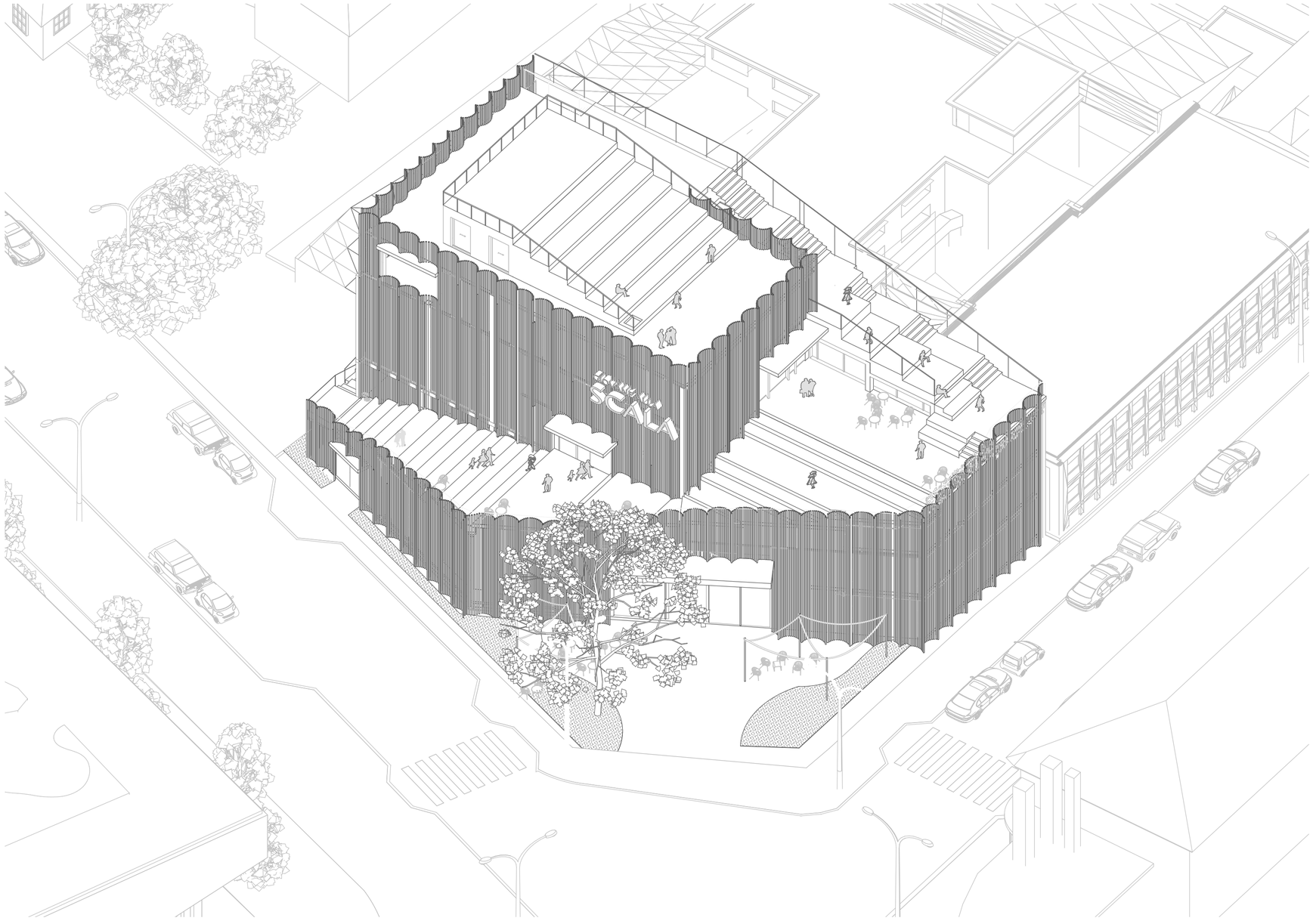
Inas El Ferkhsi
2221455
CARC6005
Giovane Alla Scala

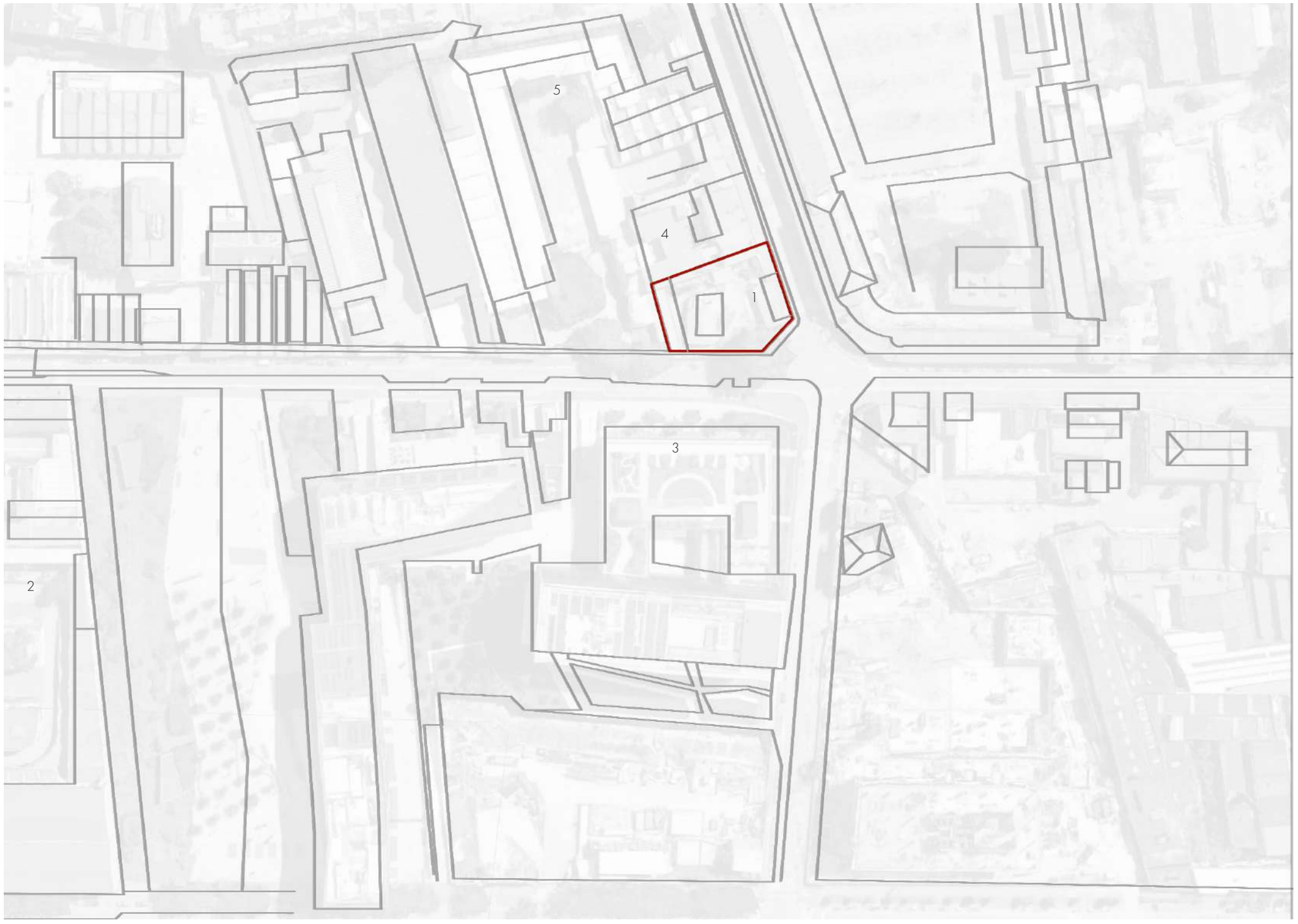
Aerial view



Giovane Alla scala

In the heart of Milan's cultural landscape, where tradition meets innovation, rises Giovane Alla Scala, a testament to reimagining the classic opera house for the modern era. At first glance, one may notice a departure from the conventional stone facades that adorn many of the world's grand opera houses. Instead, Bambino Scala proudly boasts a facade crafted from warm, inviting wood.

Site surroundings:



1- Site
2- Fondazione Prada
3- Offices
4- School
5_ Plazza

The site is located at the vibrant intersection of Via Orobio in Milan, Italy. Situated within close proximity to the iconic Prada Foundation, a testament to avant-garde architectural innovation by OMA architects, The nearby Prada Foundation, with its bold architectural forms and cutting-edge exhibitions, sets the stage for a dynamic exchange of ideas and creativity within the neighborhood. The corner location of the site offers unique opportunities for architectural expression.

Milan, renowned for its rich cultural heritage and vibrant arts scene, boasts a distinguished tradition of opera that dates back centuries. At the heart of this tradition are the city's iconic opera houses, which have long served as bastions of high culture and sophistication. However, a closer examination reveals that these institutions, while steeped in history and tradition, are primarily concentrated within the city center and often uphold a formal, exclusive atmosphere.

Among the most notable opera houses in Milan is the world-renowned Teatro alla Scala, commonly referred to as La Scala.

These Institutes, while offering unparalleled artistic experiences, cater primarily to affluent patrons and opera aficionados, creating a barrier to access for many residents and visitors alike.

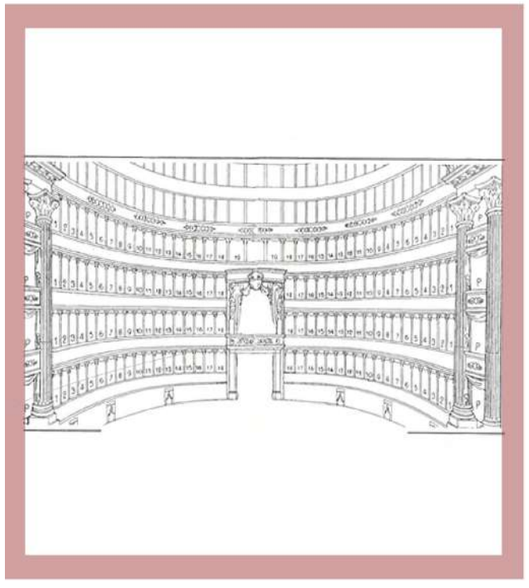
1- La Scala Theater
2- Gallerian Opera Serian
3- Urbo Opera
4- Opera Milano

Revolutionize the opera experience in Milan

Creating an opera house institution that goes beyond the traditional boundaries;

The name "Giovane alla Scala" encapsulates the essence and mission of my opera house project in Milan. "Giovane" translates to "young" in Italian, reflecting my dedication to creating a space that caters to the needs and interests of today's younger generation. By choosing this name, I aim to convey my commitment to reimagining the opera experience for a new era, one that is more accessible, inclusive, and relevant to contemporary audiences.

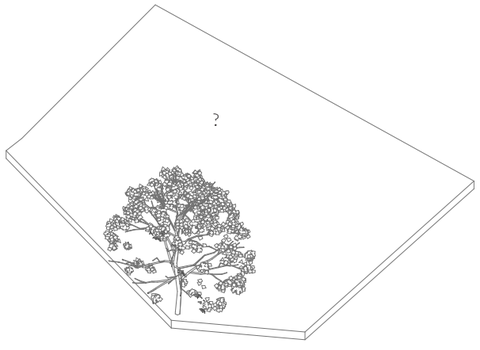
The addition of "alla Scala" pays homage to Milan's esteemed opera tradition, specifically referencing Teatro alla Scala, commonly known as La Scala.
As one of the world's most renowned opera houses, La Scala holds a special place in the hearts of opera enthusiasts worldwide.



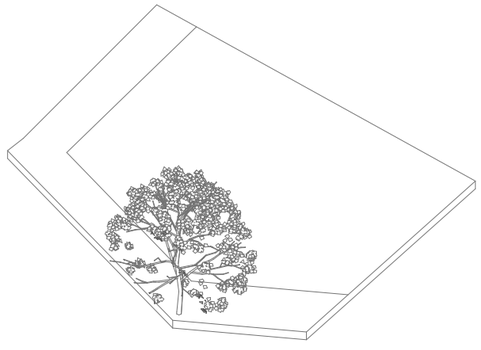
While Milan's existing opera houses have long been revered for their grandeur and prestige, they also reflect a culture of formality and exclusivity that can be alienating to many. With the advent of Giovane Alla Scala Opera House, there is an opportunity to reimagine the role of opera in Milan, making it more accessible, approachable, and inclusive for audiences of all backgrounds and walks of life. By incorporating "alla Scala" into the building's name, I acknowledge the legacy and prestige of this iconic institution while signaling my intention to offer a fresh perspective on opera that complements rather than competes with the grandeur of La Scala.

In essence, "Giovane alla Scala" represents a harmonious fusion of tradition and innovation, heritage and modernity. It symbolizes my aspiration to honor the rich legacy of opera in Milan while paving the way for its continued evolution and relevance in the years to come. Through the chosen name, I want to invite audiences of all ages to join us on a journey of discovery and exploration, as I strive to make opera a vibrant and integral part of contemporary cultural life in Milan and beyond.

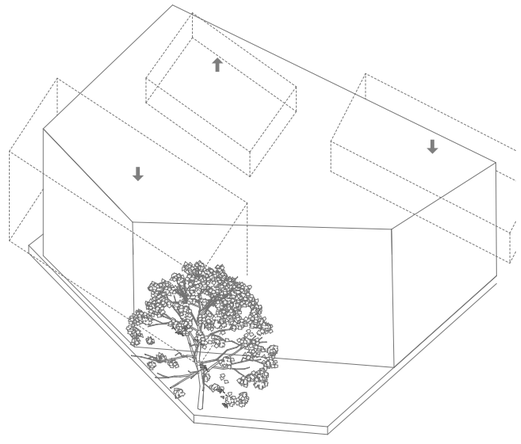
Diagrams:



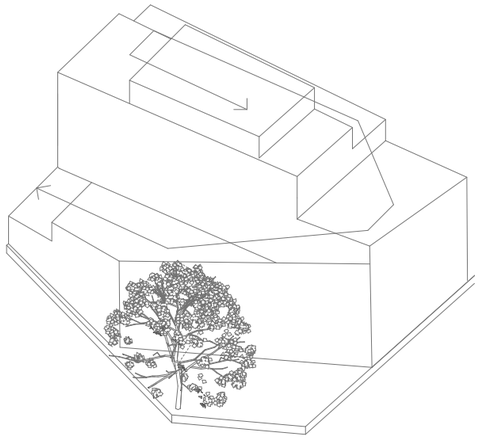
Existing site



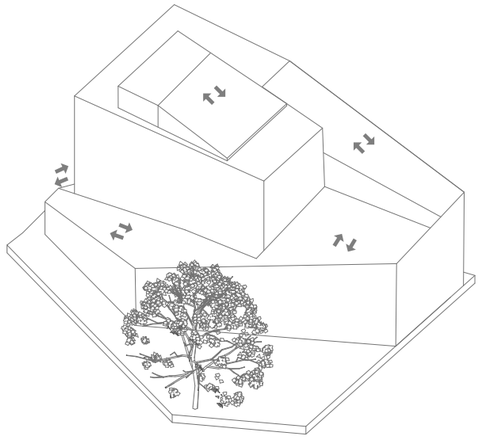
A corner lot distinguished by the presence of a big tree



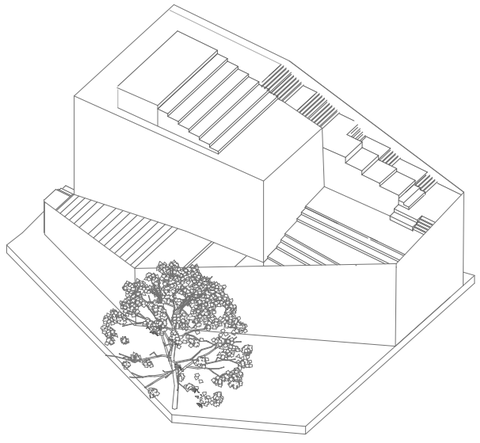
Filling the site but keeping the tree



Each floor has a terrace



Spiral terraces



Connecting the terraces inspired by the famous Spaanish steps in Rome

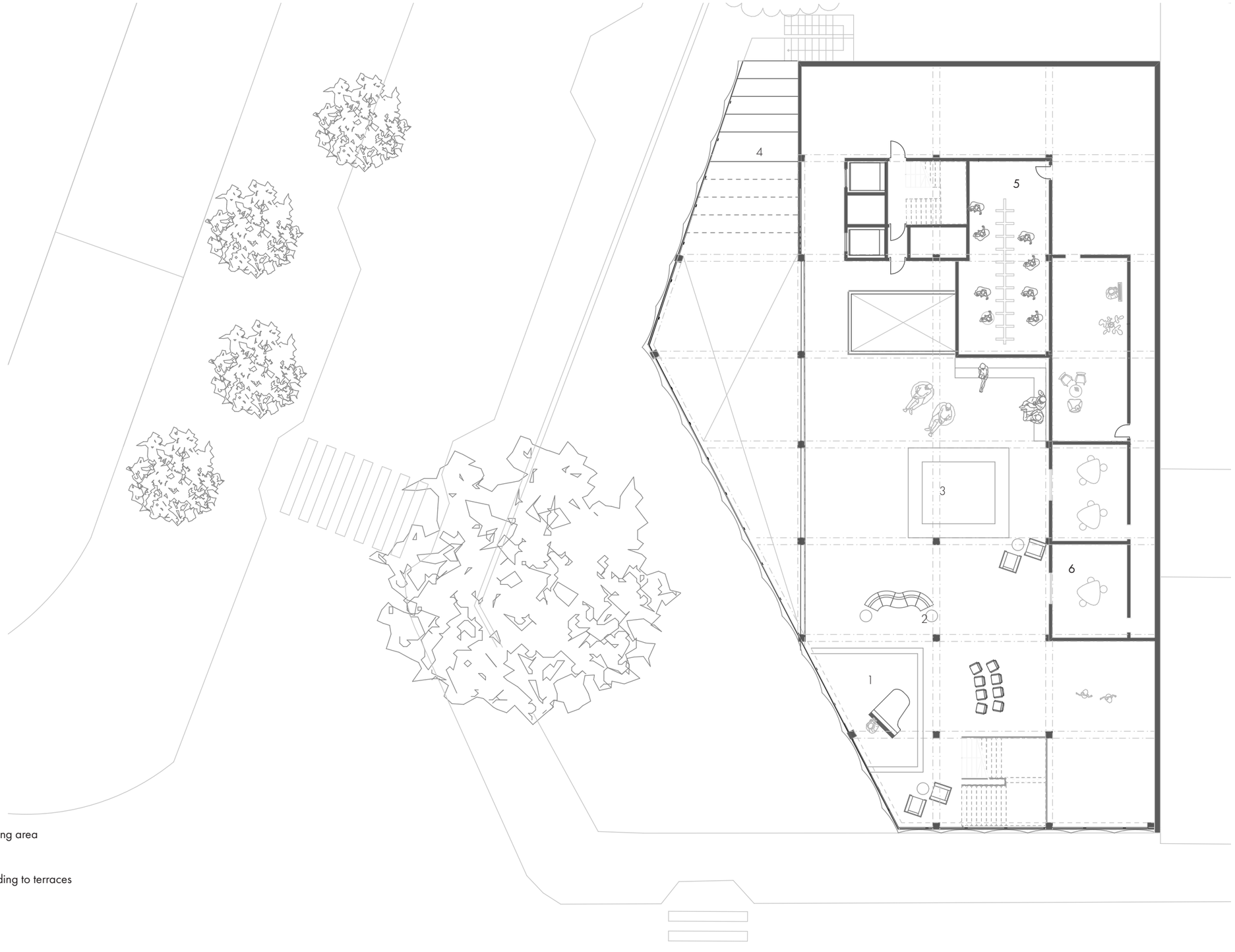
Site mapping:

Maquette 1:200

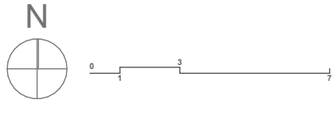
Ground floor plan 1:200

1- Bar
2- Interactive sunken theater
3- Private room
4-Exhibition room/Gallery
5-Toilets
6-Fire escape stairs with corridor
7-Technical rooms
8- Corridor with Red velvet curtains and music in the background playing

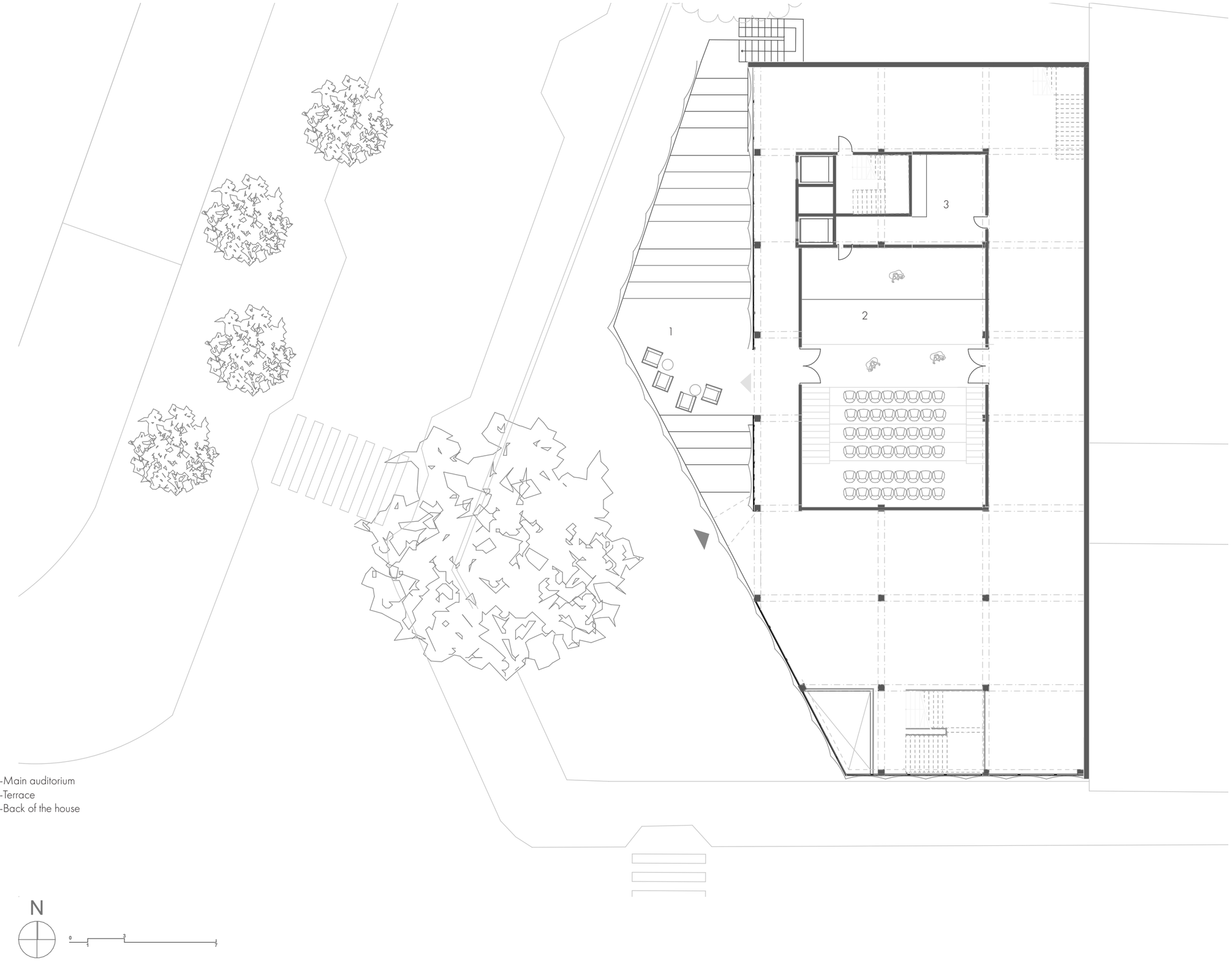
First floor plan 1:200:



1- Informal performing area
2-Offices
3-Podim
4-outdoor steps leading to terraces
5-Rehearsal space
6-Classrooms

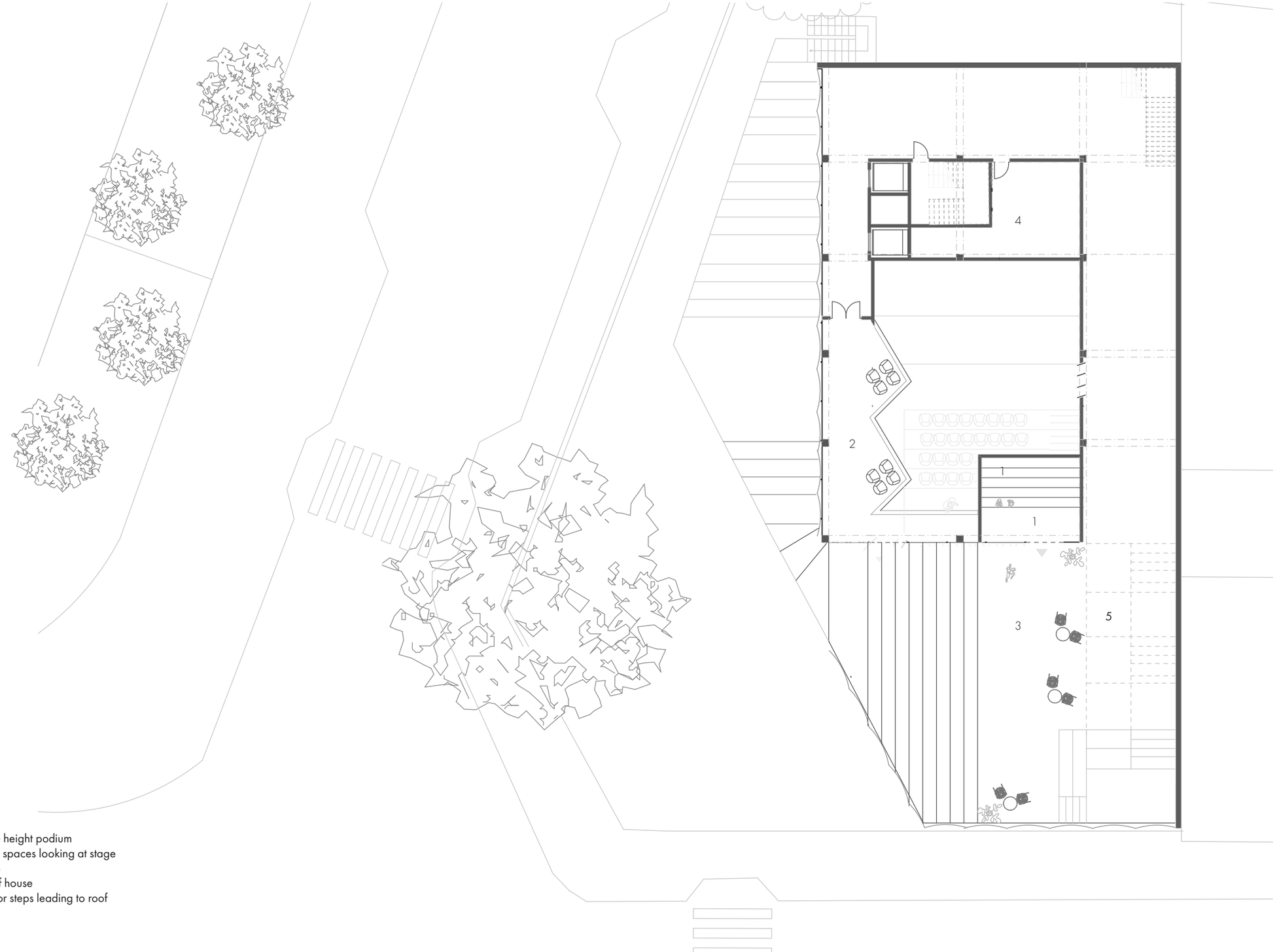


Second floor 1:200:

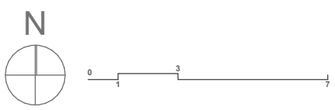


1-Main auditorium
2-Terrace
3-Back of the house

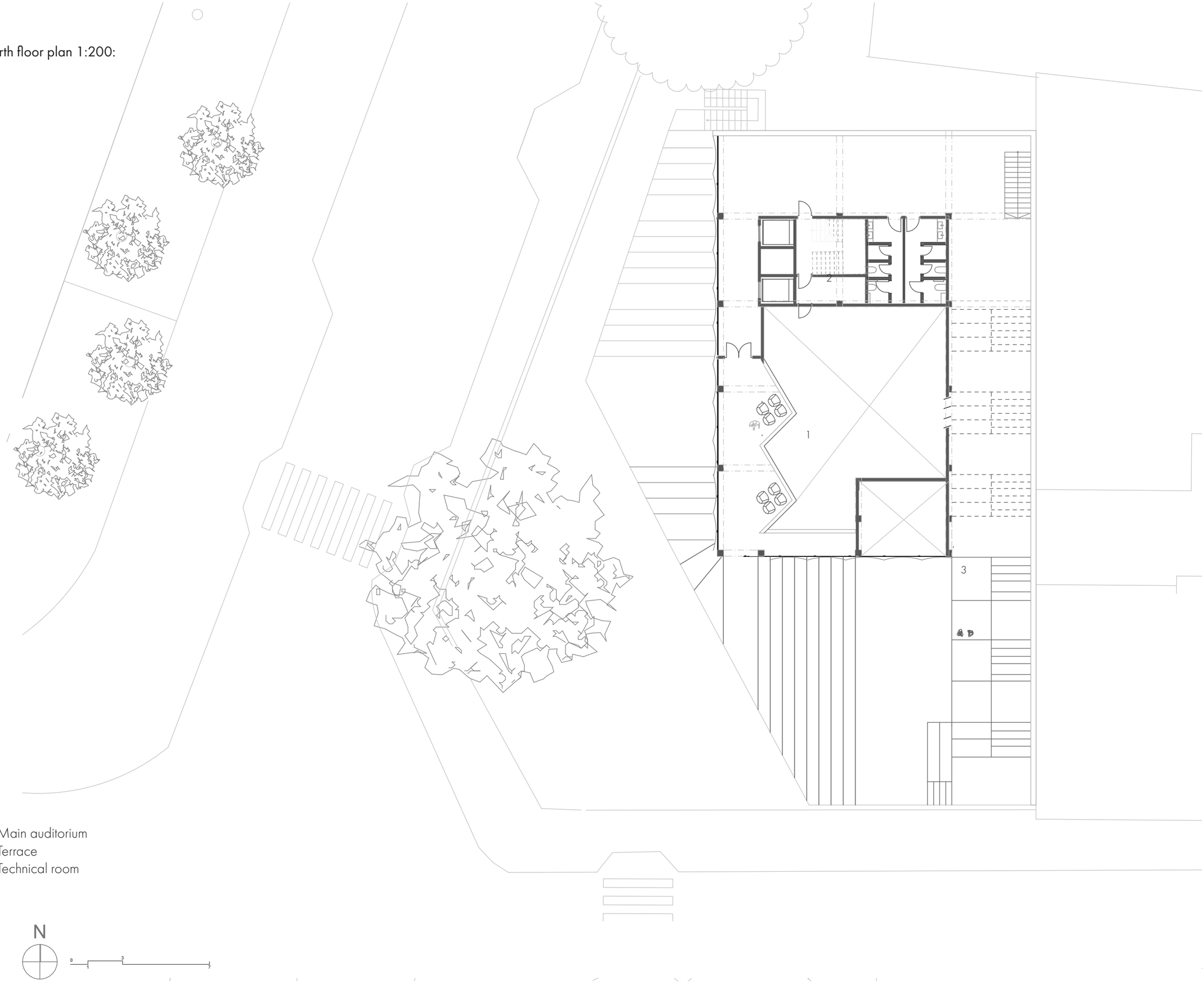
Third floor plan 1:200:



1-Double height podium
2-seating spaces looking at stage
3-Terrace
4-Back of house
5-Outdoor steps leading to roof terrace

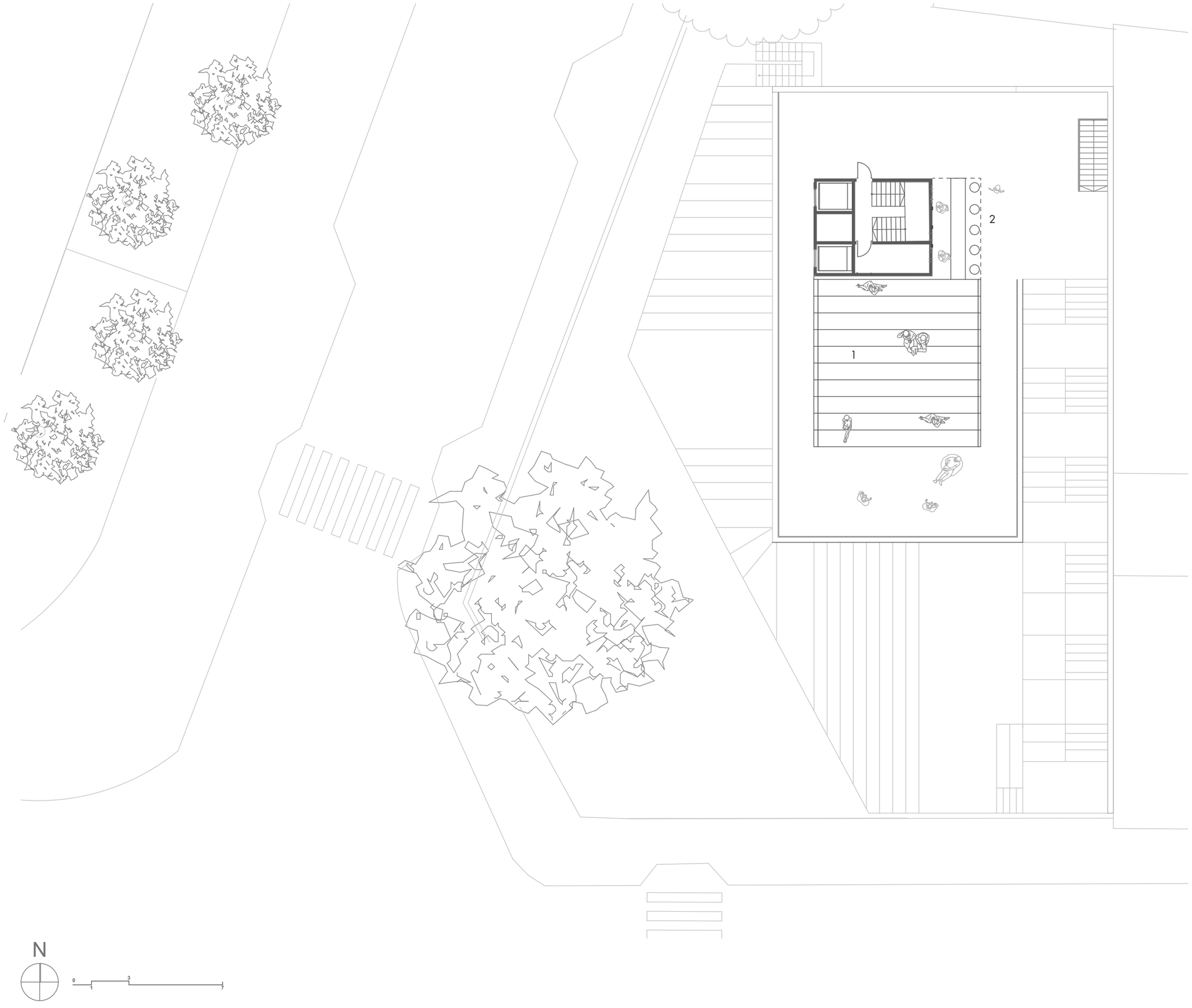


fourth floor plan 1:200:



1- Main auditorium
2- Terrace
3- Technical room

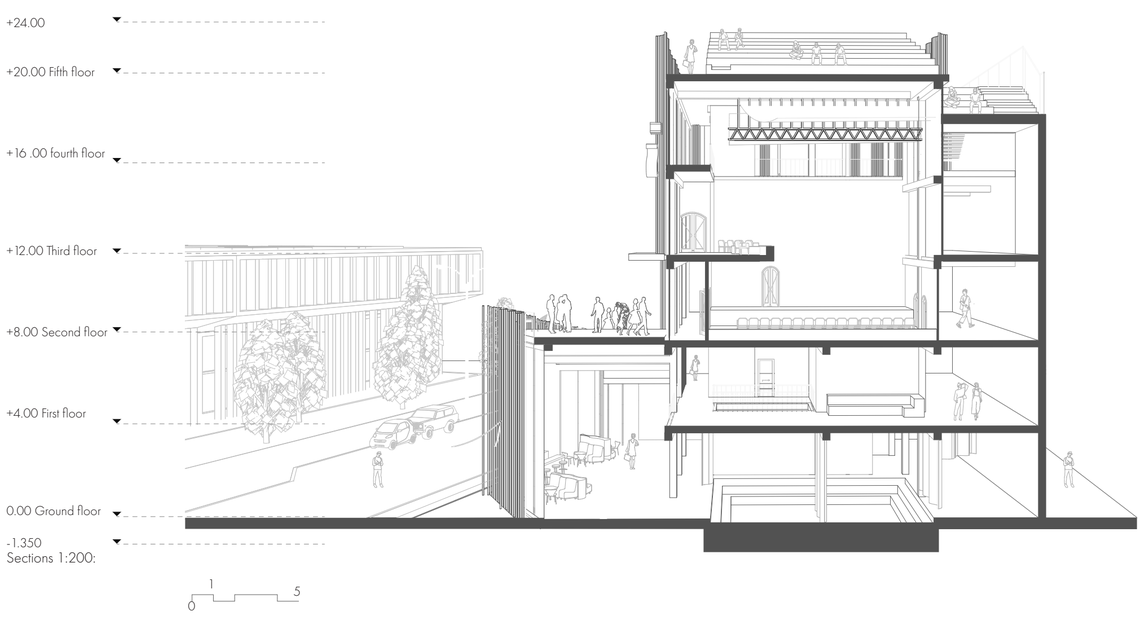
Fifth floor plan 1:200:



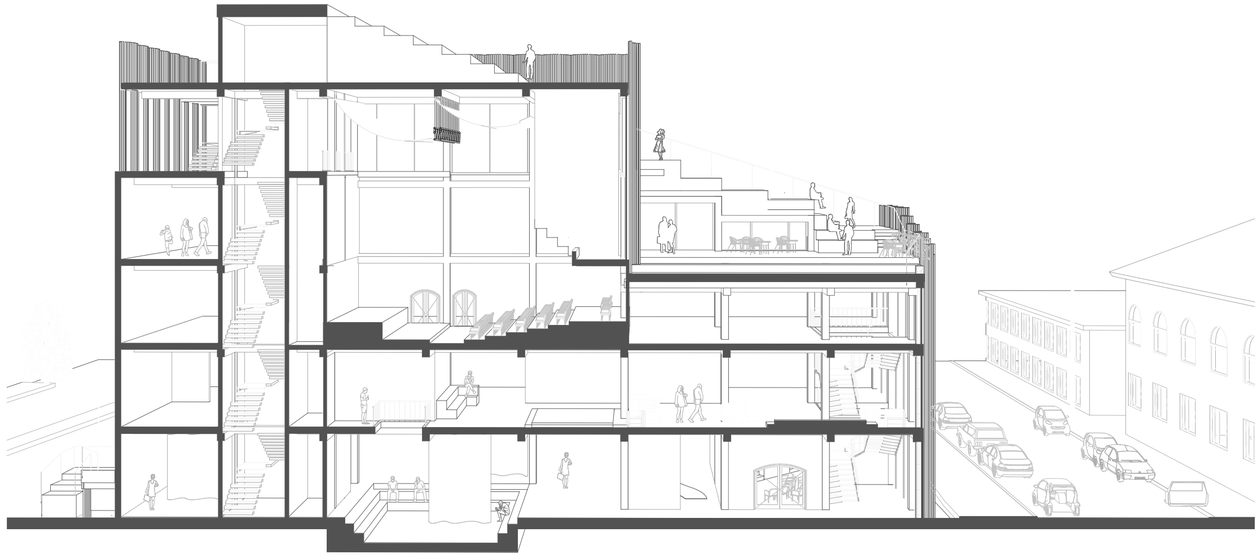
1-Roof terrace
2-Roof bar

Elevations and sections 1:200

Elevations 1:200



Sections 1:200:

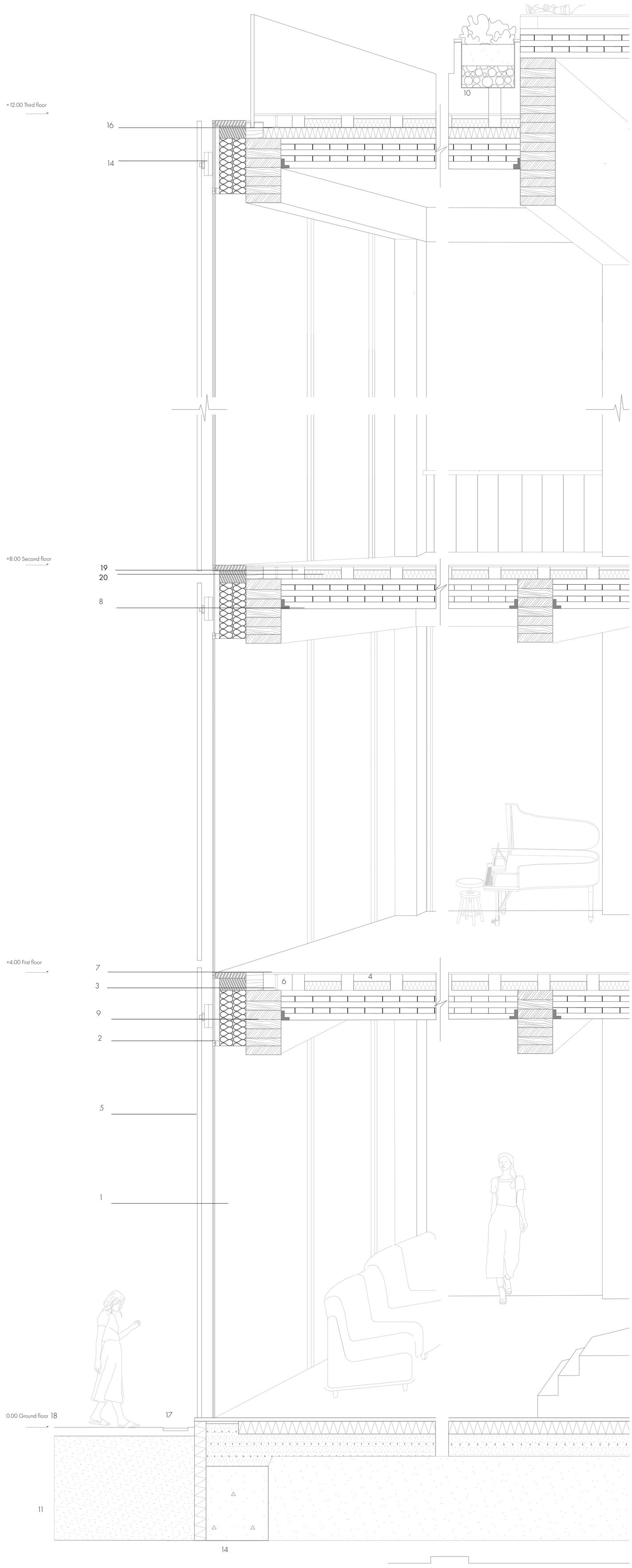


1:50 Section:

1- Main auditurium
2- Sunken interactive theater
3- Podium
4-Terraces/ informal stages
5-Rehearsal rooms
6-Gallery/Showroom
7-Private room
8-Double height podium
9-Back of house
10-Roof Bar

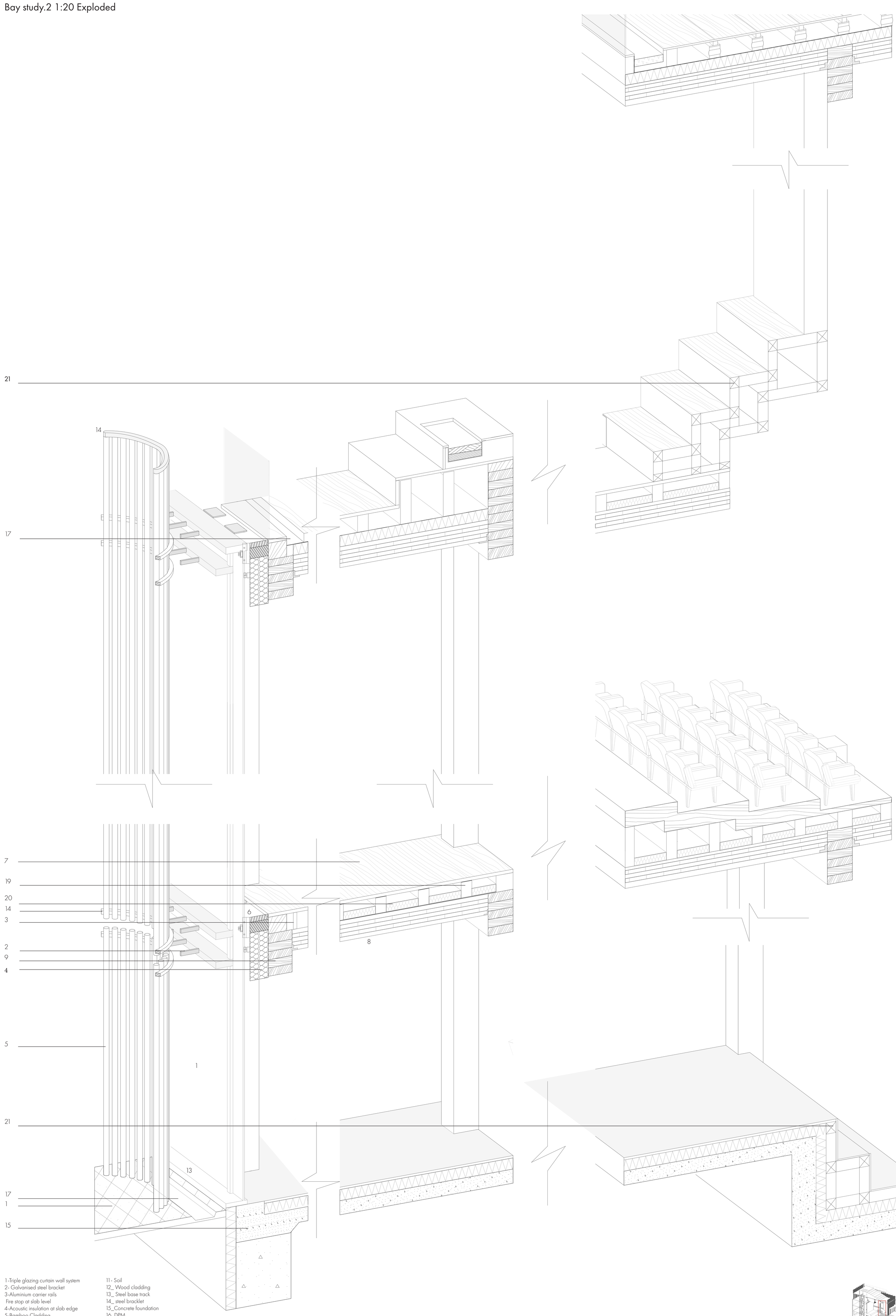
0 1 2 3 4 5

Bay study.1 1:20



1-Triple glazing curtain wall system
2- Galvanised steel bracket
3-Aluminium carrier rails
Fire stop at slab level
4-Acoustic insulation at slab edge
5-Bamboo Cladding
6-50mm foil-faced stone wool fire bar- rier
7-Carpet on reused raised access floor
8- exposed CLT
9-Glulam beams and columns
10-Pot for flowers in a zinc frame
11- Soil
12_ Wood cladding
13_ Steel base track
14_ steel bracklet
15_Concrete foundation
16_DPM
17_Drainage Gully
18_Ground surface
19-Wood joists
20_Acoustic insulation

Bay study.2 1:20 Exploded



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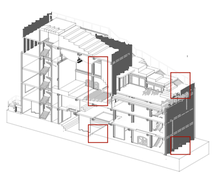
11- Soil
12_ Wood cladding
13_ Steel base track
14_ steel bracklet
15_Concrete foundation
16_DPM
17_Drainage Gully
18_Ground surface
19_Floor joists
20_Acoustic insulation
21_Frame for steps



Axo drawing:

Fifth floor+ connected terraces+rooftop

Fourth floor

Third floor

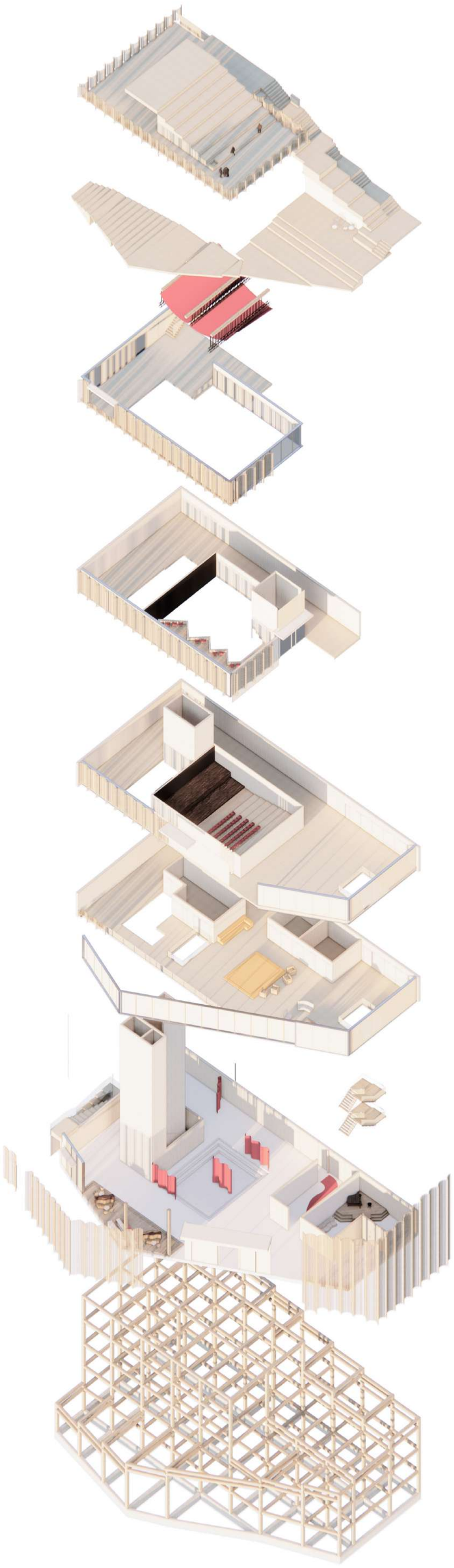
Second floor

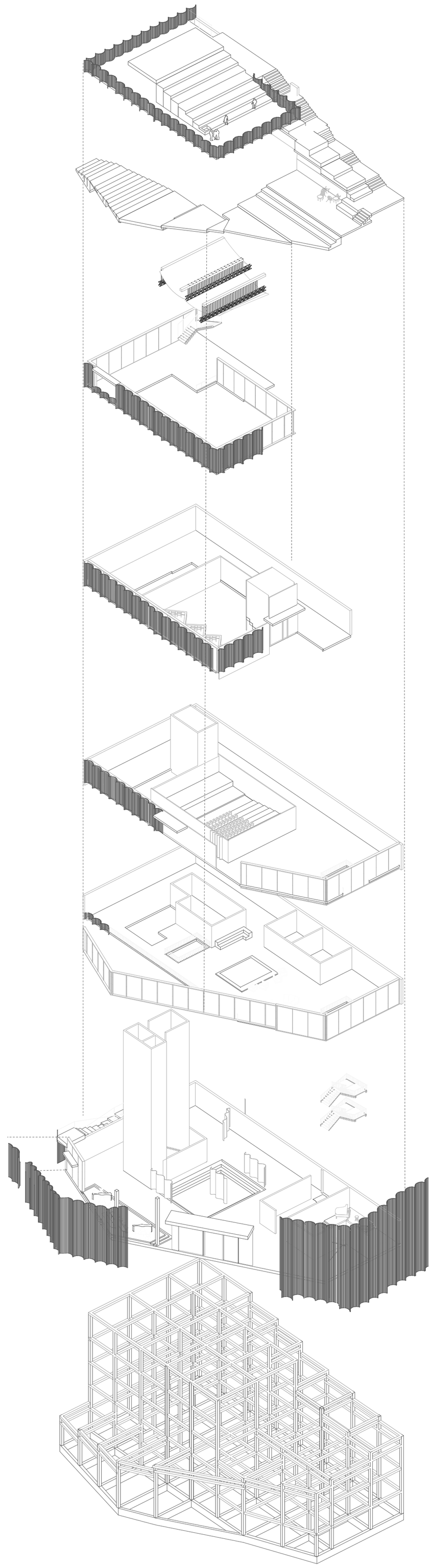
First floor

Ground floor

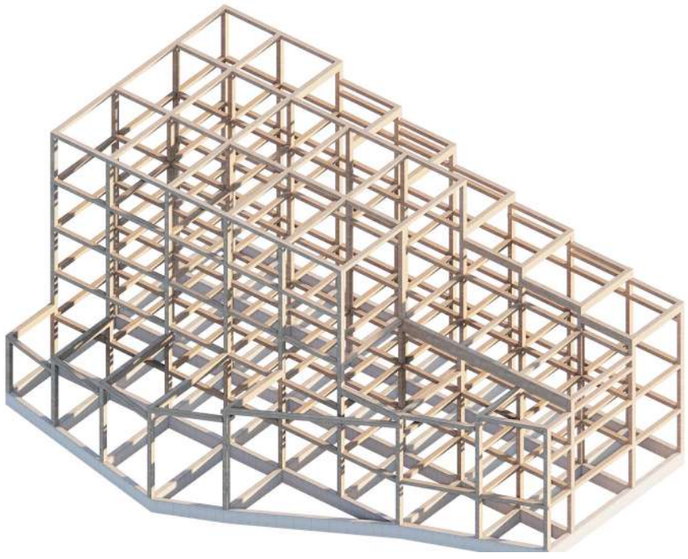
Columns+Beams structure

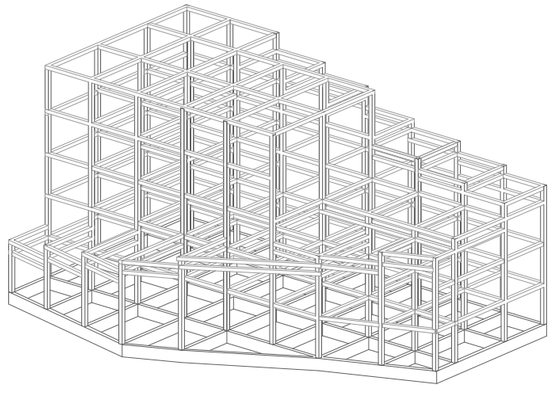
Strip foundation



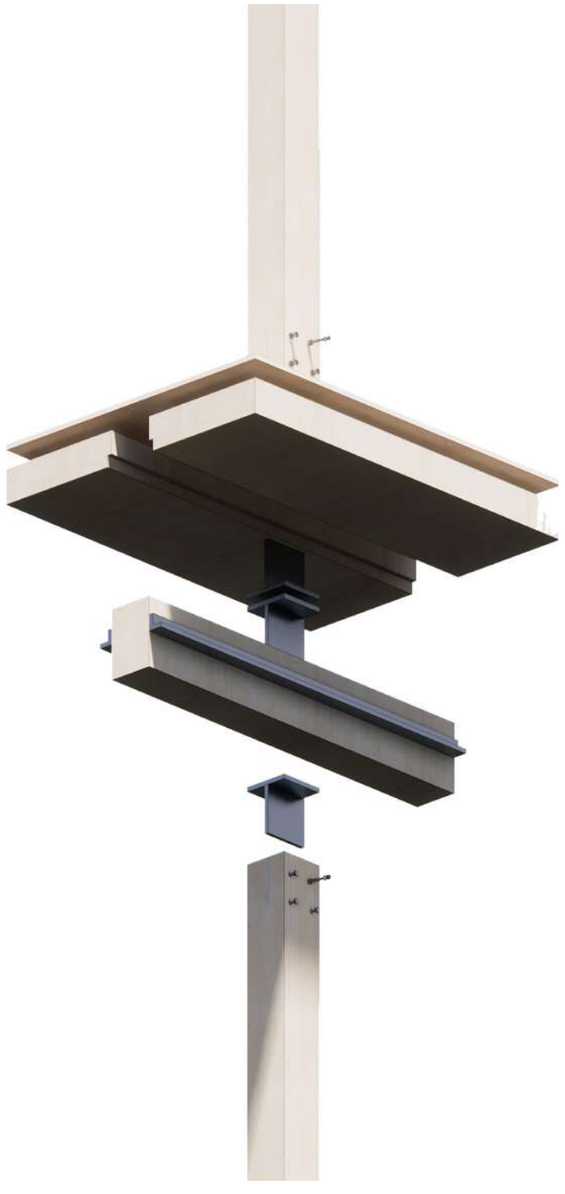


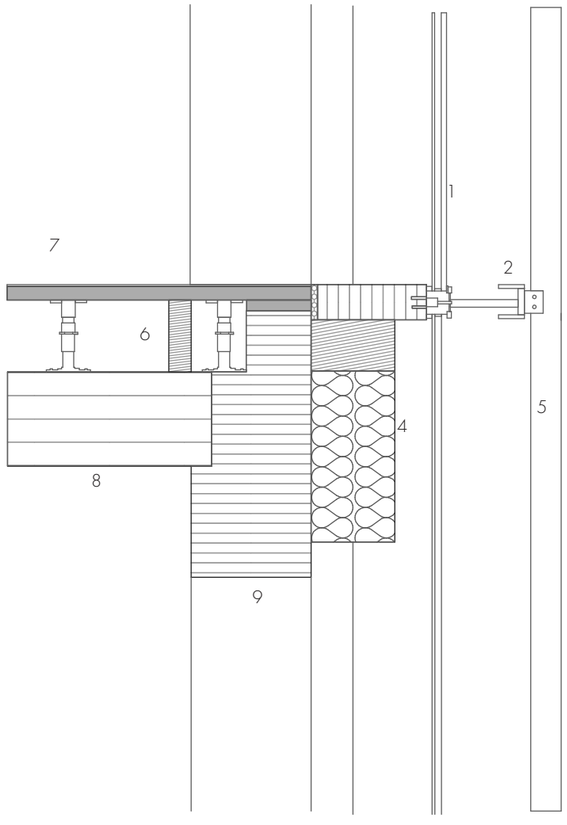
Facade study and structure strategy:





A hybrid construction composed of a glulam frame, CLT slabs,concrete foundation and core has been created to provide open spaces.





1-curtain wall system
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3-Aluminium carrier rails
Fire stop at slab level
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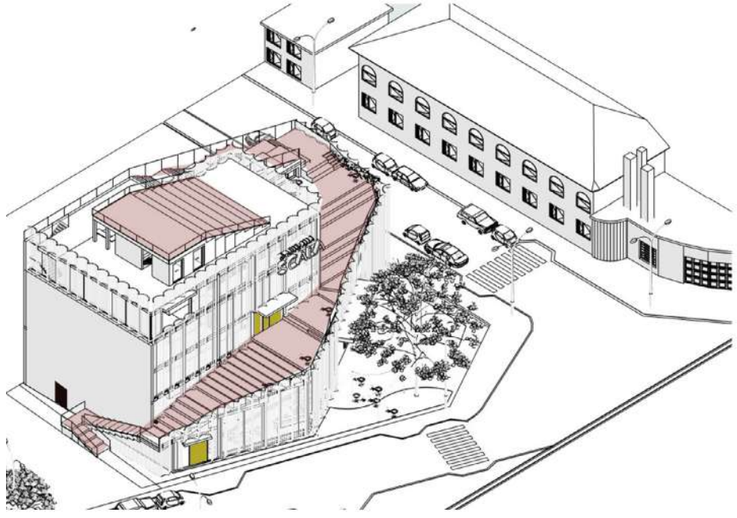
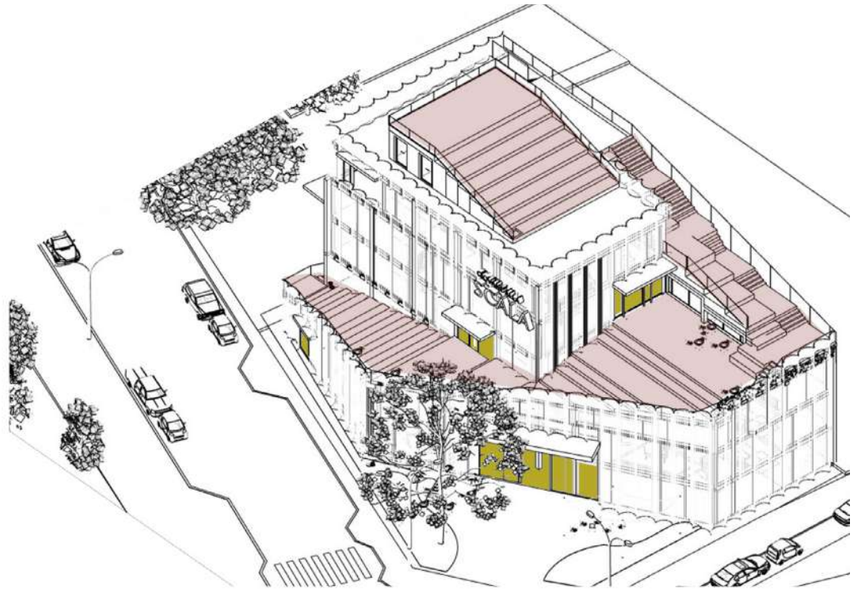
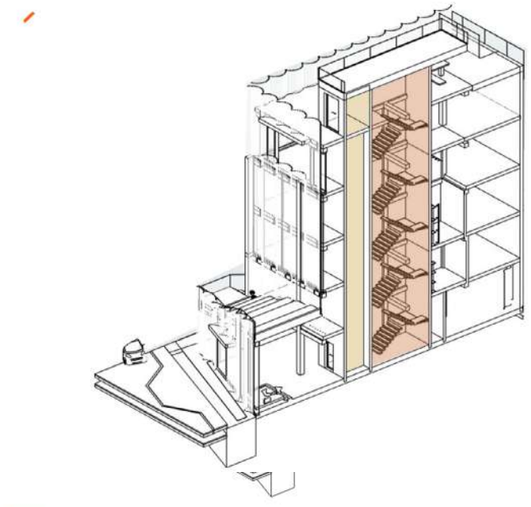
5-Cladding
6-50mm foil-faced stone wool fire bar- rier
7-Carpet on reused raised access floor
8- exposed CLT
9 LVL baubuche beams and columns

Accessibility drawing







Fire escape stairs

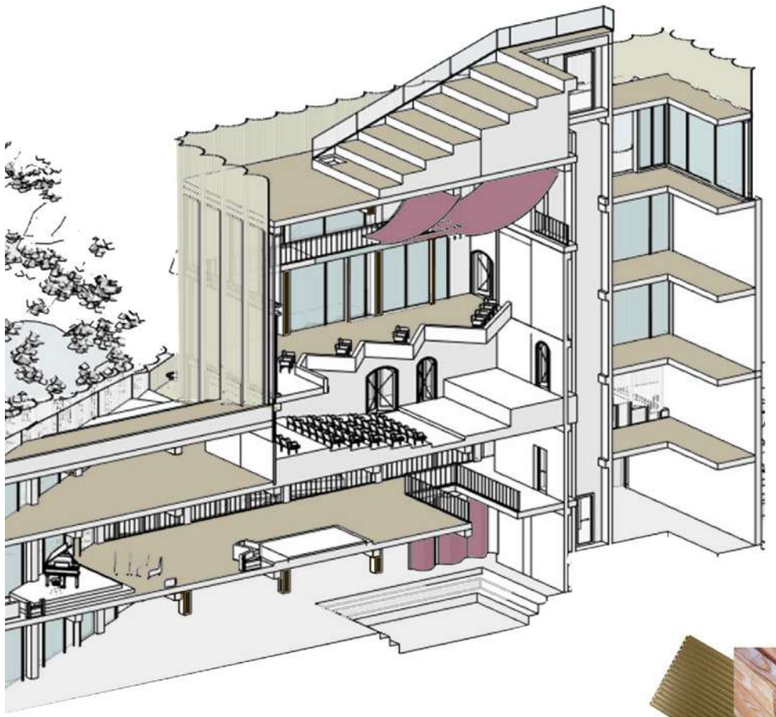
Outdoor stairs

Lift

Entrances

Fire exit

Material strategy:



Ground floor carpet

Red velvet fabric

CLT

Bamboo cladding

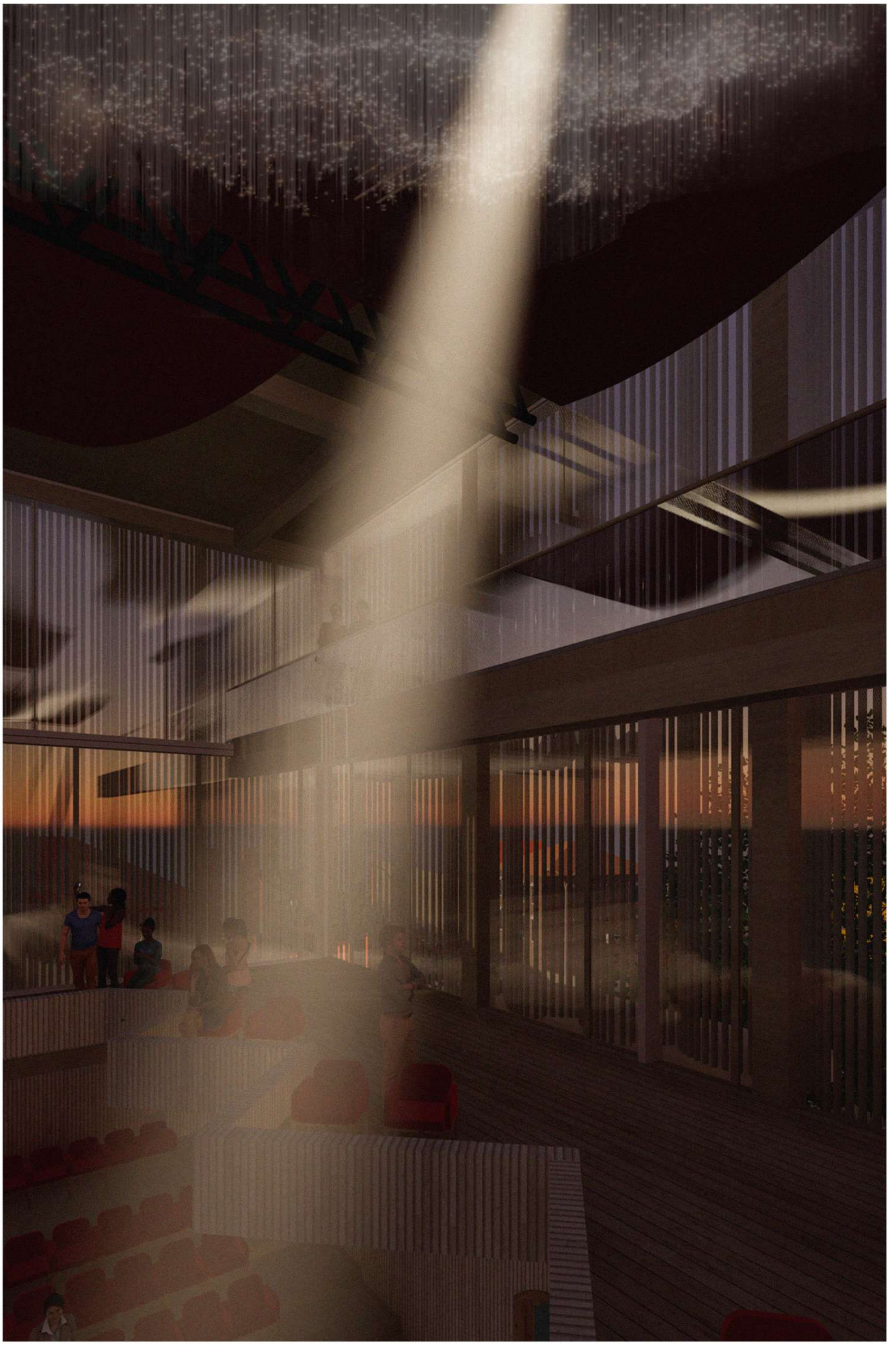
Triple glazed glass

The choice of wood as the primary facade material is not merely aesthetic; it is a deliberate homage to the rich history of Italian craftsmanship and a statement of inclusivity. Traditionally, opera houses have been revered as bastions of high society, often inaccessible to those without considerable means. By embracing wood, a material associated with accessibility and warmth, Bambino Scala challenges this exclusivity and invites all to experience the magic of opera.Using bamboo cladding, CLT floors, and a Glulam structure for Giovane alla Scala in Milan highlights a commitment to sustainability through the use of rapidly renewable and responsibly sourced materials.

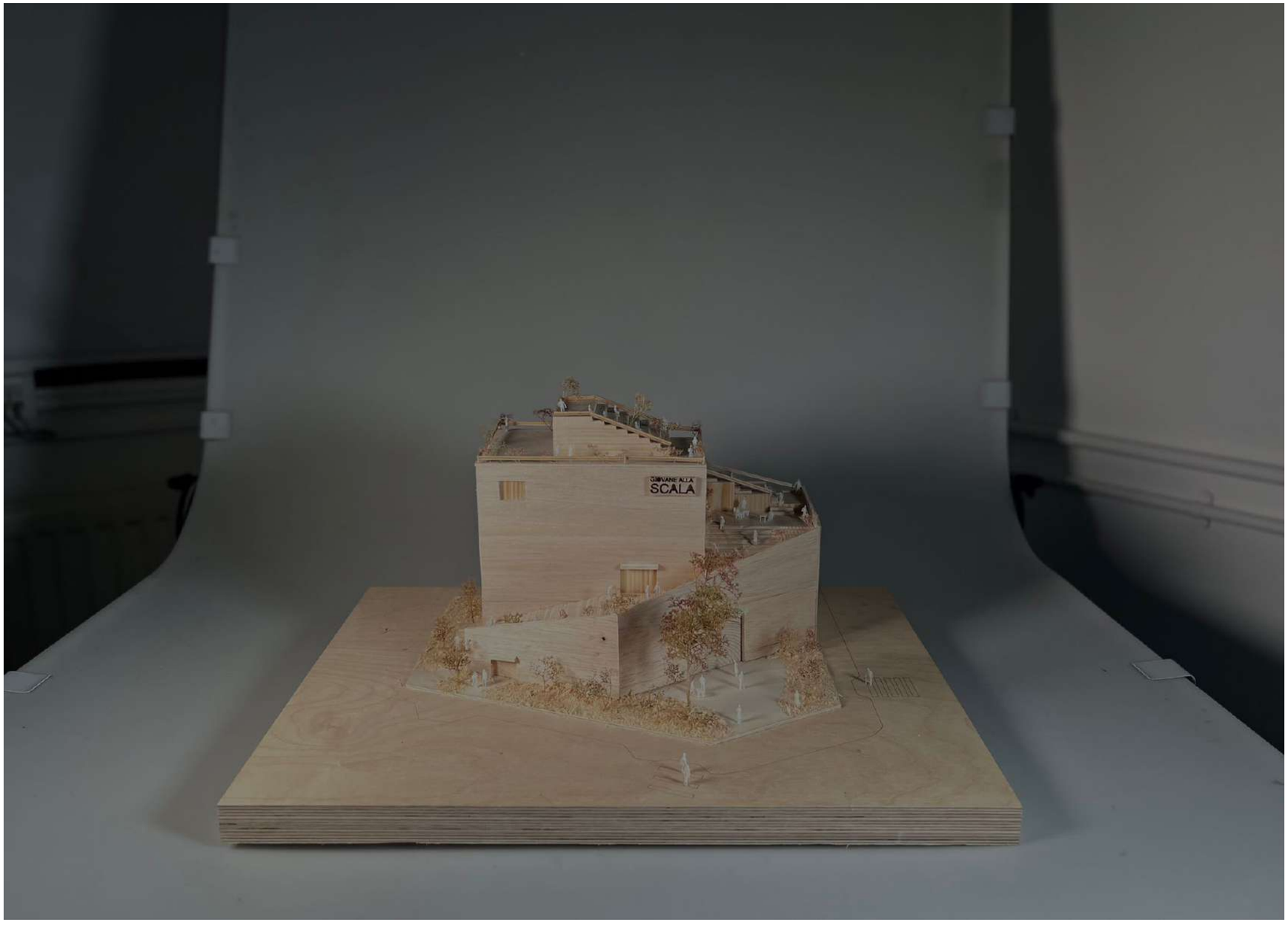
Bamboo's rapid growth and carbon sequestration, along with the excellent thermal properties and reduced embodied energy of CLT and Glulam, significantly lower the building's carbon footprint and enhance energy efficiency. These materials also support sustainable forestry practices and allow for prefabrication, which reduces waste and shortens construction time. This approach not only aligns with Milan's focus on sustainable development but also offers a contemporary aesthetic that respects the city's architectural heritage.

Interior: Entrance; Bar, sunken theater...


GIOVANI ALLA
SCALA



Model1:100




GIOVANE ALLA
SCALA

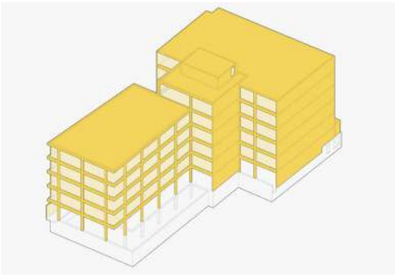

SCALA

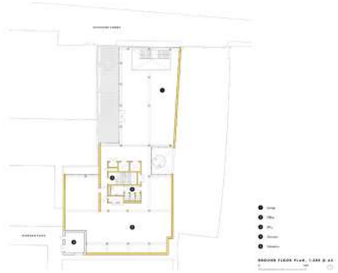

GIOVANE ALLA
SCALA


VANE ALLA
CALA

Precedent:

Structure precedent :
THE BLACK & WHITE BUILDING-WAUGH THISTLETON ARCHITECTS



Programme
Royal Opera House / Stanton

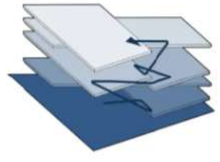



Opera House
Snøhetta's Shanghai Grand Opera House

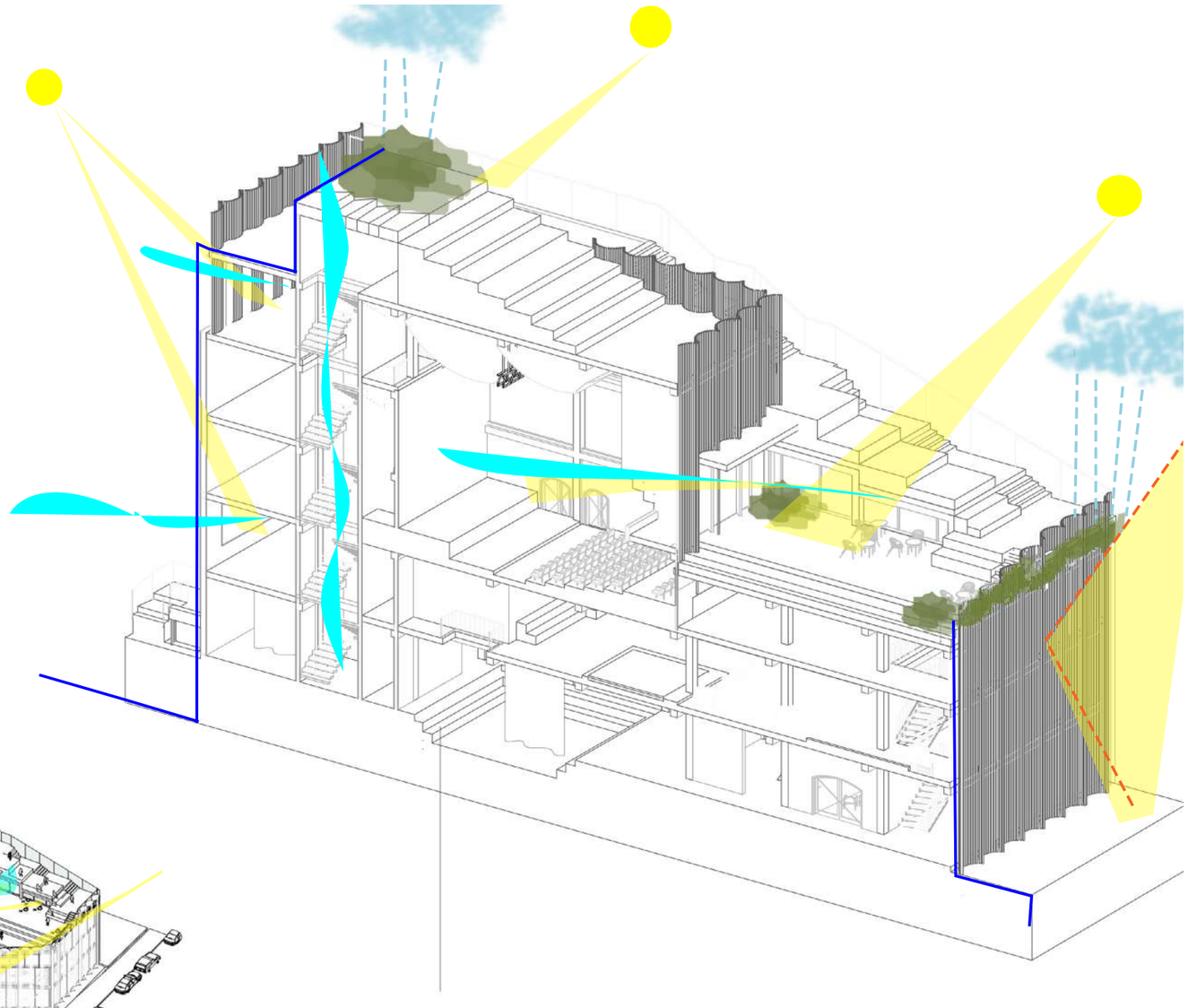


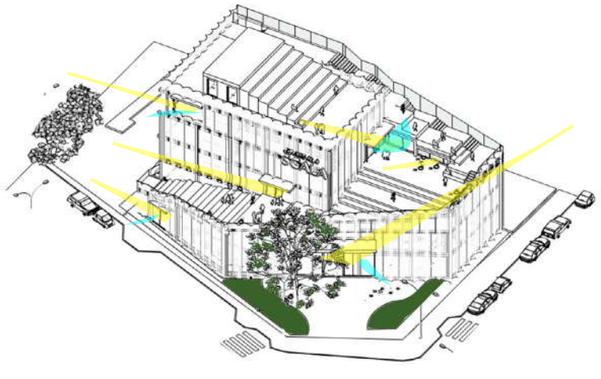
Terraces
big.dH



Environmental strategies:





The cladding can act as a natural shading device, reducing direct solar radiation entering the building through the glazed facade. This mitigates heat gain, lowering the cooling load and enhancing energy efficiency.

Giovane alla Scala effectively leverages natural materials and living systems to create a sustainable, energy-efficient building. The wood cladding reduces solar heat gain and enhances thermal performance, while the greenery improves air quality, provides natural cooling, and supports stormwater management.

Embodied Carbon Calculation (Global Standard EN15978) (Stages A1-A5)

Material description	Density	Embodied carbon A+C KgCO2e/m3	Volume of material Used m3	TOTAL Embodied Carbon Materials
Aluminium (polyester powder coated)	2700	36484	0	0
Aluminium (virgin)	2700	31540	0	0
Aluminium (general)	2700	22814	0	0
Brass	8700	22306	0	0
Glavinised structural steel	7850	17276	0	0
Aluminium (bar and rod)	2700	16636	0	0
Glass fibre Reinforced plastic (GFRP)	1500	14315	0	0
Glass fibre	2500	13327	0	0
Hot rolled structural steel	7850	11176	0	0
Intumescent paint for steel	50	5653	0	0
PVC	1380	2814	0	0
Flat glass	2500	2823	0	0
Clay Bricks	2400	1271	0	0
Viroc® Cement Bonded Particle Board	1350	948	0	0
Granite/Basalt/Marble	2600	541	0	0
Concrete 40 Mpa (unreinforced)	2400	495	0	0
Concrete Blocks 7.3MPa	2050	372	266	98930
Bitumen Elastomer	1000	343	0	0
Light concrete (autoclaved aerated)	1000	338	0	0
Plasterboard	720	298	0	0
Limestone	2500	176	0	0
Natural Stone	2500	176	0	0
Sandstone	2400	171	0	0
Icyene (polyurethane)	30	142	0	0
Vapour barrier (polyethylene)	900	128	0	0
Fiber Felt	25	118	0	0
Rockwool	45	35	0	0
Thermacork Insulation	115	-133	0	0
Sustainably sourced MDF	700	-299	0	0
Laminated Bamboo	750	-349	8.4	-2934
Sustainably sourced plywood	620	-377	0	0
Sustainably sourced CLT (spruce)	470	-484	1,538	-744642
Sustainably sourced pine	420	-489	0	0
Sustainably sourced Douglas Fir	530	-549	31.36	-17214
Sustainably sourced Oak	770	-782	0	0

-665,859	0	#DIV/0!
kgCO2e TOTAL	TOTAL m2	kgCO2e/m2 TOTAL

RIBA 2030 CLIMATE CHALLENGE
< 625 kgCO2e/m2

Only fill in the purple boxes (volume of material used and Total m2)