

FLOATING PHANTASM

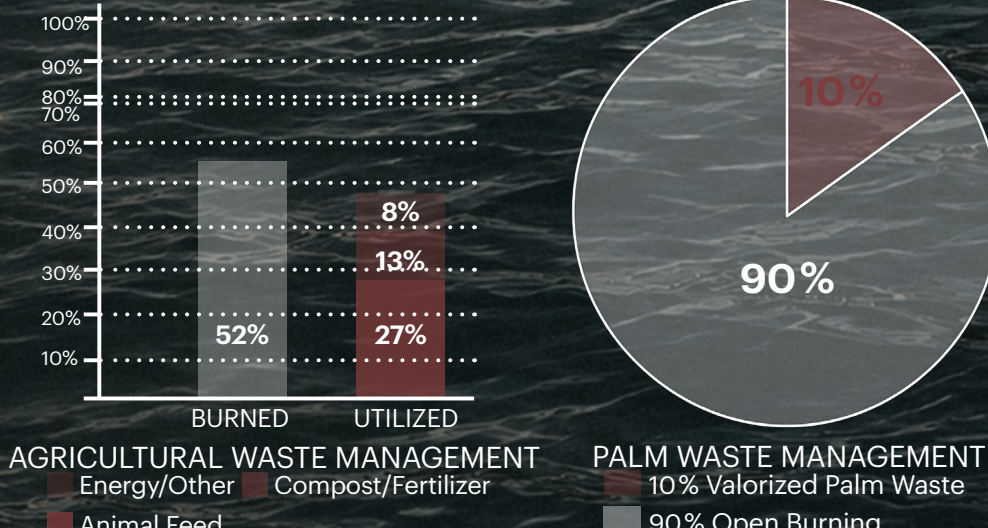
A CULTURAL PRODUCTION HUB - "A CONSTELLATION OF MEMORY CAPSULES UNFOLDING RASHID'S LAYERED HERITAGE."



PROBLEM STATEMENT

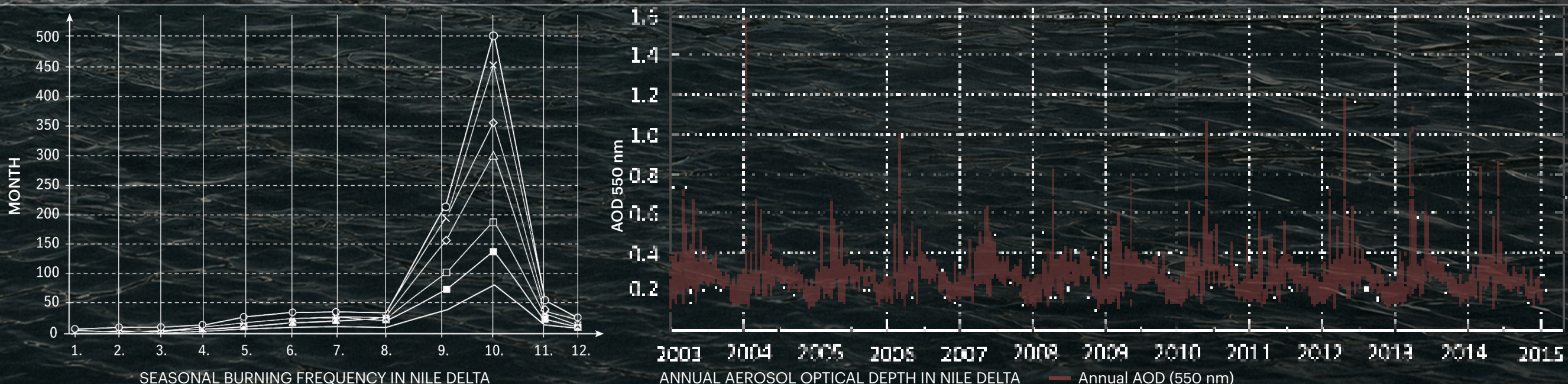
RASHID FACES ENVIRONMENTAL AND SOCIO-ECONOMIC CHALLENGES DUE TO THE MISMANAGEMENT OF PALM RESIDUES AND THE DECLINE OF TRADITIONAL PALM-FROND CRAFTS. THE WIDESPREAD PRACTICE OF OPEN BURNING GENERATES HARMFUL EMISSIONS THAT DEGRADE AIR QUALITY, WHILE THE LOSS OF LOCAL CRAFTSMANSHIP THREATENS CULTURAL HERITAGE AND ECONOMIC VITALITY. THESE ISSUES HIGHLIGHT THE NEED FOR SUSTAINABLE SOLUTIONS THAT TRANSFORM PALM WASTE INTO VALUABLE RESOURCES WHILE PRESERVING TRADITIONAL CRAFTS.

STATISTICS



SEASONAL BURNING

SATELLITE OBSERVATIONS ACROSS THE NILE DELTA REVEAL RECURRING SEASONAL PEAKS IN FIRE ACTIVITY AND AEROSOL CONCENTRATIONS DURING THE AUTUMN MONTHS, PARTICULARLY IN SEPTEMBER AND OCTOBER. THESE TRENDS ARE CLOSELY ASSOCIATED WITH THE OPEN BURNING OF AGRICULTURAL RESIDUES, A PRACTICE THAT CONTRIBUTES SIGNIFICANTLY TO AIR POLLUTION AND DECLINING ENVIRONMENTAL QUALITY. IN RASHID, THE IMPROPER DISPOSAL OF PALM WASTE REFLECTS THIS BROADER REGIONAL CHALLENGE.

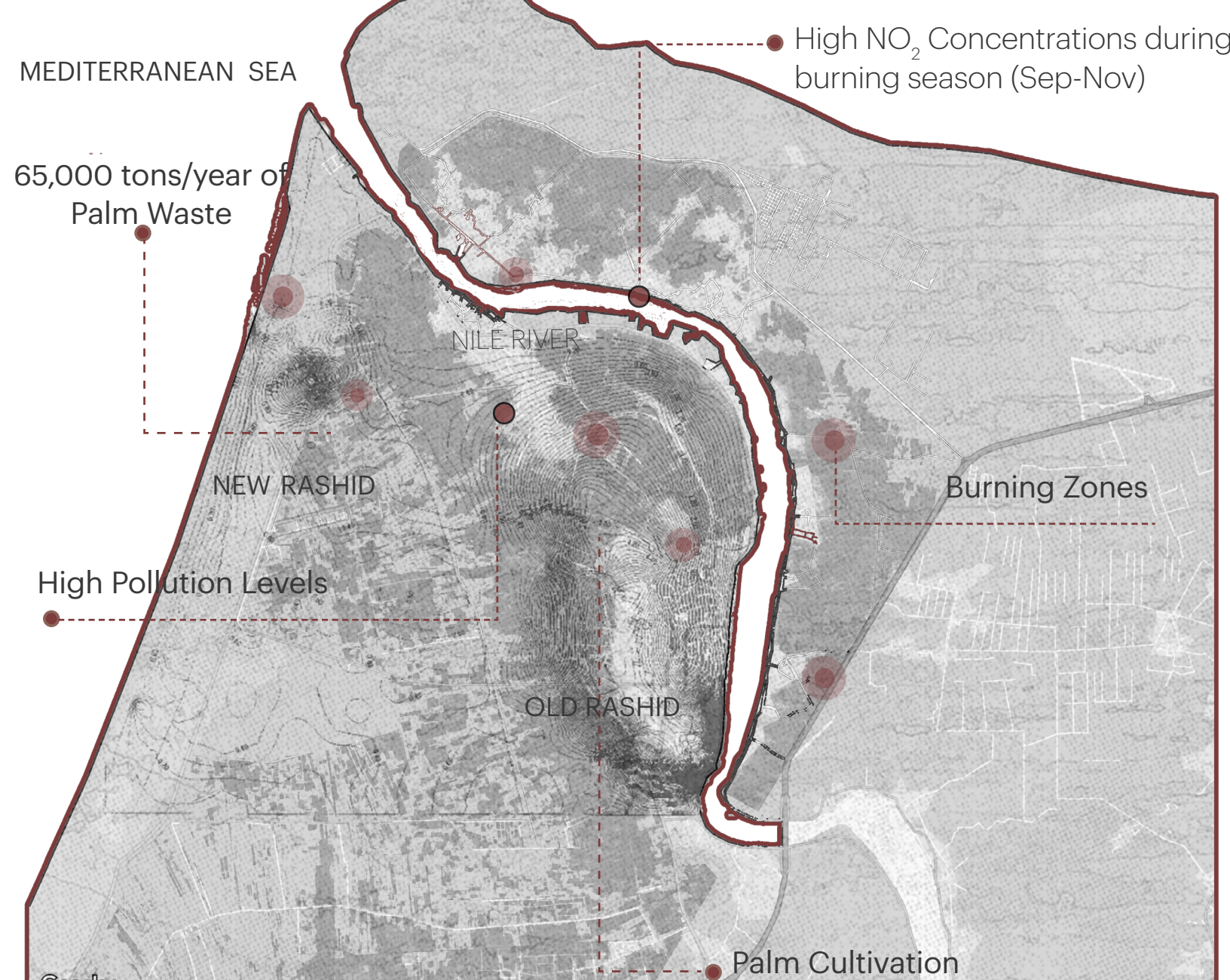


CONCEPT STATEMENT

THE PROJECT PROPOSES A CULTURAL PRODUCTION HUB THAT TRANSFORMS PALM WASTE INTO A REGENERATIVE MATERIAL SYSTEM, ACTIVATING TRADITIONAL PALM-FROND CRAFT PRACTICES THROUGH A CONTINUOUS SPATIAL SEQUENCE OF PRODUCTION, FABRICATION, AND EXHIBITION. THIS PROCESS-DRIVEN ENVIRONMENT REVEALS THE TRANSFORMATION OF PALM RESIDUES INTO CRAFTED PRODUCTS, REINFORCING THE RELATIONSHIP BETWEEN RESOURCE CYCLES AND CRAFT TRADITIONS, WHILE ALLOWING VISITORS TO ENGAGE WITH MATERIAL PROCESSES AND CRAFT KNOWLEDGE.

SITE LOCATION AND CHALLENGES

NEW RASHID, EGYPT



Rashid is estimated to generate 65,000 tons of palm waste and 20,000 tons of CO₂ emissions annually, of which up to 90% is likely burned due to limited waste management infrastructure.

EVOLUTION OF PALM-FROND CRAFTS IN RASHID

PALM AS A DAILY RESOURCE
Palm fronds were once a primary resource for building materials and storage containers, forming an integral part of everyday life.

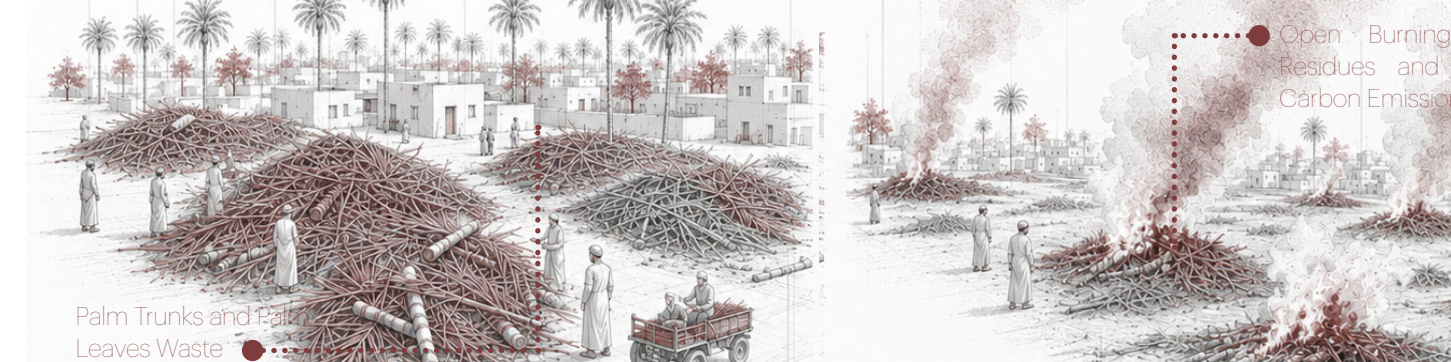


PALM AS A DAILY RESOURCE
Palm fronds were once a primary resource for building materials and storage containers, forming an integral part of everyday life.

A LIVING CULTURAL HERITAGE
For generations, families passed down the skills and knowledge of palm frond crafts, making them an important expression of identity and collective memory.

PROBLEM VISUALIZATION

1. PALM WASTE ACCUMULATION



2. BURNING SEASON



3. AIR QUALITY DEGRADATION AND SMOG ACCUMULATION



4. PALM CRAFT REVIVAL



Thick smog drifting toward Rashid's urban fabric and agricultural landscape, reduced visibility and air quality, posing health risks and hindering economic development.

SUSTAINABILITY IMPACT AND SDG CONTRIBUTION

9. AFFORDABLE AND CLEAN ENERGY

By reducing coal-fired power generation and promoting renewable energy, the project contributes to climate mitigation.

12. RESPONSIBLE CONSUMPTION AND PRODUCTION

Transforming discarded palm waste into useful products promotes circular economy principles, reduces waste burning, and supports local entrepreneurship.

13. CLIMATE ACTION

By reducing coal-fired power generation and promoting renewable energy, the project contributes to climate mitigation.

15. LIFE ON LAND

The project supports healthier land ecosystems by managing agricultural waste pollution, promoting responsible land use, and creating green spaces for community engagement.

PALM WASTE TRANSFORMATION SYSTEM

1. COLLECTION

The process begins with collecting palm waste generated from seasonal pruning and agricultural activities in Rashid's palm groves. These materials are collected, creating the raw material base for the transformation process.

2. SORTING

Collected palm waste is sorted into fronds, fibers, and trunk sections, then cleaned, dried, and stored according to material type. This preparation stage creates organized material streams ready for processing and fabrication.

3. RESEARCH AND PROTOTYPING

Palm materials are tested and refined through experimental prototyping to evaluate their performance in different applications. This phase ensures the materials are validated and improved before moving into full production.

4. MATERIAL PROCESSING

Palm materials are processed according to their application, with fibers prepared for weaving, fronds pressed into composites, and trunk sections milled and shaped into structural components. This stage produces semi-processed materials ready for final fabrication.

5. PRODUCTION AND FABRICATION

Palm materials are transformed into handcrafted products such as mats, baskets, and furniture. Within the museum galleries and educational spaces, the history of palm crafts is showcased, highlighting their role in shaping local life.

6. CULTURAL INTERPRETATION

Through hands-on demonstrations, they preserve and transmit intangible heritage as a living cultural memory.

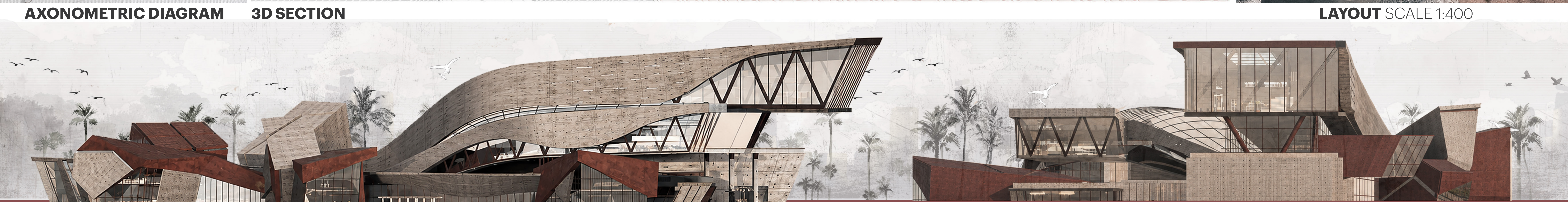
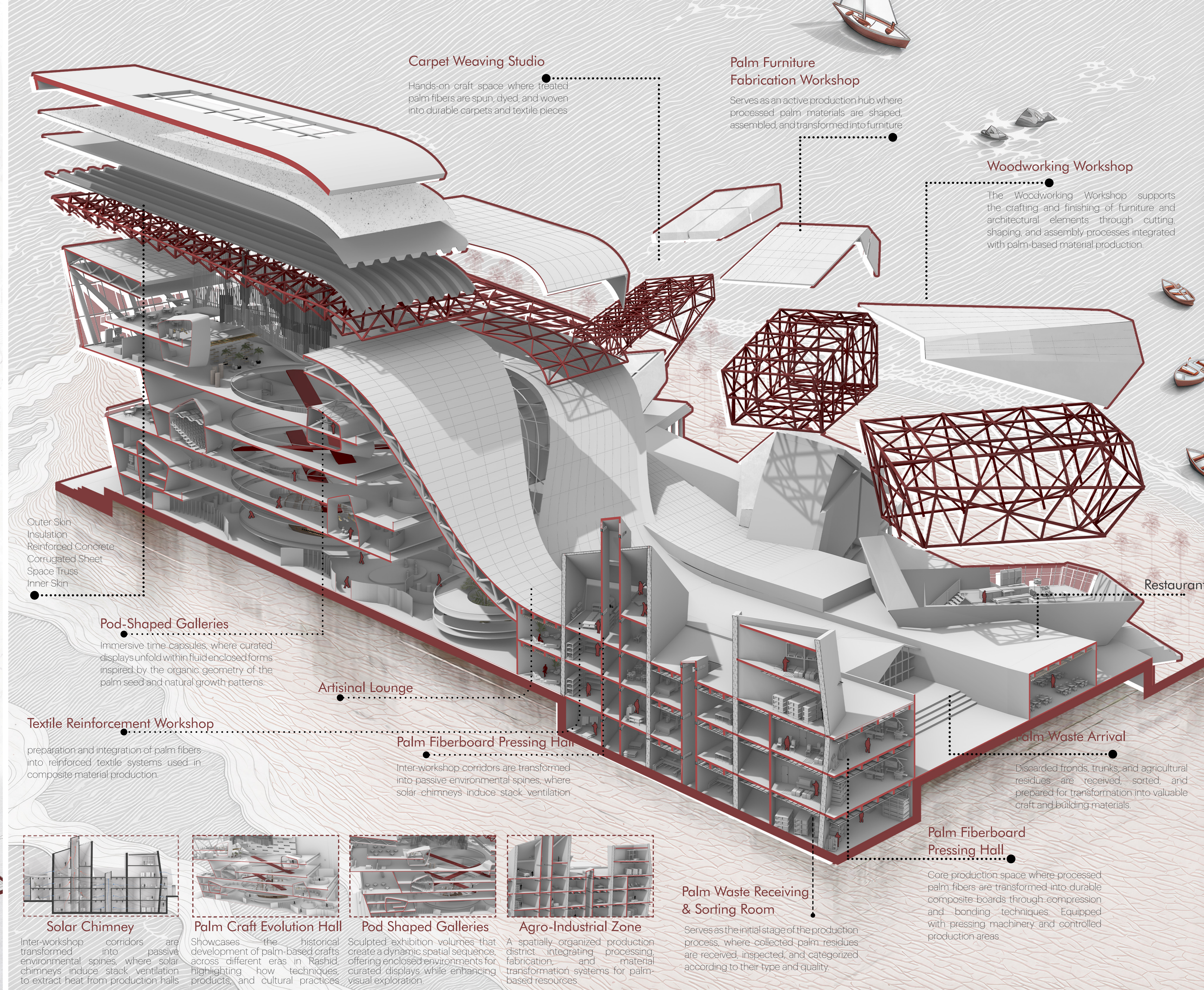
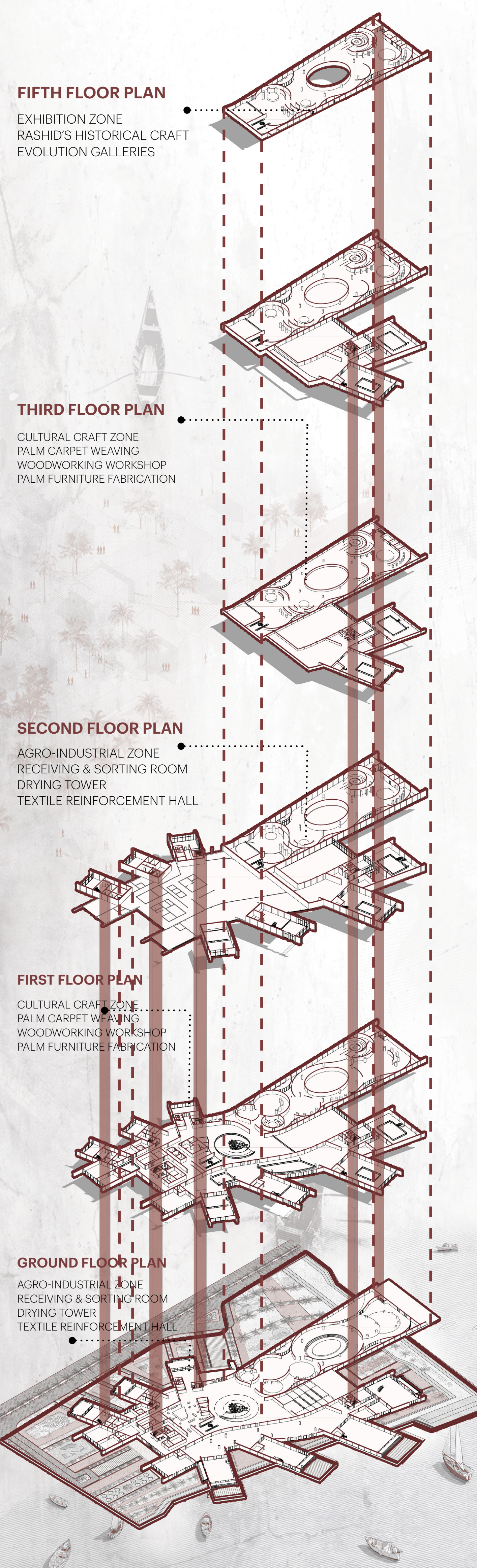


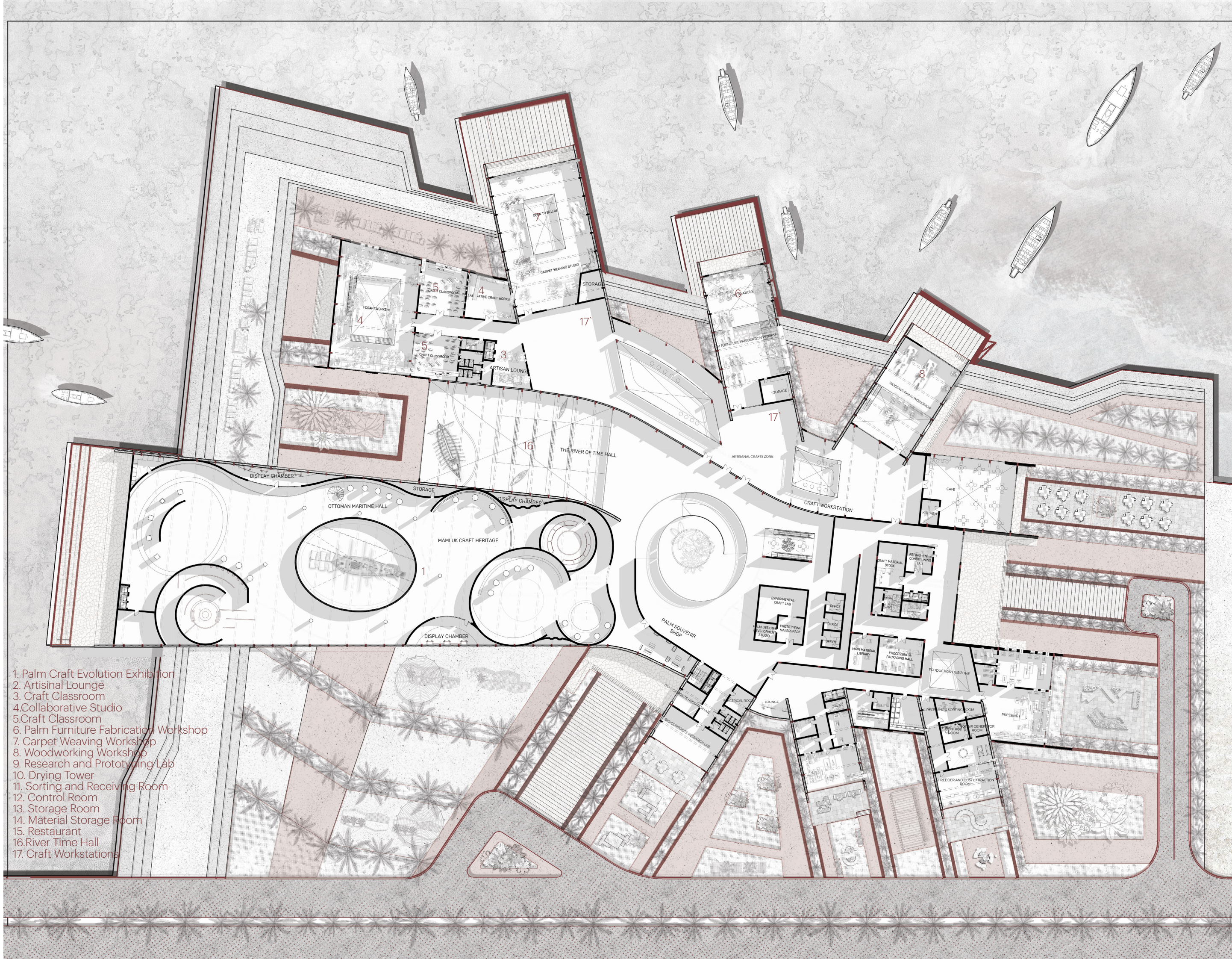
FORM GENERATION



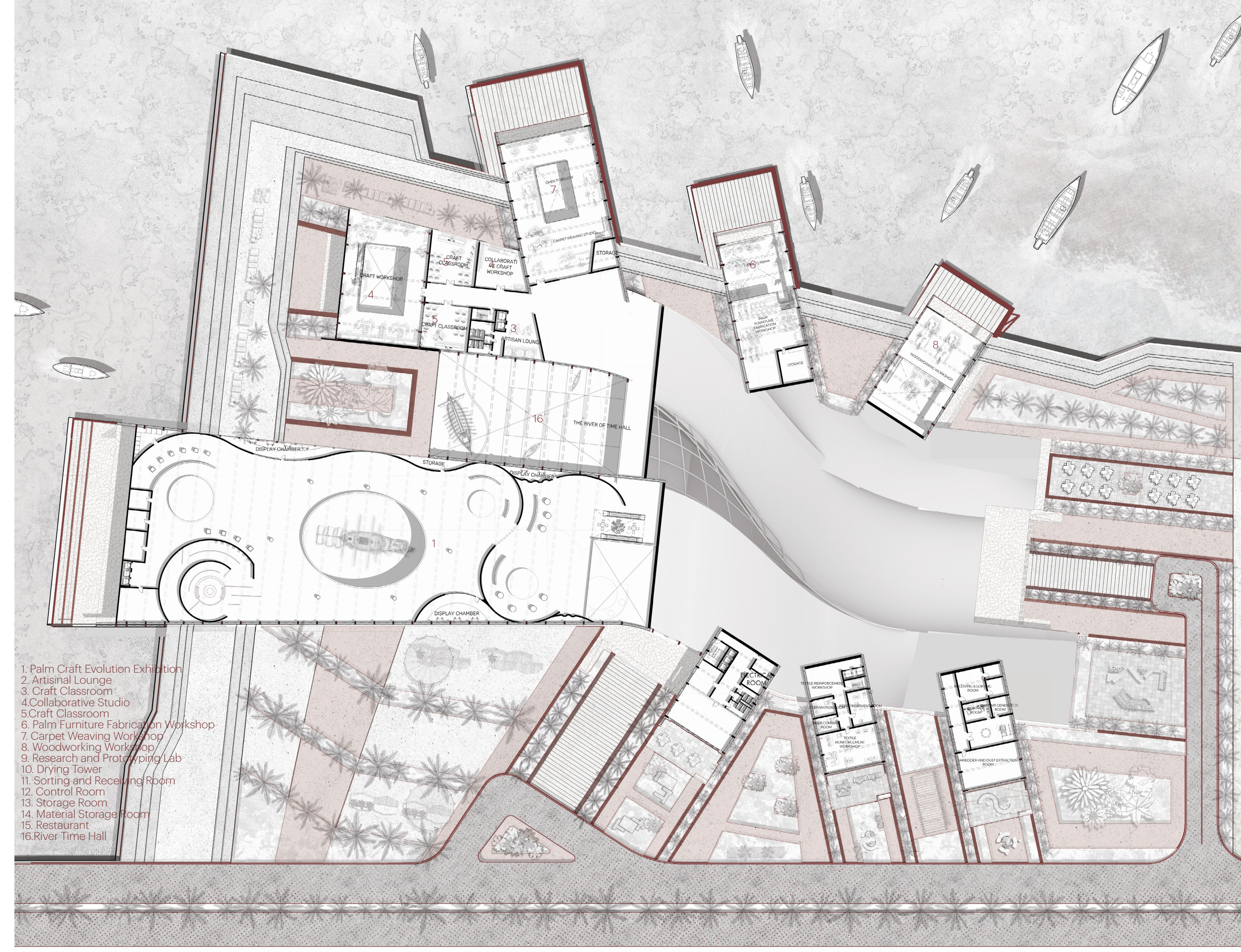
1. BASE VOLUME IN A FLAT SITE PLOT 2. SPITTING THE VOLUME FOR DYNAMIC FLOW 3. VERTICAL LIFT AND CURVE FOR PROGRAMMIC HIERARCHY 4. TERRACING FOR BETTER WATERFRONT VIEWS 5. PROGRAMMATIC CLUSTERS ANCHORING THE COMPOSITION 6. FINAL FORM AND SPATIAL ARTICULATION

GROUND FLOOR PLAN SCALE 1:200





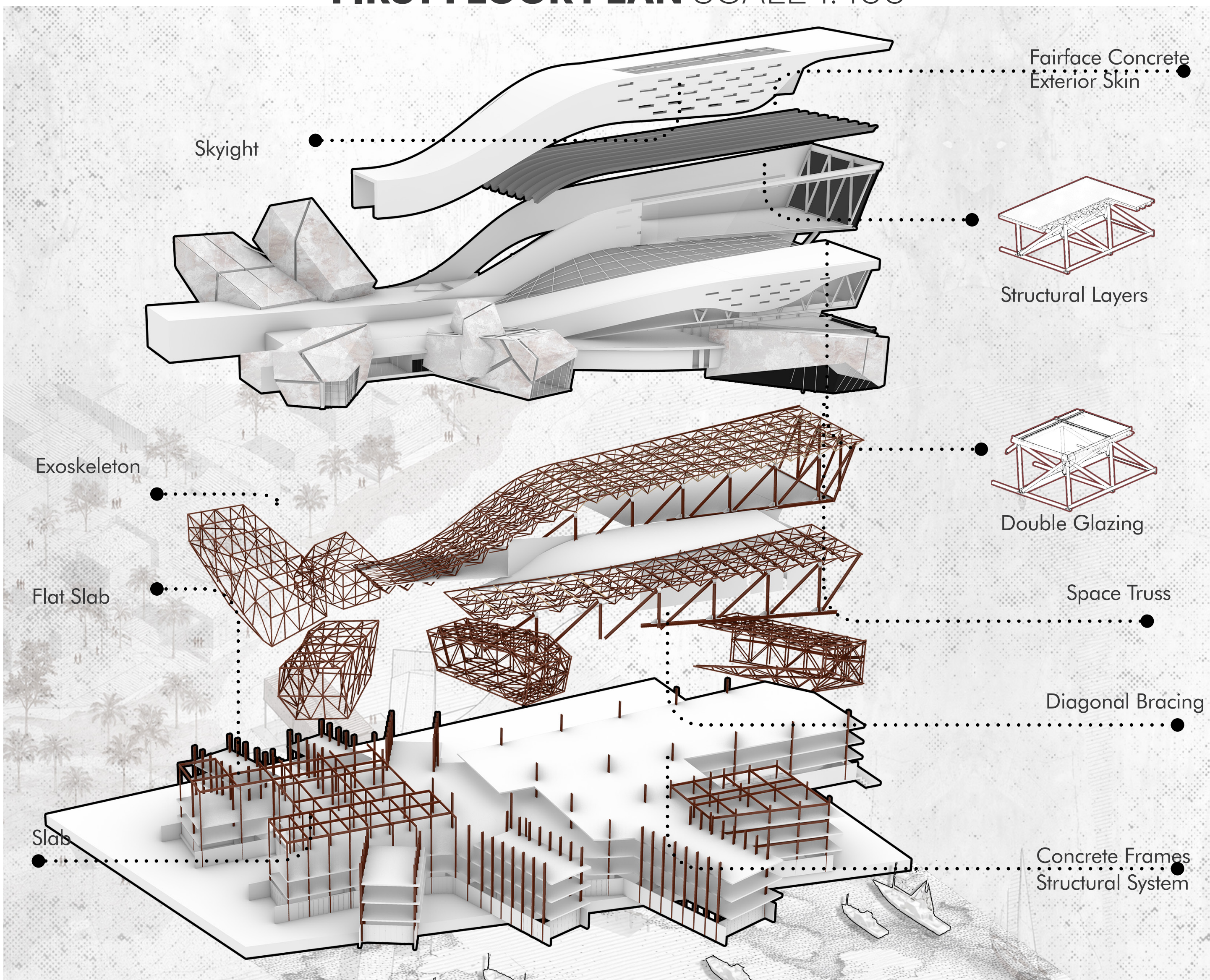
FIRST FLOOR PLAN SCALE 1:400



SECOND FLOOR PLAN SCALE 1:400



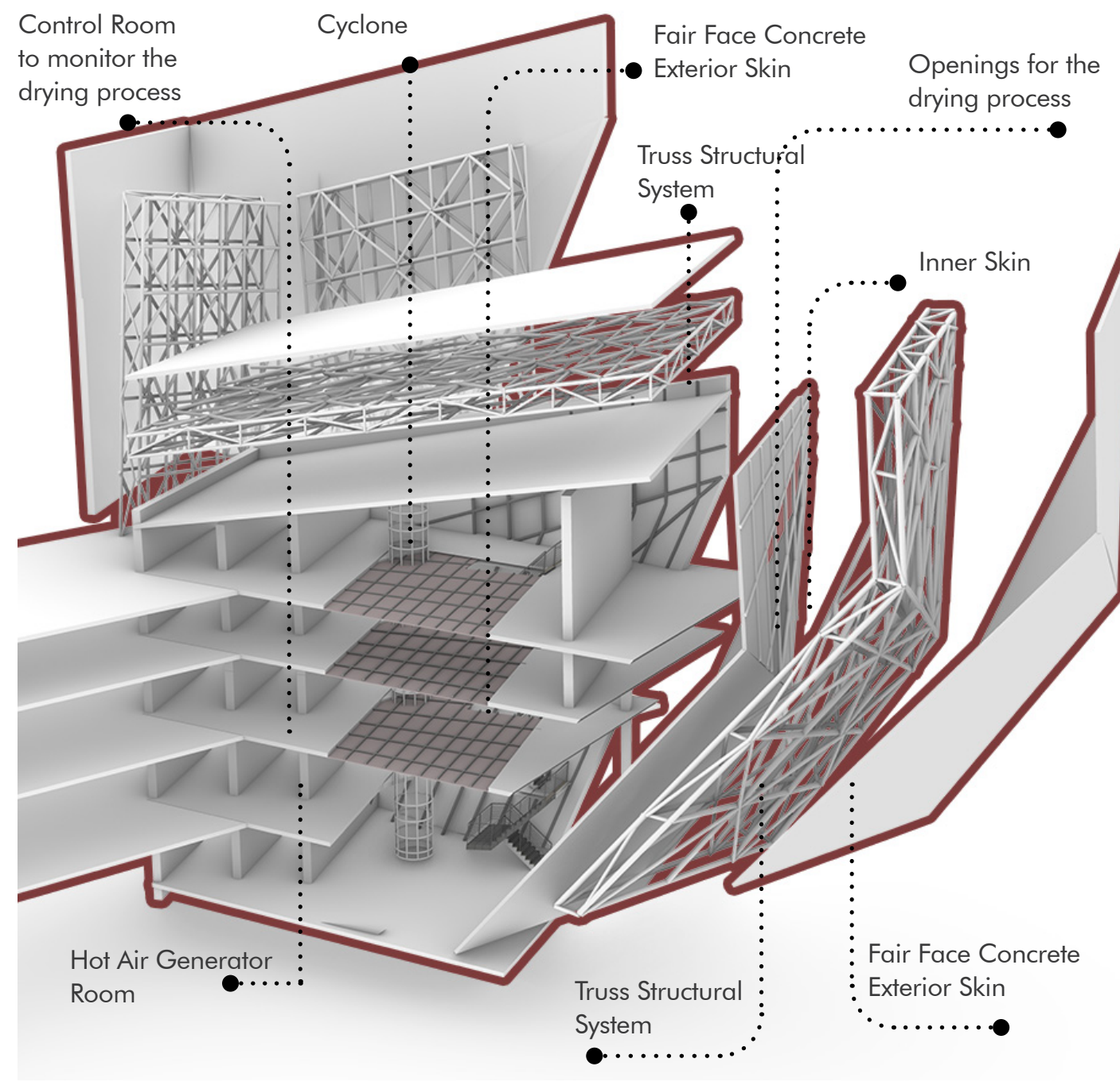
EXTERIOR SHOT



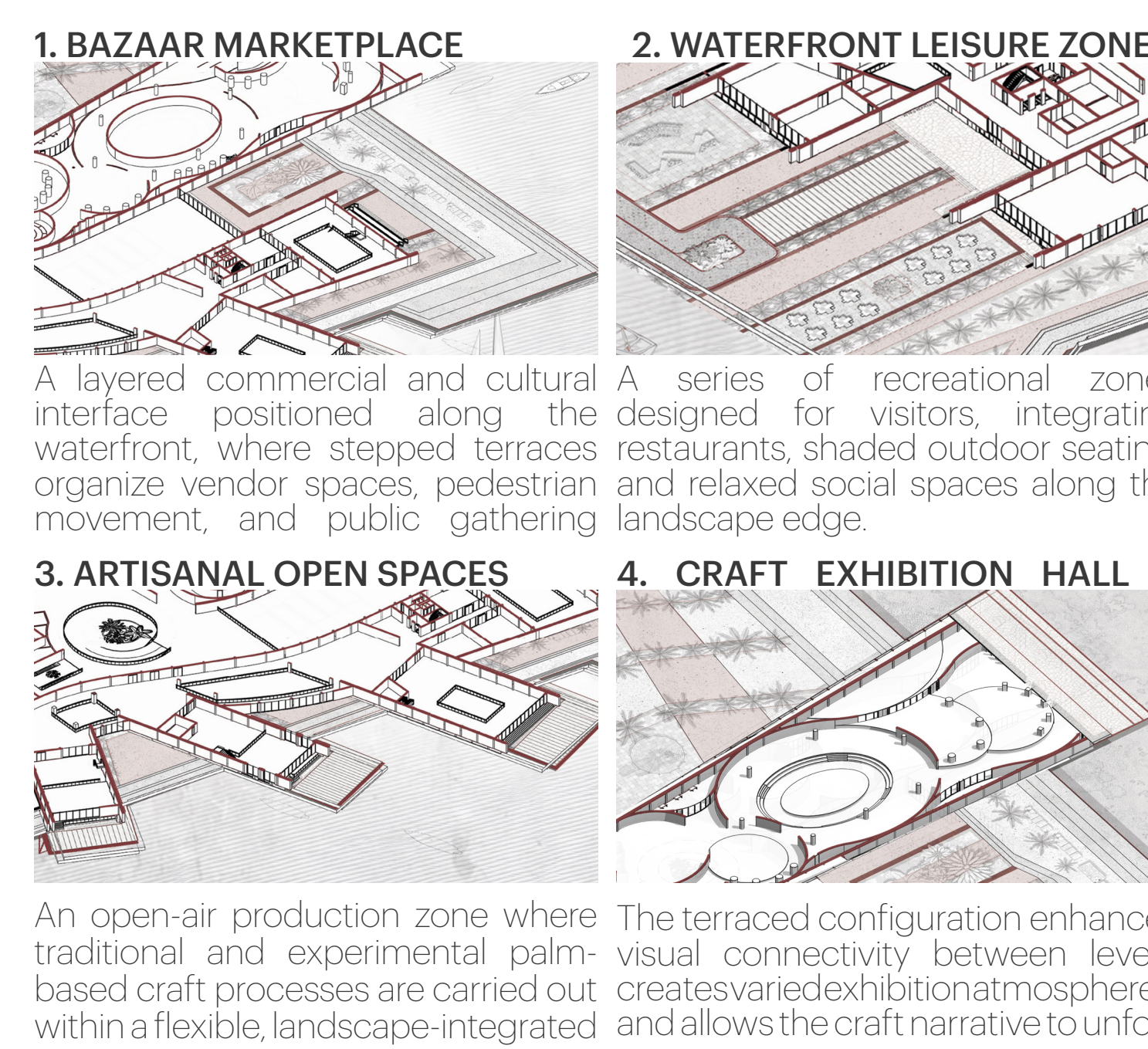
STRUCTURE SYSTEM



USER EXPERIENCE IN THE MUSEUM



PALM WASTE DRYING STACK



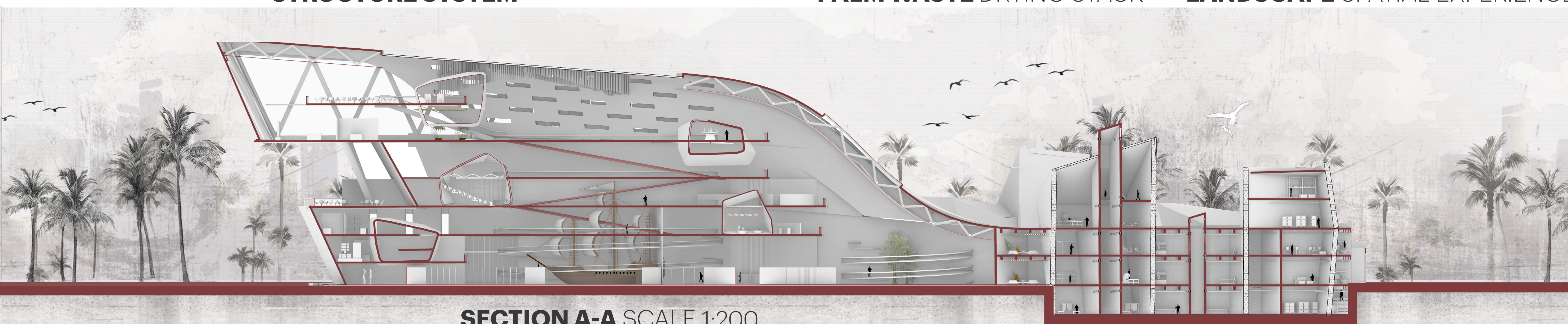
LANDSCAPE SPATIAL EXPERIENCE



INTERIOR SHOT



THE RIVER OF TIME HALL



SECTION A-A SCALE 1:200

