligently and creatively incorporating the latest technologies from around the world.

STRATEGIE 04
Passive cooling:sunshading



STRATEGIE 05
Passive cooling:natural ventilation



SUSTAINABLE STRATEGIE

01_WATER COLLECTION
We propose collecting the rainwater that falls on the roof and funneling it into small roof canals that then distribute the water into storage cisterns located throughout the facility. This grey water can then be used to help supplement the water needs of the building.

02_ACTIVE COOLING: RIVER WATER
We propose passing cold riverwater through a heat exchanger where it cools freshwater in a closed loop system. This cool freshwater is then pumped throughout the buildings and is used for cooling directly (no conversion to electricity takes place).

03_GREEN COOLING
Utilizing the basic cooling capacity of plants, we propose integrating our building in the landscape as a passive cooling strategy. Seaside landscaping, courtyard gardens, and a variety of rooftop vegetation - meadows, palm oases, and wild flower patches - surround the building, helping to both reduce heat gain and cool the buildings.

04_PASSIVE COOLING: SUNSHADING
In order to minimize solar heat gain, we propose a glass facade that moves in and out across the facade relative to the orientation and angle of the sun.

05_PASSIVE COOLING: NATURAL VENTILATION
While many of the interior programs require mechanical cooling, we propose a perforated interior and operable exterior facades that provide the option for natural ventilation during temperate seasons.

06_NATURAL WASTEWATER TREATMENT
We propose treating some wastewater directly on site in order to return irrigation water and fertile nutrients to the local soil.

