



ARCHITECTURAL PORTFOLIO

SELECTED WORK FROM 2021 - 2026

Facade of Tun Razak Exchange
Sunken Plaza, 2022
Photographed and Edited by

Alvan Lock



BOOMBOONG

Location: Hisar, India

2025

MArch Thesis Year 1

RIBA Silver Medal Award 2025

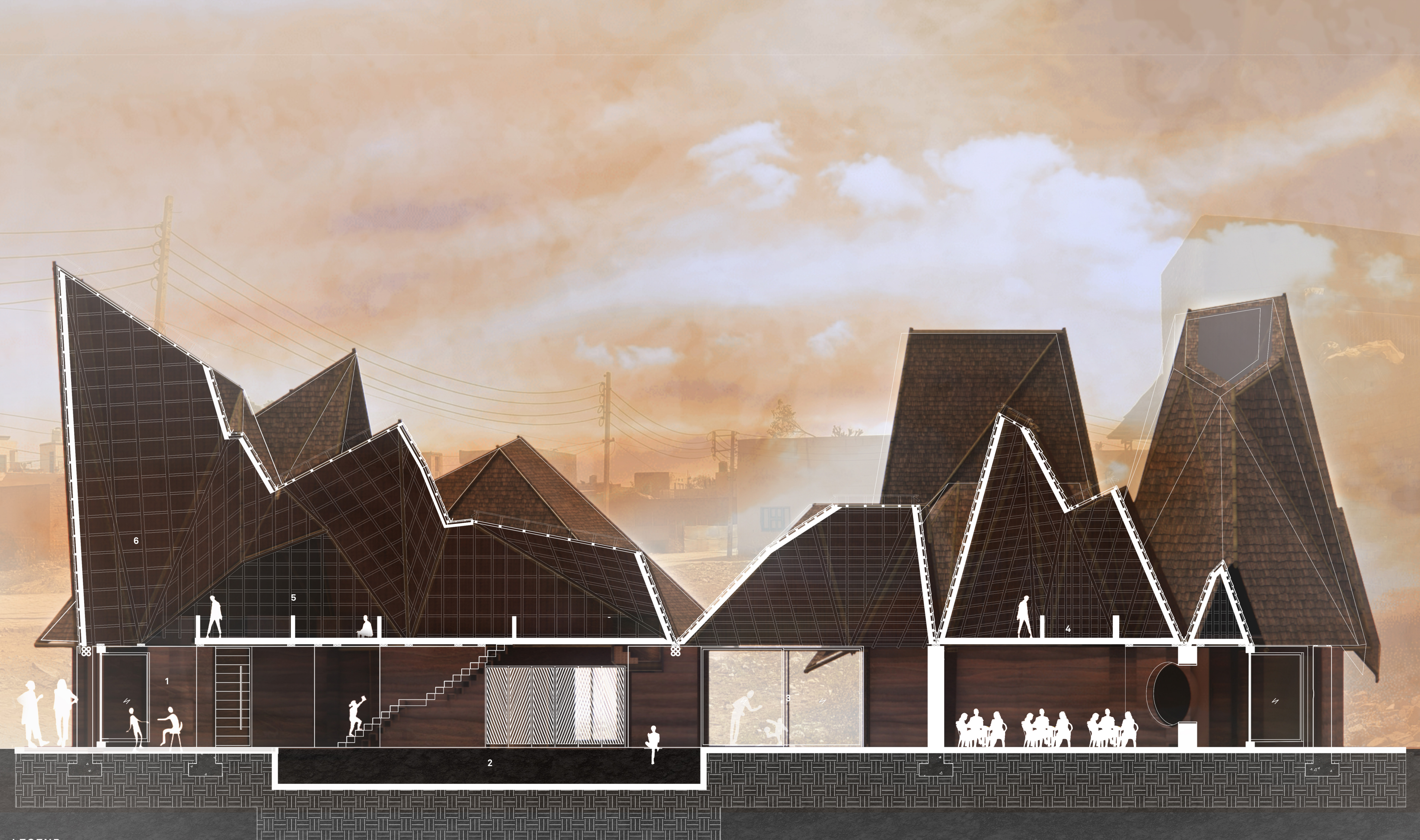
Nominee

Brief

- *Culture and underprivileged Foundation*
- *Low Carbon Materials*

Keys

- *Can elements from different Hindu temple traditions be combined?*
- *How can bamboo be used beyond conventional straight-column construction?*
- *How can the roof collect and redirect daylight?*
- *Can local materials become architecture?*



LEGEND

- 1 ARTWORKSHOP
- 2 BOOKBANK
- 3 COURTYARD
- 4 KITCHEN
- 5 LIBRARY
- 6 PODIUM

LONG SECTION 1:200

The building supports the Paryatan Foundation's programmes for women and children in Hisar. Locally sourced rammed earth forms the inhabited base, while lightweight bamboo roofs create naturally ventilated spaces and controlled daylight.

Form and Material Development

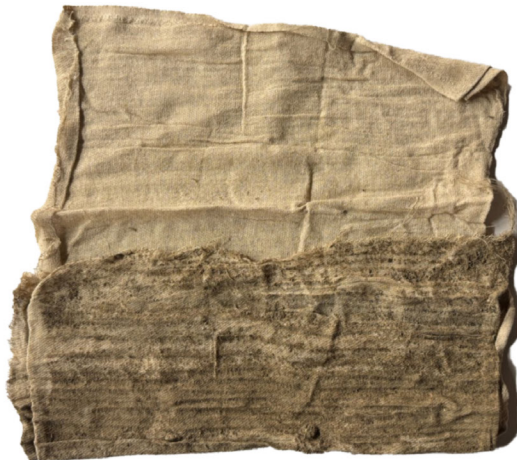
The 1:20 model draws inspiration from the Vesara Style, a unique architectural blend of Nagara and Dravida styles from India Temple, characterized by harmonious proportions and intricate details. This design is merged with vernacular elements from Balinese Hindu temples, or Pura, renowned for their spiritual essence and use of local materials:

- Bamboo and Rammed Earth as building materials
- Angled chimney roofs collect and redirect daylight into the interior



Plastic layer

The experiment informed a soft, waterproof envelope that protects the bamboo structure while creating the roof's pillow-like surface.



Cotton release layer, 1:1

Produced a cleaner rammed-earth surface with minimal material loss during demoulding.



Mesh release layer, 1:1

Produced a rougher texture but removed parts of the earth surface during demoulding.



Site Condition and Material Resource

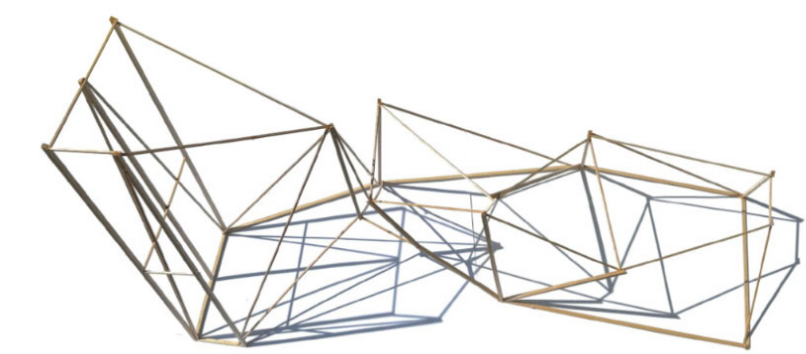
The sectional collage records dumped waste and exposed soil across the site. The abundance of locally available earth informed the use of rammed-earth construction, reducing material transport while transforming an existing site resource into the building fabric;

- Existing dumped waste
- Locally available soil for rammed earth

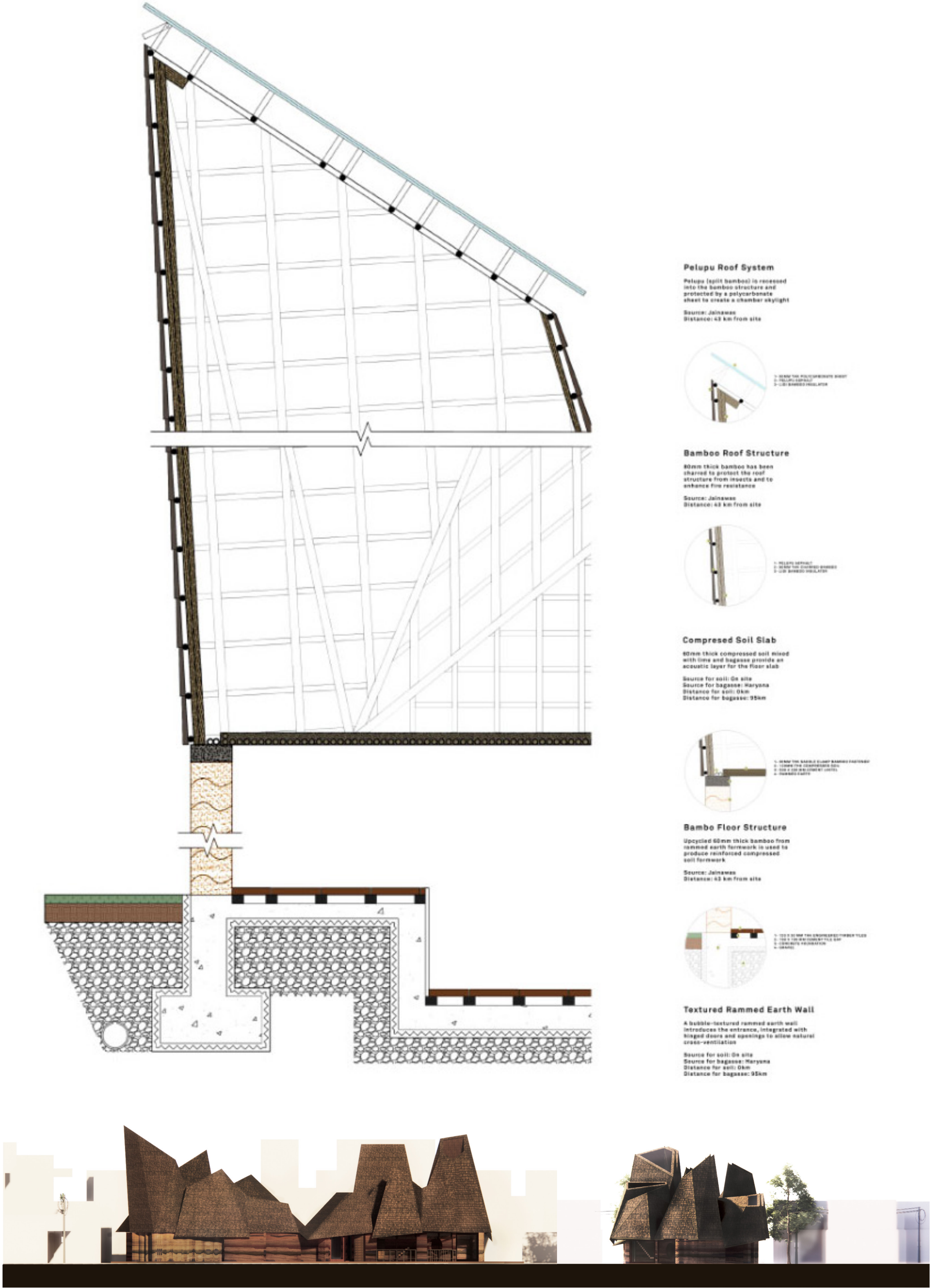
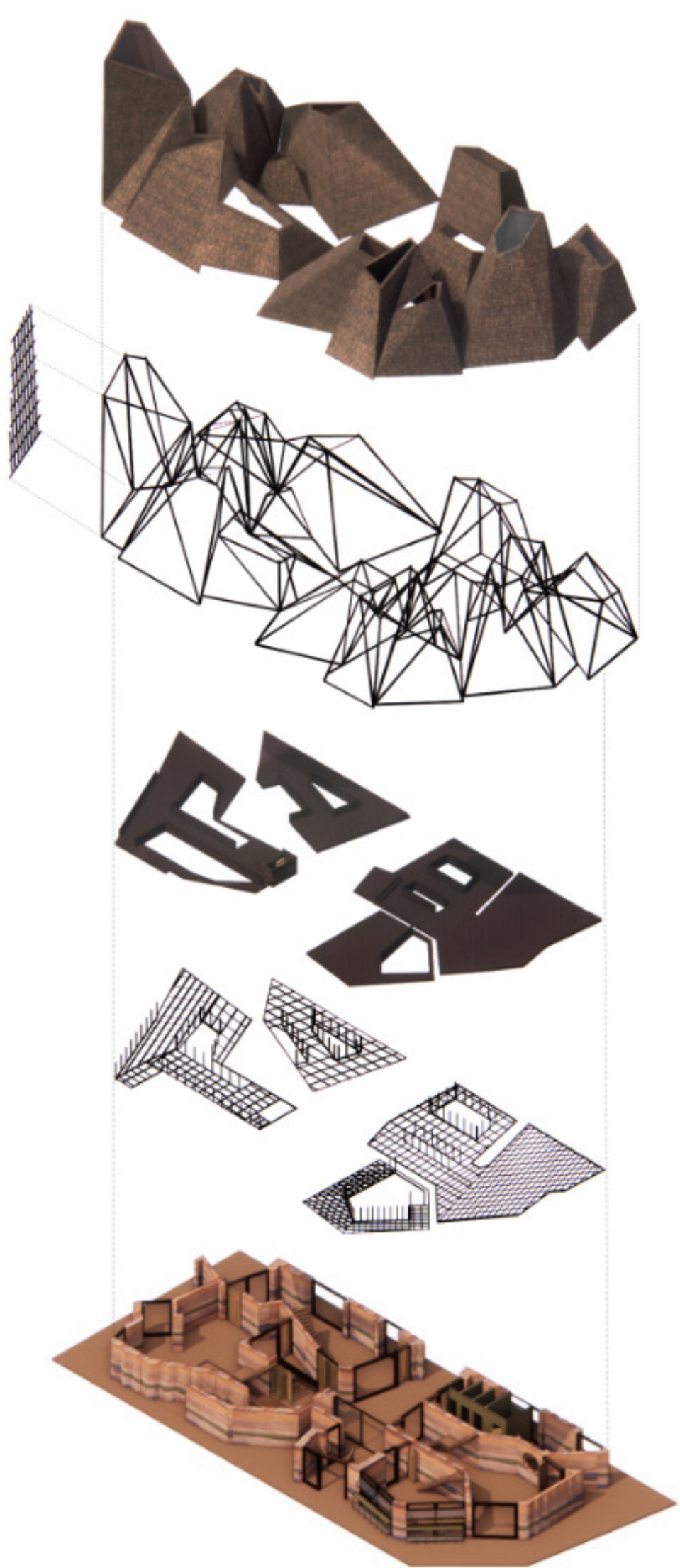
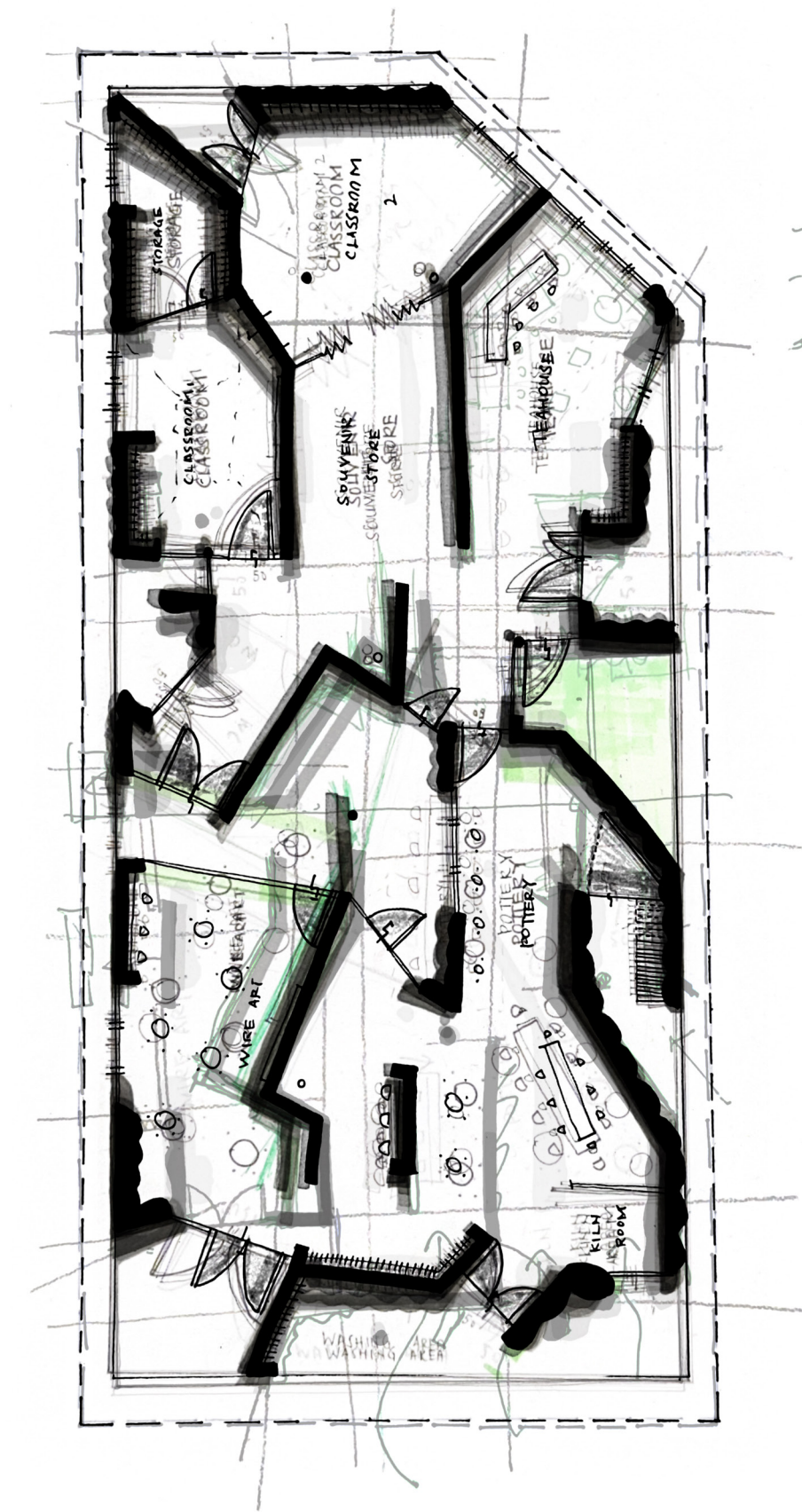
Spatial and Structural Development

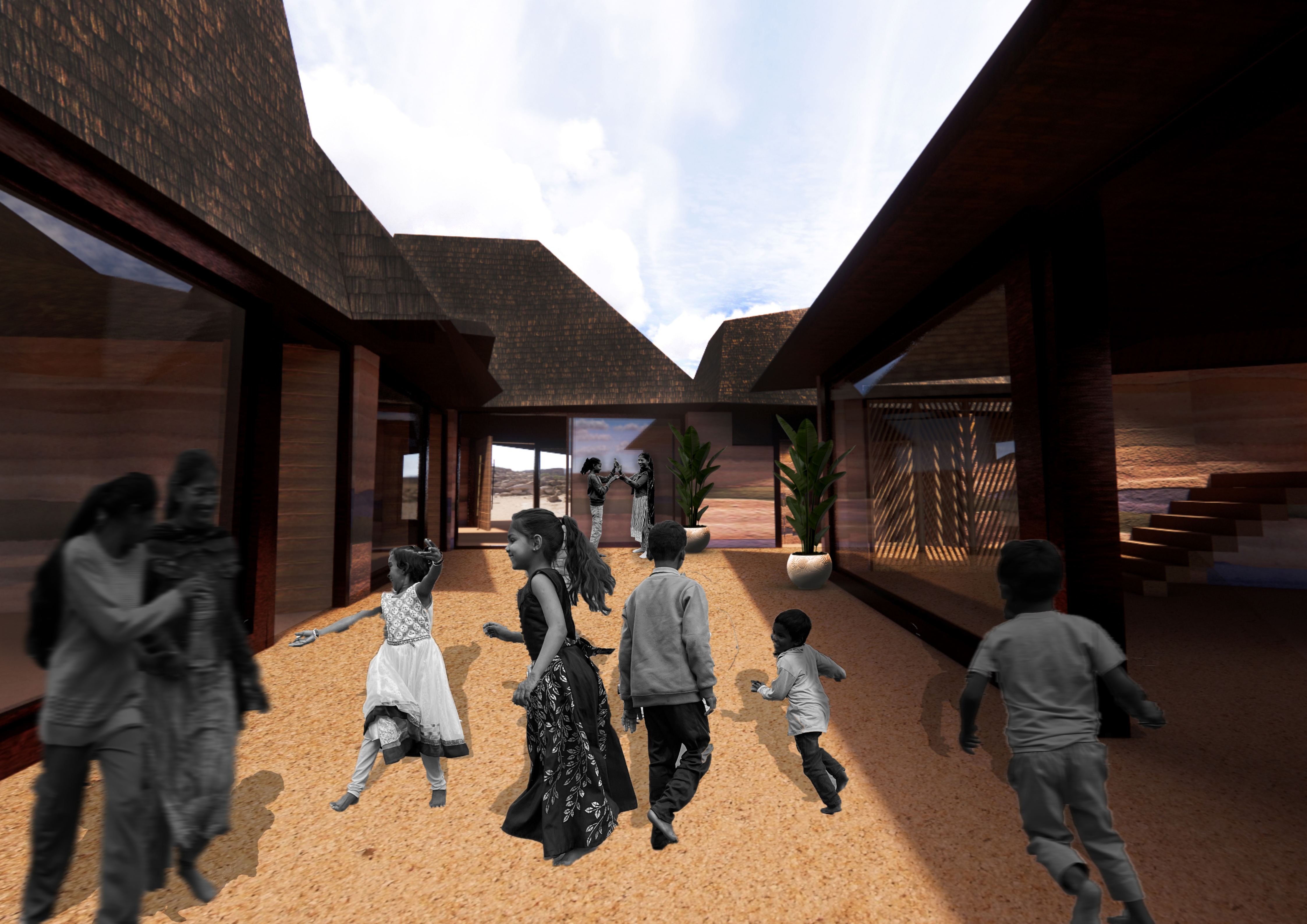
Thick locally sourced rammed-earth walls form the inhabited base and transfer loads from the lightweight bamboo roof structure. The plan was developed through clustered rooms and intermediate communal spaces inspired by Aldo van Eyck's spatial principles.

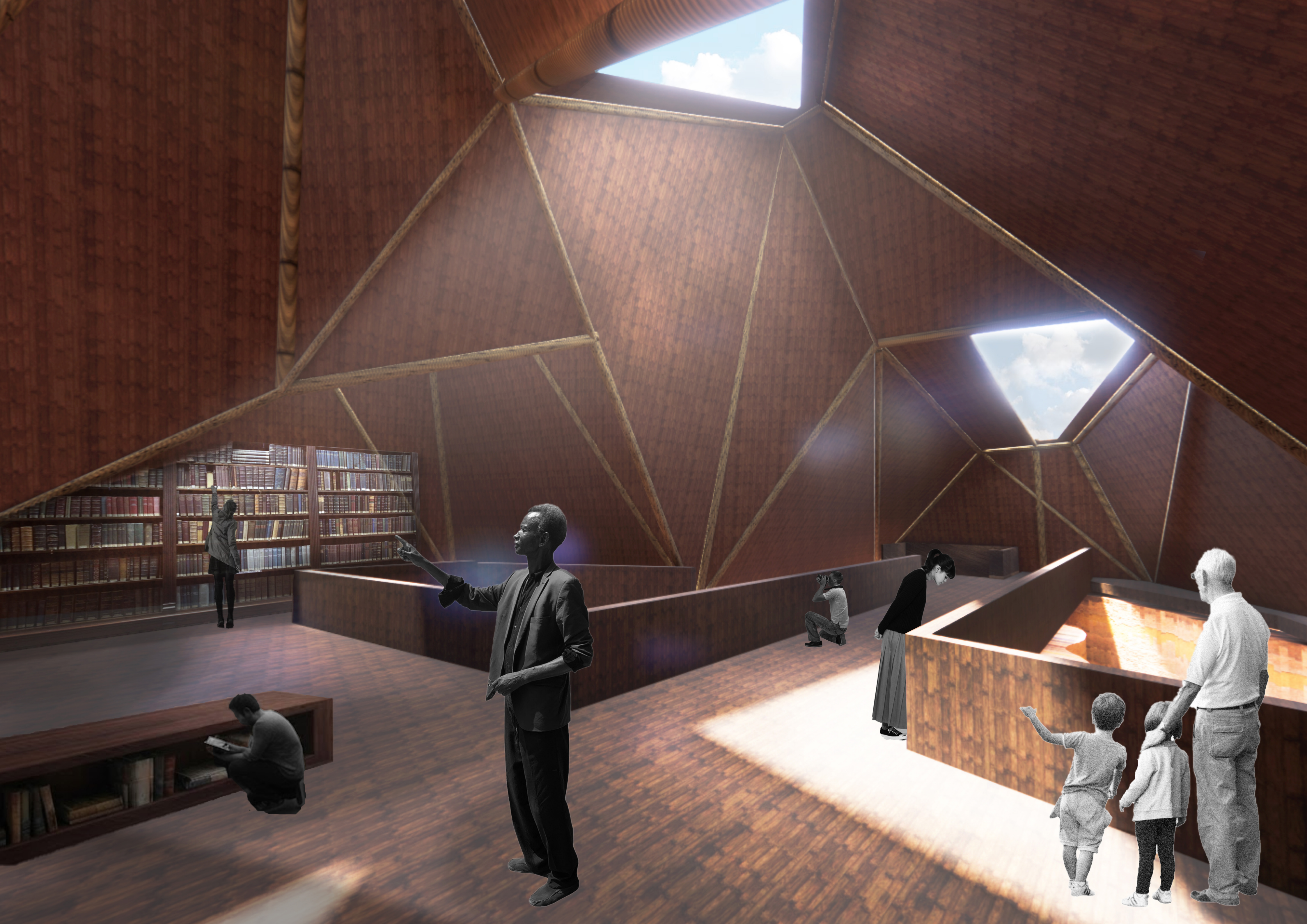
Roof Superstructure Fragment Model



Ground Floor Plan Collage









Play as Infrastructure

Location: West Silvertown, London

2026

MArch Thesis Year 2

London Festival of Architecture in City Hall

RIBA London Inter-School Summer Exhibition 2026

Exhibitor

Brief

- *Community engagement with West Silvertown*
- *Retrofit work for Millennium Mills*

Keys

- *How can the existing industrial structure be retained and activated?*
- *How can the proposal engage with the local community?*
- *How can retail and play programmes coexist?*

Diagram on the left shows ant's-eye view from the ground floor through the full-height play atrium.



LEGEND

- | | | | | | | | | | |
|---|---------------|---|--------------------|---|--------------|----|----------------------|----|-------------|
| 1 | PLAYGROUND | 4 | INSTALLATION | 7 | RETAIL | 10 | TEXTILE INSTALLATION | 13 | ZIP LINE |
| 2 | ROCK CLIMBING | 5 | SKYBRIDGE | 8 | RETAIL | 11 | LIGHT WORKSHOP | 14 | ROOF GARDEN |
| 3 | NET CLIMBING | 6 | AIRCRAFT SIMULATOR | 9 | INSTALLATION | 12 | SWINGS | | |

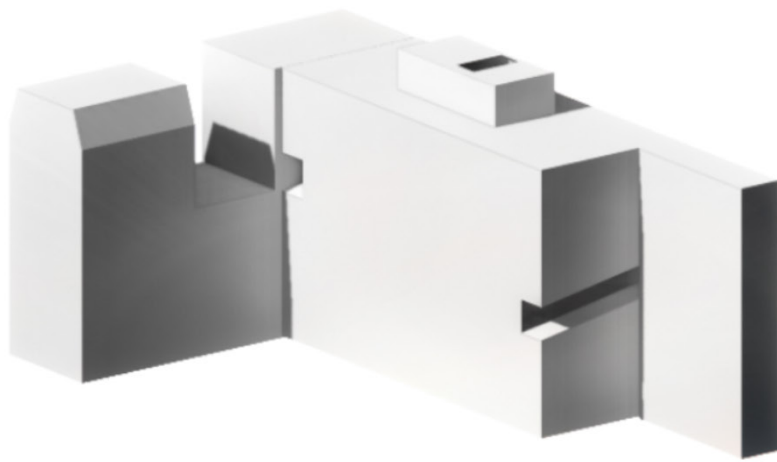
Millennium Mills is reimagined as a vertical public playground. New routes, installations and learning spaces occupy selected structural voids while retaining the building's principal industrial frame.

Form Proposal

The intervention adopts a strategy of adaptive reuse through subtraction and insertion. Existing structural voids formed through decay and partial demolition are reinterpreted as:

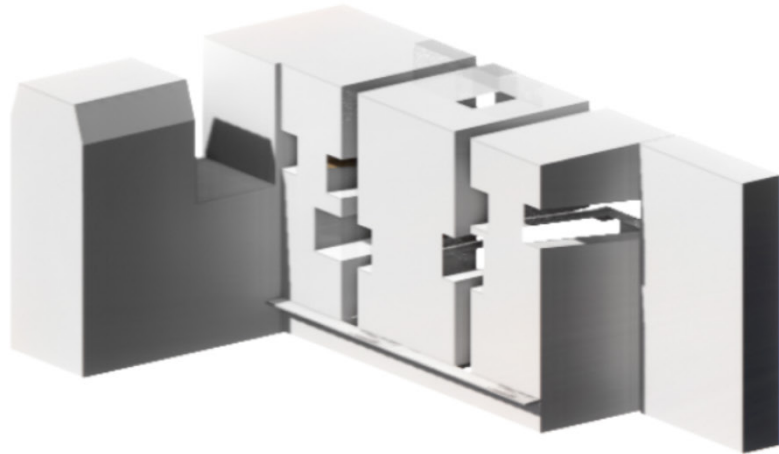
- Vertical Connectivity
- Daylight Penetration
- Spatial Openness

The building is transformed into a continuous 3-dimensional playground, where movement, exploration and interaction define spatial experience.



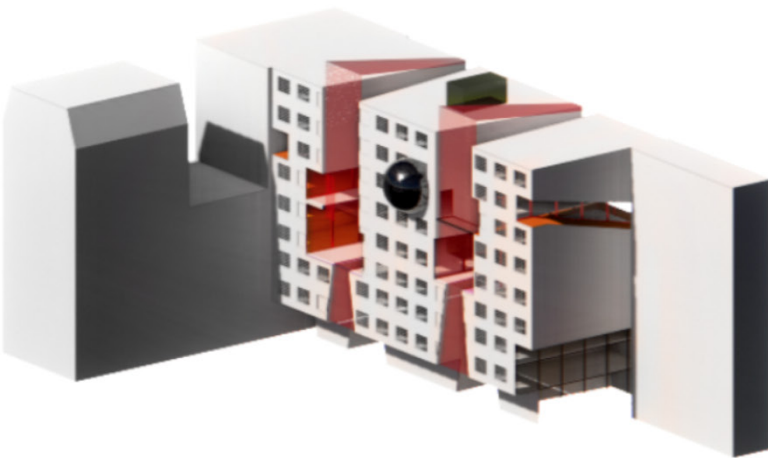
01 Initial Massing

The design begins with a solid building mass that defines the maximum spatial volume based on site boundaries and programme requirements.



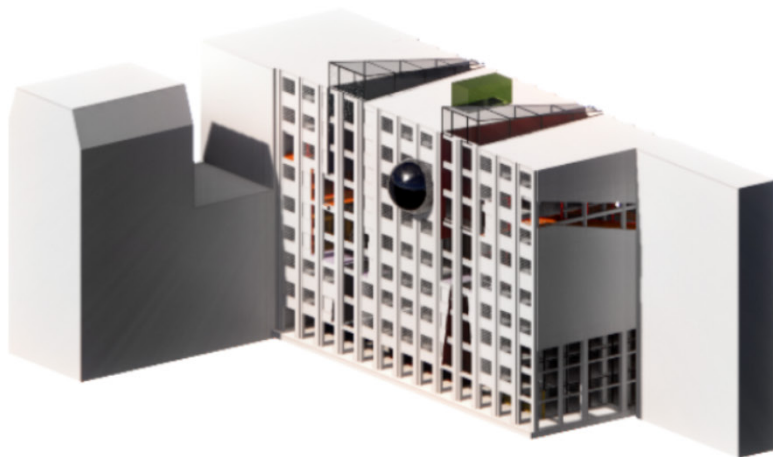
02 Subtraction for Central Void

A central portion is removed from the mass to create an internal void that improves daylight penetration, ventilation, and spatial connectivity.



03 Programme Integration

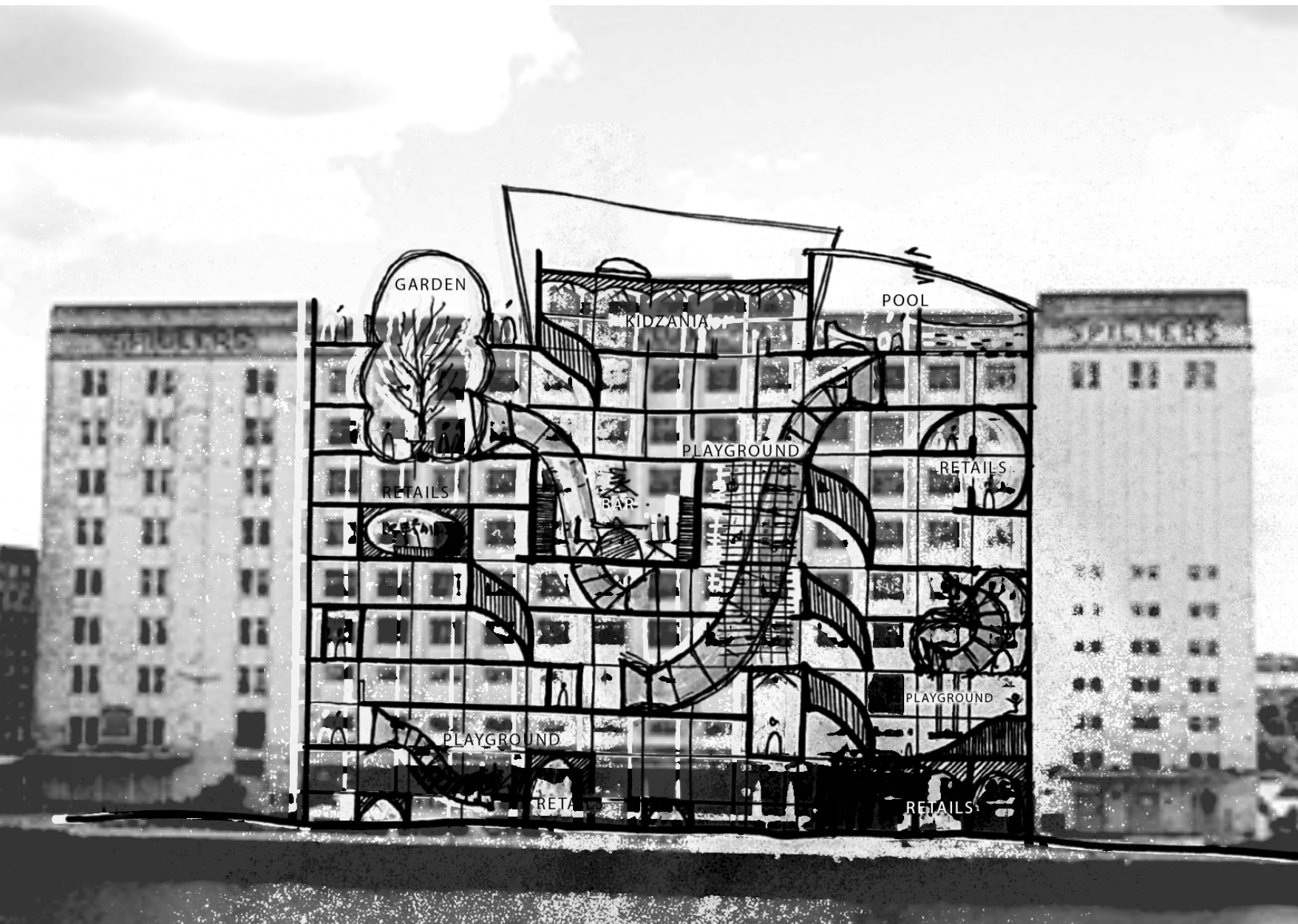
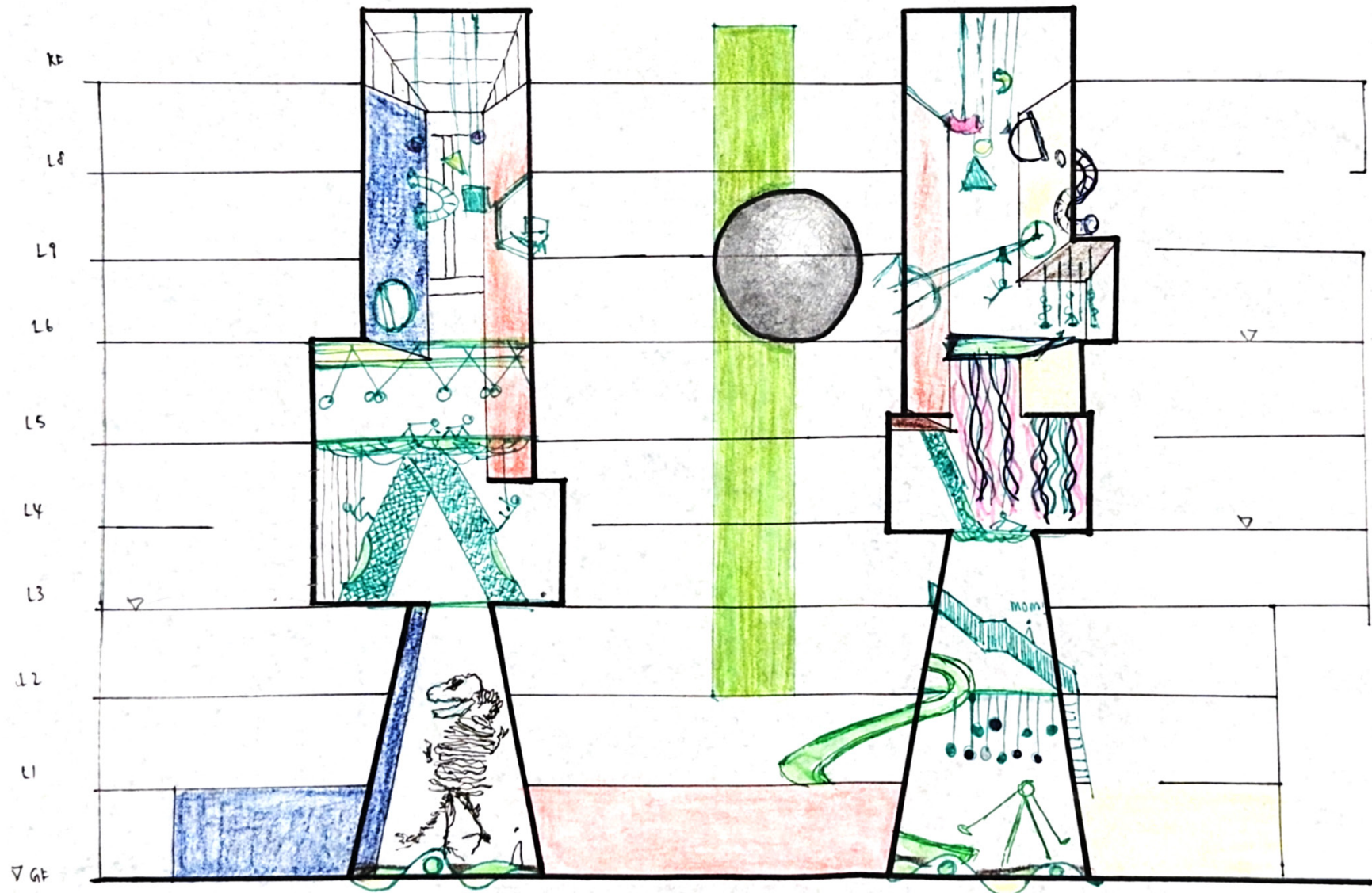
Additional subtractions and adjustments are made to accommodate functional spaces, circulation routes, terraces, and shared communal areas within the building form.



04 Integration with Existing Structure

The final design incorporates the existing structure into the new development, creating a dialogue between old and new elements while preserving structural value, improving sustainability, and enhancing overall spatial per

Sketch of Long Section Programme Proposal



Fragment Atrium Model 1:300

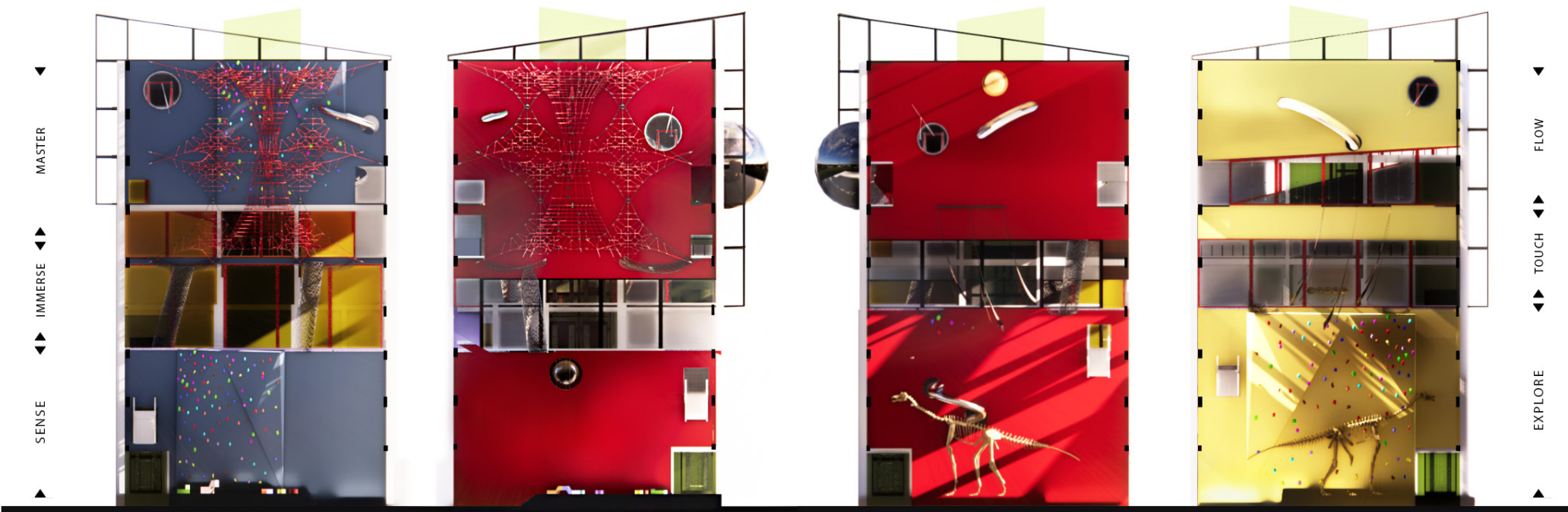
Fragment atrium study
The model tests the relationship between the retained structural frame, inserted play volumes and new vertical voids.



Elevations



Internal Sections



Structure & Programme Strategy

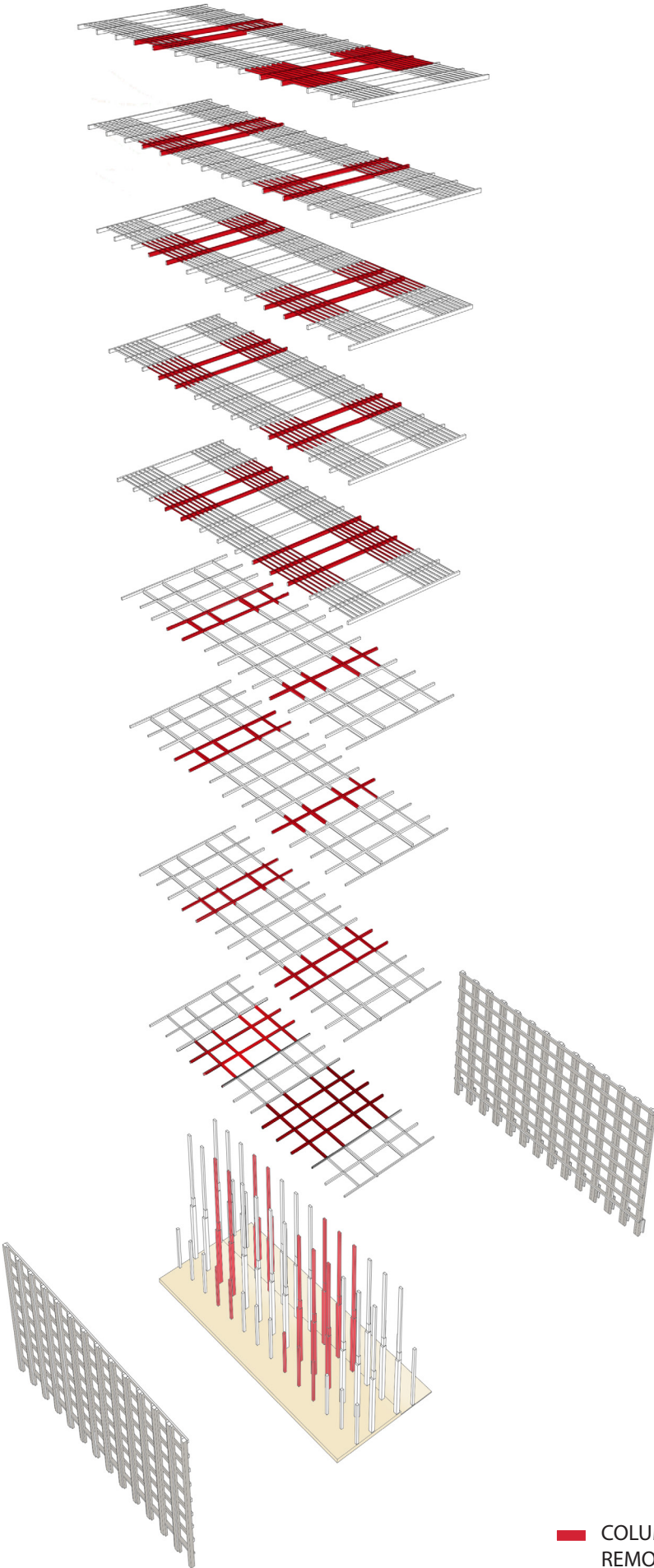
The structural interventions include:

- Selective removal of slabs and beams
- Reinforcement with new concrete and steel systems
- Integration of new facade elements

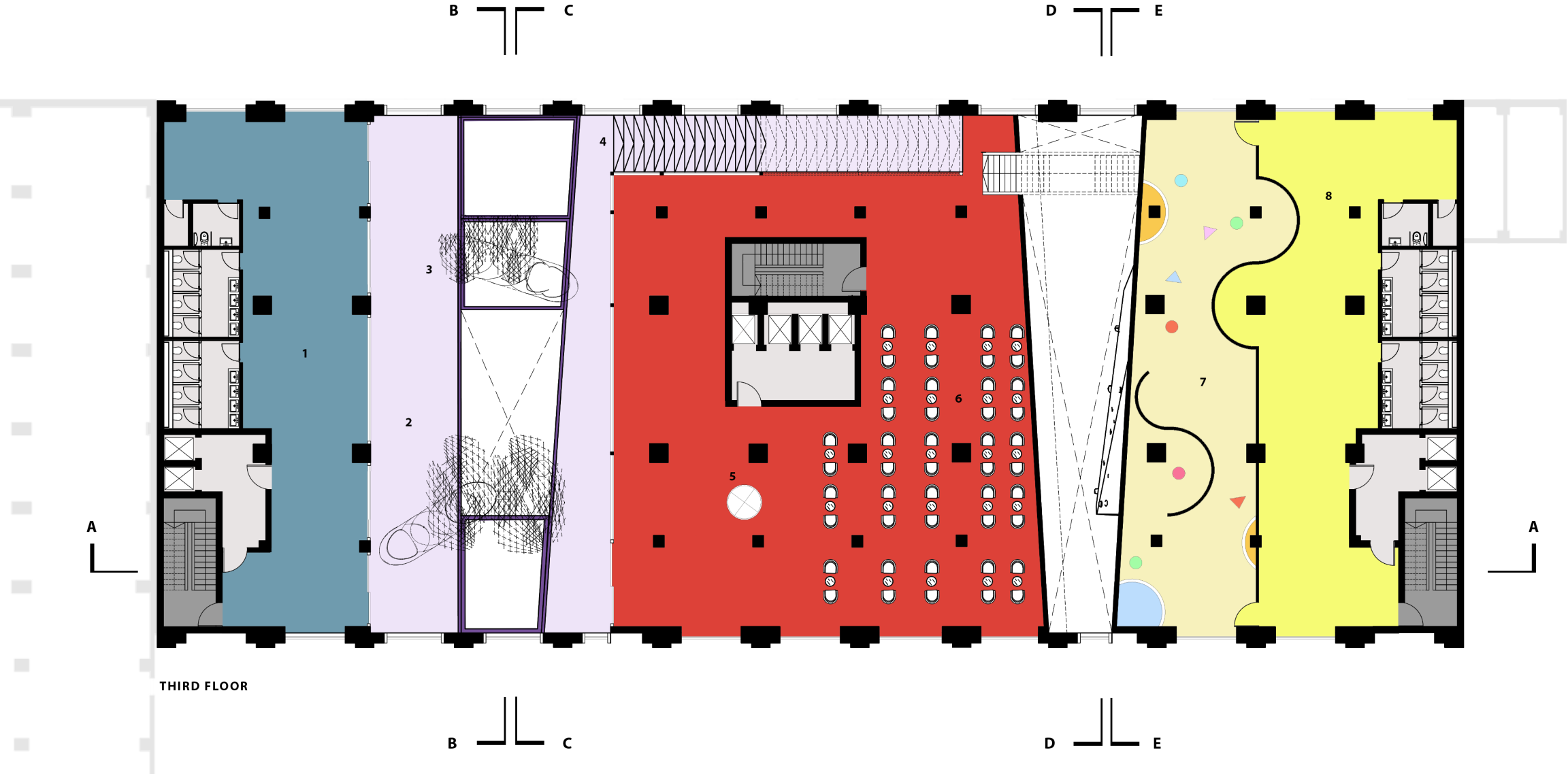
New Programmes are introduced through the “crack” interventions:

- Play + Learning
- Light Workshop
- Installation
- Playground

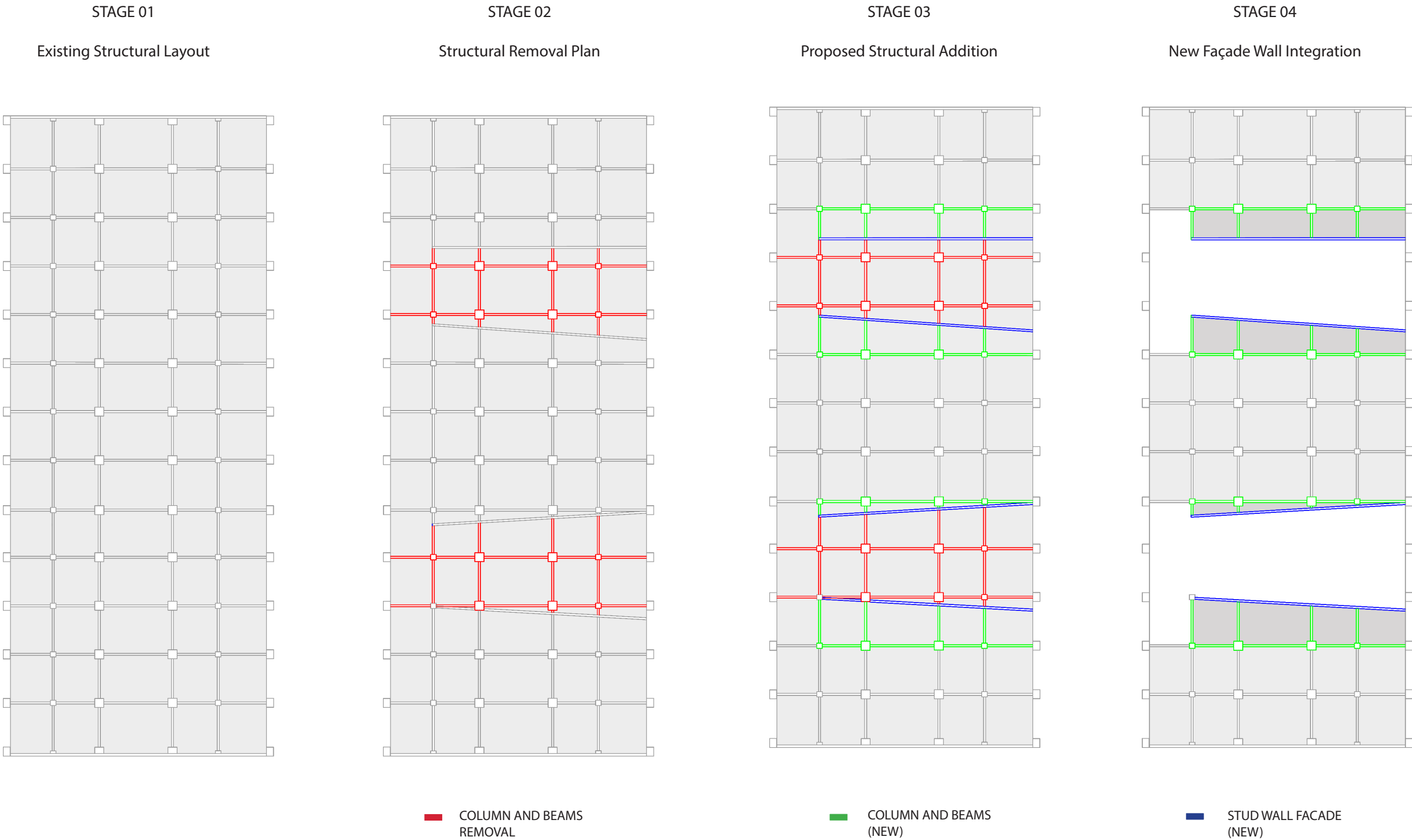
3D Structural Subtraction



Third Floor Plan



Column and Slabs Removal Strategy





Dawn House

Location: Sentul, Kuala Lumpur

2023

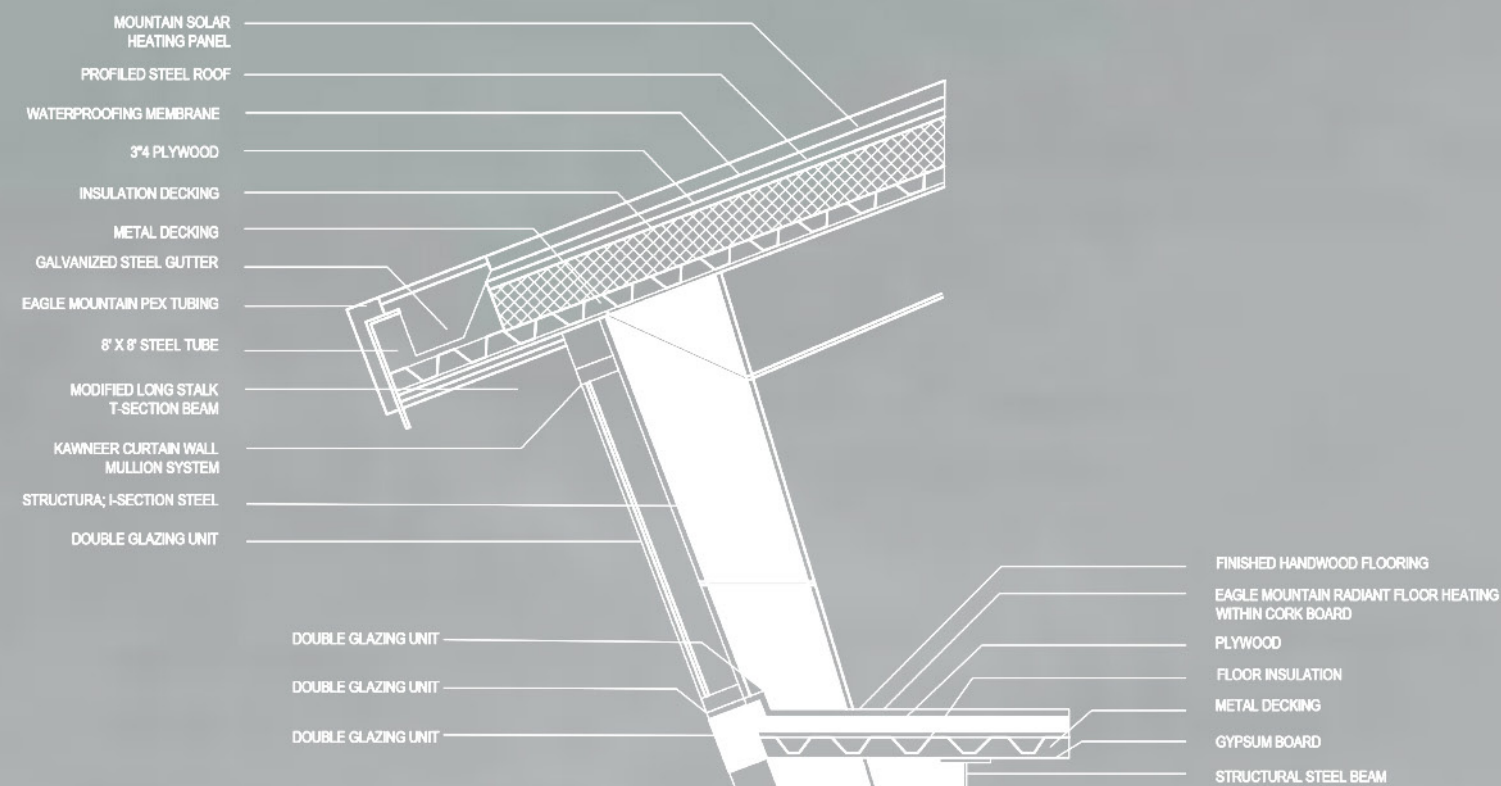
B.Arch Year 3

Brief

- *Dexterity Centre for Youth*
- *Art and Wellness*
- *Exploring how a surreal civic landmark can provoke curiosity*

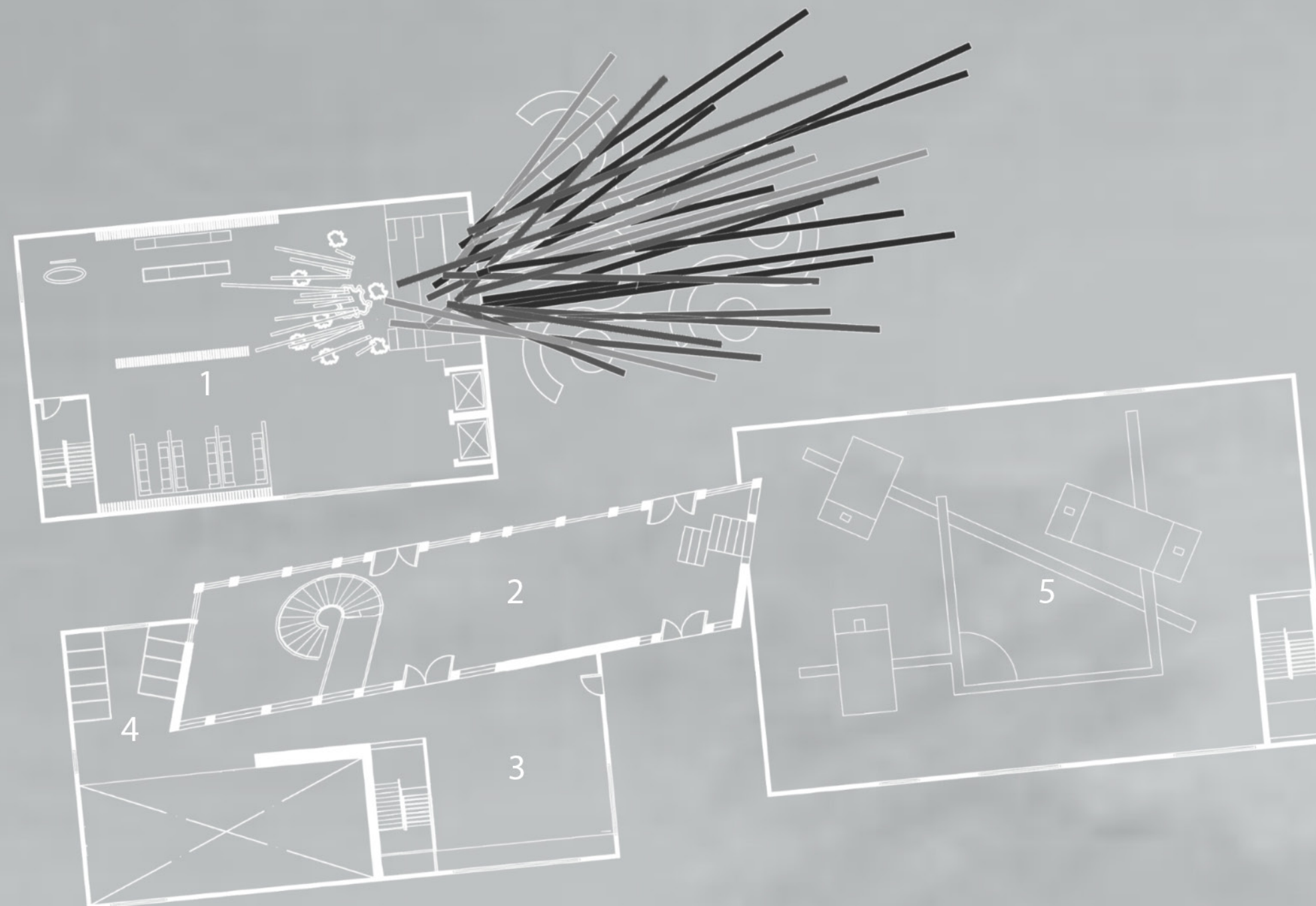
Keys

- *What do local young people need from a community dexterity centre?*
- *How can an unfamiliar new building become accepted by the surrounding community?*



CONCRETE SLAB
SAND
BASE
CONCRETE FOOTING
COMPACT SOIL

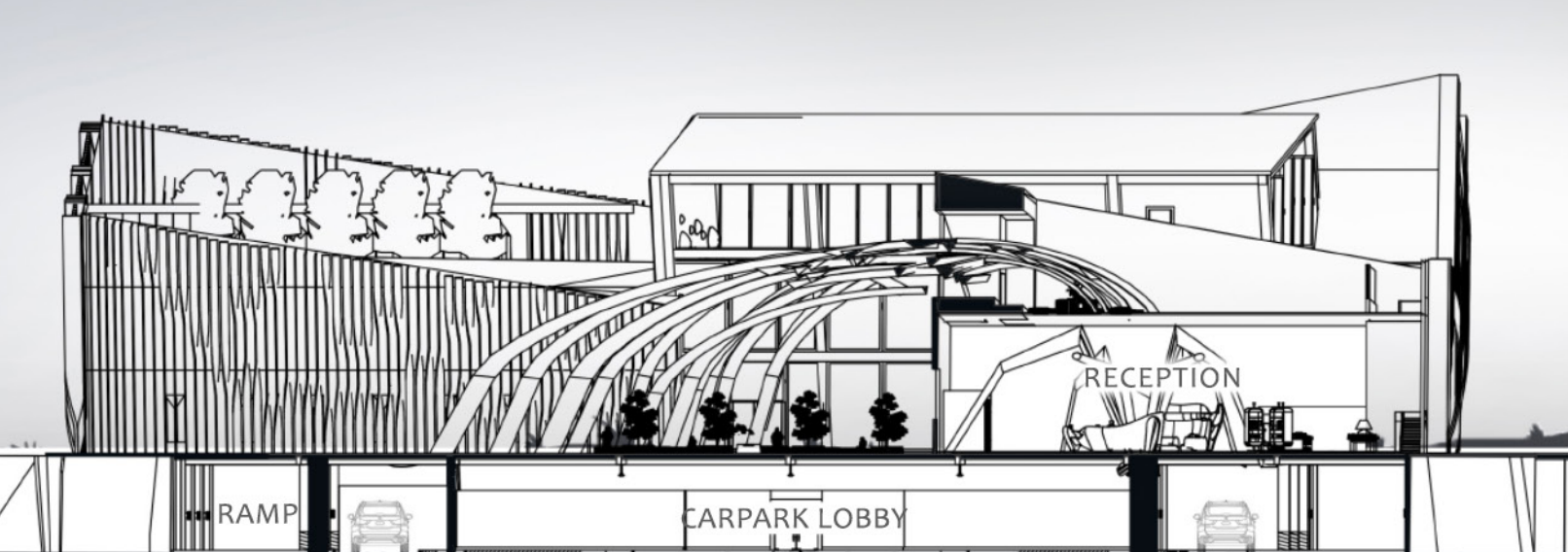
CONCRETE SLAB RADIANT FLOOR HEATING
SAND
SAND
INSULATION W/ WATERPROOFING MEMBRANE
BASE



FIRST FLOOR PLAN
SCALE 1:200

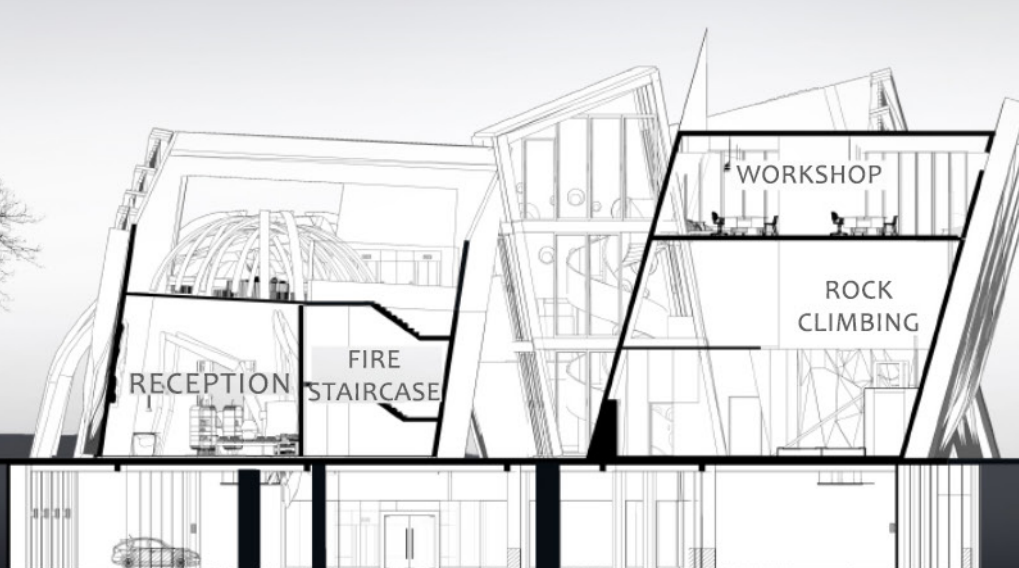
LEGEND

- | | | | |
|---|-------------------|---|-----------------|
| 1 | DINING AREA | 4 | CHANGING ROOM |
| 2 | CIRCULATION | 5 | EXHIBITION AREA |
| 3 | MULTIPURPOSE HALL | | |



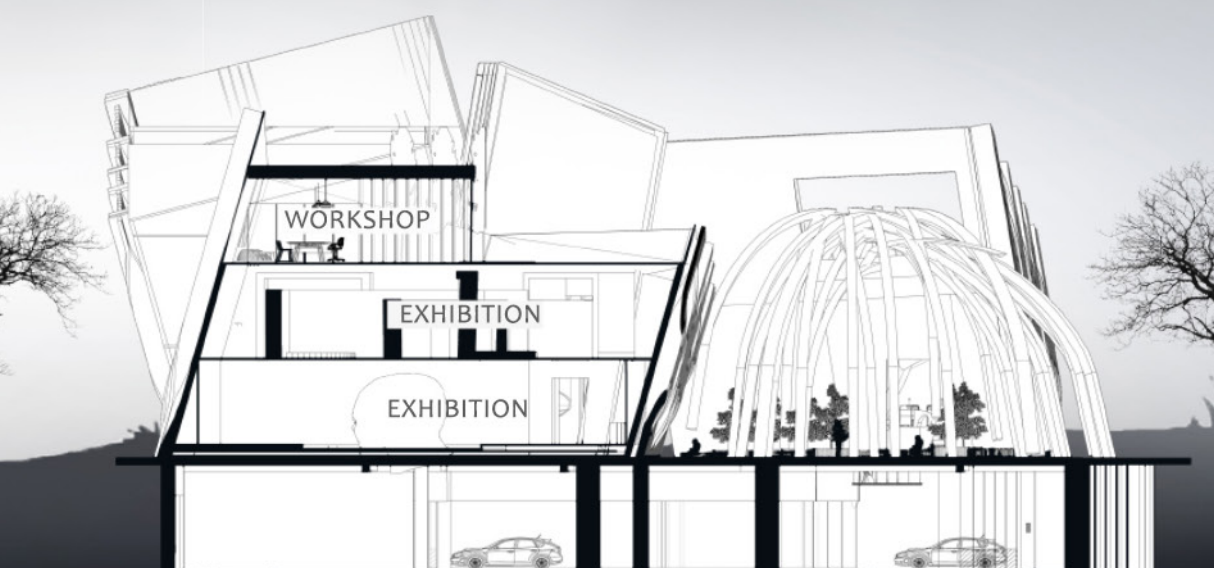
SECTION A-A

SCALE 1:200



SECTION B-B

SCALE 1:200



SECTION C-C

SCALE 1:200



Bagasse Acoustic Panel Research

Researcher and Assistant with Sugarcrete and Bagaceira

2024

MArch Year 4

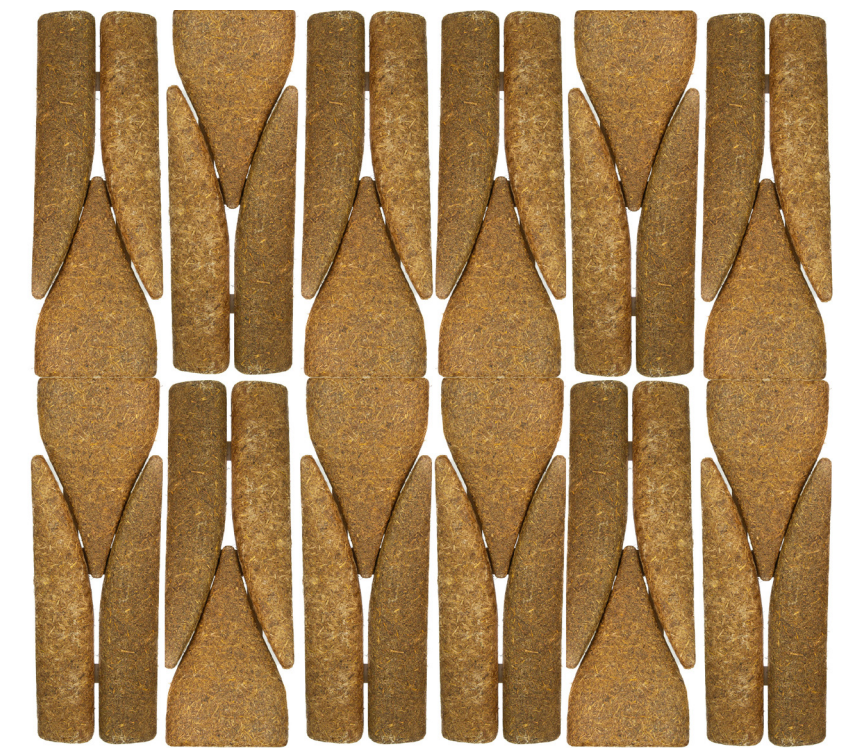
Keys

The project investigated waste sugarcane fibre as a breathable acoustic lining material. Bagasse was combined with sodium silicate and tested for acoustic absorption, fire behaviour, moisture buffering, compression and thermal conductivity.

Contribution: mixture development, mould design, prototype fabrication and performance testing



The research sequence shows mould development, panel arrangement, manufacturing, reuse of leftover material and acoustic testing of the completed prototypes.





Winter Garden Nostalgic Garden

Location: Broadgate, Liverpool Street

2025

MArch Year 2

Broadgate Prize 2026 by British Land

1st Runner Up

Brief

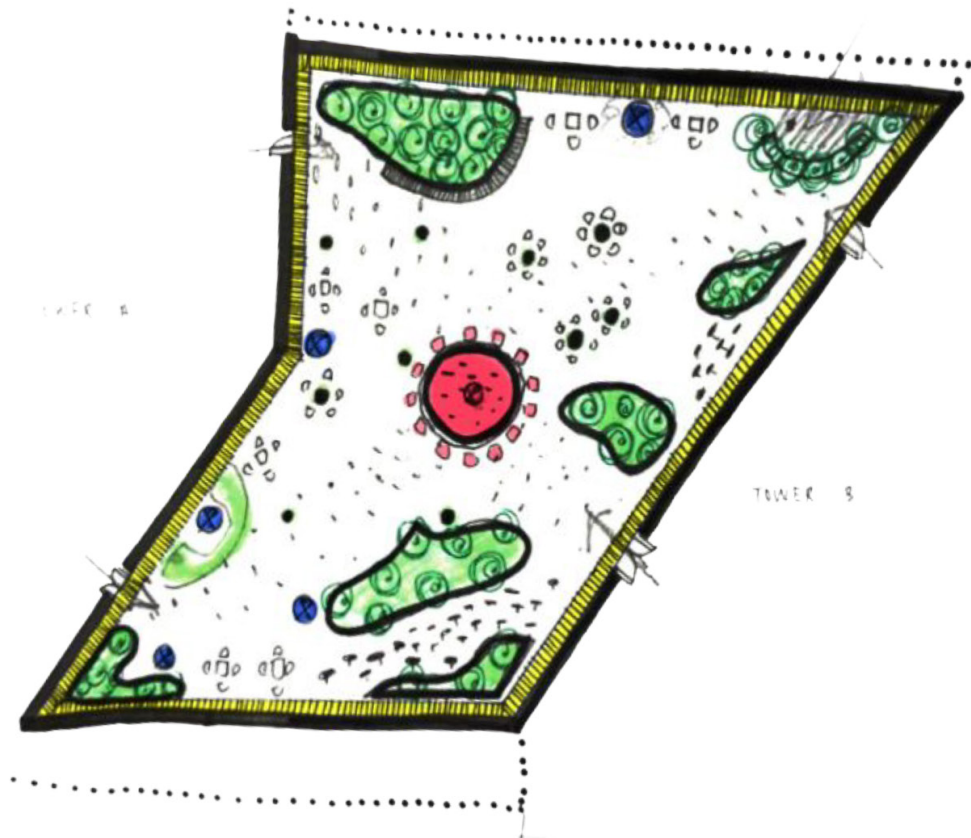
- *Complete the circle*
- *Winter garden in commercial building with the proposed structure*

Keys

The proposal transforms Broadgate's triangular winter garden into a planted social landscape. A cellular planning system organises circulation, seating, planting and water retention while preserving clear movement across the space. Sculptural furniture, public art and suspended planting create a playful retreat and wellness for office workers.

Design Development and Zoning

Diagram on the left is a sketch on plant cell applying the characteristic into the floorplan of Winter Garden, by placing Nucleus, Vacuole and most importantly the Cell Wall. These characteristics were developed into a central installation, water-retaining planter boxes, planting zones and an unobstructed circulation route.



LEGEND

- Nucleus / Centre
- Vacuole / Store Water
- Cell Wall / Structural Support
- Chloroplast / Capture Energy and Sunlight



LEGEND

- 1 INSTALLATION
- 2 CO-WORKING SPACE
- 3 PLANTER BOX
- 4 STONE PATH
- 5 SCULPTURE
- 6 SMOKING AREA
- 7 DECKING



Professional Work Practice

*Location: Tun Razak Exchange 106, HSBC Tower, TRX Infrastructure,
Kuala Lumpur*

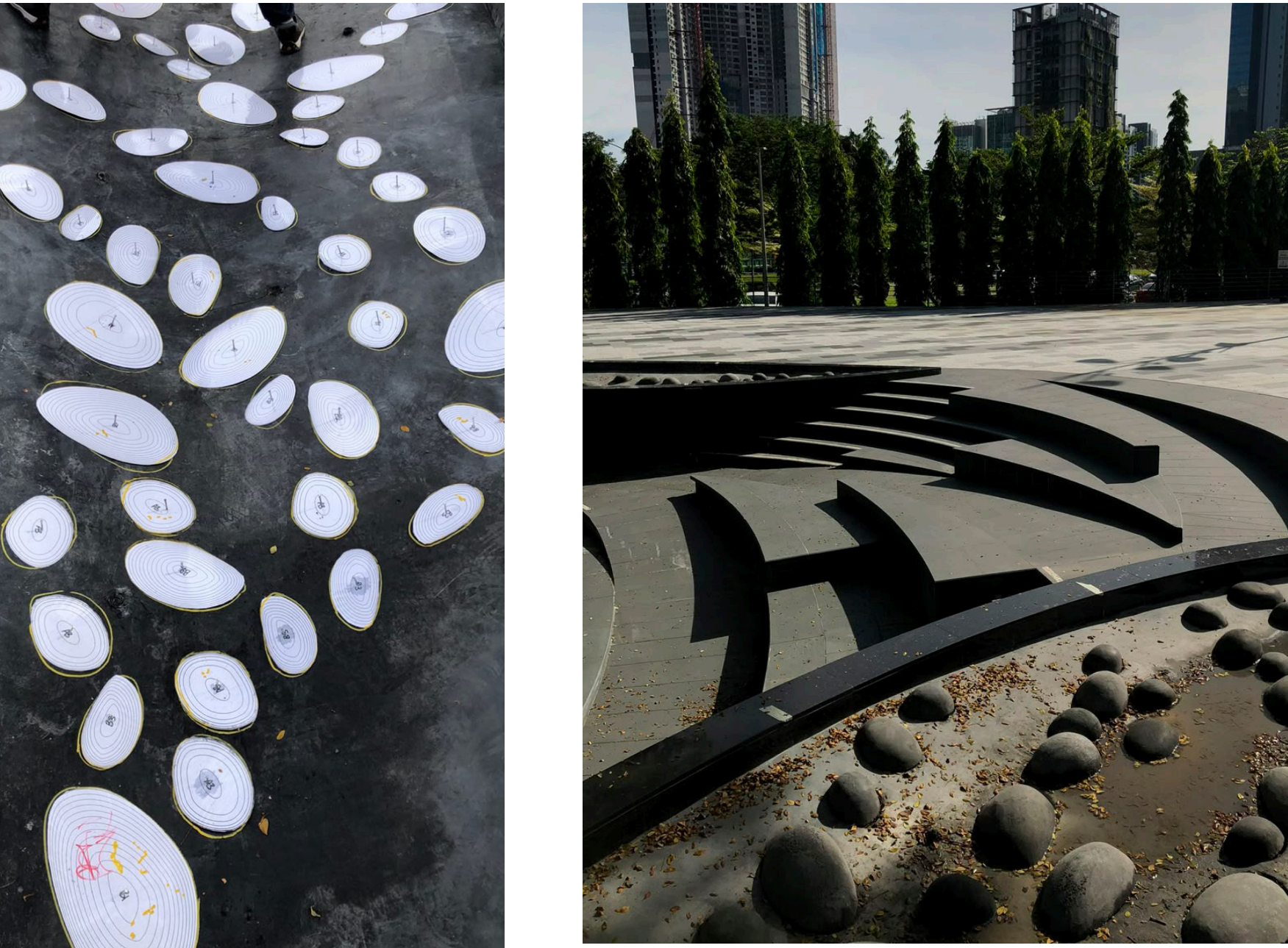
2021 - 2023

Diploma Year 3 & B.Arch Year 2

Role: Site Coordinator / Site Architect
Stages: RIBA 5 - 6

*Supported site inspections, wet-work and landscape coordination,
quantity take-offs, completion certification, fire inspections, defects
and consultant/subcontractor coordination.*

Coordination for Stone Placement in Waterfront



Granite Works in TRX



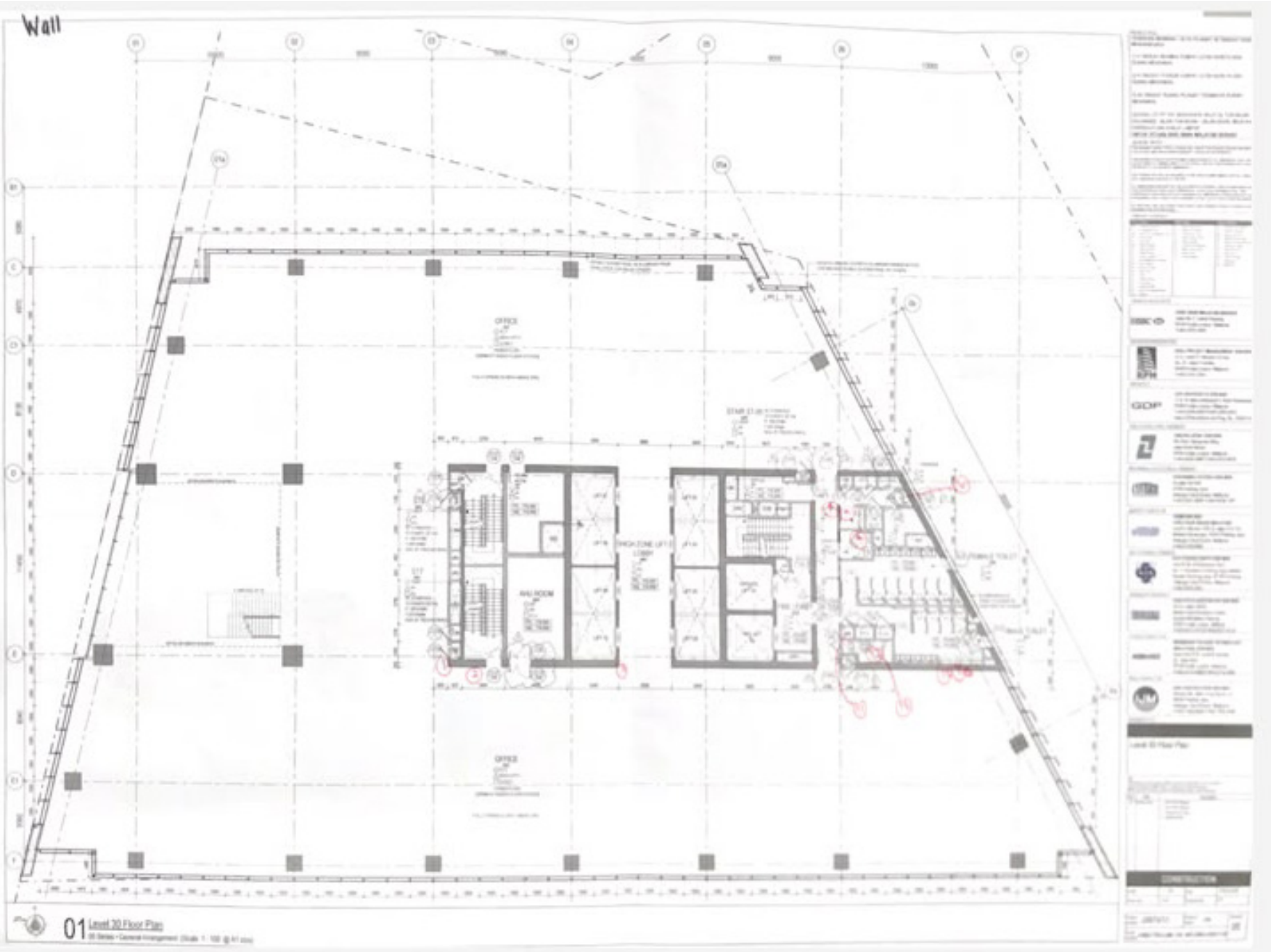
HSBC Logo Installation



ID Works Coordination



Wall Defects in TRX HSBC



Wall Finishes in SMART Tunnel



Site Coordination during Covid-19

