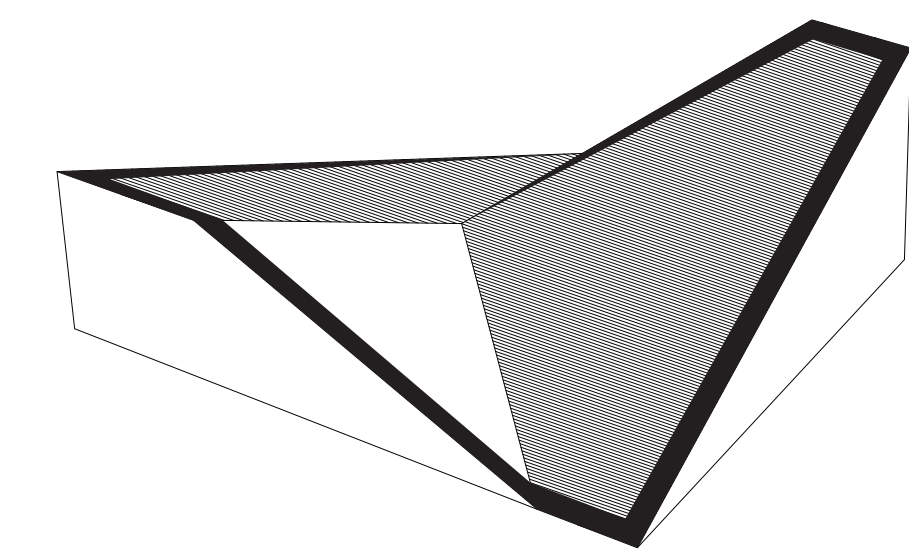


Above the Horizon



ARCHITECTURAL VISION

Socially responsible behaviour is dependent on repetitive individual and collective exposure to our cultural evolution. Many museums today seem to see their visitors as the largest threat to their own collections and exhibitions. This attitude leaves museums “passive” in their performative role as cutting-edge institutions and in their relationship to the public at large.

To enable the New Hungarian National Gallery and the Ludwig Museum to have the desired active role; interacting and communicating with their audience, our project is based on the following principles:

The wish to unify two museums in one building while maintaining a strong individual identity for each.

We are situating both institutions under a singular public roof that is always accessible. Thus the roof becomes an inherent part of the City Park as does its’ elevated continuation offering great views over the whole of Budapest.

Architecturally, we strive to create a museum building that offers exciting, modern and contemporary spaces that enable an art experience confidently suited to the display of art from varying epochs and styles. We aim to create an inspirational environment for education and museum learning, where the thoughts and philosophical mindsets fundamental to any form of art creation and understanding are at the centre

point. The centre point of the building symbolises the meeting point of two art institutions, the meeting of light and earth at the horizon simultaneously resolving practicalities of daylighting and embodying gravity at the meeting of the Ludwig Museum and the New National Gallery. In the heart of the building we envision a large open public space that serves both institutions. Here the visitors, local and from afar, young and old, are invited to start their journey of exploring art, in the Ludwig Museum and New National Gallery.

The juxtaposition of the two institutions beneath a common fabric creates a space where tensions serve to inspire – a metaphysical reaction field between collections, and beyond the individual mind.

SITE RELATIONS

Situated in the North-East of the City Park the New National Gallery and Ludwig Museum form the new focal point at the end of an axis from the 1956 Monument. This together with the new Hungarian Museum of Architecture, and the Photography Museum forms a gateway to the park.

Our buildings’ shape reacts to this visual axis and continues the park upwards on a public stairway from which visitors can enjoy elevated views above the trees and out over the entire city. With its two high-

points and the two gently tilting surfaces the building clearly reacts towards the pedestrian flow coming from Hermina út in the North, while simultaneously creating an extension of Napozórét to the South. This generous gesture towards Napozórét, is intended to strengthen the quality of the existing park structure, while adding variety to the experience of the park.

The roof of the building is extended back to the public instead of merely occupying a large portion of the park.

By enabling people to explore the roof of the building with a scalable surface, which is activated with café’s, terraces and unobstructed views, we aim to create a genuine ownership among visitors as well as locals, integral to the strategy of making the two new museums a genuine part of Budapest.

The scalable peak-like quality of the 40 metre volume creates a visible and attractive destination for the North East corner for the park, contributing to an enhanced flow of park visitors. The sloping volumes adopt different characteristics at different times of the day: shade or exposure, high or low – the choice is yours.

While clearly relating to one historical axis with the buildings’ volume, the volume similarly reacts to pedestrian flows along the diagonal connection of Vajdahunyd stny as well as from Zichy Mihály út.

As a result of this our building has multiple entrances from all sides

with a main entrance from the new Museum Plaza between Zichy Mihály út and the New National Gallery and Ludwig Museum.

The entry plaza appears to float independently from the building due in part, to the ramped gallery down to the parking levels allowing the building volume to visually slide below grade.

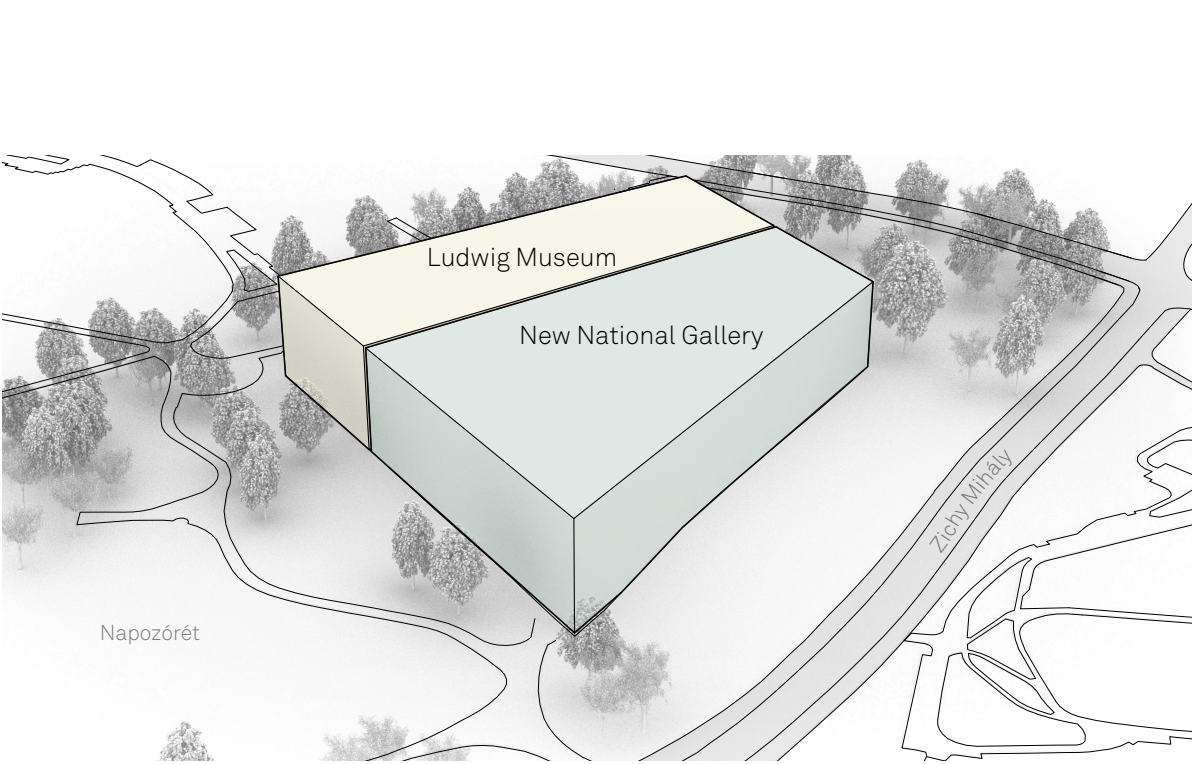
The park plaza to the North invites visitors from the Metro, and residential areas, either visiting the institutions or simply traversing the park. The park plaza weaves beneath and between the existing trees and comprises a combination of paving and reinforced grass. The artefact delivery port is subtly integrated in the façade and the park plaza more than adequately accommodates even the largest vehicle manoeuvring under safe conditions whilst retaining an open, park-like quality.

The existing southern plinth in of the former building is removed and the terrain returned to a natural incline toward the park.

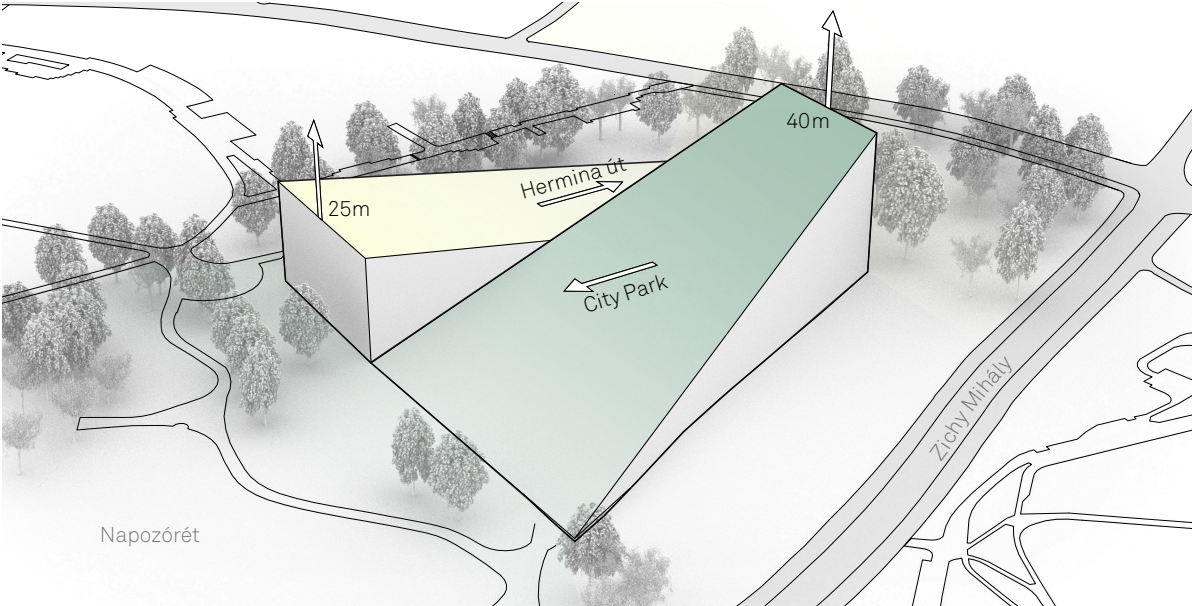
Here the roofscape naturally fuses with the park landscape and at this point we envisage a large potential for hosted or spontaneous events with a natural amphitheatre. The proposed sporting development to the North West could similarly feed from the roofscape to form an integrated solution to terracing, event hosting and arrangements potentially offering a sizeable financial contribution to the institutions.



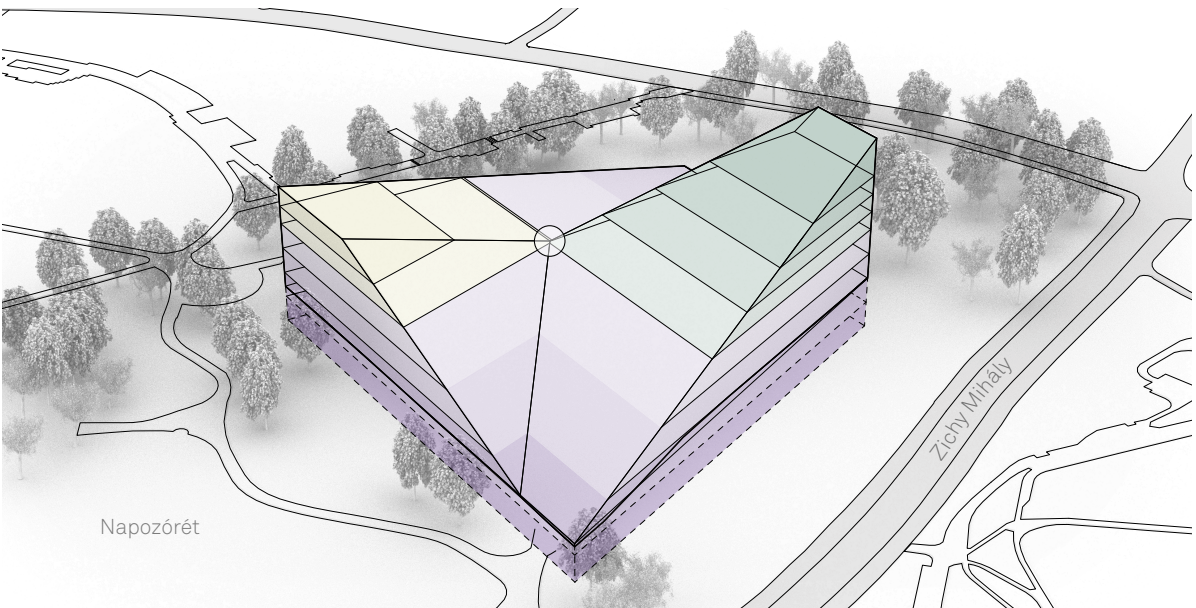
Above The Horizon
View from Napozórét



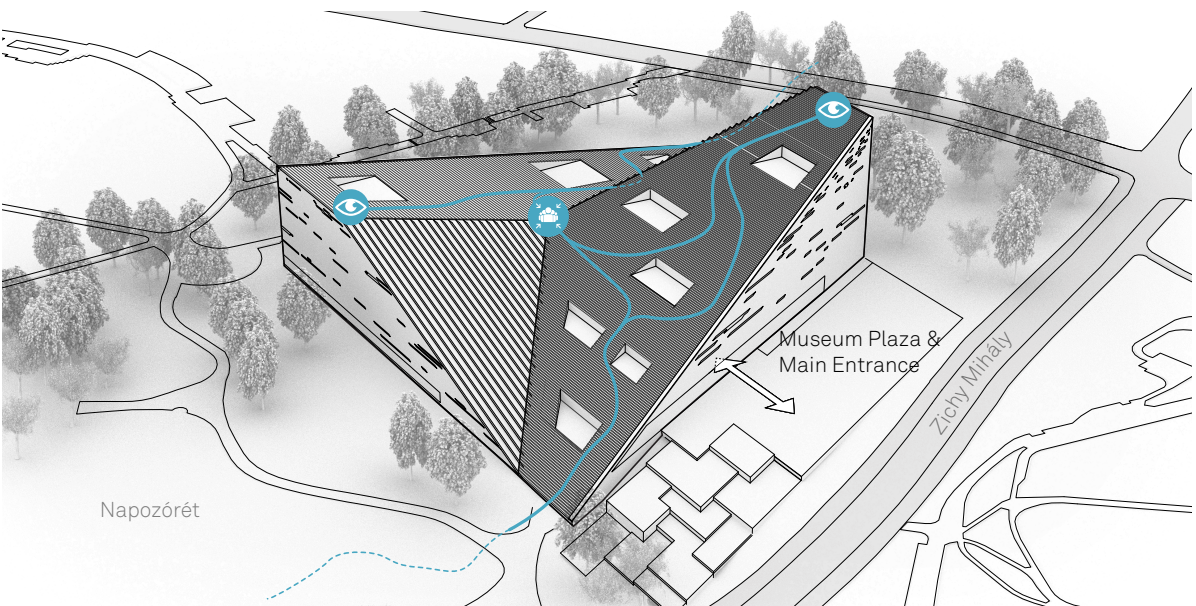
Functional Split



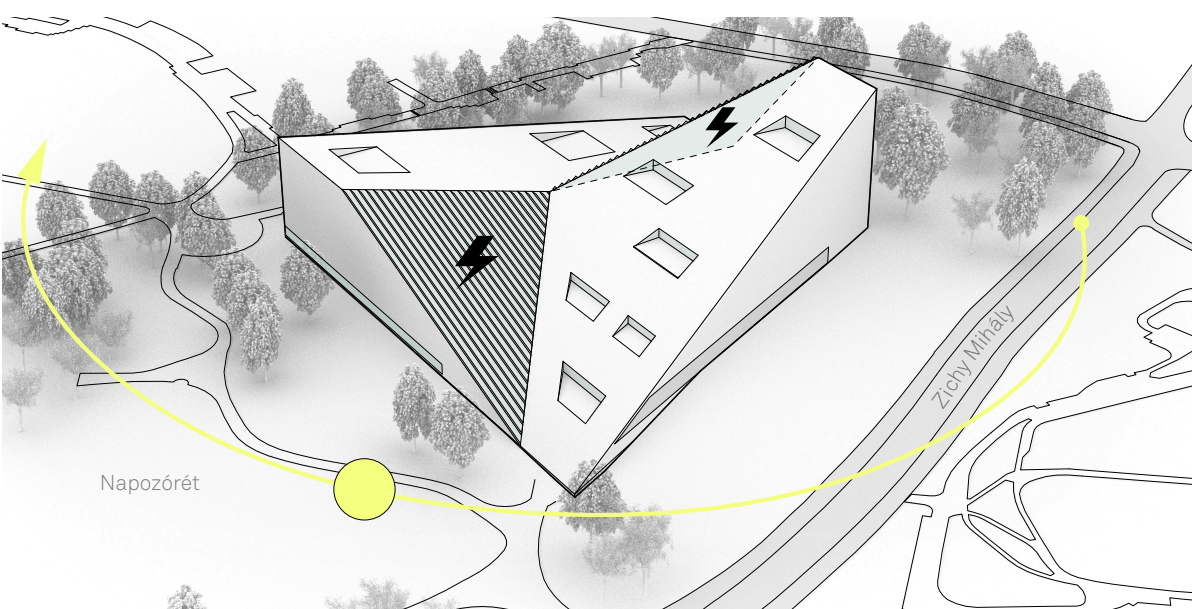
The Public Roof



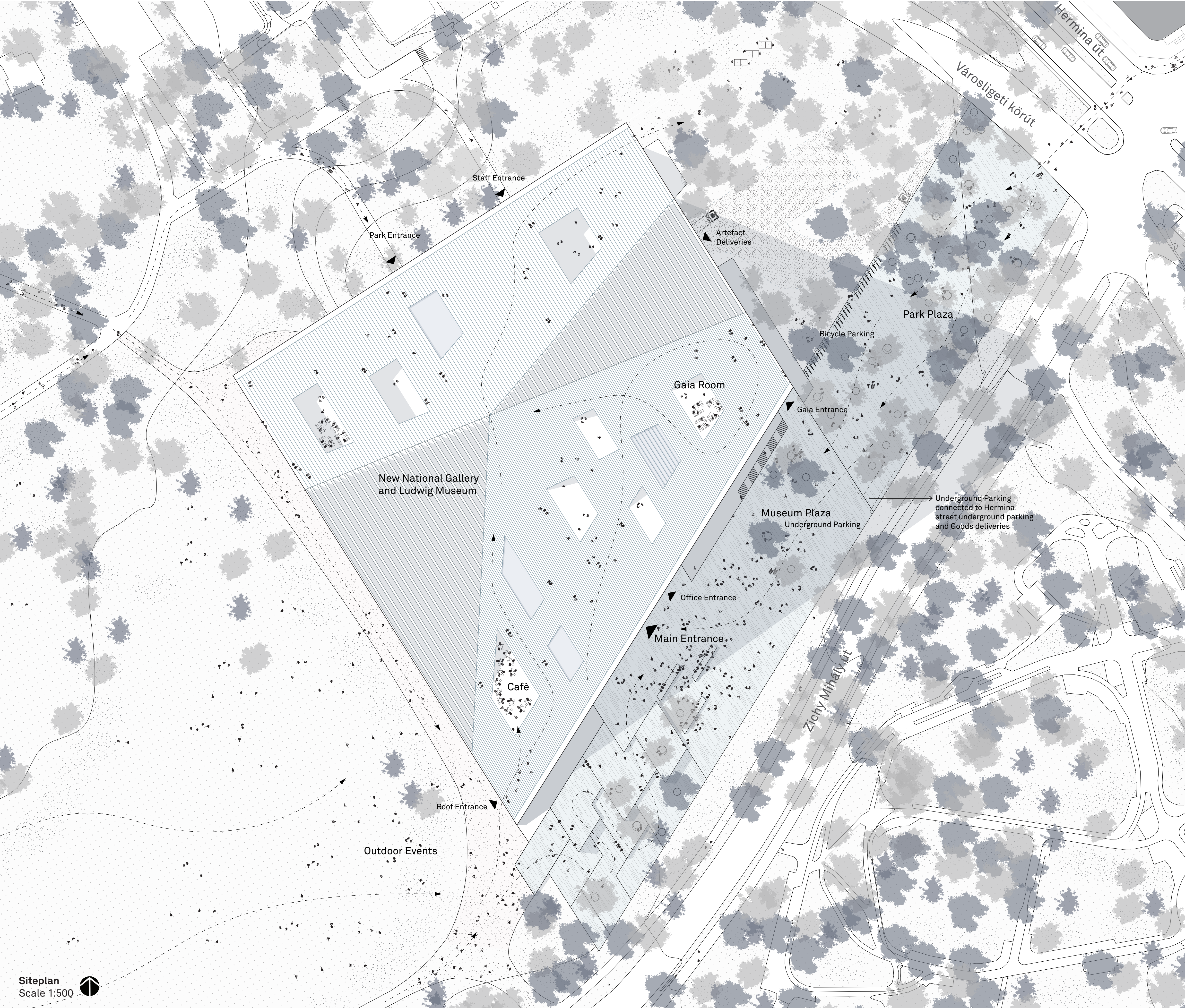
One Building - Two Museums - Two Identities

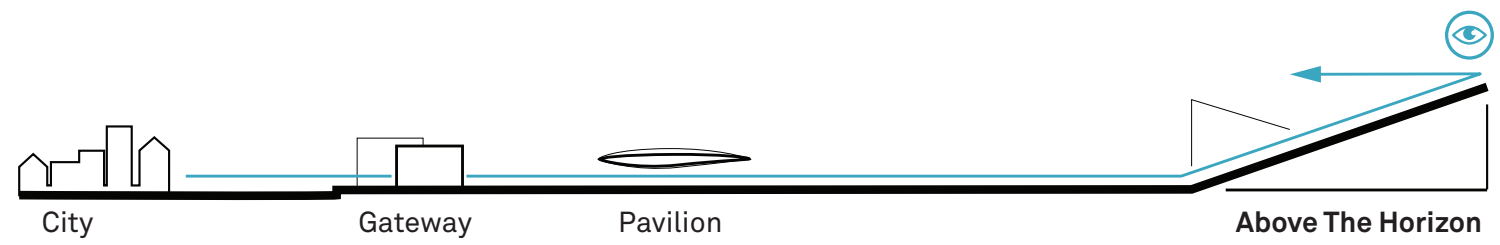


Public Spaces and Main Entrance

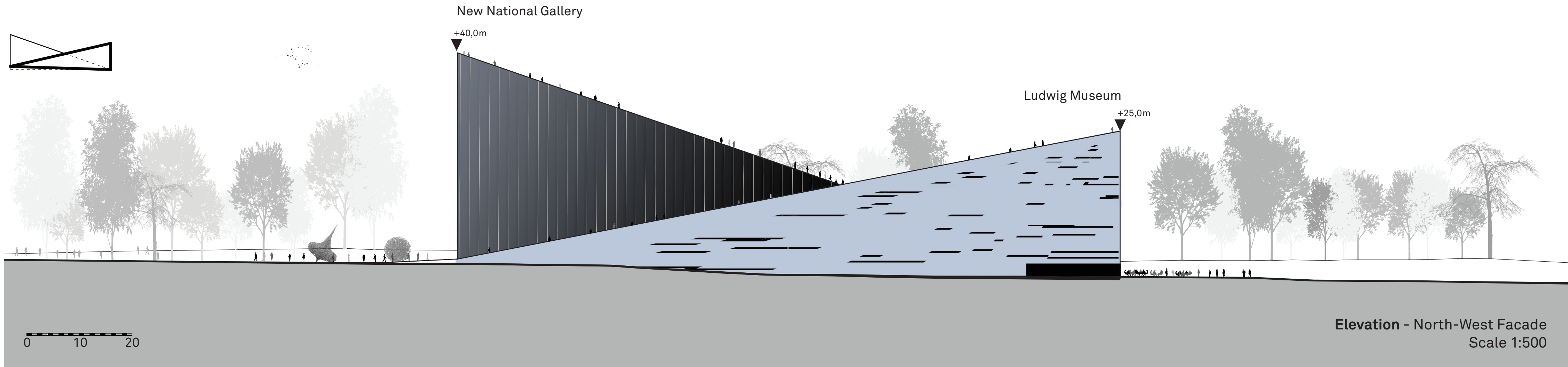
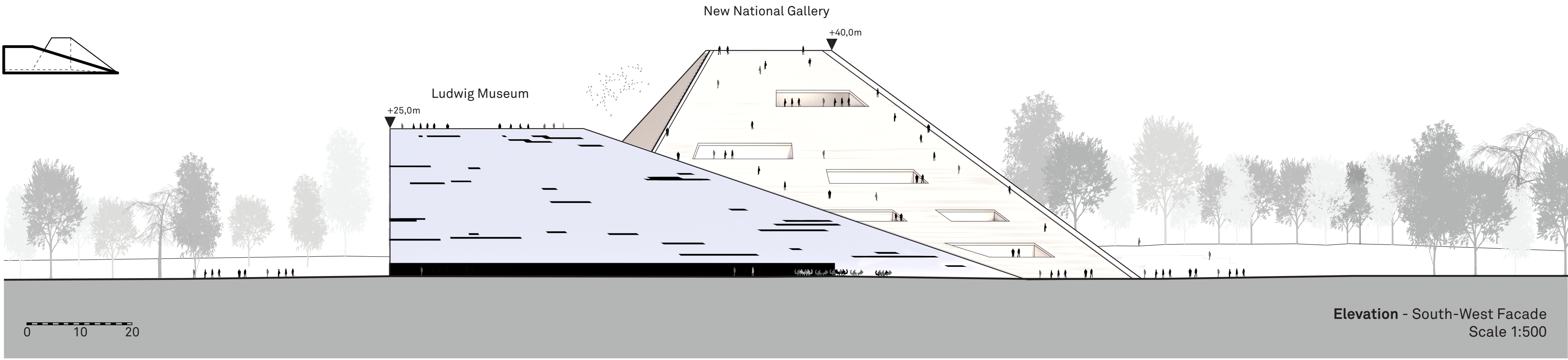
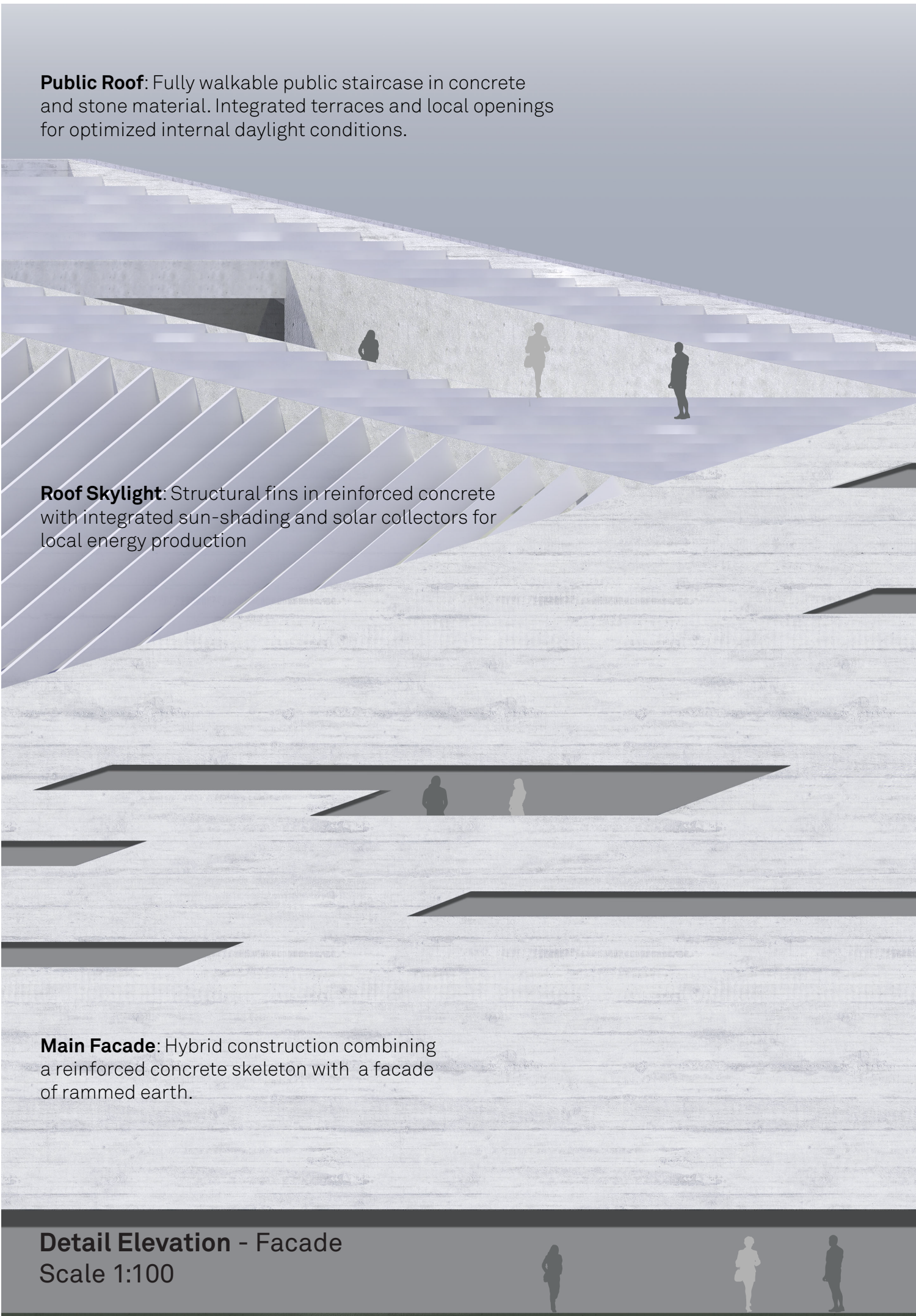


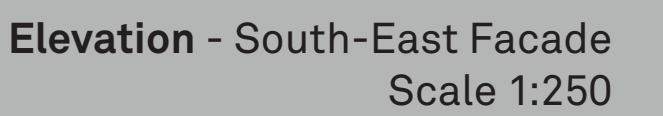
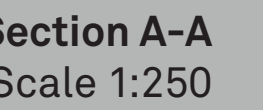
Active Use of Building Geometry for Energy Production

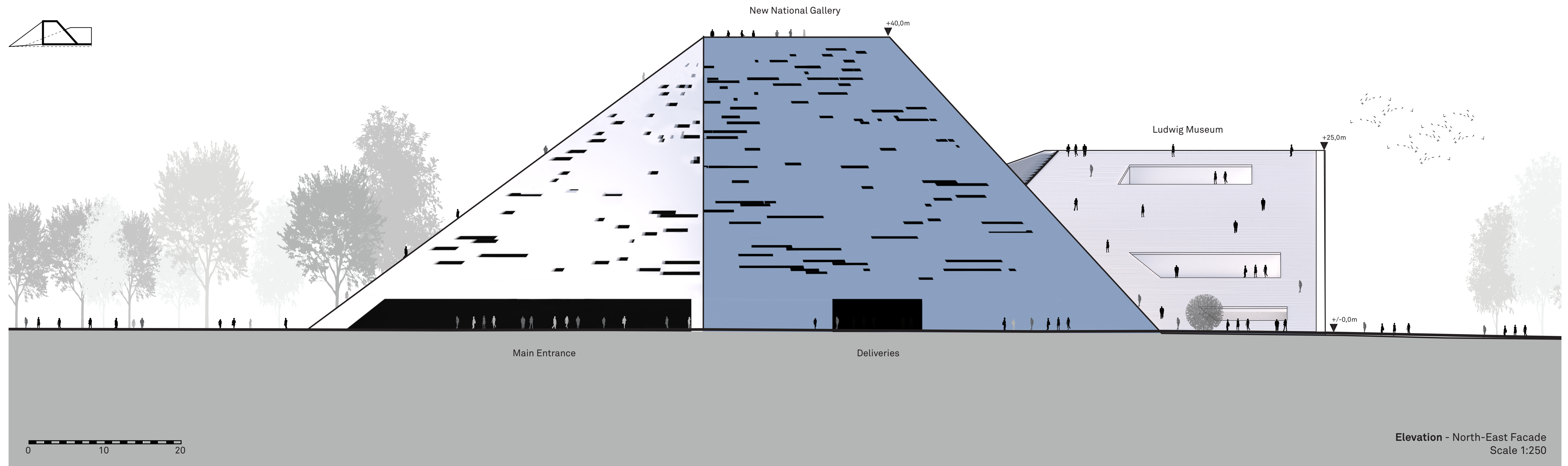
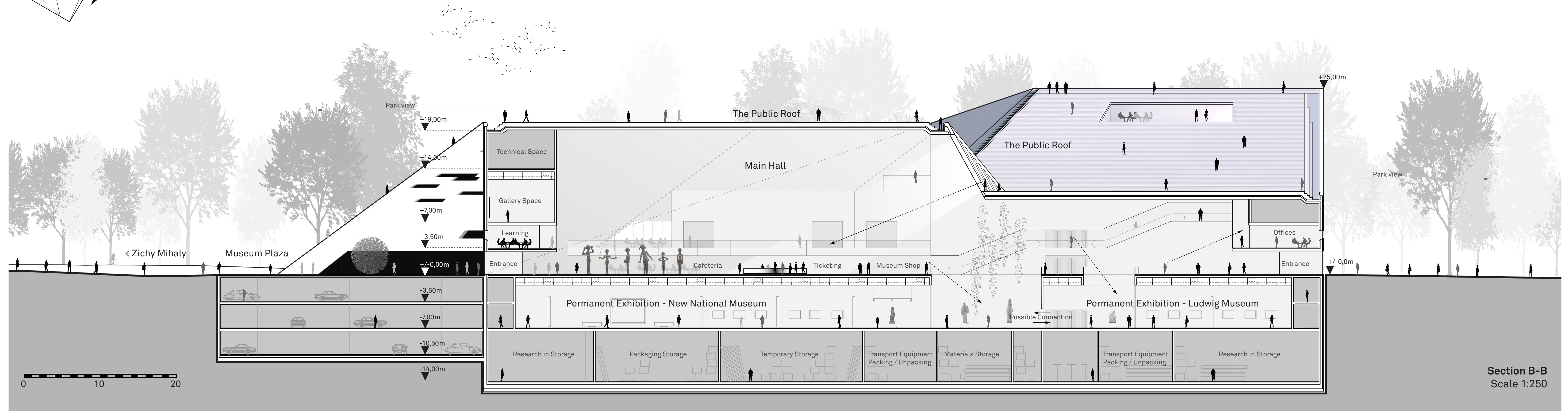


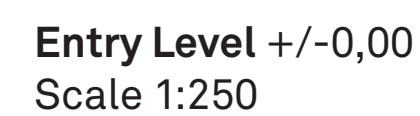


Conceptual Section

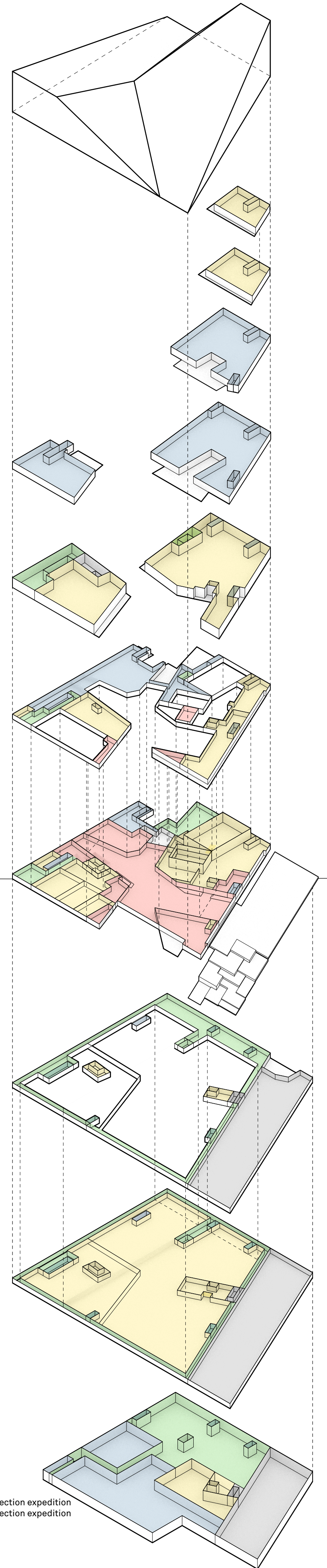


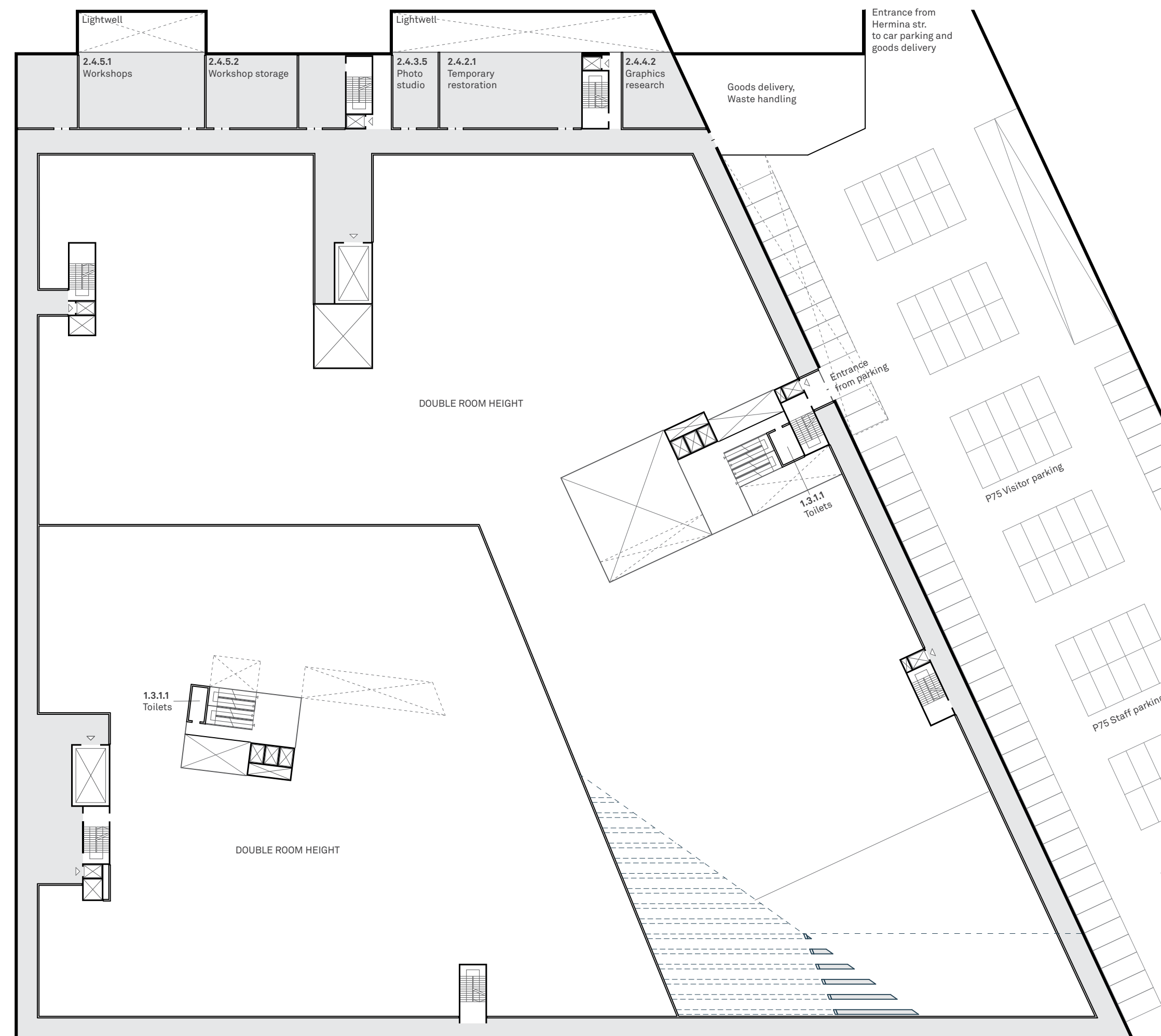






- Level +29,00**
2.3: GAIA
- Level +24,00**
2.3: GAIA
- Level +19,00**
2.5: Offices
3.4: Offices
- Level +14,00**
2.5: Offices
3.4: Offices
- Level +7,00**
2.2.1: Temporary exhibitions
3.2.1: Temporary exhibitions
3.3.4: Research
3.3.5: Exhibition care
- Level +3,50**
1.2: Service staff
2.2.3: Events- lecture, learning
3.2.4: Events- lecture, learning
2.6: Service
3.5: Service
- Level +/-0,00**
1.1: Hospitality
1.2.1: Service staff
1.5.4: Delivery Artefacts
2.1: Hospitality
3.1: Hospitality
2.2.3: Events
3.2.4: Events
3.3.5: Exhibition care
- Level -3,50**
1.2.5 Workshops
Main staff communication
1.5.2: Visitors parking, staff parking
Bicycle storage
- Level -7,00**
2.2.1: Permanent exhibitions
3.2.1: Permanent exhibitions
1.5.2: Visitors parking, Bicycle storage
- Level -14,00**
1.2.2: Building services
2.4: Collection storages, Collection car
3.3: Collection storages, Collection car
1.5.2: Visitors parking, Bicycle storage

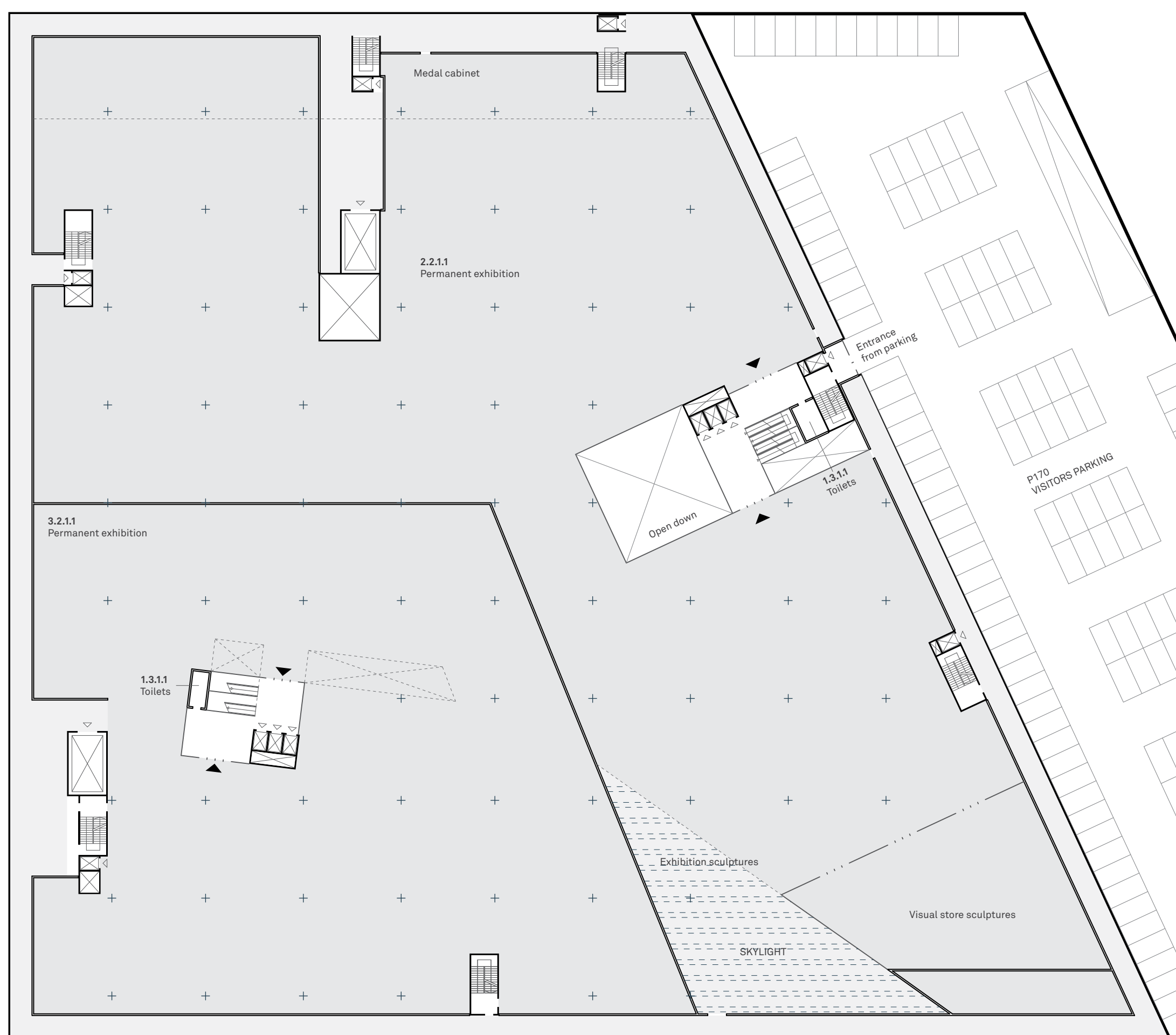




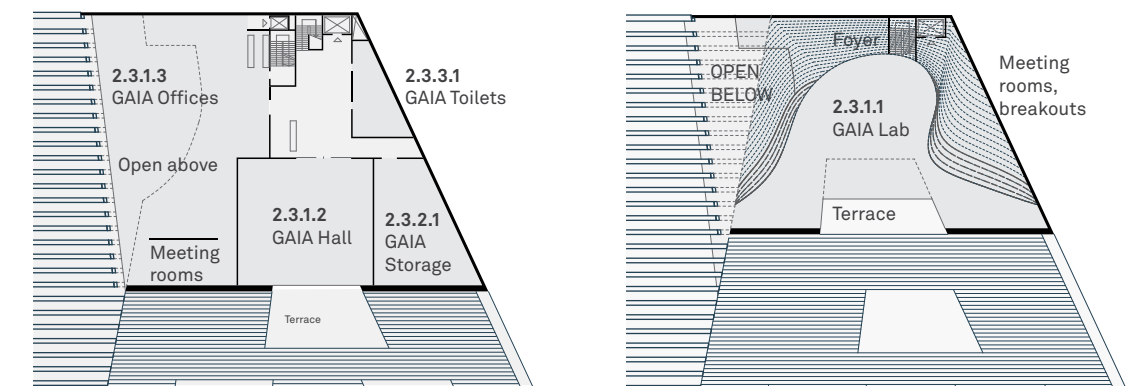
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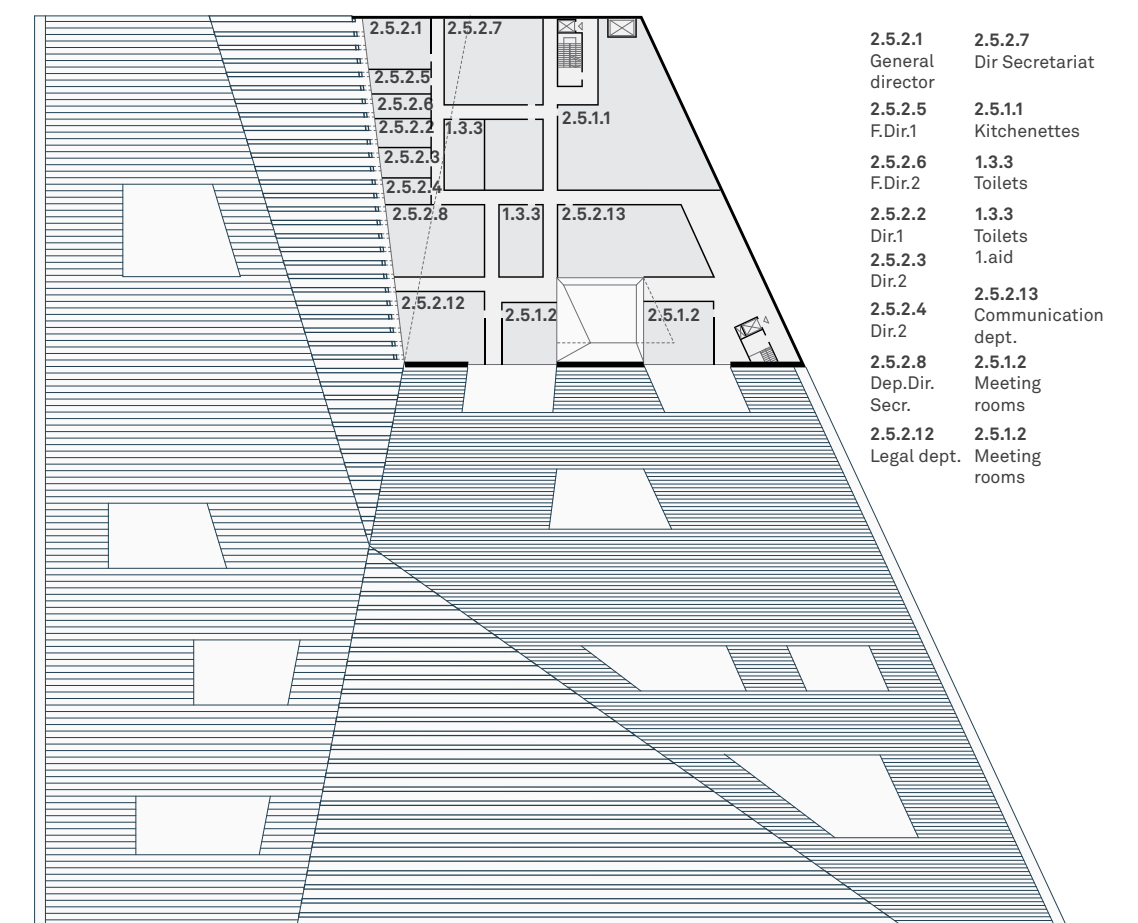
A circle with a radius is shown on the left. To its right is a horizontal number line with tick marks at 0, 10, and 20.



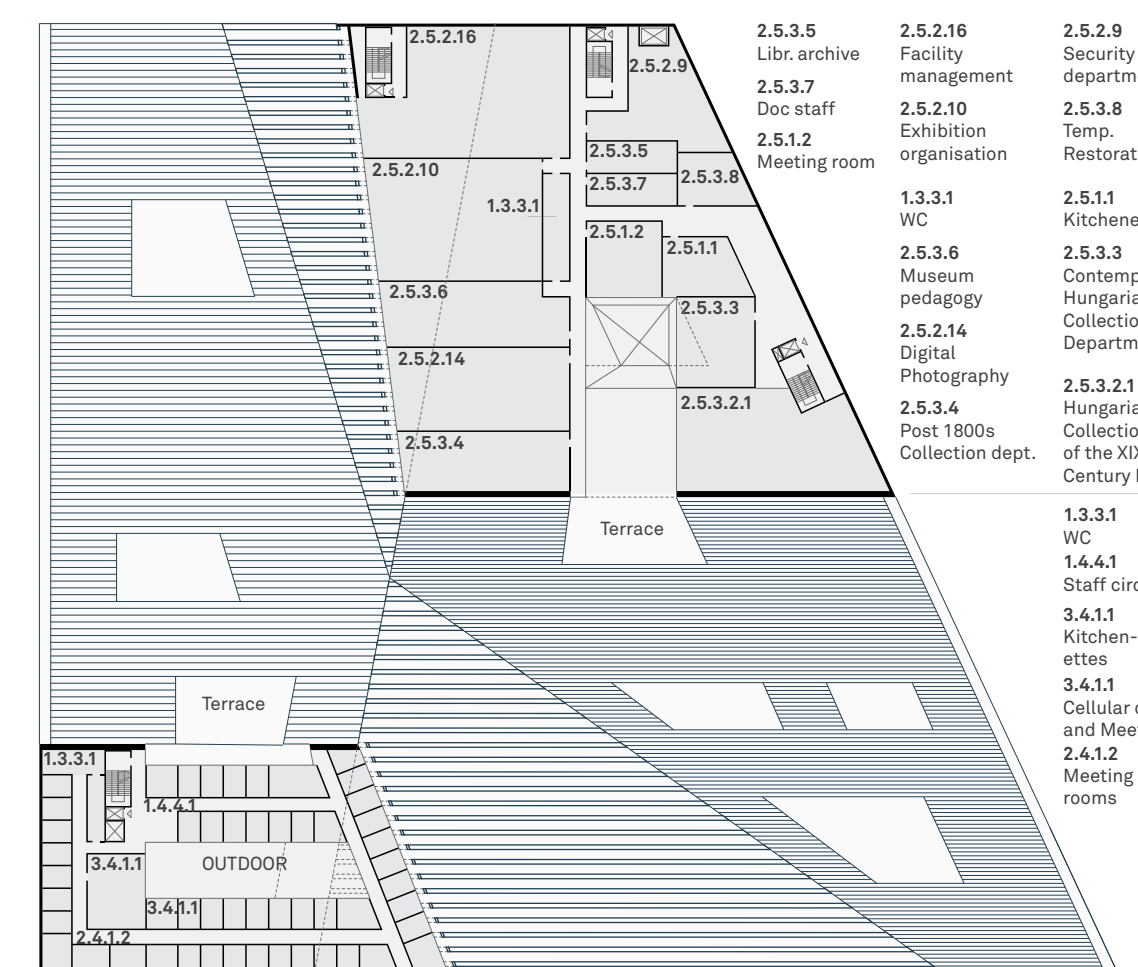
A circle with a radius line is shown on the left. To its right is a horizontal number line with tick marks at 0, 10, and 20.



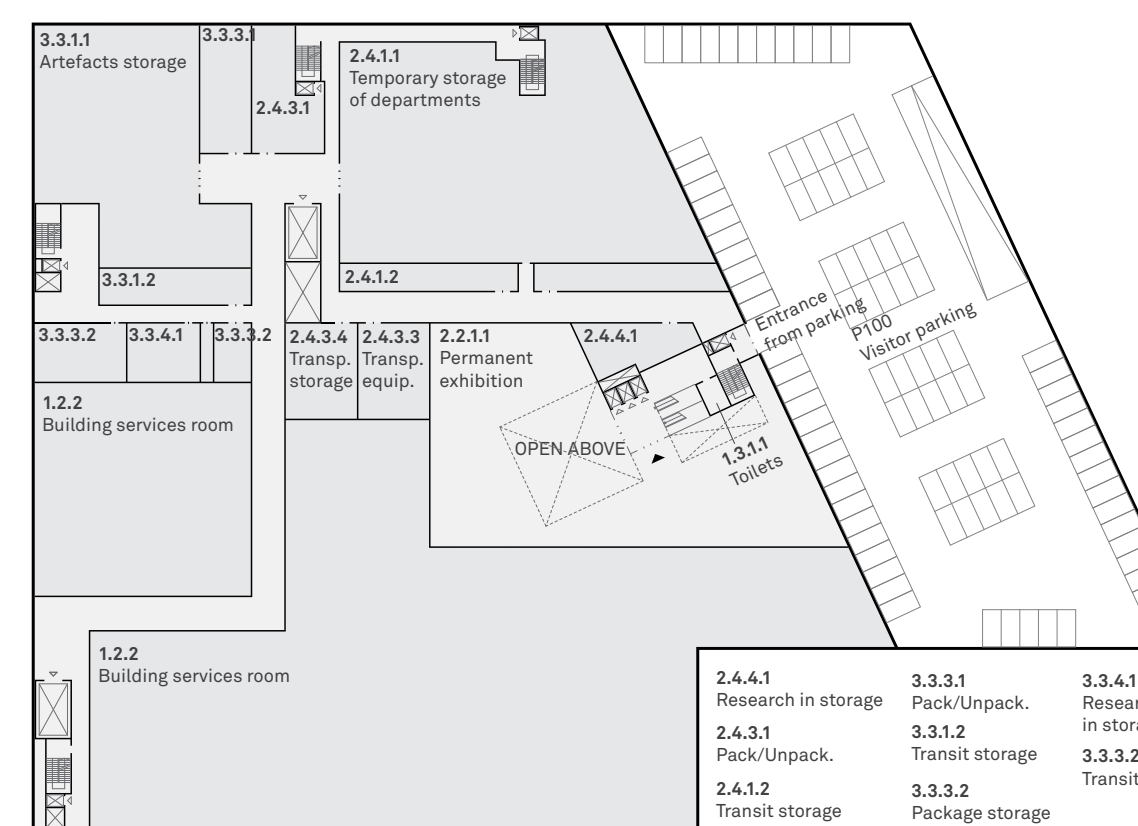
Level + 29,00
Scale 1:1000



2.5.2.1 General director	2.5.2.7 Dir. Secreta
2.5.2.5 F.Dir.1	2.5.1.1 Kitchenett
2.5.2.6 F.Dir.2	1.3.3 Toilets
2.5.2.2 Dir.1	1.3.3 Toilets
2.5.2.3 Dir.2	1.aid
2.5.2.4 Dir.2	2.5.2.13 Communic dept.
2.5.2.8 Dep.Dir. Secr.	2.5.1.2 Meeting rooms
2.5.2.12 Legal dept.	2.5.1.2 Meeting rooms



2.5.2.16	2.5.2.9
Facility	Security
management	Department
2.5.2.10	2.5.2.13
Exhibition	Temp.
organisation	Restoration
1.3.2.31	2.5.2.11
WC	Kitchenettes
2.5.2.36	2.5.2.33
Museum	Contemporary
pedagogy	Hungarian
2.5.2.14	Collection
Digital	Department
Photography	2.5.3.21
2.5.3.4	Hungarian
Post 1800s	Collection of the XIX-XX
Collection dept.	Century Dept.
	1.3.31
	WC
	1.4.41
	Staff circulation
	3.4.11
	Kitchen-
	ettes
	3.4.11
	Cellular offices
	and Meeting rooms
	2.4.12
	Meeting
	rooms



INTERNAL ORGANIZATION

PUBLIC ACCESS

Upon entering the generous entrance hall on the ground floor level from either the Museum Plaza in the East, or the alternative entrances on the north and west sides the public will be met by a large, open shared space with unique spatial qualities and ample daylight. This high central space forms both museums first meeting point with the visitor and allows for easy orientation with a central information point and ticketing counter. The concept of this space is that of a common, democratic, open agora. It should be considered as a shared space belonging both to the city, its inhabitants and to the museums.

From here visitors have direct access to both insitutions and their adjacent event-spaces, such as the learning centre, lecture halls, cinematheque and auditorium. From here we access the museums cafeteria and brasserie, as well as museum shops and cloak-rooms.

Both restaurants can be accessed from the park-side without needing to enter the building and thus allow for extended opening - independent of museum opening hours. In the evenings it is possible to close the museums and shops while still allowing access for special events, lectures and learning events.

VIP entrances are located in close proximity to the two entrances in direct connection to the event facilities in order to accommodate discrete arrival.

GENERAL ORGANIZATIONAL PRINCIPLE

The four main exhibition volumes are divided both vertically and horizontally, with a sandwich layer of common and dedicated functions. This enables flexibility in configuration and adaptation of both the exhibition, and common institution spaces independently of one another. An organization that allows for movement in all directions, whilst allowing individual identity gives optimal conditions for robust development over time of the New National Gallery and Ludwig Museum.

EXPERIENCING ART

The permanent exhibitions of the museums are placed on level -2 (-7,00) with the potential for moving seamlessly from one museum to the other. Additionally, the New National Gallery will have a small portion of exhibition spaces located on level -3 (-14,00). The temporary exhibitions are placed on level +2 (+7,00m) without a public connection between Ludwig Museum and the New National Gallery. The concepts would allow for connection of these spaces if desired at a later stage. All exhibition spaces can be easily accessed by either lifts or grand escalators connecting to the entrance hall.

EVENTS

All major event spaces are situated on the ground floor with direct access from the main hall through separate main museum entrances. Education rooms and museum learning are situated on level 1 (+3.50) with separate entrances. These spaces are closely linked to the exhibition spaces to allow for seamless integration in the museum experience of the two separate museums.

OFFICES

The offices for both institutions are located above the temporary exhibition levels, on level 3 (+14,00) (additionally on level 4 (+19,00) for the New National Gallery). The offices will receive excellent daylight and offer break-out spaces that open up towards terraces on the public roof.

GAIA

Gaia functions consist of two levels, Level 5 (+24) and Level 6 (+29). Level 5 accommodates the Gaia hall with connected breakout spaces and foyer, flexible office spaces, meeting rooms and toilets. The Gaia hall has direct access to a designated roof terrace along one whole wall and can operate as either a closed volume or airy open space/foyer for any number of events.

There are three main vertical connections to the Level 6 comprising 2 elevators (one large dedicated) and one open flight of stairs.

The Gaia lab has a generous volume, stretching to the upper apex of The New National Gallery volume, thus dramatically equipped for expansive thought and investigation. The enveloping form of the Gaia Lab is intended developable to allow spatial variety within the same volume and the organic footplate opens out to a dedicated terrace.

The organic form of the Gaia lab is equally experiential from the flexible office space on Level 5 via void spaces toward the main facade.

ARTEFACT HANDLING

In order to optimize the area for artefact handling the main delivery dock is situated on grade, with direct access from Hermina str. The door of the loading dock is subtly integrated into the facade. From this loading dock the artefacts are transported directly down to level -3 where they will be unpacked, stored, archived, restored and prepared for exhibition. There are two large elevators for artefact handling that can reach all the temporary and permanent exhibition areas and connected BOH corridors. These corridors also lead to the workshop areas that are located on upper levels to allow for direct daylight in the workshops of both the Ludwig Museum and the New National Gallery.

STAFF MOVEMENT

The dedicated staff entrance is located on the north-west side of the building from where the museums employees can access all areas within the entire building. Level - 1 (-3.5) is dedicated to staff circulation, where the various lift cores can be accessed for vertical transport of goods to different museum areas. The same routes are used for maintenance and waste handling. Staff facilities are located on level 1, directly accessed from the staff entrance.

PARKING

Three underground parking levels are located north-west of the Museum under the new Museum Plaza with direct access from the parking near Hermina str. This route is also suggested for smaller goods deliveries. The Main Hall of the building with access to both museums can be reached from every parking level via the lift batteries.

STRUCTURAL SYSTEM

A simple, economic and efficient static system is developed for the structural system. All load bearing elements are of in situ-cast concrete. Bi-axial hollow core slabs are recommended to reduce the dead load and the foundation load. The reduced weight of the slabs allows large spans, require less reinforcement and reduce CO2 emission. In addition, thermal activation building system, TABS, can be integrated in the slabs to activate the thermal mass of the building. The large span of slabs allows columns to be placed in a regular grid of 12 m. Bi-axial hollow core slabs are flexible regarding openings and edges as they are able to cantilever approx. 3 m. The thickness of the slab can be adjusted in areas with larger spans.

The roof is built of solid concrete plates, which follow the outer shape of the building and meet at a common intersection point. This point is supported by the surfaces resting against each other. The point is partly supported by compression and tension forces in the roof surfaces. This allows an open, column free entrance area beneath.

Vertical load transfer is achieved by load bearing outer walls and the inner columns. Concrete cores stiffen the structure for horizontal loads, such as wind and seismic. The foundation consists of a base plate built as raft foundation. If necessary, the structure can be supported by foundation piles.

The concrete structure in the basement must be built watertight in accordance with the geotechnical report.

MATERIALS

The main loadbearing structure is of reinforced concrete. The external vertical walls are of rammed earth with additional core insulation. Rammed earth will contribute positively to the strategy for CO2 reduction. Internally the hygroscopic qualities of these walls will



naturally assist regulation of humidity. The walkable surfaces are of stone for extreme durability.

The tilted glass walls have structural fins with incorporated photovoltaic and solar thermal panels for energy production.

Internally we aim to give the two institutions slight, yet recognizable variations in their material concept.

Conceptually the two opposed internal volumes form tensions – both in concrete but with differences in the surface treatment. The Ludwig museum will have a recognizably structured texture whereas the New National Gallery will have a more subtle honed surface.

The common floor is of light terrazzo or stone with a ceiling materiality that describes the volume above. Integration of acoustic absorption happens when necessary in the vertical surfaces.

The floors in the permanent exhibitions and New National Gallery temporary should be of solid wood while the temporary exhibitions in LM are intended to be polished concrete. The ceilings of the white box exhibition spaces should appear homogenous and integrate acoustic treatment and artificial skylight, here a tensile fabric ceiling may be a good solution.

The main event areas will have warm, natural material to stimulate the senses and offer contrast to the predominant materials of stone and concrete – wood would be a natural choice.

Where possible all materials should be locally sourced and locally worked.

SUSTAINABLE INSTITUTIONS

Passive and active design strategies will be designed as integral parts of the architectural design, illustrating an aspirational approach towards various sustainability targets. The design concept demonstrates environmental awareness while optimizing the environmental quality for the users/spectators at the gallery.

PASSIVE DESIGN STRATEGIES

Programmatic design of spaces offers an opportunity to minimize the use of active systems. The non-gallery spaces take advantage of natural ventilation and daylight, while the gallery spaces utilize efficient LED lights as well as AC mechanical systems. The mechanical ventilation systems are operating when necessary to provide hygienic air exchange and ensure conservatory conditions for the gallery.

ACTIVE DESIGN STRATEGIES

The rooftop stairs on the sun exposed side are covered with PV to generate electricity on-site. Daylighting simulations demonstrate the amount of available irradiation on each of the rooftops in order to select the highest potential sun exposed side.

INDOOR COMFORT

The thermal storage capacity of the slab is sufficient to provide a nice and comfortable climate for the next day.

The glass façade utilizes vertical external louvers with PV that provide shading to prevent overheating in summer. In addition, the PV units on the façade generate electricity.

