FACULTY OF FINE ARTS ALEXANDRIA UNIVERSITY
DEPARTMENT OF INTERIOR DESIGN

PAVILON DESIGN

PRESENTED BY:BASANT ELSHAZLY ID:2022210434

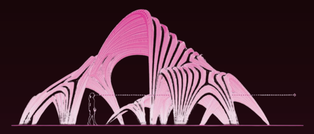
Academic Year 2025/2026

ARCHITECTURAL DESIGN

concept devevolpment&sketches

CONCEPT: FLUID ORGANIC SHELL

The design is inspired by organic growth patterns and fluid geometries found in nature, such as coral formations and soft tissue structures.
The form evolves through a parametric approach, where repeated arches merge and transform into a continuous flowing shell.



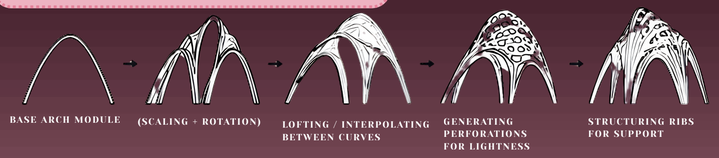
THE DESIGN EMPHASIZES:

Smooth transitions between elements
Perforated surfaces for light and ventilation
A sense of movement and dynamism

The overall composition reflects harmony between structure and form, creating a visually lightweight yet structurally expressive pavilion.

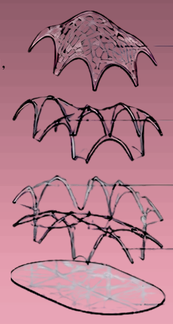
DESIGN INTENT:

To create an immersive architectural experience that blends structure, light, and organic flow into a unified spatial form.



construction method

The project is developed using parametric design techniques, where a single module is repeated, scaled, and morphed to generate the full structure.



EXECUTION (REAL-LIFE):

·Fabrication using CNC cutting or 3D printing

·Assembly through interlocking ribs or layered sections

·Hidden structural frame to support the Howing shel

STEPS:

Creating a base arch module
Applying transformation (scaling + rotation)
Lofting/interpolating between curves to create surfaces
Generating perforations for lightness
6
Structuring ribs for support

materials

maquette materials

3D PRINTED PLA (for complex joints)

color palette

suggested real materilas

FIBER REINFORCED PLASTIC (FRP) for smooth organic finish

STEEL FRAME (hidden) structural support

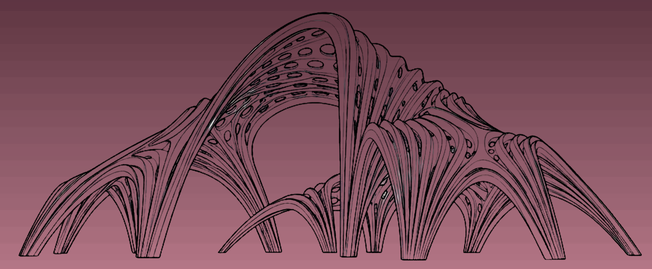
ALUMINUM PANELS lightweight outer skin

GLASS FIBER / RESIN COMPOSITE for complex curves

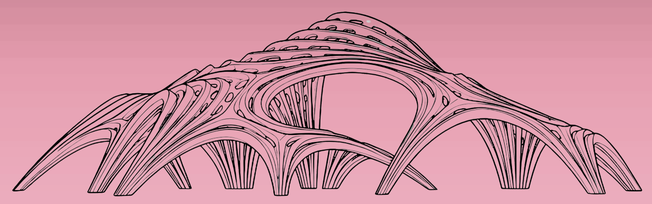
PERFORATED METAL PANELS enhance light & shadow effect

2D VIEWS

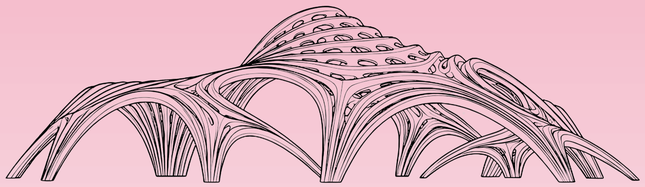
TOP view



FRONT elevation

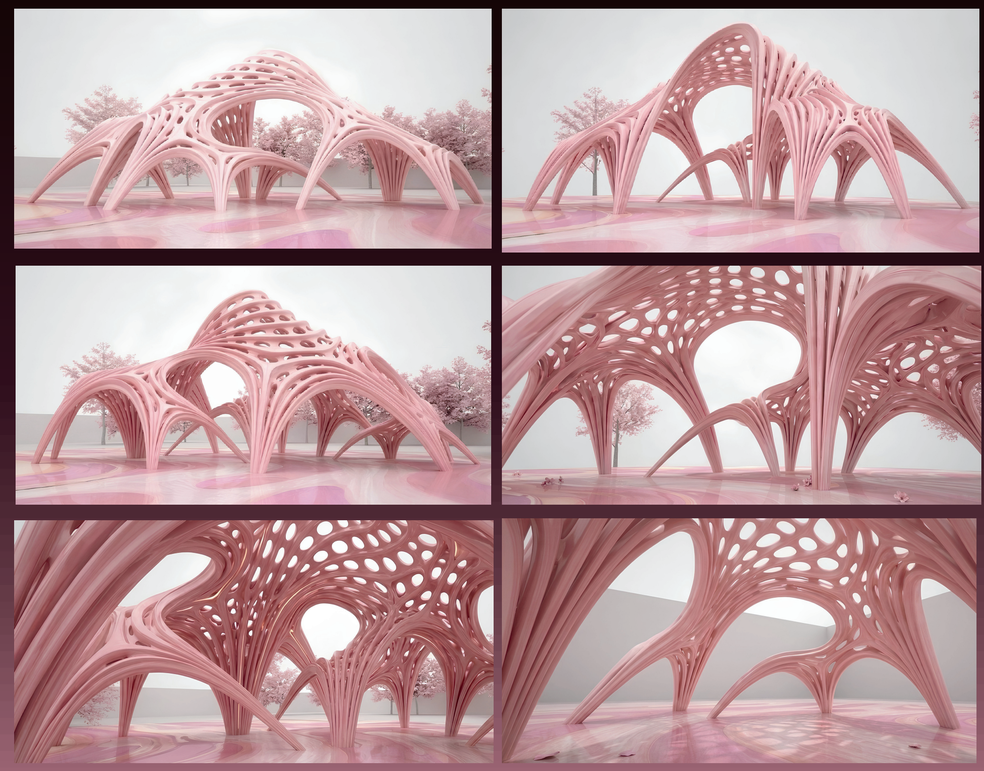


LEFT side elevation



RIGHT side elevation

3D SHOTS



MAQUETTE SHOTS