New National Gallery and Ludwig Museum

Our proposal for the New National Gallery and Ludwig Museum is an open extension of the City Park. The relationship between building, park and urban environment is constantly shifting as people move through a network of galleries, terraces and activity spaces.

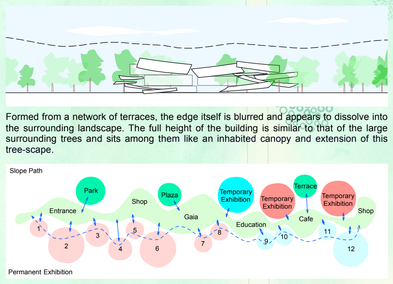
City Park itself changes dramatically from one season to another, with its ice rinks transforming into boat lakes. Our design looks to accentuate this effect: it is not a building within a park but a place where they are one and the same. It is a museum that fluctuates with seasonal shifts. The open ground floor and sloped terraces that characterize the building allow the museums to be accessible from all sides. Ours is a contemporary form of public space – one where city, gardens and exhibition rooms become part of an experiential whole. The building extends horizontally, floating low above the ground, while overhanging roofs provide shade, protection from rain and framed views of the trees.

Formed from a network of terraces, the edge itself is blurred and appears to dissolve into the landscape. The full height of the building is similar to that of the large surrounding trees and the museum sits among them like an inhabited canopy and extension of this tree-scape. While the exhibition volumes are distributed in a grid, the slopes and roofs are distributed playfully, creating spaces between slabs and volumes that let natural light penetrate the center of the building. Here there is an airy atrium space wrapped with terraces, ramps and walkways that provide visual connection between the galleries and social spaces. This atrium also serves as a large venue for events during the winter months when it is very cold outside. It is animated by unconventional spaces between the principal gallery boxes where we hope artists will be inspired to create site specific art pieces that dissolve the line between gallery, circulation space and exterior terraces.

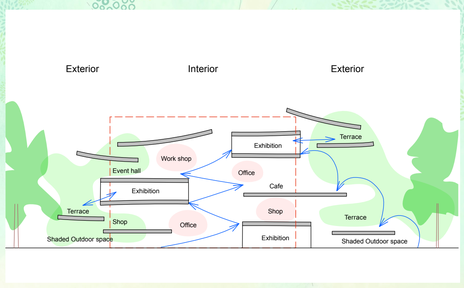
Sited along the principal axis that stretches from the Square of '56, we feel it is important that the new building has a single identity and architectural clarity as a visitor attraction. We have therefore chosen to draw both museums into one design strategy, drawing the line between the two museums softly. The chronological sequence of the Permanent Time Gallery connects the two collections and extends through the height of the building. There are two main circulation routes across these exhibition spaces: the first is through the galleries themselves providing temporal continuity across the centuries; the second is composed of a sequence of activity spaces and external terraces. This latter path allows visitors to rest, enjoy social or educational programs and views of the neighborhood. As though in a park, people are invited to determine their own routes and experiences, each with its own relationship to the trees, city and sky.

SITE PLAN S=1/500

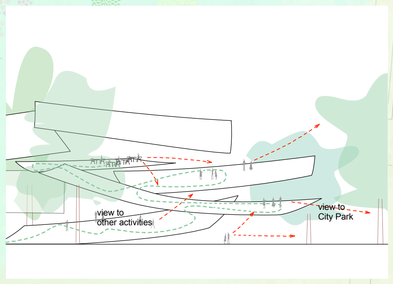
The building, together with Napozórét, connects the different parts of the park, opens horizontally to blend in with the park and provides visitors with a network of routes and terraces that change across the season.



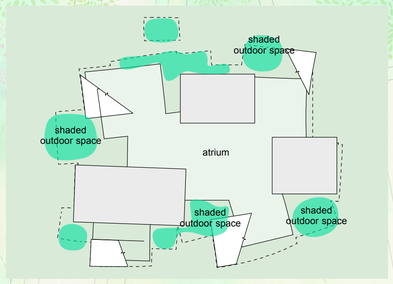
There are two circulation paths for the visitors - one that goes through the permanent exhibition spaces connecting the New National Gallery and the Ludwig Museum directly; the other, a network of slopes which hold other public programs of the museum. Visitors on one of the paths can cross over into the other at any time to rest from or return to the exhibition.



The circulation paths makes an ascending park. Visitors are able to access the upper levels through external paths while passing by public museum programs like the cafe or education. The park is brought closer to the spaces within the building through the terraces and the shaded outdoor spaces made by the slopes and could be enjoyed throughout all seasons.



The views to the City Park and the activities within the building shift constantly as the visitors walk up the slopes around the building.



The park is drawn into the building as the glass is recessed from the roof line. Many shaded outdoor spaces are created on the ground level providing gradual transition between outdoors and indoors and a place for park goers to rest on a sunny or rainy day.

Site Boundary

1.5.1.2
Bicycle Parking

Site Boundary

BX-1 BX-2 BX-3 BX-4 BX-5 BX-6
AX-1 AX-2 AX-3 AX-4 AX-5
16

BY-1 BY-2 BY-3 BY-4 BY-5 BY-6 BY-7
CY-1 CY-2 CY-3 CY-4
12

AY-1 AY-2 AY-3 AY-4 AY-5
DY-1 DY-2 DY-3 DY-4 DY-5
12

CX-1 CX-2 CX-3 CX-4 CX-5 CX-6
DX-1 DX-2 DX-3 DX-4
16

Brasserie / Lecture Hall Entrance

GL+1.0

2.1.3.1
Kitchen

1.4.2

1.4.1

1.4.4.3

2.1.2.2
Brasserie

3.2.4.2
Lecture Hall

GL+2.0

3.2.4.4
Lecture Room

3.2.4.3
Lecture Room

1.3.2.1
Toilet events

3.2.5.4
Lecture Hall Storage

GL+0.75

3.1.1.2
Press Room

1.1.2.1
Other Shops to let

1.1.1.2
Info, Ticketing

1.1.1.1
Entrance Hall

Main Entrance 2

GAIA Entrance

2.3.1.2
GAIA Hall

2.3.2.1
GAIA Storage

GL+2.0

GL+5.0

2.3.1.3
GAIA Offices

2.3.2.1
GAIA Storage

4.2

2.3.1.1
GAIA toilets

2.3.1.1
GAIA Lab

30
23
7
2.2.1.1
Permanent Exhibition

GL-2.5

1.4.3.2

1.4.3.3

Mian Entrance 3

GL-2.5

GL+1.1

1.1.1.1
Entrance Hall

GL+1.2

GL-1.5

1.4.1.2

31
23
8
2.2.1.1
Permanent Exhibition

3.1.3.2
Shop Storage

3.1.2.2
Museum Shop

3.1.1.3
V.I.P Lounge

1.1.1.3
Audio Guide

1.1.1.2
Info, Ticketing

1.1.1.1
Entrance Hall

GL+1.0

4.1.3

4.4.4

Security Office

51
27
3.2.1.2
Temporary Exhibition

1.3.1.1
Toilets

1.3.1.2
Baby care

1.3.1.1
Toilets

1.4.3.3

Main Entrance 1

GL+0.7

2.2.1.1
Exhibition of Statues

GL+4.0

1.3.2.1
Toilet events

Foyer

Cinemateque Entrance

3.2.2.2
Cinemateque

GL+/-0

GL+3.0

GL+/-0

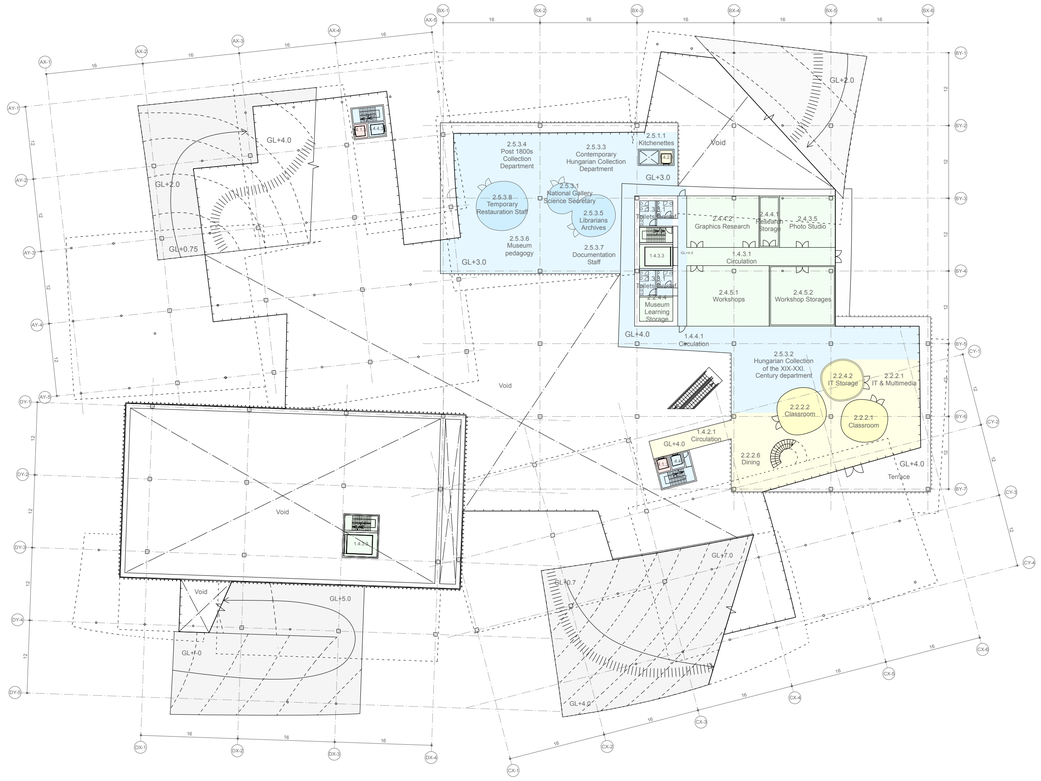
Site Boundary

GL+1.0

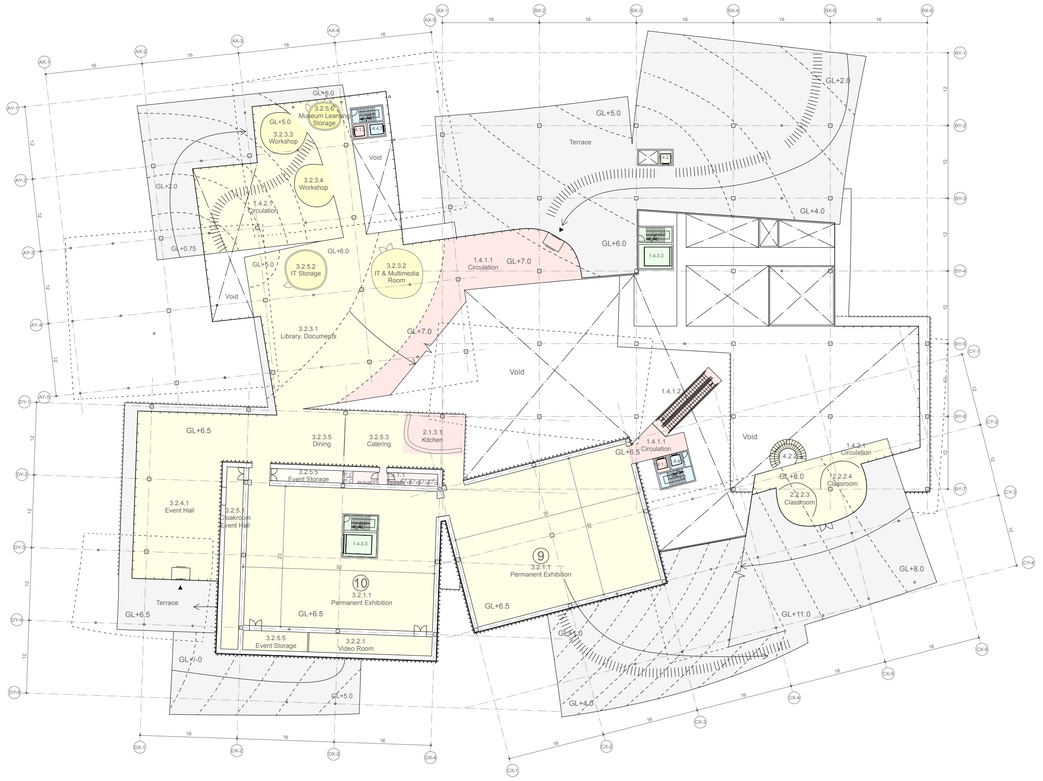
Site Boundary

A : Hospitality
B : Exhibition
C : Artifact handing
D : Operation
Grey : Exterior terrace

GF



1F PLAN S=1/500



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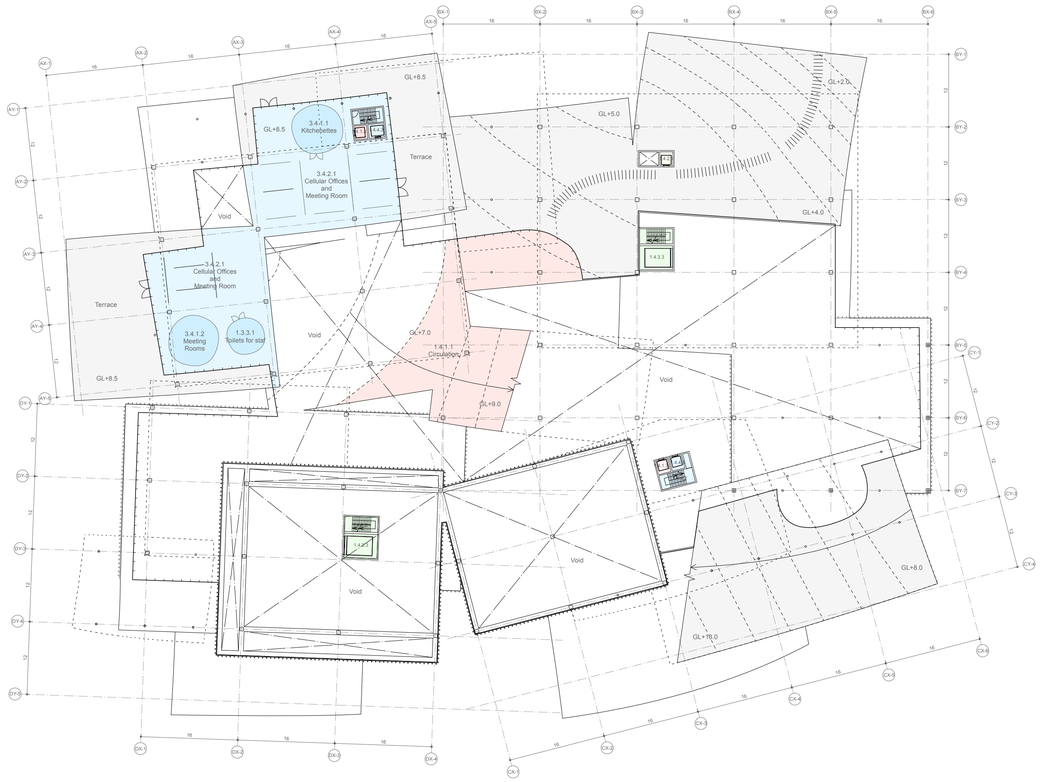

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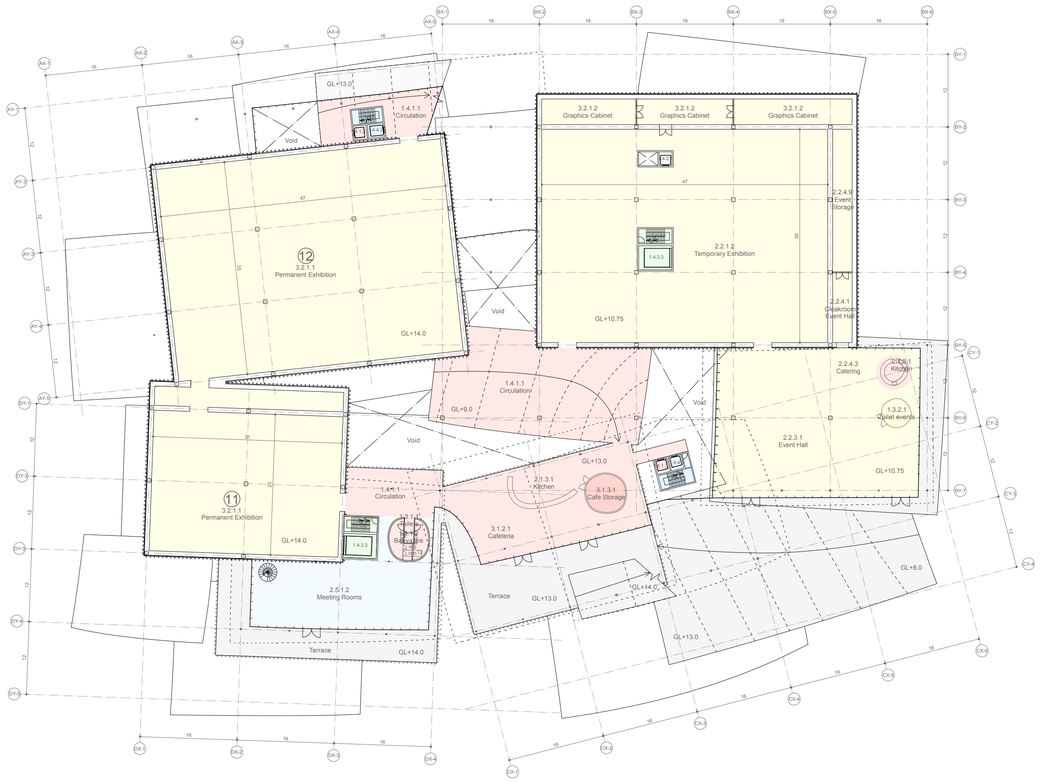
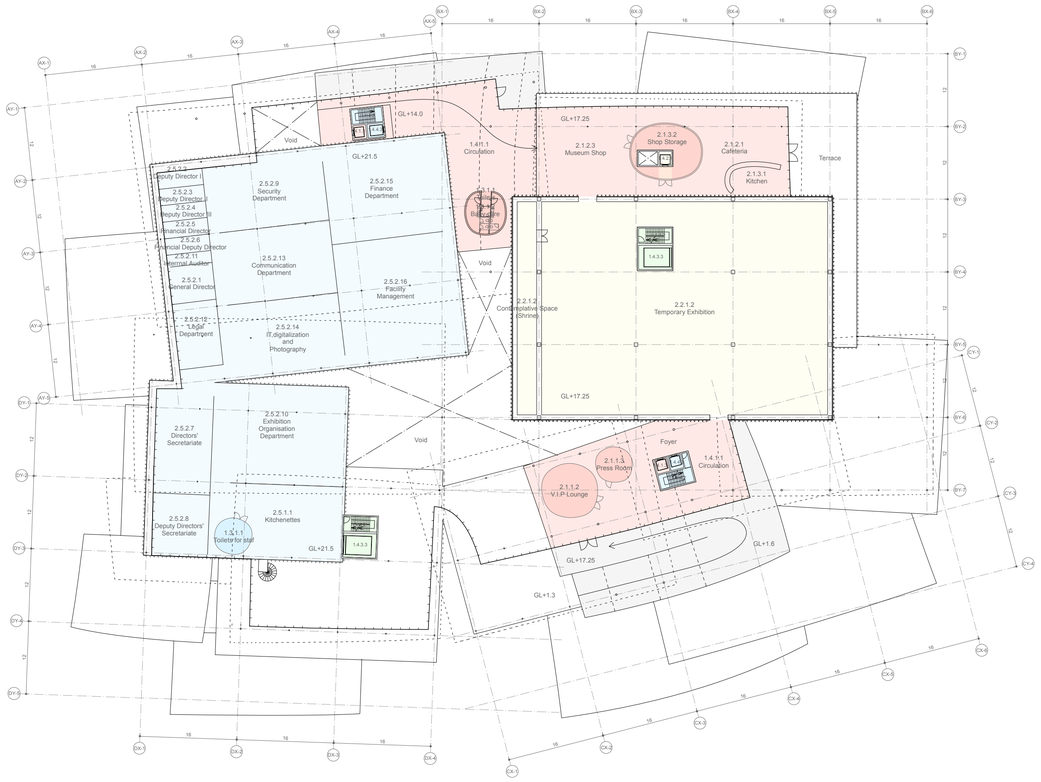
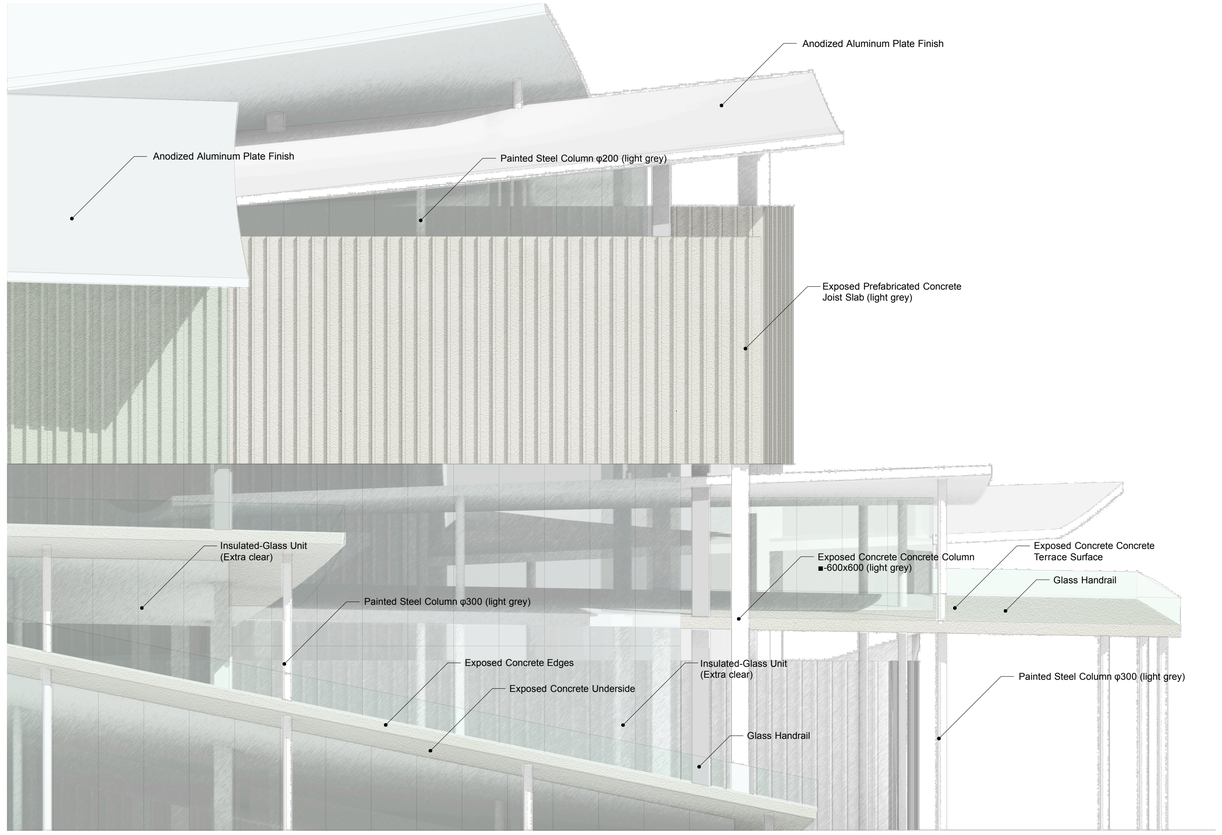


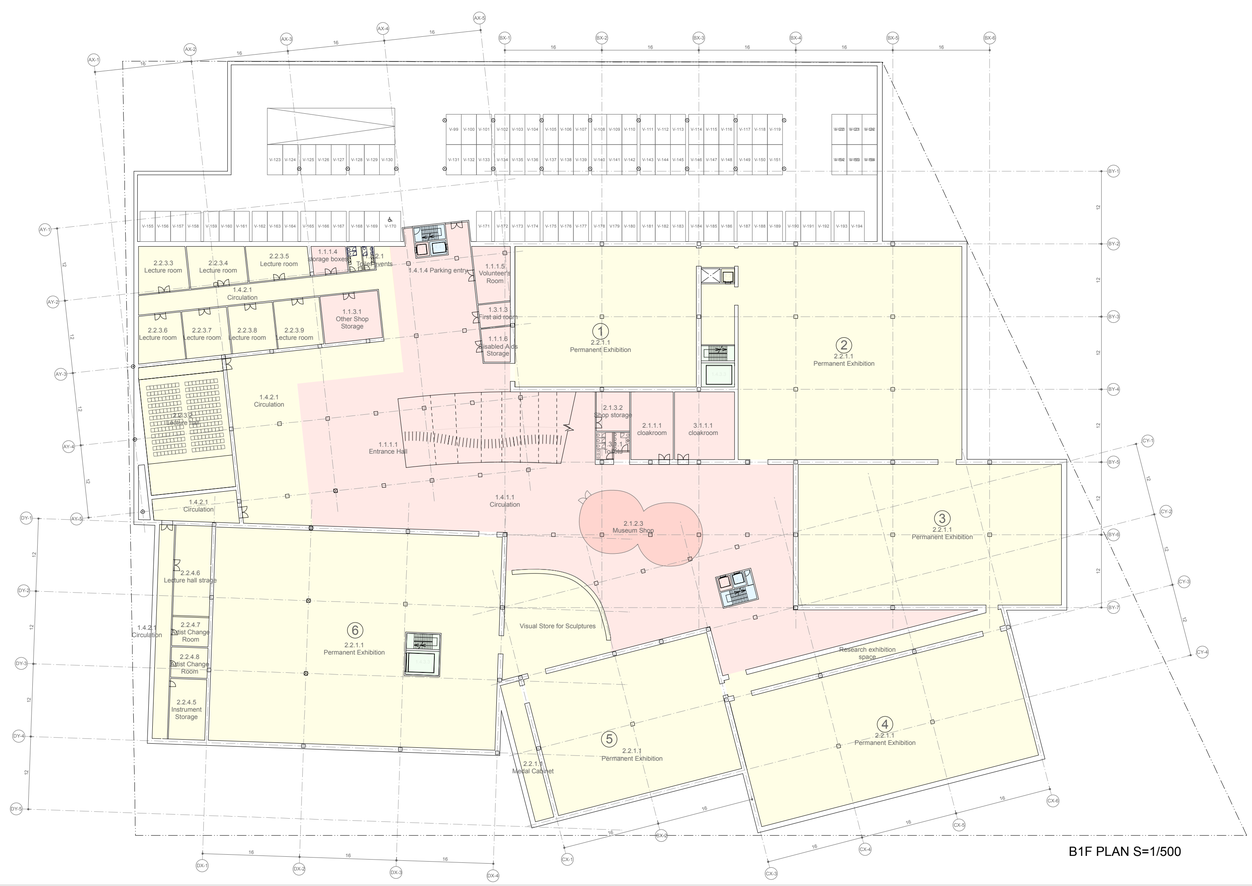
4F PLAN S=1/500



5F PLAN S=1/500

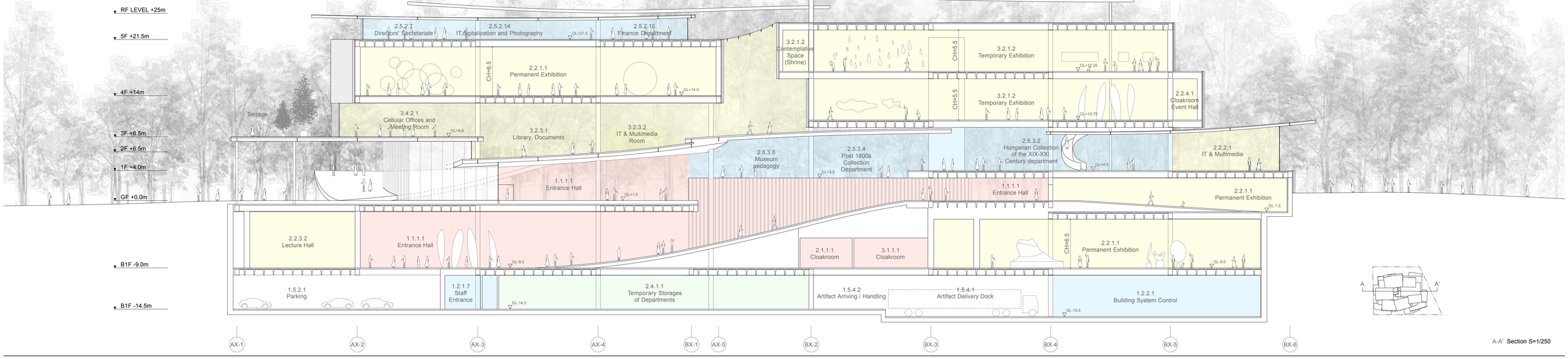


Detail Elevation S=1/100

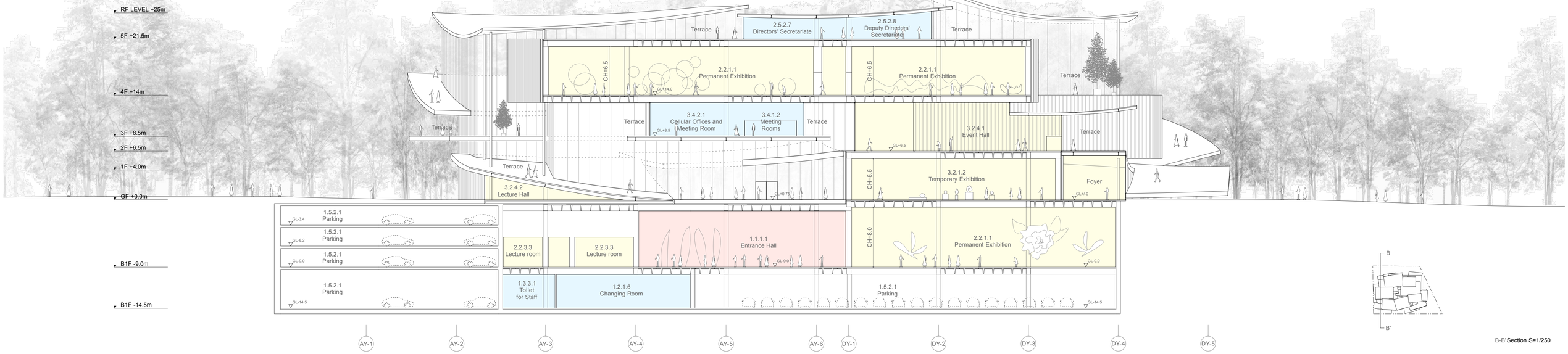


B1F PLAN S=1/500

B2F PLAN S=1/500

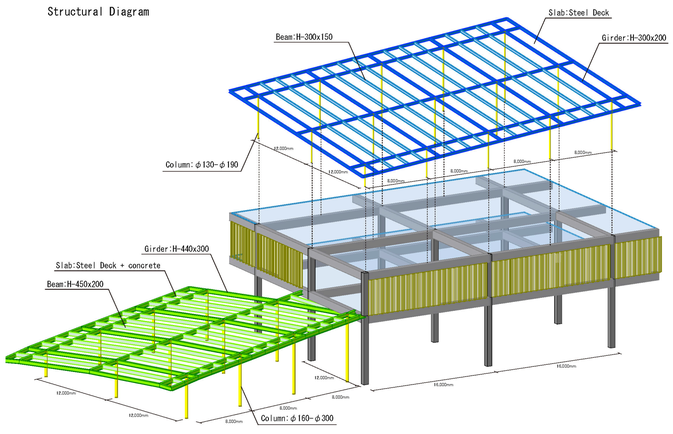


A-A' Section S=1/250



B-B' Section S=1/250

Structural Diagram



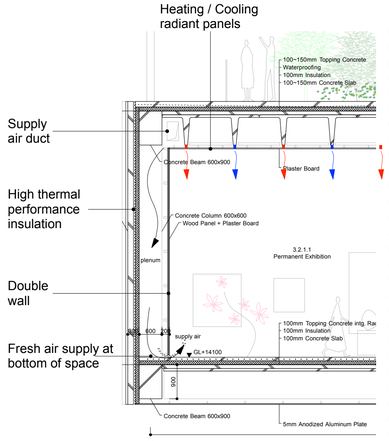
Structural Concept

The superstructure is organized into are 3 main systems:

- The main structural system (B) consists of mainly prefabricated concrete elements to ensure precision and efficiency during the construction process. Precast, pre-stressed twin tee units span between the precast Girders on a column grid of 12m x 16m. The walls are also prefabricated ribbed walls, which are exposed to the exterior facade.

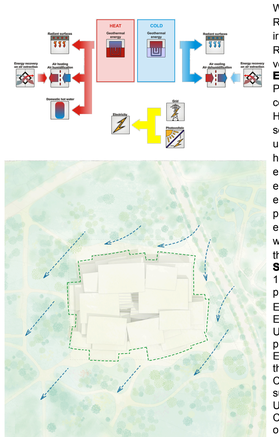
- The walkways and terraces are steel structures with a concrete finish on both the top and underside.

- The roof is a simple steel structure with an aluminum panel finish to softly reflect the trees and clouds above.



Gallery Climate Control

The building envelope is well insulated and equipped with triple glazing according to best practices and Hungarian regulations. In the galleries however, the envelope is made of insulated pre-fabricated concrete ribbed panels. The base space heating and cooling are achieved by radiant panels controlled by sensors placed throughout the building to control variations in temperature and humidity which must remain constant. Spaces are mechanically ventilated by displacement ventilation, where air is supplied at low air velocity in the lower part of the room. By absorbing the internal thermal gains in the room, the air rises naturally (stratification effect) until it is extracted at the upper part of the rooms. This system has already proved its efficacy in terms of comfort, and air quality (pollution removal) without the need to increase the air change in the space.



Water management

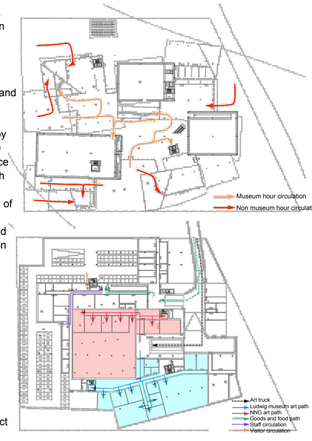
Water savings features (for instance infrared water taps), Rainwater harvesting to be reused within building (garden irrigation, building cleaning, toilets flushes,...).
Rainwater on plaza directed to dry wells to promote vegetation renewal

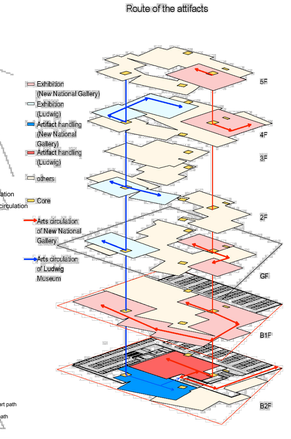
Energy Supply Concept

Passive and natural systems to produce heat, electricity and cooling are used in the new building.
Heating and cooling energy are supplied via geothermal source by activating building`s foundation piles and / or by using thermal boreholes, in combination with a reversible heat pump for heat and cold generation. In order to reduce energy demands, air handlings units are all equipped with energy recovery (sensible and latent), transferring the energy from the extracted air to the supplied air. 1000m2 of photovoltaic cells are planned on the roofs to reduce the energy demands on the grid. Sun path diagrams and wind was studied in order to plan the location of the terraces on the exterior.

Sustainable General Plan

1000 m2 of photovoltaic cells on roof for electricity production,
Efficient and sustainable energy supply concept,
Excellent comfort and air quality within the building,
Use of geothermal energy for heating and cooling production,
Efficient lighting to reduce drastically plugs loads and thermal internal gains,
Comfortable outdoor spaces to drive the social sustainability in the park and in the museum,
Use of recycled concrete,
Choose of recyclable building materials with lowest impact on health and environment,
Choose of low grey energy materials,

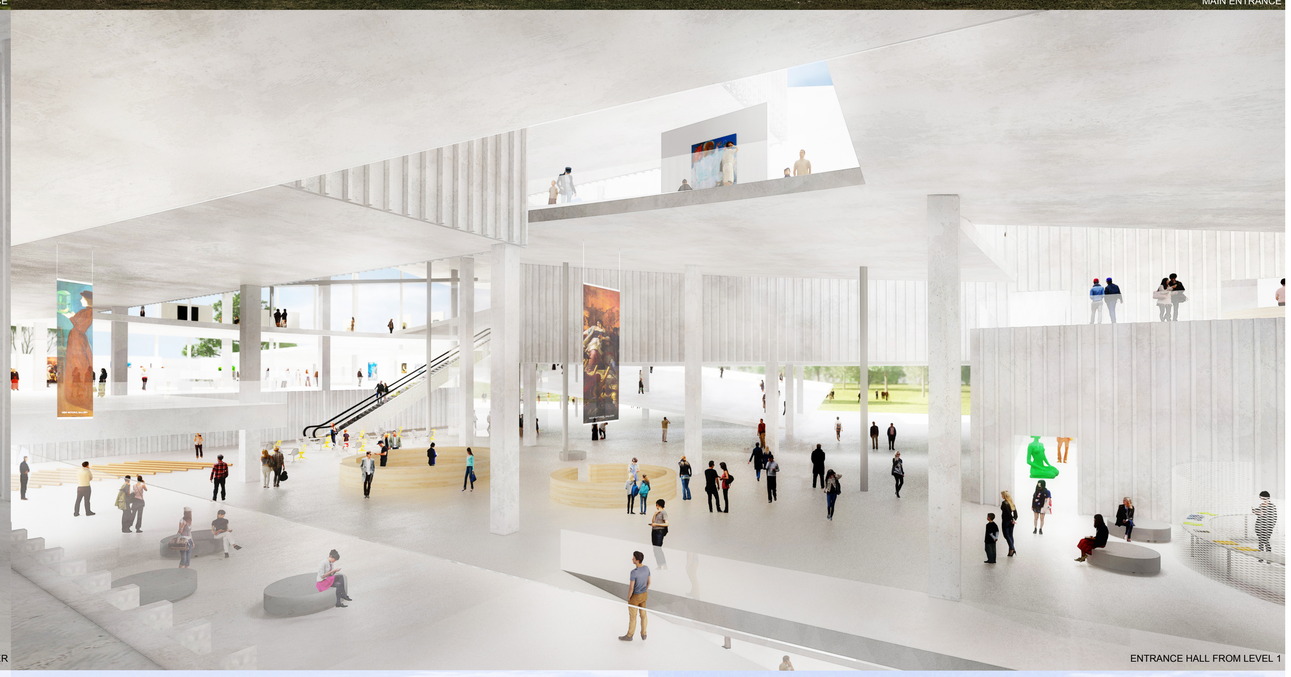




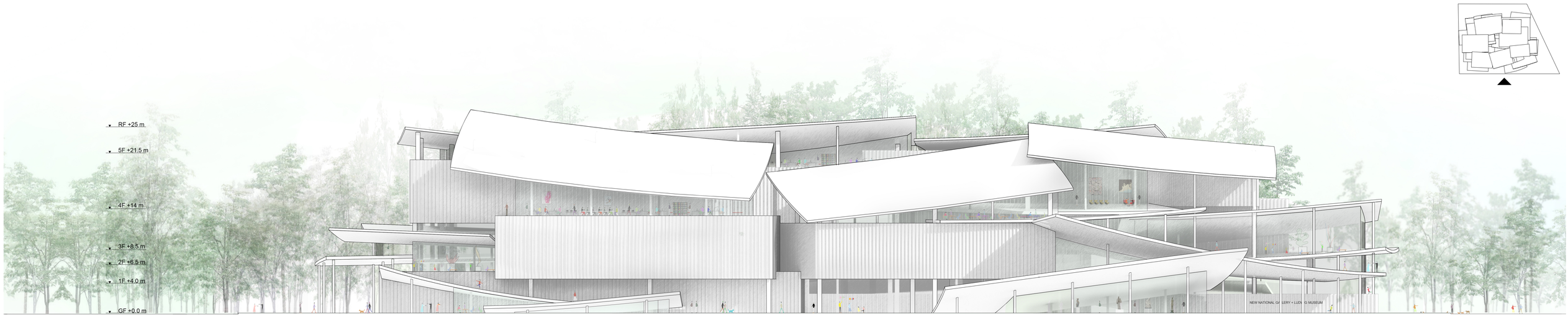
SOUTH EAST ENTRANCE

MAIN ENTRANCE

LEVEL 3 FOYER



ENTRANCE HALL FROM LEVEL 1

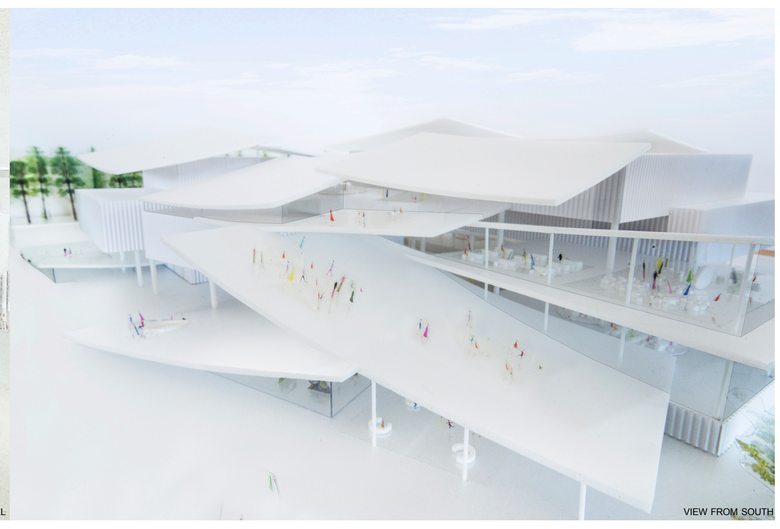


NORTHEAST ELEVATION S=1/250

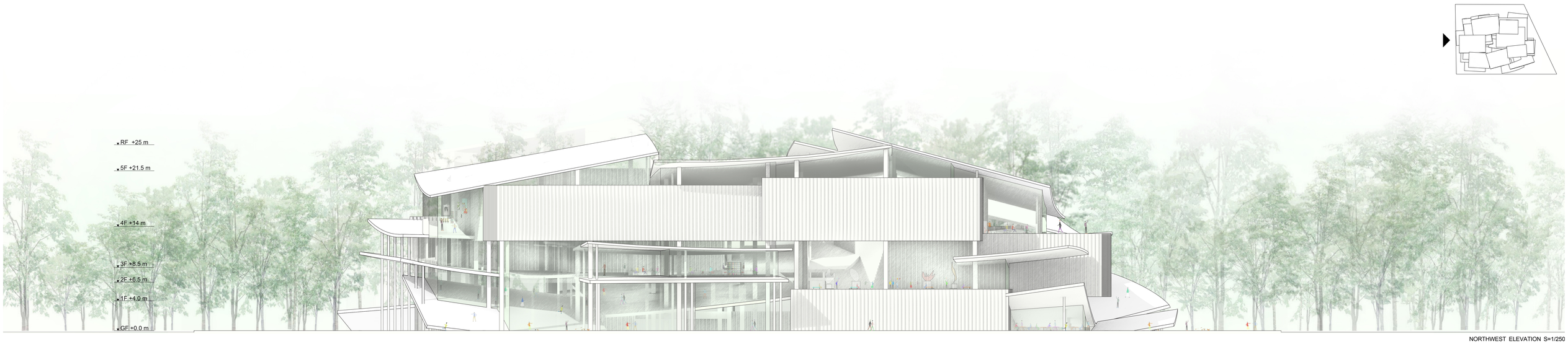
SOUTHWEST ELEVATION S=1/250

VIEW 02

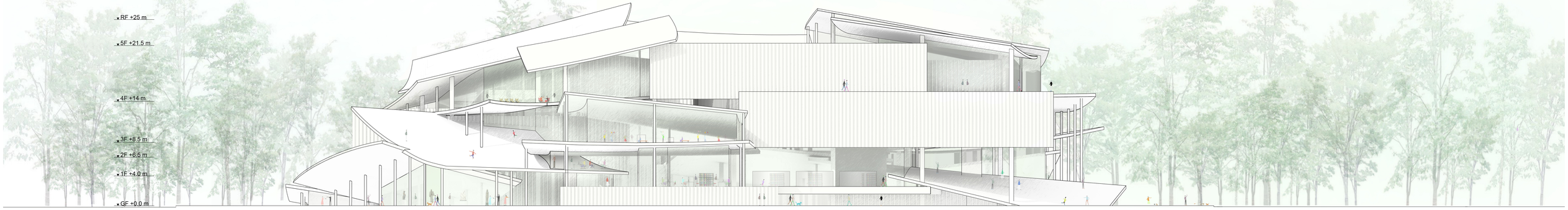
EVENT SPACE ON LEVEL



VIEW FROM SOUTH



NORTHWEST ELEVATION S=1/250



SOUTHEAST ELEVATION S=1/250

SCULPTURE GALLERY

ARTIST AT WORK IN GAIA

VIEW OF GALLERY