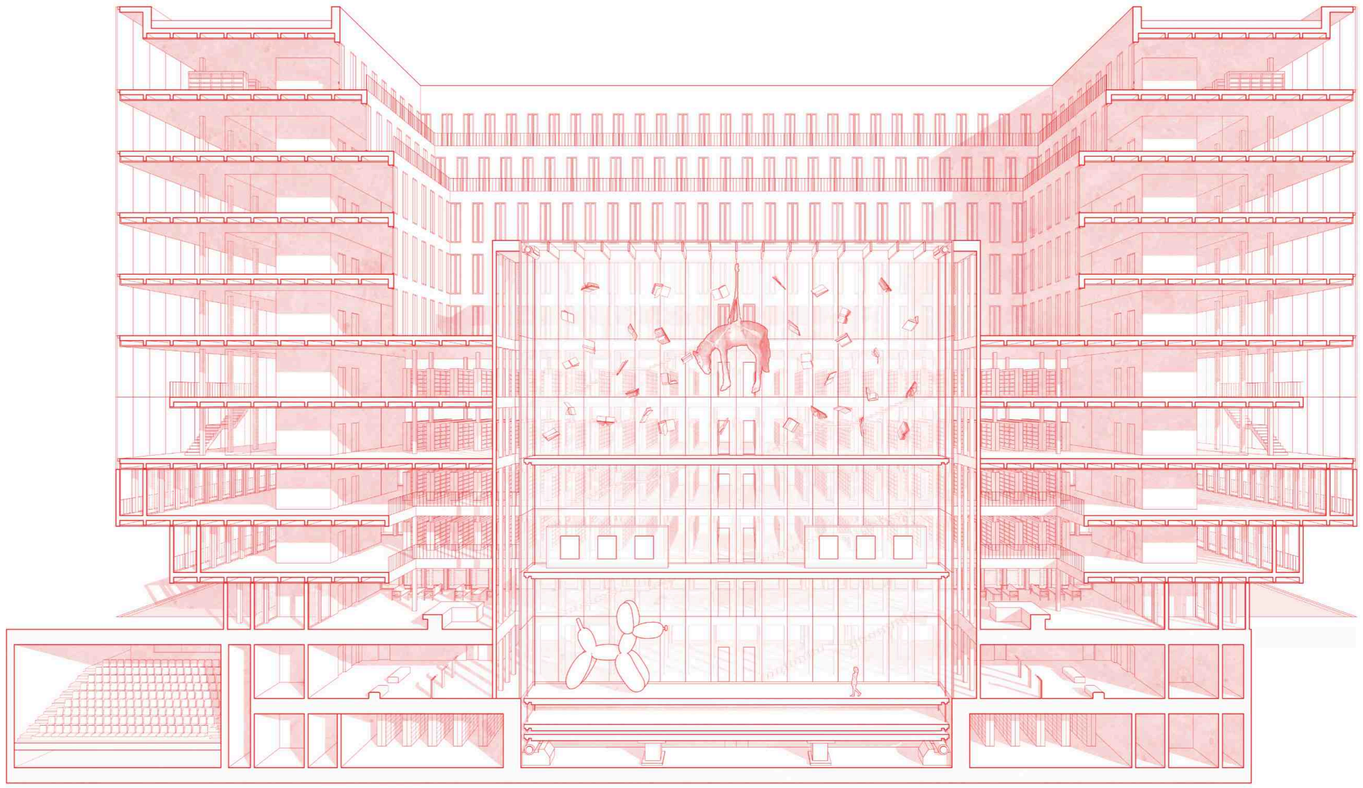
Nuova Biblioteca Europea di Informazione e Cultura

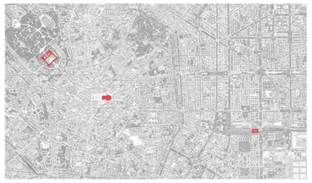


Design Report

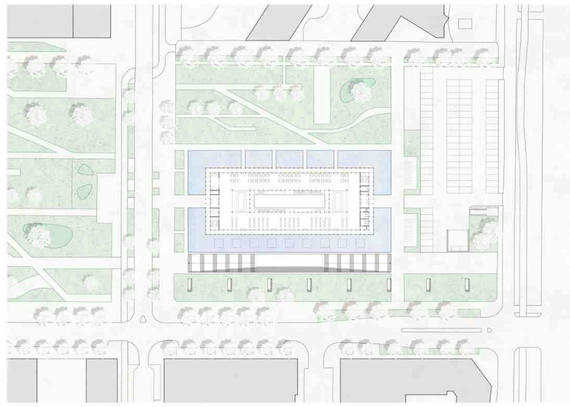
Nuova Biblioteca Europea di Informazione e Cultura

Board 1 Nuova Biblioteca Europea di Informazione e Cultura

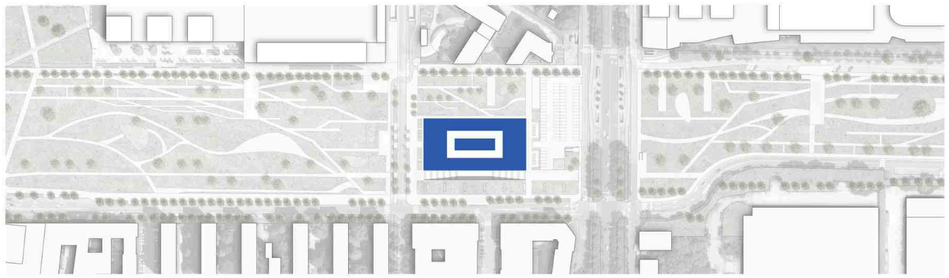
Exterior Perspective



Urban Context
Spaces that serve as a core for complex urban development



Site Plan with Ground Floor M 1:500



Site Plan 1:1000

Board 2 Nuova Biblioteca Europea di Informazione e Cultura

Perspective of the Opened Promenade

Perspective of the Atrium Promenade

Concept of NUOVA BEIC

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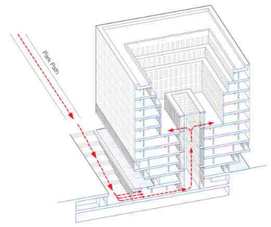

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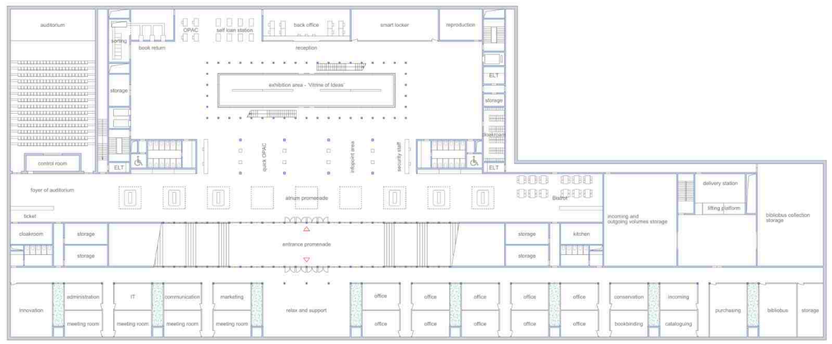
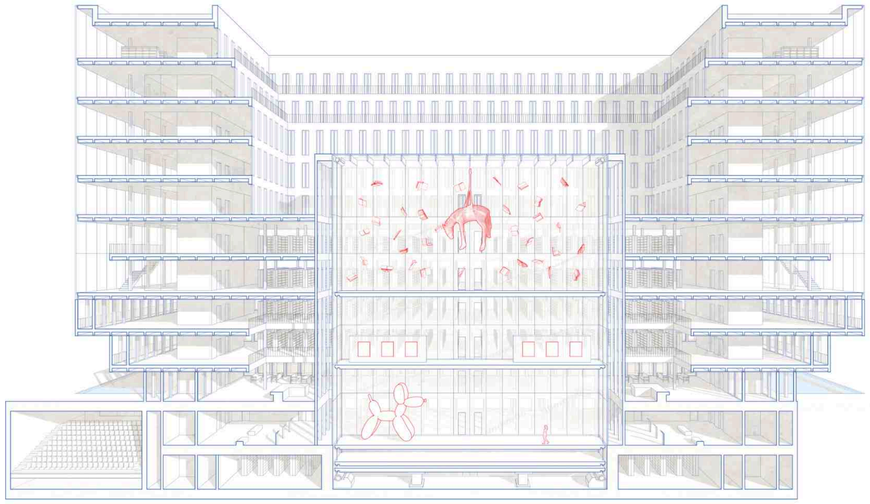
So the library has not just remained a library, but now provides the space where the different ideas are explored and communicated.

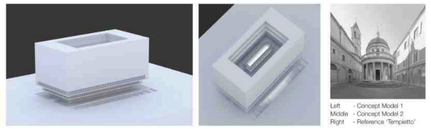
This library is designed to go beyond the traditional image of the library and encourage the expression and exchange of ideas.



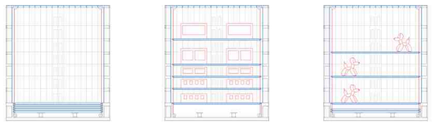
Lower Level 1 - Entrance Hall & Office 1:200



Section Perspective



Left - Concept Model 1
Middle - Concept Model 2
Right - Reference 'Tempietto'

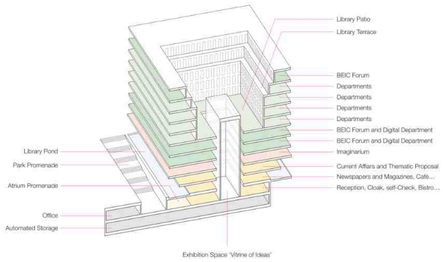


Transform 1 - Atrium

Transform 2 - Exhibition of Picture and Painting

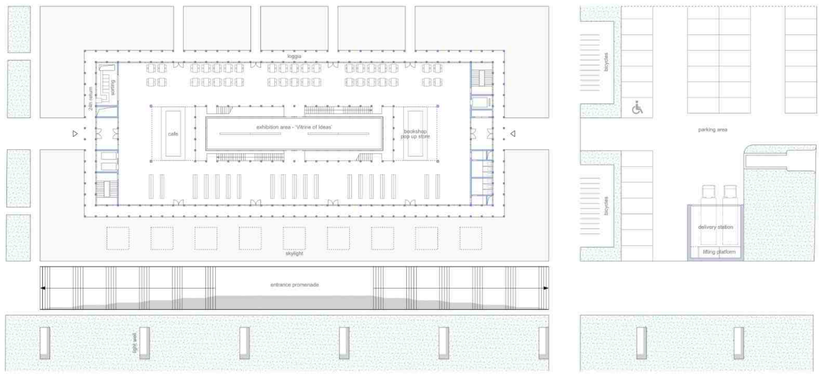
Transform 3 - Exhibition of Installation Art

Exhibition Space 'Vitrine of Ideas'

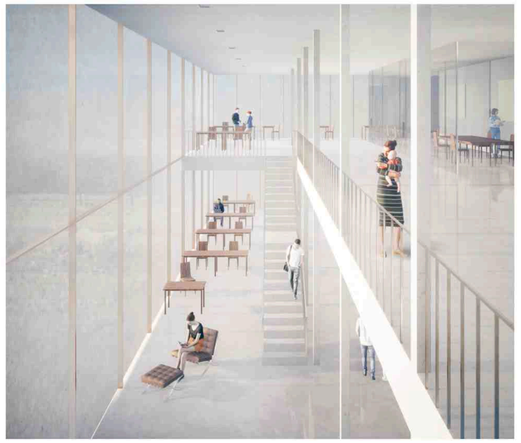


Exhibition Space 'Vitrine of Ideas'

Programm Diagram

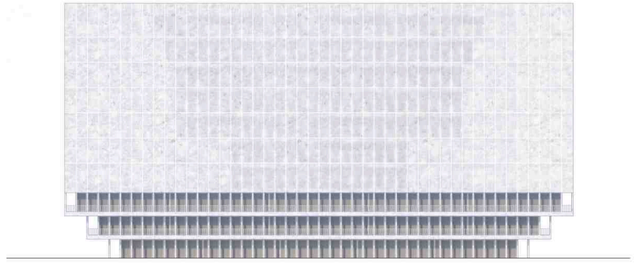


Ground Floor - Entrance Area (newspapers, magazines, cafè, pop-up store) 1:200



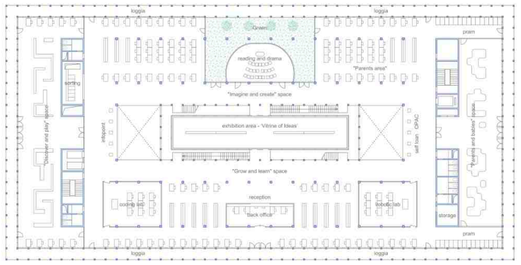
Perspective Reading Space in Third and Fourth Floor

From the interior, the facade material doesn't block the view of people, thus ensuring that the contact with the park is maintained at all times and taking advantage of the natural light in the reading rooms.

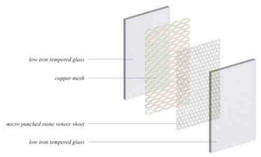


Elevation South 1:200

The trancelucent facade gives the skin a changing appearance depending on the time of the day. The panels glow gently in the sunlight, whereas at night, when the library is illuminated, they appear like a transparent veil. In addition, for the facade, "Candoglia Quarry" will be used to present the locality of Milan.



Second Floor - Imaginarium 1:200



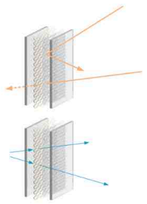
Exterior Window System

The Library is entirely wrapped in a composite energy efficient "glass-metal-stone veneer" skin. Laminated between two glass surfaces, a layer of expanded copper mesh reduces glare and solar gain by 85%, thus greatly reducing long-term energy costs.

Moreover, the copper and punched trancelucent stone veneer sheet give the skin a changing appearance depending on the time of the day. The panels glow gently in the sunlight, whereas at night, when the library is illuminated, they appear like a slightly transparent veil.

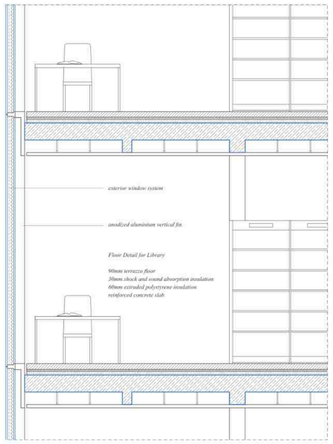
From the interior, this metal mesh is almost invisible and punched stone veneer sheet doesn't block the view of people, thus ensuring that the contact with the park is maintained at all times and taking advantage of the natural light in the reading rooms.

In addition, for the "micro punched translucent stone veneer sheet", "Candoglia Quarry" will be used to present the locality of Milan.

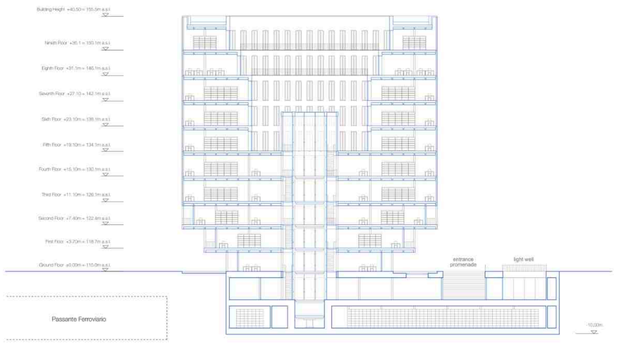


glass - metal - stone veneer - glass

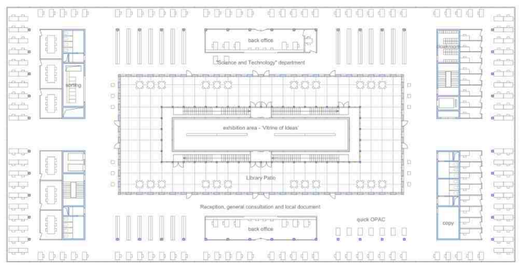
Facade Material



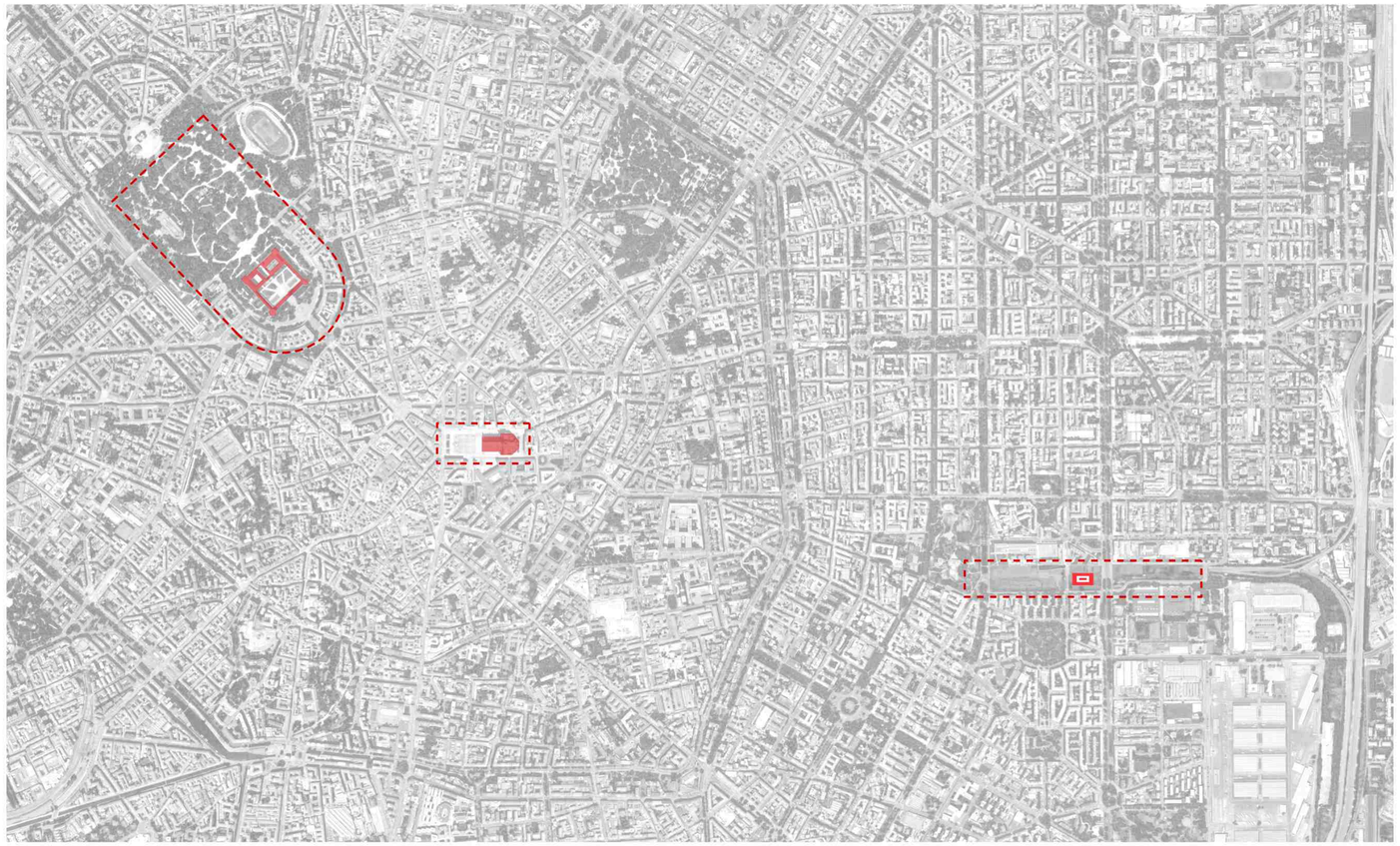
Facade Detail 1:20

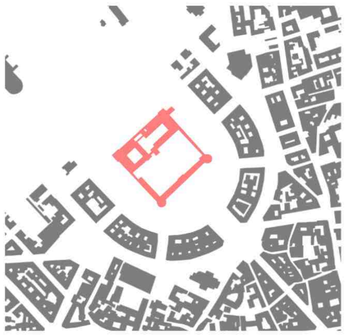


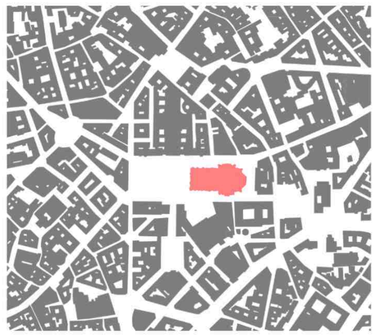
Cross Section 1:200

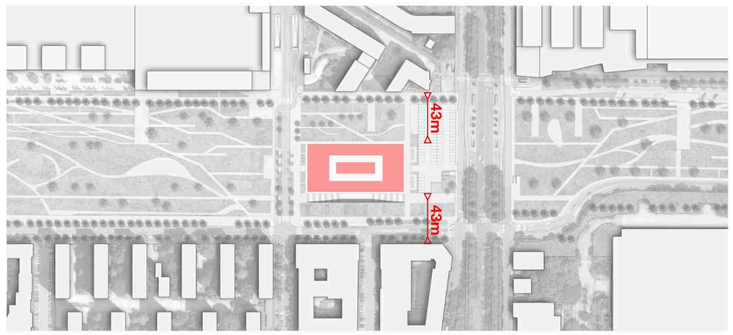


Fifth Floor - Department & Library Patio 1:200









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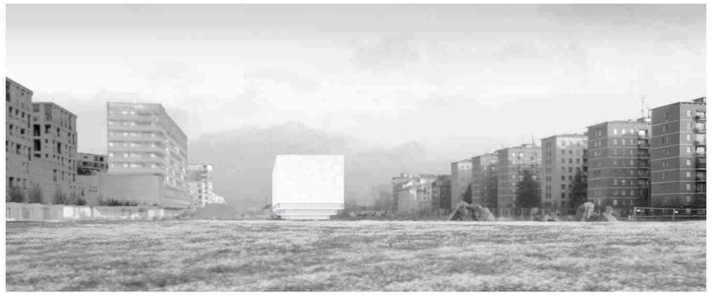
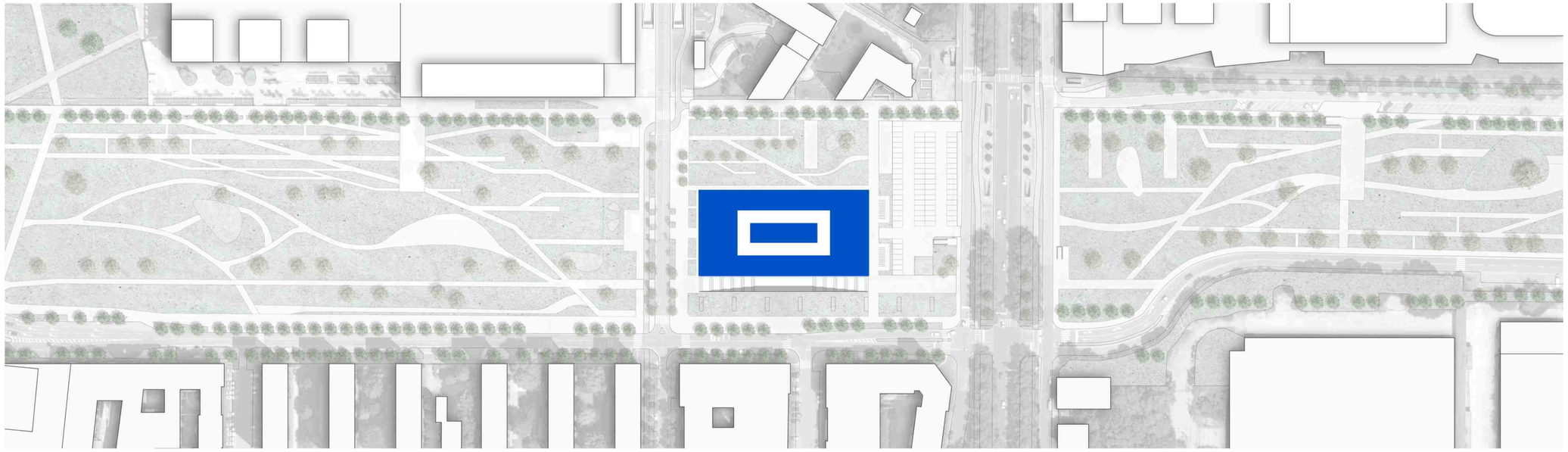
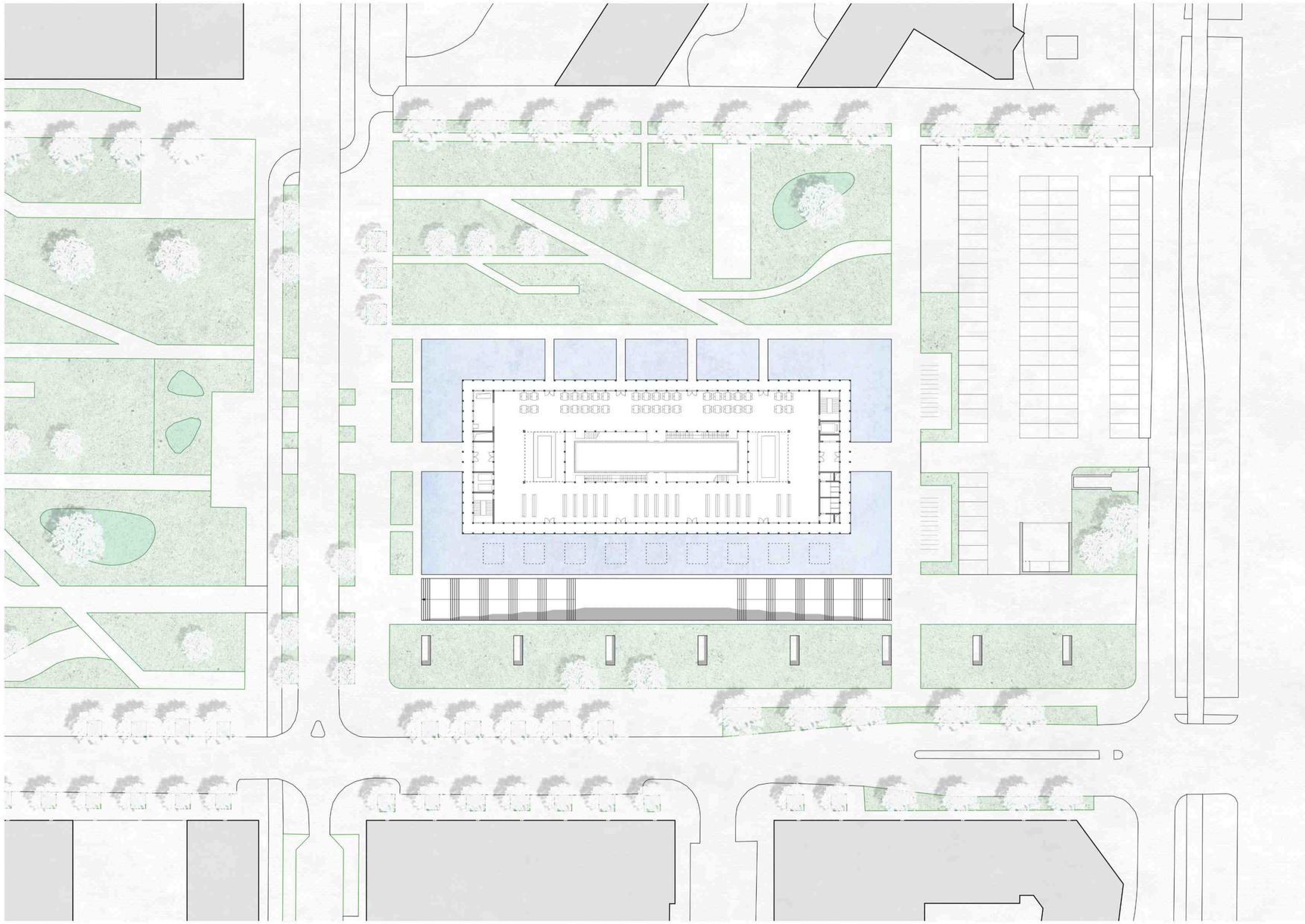
Spaces that serve as a core for the complex urban development



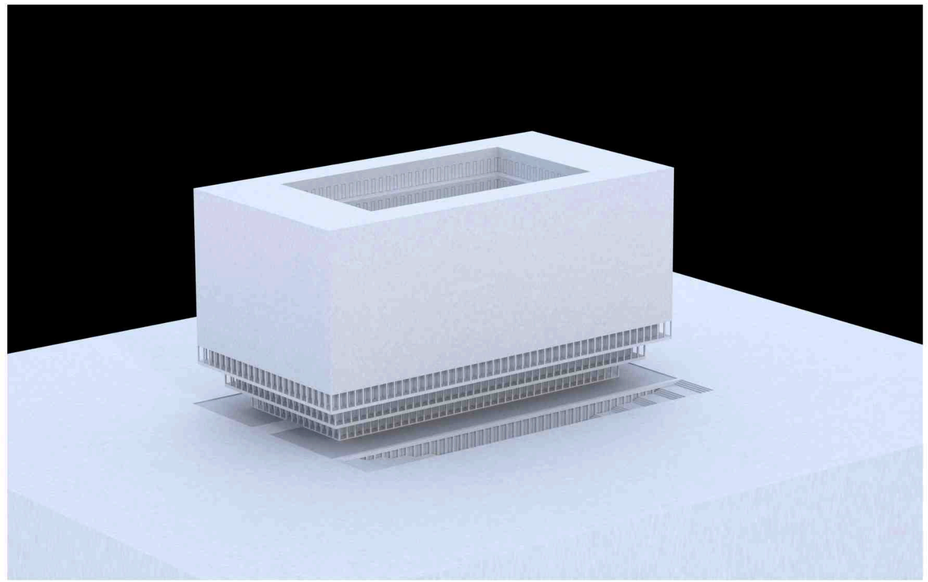


Site Plan

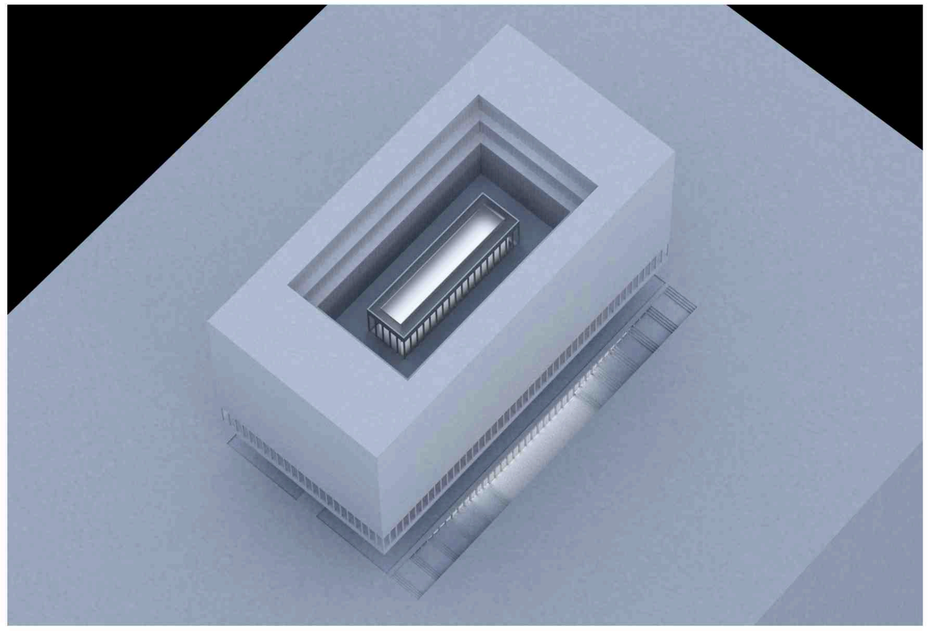
Exterior Perspective



Site Plan with Ground Floor



Concept Model 1



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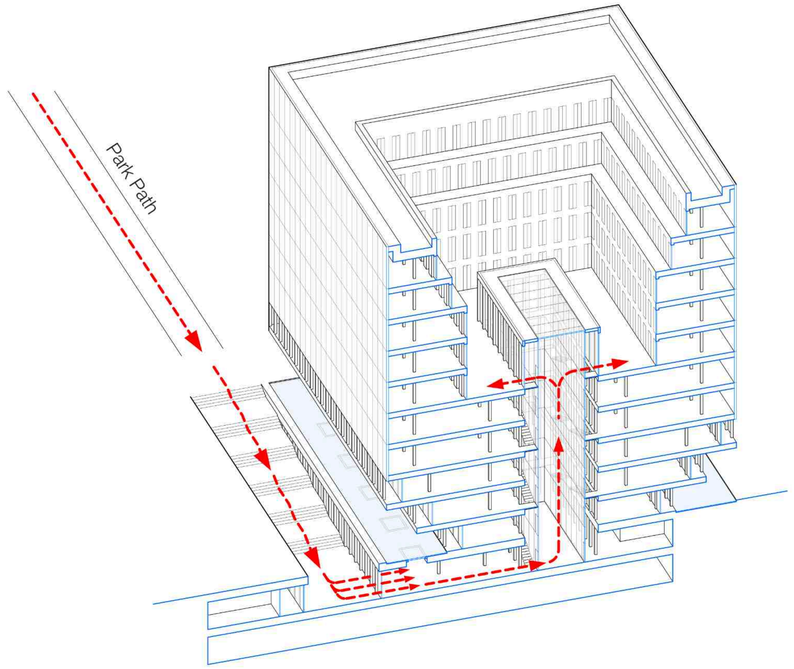
Entrance Promenade

Atrium Promenade



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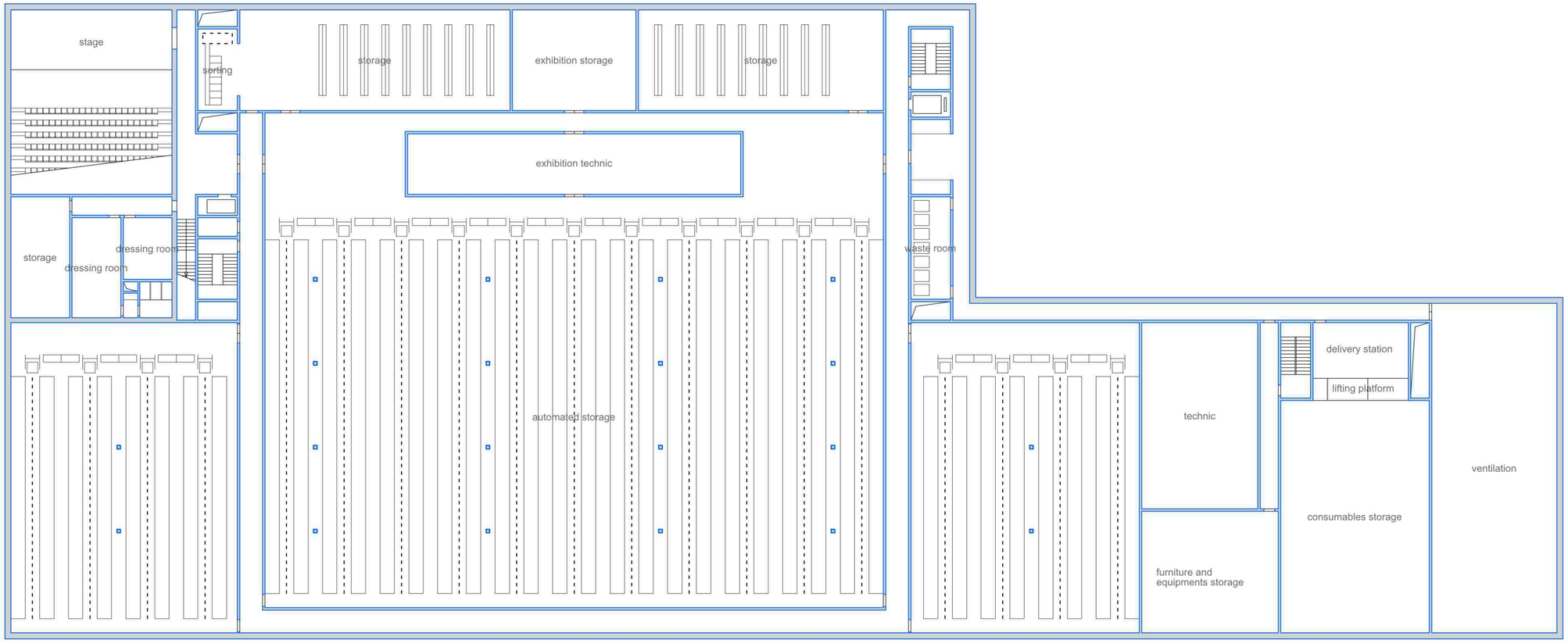
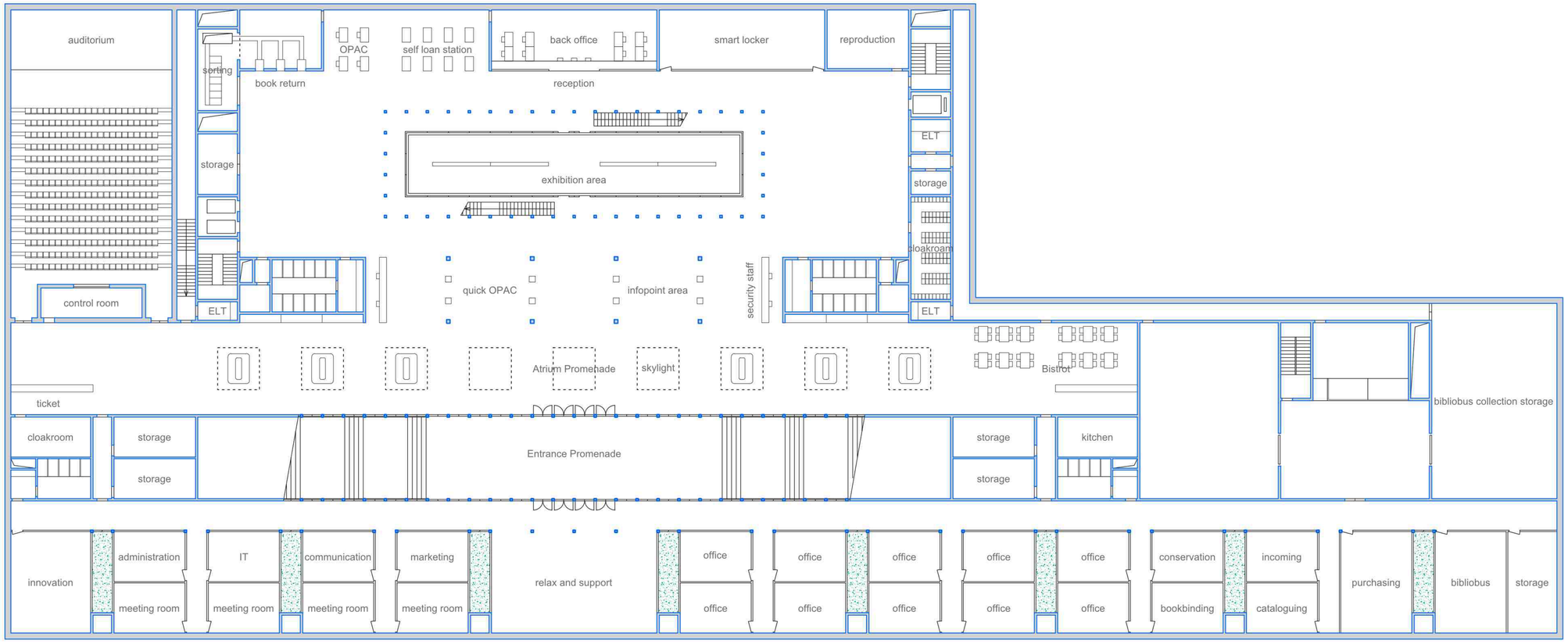
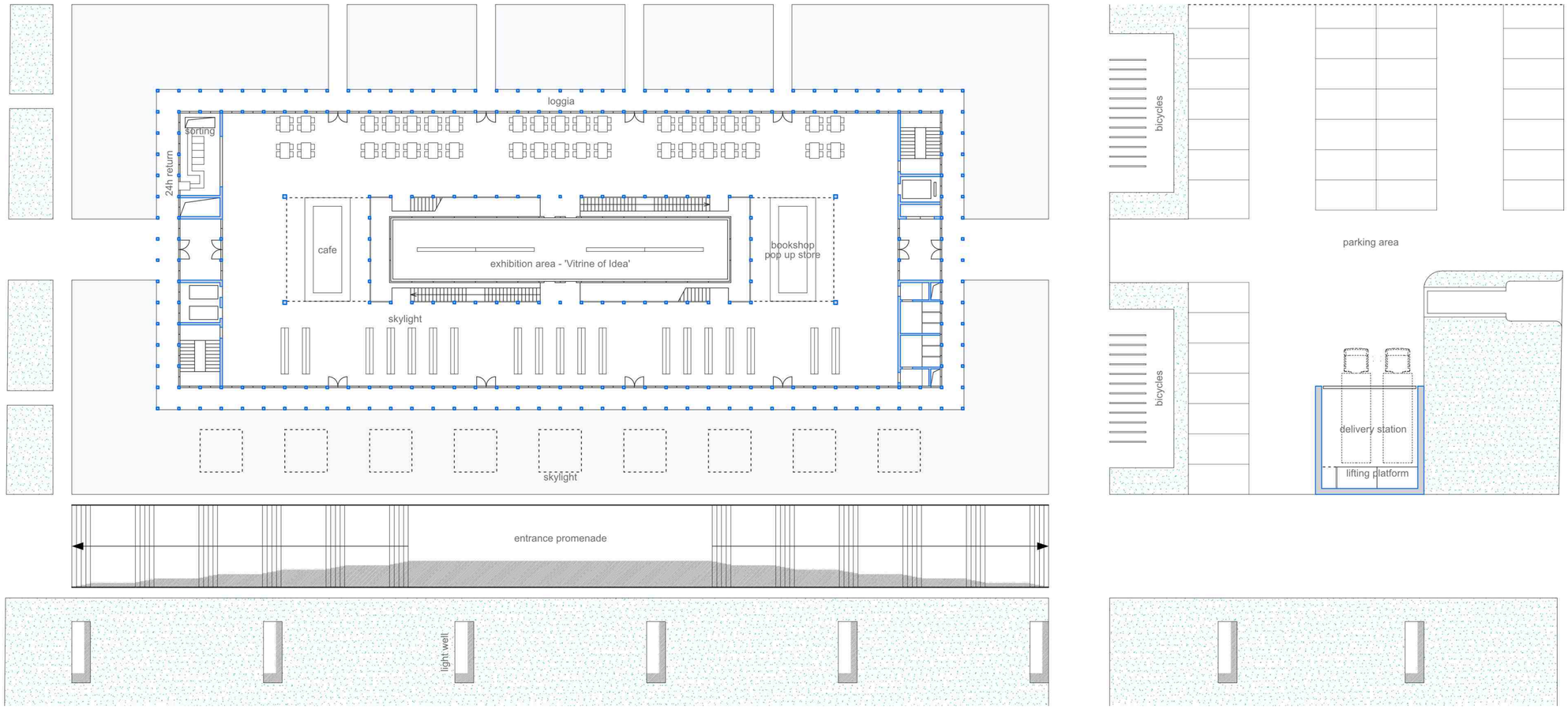


Lower Level 2 - Automated Storage, Technic and Stage 1:400



Lower Level 1 - Entrance Hall and Office 1:400



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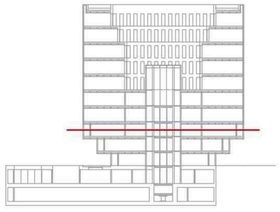
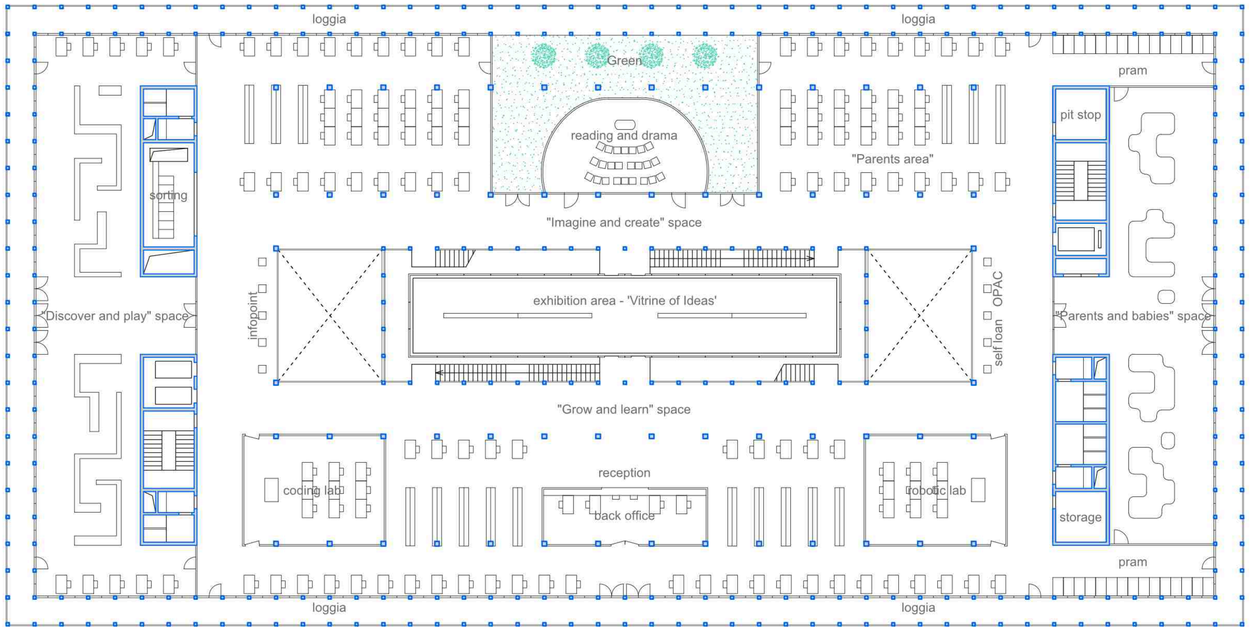
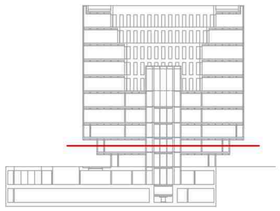
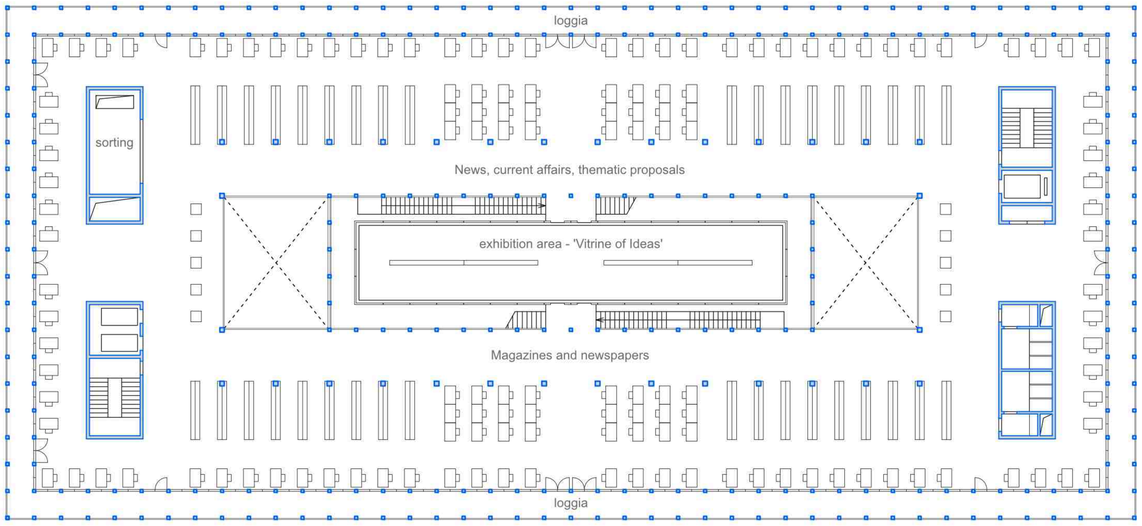


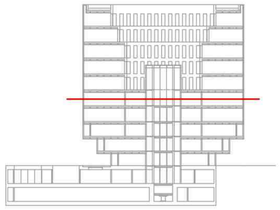


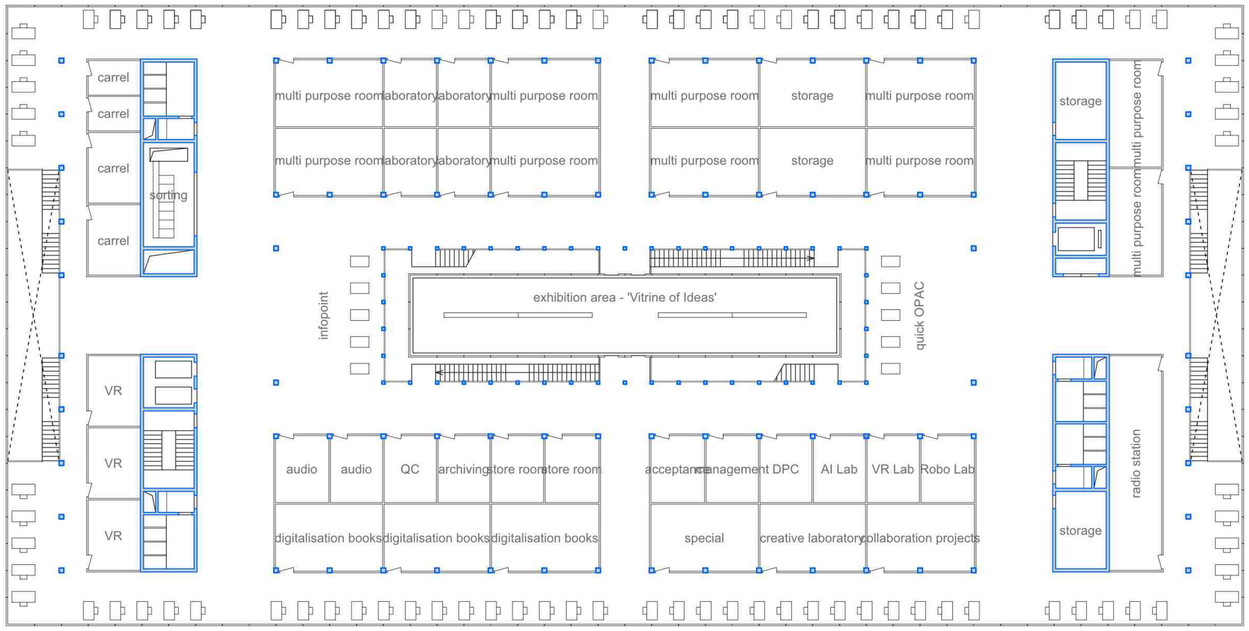
Second Floor - Imaginarium 1:400



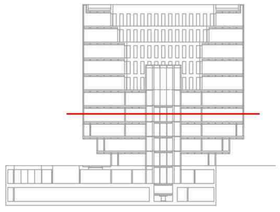


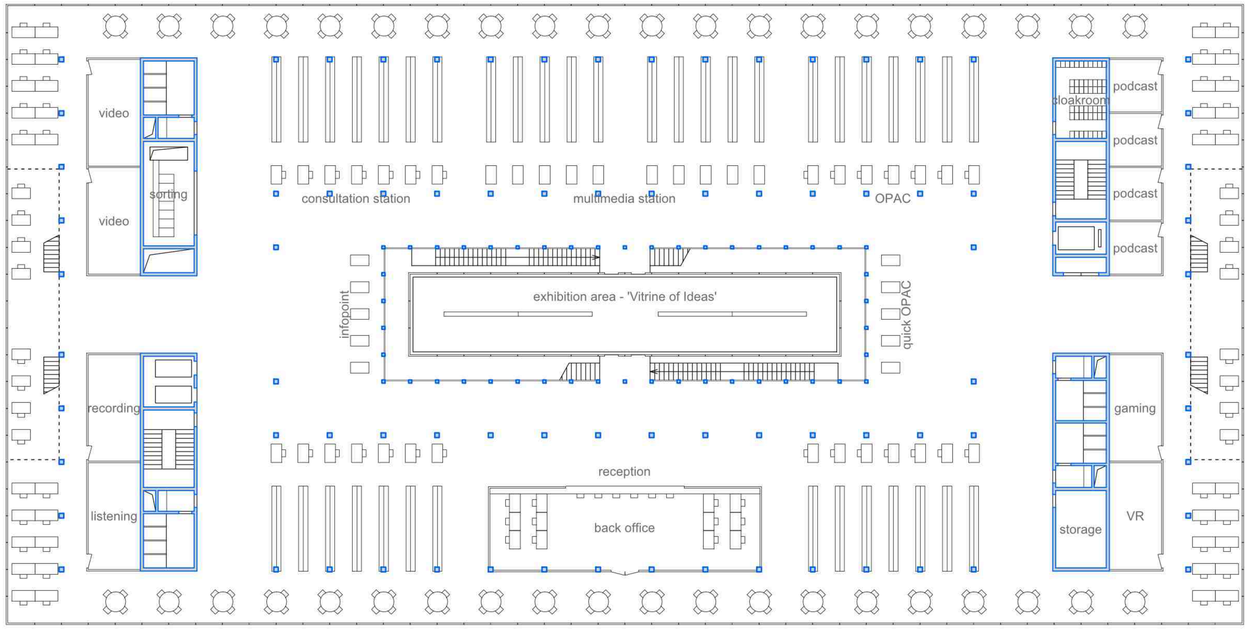
First Floor - Current Affairs and Thematic Proposal 1:400



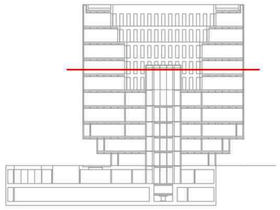


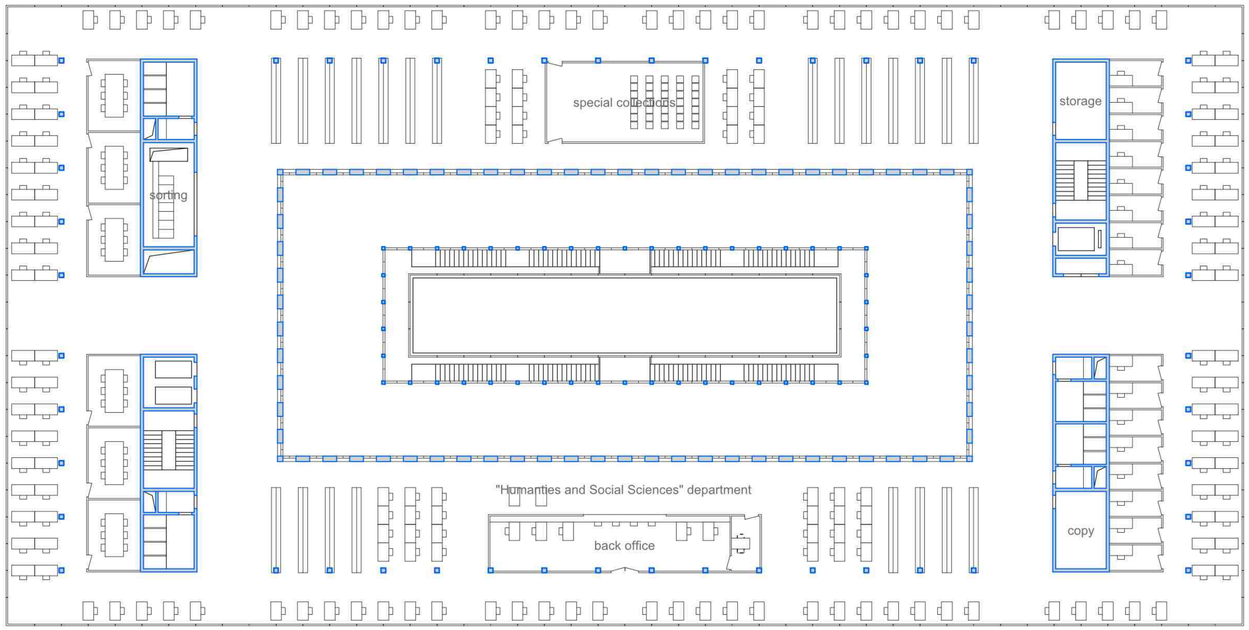
Fourth Floor - BEIC Forum and Digital Department 1:400



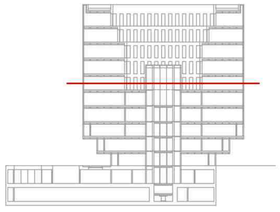


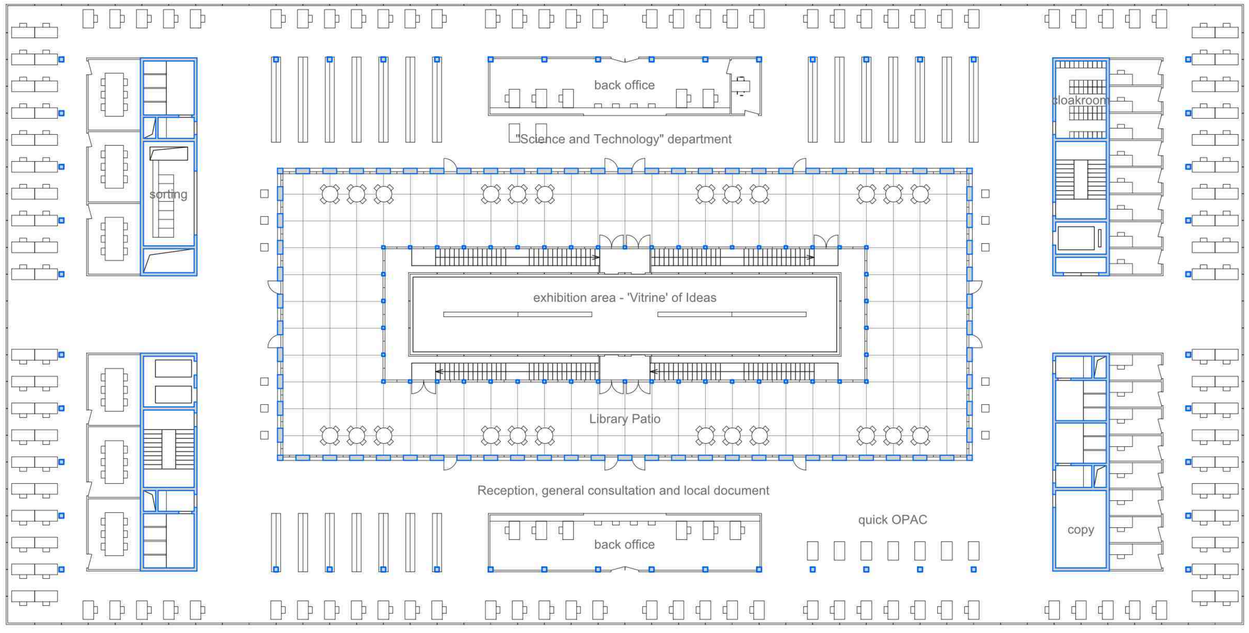
Third Floor - BEIC Forum and Digital Department 1:400



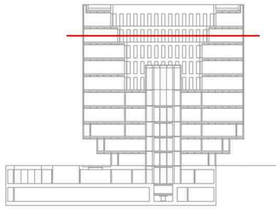


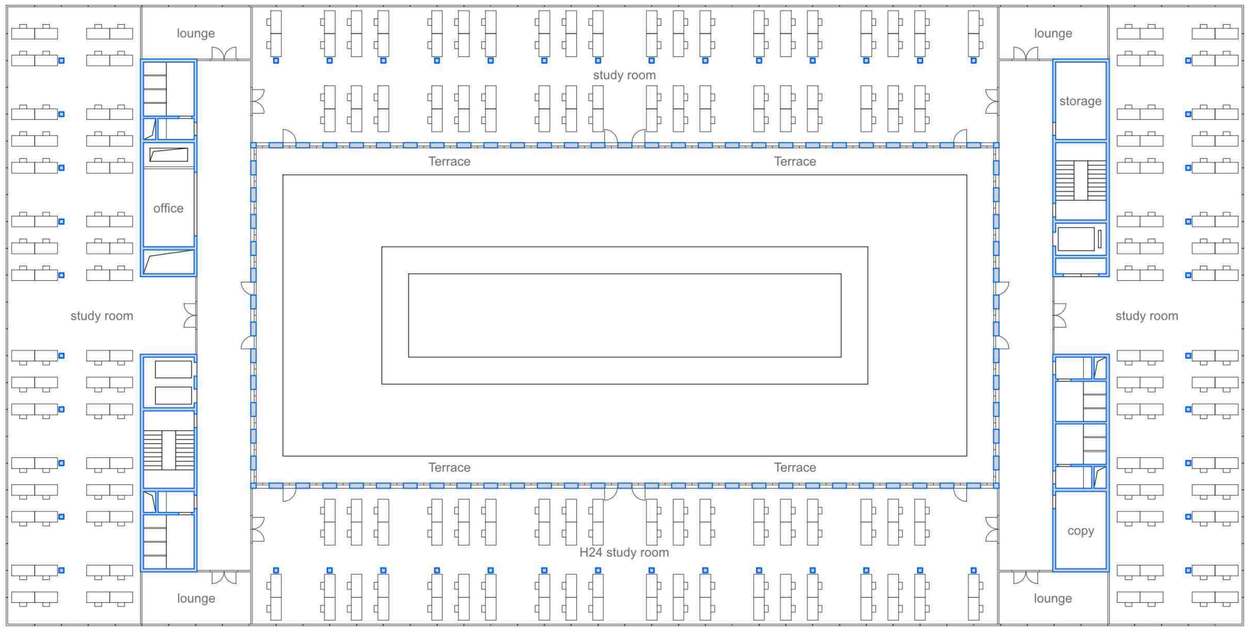
Sixth Floor - Departments 1:400



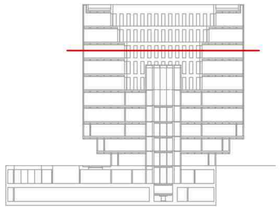


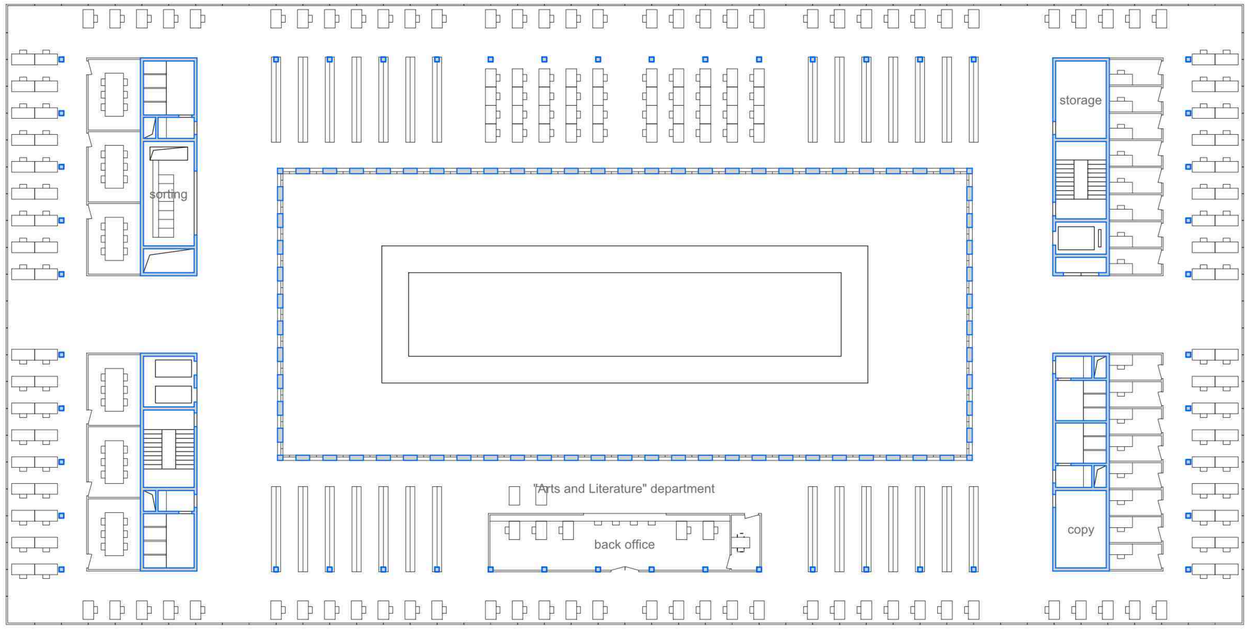
Fifth Floor - Departments 1:400



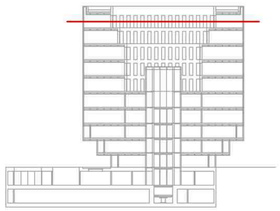


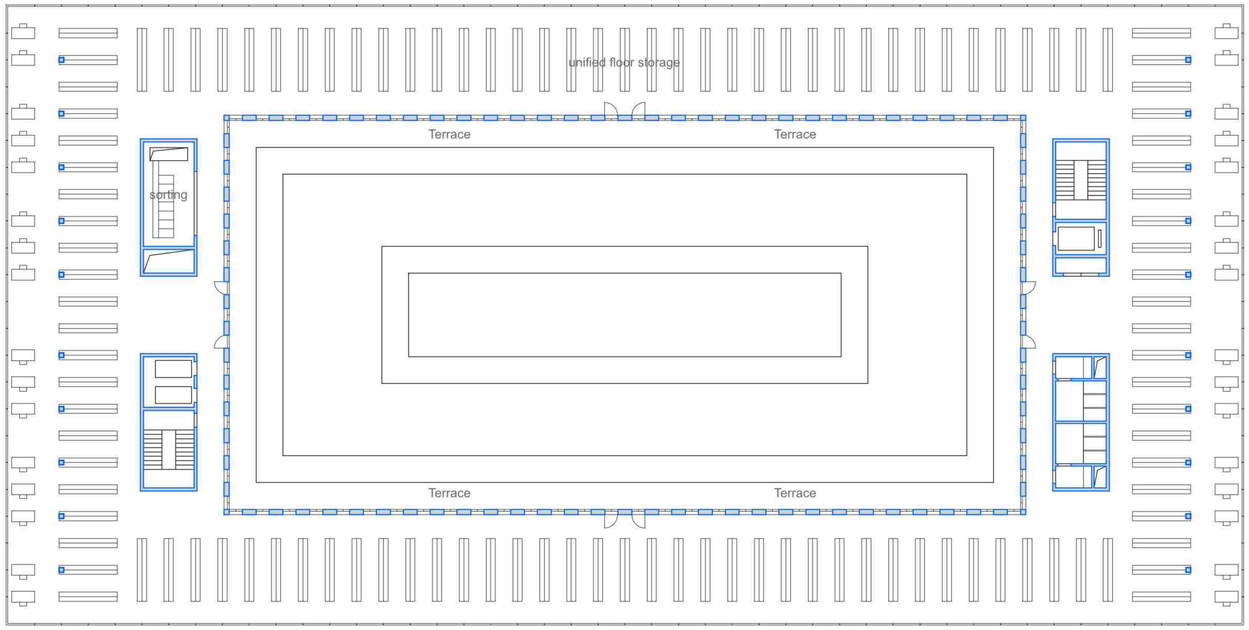
Eighth Floor - Departments 1:400



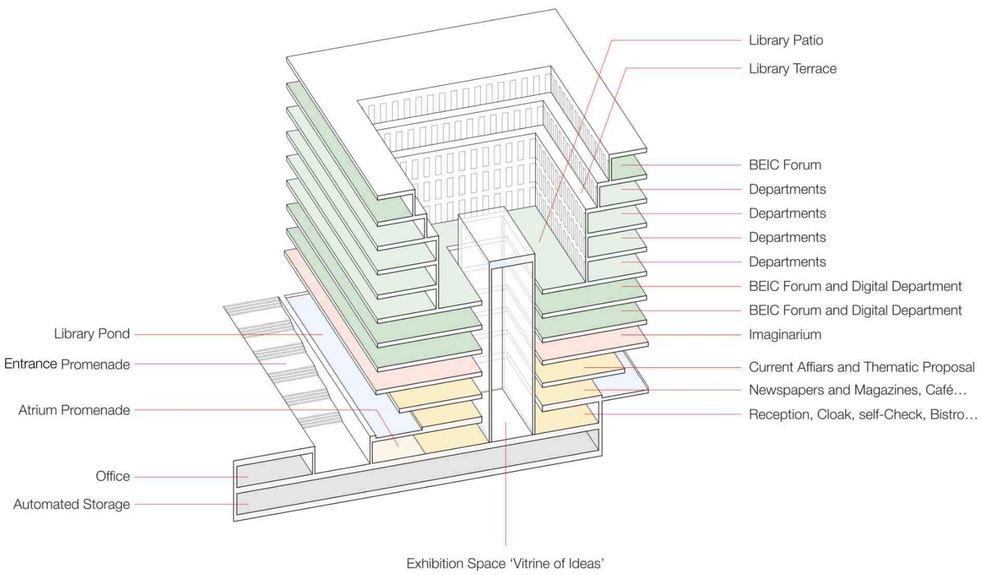


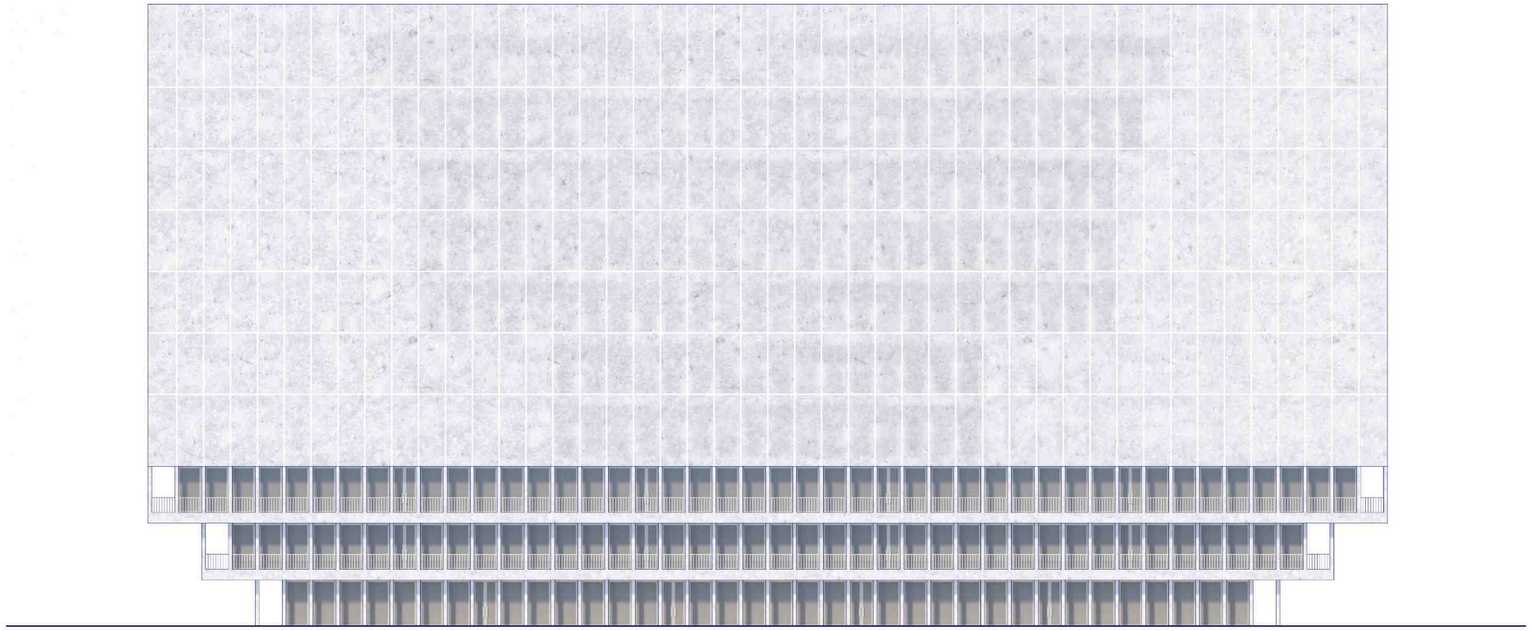
Seventh Floor - Departments 1:400





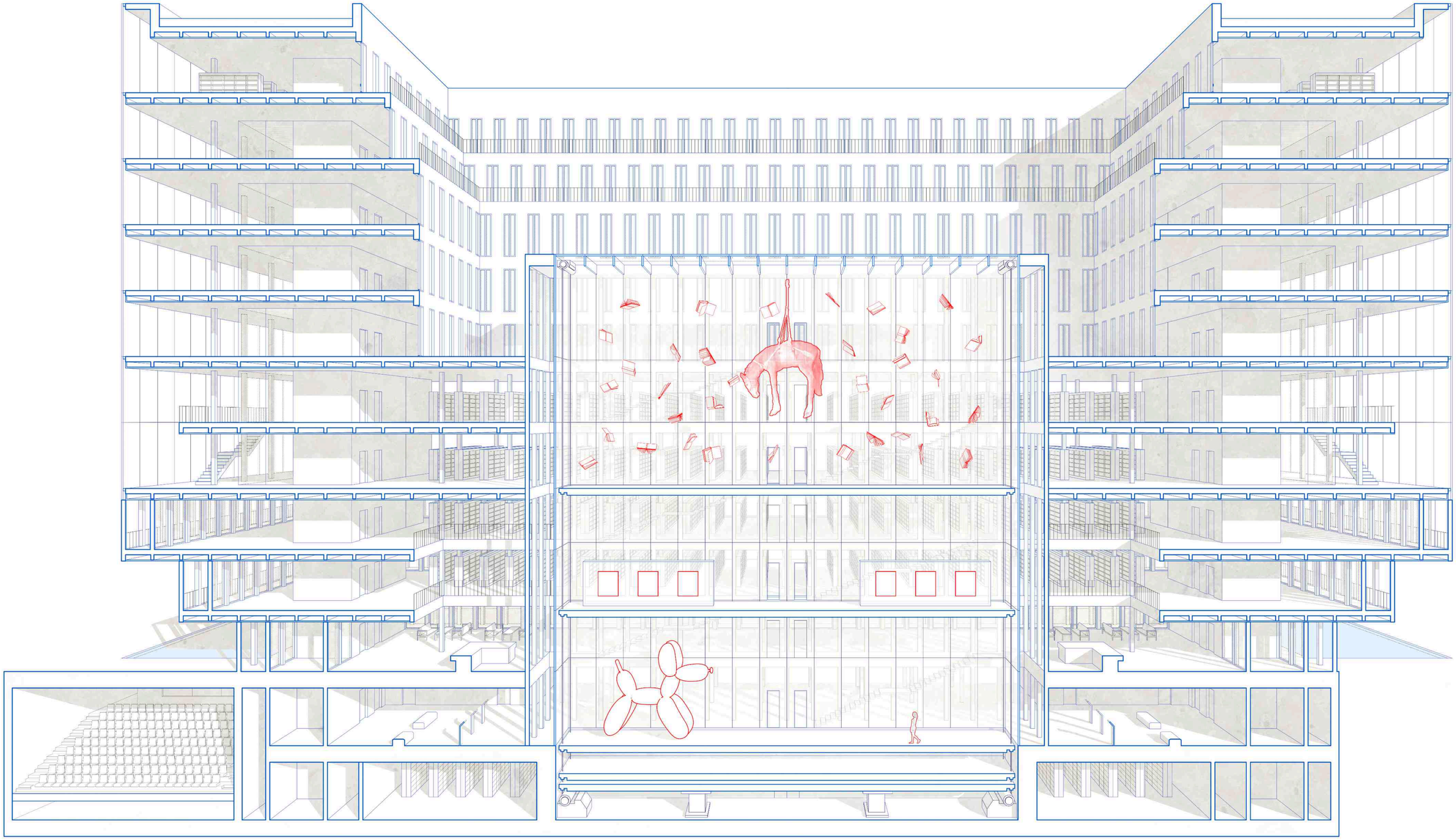
Nineth Floor - BEIC Forum 1:400



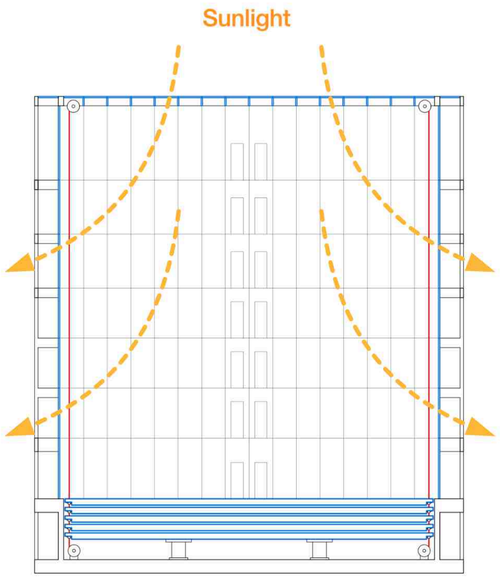


Elevation South 1:400

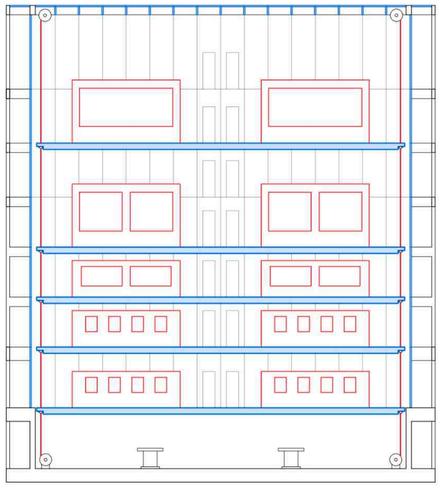
The trancelucent facade gives the skin a changing appearance depending on the time of the day. The panels glow gently in the sunlight, whereas at night, when the library is illuminated, they appear like a transparent veil. In addition, for the facade, "Candoglia Quarry" will be used to present the locality of Milan.



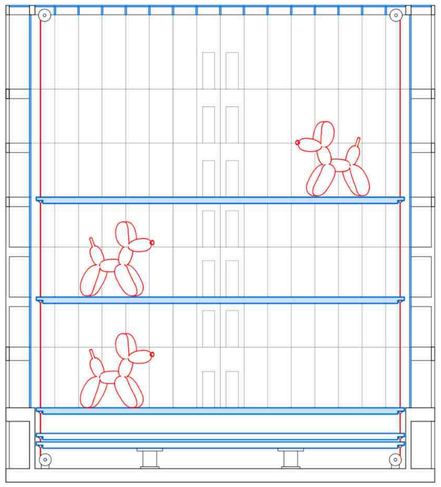
Section Perspective



Transform 1 - Atrium

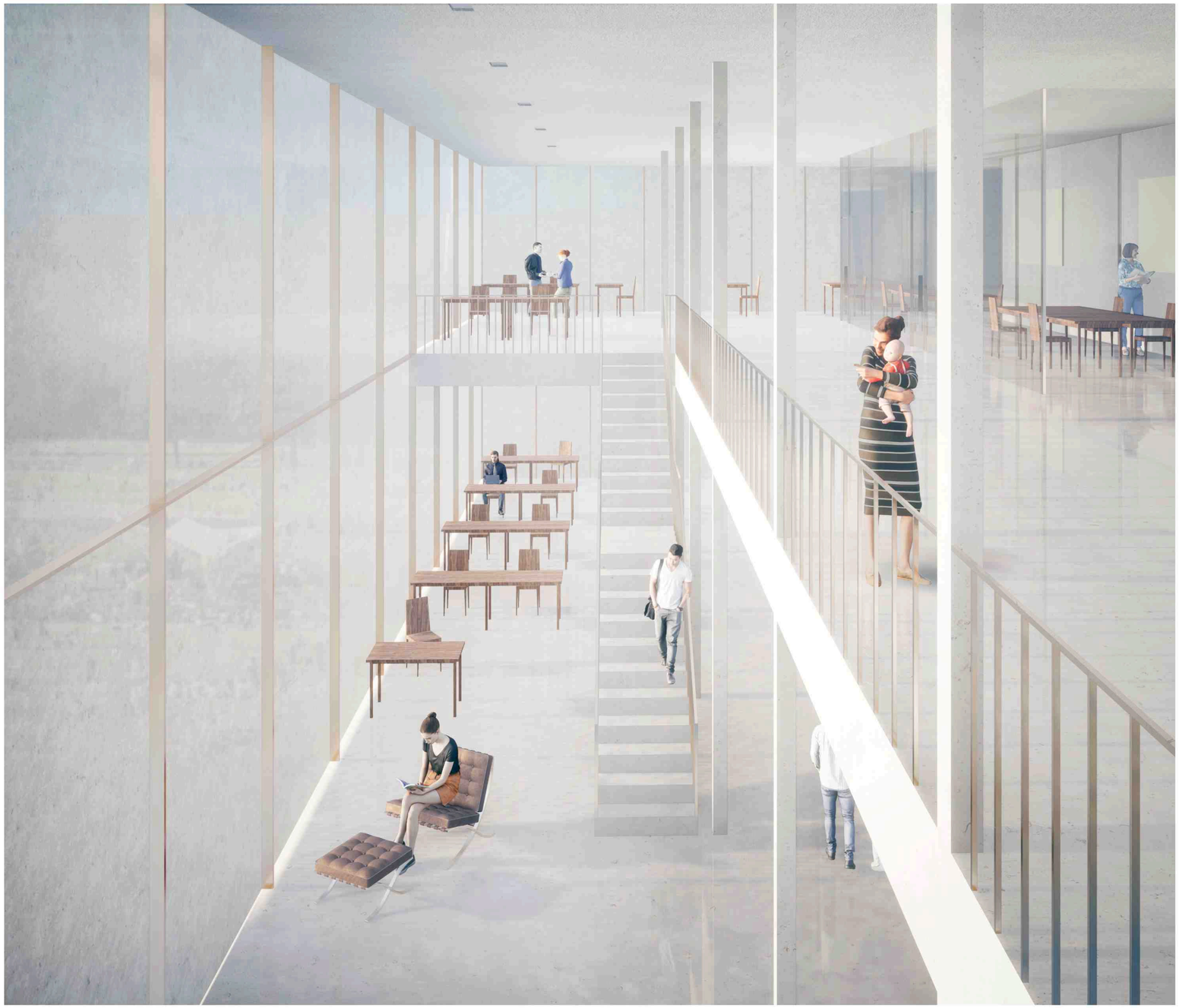


Transform 2 - Exhibition of Picture and Painting



Transform 3 - Exhibition of Installation Art

Exhibition Space - ‘Vitrine of Ideas’



Perspective of the Reading Space in the Third and Fourth Floor

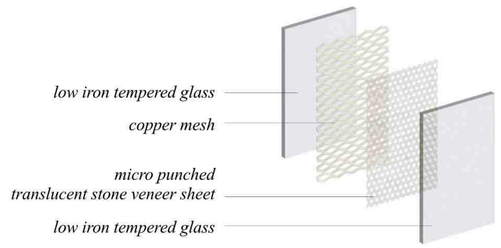
Low Energy - Window System

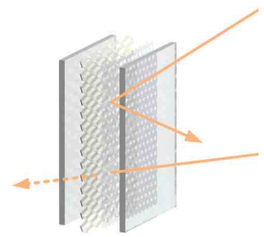
The Library is entirely wrapped in a composite energy efficient "glass-metal-stone veneer" skin. Laminated between two glass surfaces, a layer of expanded copper mesh reduces glare and solar gain by 80%, thus greatly reducing long-term energy costs.

Moreover, the copper and punched trancelucent stone veneer sheet give the skin a changing appearance depending on the time of the day. The panels glow gently in the sunlight, whereas at night, when the library is illuminated, they appear like a slightly transparent veil.

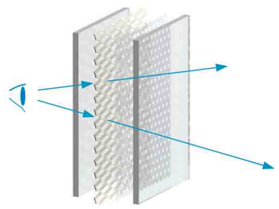
From the interior, this metal mesh is almost invisible and punched stone veneer sheet doesn't block the view of people, thus ensuring that the contact with the park is maintained at all times and taking advantage of the natural light in the reading rooms.

In addition, for the 'micro punched translucent stone veneer sheet', "Candoglia Quarry" will be used to present the locality of Milan.





light-filtering



park view

QUANTITATIVE PROGRAMME		(m²)
ENTRANCE AREA		
A.1 - Promenade	B1	1689
A.2 - Reception and first information area		
A.3 - News, current affairs, thematic proposals	1F	1870
A.4 - Magazines and newspapers		
A.5 - Exhibition area	B1,0F,1F	441
A.6 - Servizi accessori	B1,0F,1F	152
IMAGINARIUM		
B.1 - Reception	2F	1053
B.2 - “Parents e babies” space (0-2/3 years)	2F	301
B.3 - “Discover and play” space (3-5/6 years)	2F	290
B.4 - “Grow and learn” space (6-9 years)	2F	904
B.5 - “Imagine and create” space (10-13 years)		
B.6 - “Parents area”		
B.7 - Accessory services	2F	256
COMMERCIAL SPACES		
C.1 - Commercial activities	B1, 0F	1469
AUDITORIUM		
D.1 - Auditorium	B1, B2	915
B.E.I.C. FORUM		
E.1 - “Music, entertainment, gaming and new media” section	3F, 4F	4451
E.2 - Laboratories / multi-purpose rooms	4F	538
E.3 - Temporary exhibitions	3F, 4F	358
DIGITAL DEPARTMENT		
F.1 - Cultural heritage digitisation centre	4F	347
F.2 - Innovation Lab	4F	45
DEPARTMENTS		
G.1 - Reception, general consultation and local documentation	5F, 9F	4141
G.2 - “Science and Technology” department		
G.3 - “Humanities and Social Sciences” department	6F	2171
G.4 - “Arts and Literature” department	7F	2231
G.5 - Special collections	6F	57
G.6 - Study room with own materials	8F	1575
G.7 - H24 study room	8F	453
AUTOMATED CENTRAL STORAGE		
H.1 - Automated central storage	B2	3691
INTERNAL SERVICES		
I.1 - Logistics and document management	B1, B2	2408
I.2 - Technical spaces and rooms for systems	B2-9F	1374
I.3 - Parking areas	B2-1F	197

OVERVIEW		
Project title : Nuova Biblioteca Europea di Informazione e Cultura		
Site location : Viale Molise, Via Monte Ortigara, Via Cervignano, 20137 Milano		
Area/District : Umbria-Molise-Calvairate district		
Site area	m²	19000
Building area	m²	3264
Total floor area	m²	36408
Underground	m²	25456
Ground	m²	10952
Floor area ratio	%	17%
Total floor area ratio	%	192%
Floor		B2F, 9F
Max. height	m	40,5
Parking lots		Car: 78 EA, Bicycle: 48 EA
Landscape area	m²	6721

SUMMARY OF REQUIREMENTS		
Total indicative area of the B.E.I.C.	m²	**33376**
of which Entrance area	m²	4152
of which Imaginarium	m²	2804
of which Commercial spaces	m²	1469
of which Auditorium	m²	915
of which B.E.I.C. Forum	m²	5347
of which Digital department	m²	392
of which Departments	m²	10627
of which Automated central storage	m²	3691
of which Internal services	m²	3979
Operator workstations	EA	**270**
of which front office workstations	EA	33
of which back office workstations	EA	237
Places for the public	EA	**2026**
of which informal chairs	EA	320
of which desk workstations	EA	1303
of which seats in auditoriums or other rooms	EA	403
Computer stations for the public	EA	**144**
of which OPAC and internet stations	EA	18
of which desk PC workstations	EA	91
of which self-loan stations	EA	16
of which gaming stations	EA	10
of which VR workstations	EA	4
of which self-service reproduction stations	EA	5
Bibliographic units	EA	**3177458**
of which open shelf volumes and audiovisuals	EA	160142
of which open shelf periodicals	EA	1496
of which volumes in the floor storage	EA	255960
of which volumes in the central storage	EA	2728000
of which audio-visual in storage	EA	15930
of which bibliobus storage	EA	15930
Exhibition areas		
fitted walls and bulletin boards (in linear metres)	m	96

summary of estimated construction cost calculation

Project : nuova B.E.I.C. (Biblioteca Europea di Informazione e Cultura in Milan)

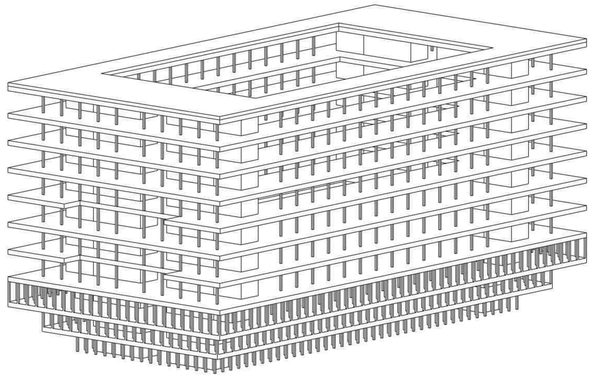
categories	working	COST (Euro)	Percentage
1.1 Opere compiute civili, urbanizzazioni e difesa del suolo	1C - Construction works	34.384.116,04 €	44,61%
	1U - Urbanization works	2.791.204,00 €	3,62%
	1S - Safty costs	6.696,00 €	0,01%
1.2 Opere compiute impianti elettrici e meccanici	1E - electrical system works - rate calculation	14.324.303,00 €	18,58%
	1M - mechanical system works - rate calculation	10.354.080,00 €	13,43%
others	furnishing - rate calculation	6.850.000,00 €	8,89%
resurfacing of Via Cervignano	2U - Urbanization works - rate calculation	8.373.612,00 €	10,86%
	TOTAL (excl. VAT)	**77.084.011,04 €**	**100%**
	TOTAL (incl. VAT)	**94.042.493,47 €**	**122%**

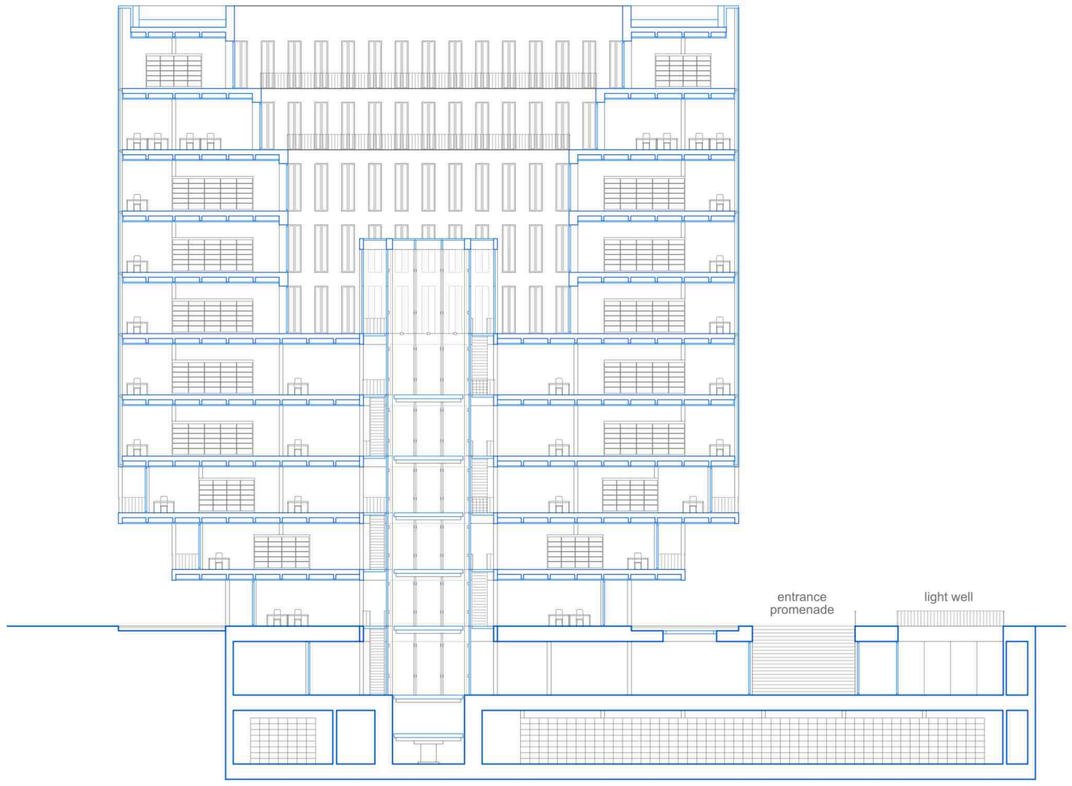
The budget for the facade, which requires special processing, was calculated in a realisable amount, on the other hand the total cost was efficiently reduced through the modularized construction.

BIM Process and Construction Management

By implementing the design of BIM process from the concept phase, it is possible to efficiently manage the needs of complex functions and stable structures and thoese are applied to the plan in real time. This work method is applied also to the construction stage and provides a system that can manage the entire project without interruption.

At the current stage of this design, information for construction is already included in some levels, which enables economical and efficient construction management.





Cross Section 1:400