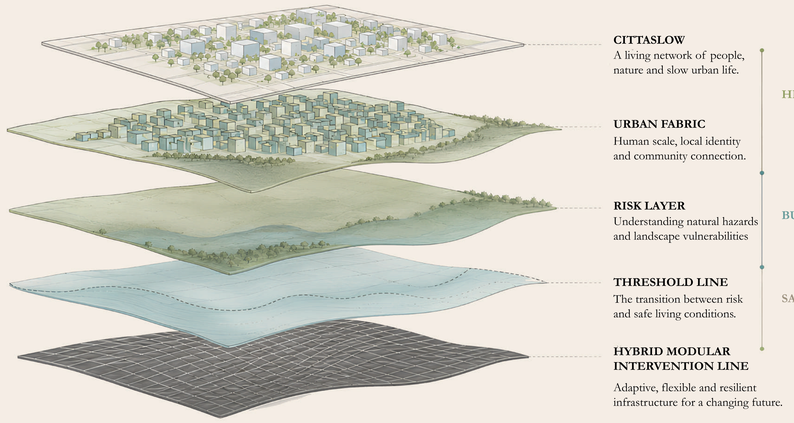
THE SEFERIHISAR THRESHOLD

A MODULAR LIFELINE: ADAPTIVE HYBRID INFRASTUCTURE FOR POST-DISASTER RESILIENCE

A "hybrid infrastructure" designed as a public facility during normal times, transforming into a strategic "Life and Operation Base" within 48 hours of a disaster.

SYSTEM ACTIVATION OVER TIME

THE RESILIENT CITTASLOW HUB



Integrating Slow-Living Philosophy with High-Tech Disaster Resilience

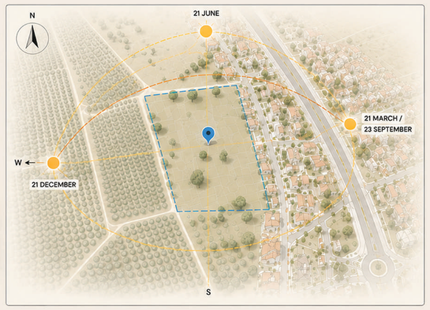
As Turkey's first Cittaslow, Seferihisar represents a commitment to human scale and local values.

A fluid parametric shell defines an open public space for daily use, hosting a café and marketplace.
In disaster scenarios, a rail-based closure system transforms the space into a protected logistics and emergency hub—without altering the main structure.

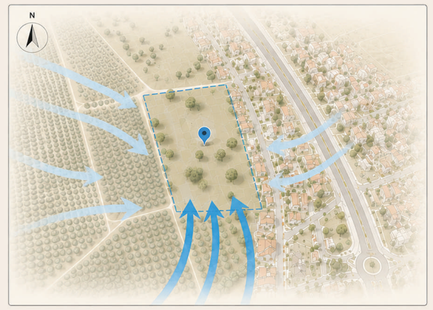
HEALING SOULS WITH A BIOPHILIC DESIGN

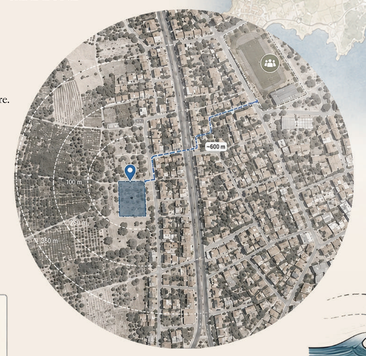
Biophilic design strengthens psychological comfort and emotional recovery by reconnecting people with nature through light, airflow, organic structures, and natural materials.

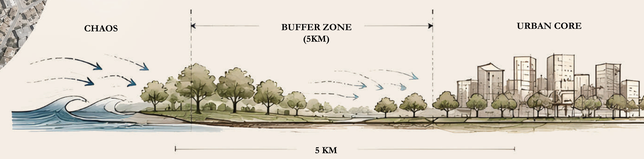
SUN PATH ANALYSIS



WIND ANALYSIS

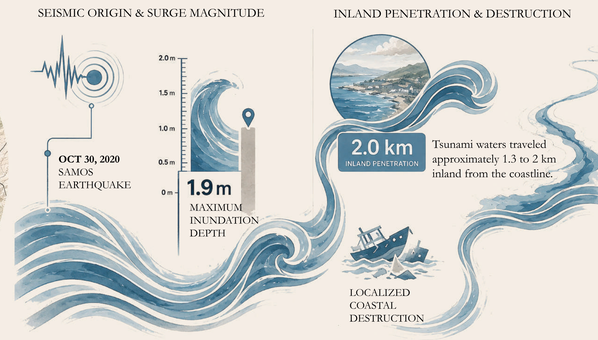


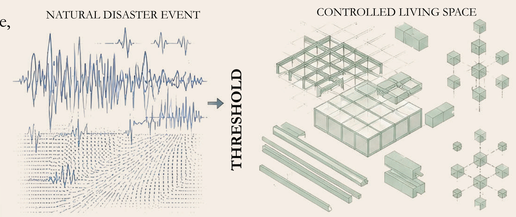




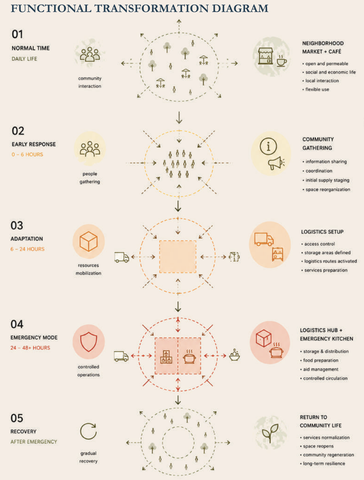
30 Oct 2020 Inundation Data

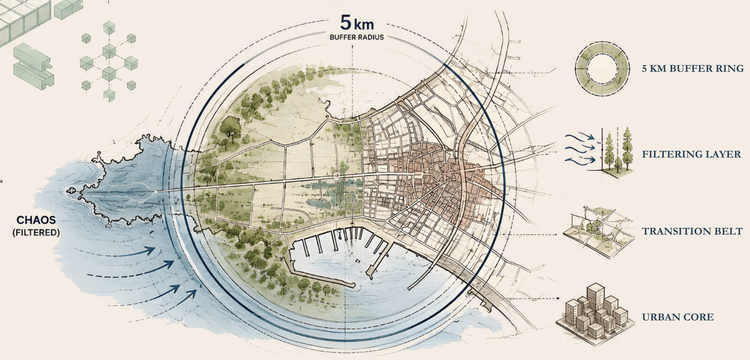
THE 2020 SEFERIHISAR TSUNAMI : IMPACT & INUNDATION





FUNCTIONAL TRANSFORMATION DIAGRAM





THRESHOLD BETWEEN PEACE & CRISIS

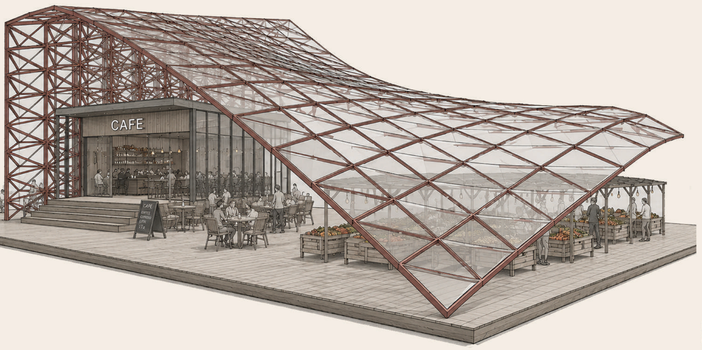
The buffer zone strategy positions the project as a resilient threshold between the dense urban fabric and potential disaster impact areas, allowing controlled transition, coordination, and emergency response. By acting as a protective and adaptable interface, the structure supports both everyday community life and rapid post-disaster activation.

WHY SEFERIHISAR?

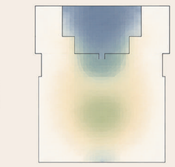
Seferihisar was selected as the project site due to its unique Cittaslow identity, strong community culture, and strategic location near major gathering and logistics networks. Its vulnerability to earthquakes and tsunami risks creates a critical need for an adaptive, rapidly transformable infrastructure that can support both daily public life and emergency response scenarios.

THE SEFERIHISAR THRESHOLD

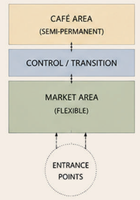
The Seferihisar Threshold is conceived as a hybrid public infrastructure that functions as a local market and café in everyday life while transforming into a logistics hub and emergency kitchen during disaster situations. The project is organized around a dynamic threshold condition, acting as a buffer zone between daily urban life and emergency response operations. Its adaptive shell system and modular components enable rapid functional transformation without interrupting the continuity of public use. By combining Cittaslow values with resilient infrastructure, the project supports both community interaction and post-disaster recovery.



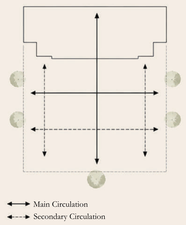
DENSITY DIAGRAM

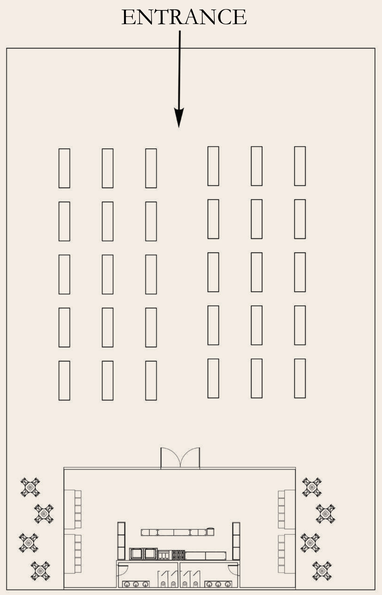


FUNCTIONAL DIAGRAM



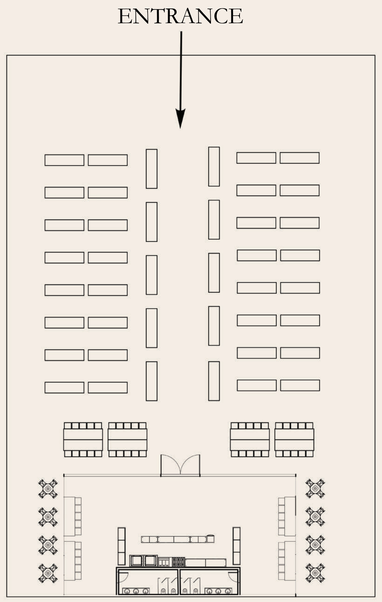
CIRCULATION DIAGRAM





PLAN 1/200

Operating as an open marketplace and café, the structure supports daily social interaction, local commerce, and community gathering within a flexible public space.

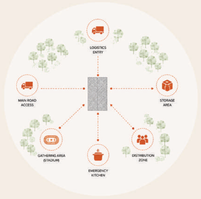


PLAN 1/200

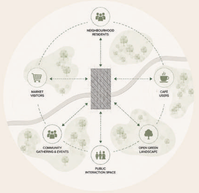
Following a disaster, the structure transforms into a logistics hub and emergency kitchen, providing coordinated storage, distribution, and relief support for the affected community.

BUFFER ZONE STRATEGY

LOGISTIC ACCESS

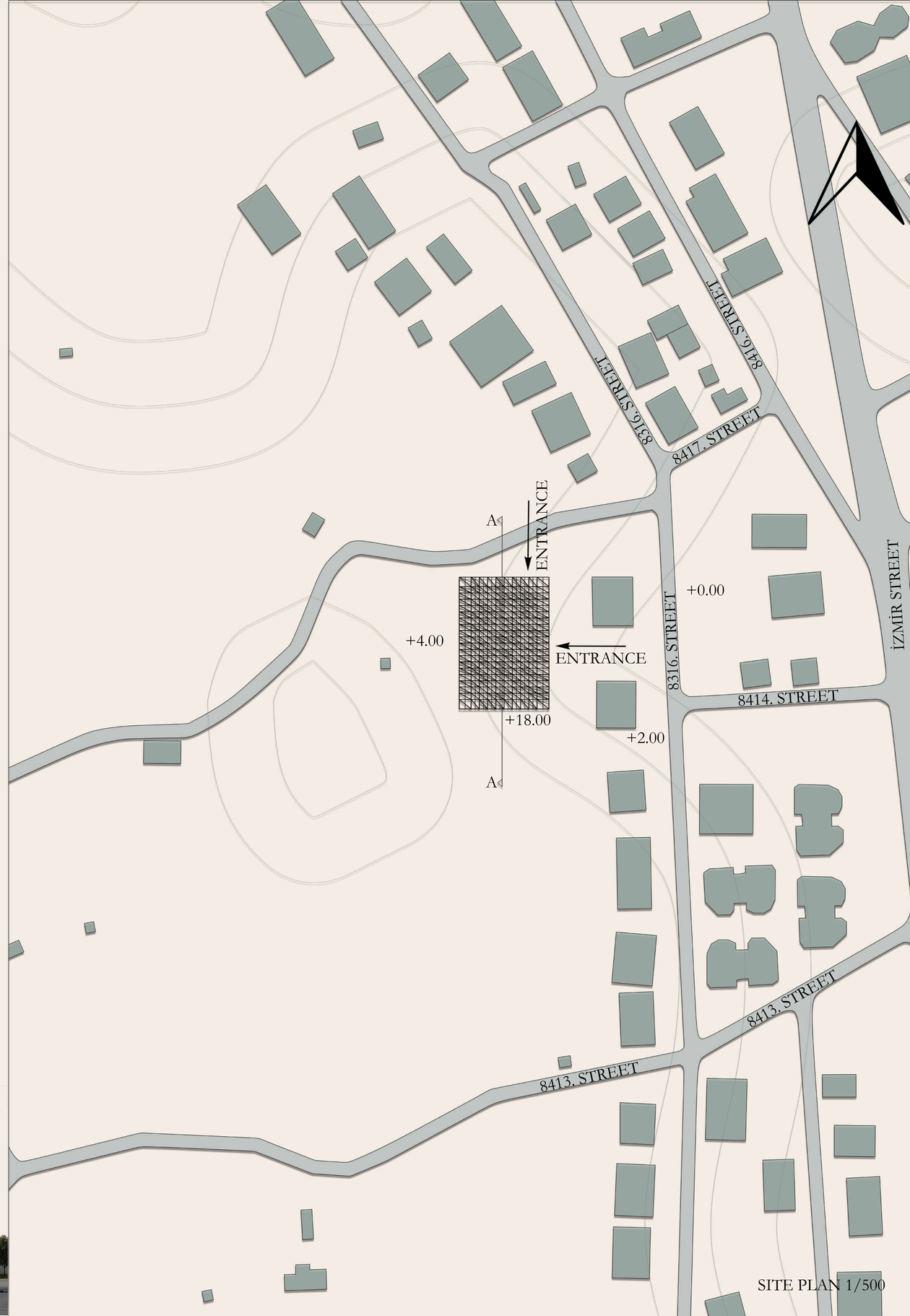


COMMUNITY FLOW



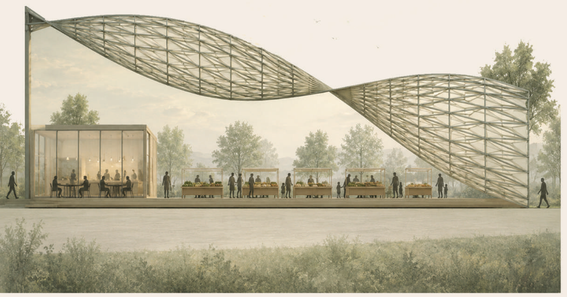
NORMAL MODE: LOCAL MARKET/CAF**E**

DURING A DISASTER: LOGISTICS WAREHOUSE/ SOUP KITCHEN

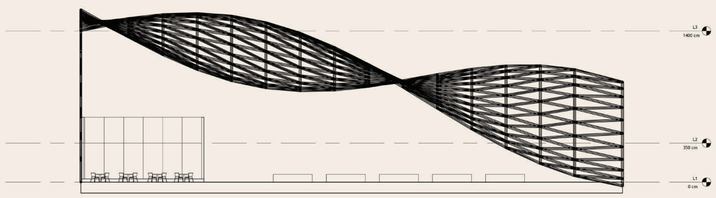


SITE PLAN 1/500

THE SEFERIHISAR THRESHOLD

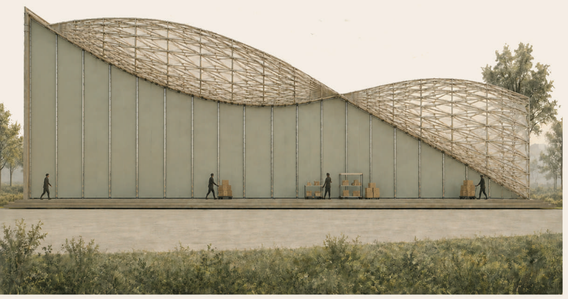


NORMAL MODE:

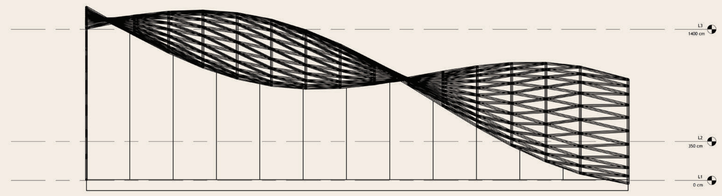


EAST ELEVATION 1/200

The flowing triangular shell creates a shaded public space that supports daily social interaction, local commerce, and community gathering. Its open and permeable configuration integrates the market and café with the surrounding urban fabric while maintaining a strong visual identity.



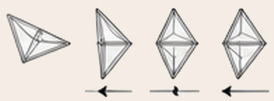
DURING A DISASTER:



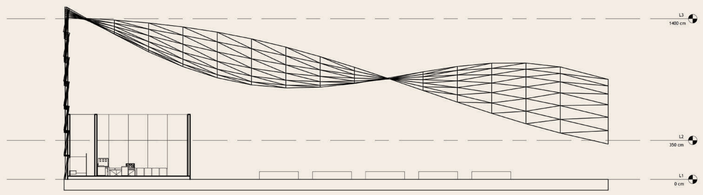
EAST ELEVATION 1/200

Through adaptive sliding enclosure panels, the open marketplace transforms into a protected logistics and emergency support hub. The same structural shell remains active while accommodating storage, distribution, and community relief functions during post-disaster operations.

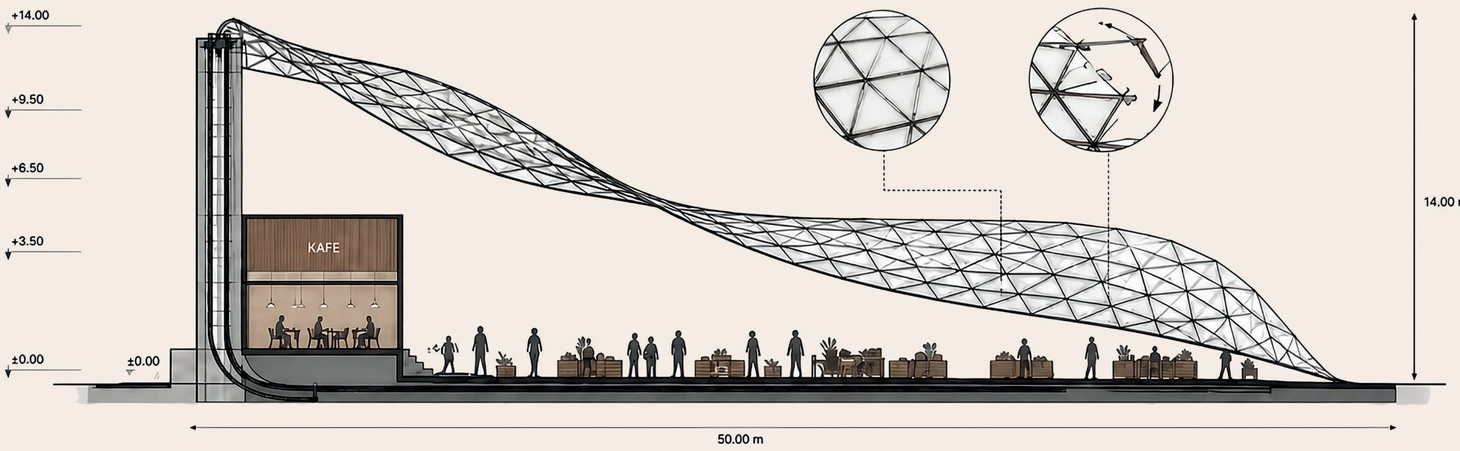
TRIANGULAR PANEL SYSTEM



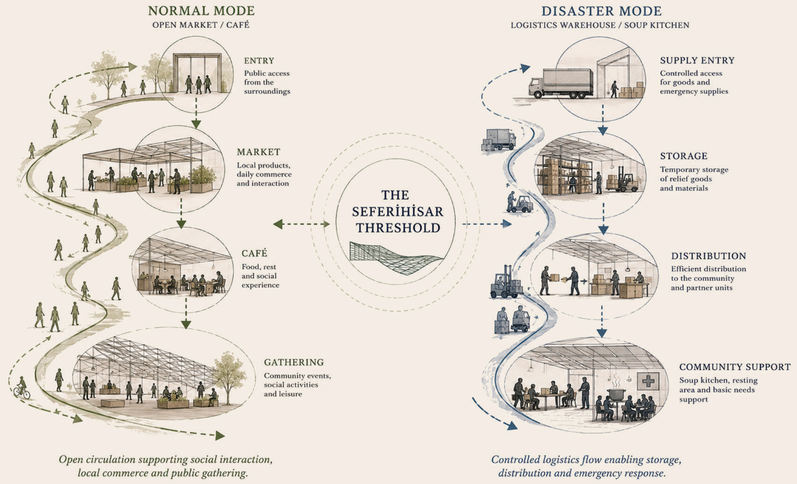
CRUST FORMATION DIAGRAM



A-A SECTION 1/200



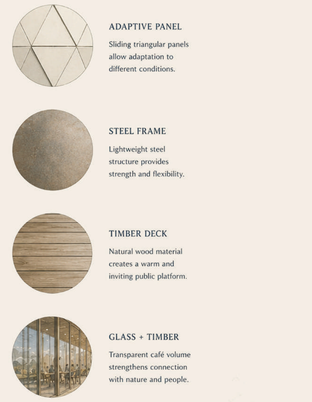
USER FLOW TRANSFORMATION



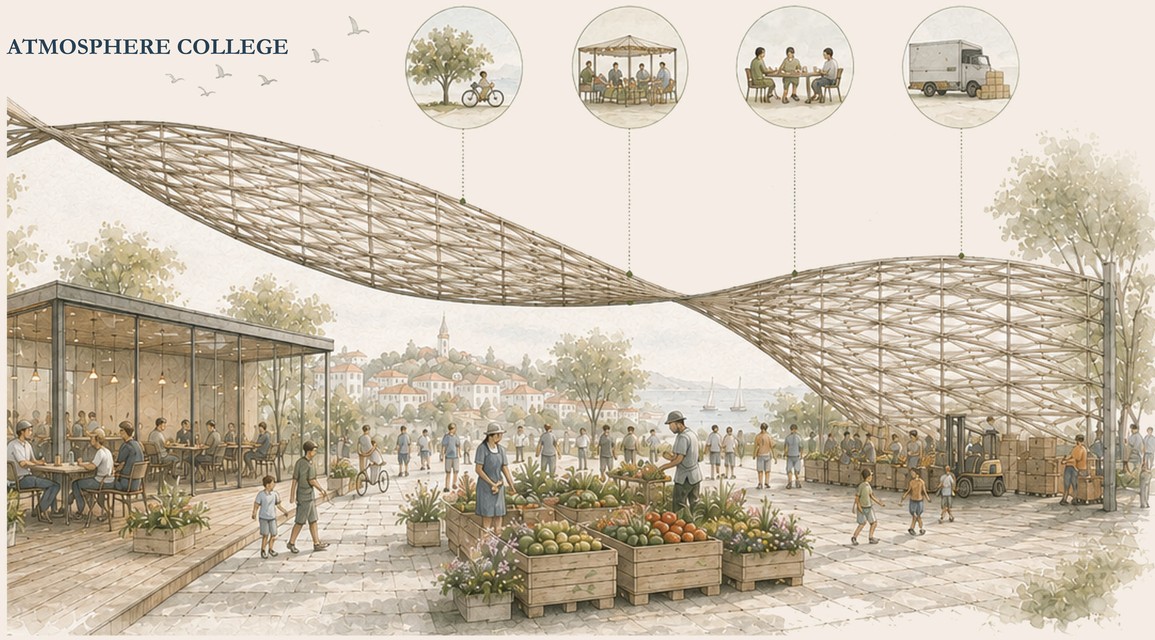
Open circulation supporting social interaction, local commerce and public gathering.

Controlled logistics flow enabling storage, distribution and emergency response.

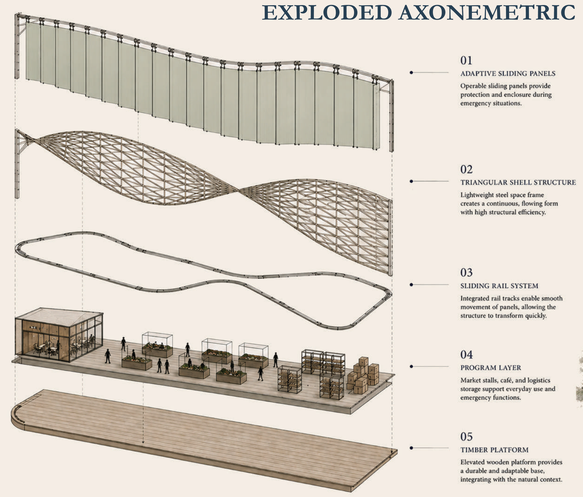
ADAPTIVE MATERIAL PALETTE



ATMOSPHERE COLLEGE



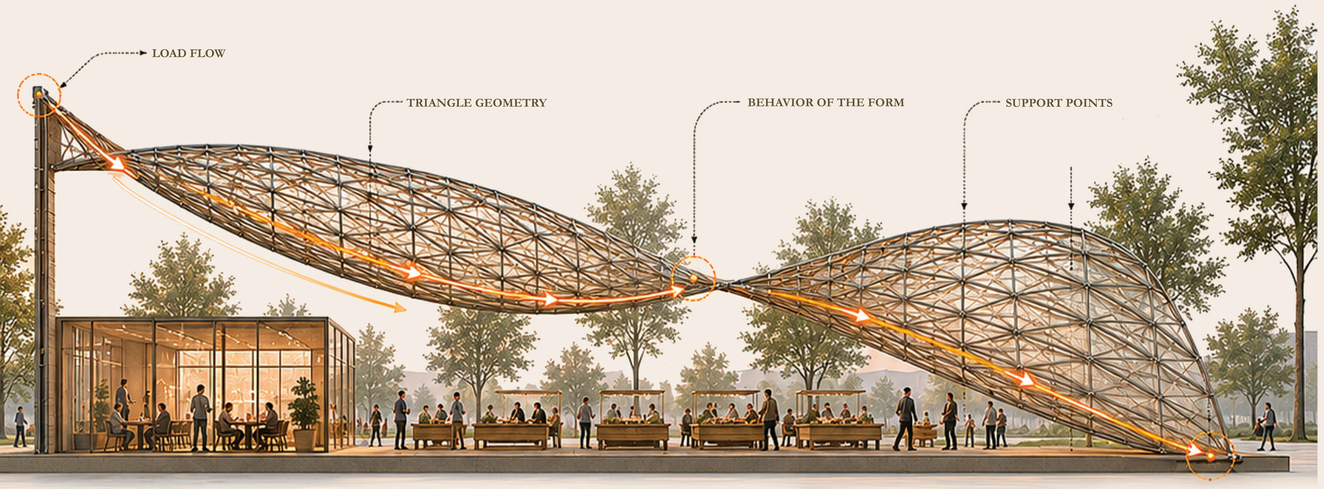
EXPLODED AXONEMETRIC

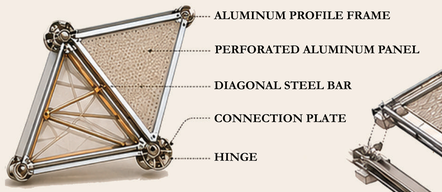


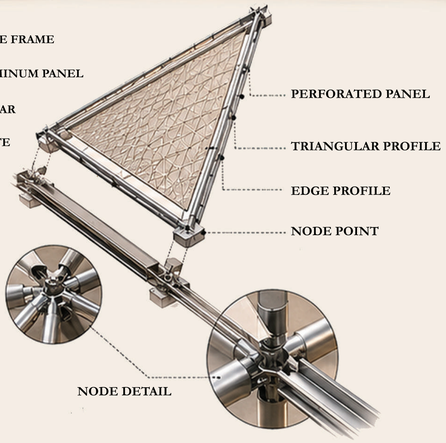
The Seferihisar Threshold is a flexible community hub designed to accommodate both everyday activities and post-disaster operations. Its adaptive shell structure enables a seamless transformation from a local market and café into a logistics and support center, strengthening resilience while preserving public life and local identity.

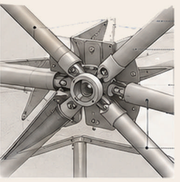
THE SEFERIHISAR THRESHOLD

ROTATING TRIANGULAR PANEL SYSTEM - WORKING PRINCIPLE

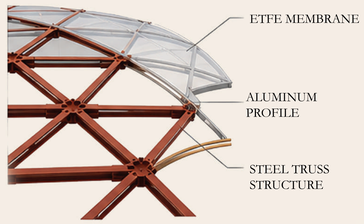


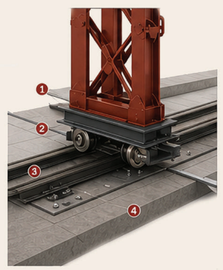






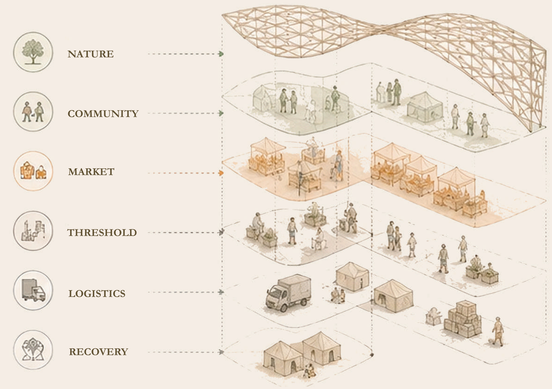
The adaptive triangular shell system is composed of modular panels integrated into a lightweight steel lattice structure. Each triangular panel is connected to a rail-guided mechanism, allowing the envelope to open or close in response to environmental conditions and operational needs. During normal use, the shell provides shading, daylight control, and natural ventilation for the market and café. In emergency scenarios, the panels activate and the enclosure transforms into a protected logistics and community support hub while maintaining structural stability and rapid deployability.





1 STEEL RAIL

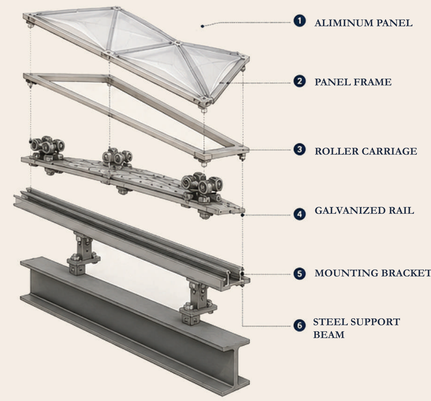
2 WAGON SYSTEM



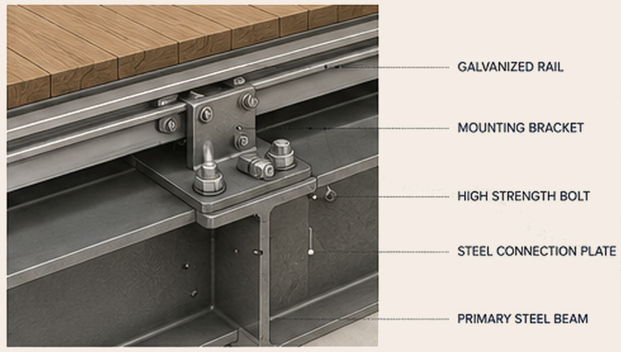
Adaptive Rail System the enclosure panels operate through a rail-guided mechanism integrated into the primary steel structure. Each lightweight panel is mounted on roller carriages that move along galvanized steel tracks, enabling smooth and controlled linear motion. During normal operation, the panels remain retracted to maintain an open and permeable public space. In emergency scenarios, the panels slide along the rails and lock into position, transforming the structure into a protected enclosure for logistics, storage, and community support functions. This system allows rapid spatial adaptation while preserving structural stability and operational efficiency.

RAIL SYSTEM - WORKING PRINCIPLE

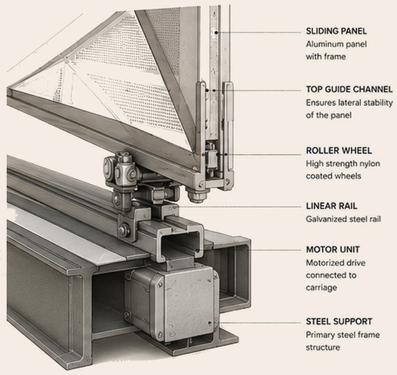
RAIL SYSTEM EXPLODED AXONOMETRIC



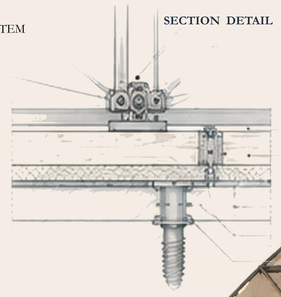
RAIL CONNECTION TO STRUCTURE



RAIL MECHANISM SECTION DETAIL



SECTION DETAIL



ETFE MEMBRANE | ALIMINUM PROFILE | STEEL STRUCTURE | WOOD DECK | STEEL GRID | STEEL SUPPORT

USER FLOW DIAGRAM

NORMAL MODE: LOCAL MARKET / CAFE

In daily life, the space functions as an open and inviting public area that encourages social interaction, local economy and community activities.

01 ENTRY
Visitors enter the open public space from all sides.

02 MARKET
Local products are displayed and sold in the market area.

03 CAFE / SEATING
People gather, relax and enjoy food and beverages.

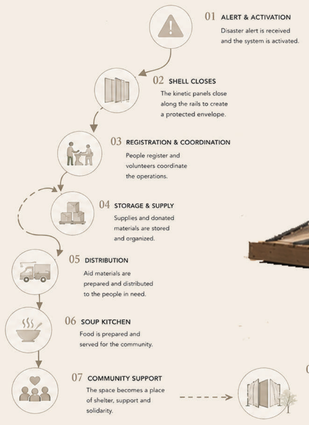
04 EVENTS / WORKSHOPS
The space hosts events, workshops and cultural gatherings.

05 OPEN SPACE
Users freely move, interact and enjoy the open atmosphere.

06 EXIT
Visitors exit the space from any direction.

EMERGENCY FLOW DIAGRAM

DISASTER MODE: LOGISTICS WAREHOUSE / SOUP KITCHEN



01 ALERT & ACTIVATION
Disaster alert is received and the system is activated.

02 SHELL CLOSES
The kinetic panels close along the rails to create a protected envelope.

03 REGISTRATION & COORDINATION
People register and volunteers coordinate the operations.

04 STORAGE & SUPPLY
Supplies and donated materials are stored and organized.

05 DISTRIBUTION
Aid materials are prepared and distributed to the people in need.

06 SOUP KITCHEN
Food is prepared and served for the community.

07 COMMUNITY SUPPORT
The space becomes a place of shelter, support and solidarity.

08 RECOVERY & REOPEN
When the situation improves, the shell opens and normal life resumes.