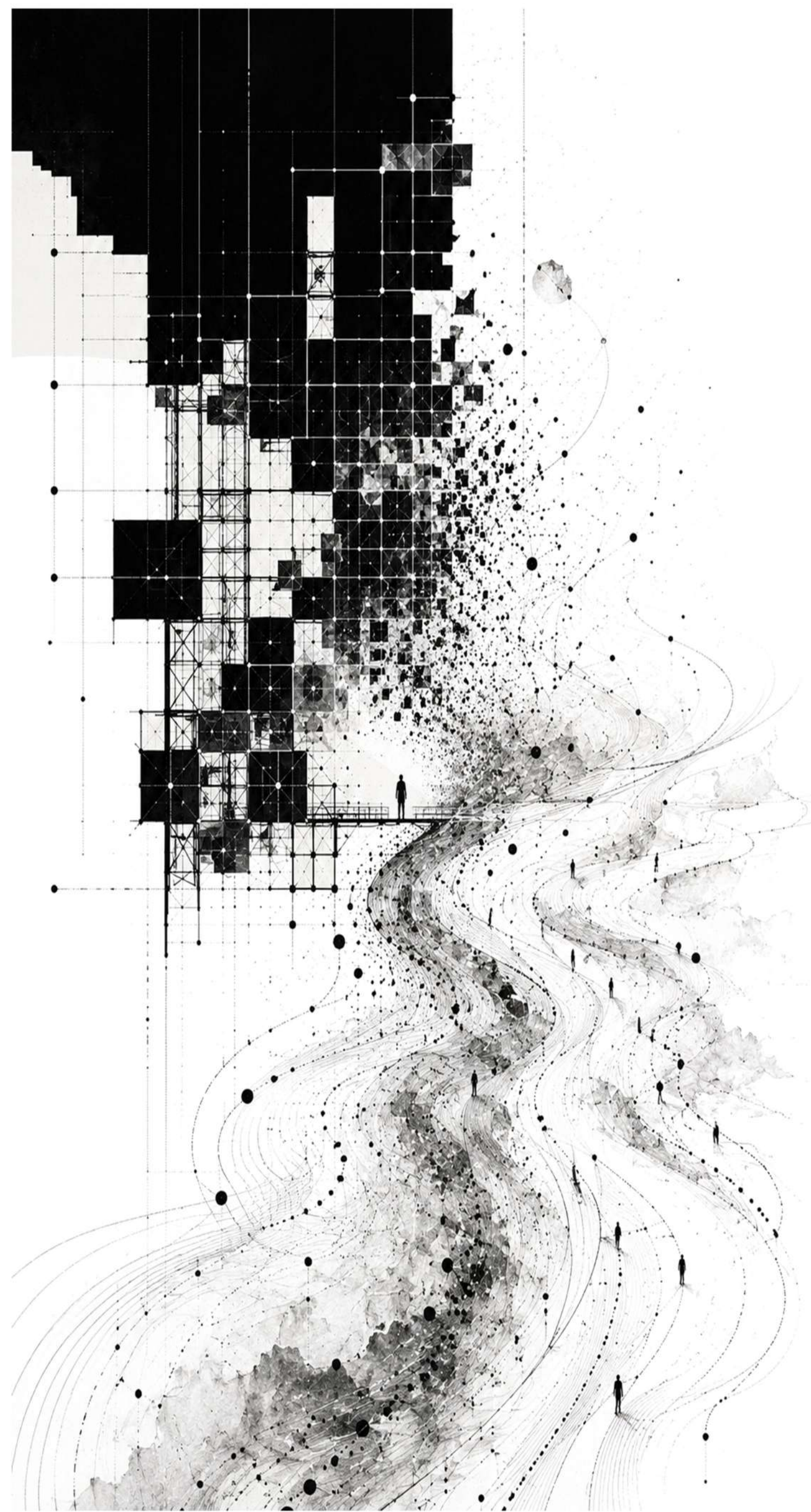


The Journey

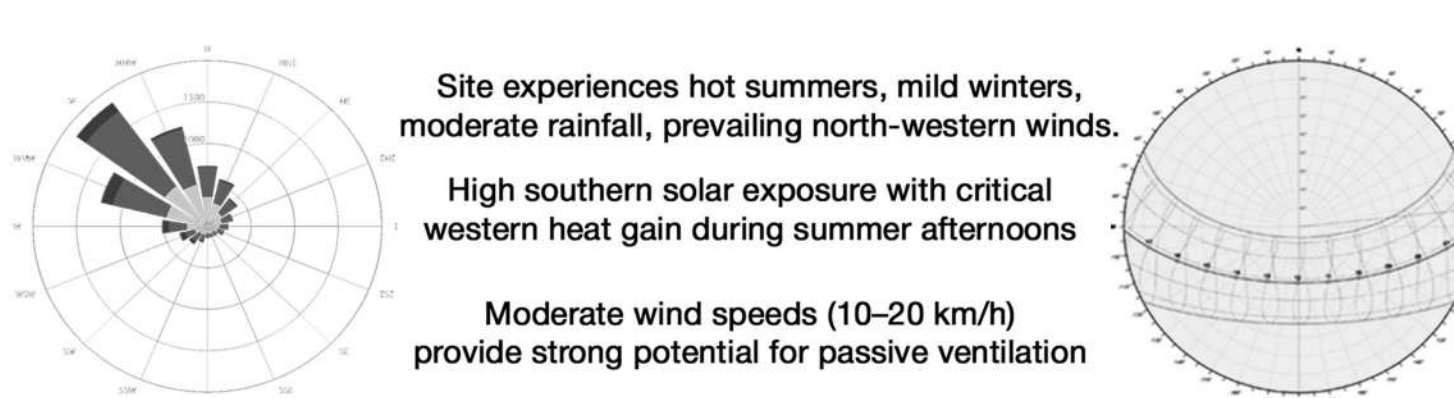
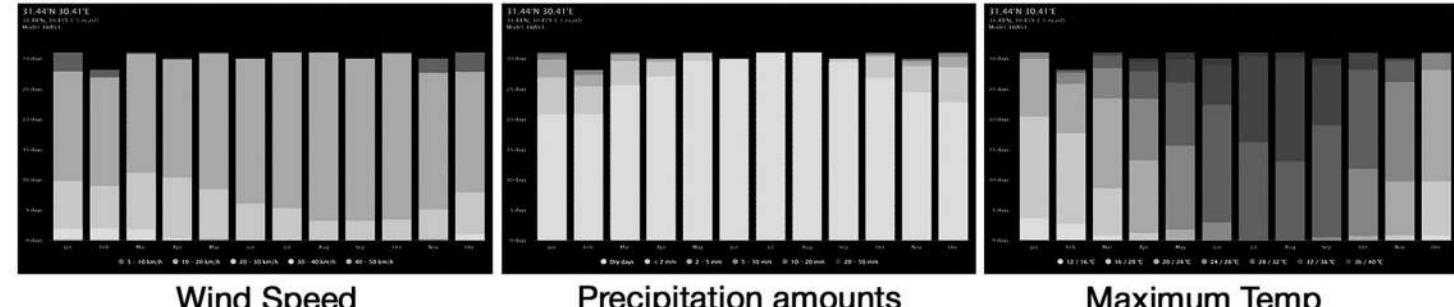
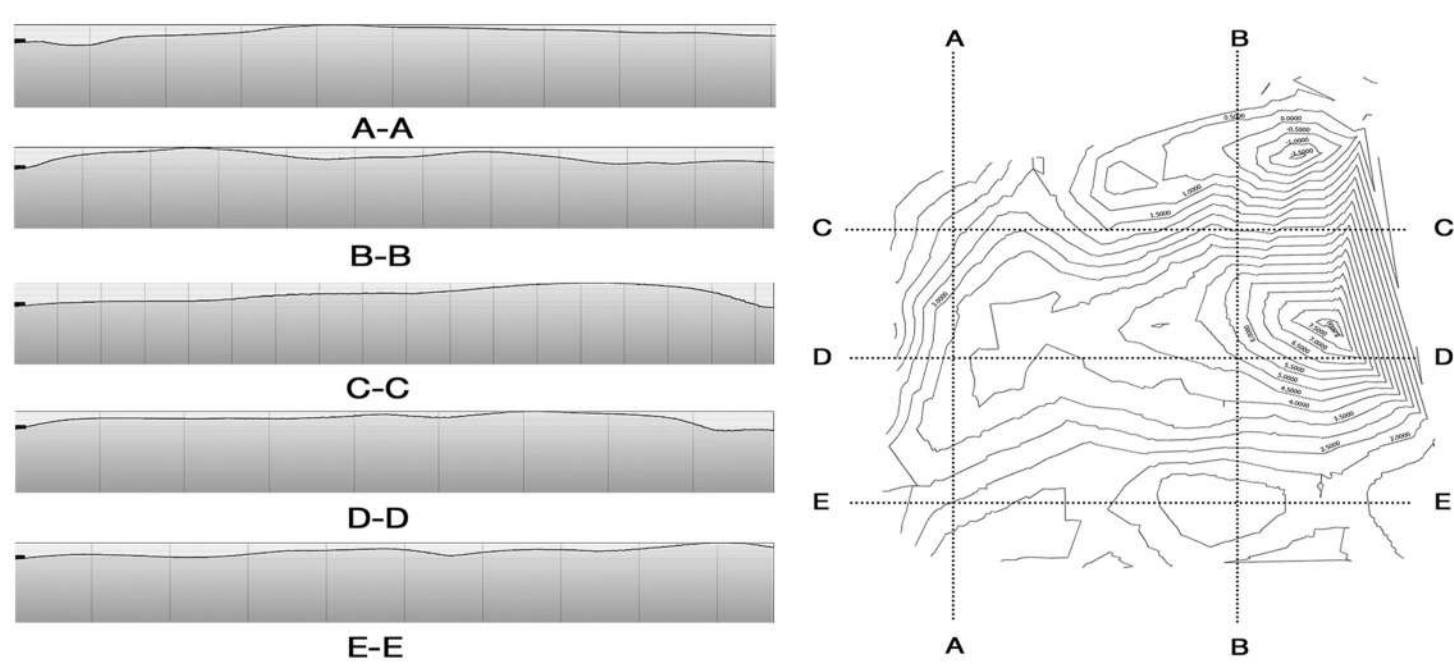
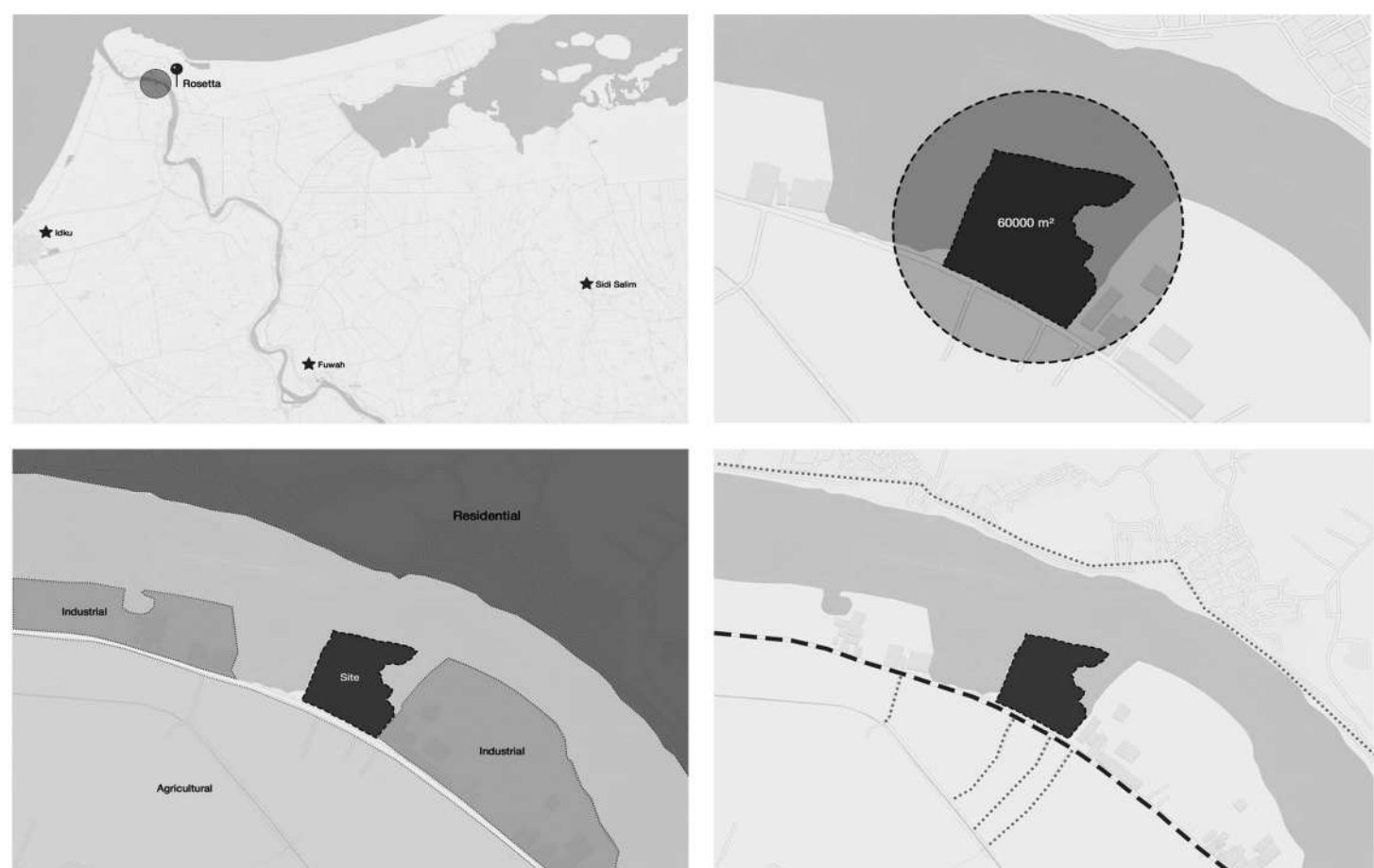
"Industry was never meant to remain hidden."



DESIGN CONCEPT



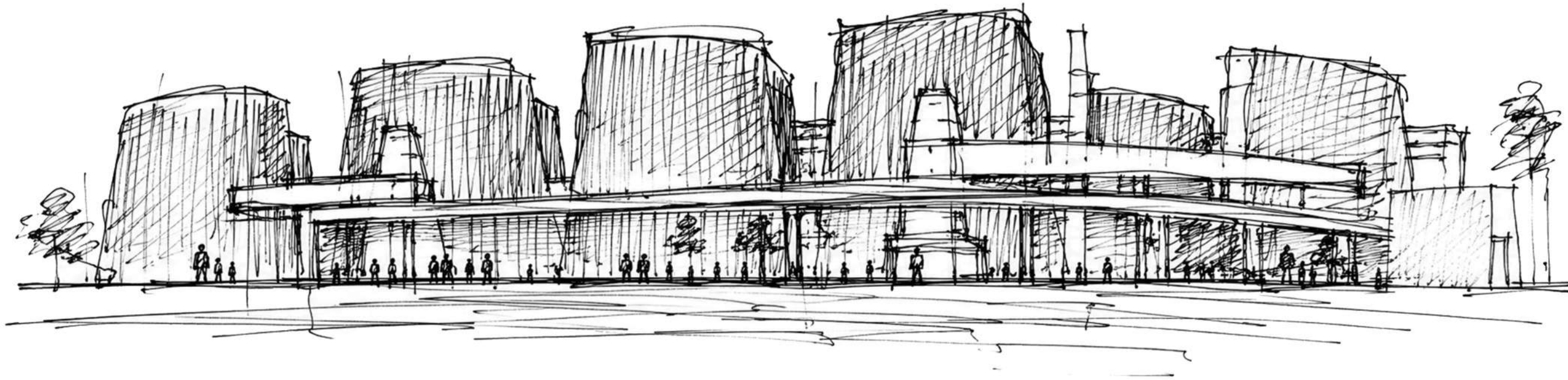
SITE ANALYSIS



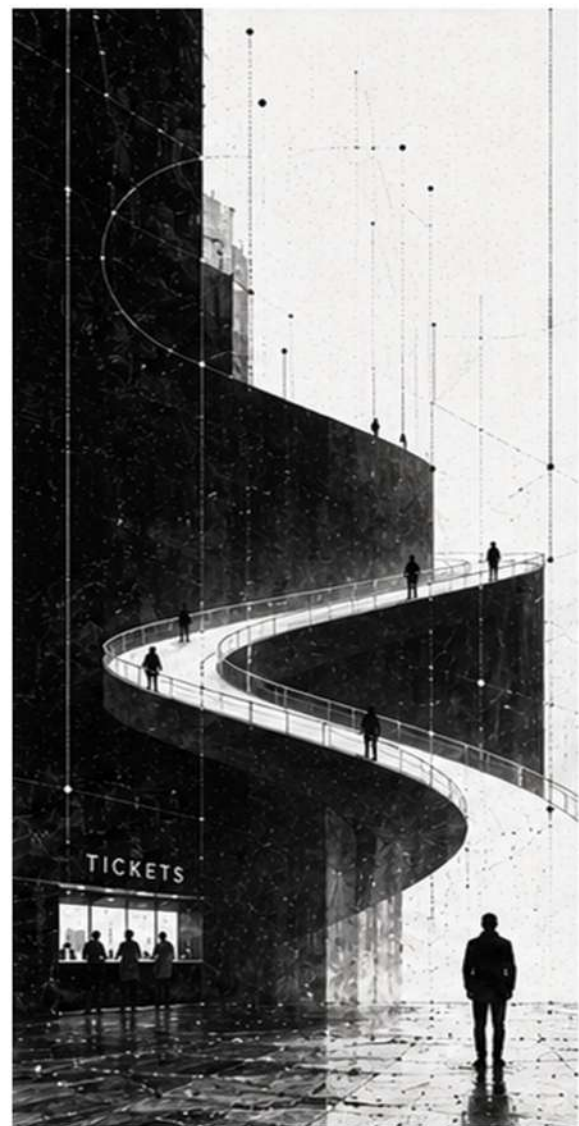
PROBLEM DEFINITION



Industrial facilities have long been designed as isolated and inaccessible environments, hidden from public life behind walls of efficiency and restriction. Despite their technological complexity and spatial richness, factories remain disconnected from human experience, reducing industry to a purely functional process rather than an engaging social and educational environment. This project challenges that separation by questioning: Why can't industry become visible, experiential, and publicly engaging?

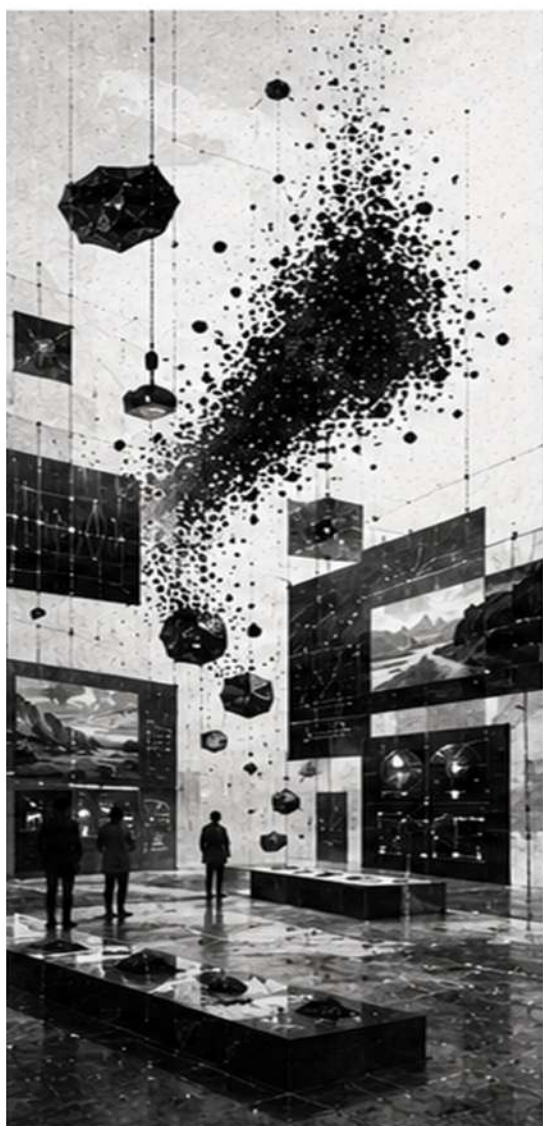


USER SCENARIO



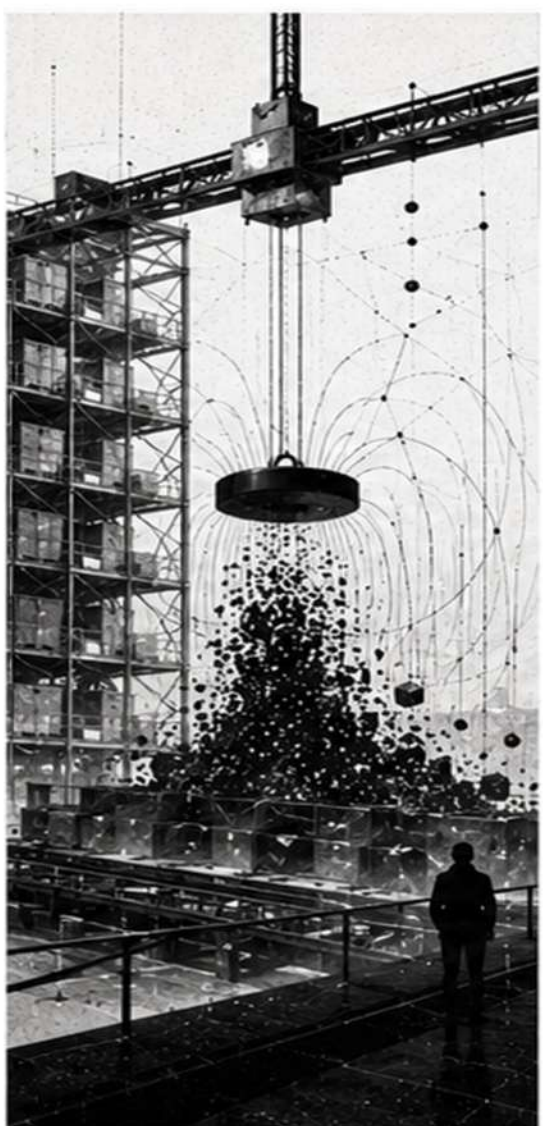
01 ARRIVAL

The journey begins. Visitors receive their tickets and ascend onto the public path.



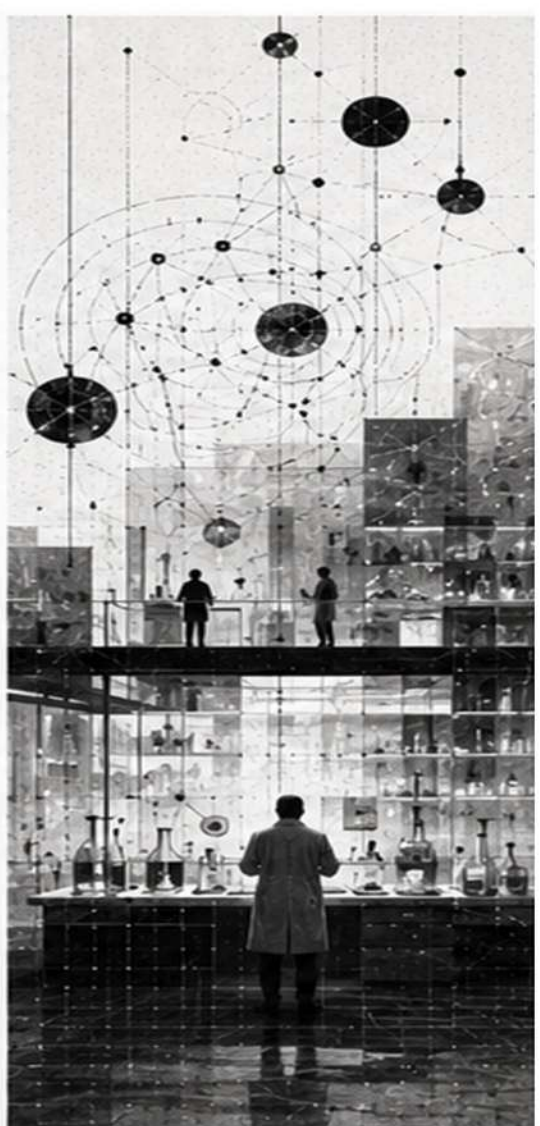
02 EXHIBITION

Understanding the resource. An introduction to black sand and the magnet production process.



03 MAGNETIZATION

Industry becomes visible. Storage areas and magnetic separation processes are revealed.



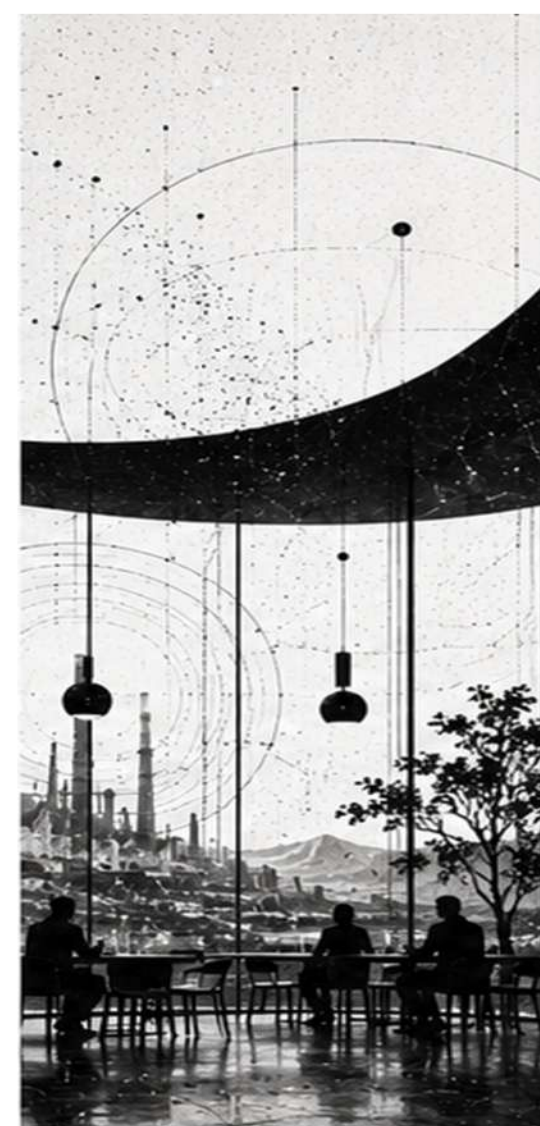
04 RESEARCH CENTER

Science behind production. Visitors glimpse the laboratories and research facilities.



05 PRODUCTION HALL

Inside the factory. The core manufacturing processes unfold at full scale.



06 RESTAURANT

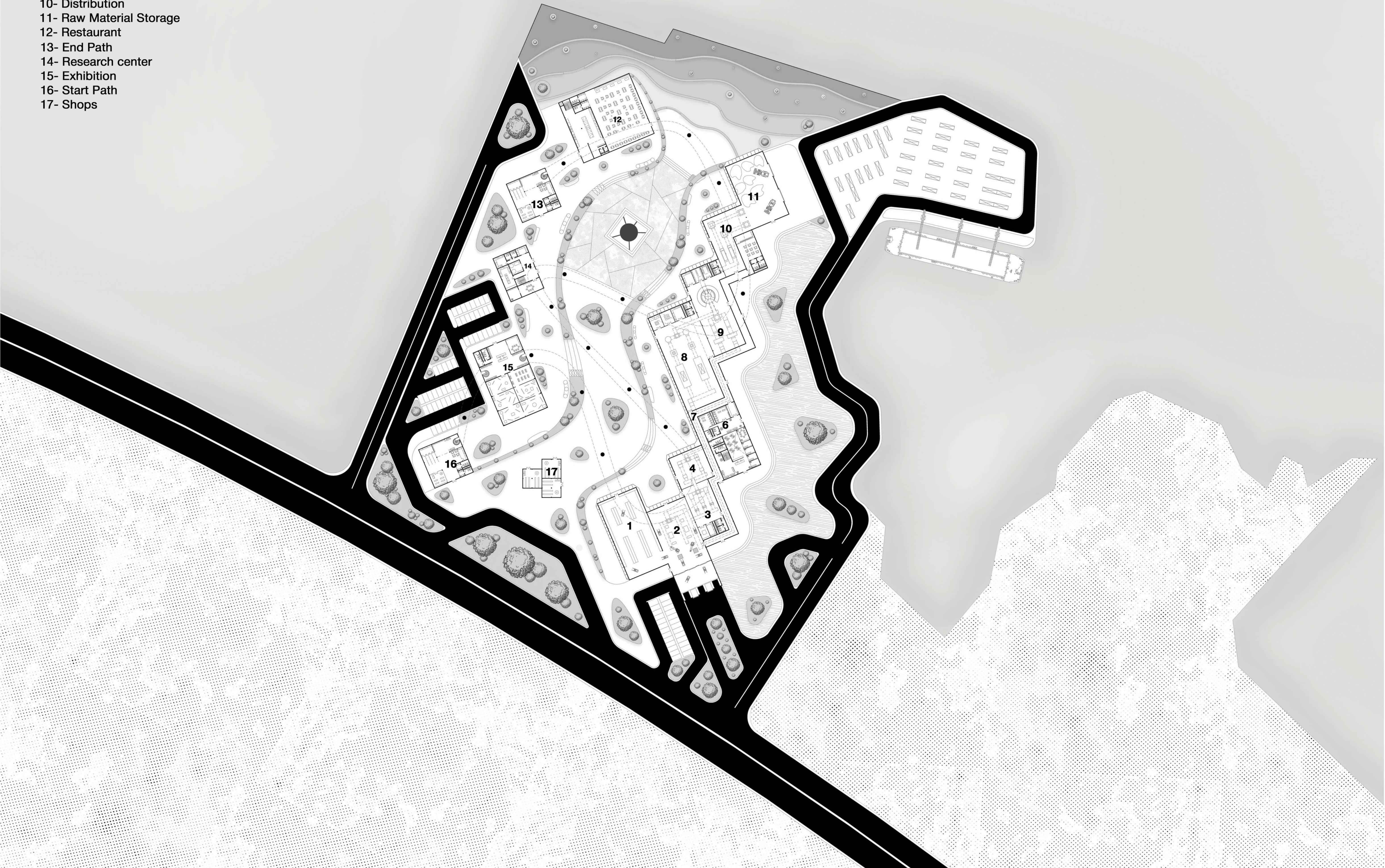
Reflection and conclusion. The journey ends with views overlooking industry and landscape.

NARRATIVE

The project transforms the hidden journey of black sand into a spatial and human experience. Originating from distant geological formations and transported through the Nile's natural systems, black sand arrives as raw matter and undergoes a sequence of industrial transformations until it becomes powerful magnetic products. Visitors move through the project following this same journey experiencing extraction, separation, transformation, and innovation through an elevated path woven into the industrial environment itself.

Mazen Osama Bayoumi
DE-LAB

- LEGEND**
- 1- Store products
 - 2- Packaging
 - 3- Magnetizing
 - 4- Distribution
 - 5- Admin
 - 6- Workers
 - 7- Distribution corridor
 - 8- Separation operations
 - 9- Separation operations
 - 10- Distribution
 - 11- Raw Material Storage
 - 12- Restaurant
 - 13- End Path
 - 14- Research center
 - 15- Exhibition
 - 16- Start Path
 - 17- Shops



OPERATIONS

01 RAW MATERIAL

Black Sand is extracted from nature and prepared for processing

02 MAGNETIC SEPARATION

Powerful magnetic drums attract and separate magnetic minerals

03 ELECTROSTATIC SEPARATION

Electrostatic systems separate non-magnetic minerals based on electrical charge

04 MATERIAL REFINEMENT

Minerals are purified, filtered and refined to achieve high quality

05 MAGNET PRODUCTION

Refined magnetic minerals are processed into high-performance industrial magnets

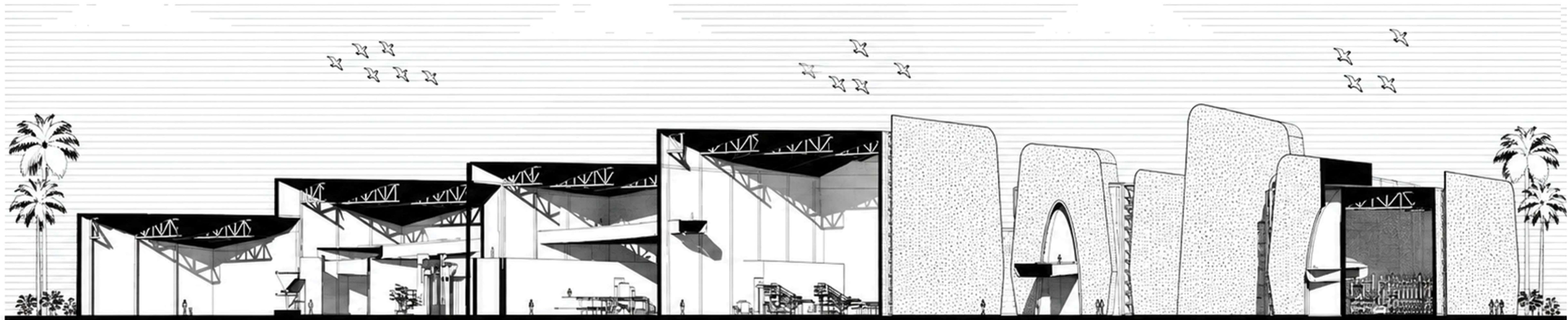
06 FINAL PRODUCTS

High-performance magnets for industrial applications

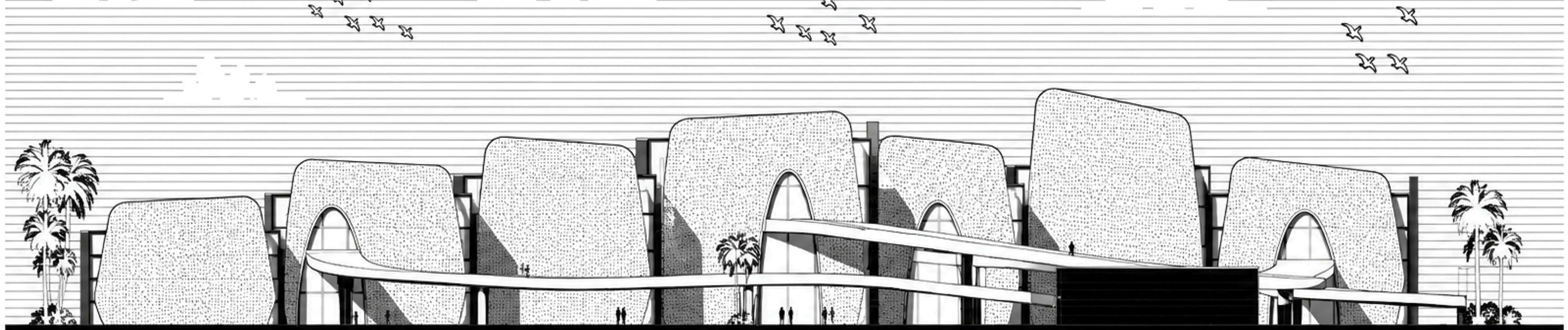
Refined non-magnetic minerals for various industrial uses.

- ILMENITE
- RUTILE
- ZIRCON
- OTHER MINERALS

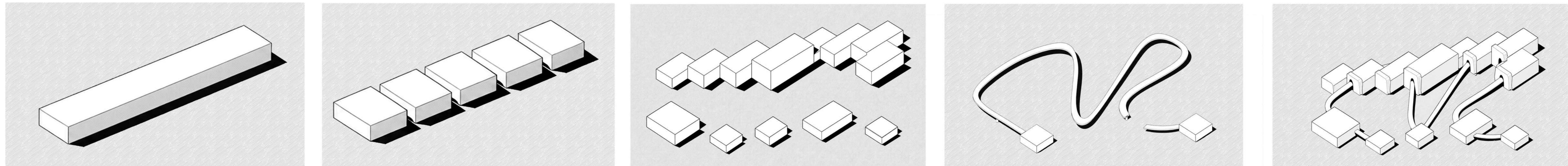
MAIN SECTION



MAIN ELEVATION



FORM GENERATION



Industrial Mass
A single linear volume based on efficiency, modularity & production logic.

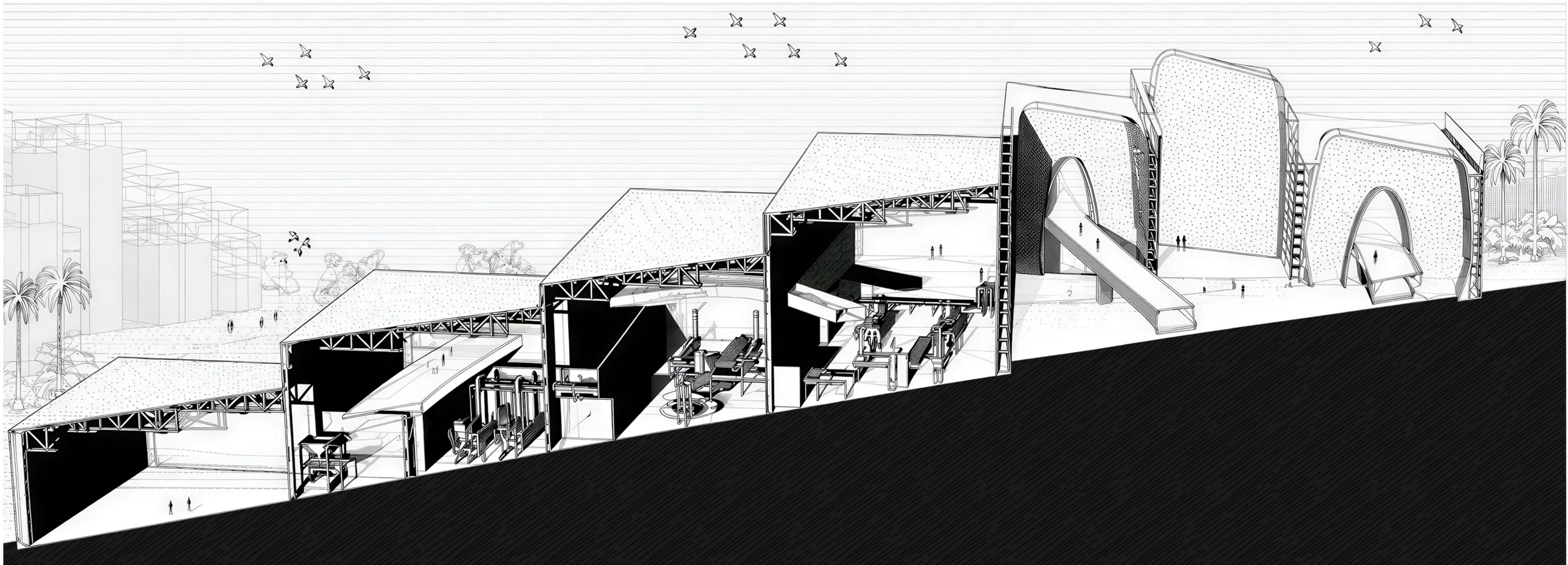
Division of Program
The industrial mass is divided into district volumes according to functional requirements

Mass Displacement
Volumes are shifted and staggered to create rhythm dynamic relationships, generating secondary nodes along the path.

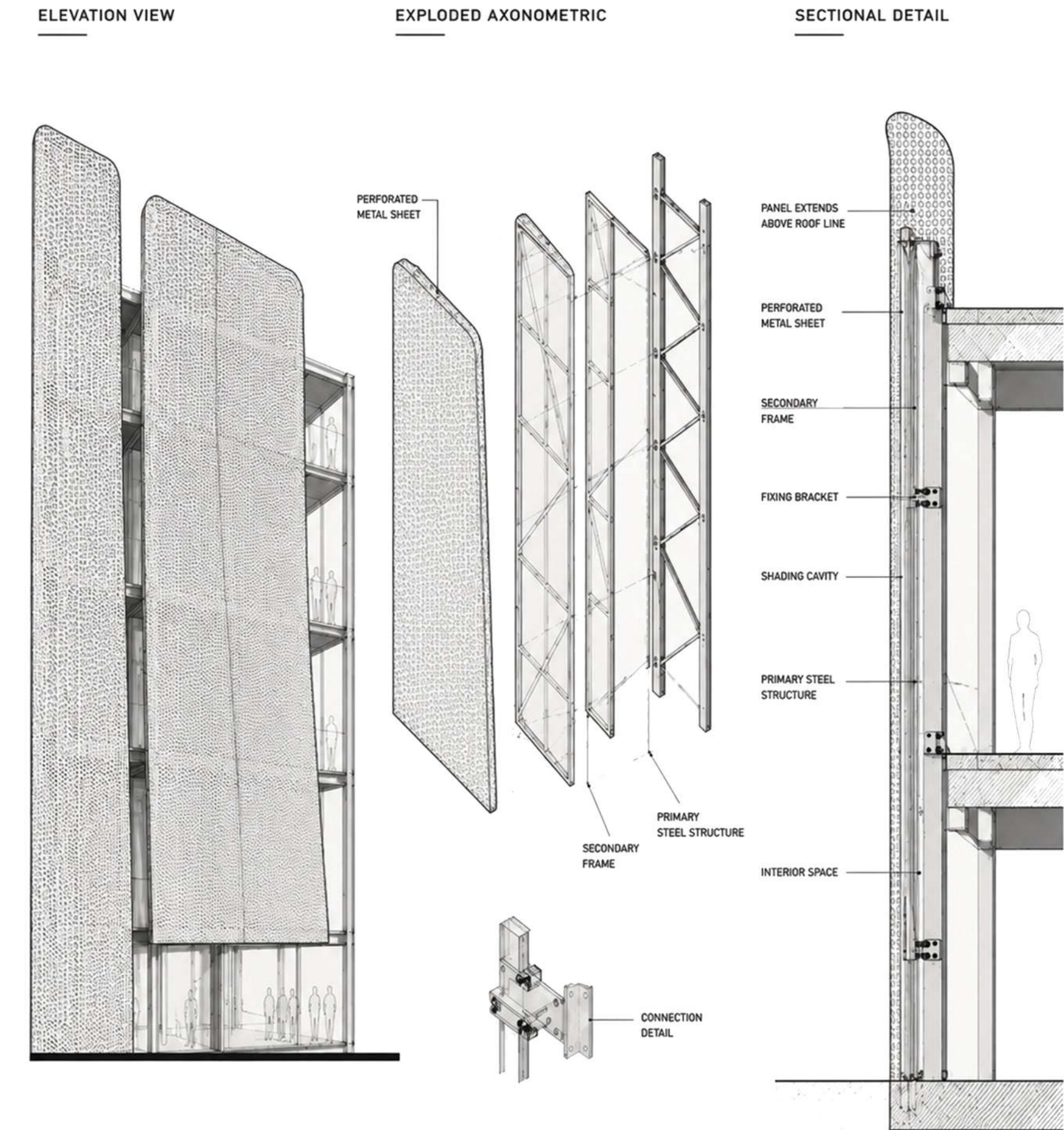
Human Flow
Intuitive movement paths are established, connecting key destinations seamlessly.

Morphological Response
The penetrations shape the facades with curved openings & filleted, perforated panels,

3D SECTION



FACADE PANELS DETAILS



PATH INSIDE BUILDINGS



Structure
The visitor pathway is suspended from roof transfer trusses using slender tension rods allowing a continuous observation route without interrupting industrial operations below.



Protected Observation Environmental
An enclosed and ventilated walkway ensures visual connection to production while maintaining a clean and comfortable visitor environment.

