Main lobby Base
Exterior main lobby
Connected to the upper-landscape

Sky level Top
Connected to the lower-landscape
Penetrating vertical traffic
Multi space deviation (special unit/normal)

Design Interpretation
Horizontal Topology
Design and Analysis

Centralized
Specialist
Independent
Aliance-reducing

Tasks
Orientation
Identification
Storage/ staging
Overlap/ extent

Objective
Control accessibility
Reorganized vertical urbanization

Largest floor external Diameter
Floor area
Core diameter
Max core façade distance
Vertical Topology
Design and Analysis

[Diagram showing vertical topology design and analysis, with labels for Office A, Office B, Office C, Restaurant, Commercial, and sound levels.]
heart-core
Experience Design

Enclosed → Open

4.511 DIGITAL MOCKUP WORKSHOP LONDON Jaebum Joo. Kalaya Koidvisith
SoftSkin
Pattern and perspective

Skin Shader
Diffuse Structure
Safety
Energy Pillow
Functional façade

Self-illuminating

The relation between light and form activating individual components of the material, in this case fiberglass. Translucent bodies express an especially beautiful luminosity. Using resin to protect the fiberglass damage and transmit light.
Computation and fabrication

Access and redesign
  • Populate the connection to the geometrical surface
  • Shape variation

Engineering Assembly
  • Joinery
  • Material
Connection Design

design solution on using 2D machine to fabricate connection part

Material Flexibility
Thin circular acrylic gives flexibility in connecting flat parts

Degrees of freedom
Larger gap at the center notch gives freedom of flat parts rotation
Manufacturing

3D rendering

Assembly
2D printing
Laser Cutter
Printing 1 hrs  Assembly 2hrs

DIGITAL MOCKUP WORKSHOP  LONDON Jaebum Joo, Kalaya Kovidvisith
Component Modeling

Abstract Materials Joineries Controlled Description
3D printing
Z-Corp
Printing 7 hrs  Excavating 2hrs 30mins
3D printing
Massing Control
Schematic Modeling

original

Derivative tower

New tower
Evaluation and Future Development

Fabrication

Scale

Parametric Modeling

Rhino / CATIA

Manufacturing

Z-corp / Waterjet