

Rafij Sadiq

Architectural designer — visualization, animation and physical models

PARTNER AND PROJECT LEAD · CORPUSTUDIO, DHAKA

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TEMPORARY STREET INSTALLATION · STEEL AND STRING · DHAKA

What I deliver

Design, drawings, 3D views, walkthroughs, animation and physical models — one team from brief to marketing.

Final-year architecture student at BUET and partner at Corpustudio, Dhaka, where I lead projects with principal architect Ar. Shaikh Collins. Four years of remote 3D animation and visualization for US clients since 2022, through Newport Digital (Los Angeles / New York), including assembly animations for Averde, California.

I take a project from first massing to drawings, 3D views and walkthroughs, and — with our model partner — to a finished physical model.

2021

Partner at Corpustudio, Dhaka

4 yrs

Remote animation and visualization for US clients, since 2022

5

Storeys — Kaleem's Home, under construction

114 MW

Power plant presentation model, Feni

TOOLS · ONE PACKAGE FROM DRAWING TO FILM

- AUTOCAD
 SKETCHUP
 RHINO
 GRASSHOPPER
 BLENDER
 D5 RENDER
- UNREAL ENGINE
 PHOTOSHOP
 ILLUSTRATOR
 AFTER EFFECTS
- DAVINCI RESOLVE

AWARDS

1st prize · wall magazine

“Social pressure on us as a social being” · design lead

Government prize · anti-drug essay competition

Madokbirodhi Rachana Protijogita

Government prize · Sundarbans painting competition

Sundarban Rokkhay Chitrankan, Khulna University

Drawing competitions

1st prize in three · 2nd prize in one

01

→ Kaleem's Home · p. 03

Architectural design and drawings

Plans, sections and elevations; approval and full working-drawing sets.



AUTOCAD · SKETCHUP · RHINO

02

→ p. 04–06

3D visualization and walkthroughs

Exterior and interior stills and walkthrough films for approval, marketing and sales.



D5 · BLENDER · UNREAL · PHOTOSHOP

03

→ Averde · p. 07

Technical and product animation

Assembly and installation sequences, every part modelled to its real profile.



BLENDER · AFTER EFFECTS · DAVINCI

04

→ p. 14

Physical scale models

Presentation and sales models, laser-cut and 3D-printed, hand-finished; built with our model partner.



RHINO · LASER · 3D PRINT

05

→ p. 04, 15

Event, masterplan and map design

Festival site survey and masterplans, illustrated and 3D maps, stage and installation design.



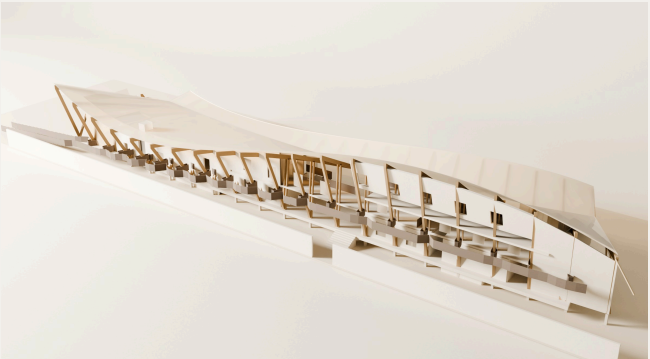
RHINO · BLENDER · ILLUSTRATOR

06

→ p. 08–13

Parametric and technical modelling

Grasshopper scripts for shells and form-finding; long-span structure; tall buildings; machinery models.



RHINO · GRASSHOPPER

HOW A PROJECT RUNS

01

Brief and site

02

Massing within the approval envelope

03

Design development

04

3D views and walkthrough

05

Approval and working drawings

06

Presentation model

Kaleem's Home

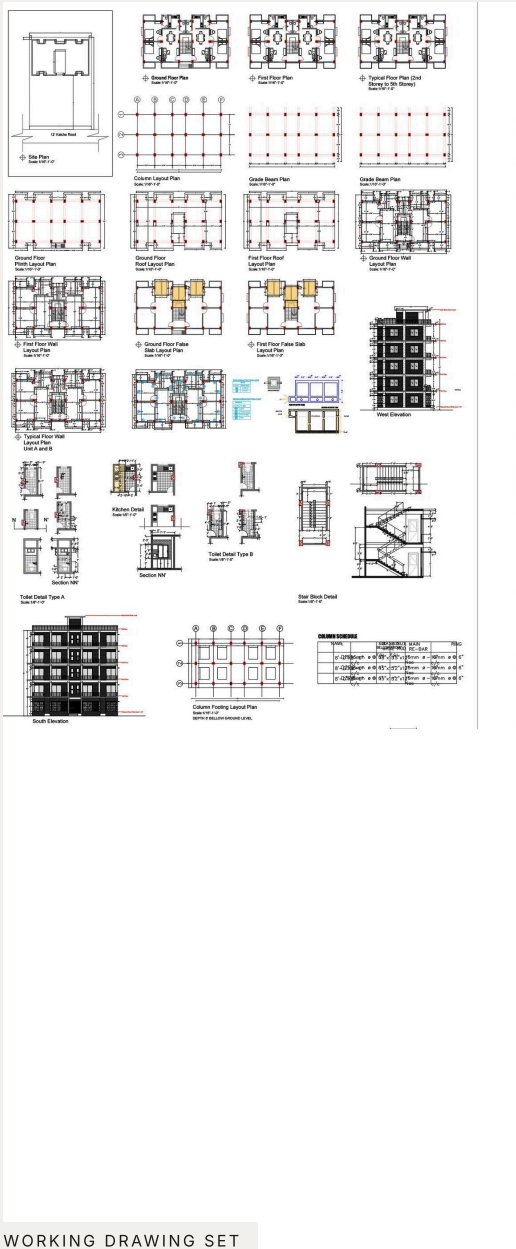
A five-storey rental house for a town turning from village to city

LOCATION	STATUS
Mollahat, Bagerhat, Khulna	Under construction
BUILDING	FLOOR AREA
5 storeys, 2 flats per floor	1,600+ sft per floor
DESIGN	SCOPE
Ar. Shaikh Collins	Design to full working drawings
PRACTICE	MY ROLE
Corpustudio	3D model, renders, drawing coordination

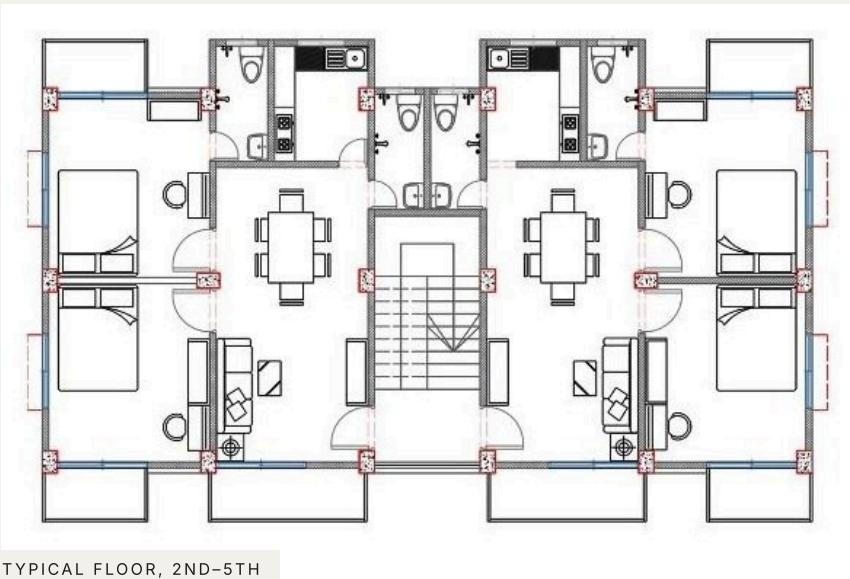
The client wanted a house that pays for itself through rent. Each floor holds two flats of two bedrooms with drawing, dining, kitchen and two toilets. Facing south, every bedroom gets its own balcony and the living room opens onto a wide veranda, so small flats still feel open and catch light and cross-ventilation.



SOUTH FRONT



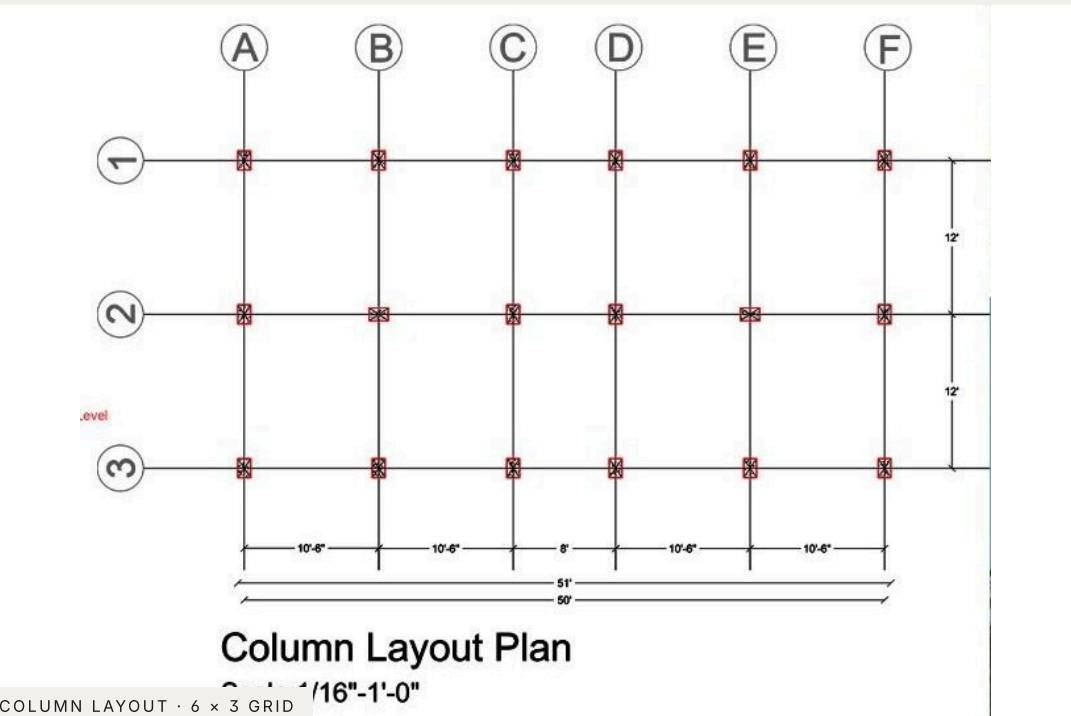
WORKING DRAWING SET



TYPICAL FLOOR, 2ND-5TH



CORNER VIEW



COLUMN LAYOUT · 6 × 3 GRID

Sanctuary

Festival site survey, masterplan, illustrated map and a detailed 3D miniature map

CLIENT	PERIOD
Festival organiser, private	Aug – Oct 2026
SCOPE	STATUS
Survey to final maps	Delivered
TOOLS	OUTPUTS
AutoCAD, Rhino, Blender	Masterplan set, illustrated map, 3D map, six views

A wooded festival site with lakes, a camp, villas and a stage. I surveyed and measured the site, drew the CAD masterplan with zone, dimension and site plans, then built the whole ground as a 3D miniature: 19 installations, trees, lighting and props.

The same model gave the organiser an illustrated map for print, a 3D map for social media and close-up views of the key places.



ILLUSTRATED FESTIVAL MAP



3D MINIATURE MAP



OVERVIEW



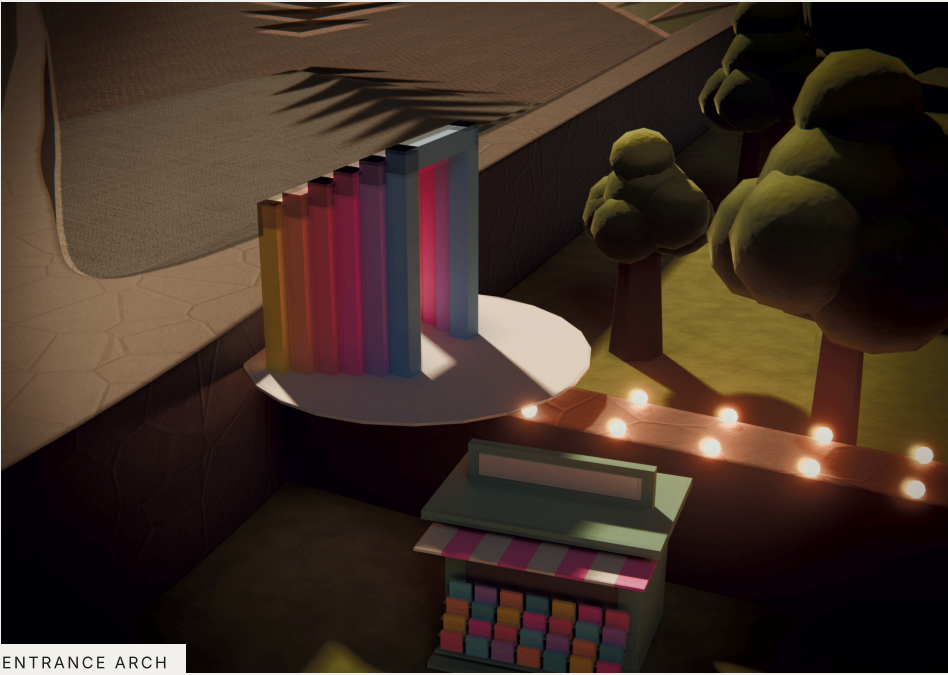
LAKE FOOTBRIDGE



CAMP AND POOL



LIT VILLA PATH



ENTRANCE ARCH



STAGE AND VENDORS

DELIVERED

- 01 Site survey and measurements
- 02 CAD masterplan with dimensions
- 03 Zone, dimension and site plans; graphic map, print-ready
- 04 3D massing: café, domes, washrooms, villas
- 05 Illustrated map, A3 print
- 06 3D miniature map with 19 installations, and six close-up views
- 07 Editable source files

Car workshop, Mymensingh Police Line

Walkthrough film: from the street, through the entry and across the working floor

DELIVERABLE	YEAR
Walkthrough, 1080p, 1 min 16 s	2025
VIEWS	PRACTICE
Street front, interior, side	Corpustudio

One continuous camera path takes the viewer from the road to the workshop front, onto the floor and around the building. Vehicles, equipment and people are placed to show how the space is used, and the brick base, steel frame and metal cladding are shown in detail.

The same model gives the client still views for approval and the film for presentation.



WORKSHOP FLOOR



STREET FRONT



SIDE ELEVATION

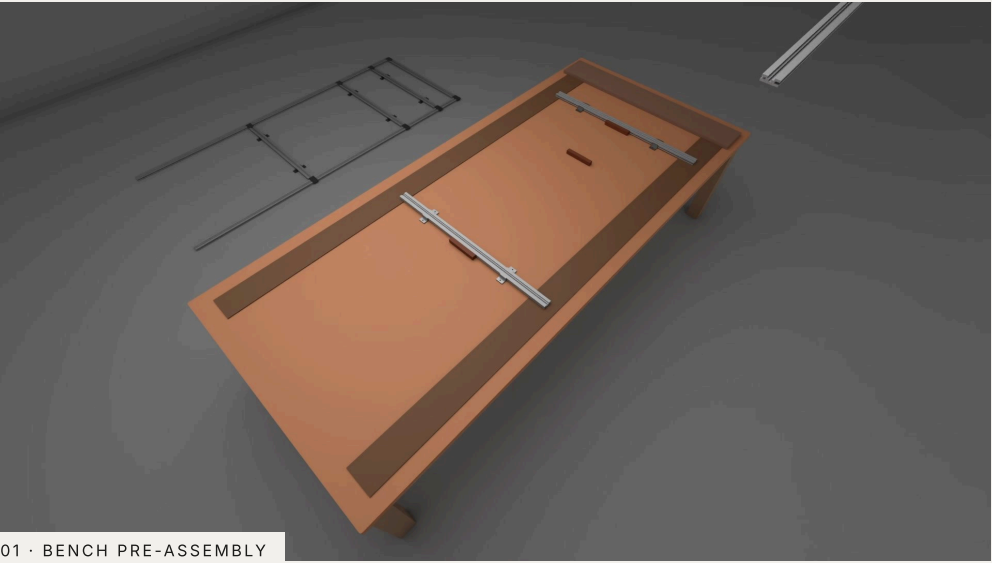
Averde Railset Web

Assembly animation for a pre-engineered aluminium wall and ceiling panel system

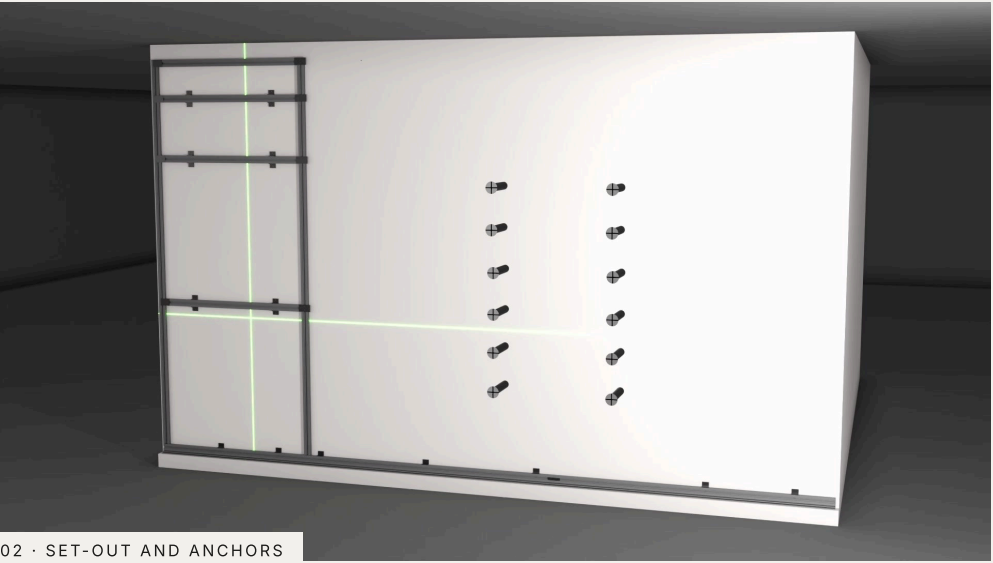
CLIENT	VIA
Averde, California	Newport Digital, LA / NY
ROLE	TOOLS
3D modeling, lighting, animation, render	Blender
OUTPUT	SECTOR
3 min 28 s, 1080p, 24 fps	Commercial interiors, US

Built from Averve's shop drawings and technical sections, the film takes an installer through the whole sequence: pre-assembling the web frame on the bench, setting out with a laser line, fixing anchors, levelling rails, then hanging and trimming the finished panels. Every component is modelled to its real profile so the animation reads as instruction, not illustration. Developed directly with Averve founding principal Mike Dobija, designer of the patented Railset system.

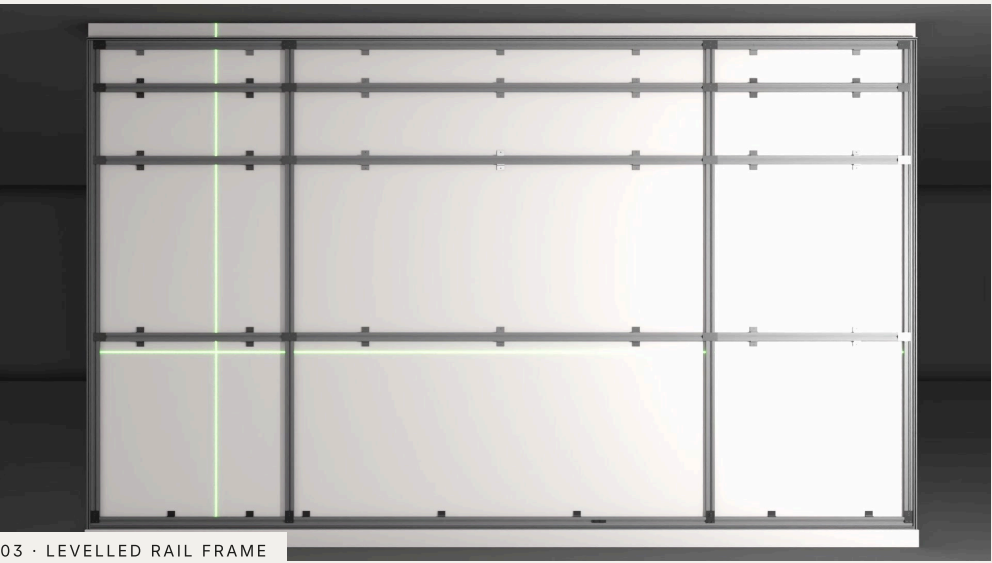
Live on averve.com



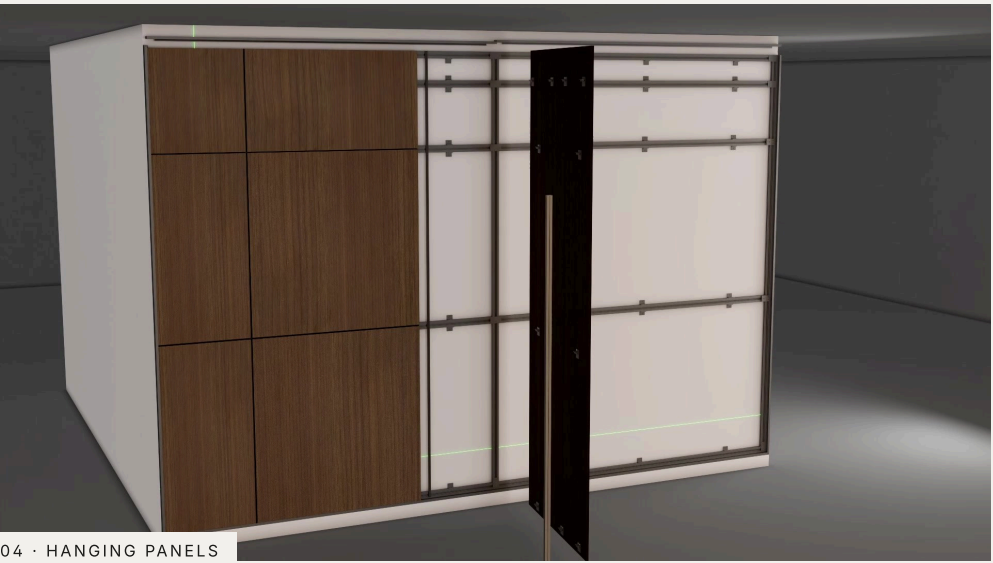
01 · BENCH PRE-ASSEMBLY



02 · SET-OUT AND ANCHORS



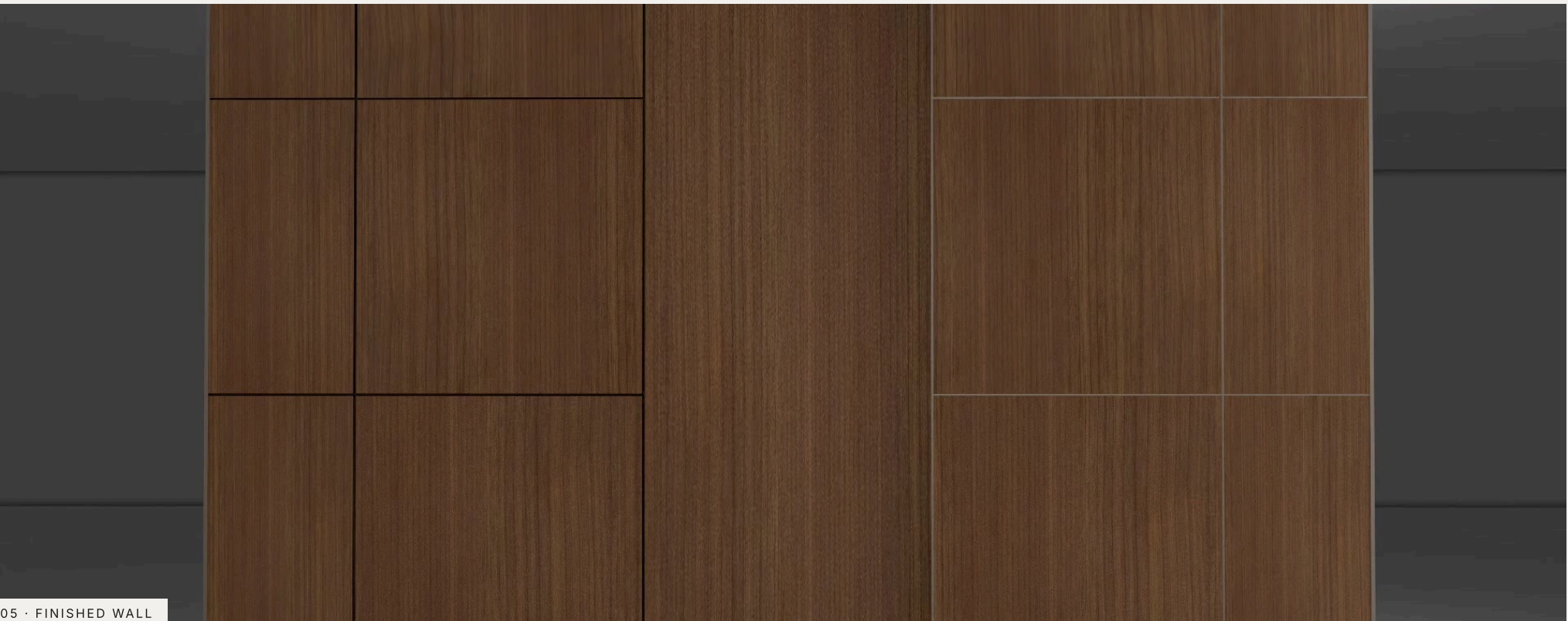
03 · LEVELLED RAIL FRAME



04 · HANGING PANELS



AS BUILT — KAISER, IRVINE · PHOTO: AVERVE



05 · FINISHED WALL

Community Nexus

A neighbourhood gathering place in Old Dhaka under one light, scripted roof

STUDIO

Design studio, BUET

SITE

Dhupkhola field, Gandaria, Old Dhaka

ROOF

Standing-seam metal skin, crown +12.15 m

LEVEL

Level 3, Term 2

STRUCTURE

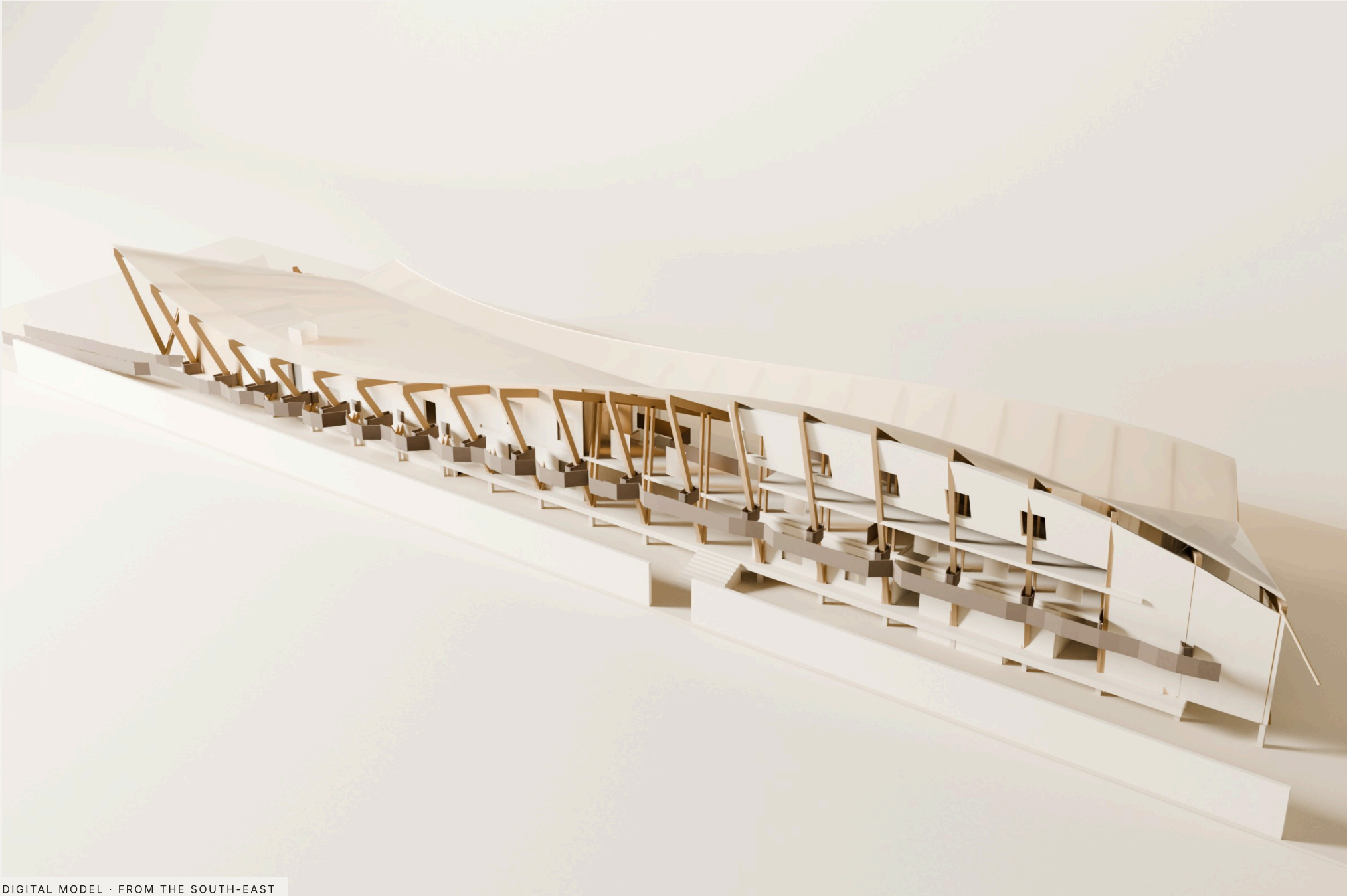
Leaning timber A-frames

TOOLS

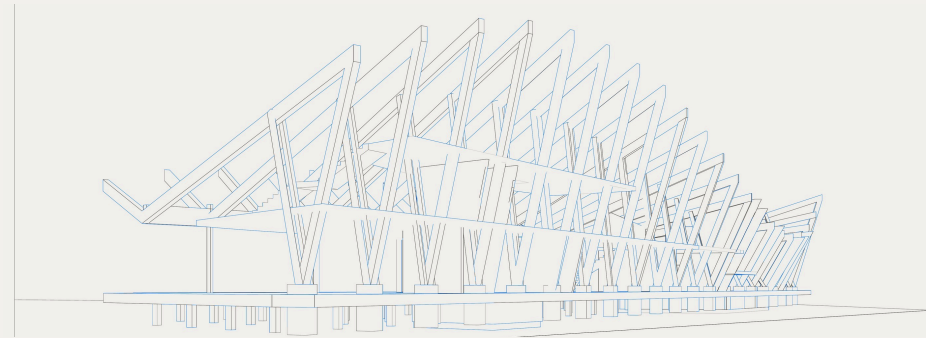
Rhino, Grasshopper

Two of a dozen Gandaria ponds survive; the one on this site comes back as a ghat. In Puran Dhaka people gather under the little tent of every shop, so the roof is that tent stretched into one shade over the whole community: open at the edges, light inside.

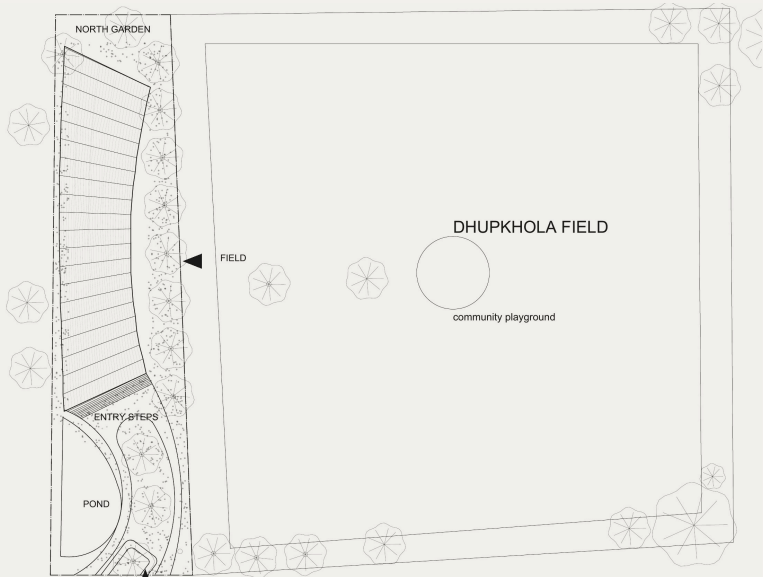
After Shigeru Ban, a light local timber frame: leaning A-frames carry a roof that flows like a gentle wave from the low field eave to the high community side, over a hall, learning rooms, library, gallery and café.



DIGITAL MODEL · FROM THE SOUTH-EAST



FRAMES · VIEW FROM THE WEST



SITE PLAN · DHUPKHOLA FIELD AND POND

A shell scripted from scratch

I wrote the Grasshopper definition for the roof and frames myself, starting from a blank canvas

01 · INPUTS

Guide curves for the roof edges and about 60 number sliders for divisions, offsets, heights and angles.

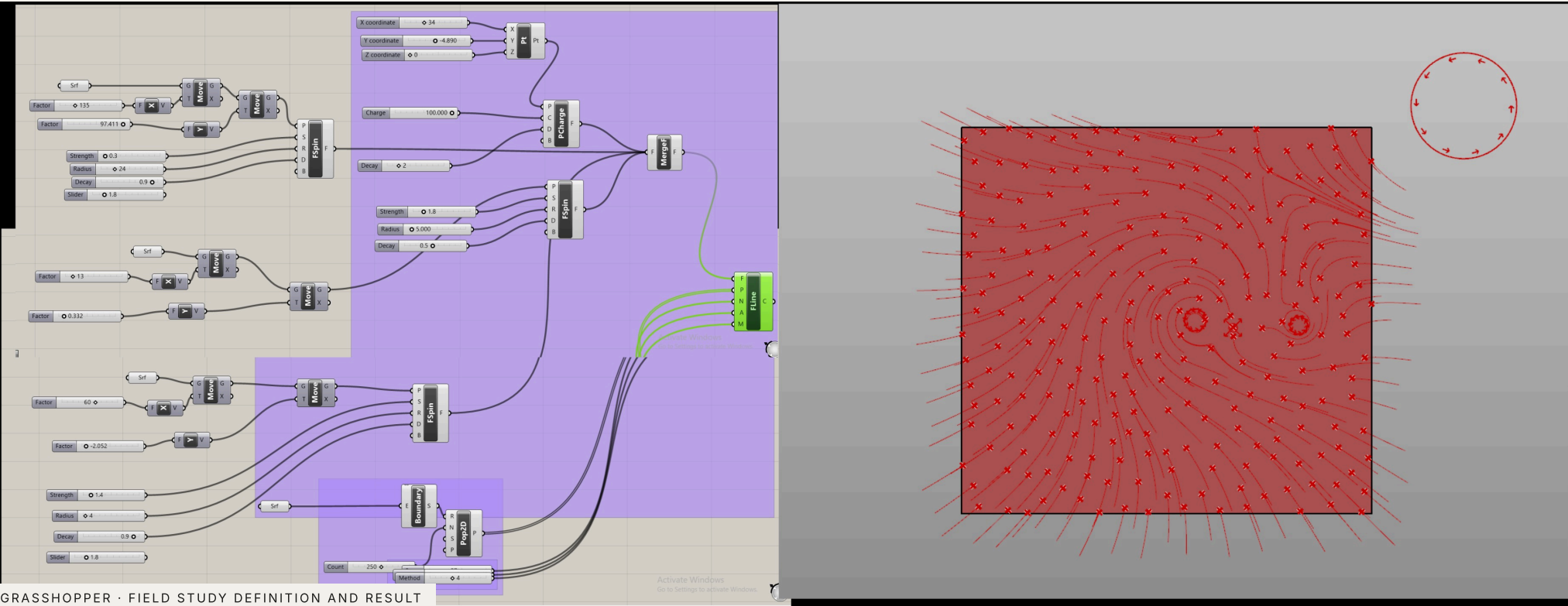
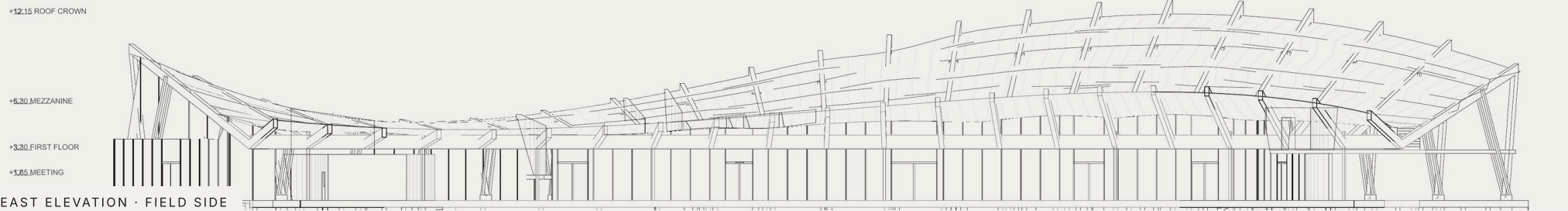
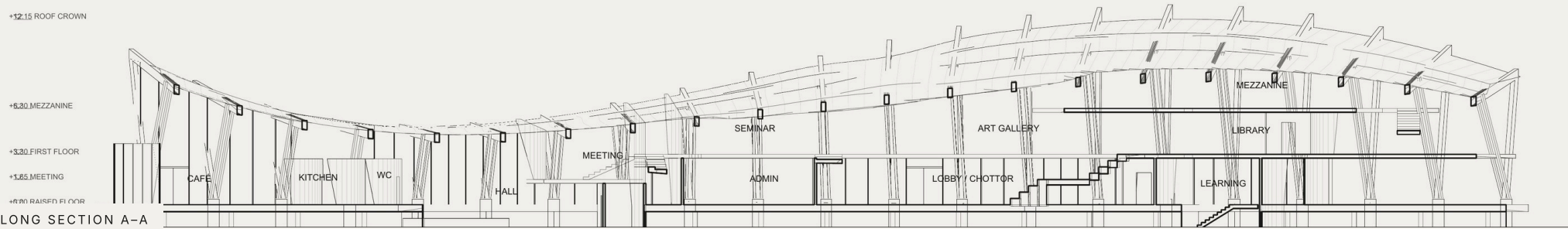
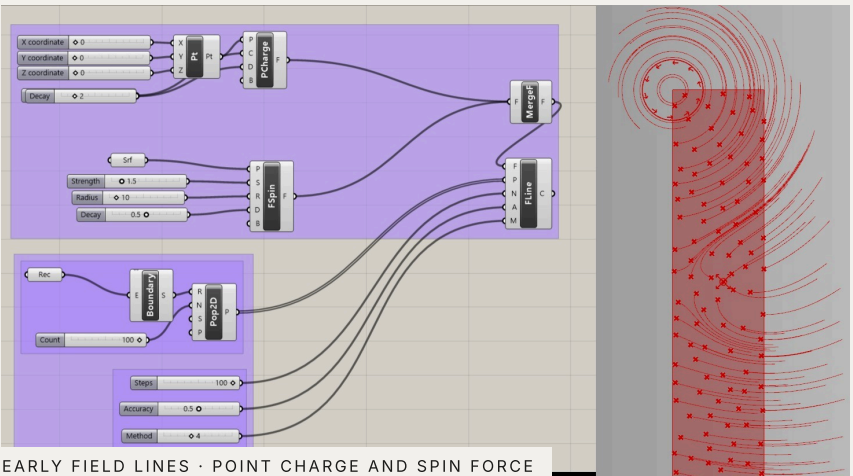
02 · RULES

The curves are divided into matching points; lines between them set out the frames. Perpendicular planes orient each member, which is swept as a timber profile; offsets and moves build the layers.

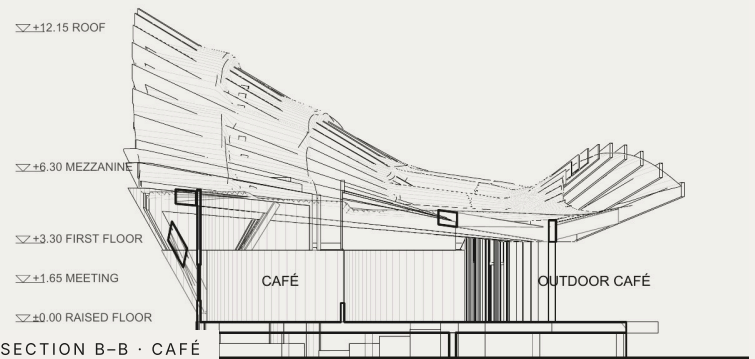
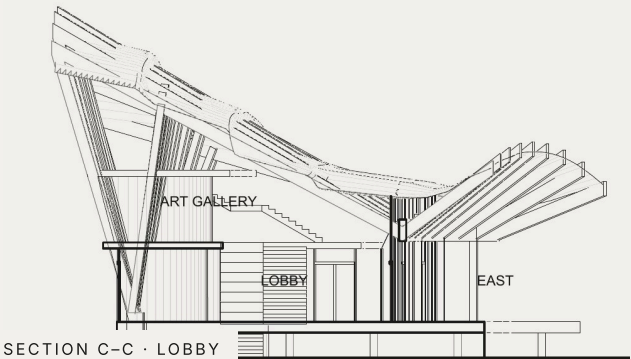
03 · OUTPUTS

Leaning A-frames, a lofted roof skin and its panelling (triangular and staggered-quad panels, diagrid), all regenerating when a slider moves.

Before the shell, field studies with point charges and spin forces traced flowing line patterns across the site and set the wave of the roof.



EARLY FIELD LINES · POINT CHARGE AND SPIN FORCE



Long-span overbridge, Gendaria

A long-span pedestrian overbridge where the structure is the architecture

STUDIO

Design studio, BUET

THEME

Structure, Form & Experience

TYPE

Long-span pedestrian bridge

LEVEL

Level 3, Term 1

SITE

Gendaria, Old Dhaka

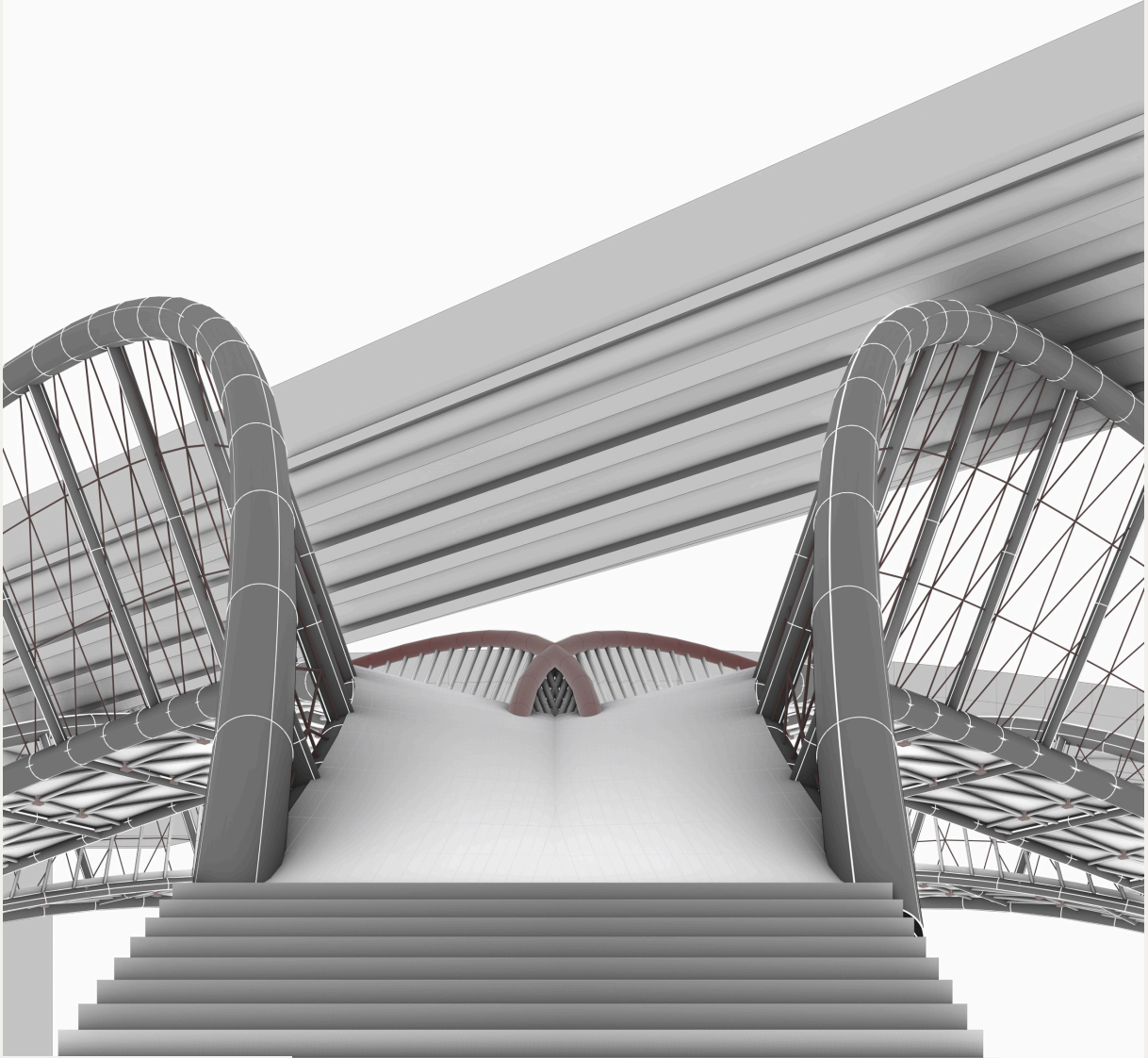
TOOLS

Rhino, Grasshopper; site from Dhaka
CAD base map

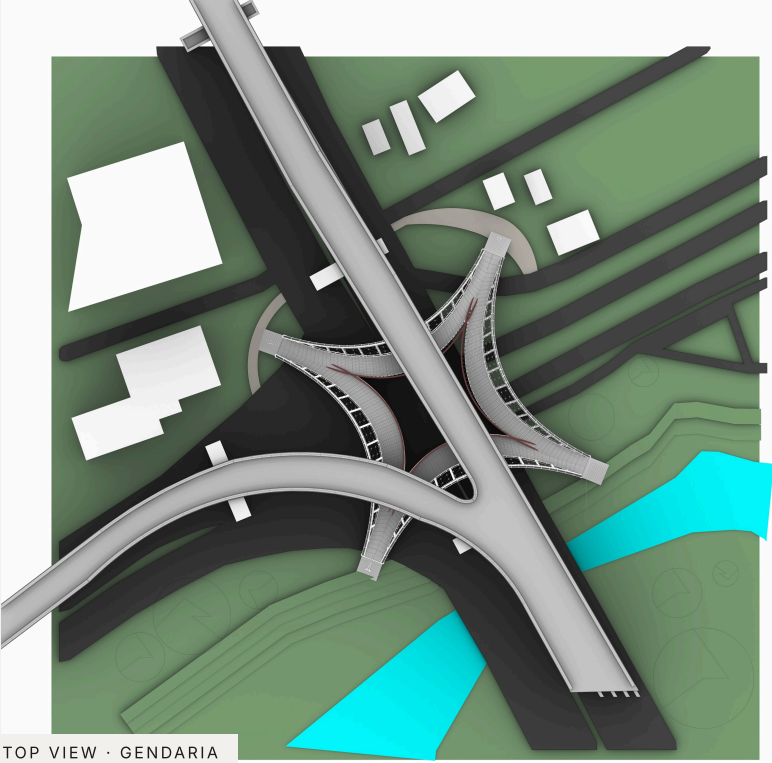
Pedestrians in Gendaria cross a wide junction beneath an elevated road. The bridge lifts them over the traffic on a light, curved deck that threads under the flyover and lands at the street edges and the water. Arched ribs and a cable net carry the long span, so the structure itself becomes the shelter and the experience of crossing.

STRUCTURAL SYSTEM

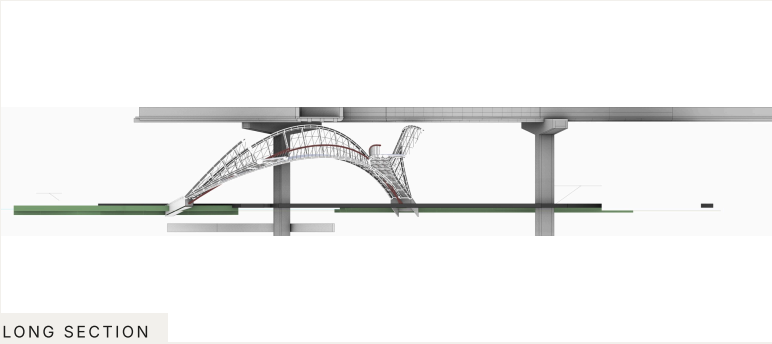
Arched steel ribs, springing from four landing points · cable net and hangers carrying the deck



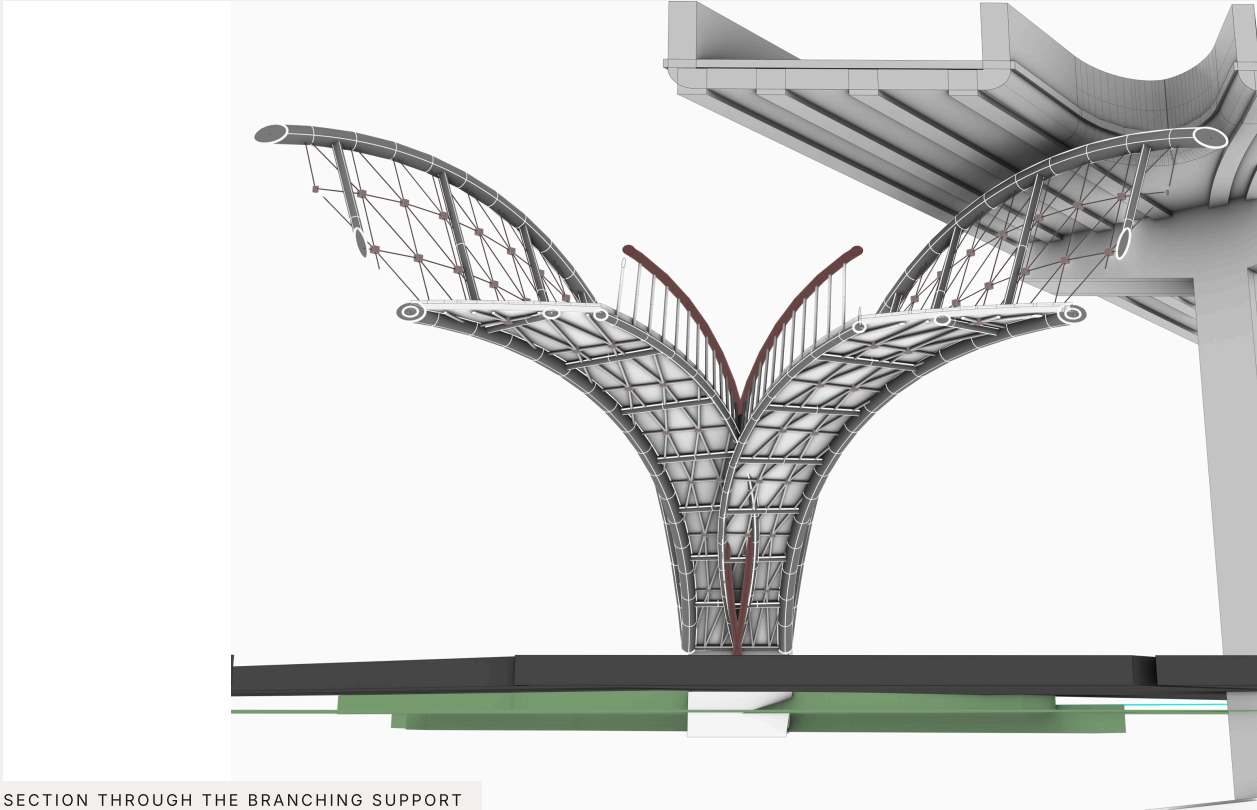
PERSPECTIVE · ON THE DECK



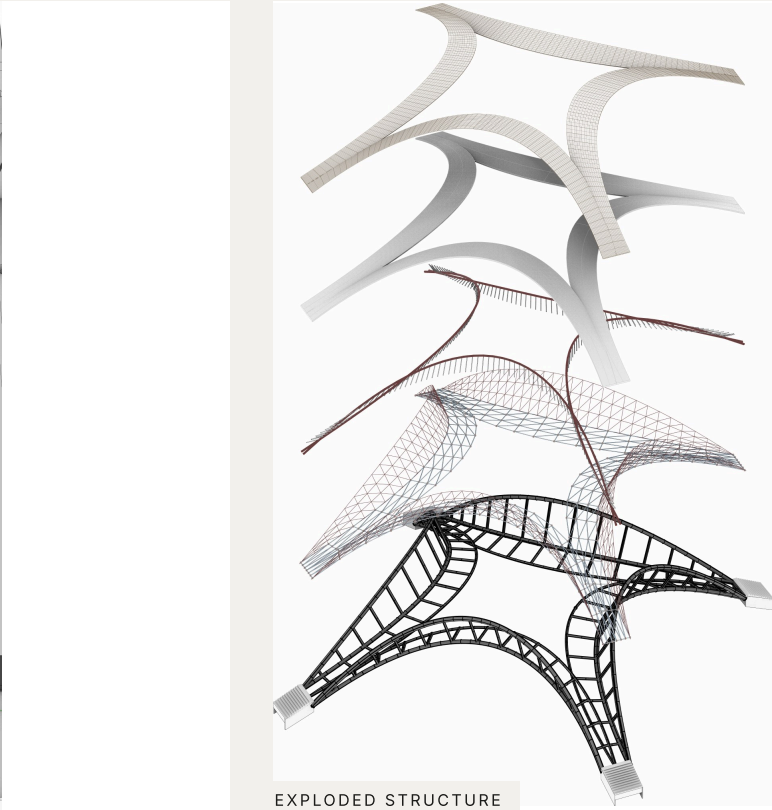
TOP VIEW · GENDARIA



LONG SECTION



SECTION THROUGH THE BRANCHING SUPPORT



EXPLODED STRUCTURE

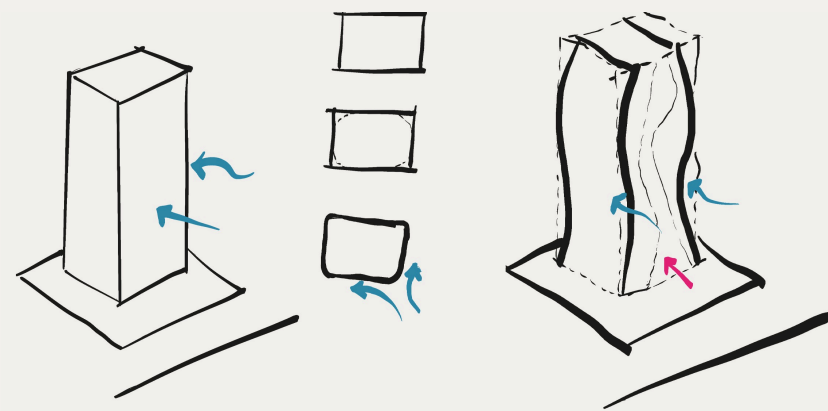
Tall building study

An office tower shaped by wind, carried by a core, mega columns and outriggers

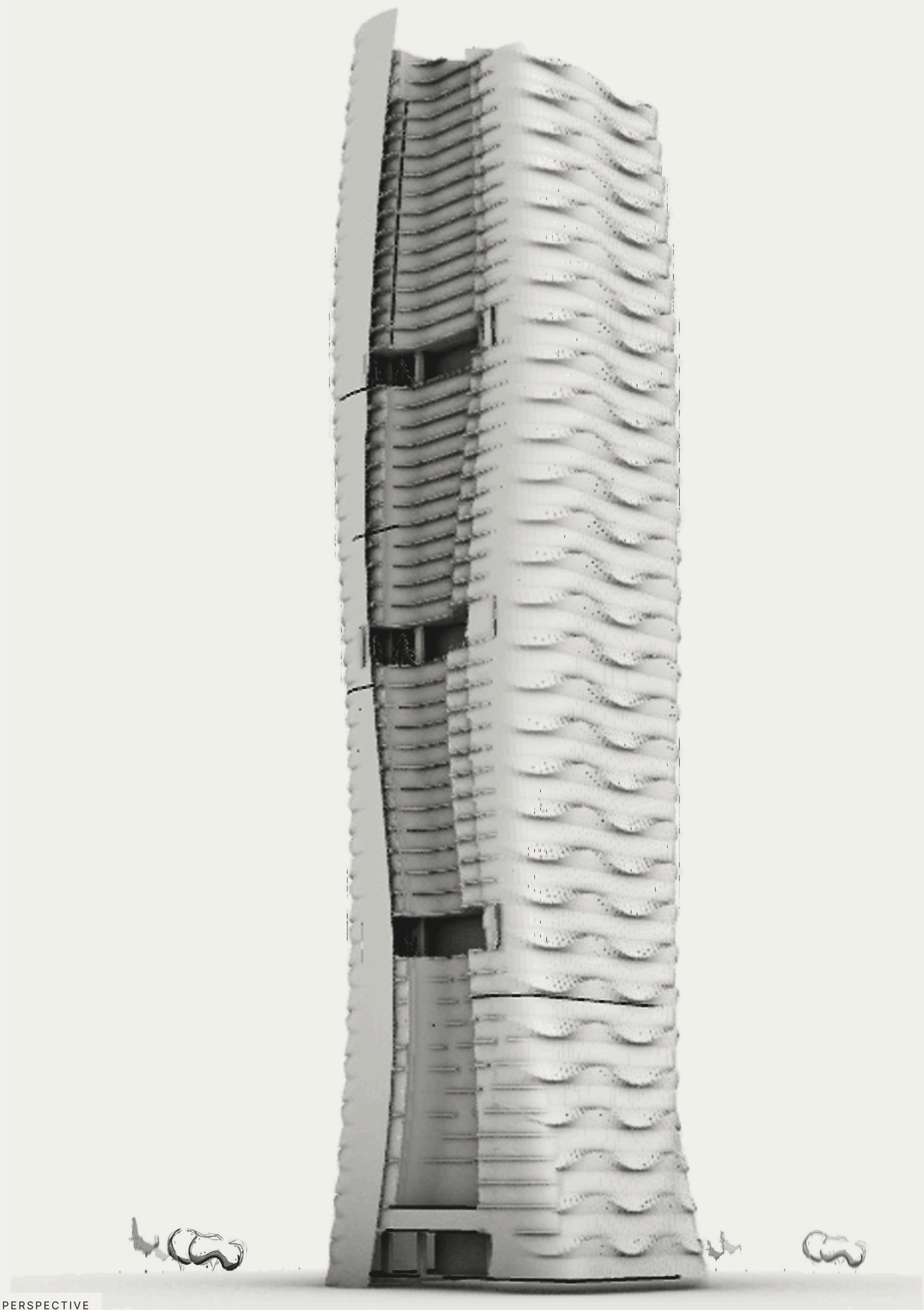
TYPE	SITE
Tall office building	80 × 80 m, on a 30 m road
STRUCTURE	FAÇADE
Central core, mega columns, outriggers	Glass panels; operable louvres on east and west
BELOW GROUND	STATUS
Basement parking	Academic study

A tall office tower on an 80 × 80 m site facing a 30 m road. The form starts as a plain prism and is pinched and turned against the wind, giving the soft, waisted profile. A central core with four lift and stair cores is tied to mega columns by outrigger floors, so the plates stay column-light around the edge.

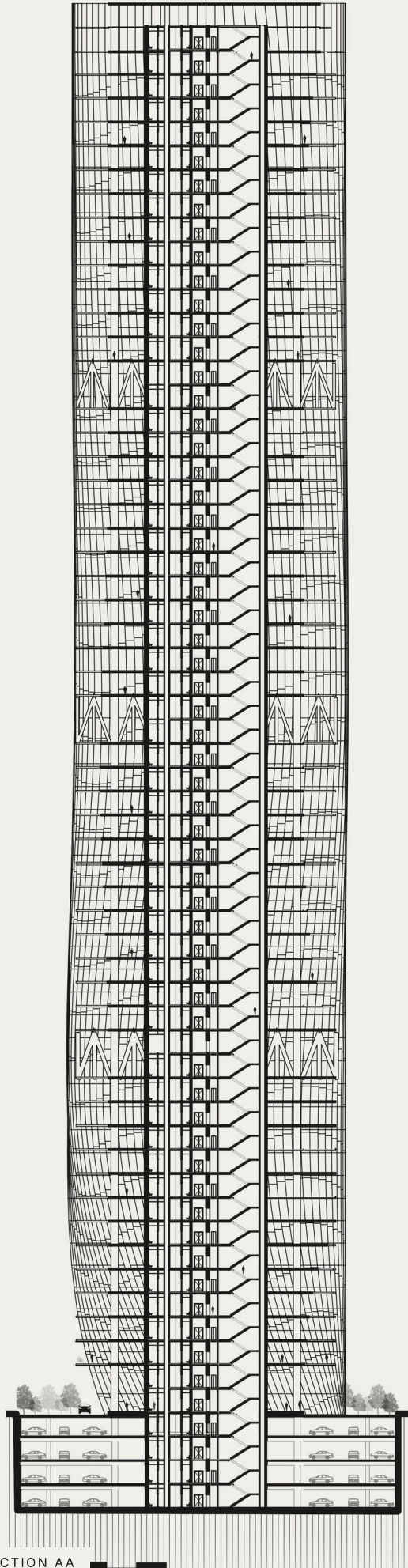
East and west faces carry operable louvres for shading; north and south stay glazed. Floors are zoned from mixed offices at the base to single and two-layer offices higher up, over basement parking.



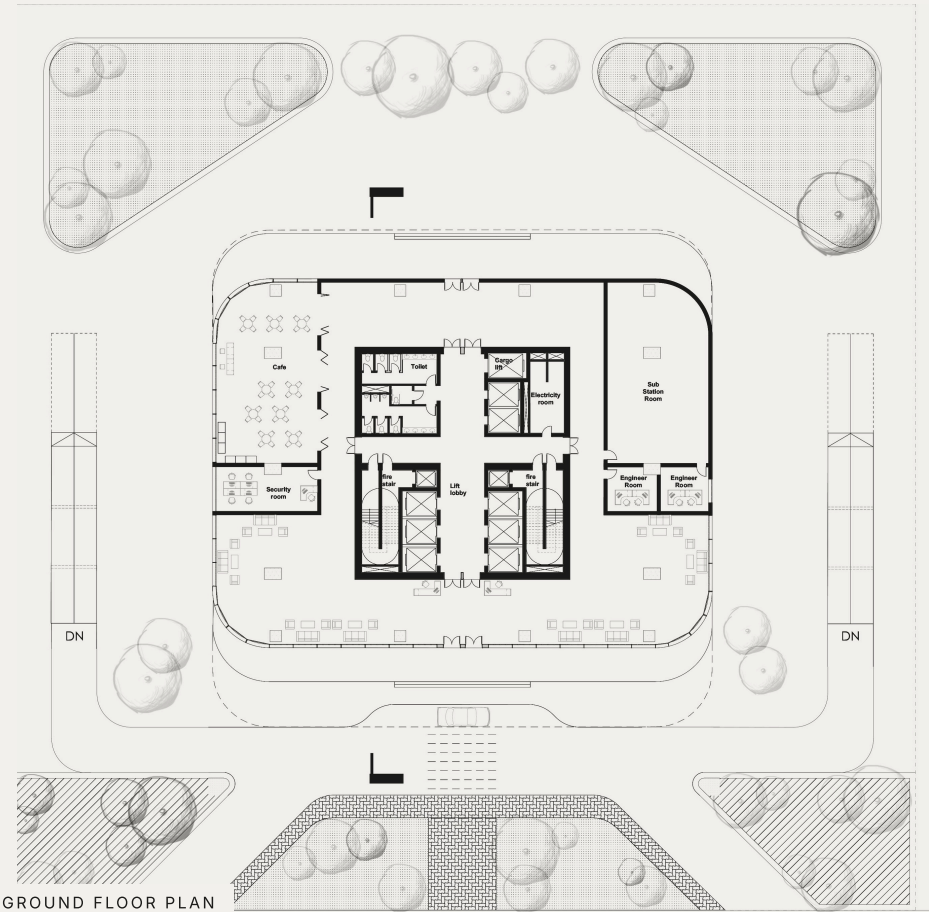
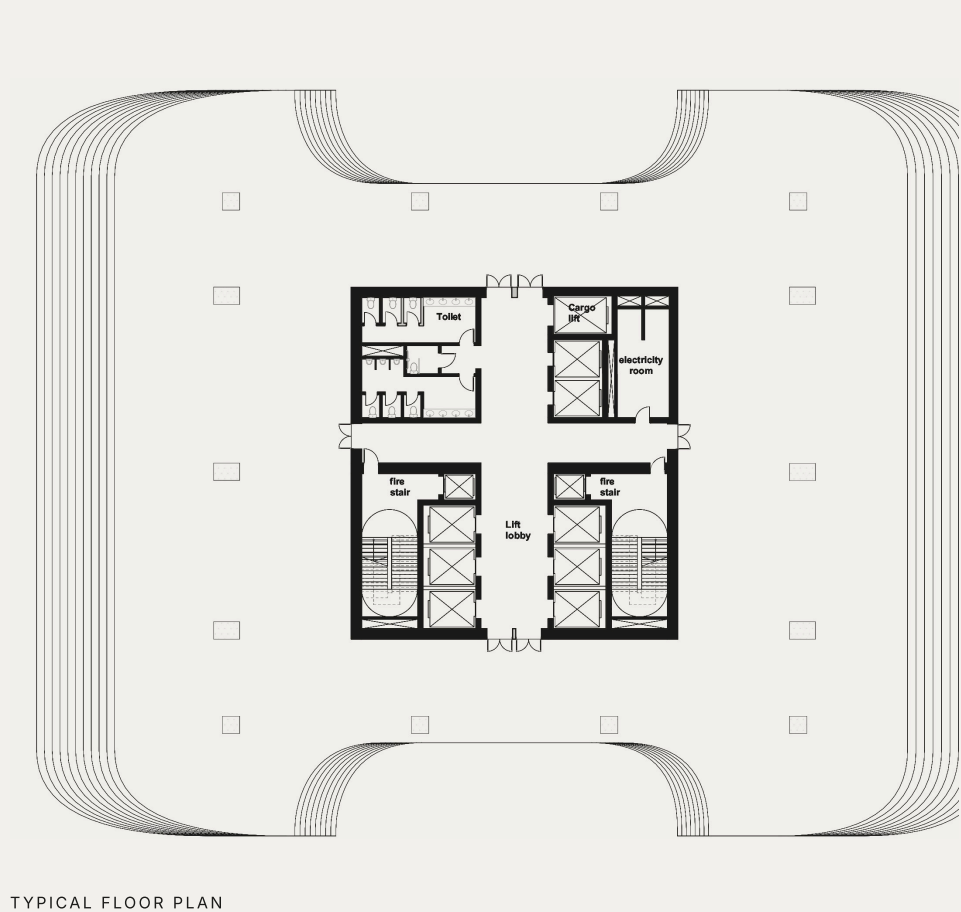
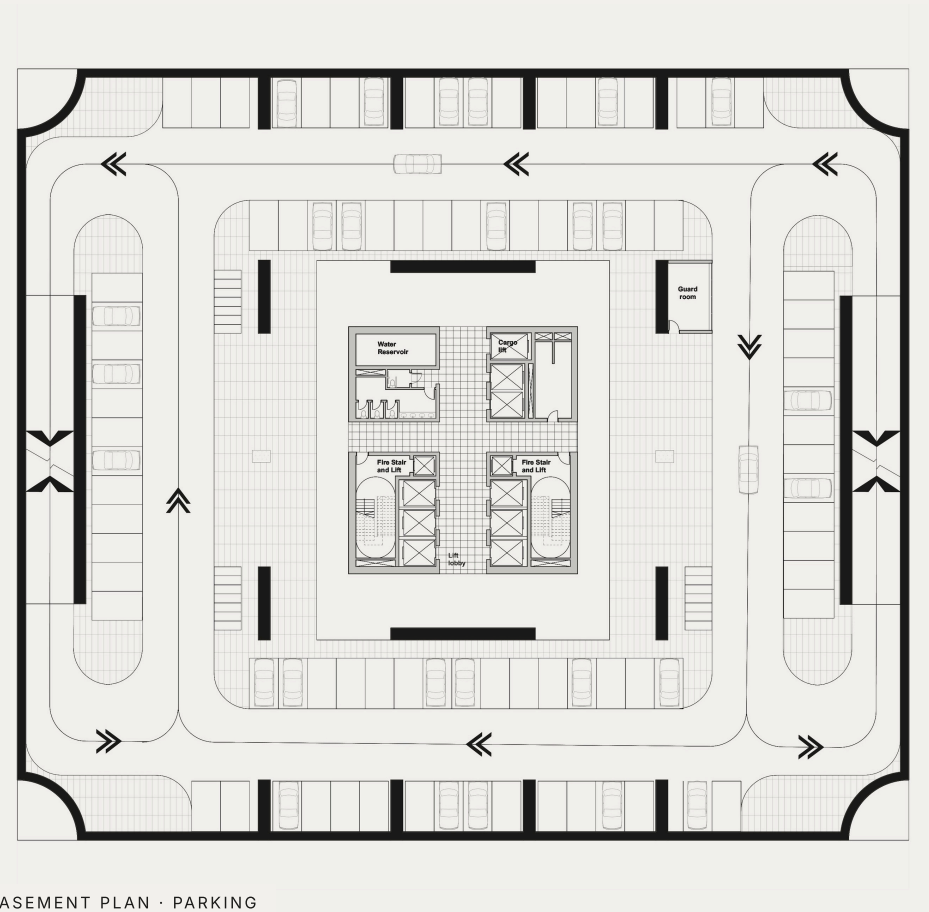
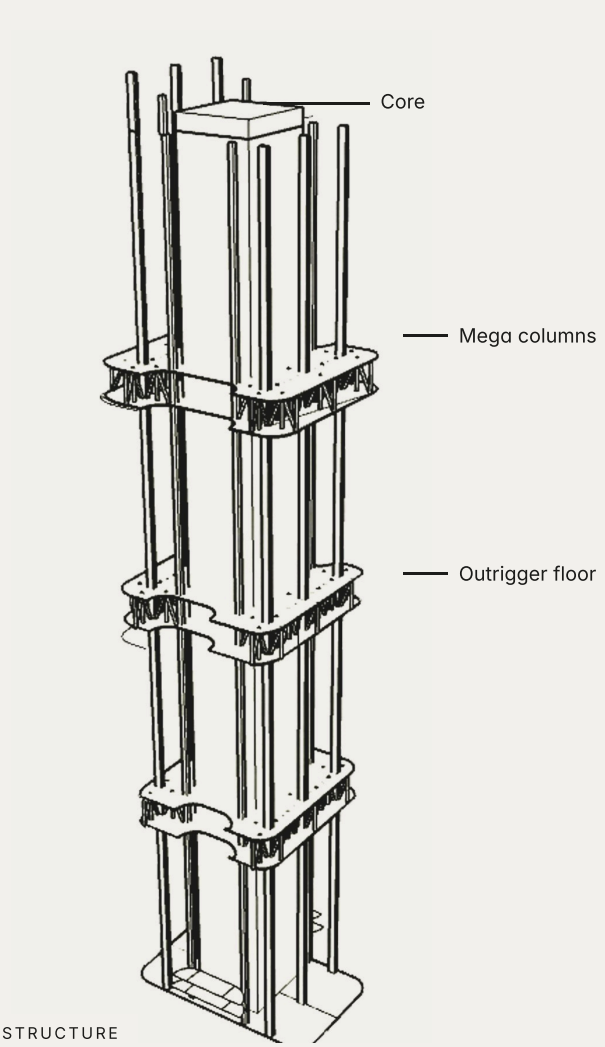
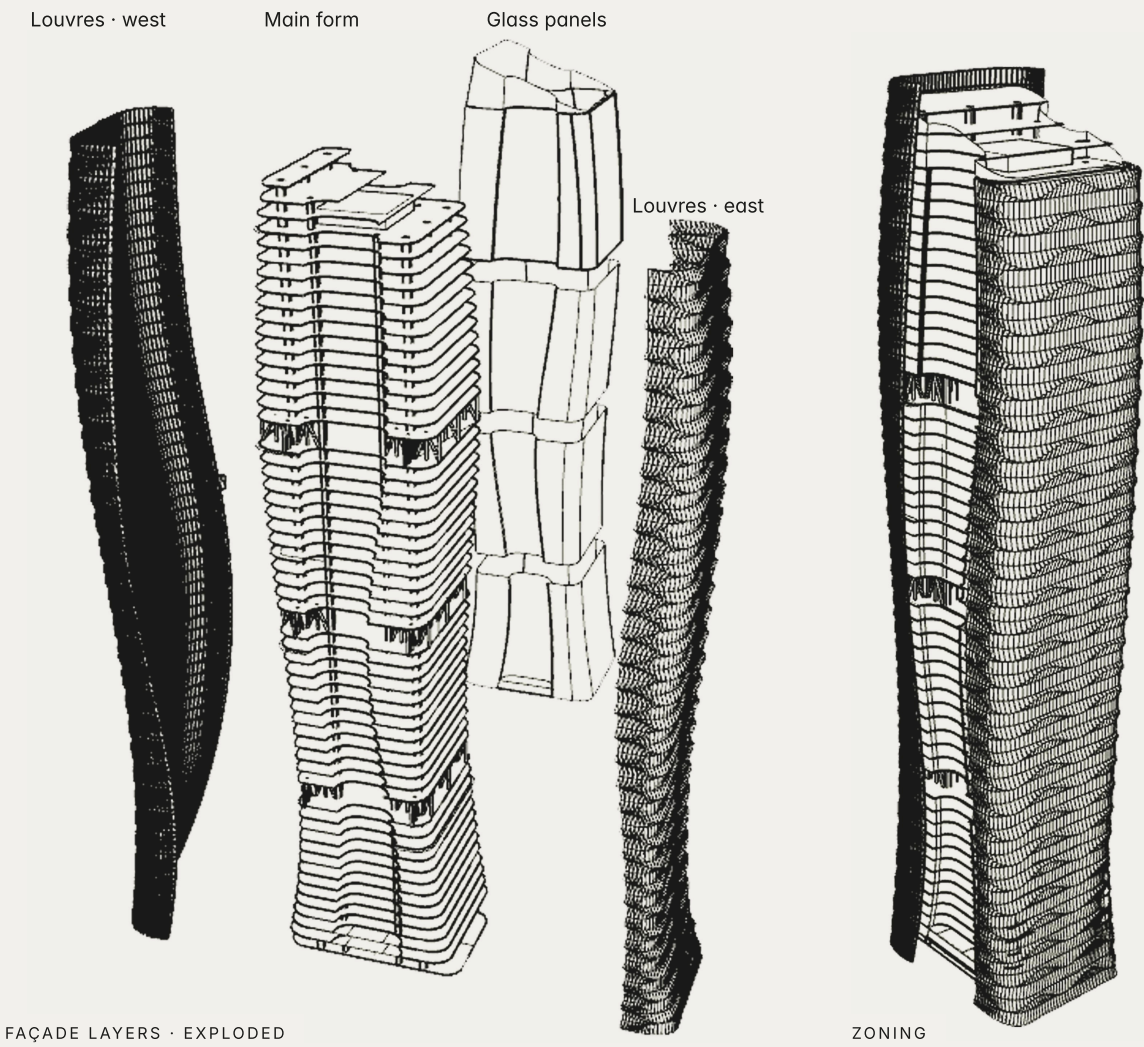
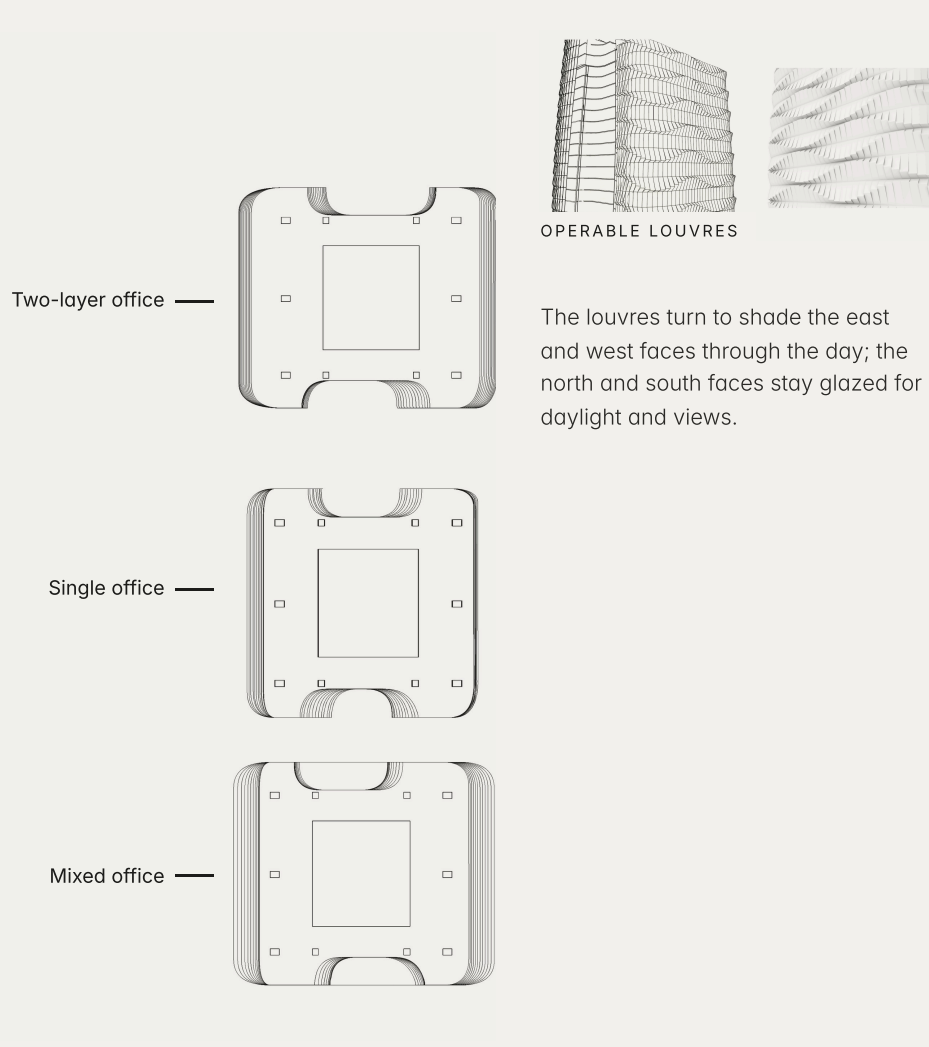
FORM GENERATION



PERSPECTIVE



SECTION AA



Repurposing Rangpur Sugar Mills

3D process models and animation for a BUET Level 5 Term 2 thesis

SITE

Mahimaganj, Gobindaganj,
Gaibandha

EXISTING MILL

1955 · closed 2020

THESIS

Kairul Huda Plaban

DESIGN TEACHER

Tahajibul Hossain

MY ROLE

Process machinery models,
animation

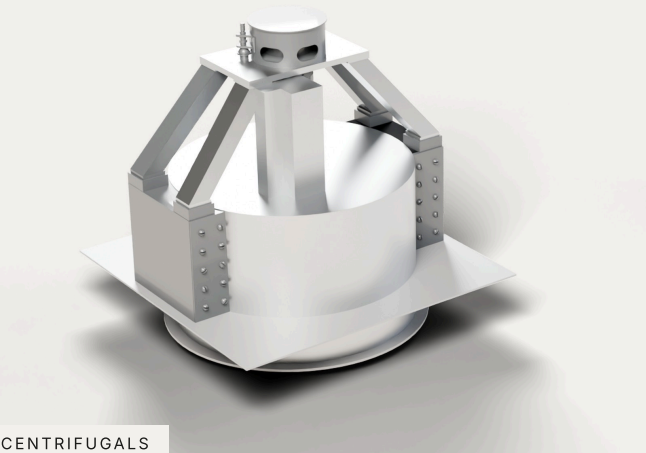
TOOLS

Rhino, Blender

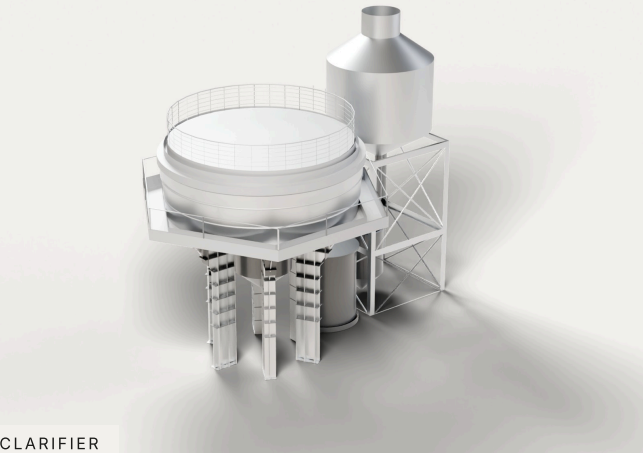
Rangpur Sugar Mills has been idle since December 2020. The thesis repurposes the mill as a modern campus around a central circular court. For it I modelled the process line in 3D, from cane diffuser and clarifier to vacuum pans, centrifugals and dryer, and animated how cane becomes sugar so the jury could follow the factory step by step.



VACUUM PAN



CENTRIFUGALS



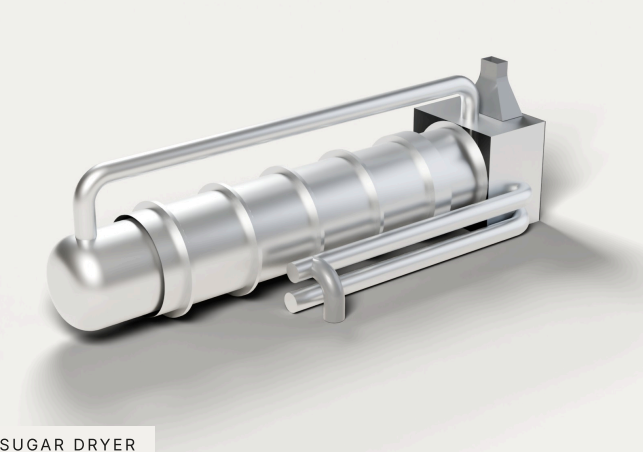
CLARIFIER



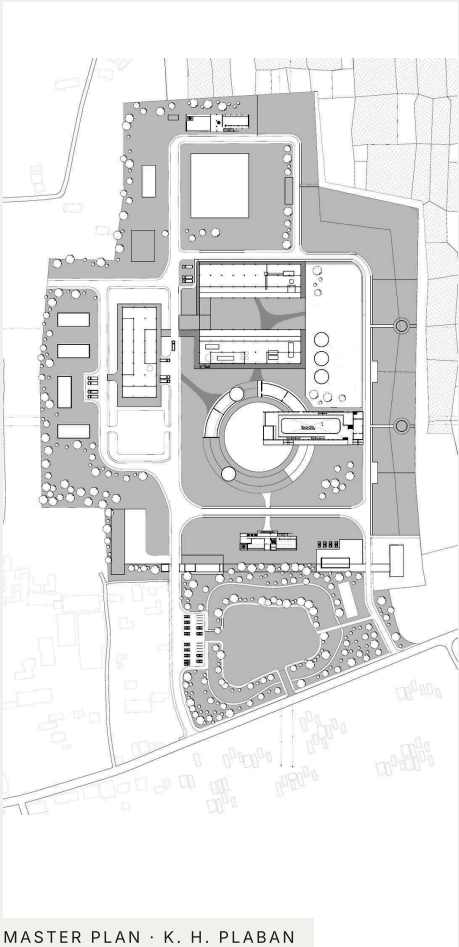
PAN BOILING STATION



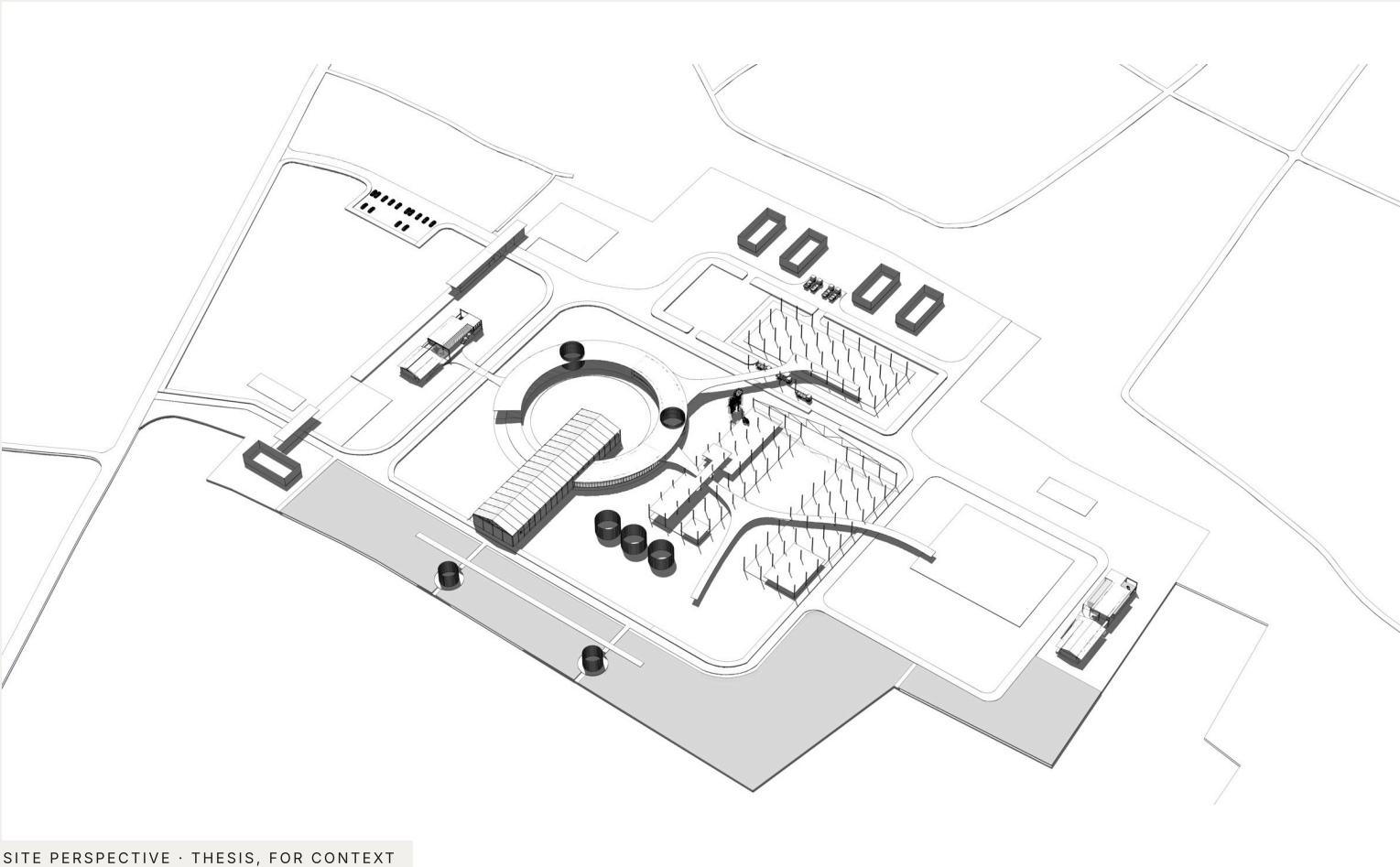
DEEP-BED FILTERS



SUGAR DRYER



MASTER PLAN · K. H. PLABAN



SITE PERSPECTIVE · THESIS, FOR CONTEXT

Machinery renders: my Rhino models, rendered in Blender for this portfolio. Master plan and site view below are the thesis author's, shown for context.

Presentation and sales models

Physical models for clients, competitions and design reviews

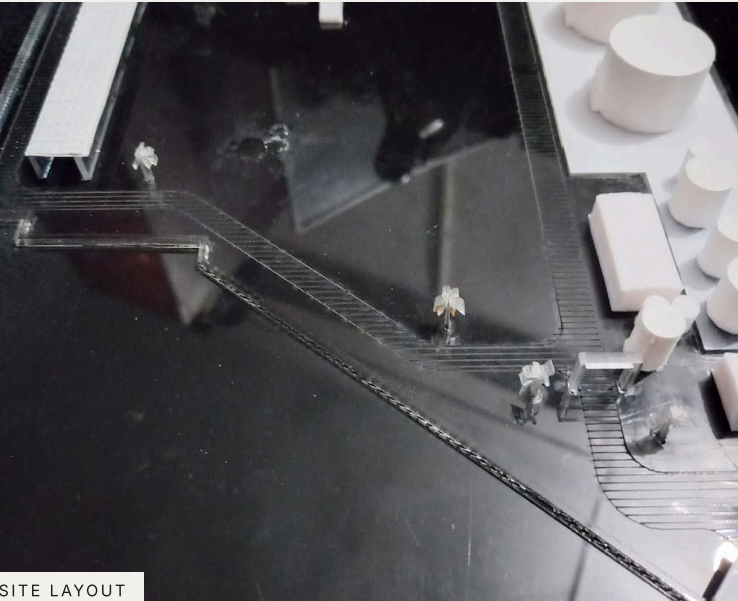
PROJECT	CLIENT
114 MW HFO Power Plant, Feni	Feni Lanka Power Ltd.
YEAR	TYPE
2023	Client presentation model, acrylic display case

Laser-cut and 3D-printed parts, hand-finished and assembled in the studio. The power plant model sets out the site, tanks and plant buildings on a black base under an acrylic case for the client's presentation.

Larger sales models are built with Corpustudio's model partner, Ar. Abir Sarker (asmati. DESIGN WORKS).



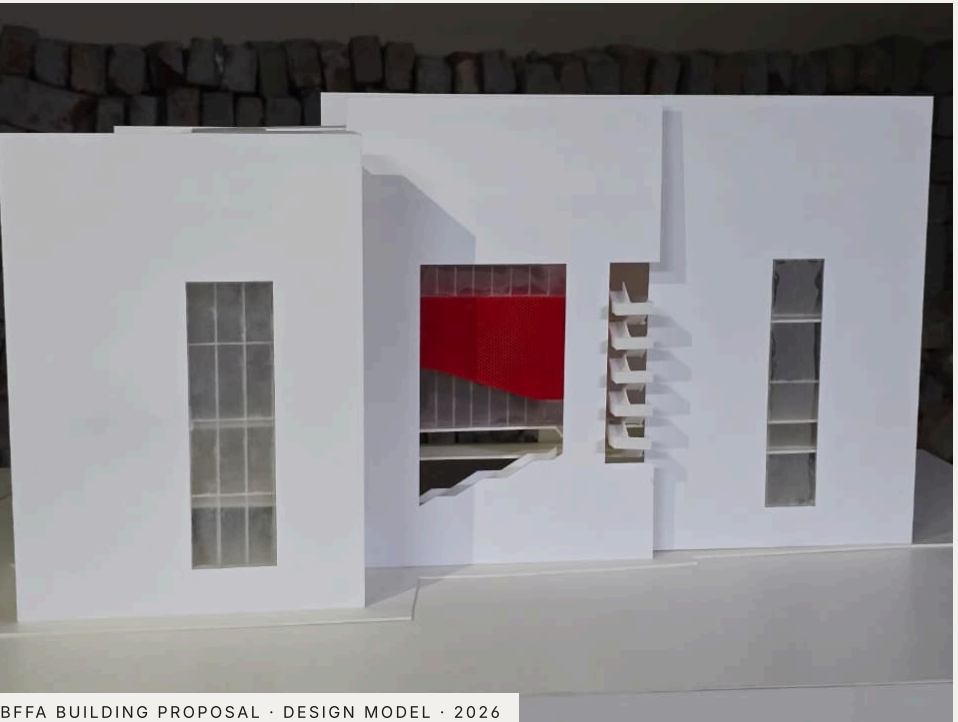
114 MW HFO POWER PLANT, FENI · 2023



SITE LAYOUT



IN PROGRESS



BFFA BUILDING PROPOSAL · DESIGN MODEL · 2026



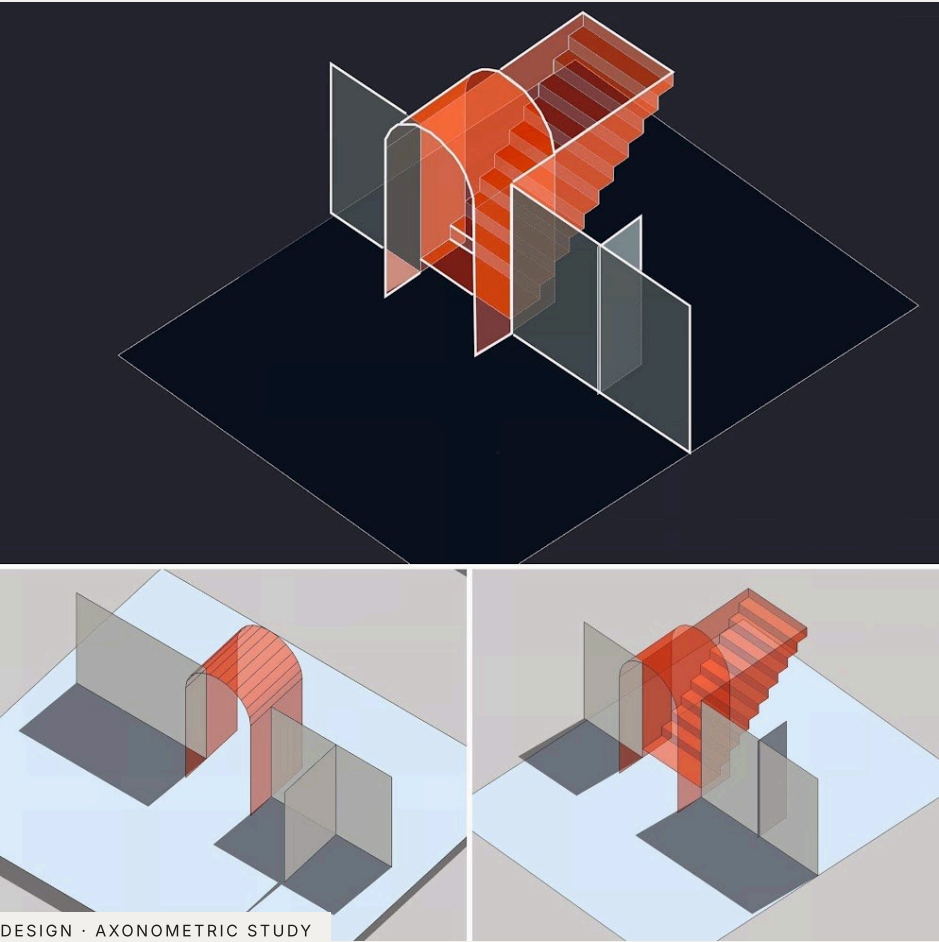
LGED PAVILION MODEL · BRIKKHO MELA · 2026

Installations in steel, string and light

Temporary, full-scale pieces for Dhaka streets — drawn in 3D, then built and lit on site

TYPE	MATERIALS
Temporary street installations	Steel frame, coloured string, light
WHERE	ROLE
Dhaka, incl. Kawran Bazar	Design, detailing, making

Each piece starts as a 3D study of arches, frames and planes, then is set out on site and strung by hand. By day the string reads as colour and shadow; after dark the same frames carry light.



DESIGN · AXONOMETRIC STUDY



BUILT · STREET MEDIUM, DHAKA



AFTER DARK



LIGHT INSTALLATION · KAWRAN BAZAR



PAVILION · STEEL RIBS AND COLOURED STRING

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AVAILABLE FOR

Architectural design and working drawings

3D visualization and walkthroughs

Technical and product animation

Physical presentation and sales models

Event, stage and installation design

References: Mike Dobija, Averde · Al Calderon, Newport Digital · Patrick D'Rozario and Ahsanullah Majumdar, BUET. Contact details on request.

