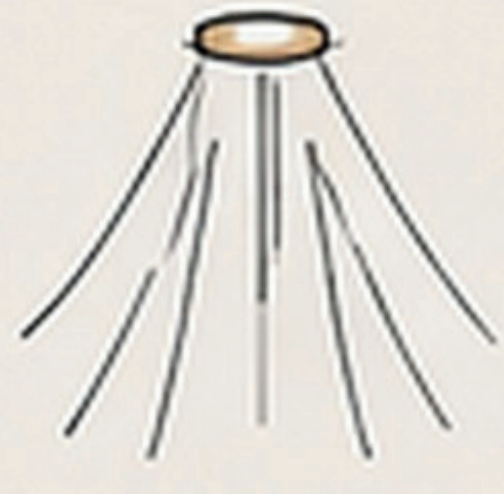


RADIAL OTAĞ

HEALING CORE & BREATHING SHELL

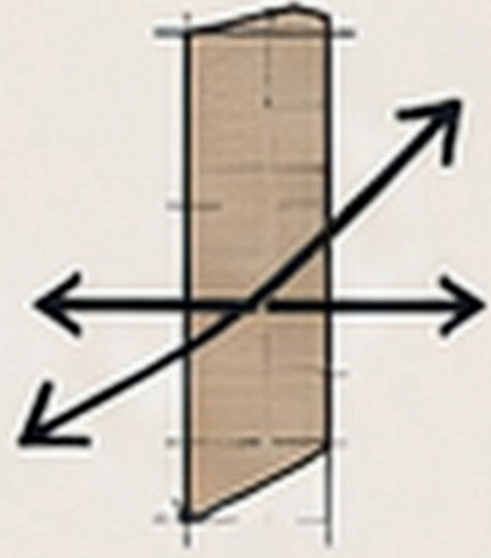
Shaped as an inverted funnel, the structure acts as a protective shield during disasters; in the post-crisis phase, it transforms into an open and inviting living space.

The design is based on humanity's most fundamental instinct: "gathering around a fire (center)".



LIGHT SPINE (FOCUS)

The circular staircase at the center is not only for circulation; it acts as a luminous core that distributes light entering through the oculus into the interior.



CONTINUOUS FLOW & STRUCTURAL WEDGES

Massive wooden service blocks function as structural supports carrying the large roof. While organizing the plan functionally, they guide the main circulation seamlessly toward the seating areas.



KINETIC WOODEN SHELL

Mechanical wooden panels on the outer layer close during crisis moments, isolating and protecting the interior. In the social phase, these panels lift, allowing the building to breathe and fully integrate with the landscape.



TRANSFORMING SHELL: PROTECTION & INTEGRATION



DURING DISASTER: PROTECTIVE SHELTER



POST-CRISIS: LIVING SPACE



Closed Shell

Resistant to weather conditions, secure and sheltered space



Isolated Interior

Provides privacy and protection from external factors



Centralized Core

Heat and light gather at the center



Opening Panels

Maximum natural ventilation and daylight



Integration with Landscape

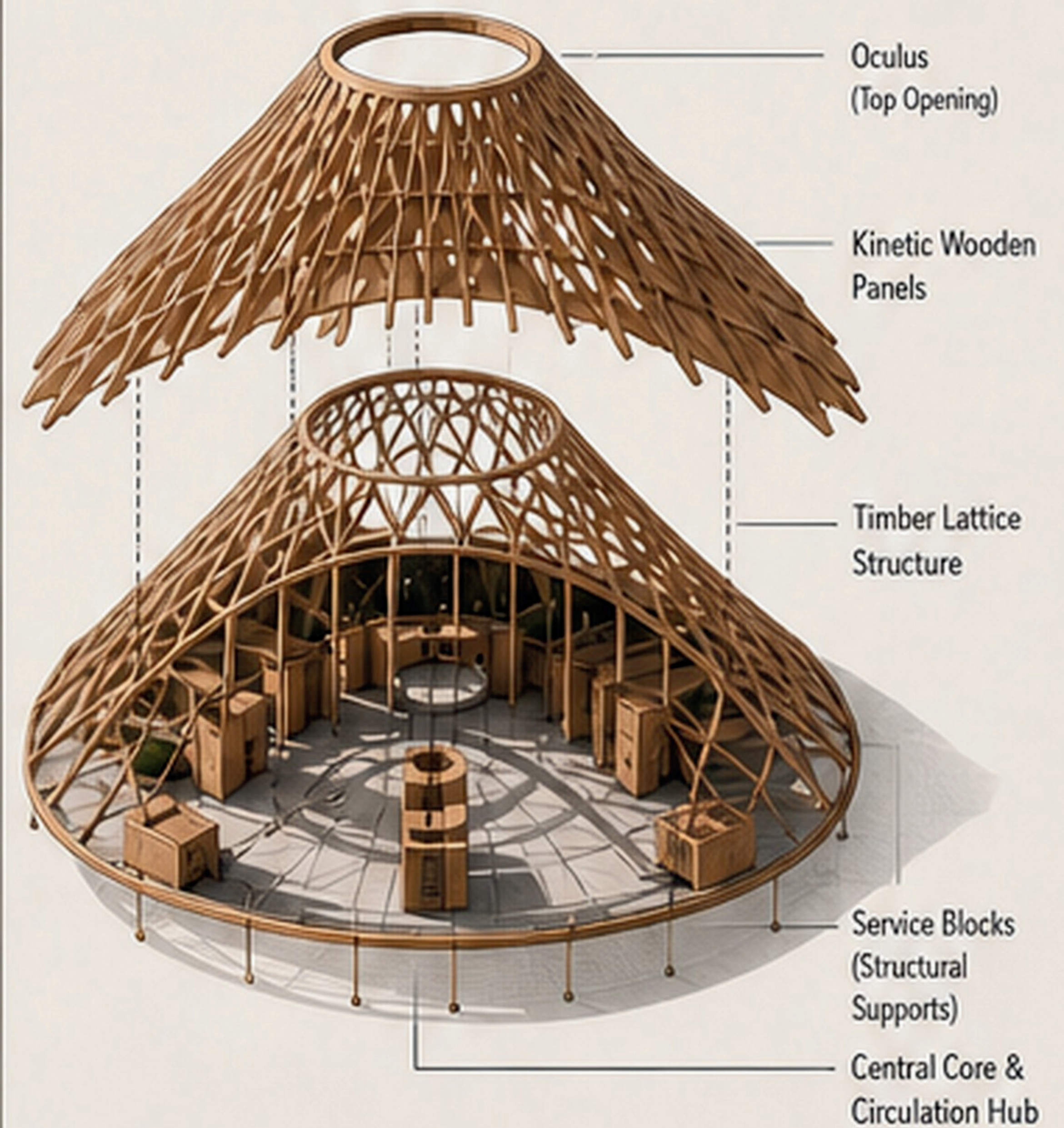
Blurring the boundary between interior and exterior



Social Life

Community gathering, education, production, and sharing

FORM & STRUCTURE



SUSTAINABILITY



LOCAL & NATURAL MATERIALS

Timber structure, local production, low carbon footprint



PASSIVE CLIMATE CONTROL

Natural ventilation and daylight for energy efficiency



GREEN INTEGRATION

Natural healing environment with vegetation and inner gardens

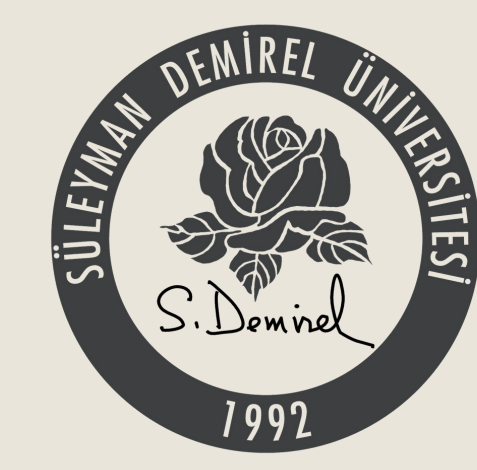


RENEWABLE ENERGY

Energy independence through solar panels



RADIAL OTAĞ



Radial Otağ is designed as a resilient community hub that supports life after disasters. The ground floor works as a flexible marketplace, while the elevated healing garden provides a peaceful green retreat. At the heart of the structure, a cylindrical café becomes the social core that brings people together.

- COMMUNITY RESILIENCE**
Supports recovery and social cohesion
- LOCAL ECONOMY**
Revives local production and trade
- HEALING ENVIRONMENT**
Green areas improve mental and physical well-being
- ADAPTIVE SHELL**
Kinetic panels respond to environmental conditions
- SOCIAL & CULTURAL HUB**
Encourages interaction, gathering and inclusion



KINETIC SHELL SYSTEM

The timber lattice shell is composed of Jabroc wooden pipes and independent kinetic panels. Panels can open and close to adapt to climate conditions and different usage scenarios.



PROGRAM ORGANIZATION

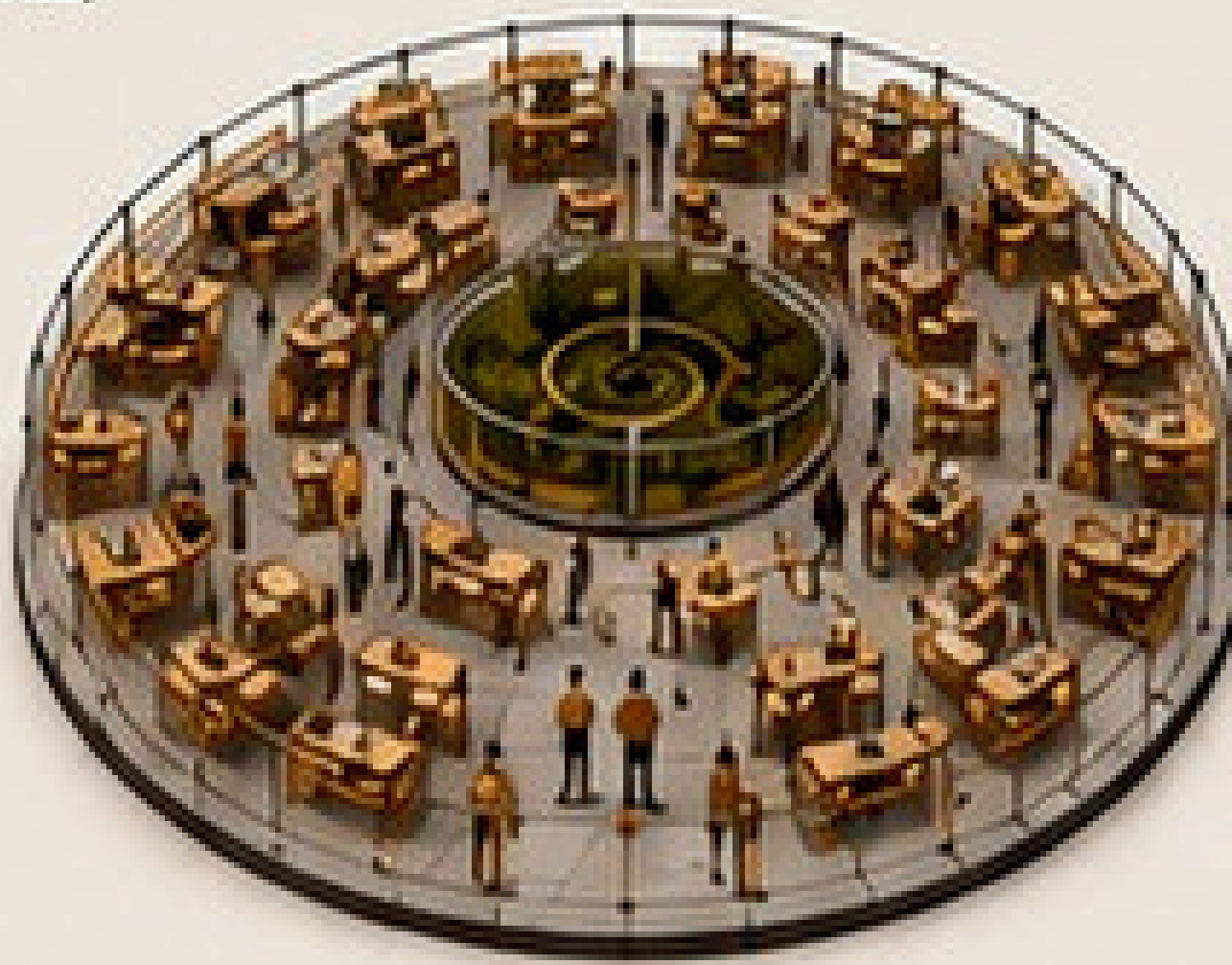
UPPER LEVEL (HEALING GARDEN)

- Inner Garden
- Cylindrical Café
- Terrace Seating
- Herb & Plant Beds
- Walking Path
- Service Zone



GROUND FLOOR (MARKET HALL)

- Market Stalls
- Local Producers
- Event / Gathering Area
- Food Distribution
- Storage & Services
- Entry / Exhibition

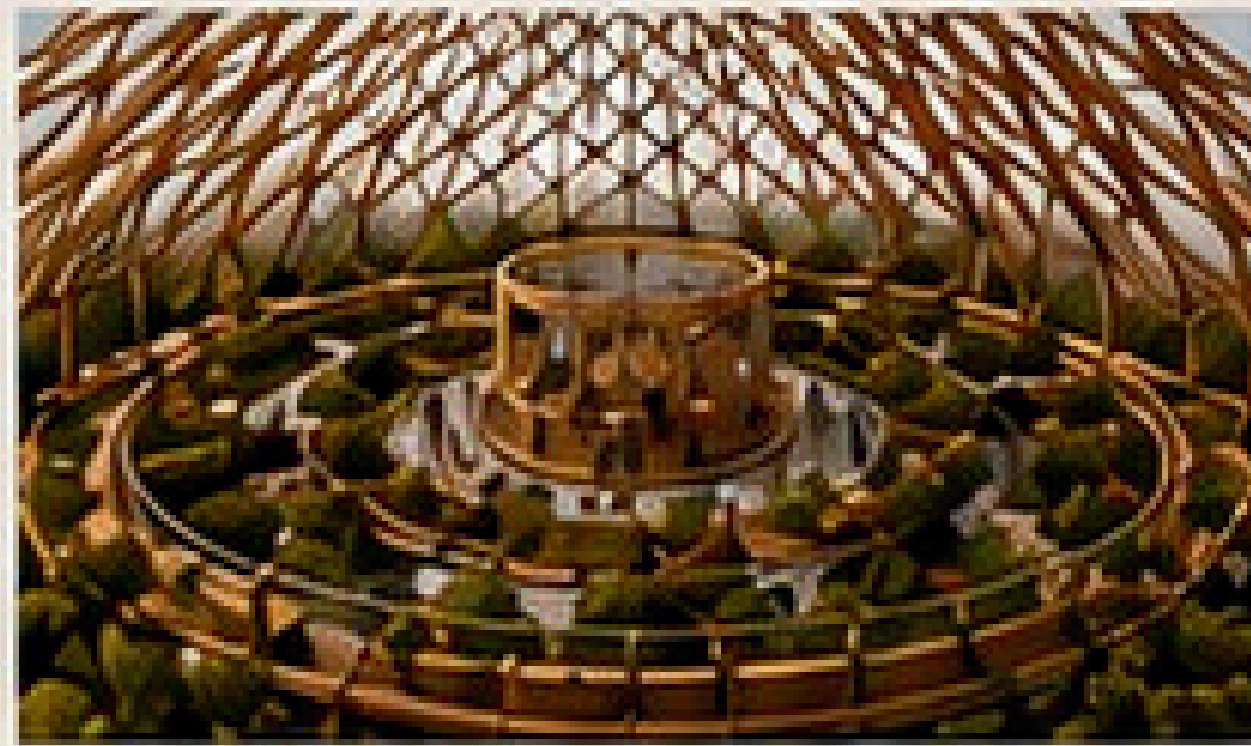


SPATIAL EXPERIENCE



GROUND FLOOR MARKET PLACE

A flexible market space that supports local producers, distribution and community gatherings.



UPPER LEVEL HEALING GARDEN

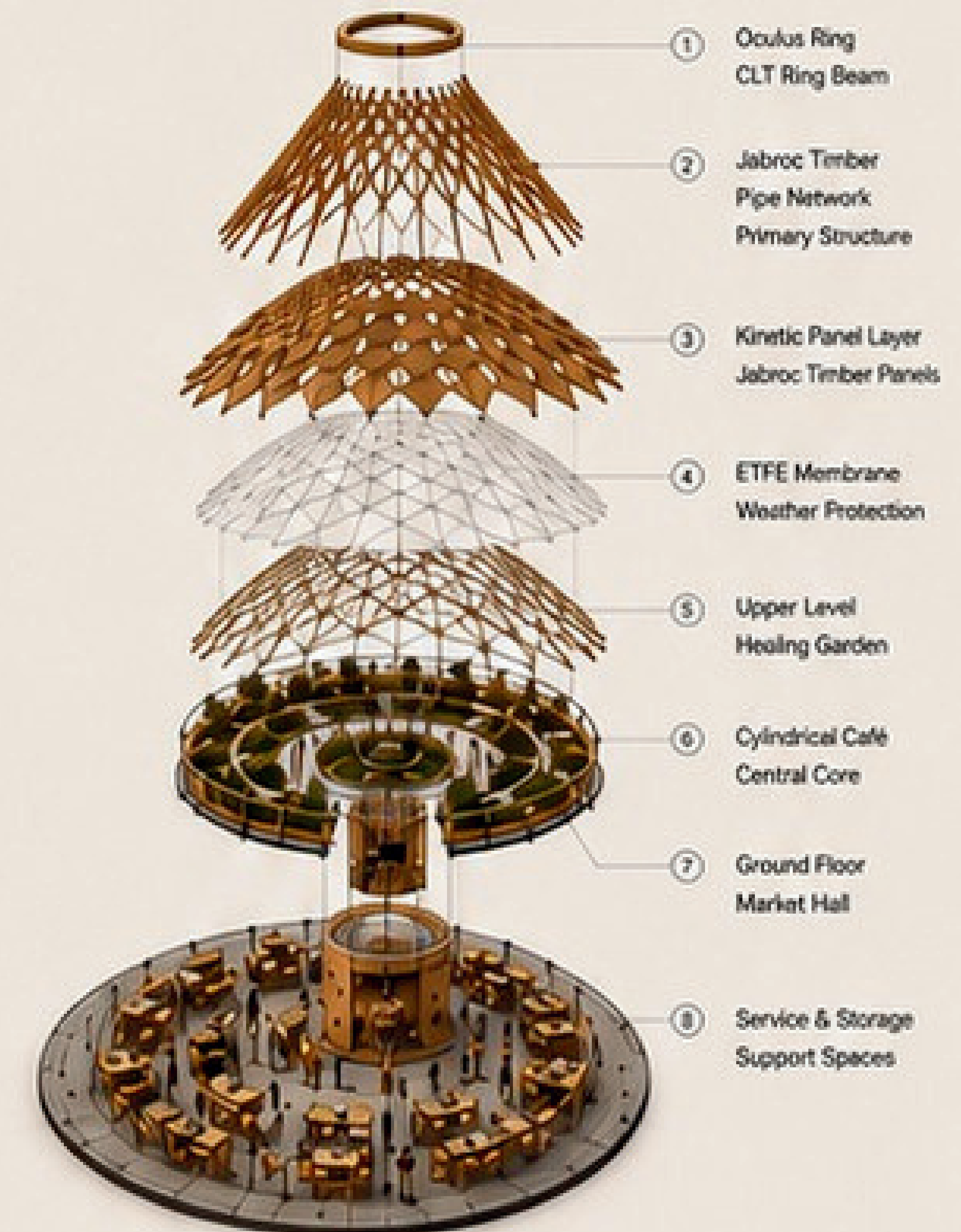
An elevated inner garden with vegetation, walking paths and seating areas encouraging relaxation and social interaction.



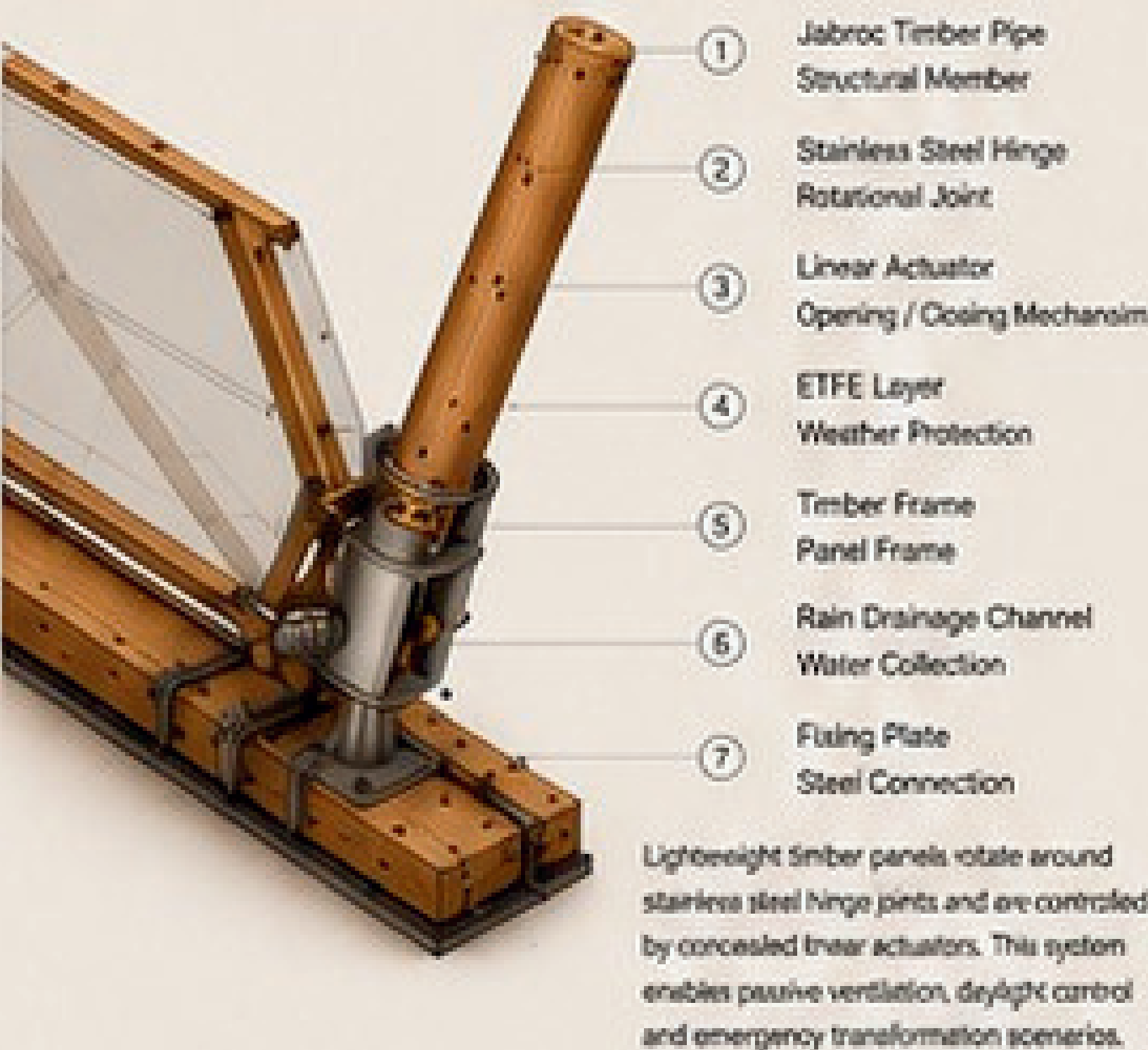
CENTRAL CORE CYLINDRICAL CAFÉ

The heart of the structure. A social hub that offers coffee, views and connection across all levels.

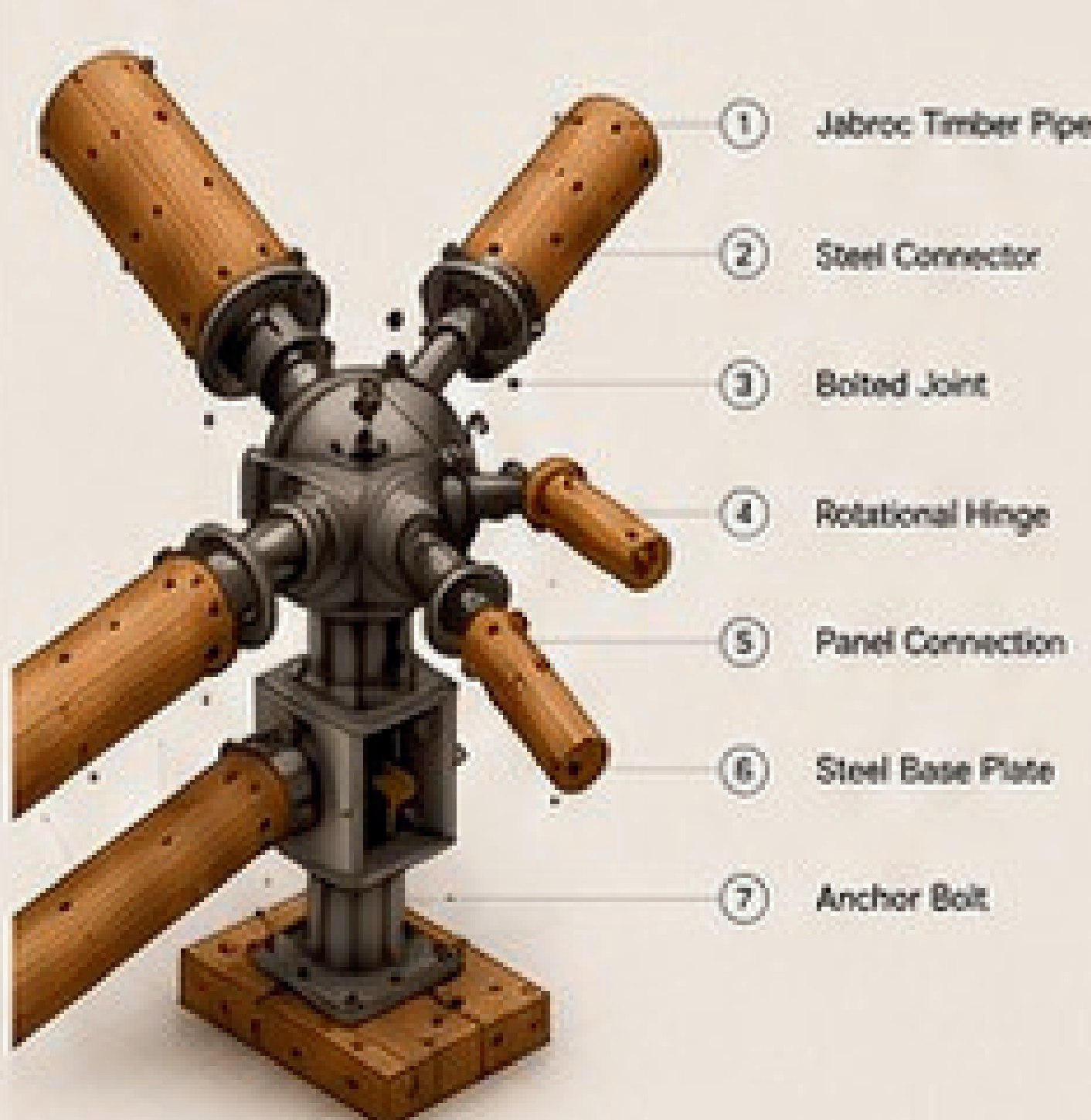
EXPLODED AXONOMETRIC



KINETIC PANEL DETAIL (1/10)



NODE DETAIL (1/5)



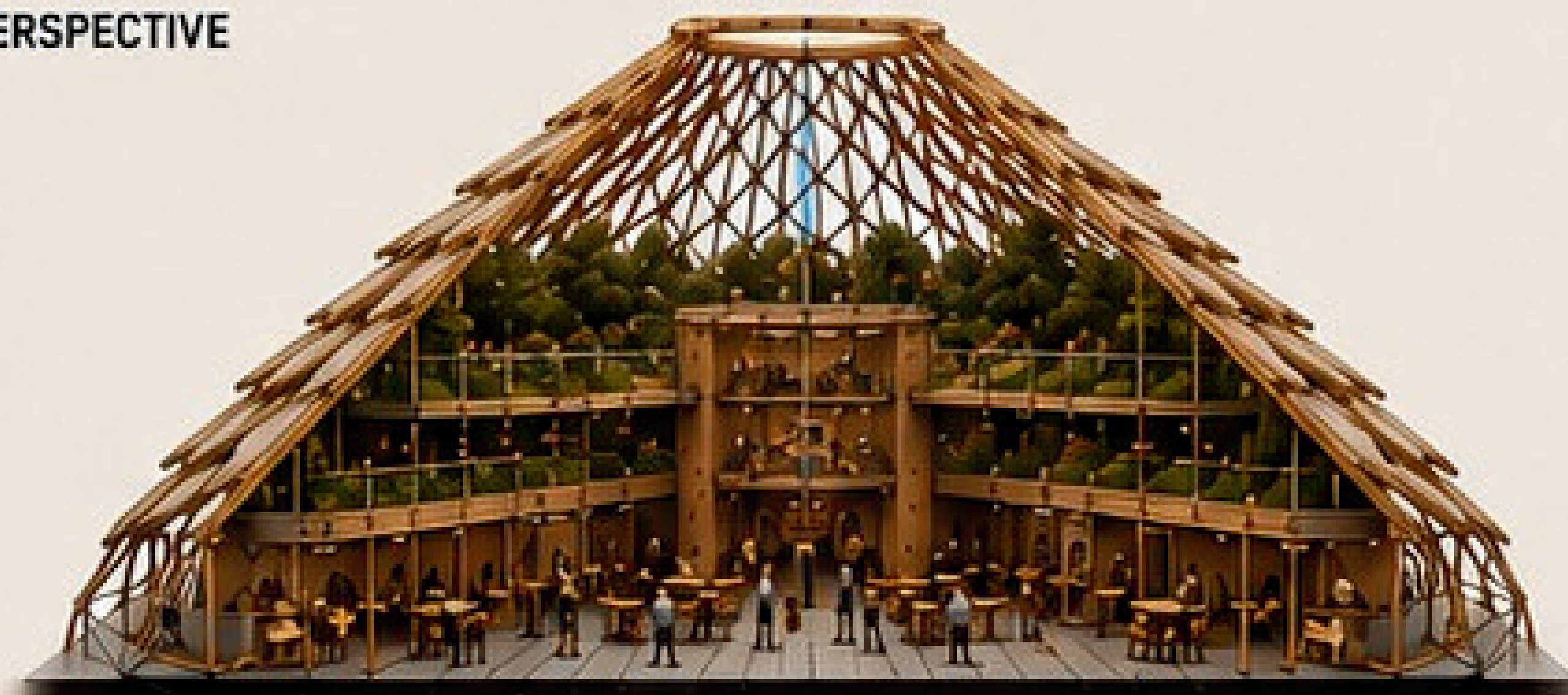
HEALING CORE (CYLINDRICAL CAFÉ)



MATERIAL PALETTE

- JABROC TIMBER
(Structural Pipes)
- CLT PANEL
(Rings & Core)
- ETFE MEMBRANE
(Weather Layer)
- STAINLESS STEEL
(Hinges & Connectors)
- RECYCLED TIMBER
FLOORING
(Interior Finish)
- PHOTOVOLTAIC PANEL
(Energy Production)

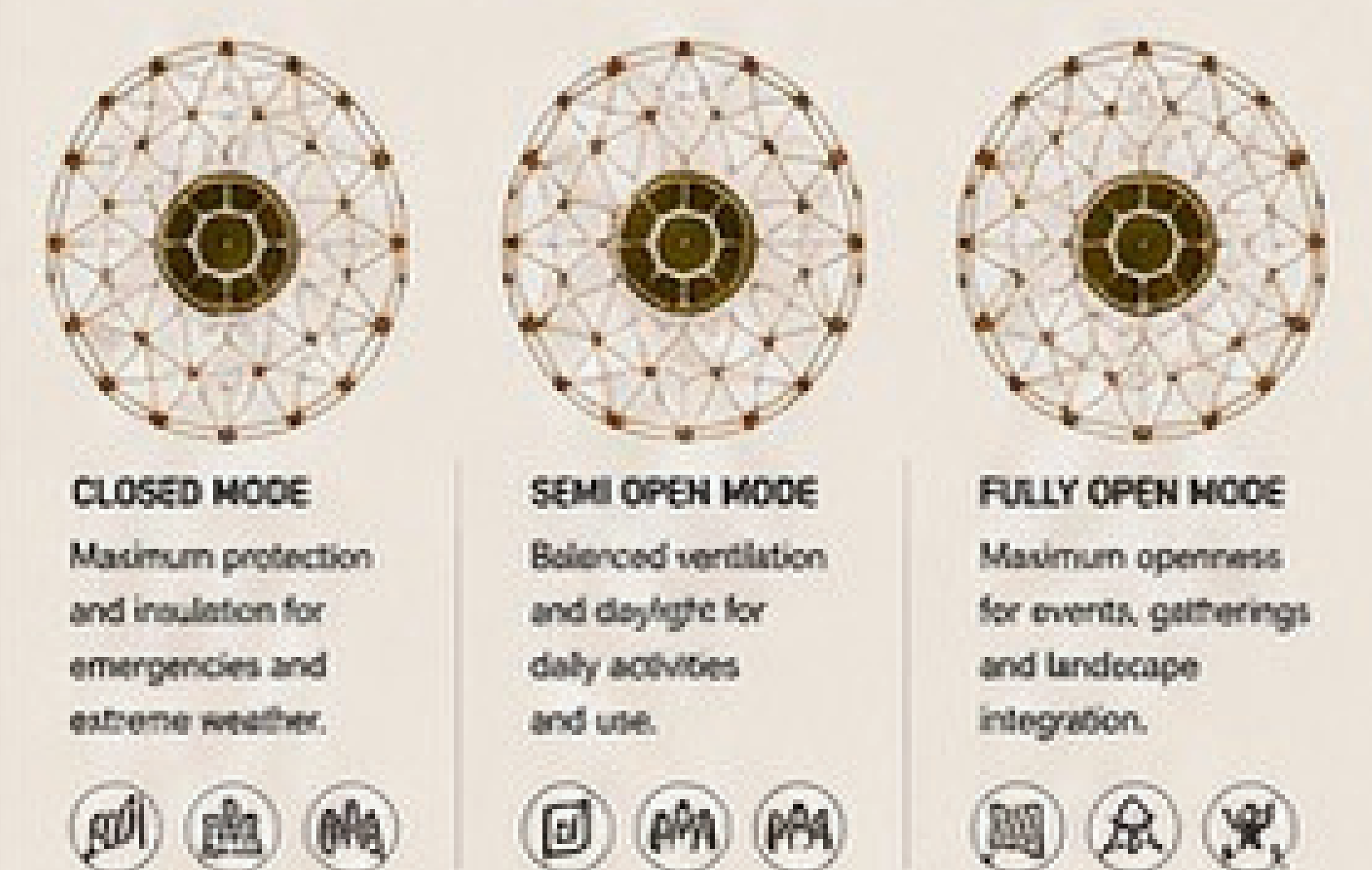
SECTIONAL PERSPECTIVE



ADAPTIVE PERFORMANCE

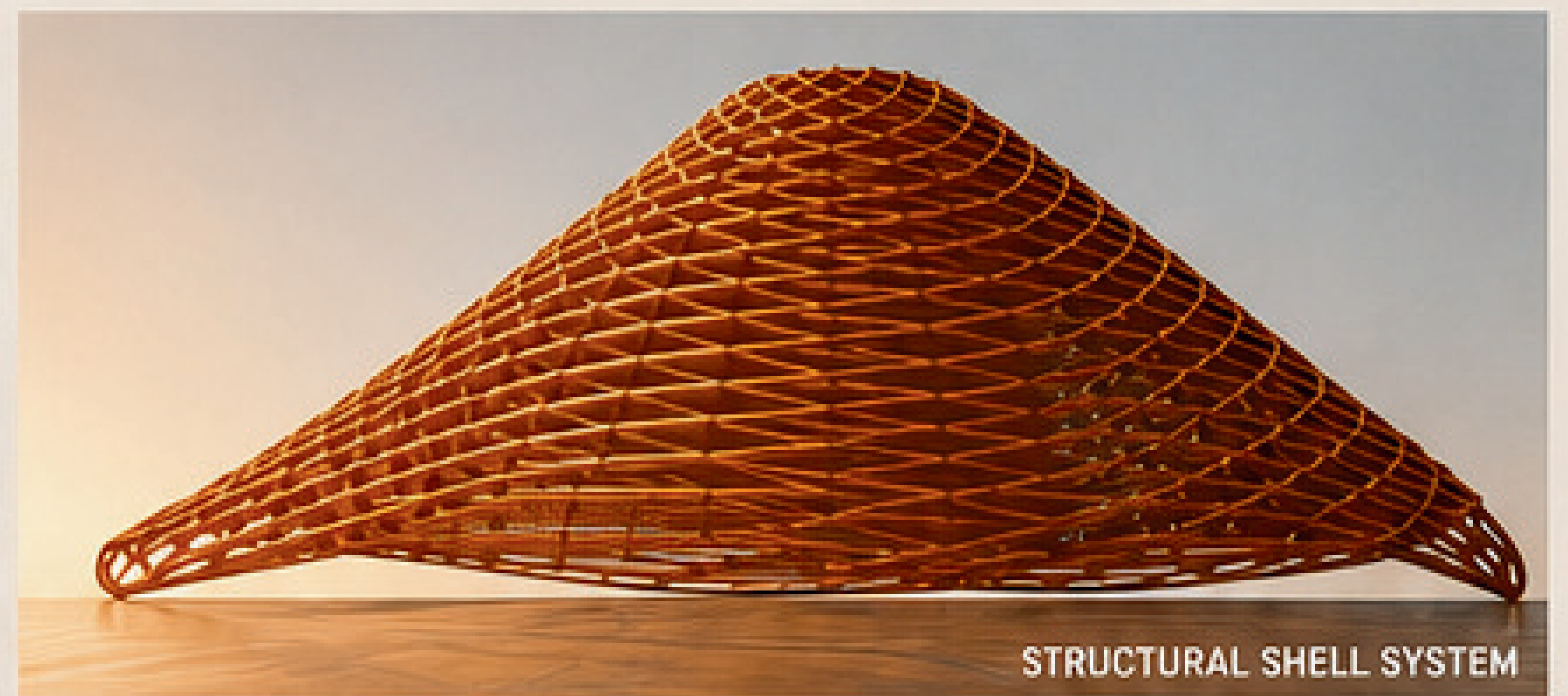
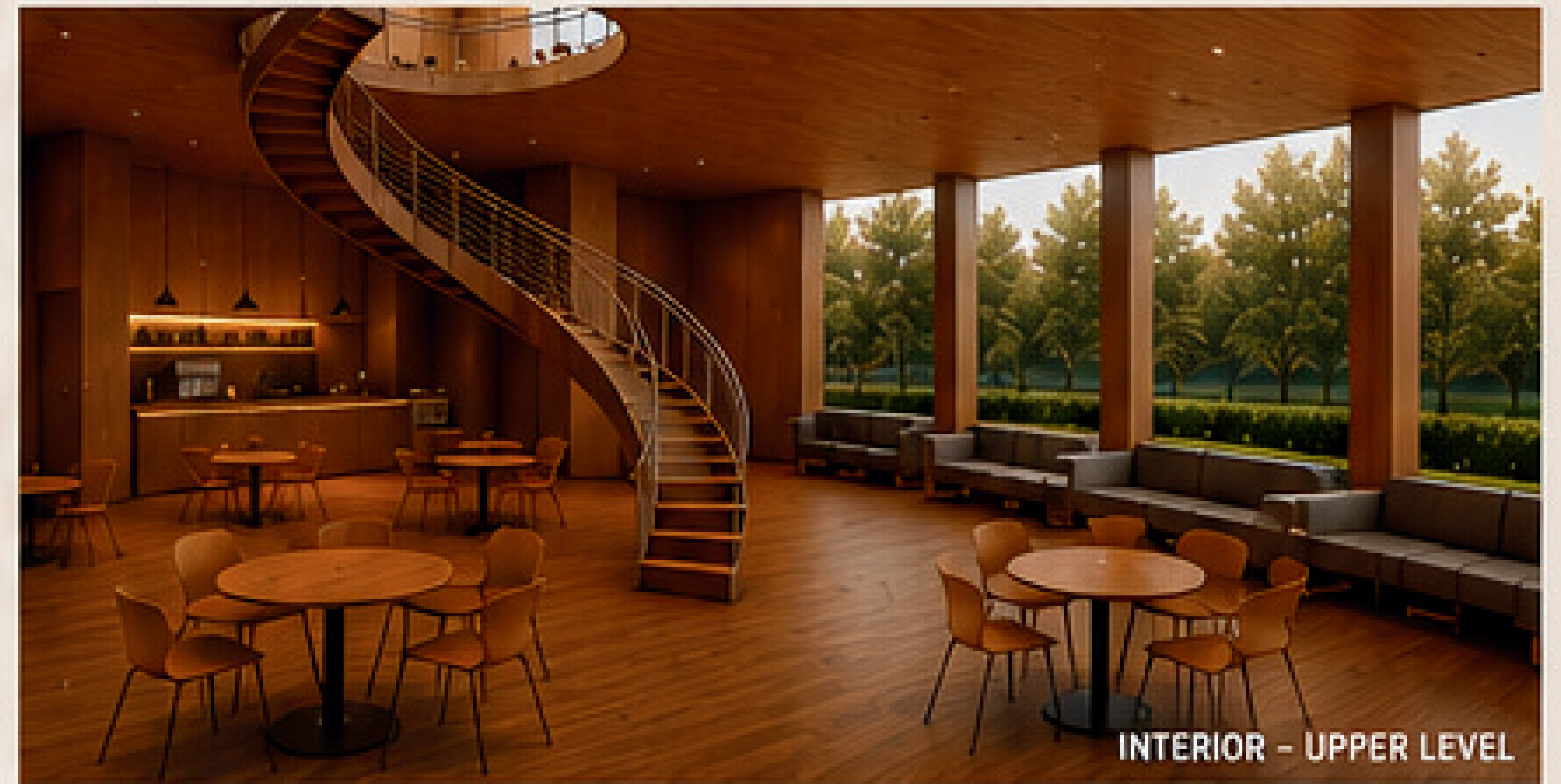
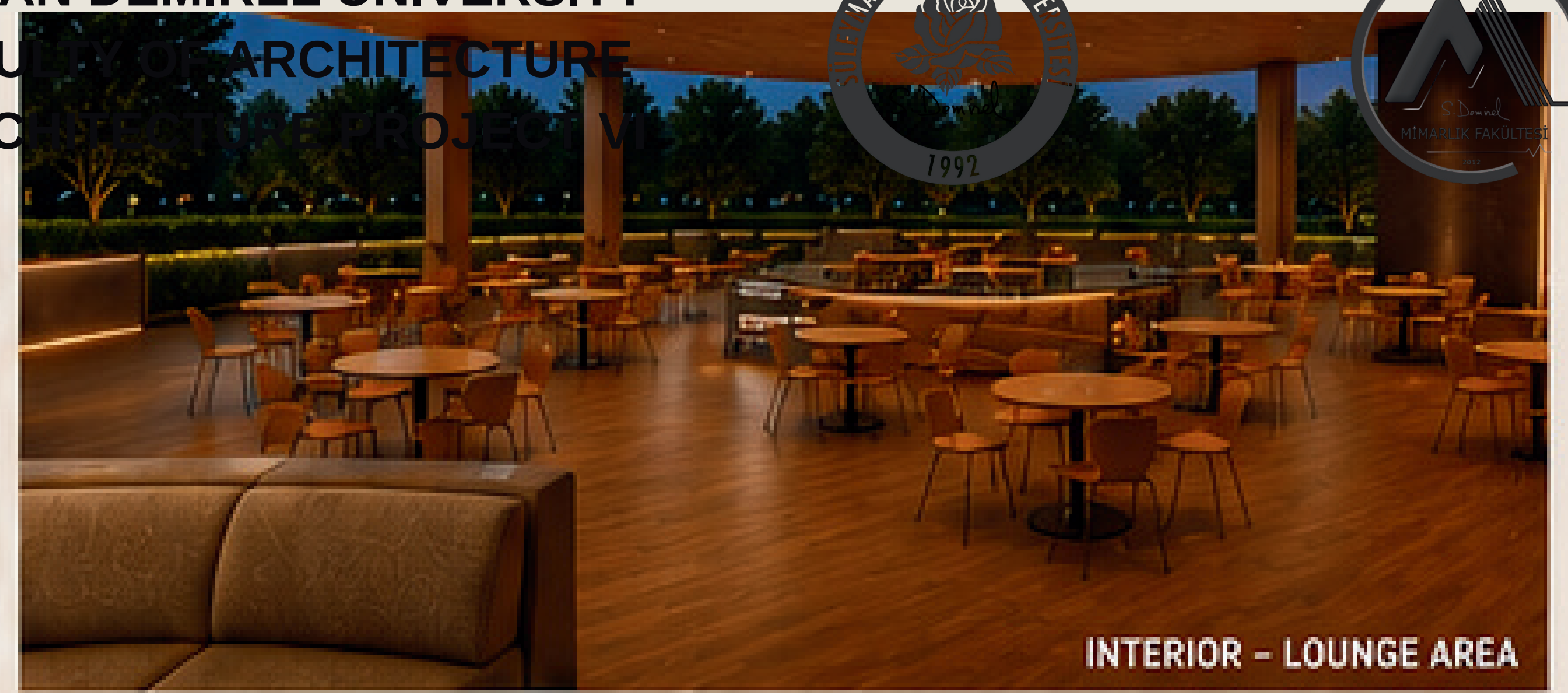
- NATURAL VENTILATION**
Hot air rises and exits through the oculus. Cool air enters from open kinetic panels.
- DAYLIGHT CONTROL**
Panels regulate daylight levels and reduce glare inside the space.
- RAIN PROTECTION**
Panels close to create a sheltered area.
- THERMAL COMFORT**
Insulation and shading reduce heat gain and improve comfort.
- RENEWABLE ENERGY**
PV panels integrated on the energy self-sufficiency.

KINETIC TRANSFORMATION SCENARIOS

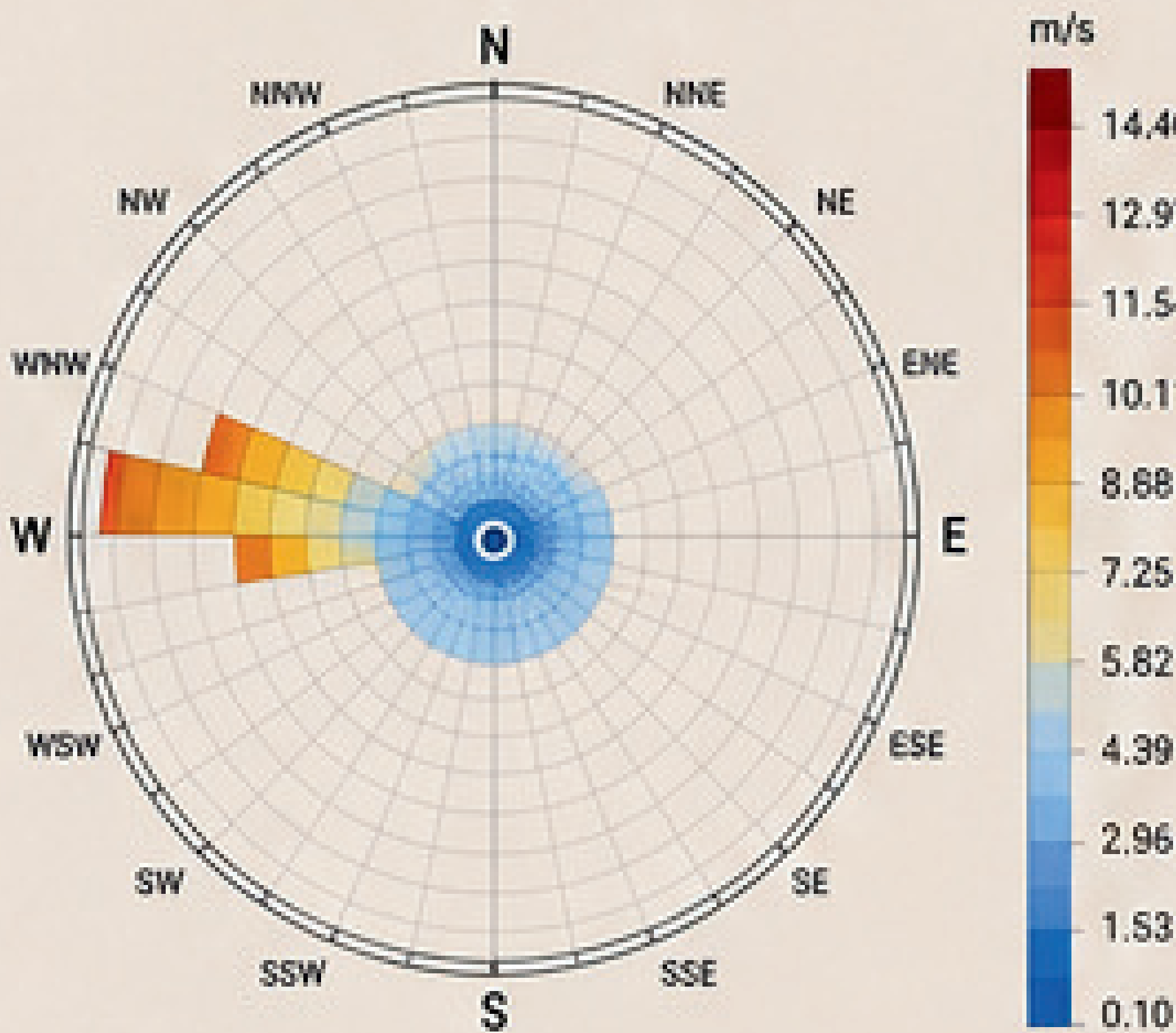


RADIAL OTAĞ

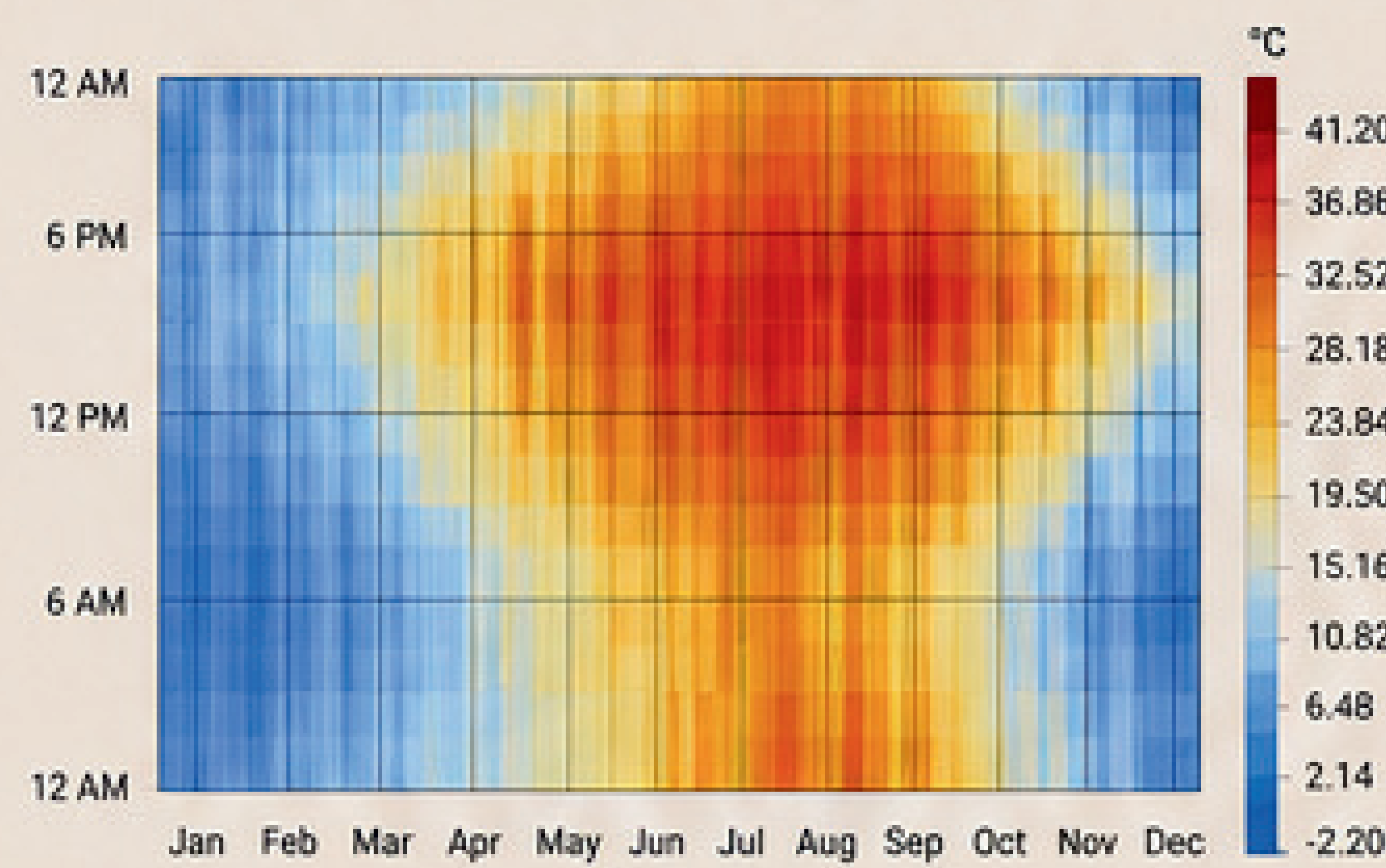
SULEYMAN DEMIREL UNIVERSITY
FACULTY OF ARCHITECTURE
DEPARTMENT OF ARCHITECTURE



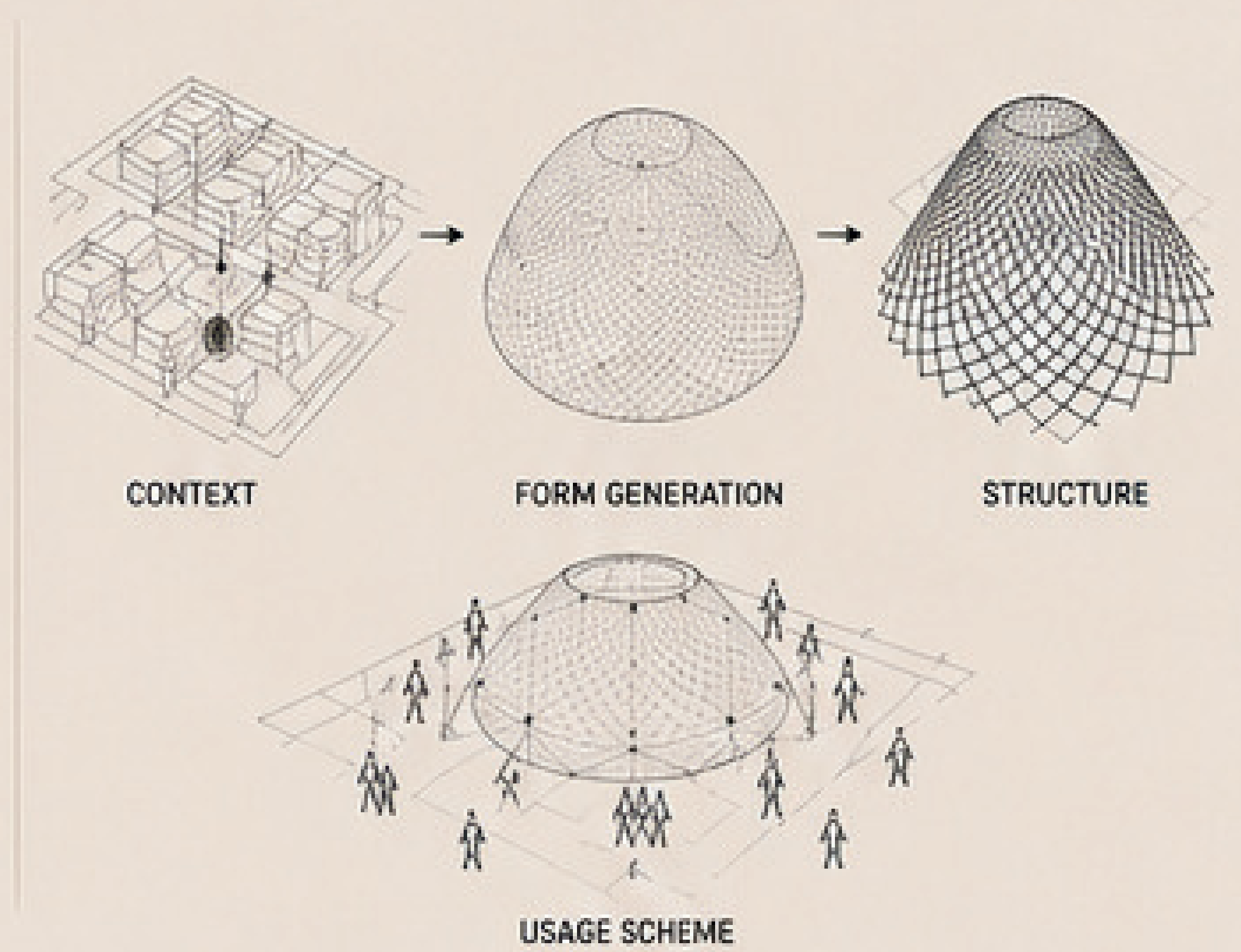
WIND SPEED DIAGRAM (m/s)



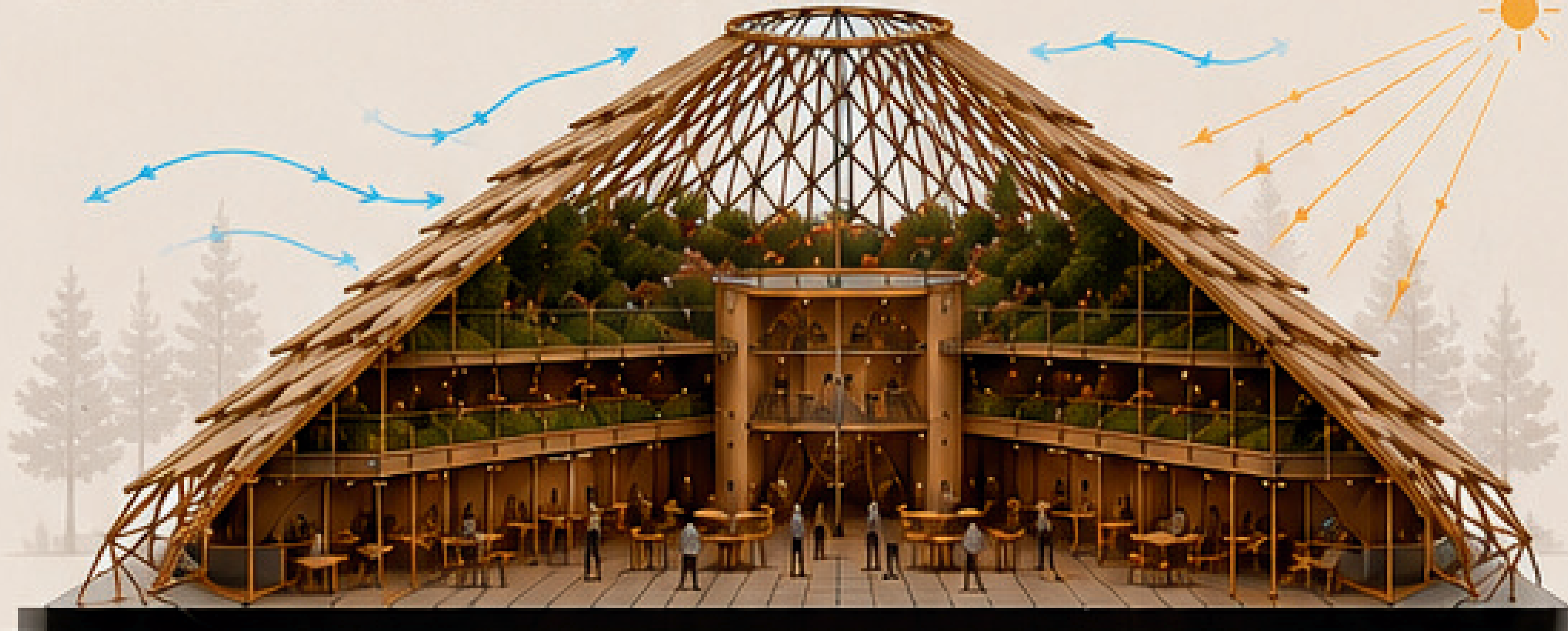
DRY BULB TEMPERATURE ANALYSIS (°C)



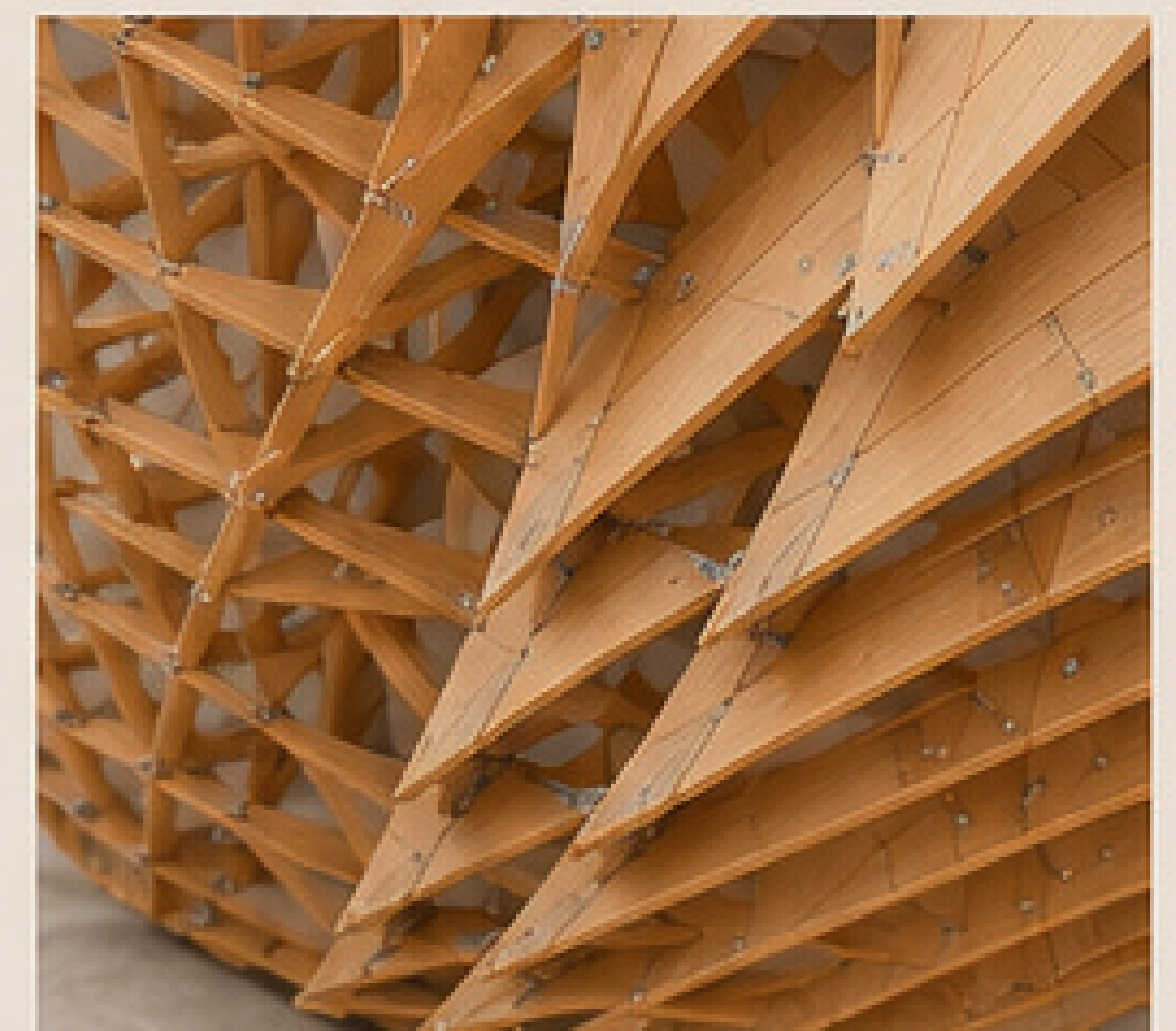
DESIGN FORM & USAGE SCHEME



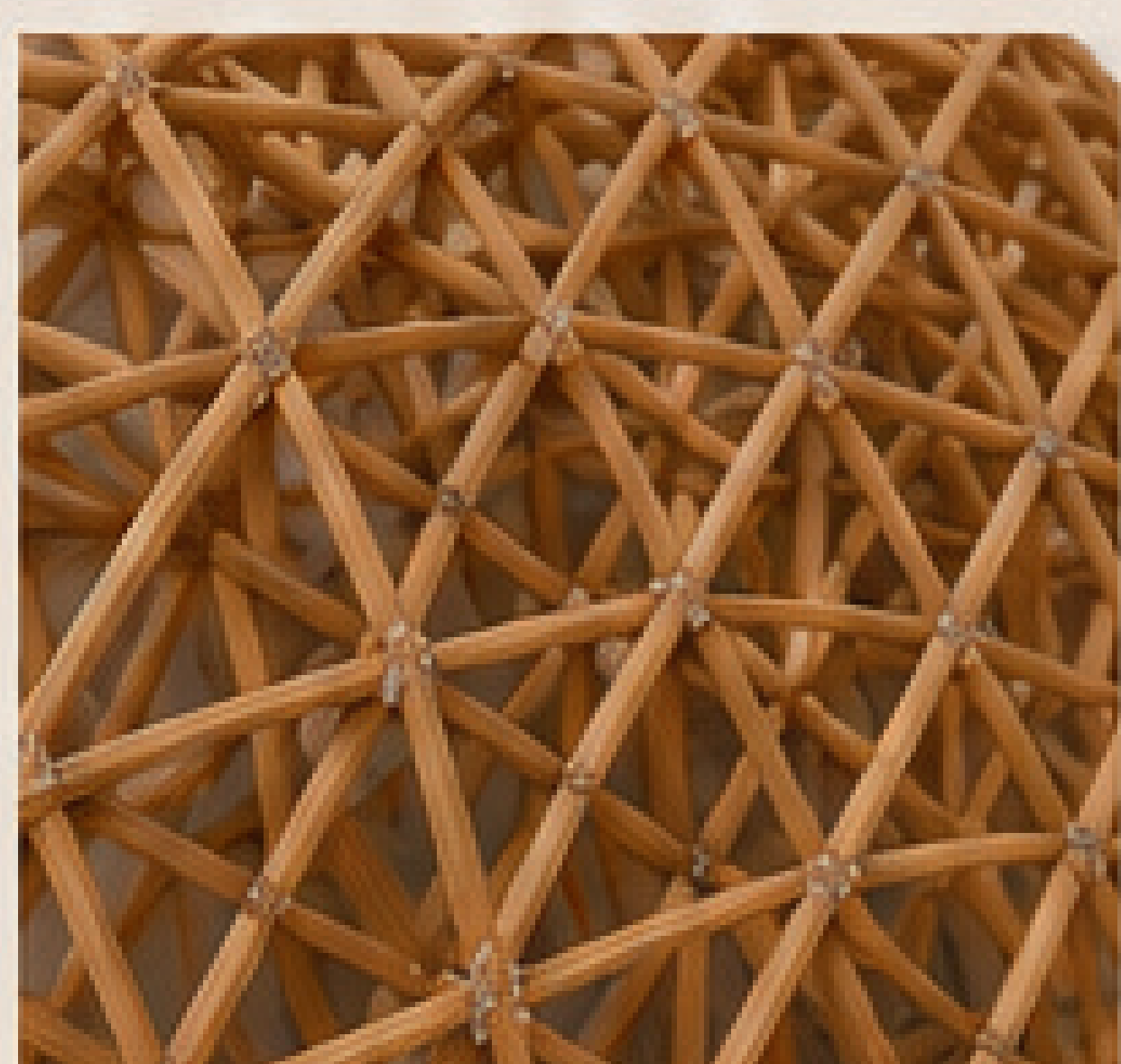
SECTIONAL ENVIRONMENTAL STRATEGIES



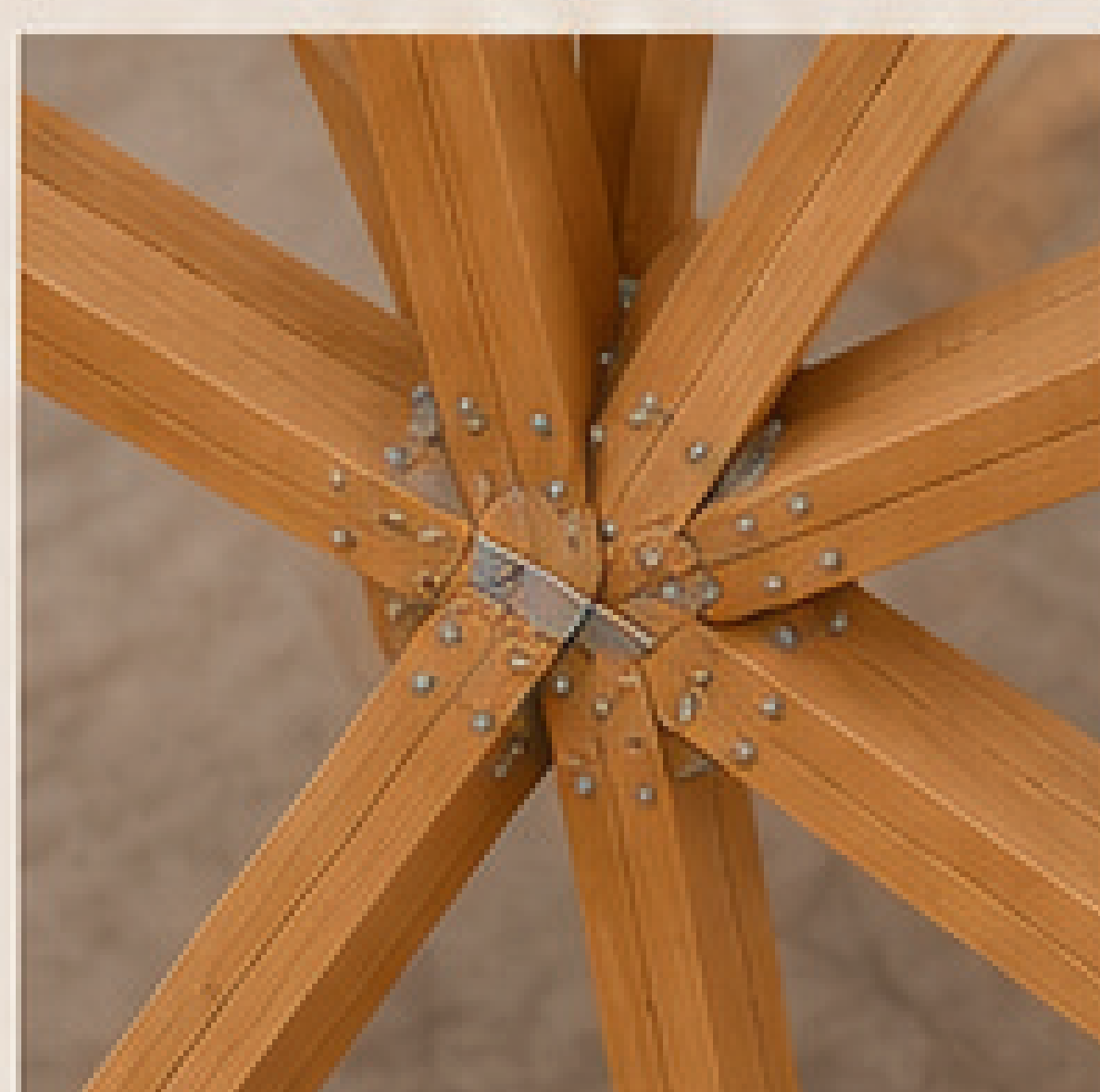
- NATURAL VENTILATION**
Hot air rises and exits through the oculus. Cool air enters from open perimeter.
- DAYLIGHT CONTROL**
Kinetic shading panels provide balanced daylight while reducing glare.
- RAIN PROTECTION**
Timber lattice and ETFE membrane protect from rain and sunlight.
- GREEN INTEGRATION**
Inner garden and planter areas improve microclimate and enhance well-being.



LATTICE SYSTEM DETAIL



TIMBER NODE CONNECTION



SHELL CROSS SECTION

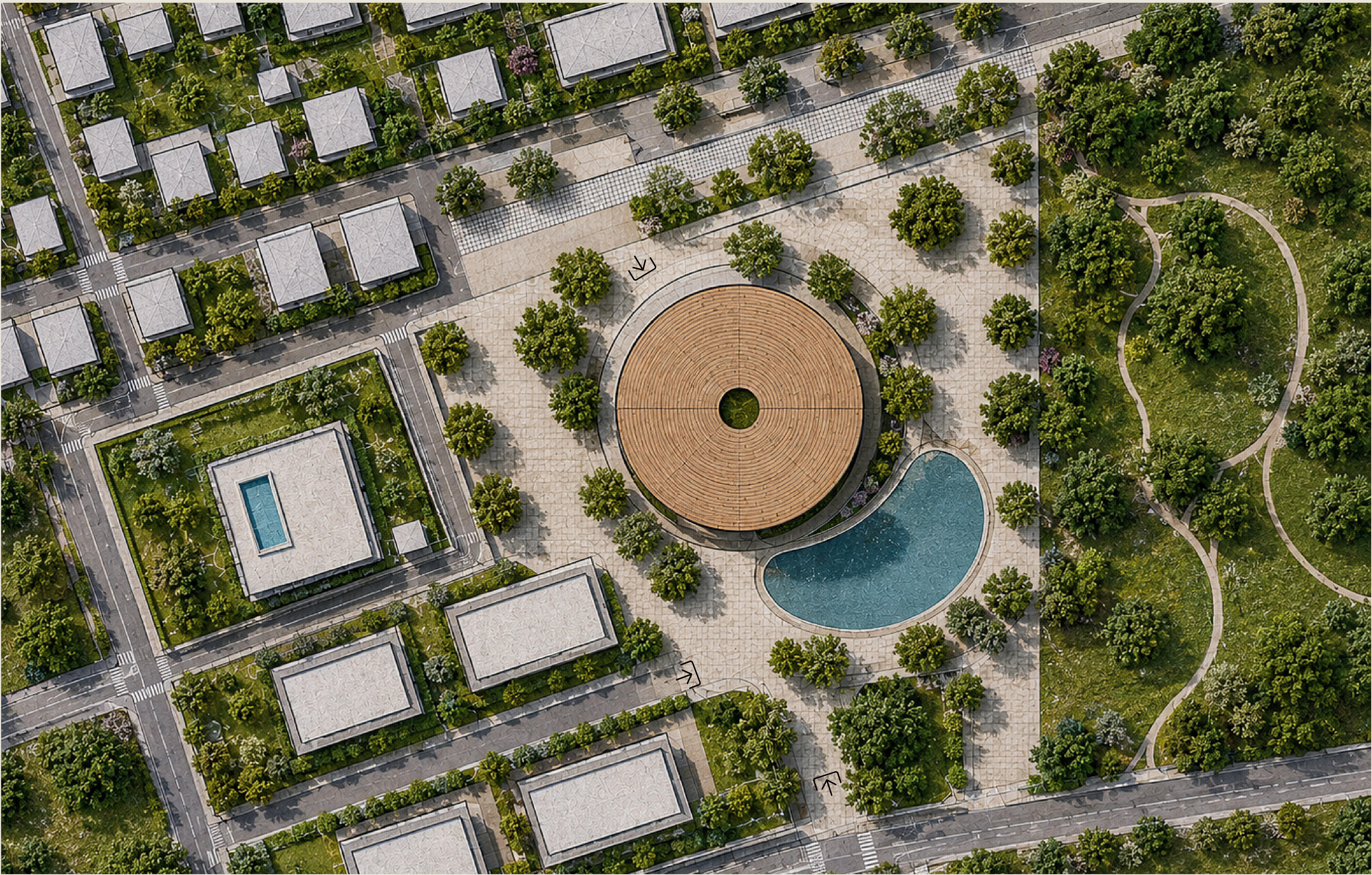
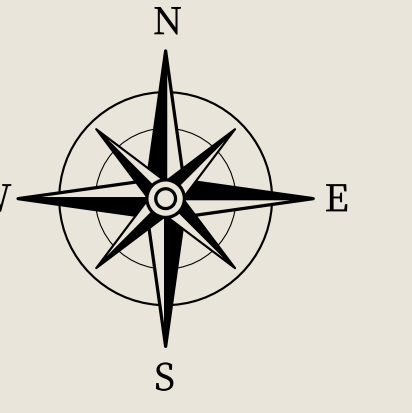


ADAPTIVE PERFORMANCE

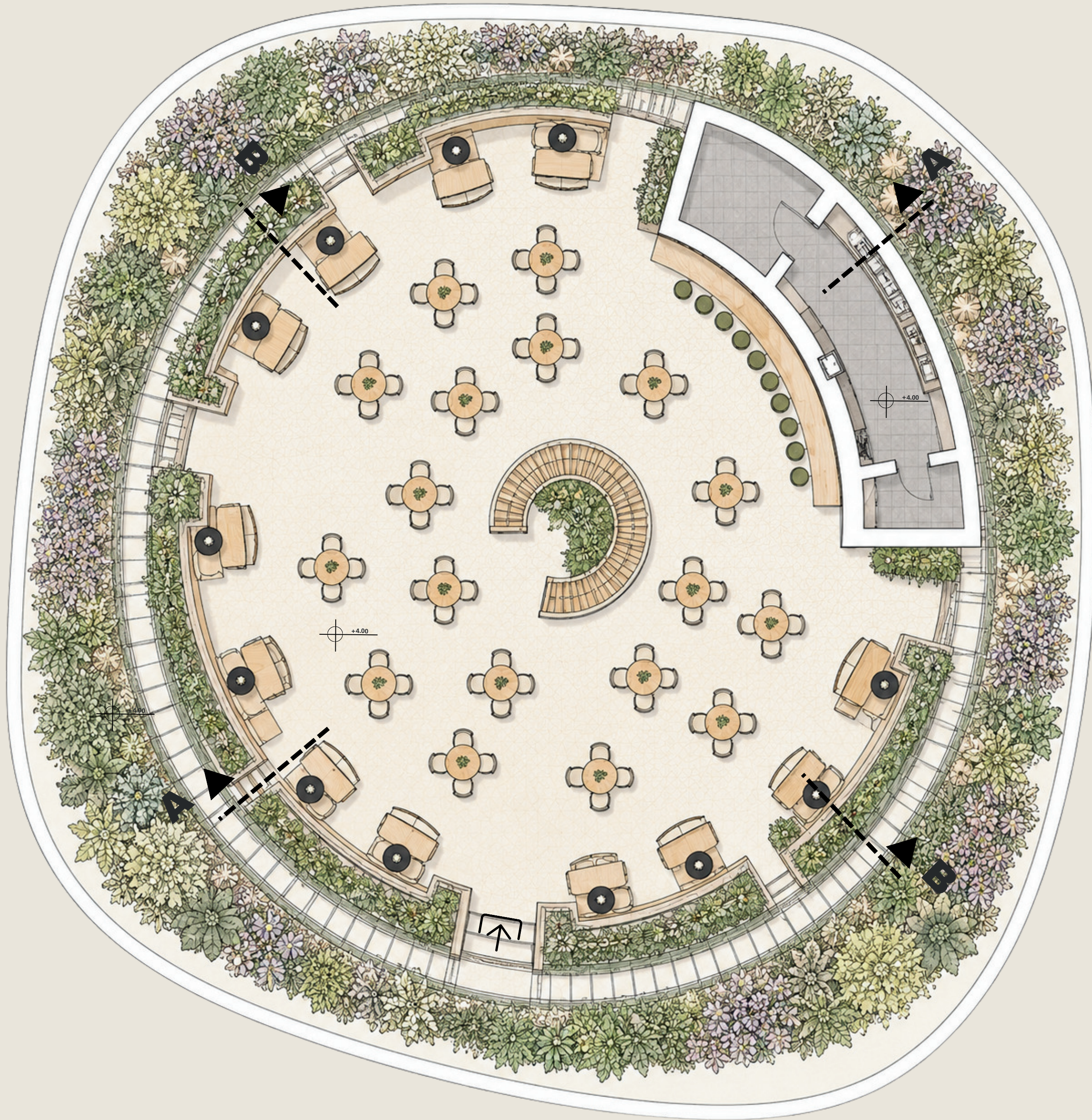


RADIAL OTAĞ

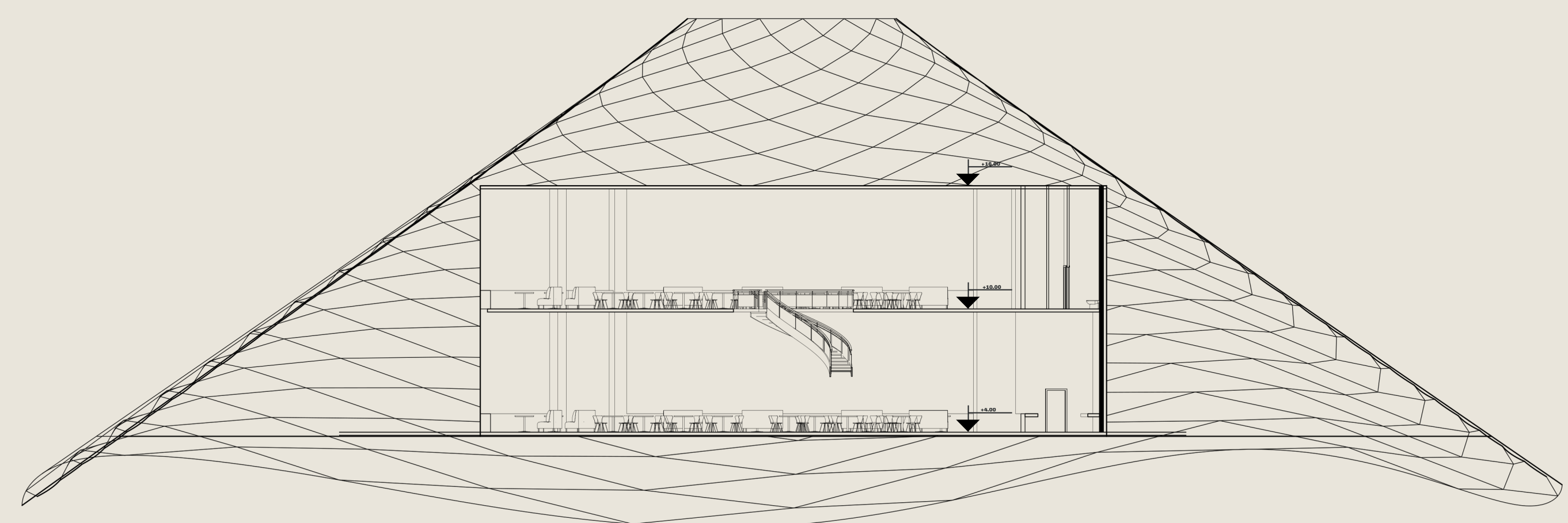
SULEYMAN DEMIREL UNIVERSITY
FACULTY OF ARCHITECTURE
DEPARTMENT OF ARCHITECTURE PROJECT VI



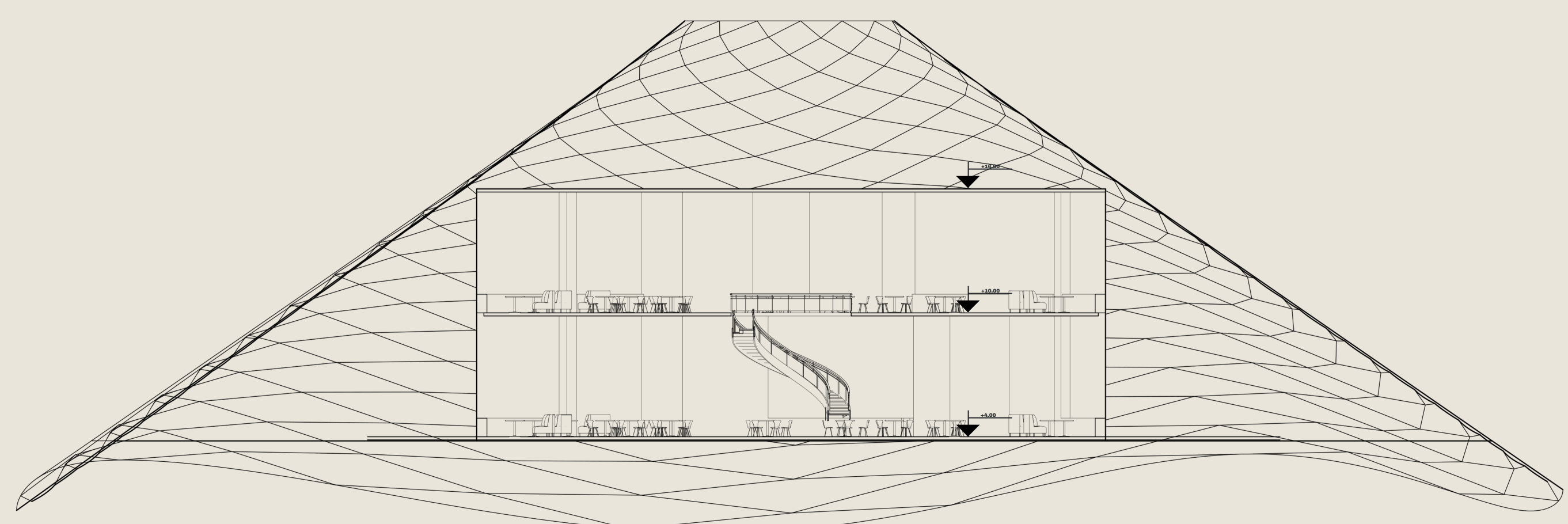
SITE PLAN S:1/500



FLOOR PLAN S: 1/100



A-A SECTION S: 1/200



B-B SECTION S: 1/200