

- LEVEL -12.00
- 01 - circulation ring road for service vehicles
 - 02 - MoCA storage area
 - 03 - parking 200 slots
 - 04 - PE storage area
 - 05 - technical space
 - 06 - lifts, elevators, service staircase to MoCA & PE
 - 07 - lifts, elevators, service staircase to Heart
 - 08 - entrance lobby for personnel
 - 09 - ramps for vehicles
- LEVEL -5.00
- 01 - underground connection to bus station
 - 02 - underground connection to gallery along Fuzhong Yi road
 - 03 - void over underground ring road
 - 04 - MoCA design exhibition hall
 - 05 - MoCA special display area
 - 06 - MoCA storage area
 - 07 - main circulation and distribution passages
 - 08 - entrance lobby to Heart
 - 09 - ramps for ground level entrances
 - 10 - main foyer
 - 11 - PE public services
 - 12 - PE bookshop
 - 13 - PE cafeteria
 - 14 - auditorium
 - 15 - multi-purpose hall, 300 seats
 - 16 - entrance lobby to auditoriums and hall
 - 17 - services for auditorium
 - 18 - entrance lobby for conference hall
 - 19 - access to panoramic lifts
 - 20 - VIP lounge
 - 21 - conference hall
 - 22 - services
- LEVEL + 0.00
- 01 - public plaza
 - 02 - main entrance for MoCA&PE building
 - 03 - north entrance
 - 04 - void over the full-height foyer
 - 05 - ramps for vertical circulation through the foyer
 - 06 - escalators for vertical circulation through the foyer
 - 07 - panoramic lifts
 - 08 - south entrance
 - 09 - vertical circulation system and services
 - 10 - waiting lounge
 - 11 - ticket office
 - 12 - entrance for vehicles
 - 13 - ramps to underground levels
 - 14 - exit for vehicles

01 DESIGN CONCEPT

A red heart in Shenzhen landscape.
A radar for contemporary arts, antenna for local and global cultures, radiating and receiving, transmitting past and future.
Cultures of contemporarity grow on mixing, melting, contamination between disciplines, between imageries, beyond the boundaries between fields.

Here, a jewel case for containing art with a red beating heart like a catalyzer of this contemporaneity.

Heart is energy.
Heart is emotions.
Heart is passion.
Heart is life.

A bright red heart pulsing in Shenzhen city nights, a contemporary lantern.

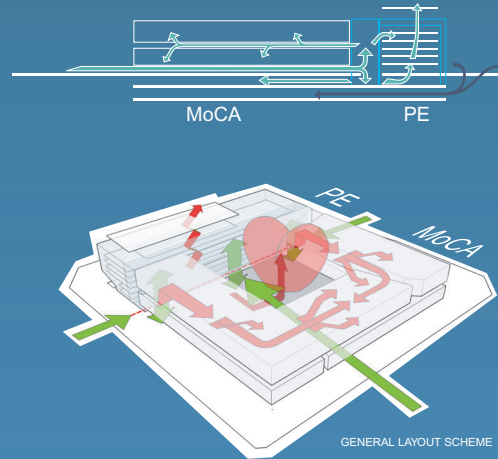


02 URBAN CONCEPT

A building which is introverse but permeable. The city flows beneath the building.
The ancient typology of the cloister is lifted up over the ground, in order to allow access to an open and continuous public space, a pedestrian plaza mostly sheltered from the sun.
The big red heart raises up from this intimate and protected space. From outside, it is visible only partially, in thin horizontal slices or from a limited number of points of view.

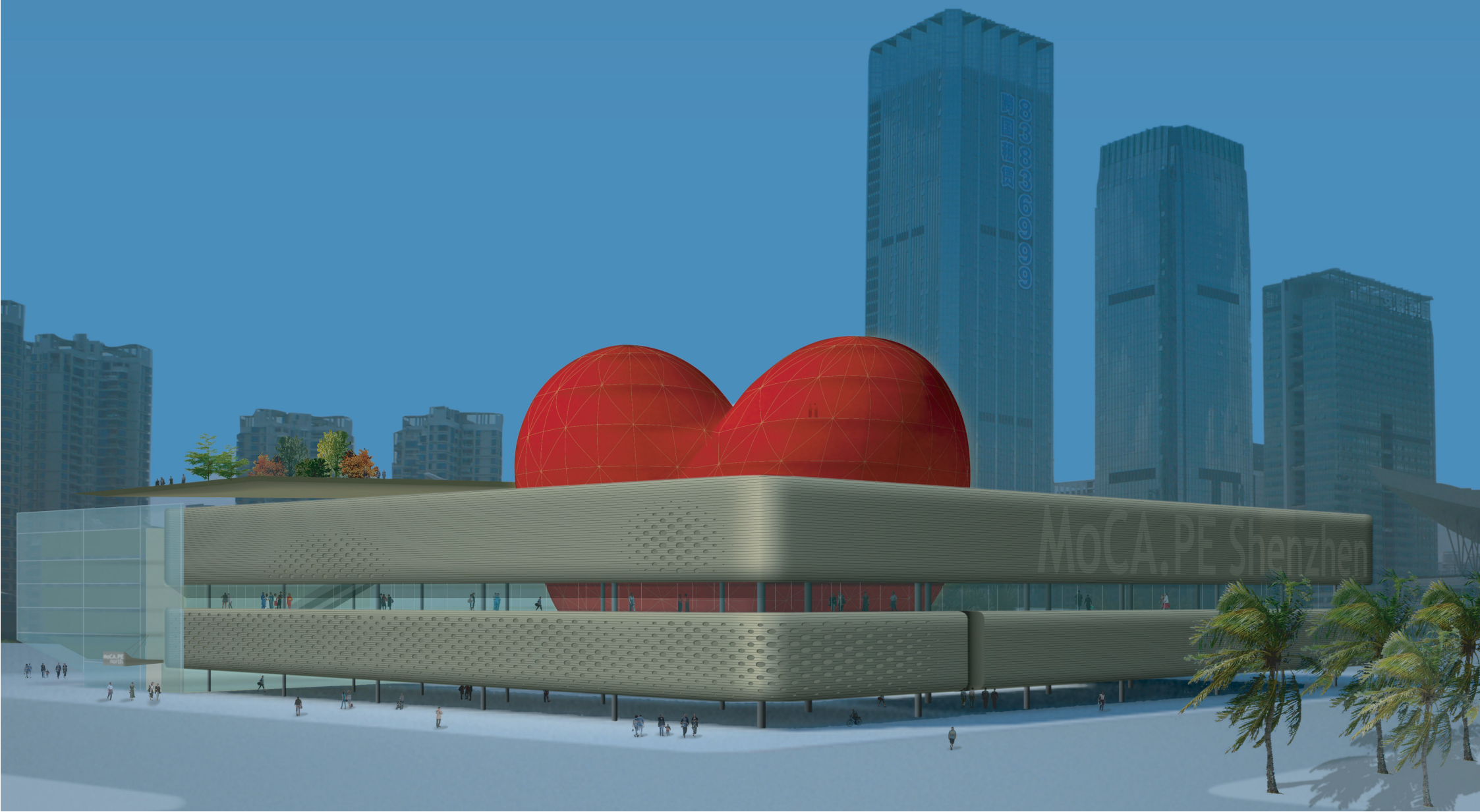
03 FUNCTIONS AND CIRCULATION

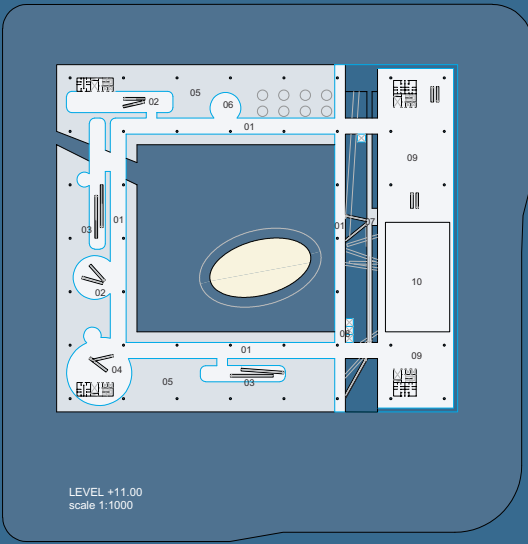
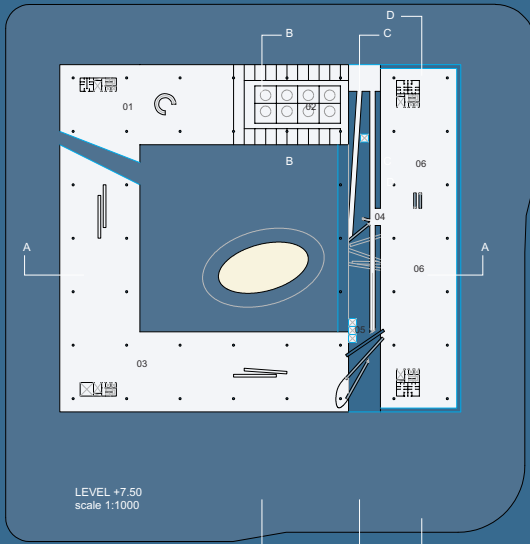
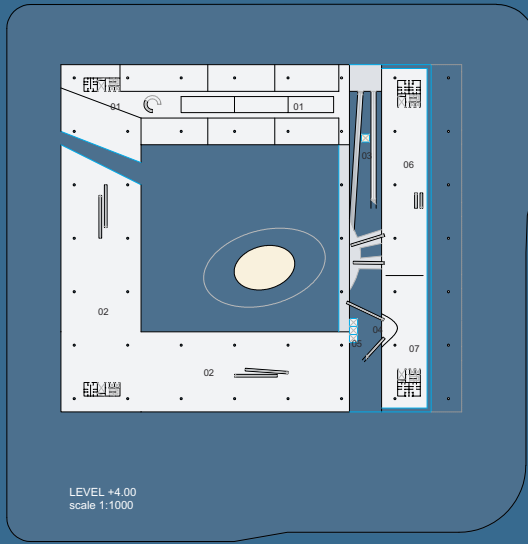
The building is divided in two sections (MoCA, PE) + common spaces for various services, entrance hall, vertical circulation, etc.
Visitors enter the building at ground level, and move vertically along the full-height space of the foyer.
Access to the main MoCA exhibition halls is from the horizontal distribution in-between level, which allows to operate the different sections of the museum independently.
PE has a central bone of vertical circulation, although access is permitted at all floors from the foyer.



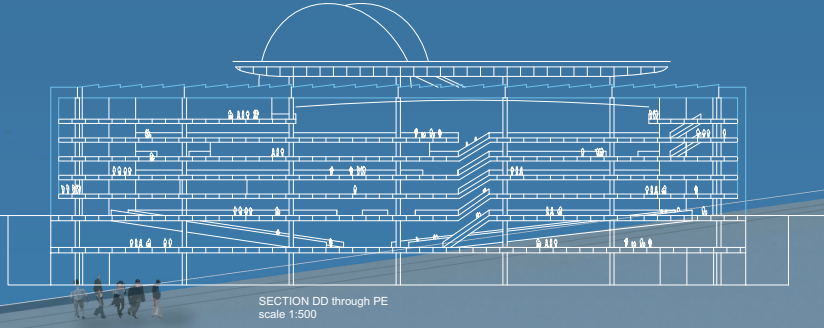
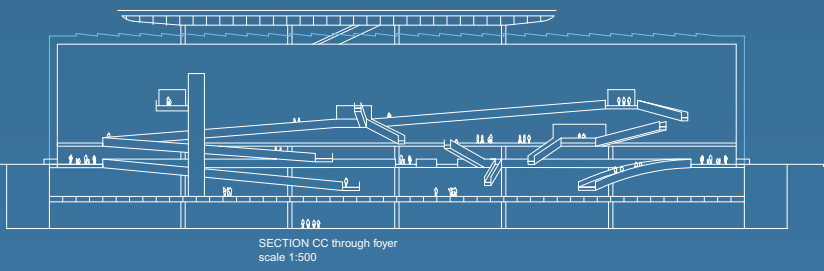
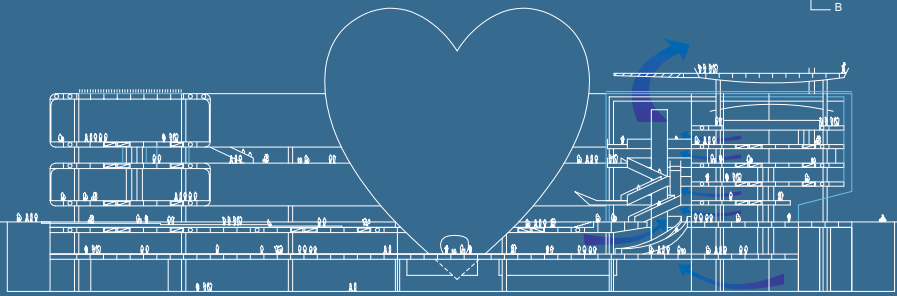
DISTRIBUTION OF FUNCTIONS

Terrace deck and services	1950 mq
PE administration and offices	1000 mq
PE urban planning exhibition	3000 mq
MoCA general hall 2	5340 mq
MoCA experimental hall	3240 mq
PE public information area	2000 mq
PE library	1000 mq
MoCA distribution level	2000 mq
PE urban achievement hall	3000 mq
MoCA administration and offices	1200 mq
MoCA research zone 2	2040 mq
PE urban development hall	2000 mq
PE up journal department	1000 mq
MoCA general hall 1	5340 mq
MoCA research zone 1	3240 mq
ground level: entrance, foyer, services	2000 mq
heart: MoCA cultural services	3000 mq
MoCA leisure time	
PE general services	3000 mq
MoCA design hall	4000 mq
MoCA special display area	3000 mq
MoCA storage 2	1300 mq
multipurpose hall and auditorium	
conference room, VIP area	
underground connections	
PE storage area	4540 mq
MoCA storage area 1	8380 mq
garage	200 units
MoCA floor area	39040 mq
PE floor area	20540 mq
floor area above ground level	40400 mq
total floor area	82600 mq





- LEVEL +04.00
- 01 - MoCA research zone, floor 1
 - 02 - MoCA general exhibition hall
 - 03 - ramps for vertical circulation through the foyer
 - 04 - escalators for vertical circulation through the foyer
 - 05 - panoramic lifts
 - 06 - PE urban development history exhibition hall
 - 07 - PE office department for Urban Planning Journal
- LEVEL +07.50
- 01 - MoCA research zone, floor 2
 - 02 - MoCA offices and administrative zone
 - 03 - void over MoCA general exhibition hall
 - 04 - ramps and escalators
 - 05 - panoramic lifts
 - 06 - PE urban construction achievements exhibition hall
- LEVEL +11.00
- 01 - MoCA main circulation and distribution passage
 - 02 - MoCA access to general exhibition hall upstairs
 - 03 - MoCA access to general exhibition hall downstairs
 - 04 - MoCA access to experimental exhibition hall upstairs
 - 05 - outdoor terrace
 - 06 - walking area
 - 07 - ramps and escalators
 - 08 - panoramic lifts
 - 09 - PE public information area
 - 10 - PE library



04 EXHIBITION SPACES

Different light conditions for different spaces.

MoCA general and experimental exhibition halls: contained in two stacked volumes, with mostly opaque envelope. Upper level: possibility of complete natural lighting from the ceiling, through a sun shading permeable device. Lower level: exhibitions that do not require natural light.

MoCA exhibition halls for design and multimedia art: on the first underground level, with possibility of dimmed natural light from above.

PE exhibition spaces: distributed on different floors, all of them enclosed by a double-skin glass box with operable devices to control daylight.

05 STRUCTURE

A simple grid.

The layout of the building is based upon a modular steel structure of fixed span (20x20m) allows the possibility of production by large prefabrication, and to contain the construction costs.

The structure of the heart-shaped building is based on the interaction between the load-bearing function of the central shaft of vertical services and the structural mesh along its external surface.

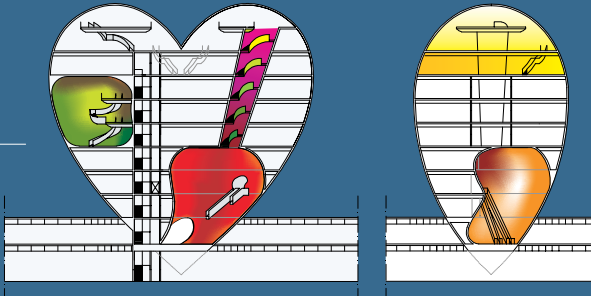
06 BUILDING SERVICES

A simple machine.

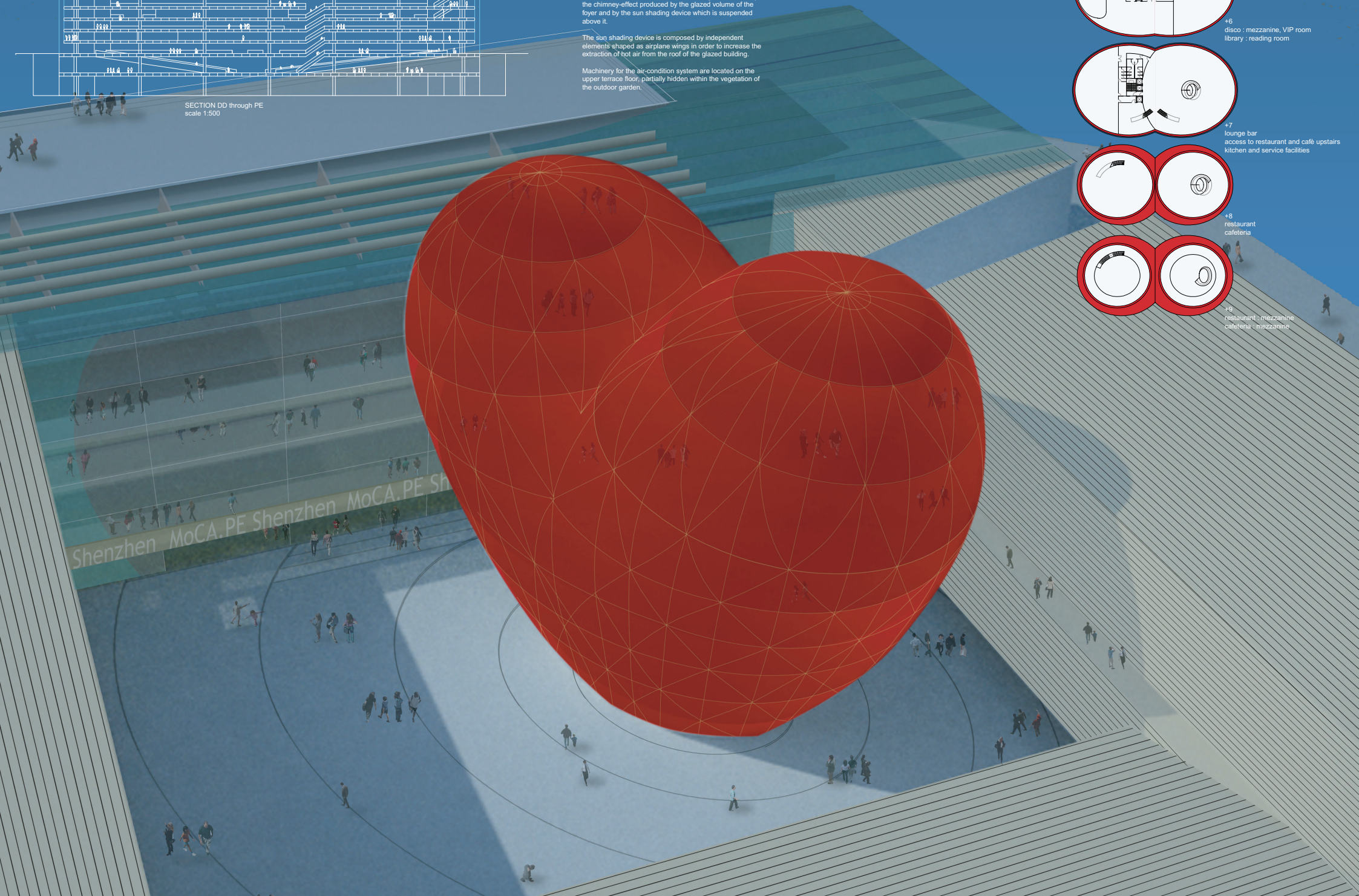
Natural movement of air inside the building is facilitated by the chimney-effect produced by the glazed volume of the foyer and by the sun shading device which is suspended above it.

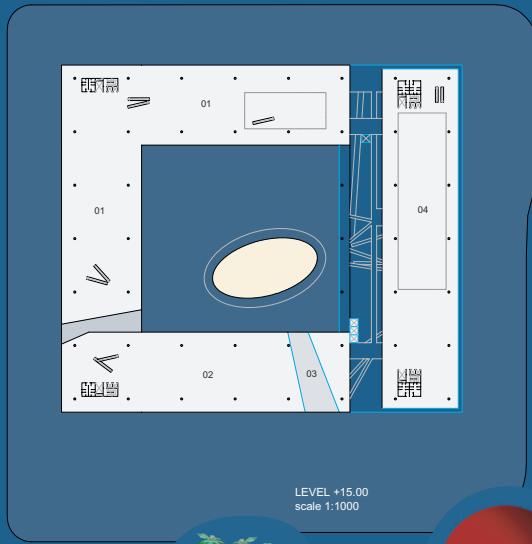
The sun shading device is composed by independent elements shaped as airplane wings in order to increase the extraction of hot air from the roof of the glazed building.

Machinery for the air-condition system are located on the upper terrace floor, partially hidden within the vegetation of the outdoor garden.

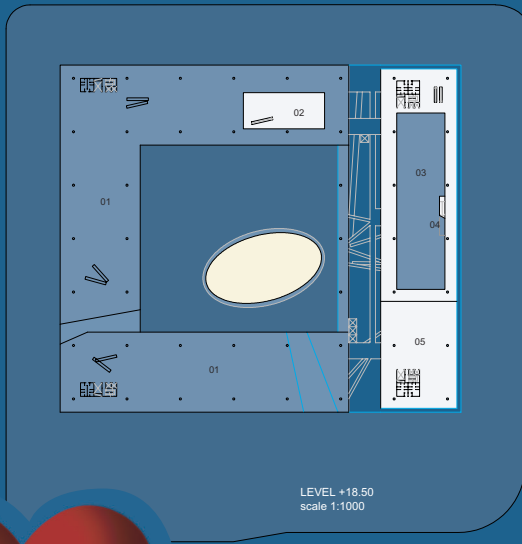


- 1 entrance lobby
- +1 shops
- +2 art salon
- +3 bookshop
- +4 disco: entrance, dancefloor library: lecture hall
- +5 disco: mezzanine, bar library: reading room
- +6 disco: mezzanine, VIP room library: reading room
- +7 lounge bar access to restaurant and cafe upstairs kitchen and service facilities
- +8 restaurant cafeteria
- +9 restaurant: mezzanine cafeteria: mezzanine

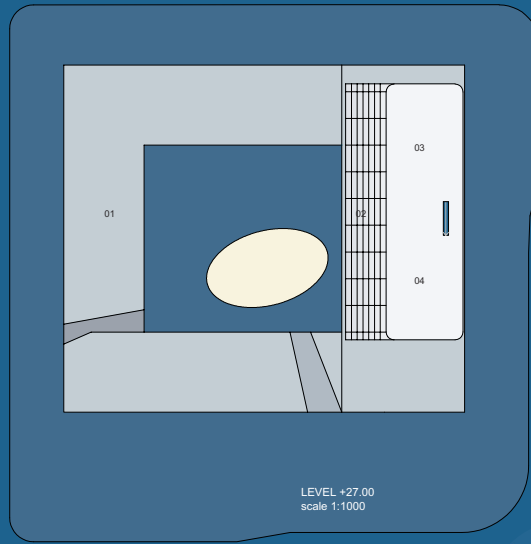




LEVEL +15.00
scale 1:1000



LEVEL +18.50
scale 1:1000

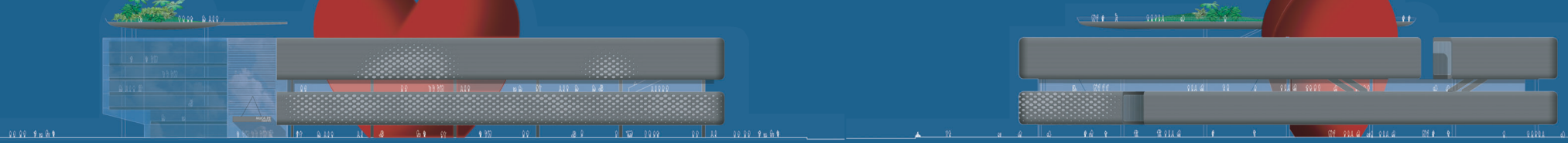


LEVEL +27.00
scale 1:1000

- LEVEL +15.00
- 01 - MoCA general exhibition hall
- 02 - MoCA experimental exhibition hall
- 03 - MoCA outdoor exhibition terrace
- 04 - PE urban planning exhibition hall

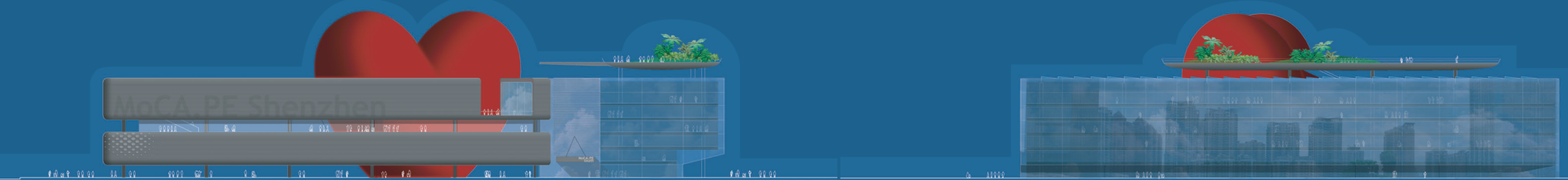
- LEVEL +18.50
- 01 - void over MoCA halls
- 02 - MoCA mezzanine over exhibition hall
- 03 - PE mezzanine over urban planning exhibition hall
- 04 - escalators to roof terrace
- 05 - PE offices and administrative zone

- LEVEL +27.00
- 01 - MoCA roof with operable sun shading devices
- 02 - wing-shaped sun shading device
- 03 - roof terrace, outdoor garden, the lying carpet.
- 04 - area for service machinery



NORTH ELEVATION
scale 1:500

EAST ELEVATION
scale 1:500



SOUTH ELEVATION
scale 1:500

WEST ELEVATION
scale 1:500

07 MATERIALS, FACADES, SKINS

Some fancy possibilities.

MoCA : a building which cleans the air. Clad by modular panels of ceramic material (also available in flexible sheets) and TOMEOOTICM metal panels coated with titanium dioxide. This component triggers spontaneously on its surface a photocatalytic process that helps to decompose suspended air pollution.

PE : double glazed box, with operable devices for full control of natural light, glare, and heating.

Heart : double skin shaped by EFTE elements with translucent effect, containing an artificial lighting system digitally controlled, which varies the intensity of the red color according to the period of time or the usage of the building.

08 COST ESTIMATION AND SUSTAINABILITY

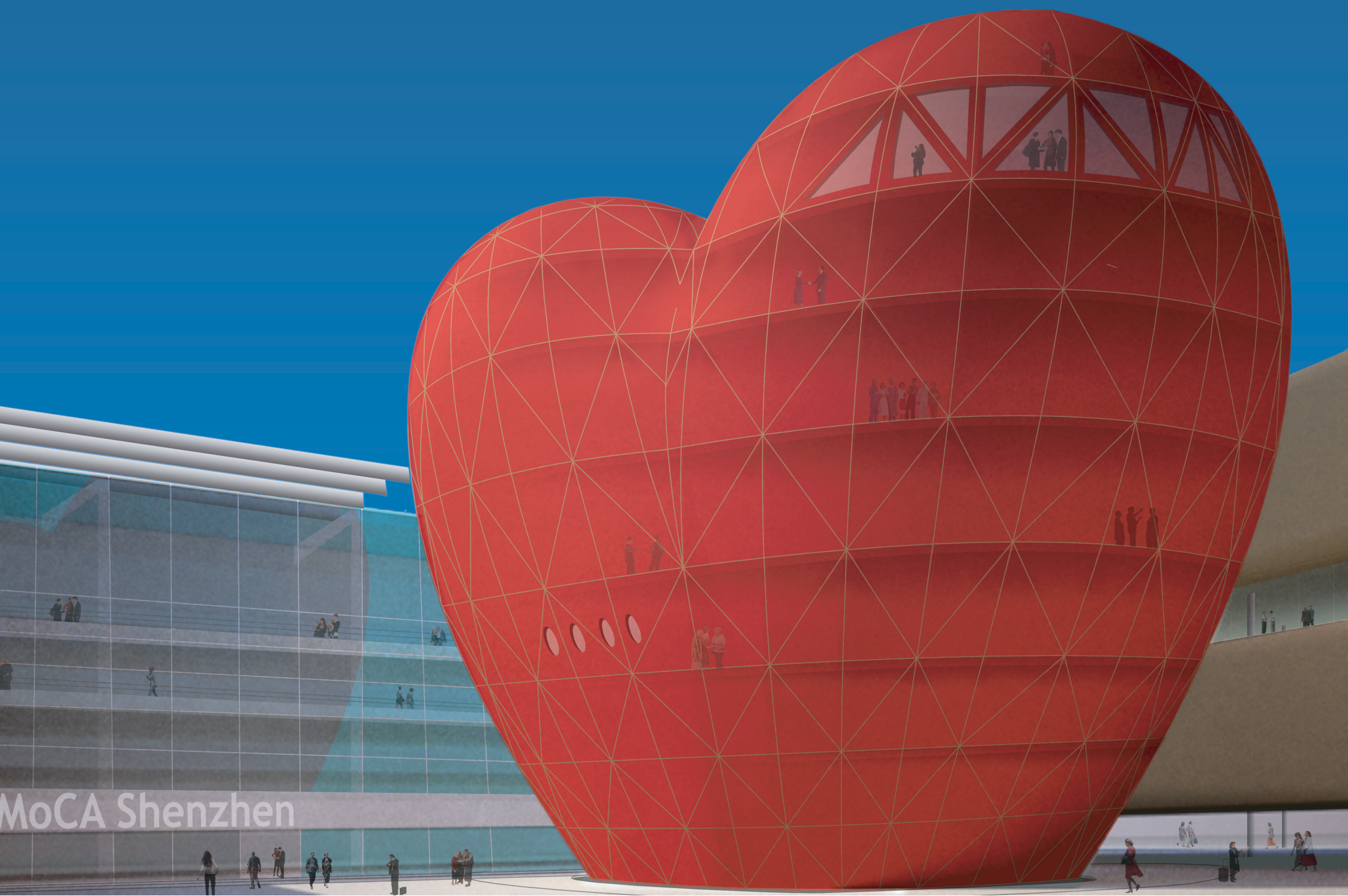
Cost follow budget.

The functional and structural layout is very simple, in order to contain costs of construction and duration. Therefore, the final cost depends on the choice of the material for finishings, and the choice of the material depends on the budget available.

The idea of a sustainable and environmental-friendly building. Economy of construction, economy of operativity.

Naturally-provided air flow within the building will help reduce the costs of conditioning and the consumption of energy. Cladding material can help to reduce external air pollution. Sun shading devices on the roof are covered with photovoltaic surfaces for self-production of energy.

The cost of a building must be calculated over a period of at least 50 years.



MoCA Shenzhen