Project archiLink

In the context of the Rebirth Masterplan

An adaptive reuse of the Polytechnical School's Laboratories

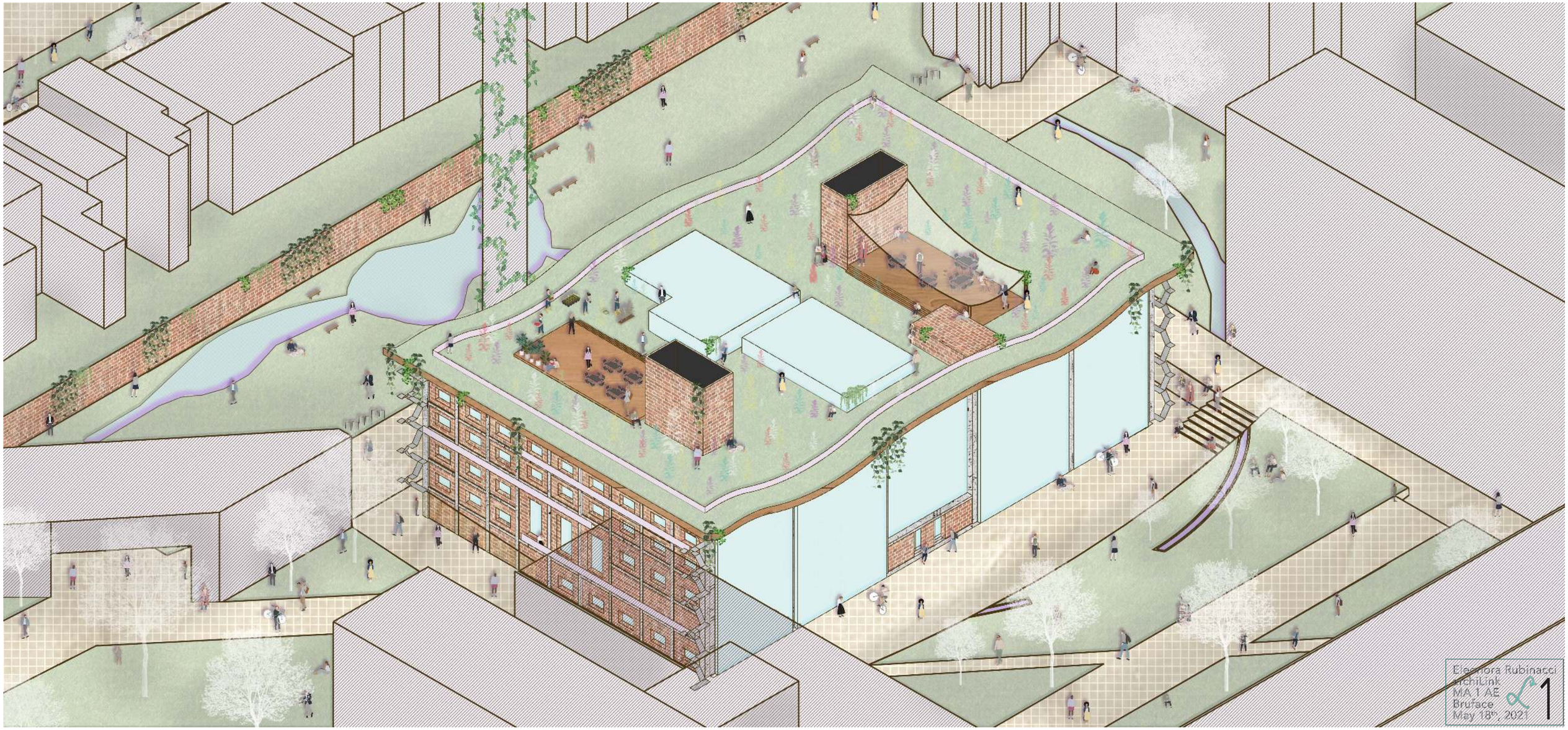
building into the Architectural Faculty

Project archiLink consists in an adaptive reuse of the original Engineering Labs into the Architectural Faculty building. Located in the North-East quadrant of the Solbosch Campus, archiLink takes advantage of the current L building to its maximum while using regenerative materials for additions. The project focuses on creating flexible and well-lit spaces to foster innovation. Two green squares leading to the entries surround the building on either side.

The three-dimensional exhibition pathway is the backbone of the project. Linking the entries to the café-bar on the rooftop, it offers the users a 'promenade architecturale' through the building. This pathway is an immersion into the learning environment and an inspiring route for academic project exhibitions, bringing the creativity of the Faculty into light. Additionally, a secondary circulation provides shortcuts between the indoor spaces via footbridges and reused-steel staircases. A tertiary circulation with a lift and outdoors fire escapes completes the spaces' distribution.

Promoting experimentation and learning is at the heart of the project. Counting almost 60% of studio spaces, archiLink also offers two 250-seat auditoria for its students. The roof's landscapes and the walls finish can be modified by the students over and over, ensuring the dynamism of the building in time. The structure and technical elements are purposefully visible, and the building's materials are available to students in a materials library furnishing four different workshops. The remodeled L building also counts a brand-new architectural Research Unit.

The brick façades are kept intact for patrimonial reasons as the L building is one of the oldest on Campus. The presence of outreaching concrete columns and beams gives texture to the walls. These are insulated from the inside with hemp blocks. The South façade is transformed into a trombe wall and is used to thermoregulate and ventilate the building, in combination with two solar chimneys and a geothermal energy system. Those chimneys, a large transversal atrium, large windows and high ceilings ensure that light reaches every room inside.



Re-use of materials

Recycling

Retrofitting

Present

Regenerative & long-lasting materials

Polyvalence & Flexibility: rooms and building

Past

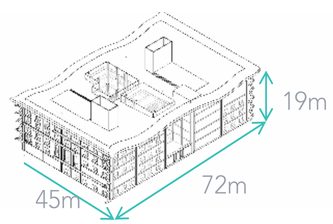
Future

Laboratories Ir

Adaptive Reuse

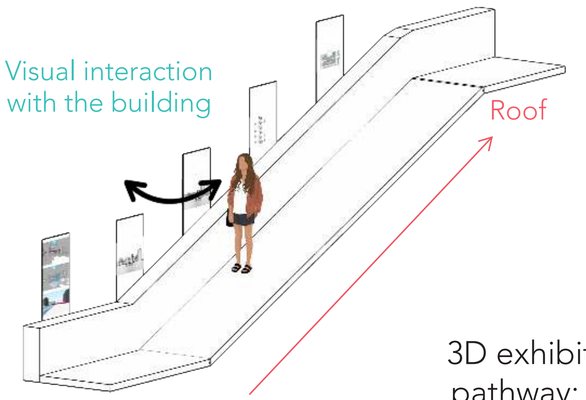
Architectural faculty

Longevity

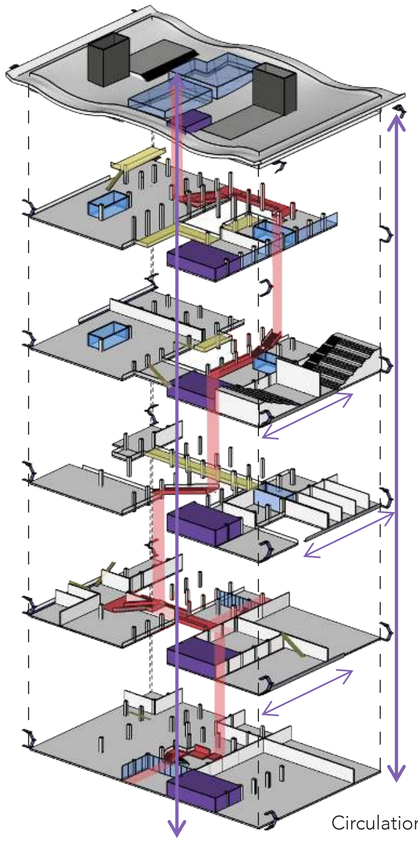


Immersion in learning environment

Visual interaction with the building



3D exhibition pathway: the backbone of the project



Principal circulation

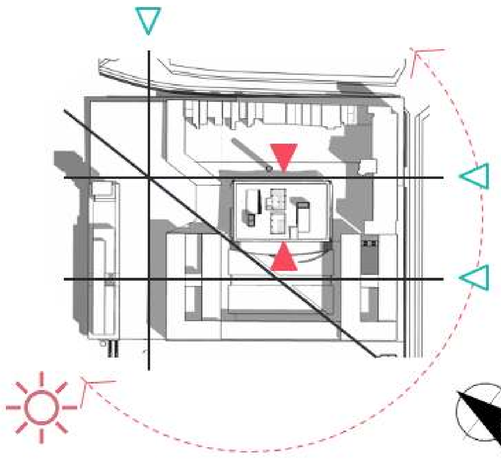
Promenade Architecturale

Secondary circulation

Tertiary circulation

Circulation

University as a regenerative organism



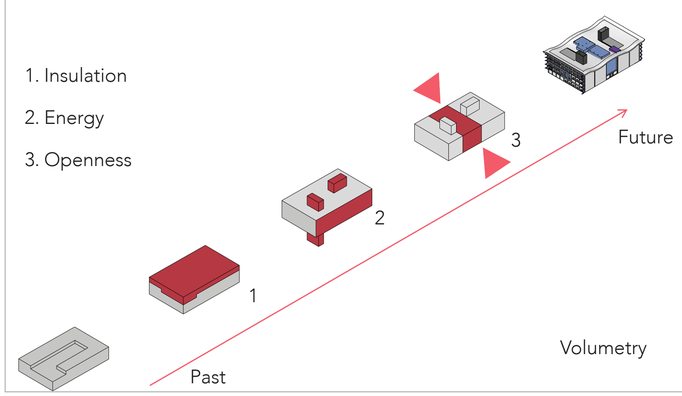
Campus entry

Building entry

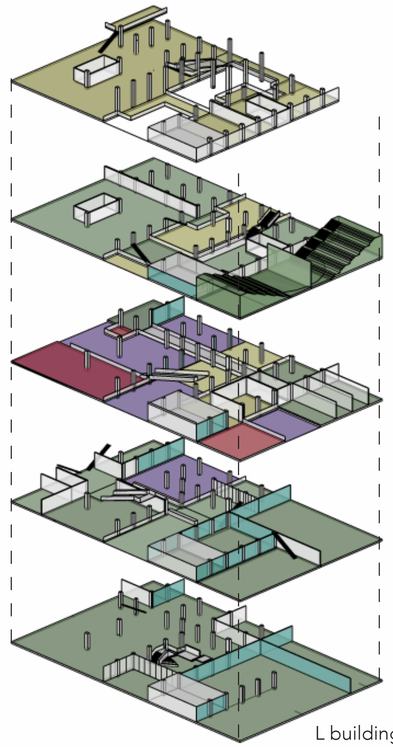
Circulation axis

North-East quadrant of the Campus

1. Insulation
2. Energy
3. Openness



Volumetry



L building reuse

	L0	L+1	L+2	L+3	Total	Amount of saved material
Floor's Volume [m³]		650	220	390	1250	200 000 tiles
Wall's volume [m³]	240	130	130	140	640	51 000 bricks

Amount of saved material

Limited intervention
High reutilisation

Kept floor

Kept opening

New floor

New opening

Kept wall

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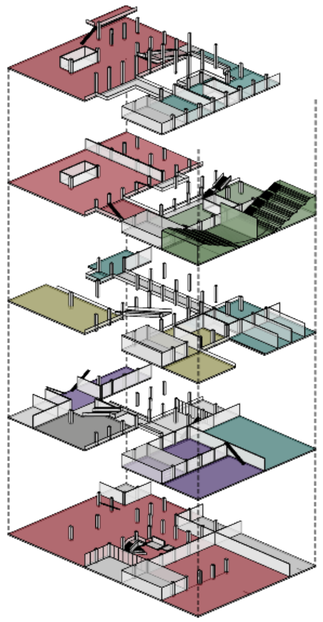
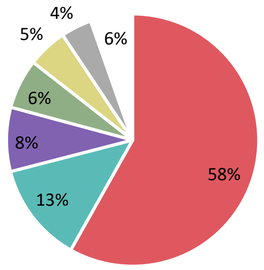
Faculty: 1365 people
Localisation: Building L, U and 7 research units not on the Solbosch Campus

archiLink: 8th research unit
Learning and experimenting are keywords

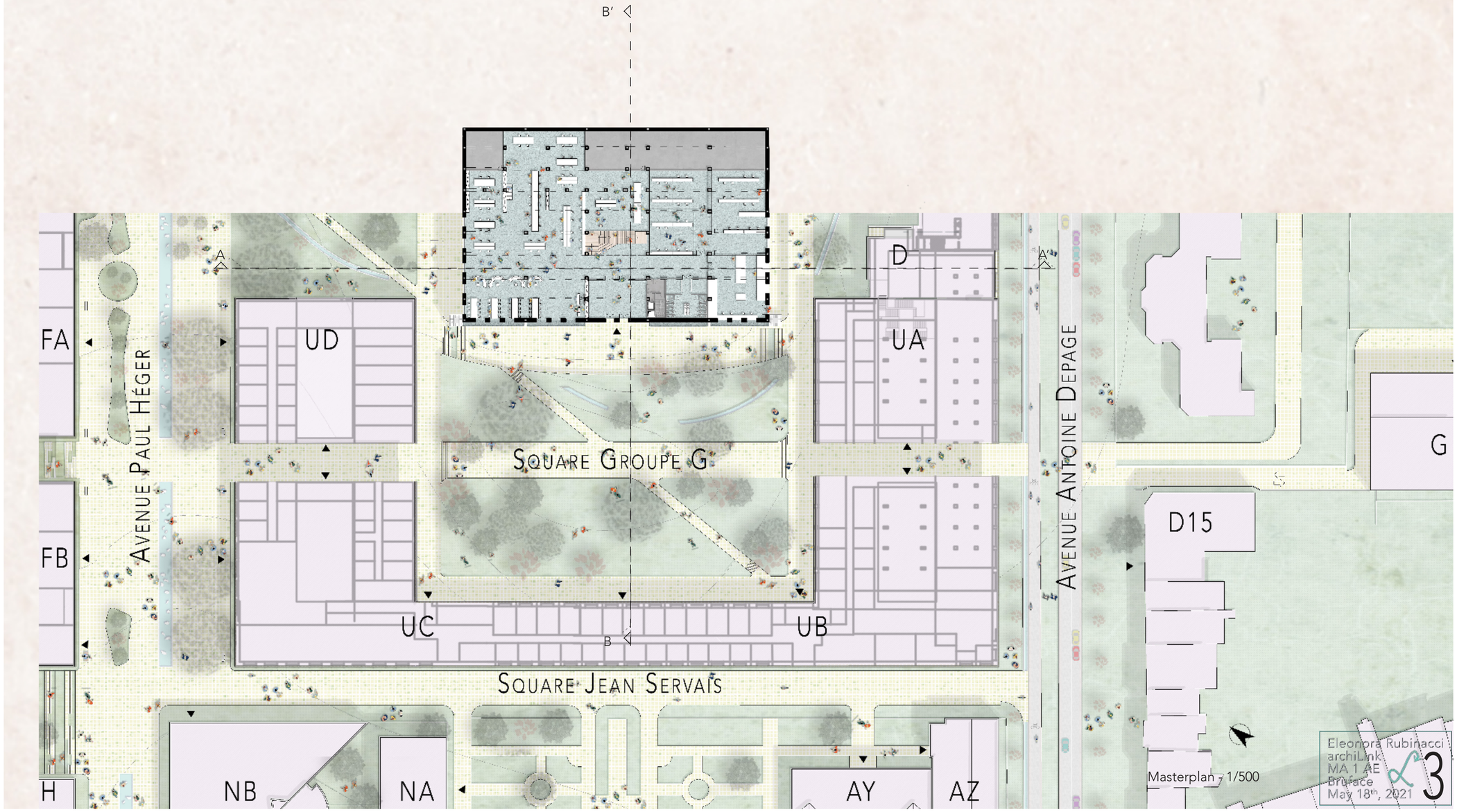


Program

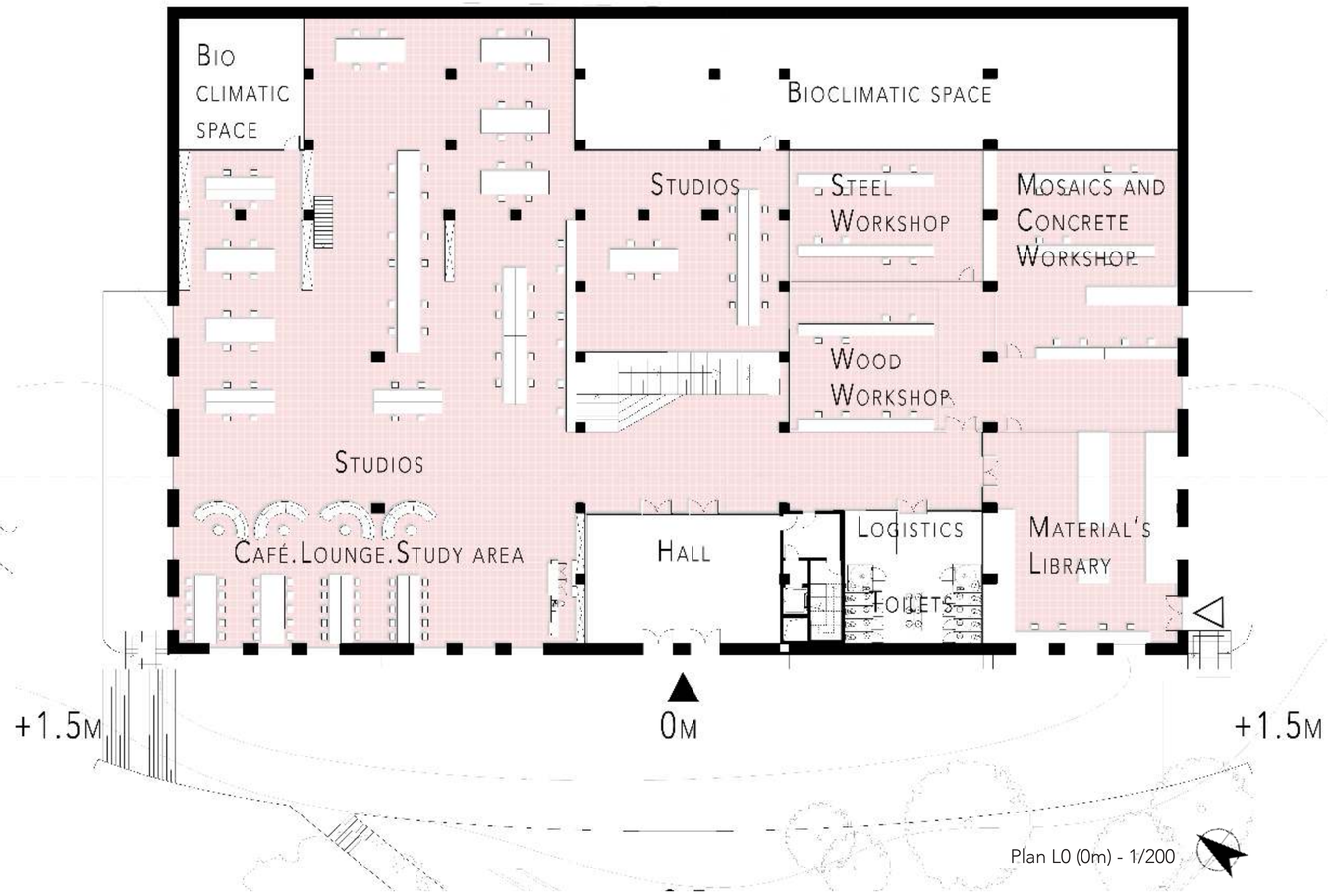
	Program	% of the building	Area [m²]
	Studios	58%	5721
	Profs. offices	13%	1261
	Labs	8%	808
	Auditoria	6%	627
	PhD offices	5%	500
	Copy shop	4%	388
	Bioclimatic spaces	5%	532



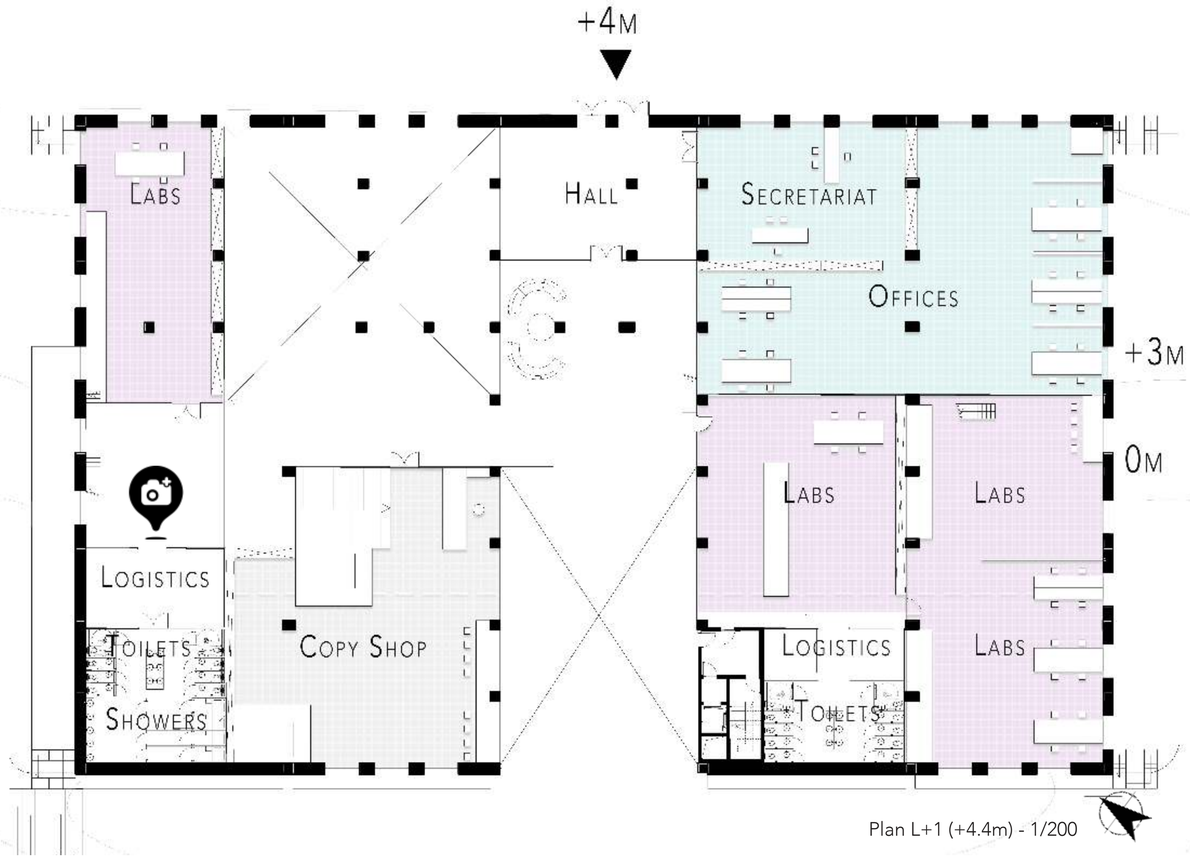
Section BB' - 1/500



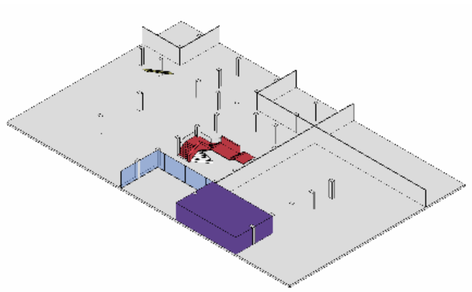
Masterplan - 1/500

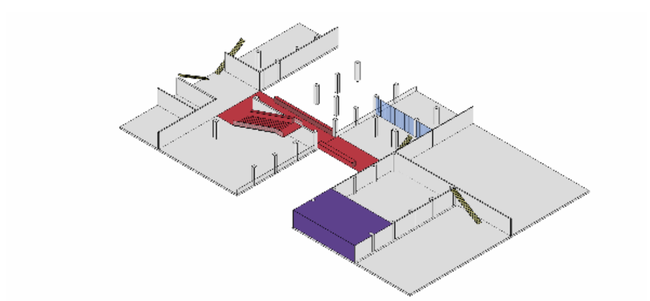


Plan L0 (0m) - 1/200



Plan L+1 (+4.4m) - 1/200





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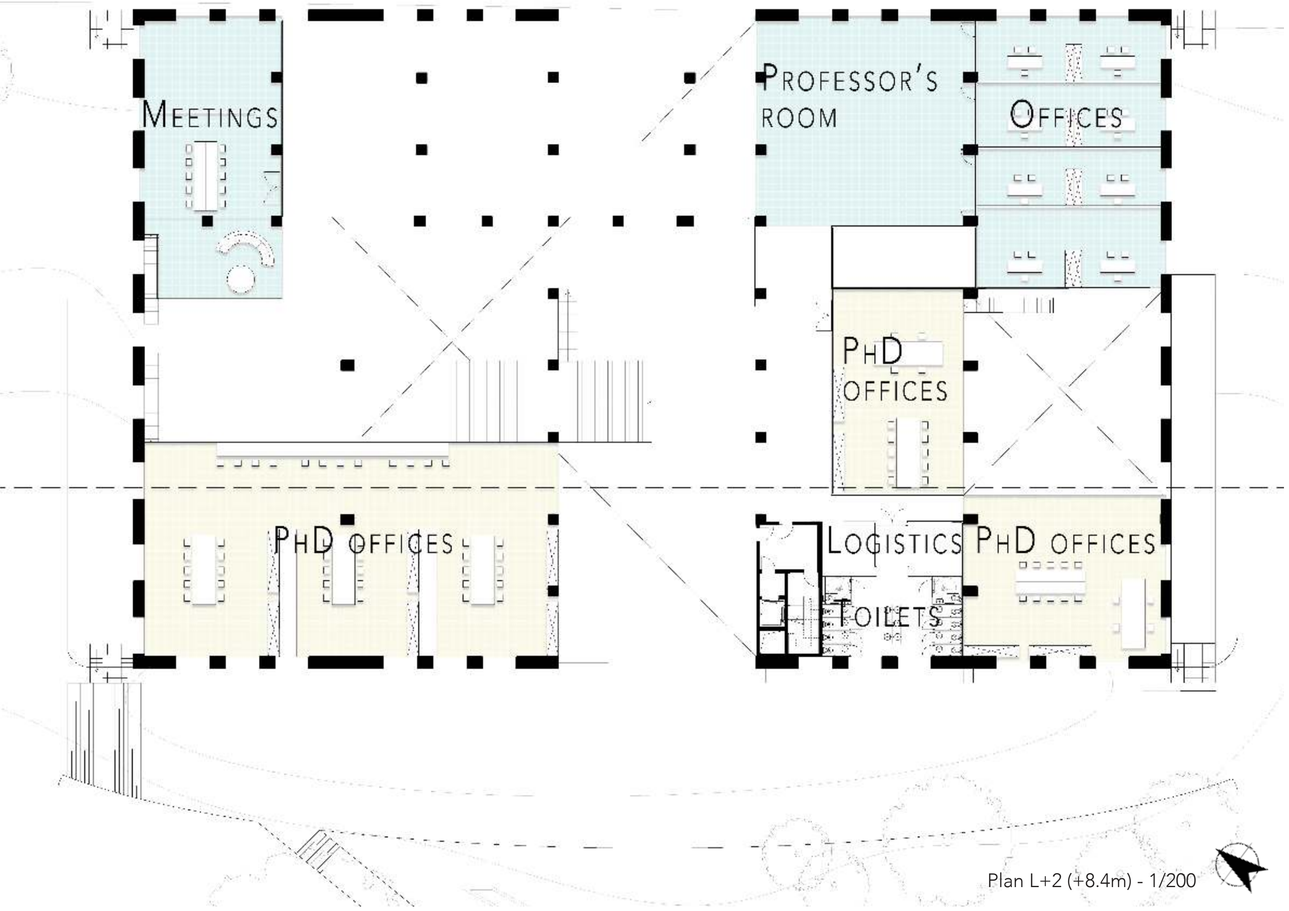
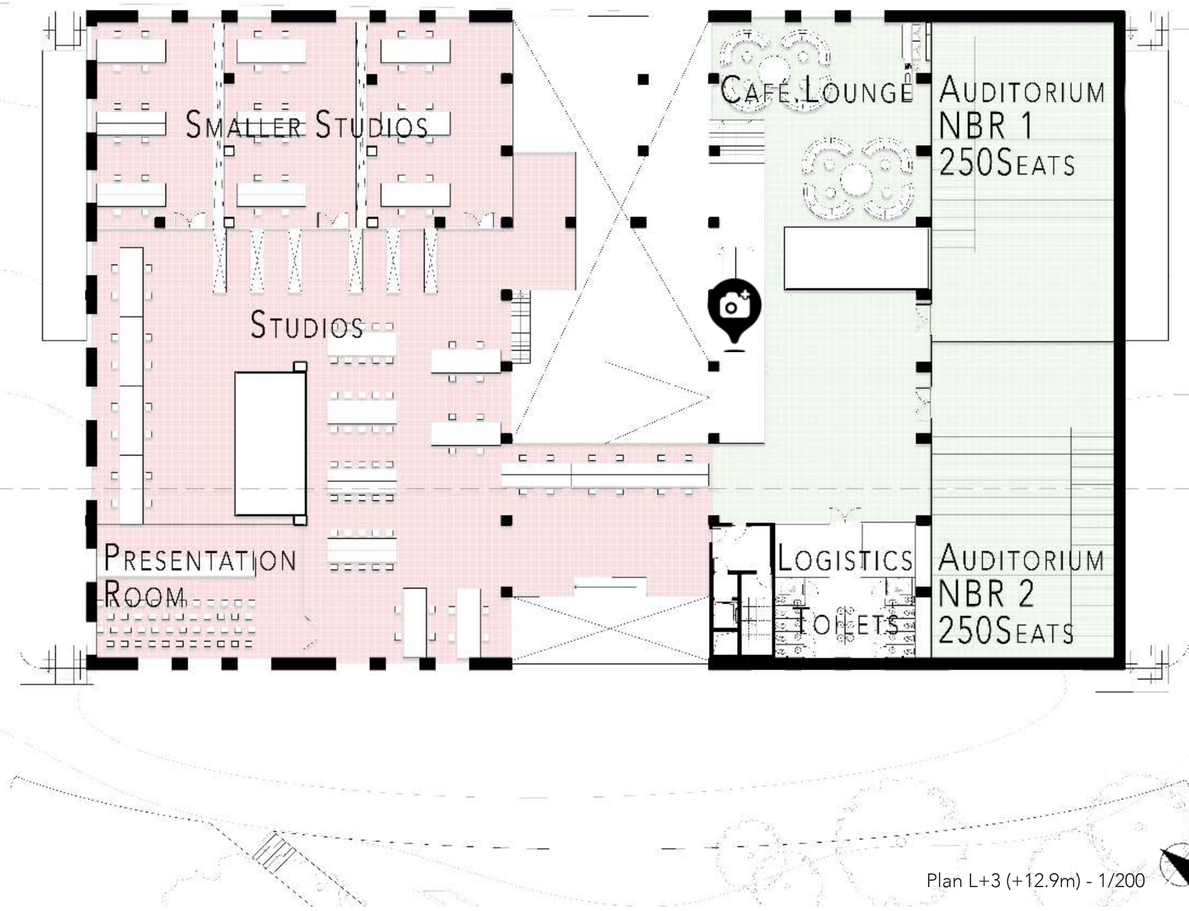
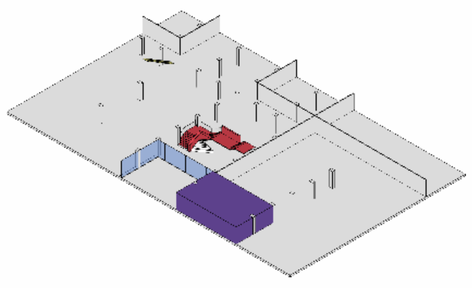
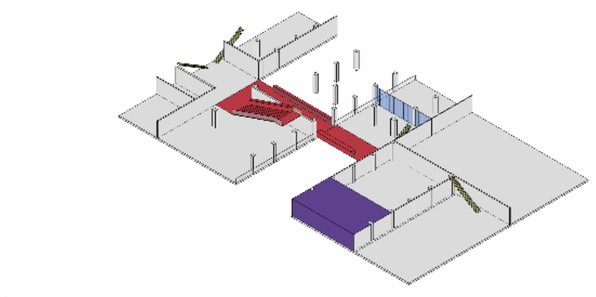


Plan L+2 (+8.4m) - 1/200



Plan L+3 (+12.9m) - 1/200





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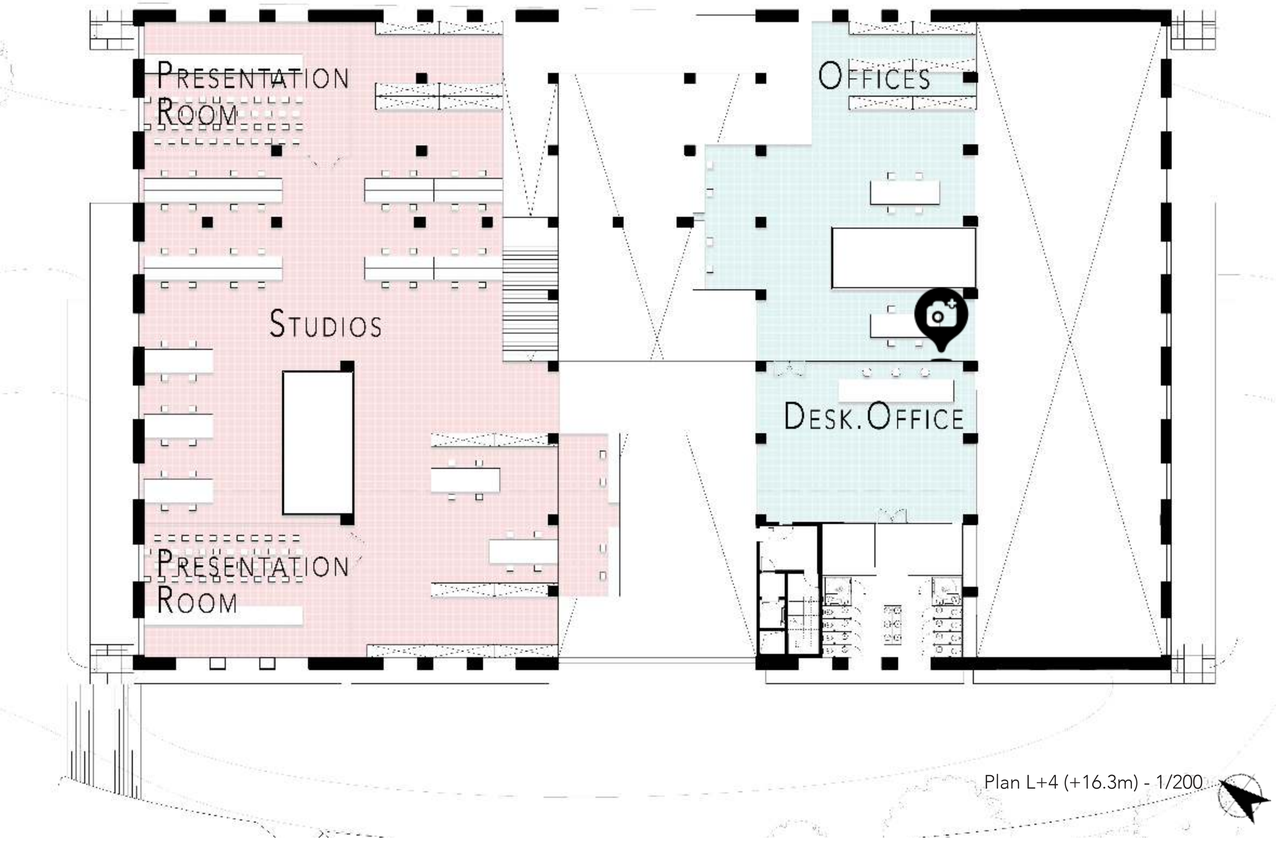
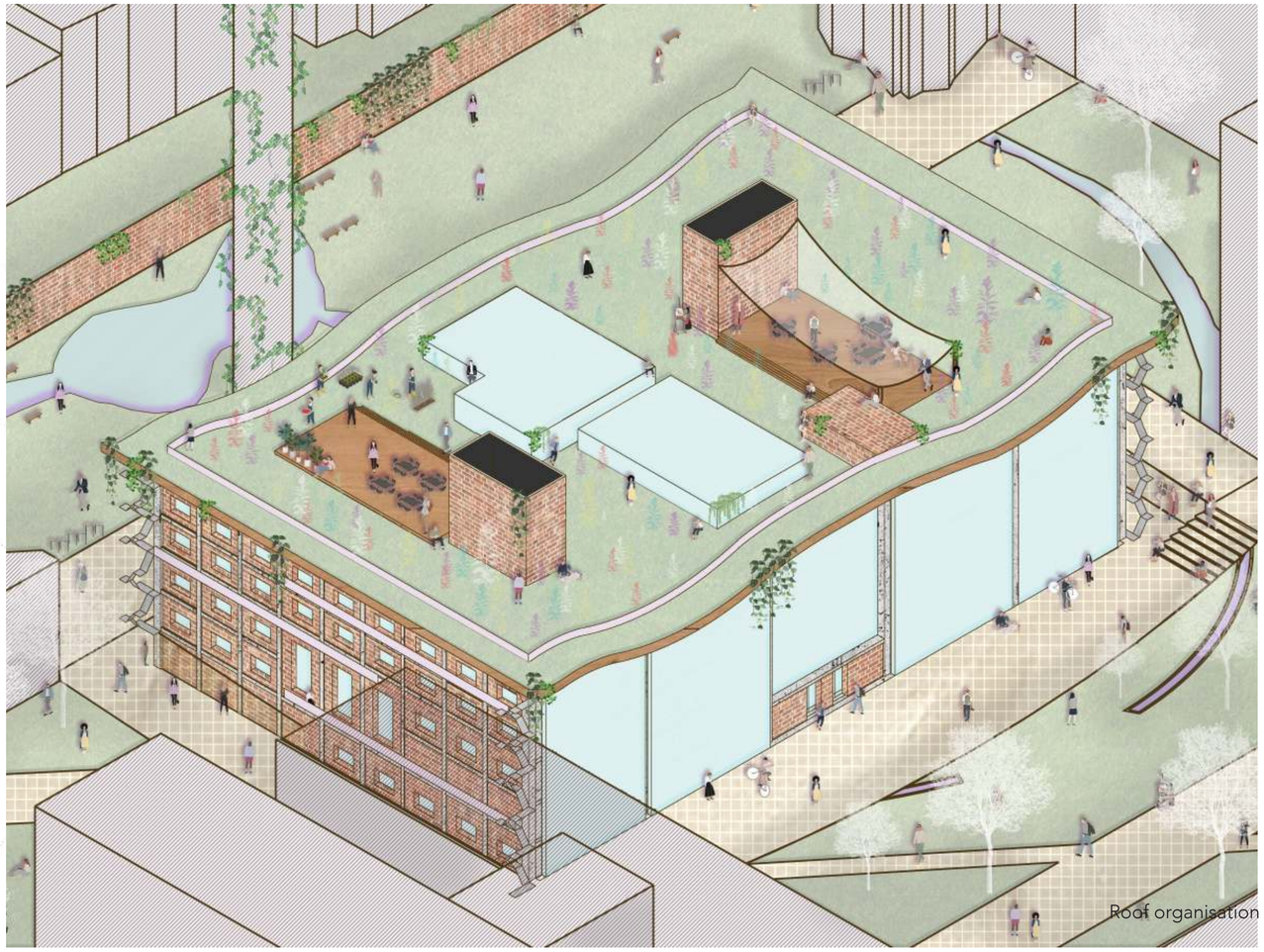
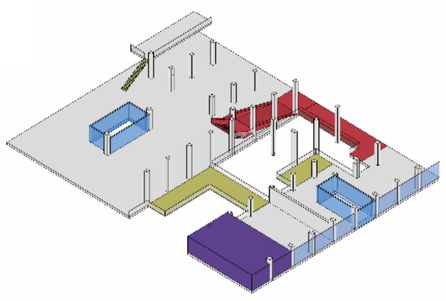
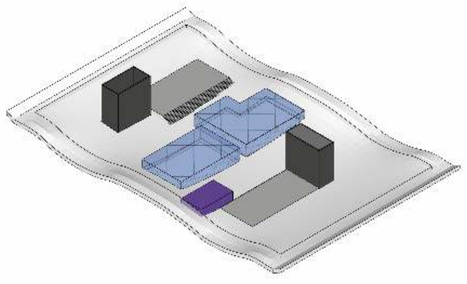


Plan L+4 (+16.3m) - 1/200



Roof organisation





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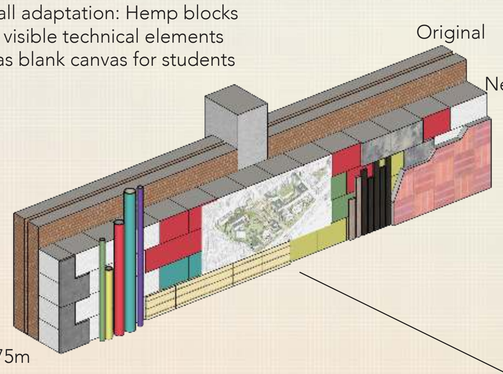
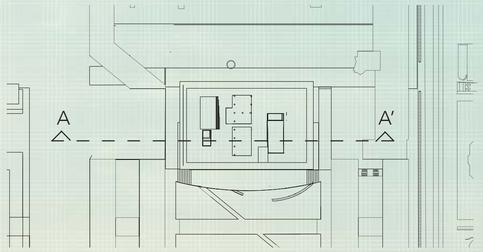
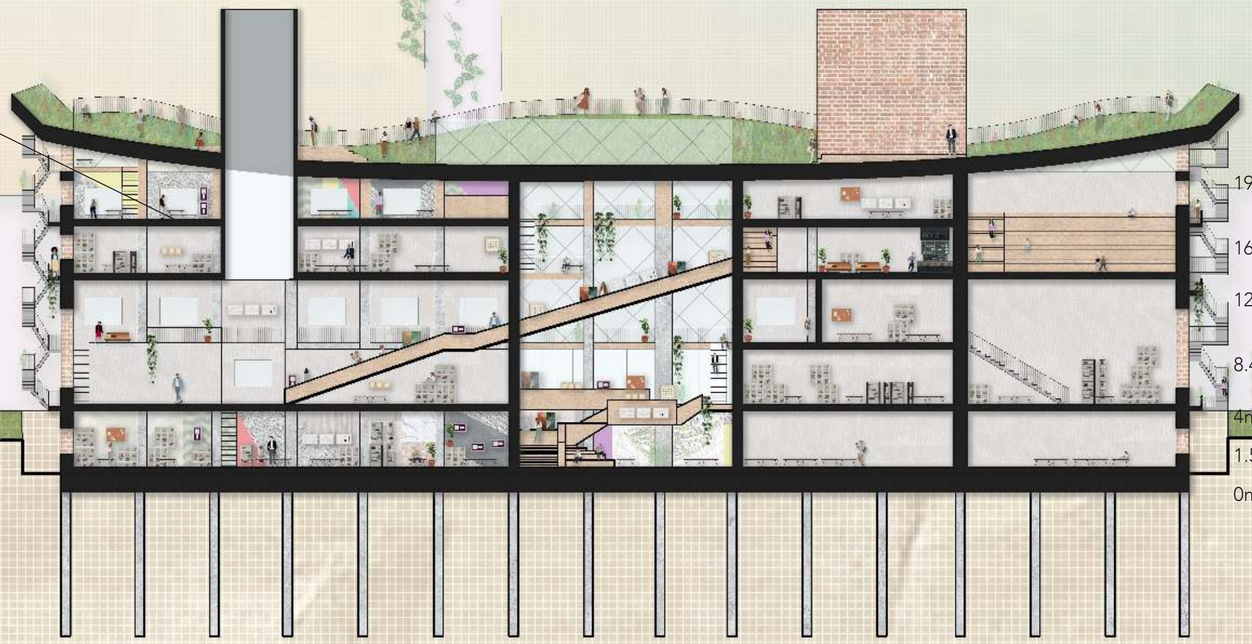
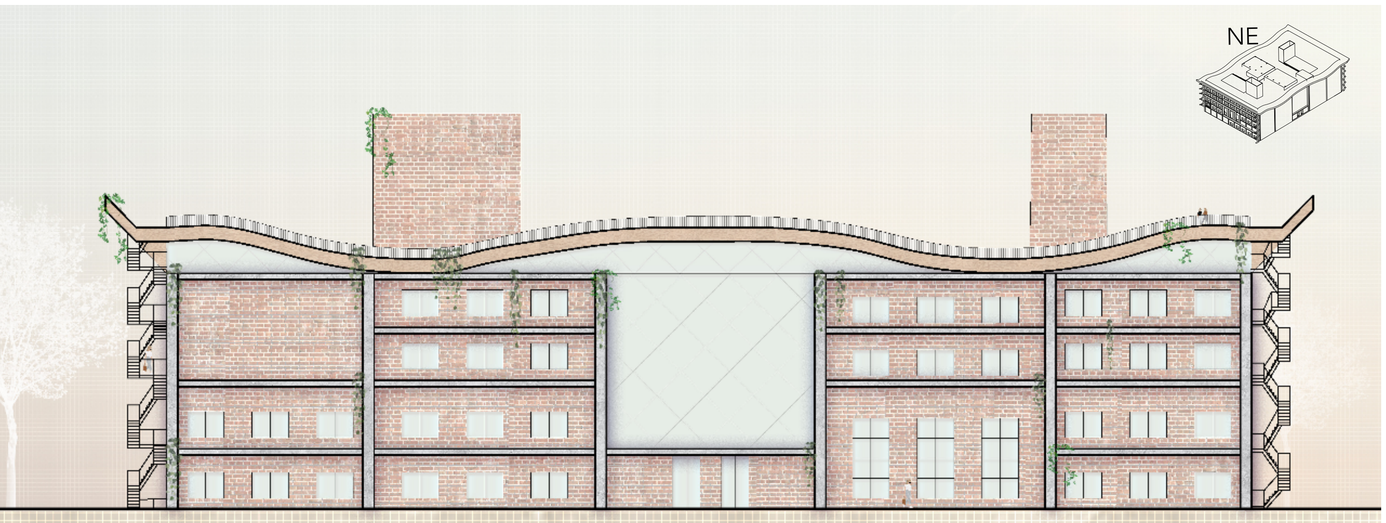
Exterior wall adaptation: Hemp blocks insulation, visible technical elements and walls as blank canvas for students



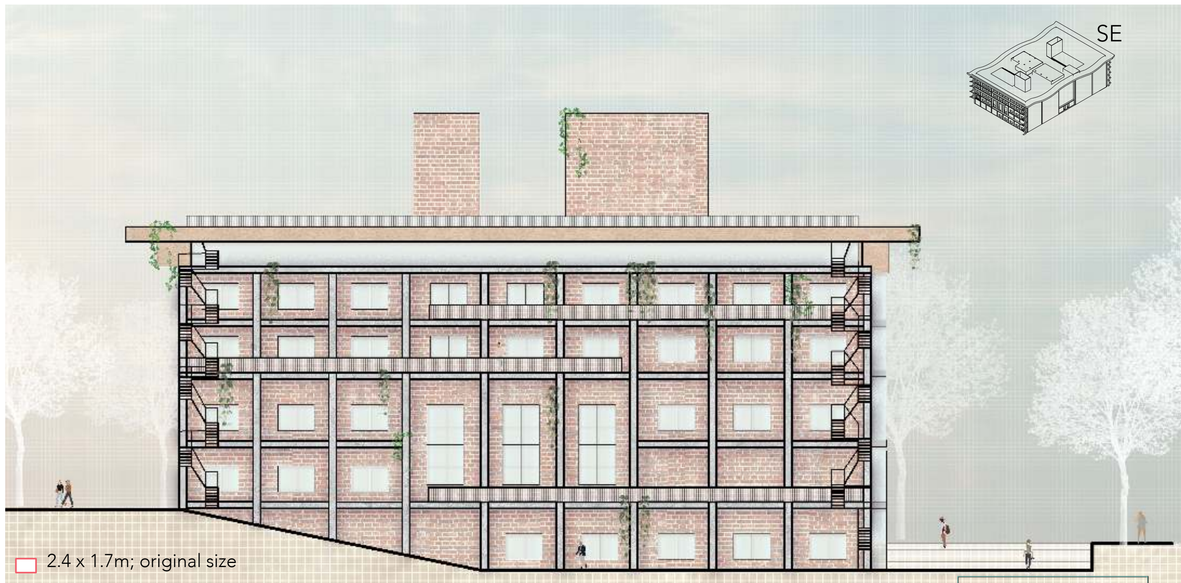




Section AA' - 1/200



Elevation North-East - 1/200



2.4 x 1.7m; original size

2.4 x 5.22m; original size

2 window modules

Elevation South-East - 1/200

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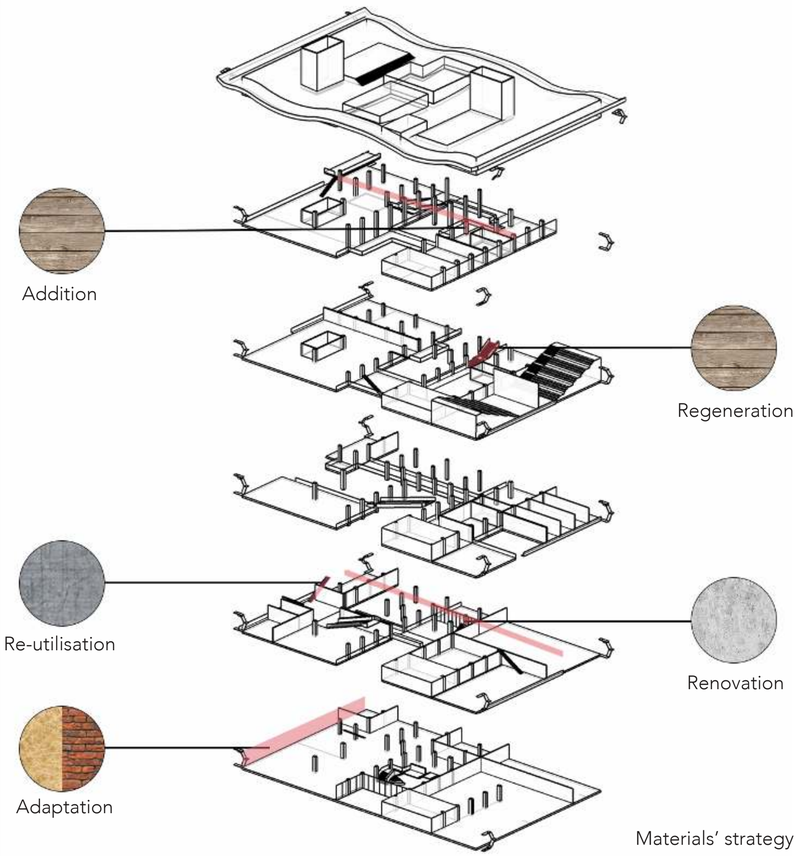


Materials' strategy

Steel staircases as such

Furniture as such

Doors are tables or countertops

Brick walls as such

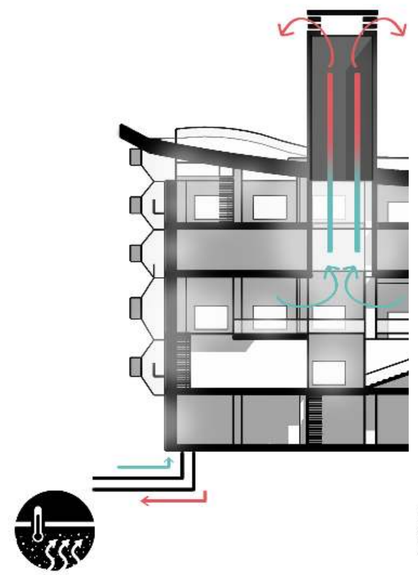
Stone and tiles for granita

Steel guardrails as such

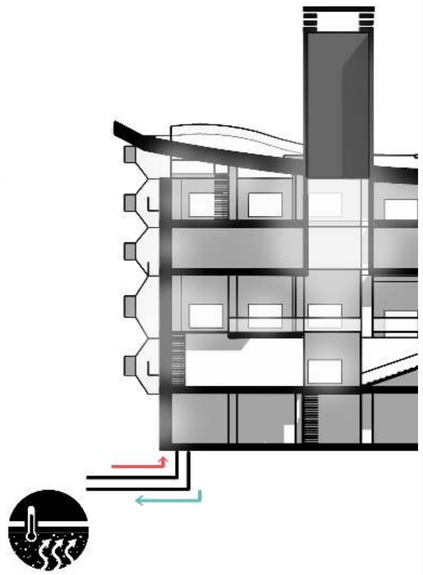
Goals: learn, experiment, re-use

Worshops:

Steel
Concrete
Wood
Granita/
Mosaic



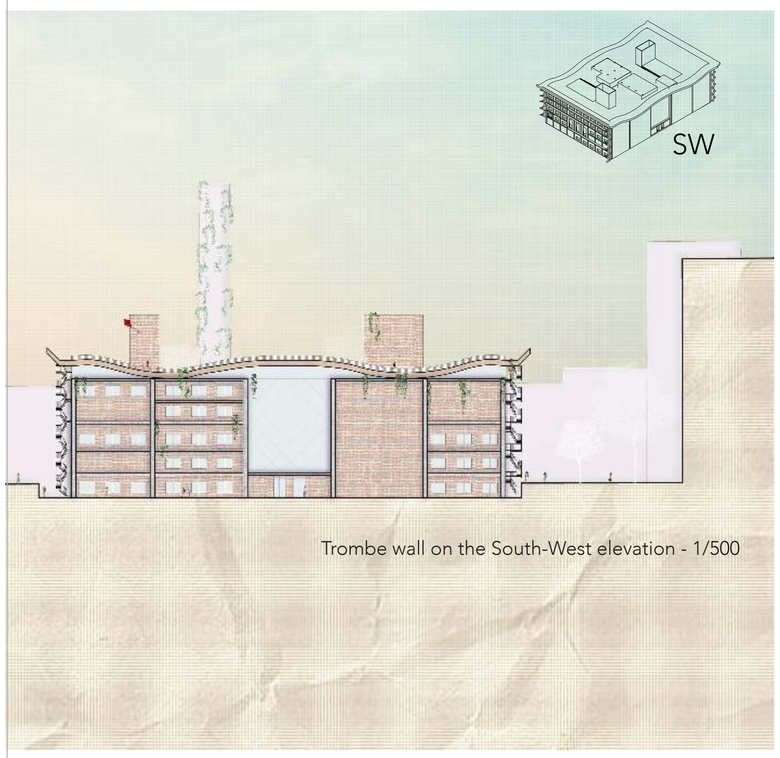
Solar chimneys and goethermal energy
Summer & mid season



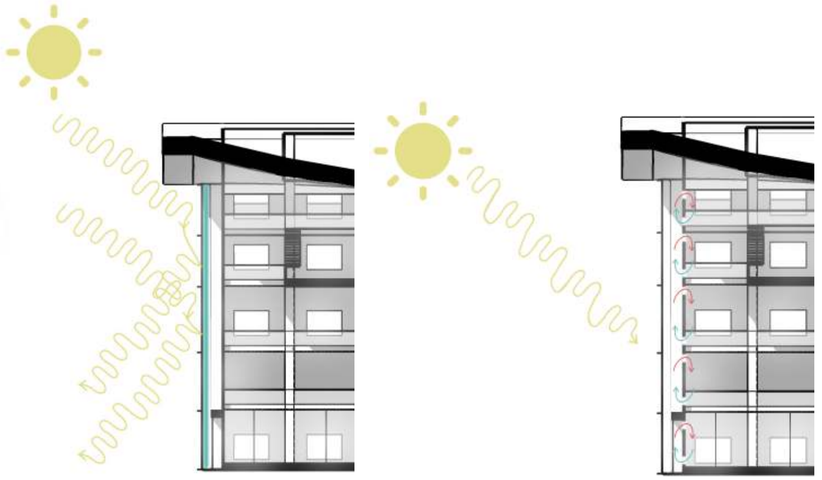
Solar chimneys and goethermal energy
Winter

Hot air

Cold air



Trombe wall on the South-West elevation - 1/500



Trombe wall Summer

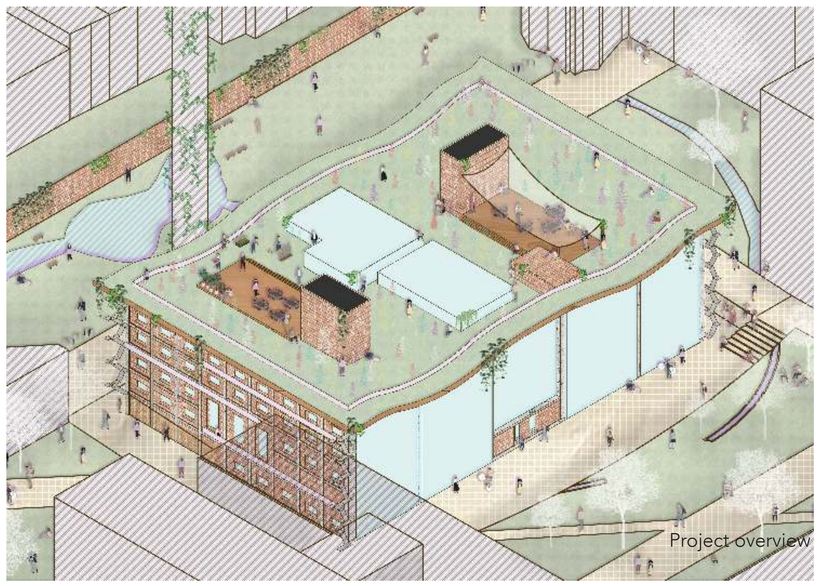
Trombe wall Winter & mid season

Sun rays

Cold air

Hot air

Blinds



Project overview

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