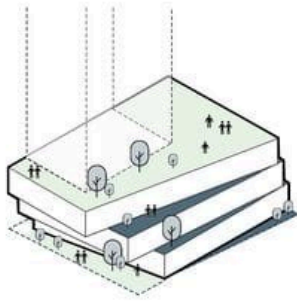


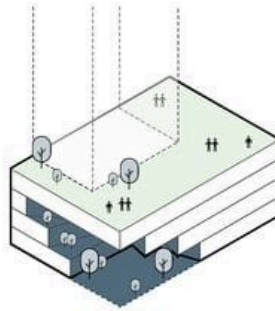


Συμβιωτικά περιβάλλοντα κατοίκησης: Υβριδικά συστήματα
συνεργασίας μεταξύ τεχνολογίας, φύσης και σωμάτων

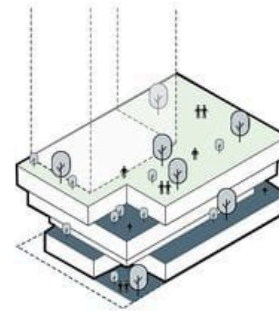
τρίτη_14_μαΐου_2024



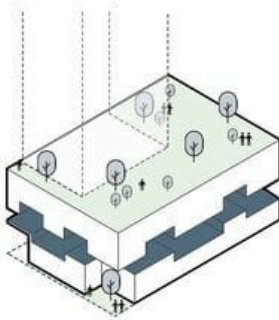
CONCEPT 1
Twist



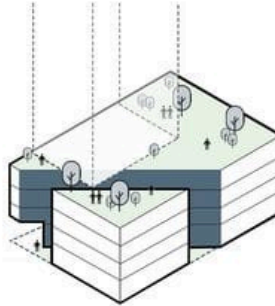
CONCEPT 2
Spiral



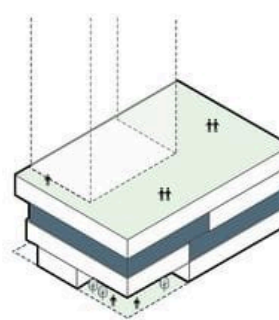
CONCEPT 3
Shift



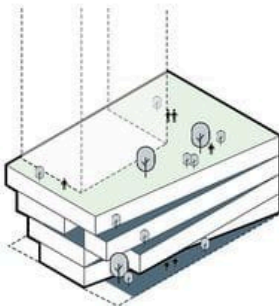
CONCEPT 4
Cloud



CONCEPT 5
Slice



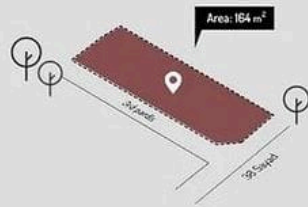
CONCEPT 6
Layers



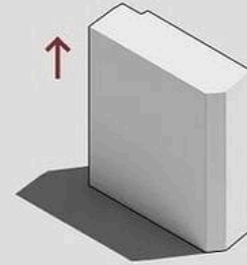
CONCEPT 7
Step

CONCEPT DIAGRAM

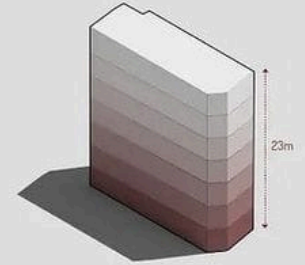
3XN Toronto Tower



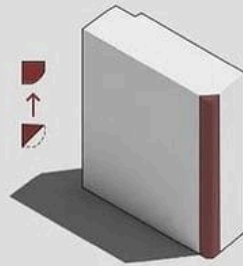
01 • Site & Location



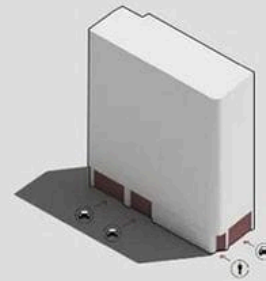
02 • Main Volume



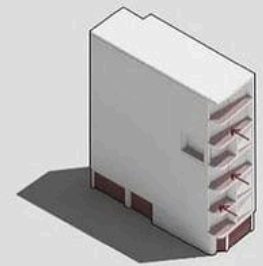
03 • Levels



04 • Rounded Corner



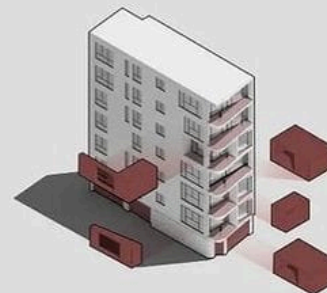
05 • Entrance



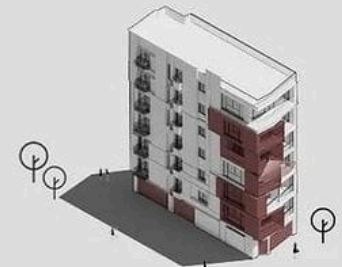
06 • Define Terraces



07 • Openings

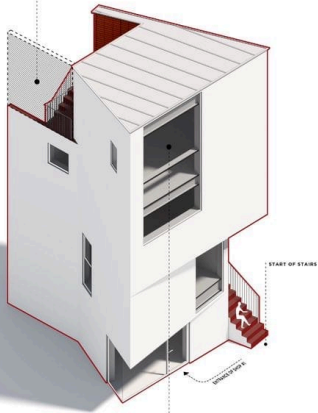


08 • Adding Frames



09 • Final Form

ELIMINATION
 THE BACK OF THE FOURTH FLOOR, WHICH HAD TO REMAIN EMPTY BECAUSE OF THE SLANT LINE RESTRICTIONS FOR DAYLIGHT, WAS DESIGNED INTO A TERRACE STRETCHING NATURALLY ONTO THE STAIRS.

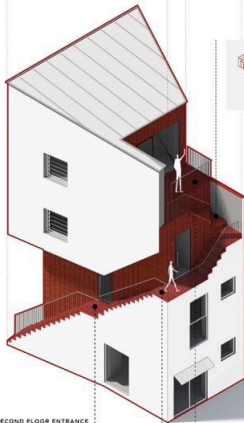
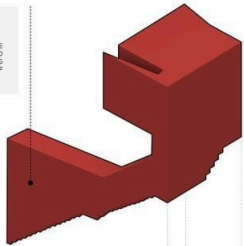


START OF STAIRS

LARGE WINDOWS
 FLOOR-TO-CEILING WINDOWS WERE PLACED AT THE FRONT OF EACH FLOOR TO MAXIMIZE THIS SMALL AREA.

RED HOLE
 COMMERCIAL BUILDING
 ARCHITECT: OHOO ARCHITECTS
 LOCATION: SOUTH KOREA

PIECE OF CAKE
 THE STAIRS AND THE BACK OF THE BUILDING WERE COVERED IN RED BRICK TILES FOR CONTRAST, MAKING THE BUILDING RESEMBLE A PIECE OF BITTEN-OFF RED VELVET CAKE.



STAIRCASE
 THE DYNAMIC DESIGN AND PATH OF THE STAIRWAY ADD A SENSE OF LIVELINESS TO THE STREETS.

SECOND FLOOR ENTRANCE

FOURTH FLOOR ENTRANCE

RED HOLE
 COMMERCIAL BUILDING
 ARCHITECT: OHOO ARCHITECTS

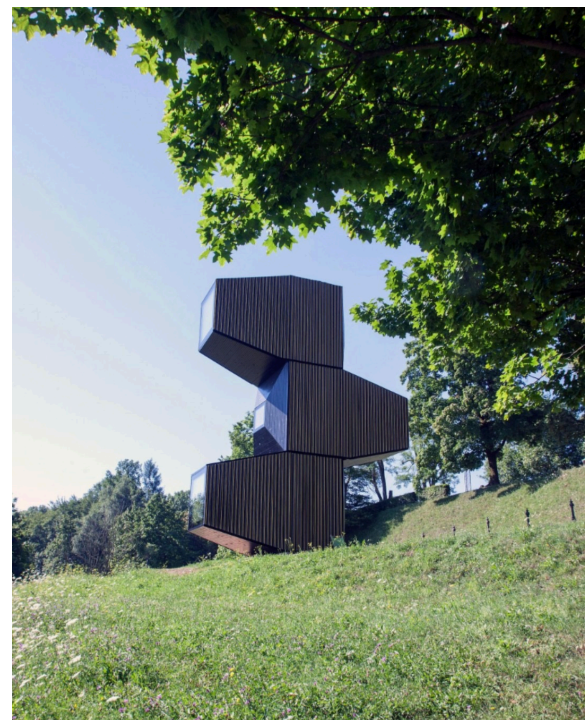
THIRD FLOOR ENTRANCE

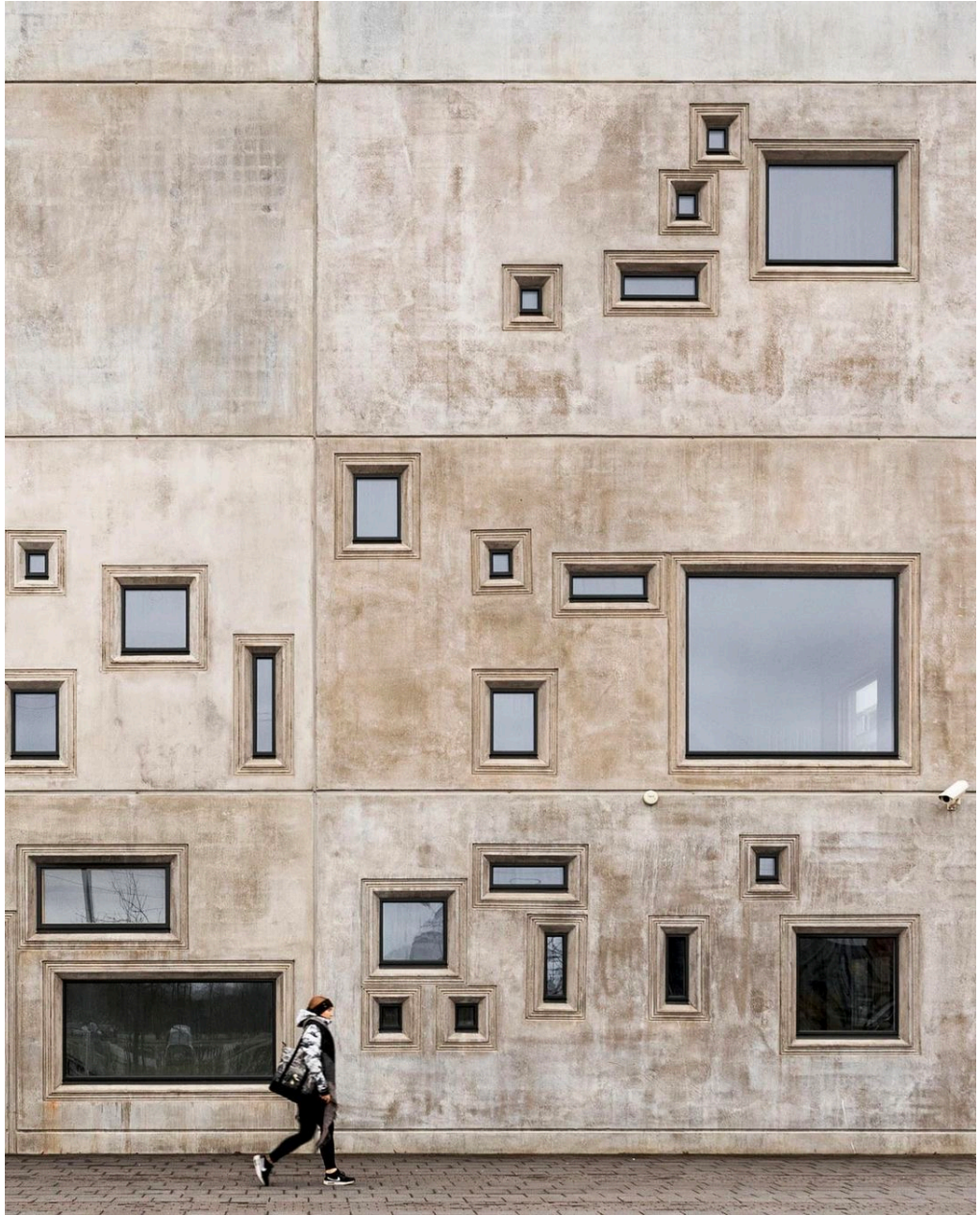


SHOP #2
 THE ENTRANCE OF SECOND SHOP OF THE GROUND FLOOR IS ON THE BACK SIDE OF THE BUILDING WHICH HAS AN ACCESS FROM THE SMALL NEXT TO ALLEY.

SEATING AREA
 BECAUSE THE NEXT TO ALLEY IS DEADEND, THE NEXTDOOR CAFE USE THIS AREA AS AN OUTDOOR SEATING SPACE.

RED HOLE
 COMMERCIAL BUILDING
 ARCHITECT: OHOO ARCHITECTS
 LOCATION: SOUTH KOREA
 DIAGRAM: BEHNAZ HOUSHYAR

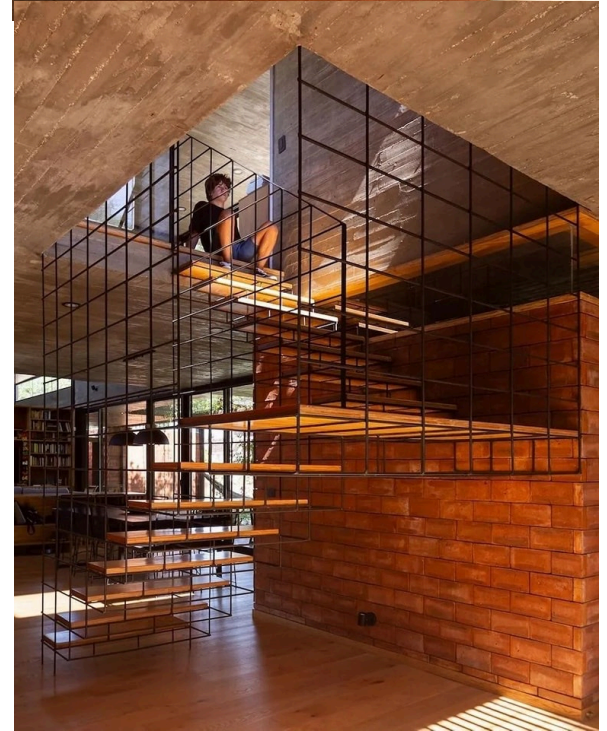
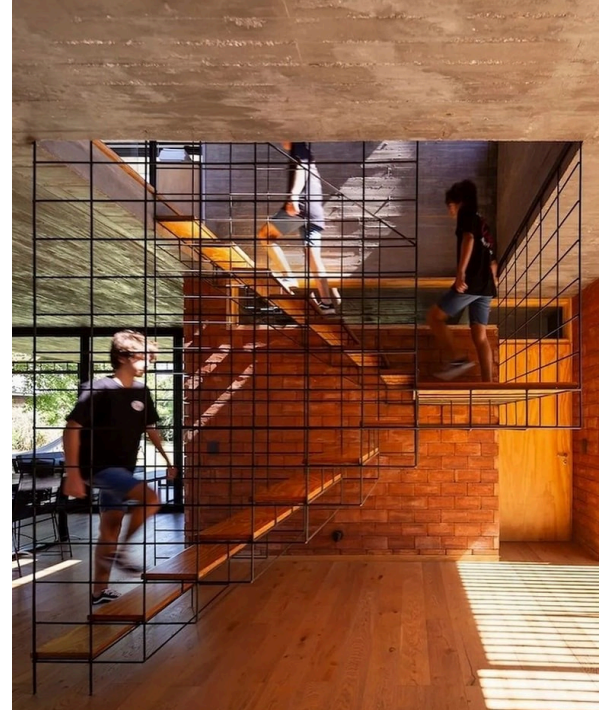


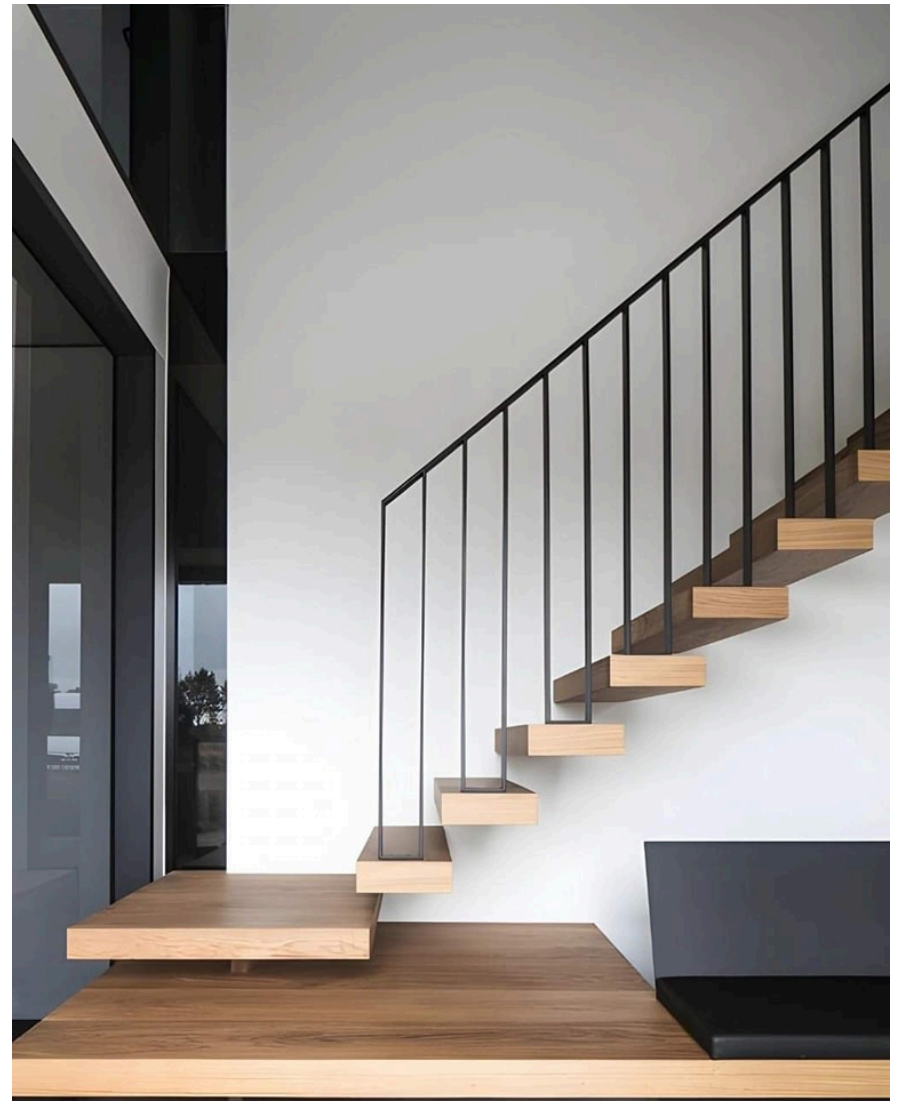


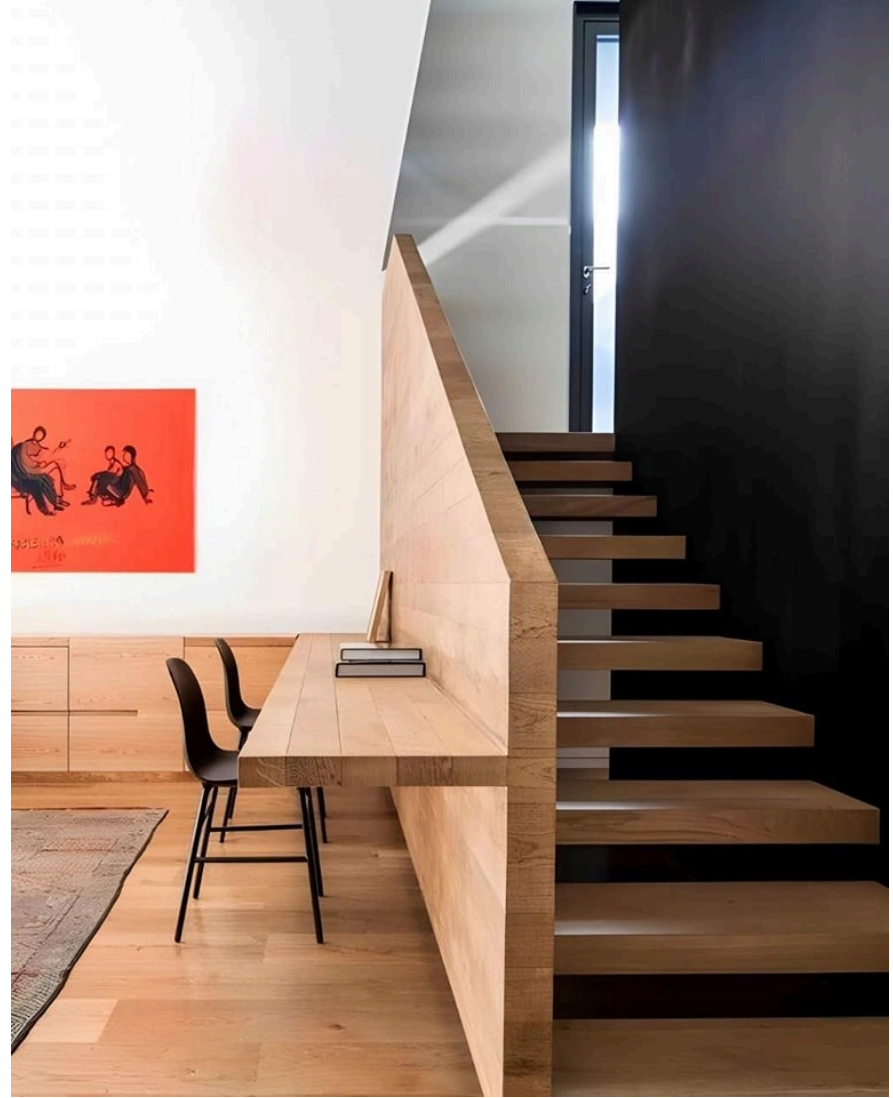


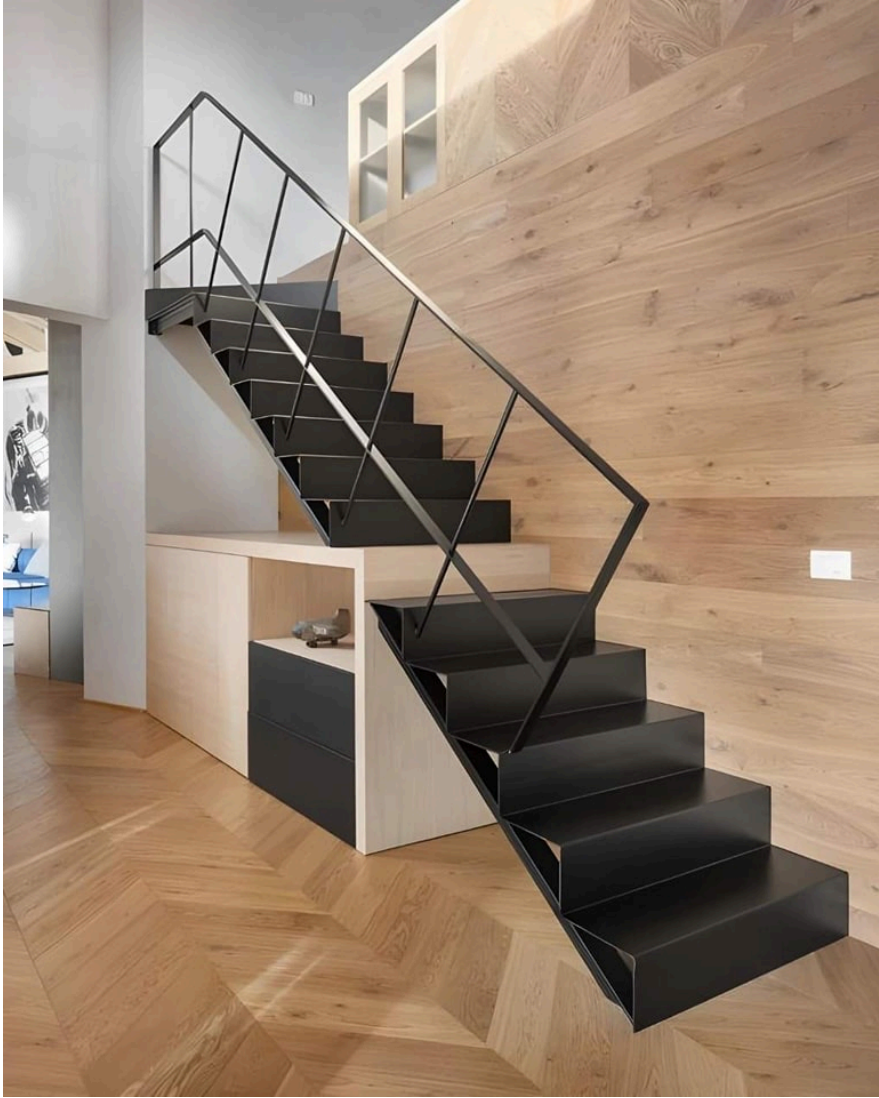


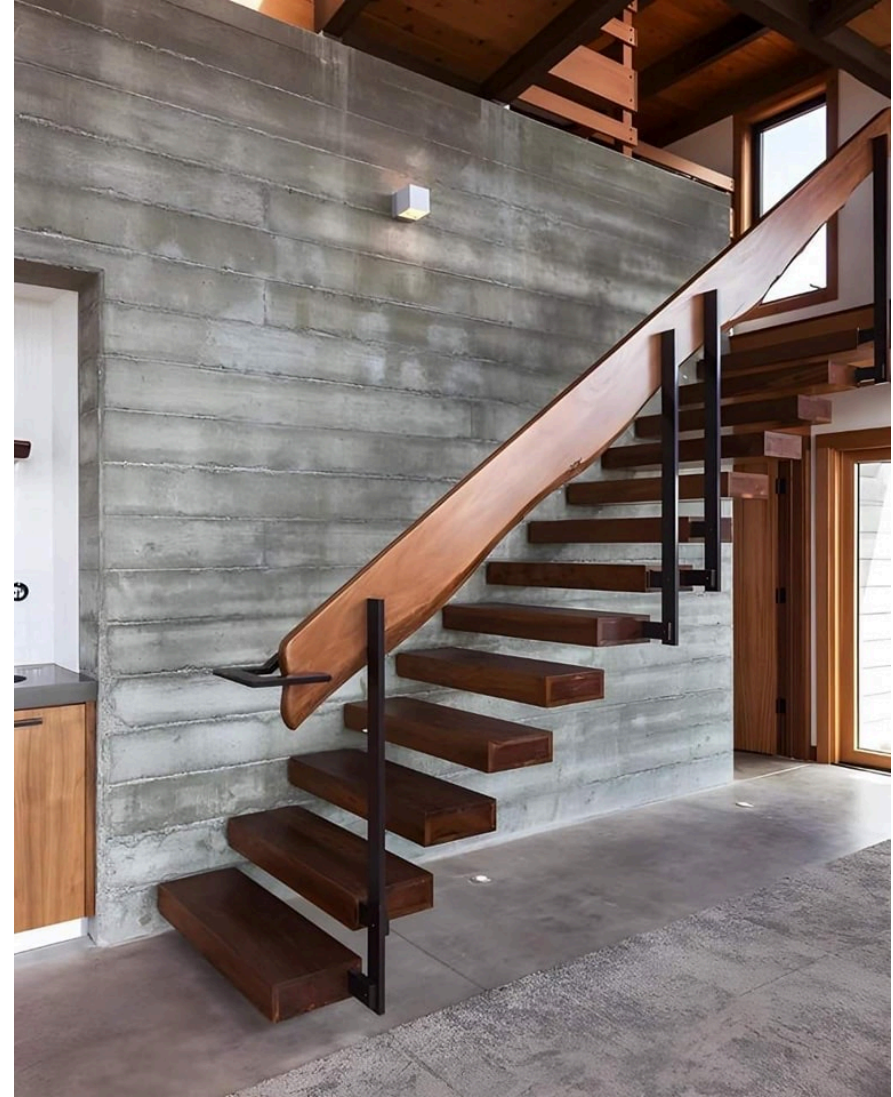
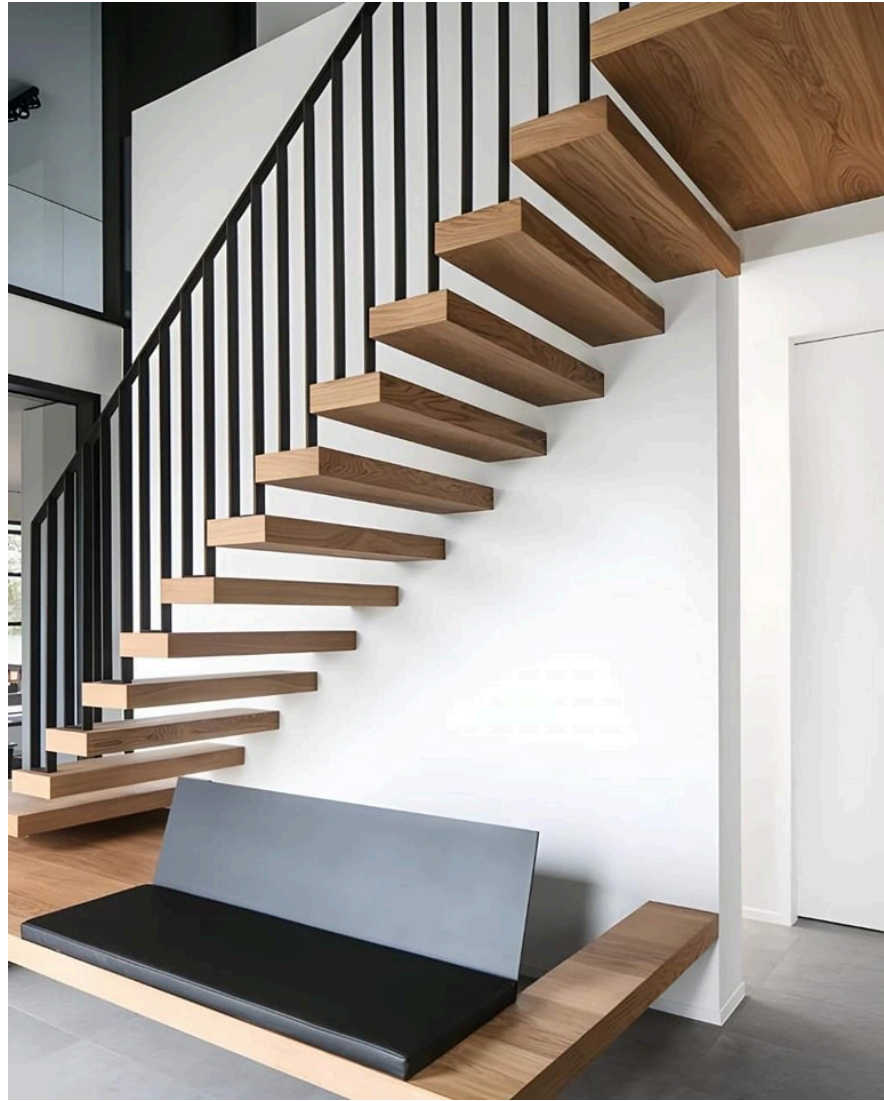


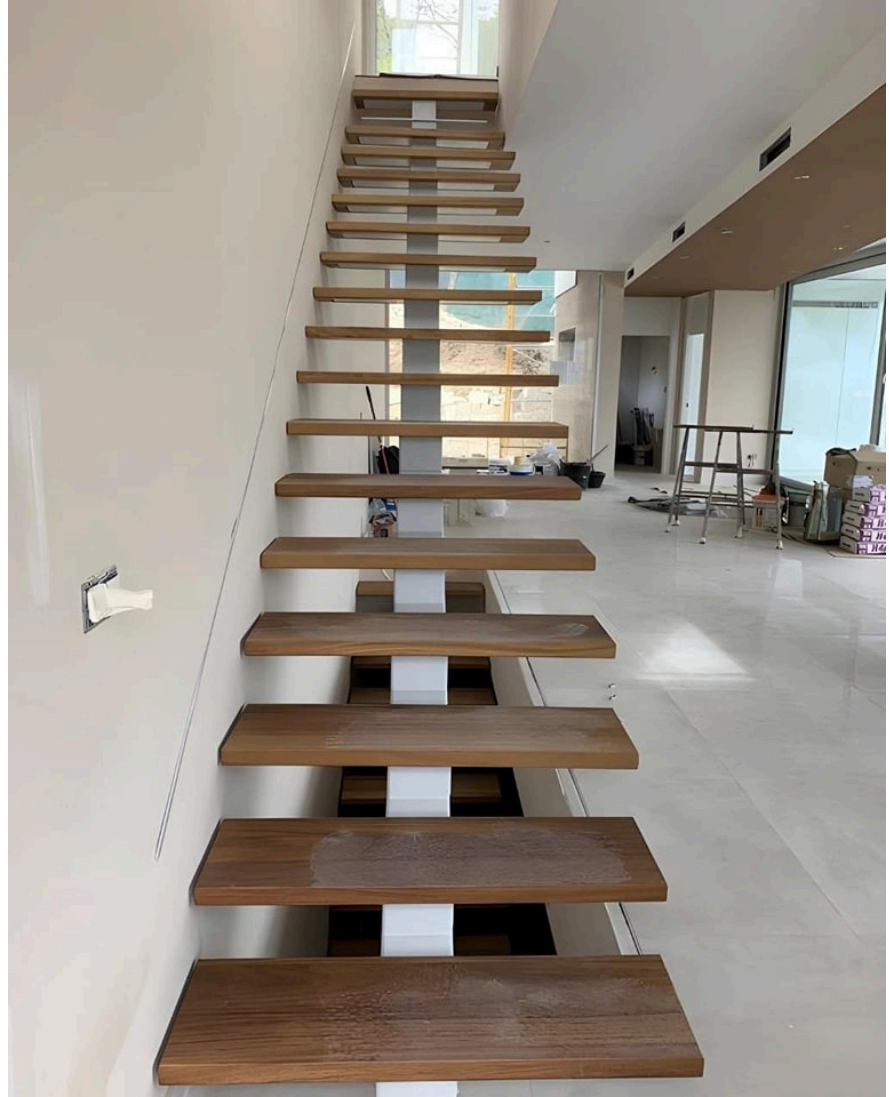


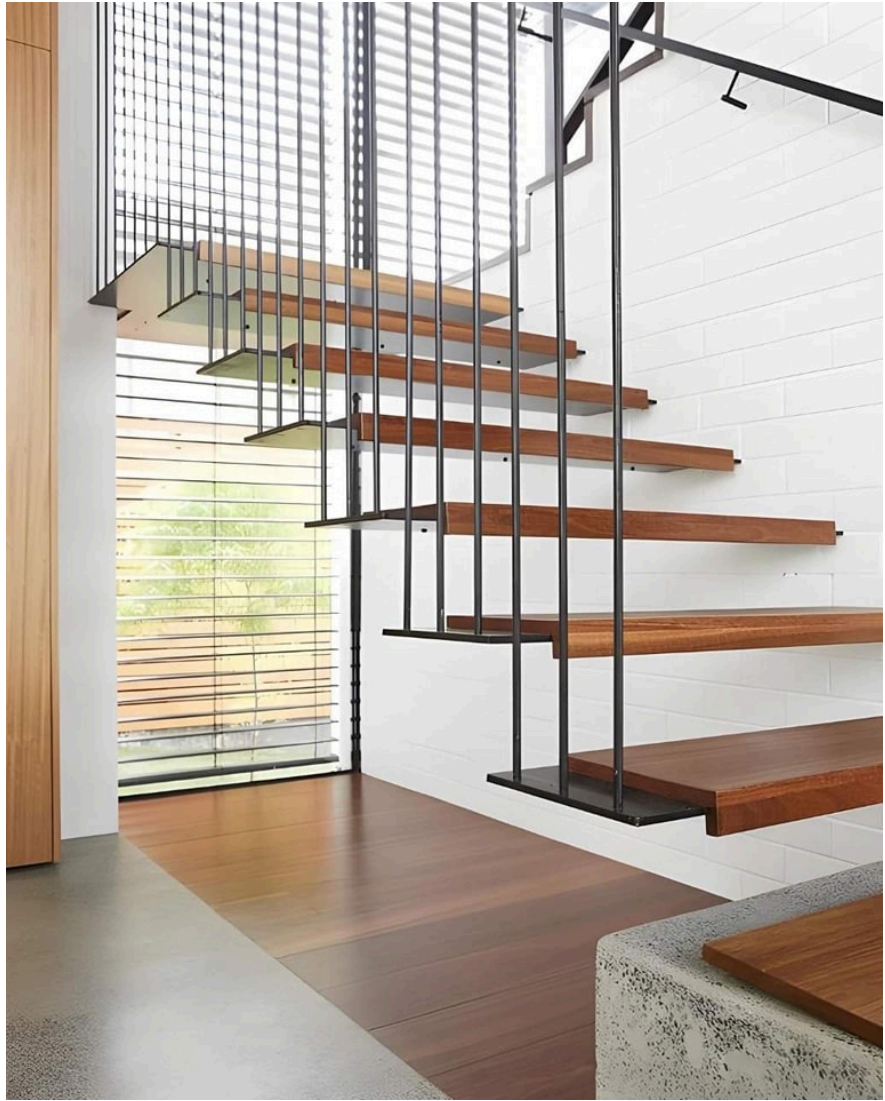


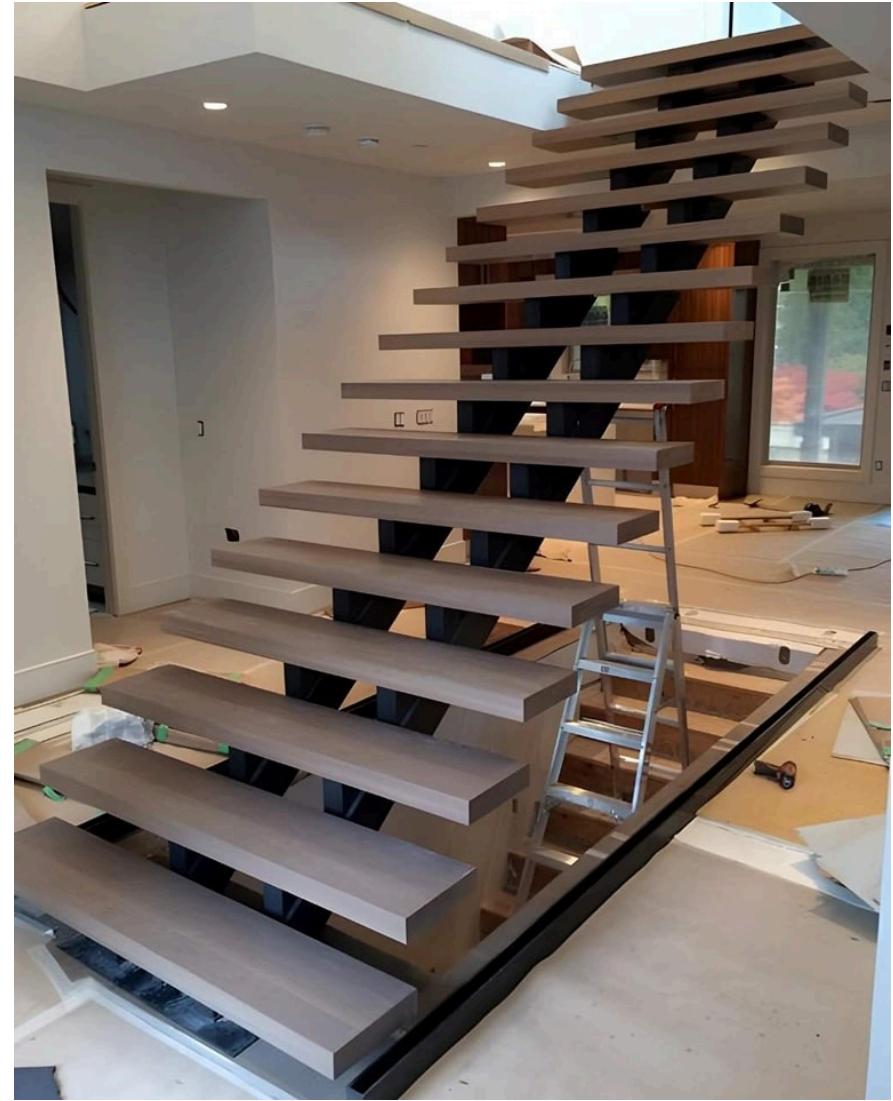


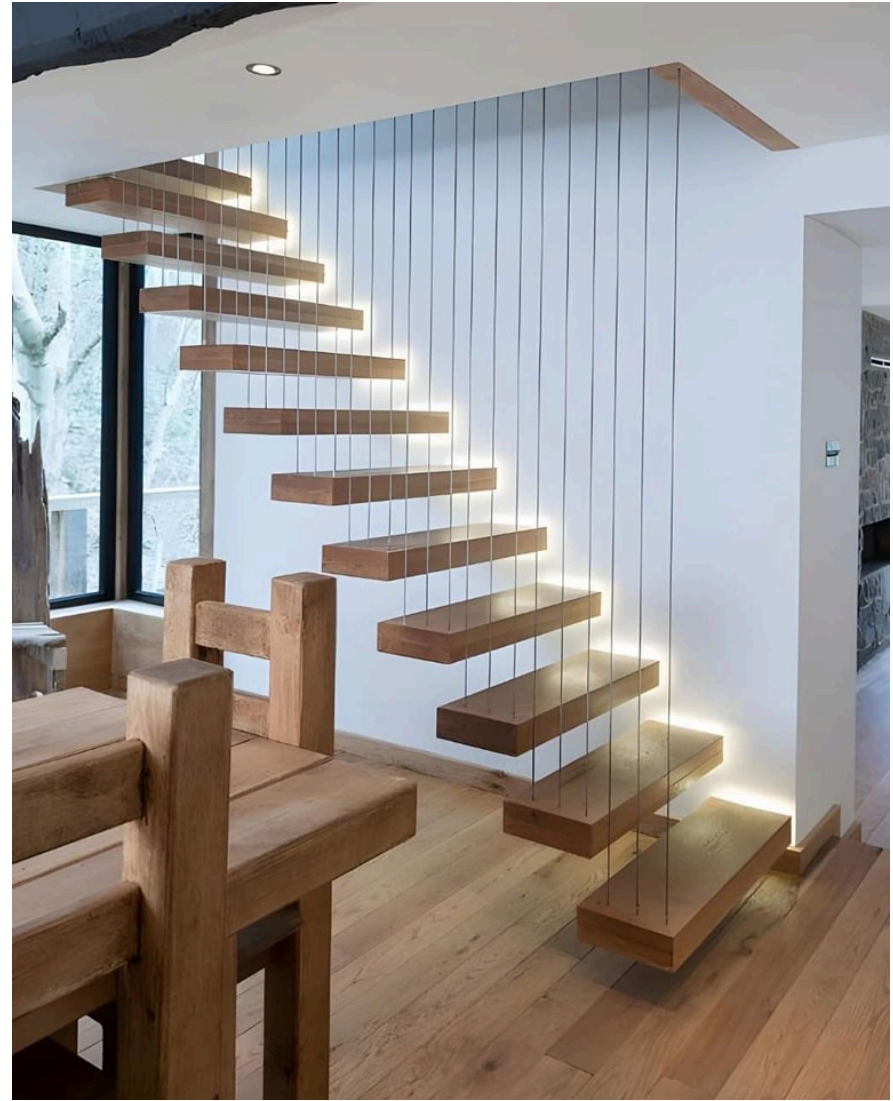
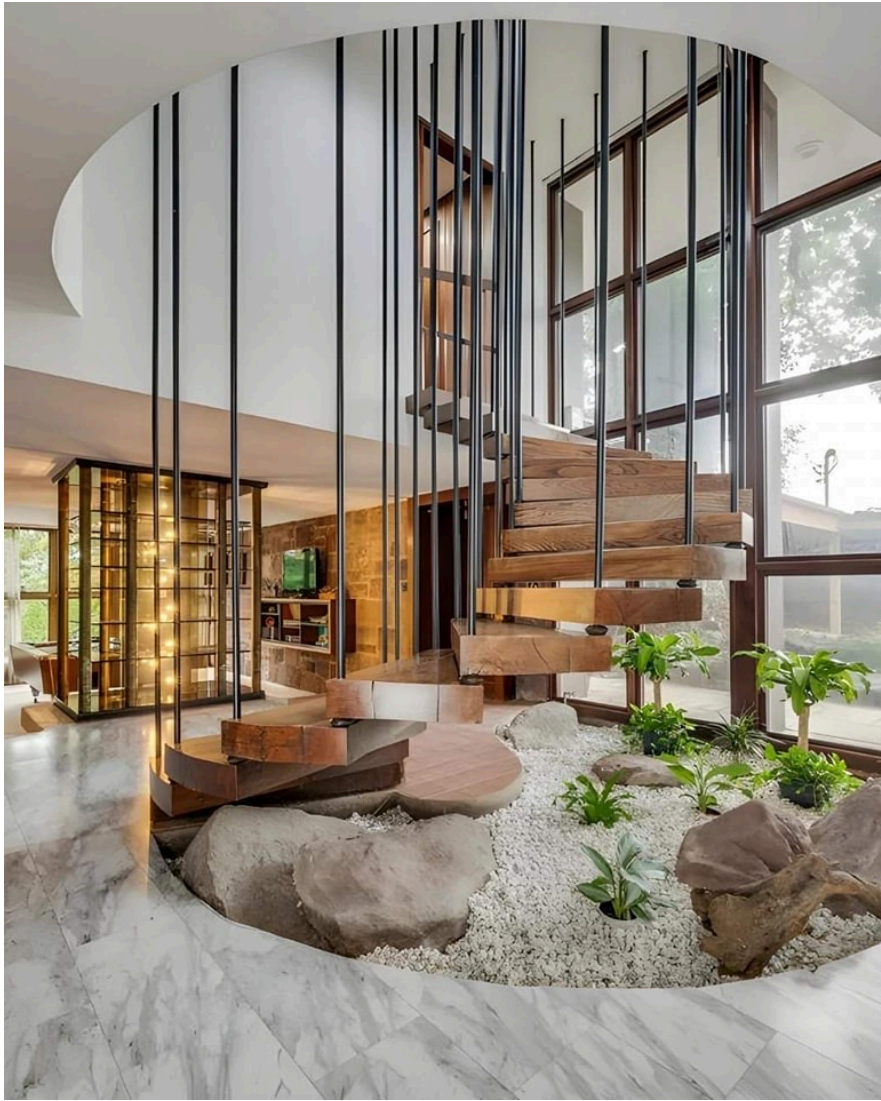




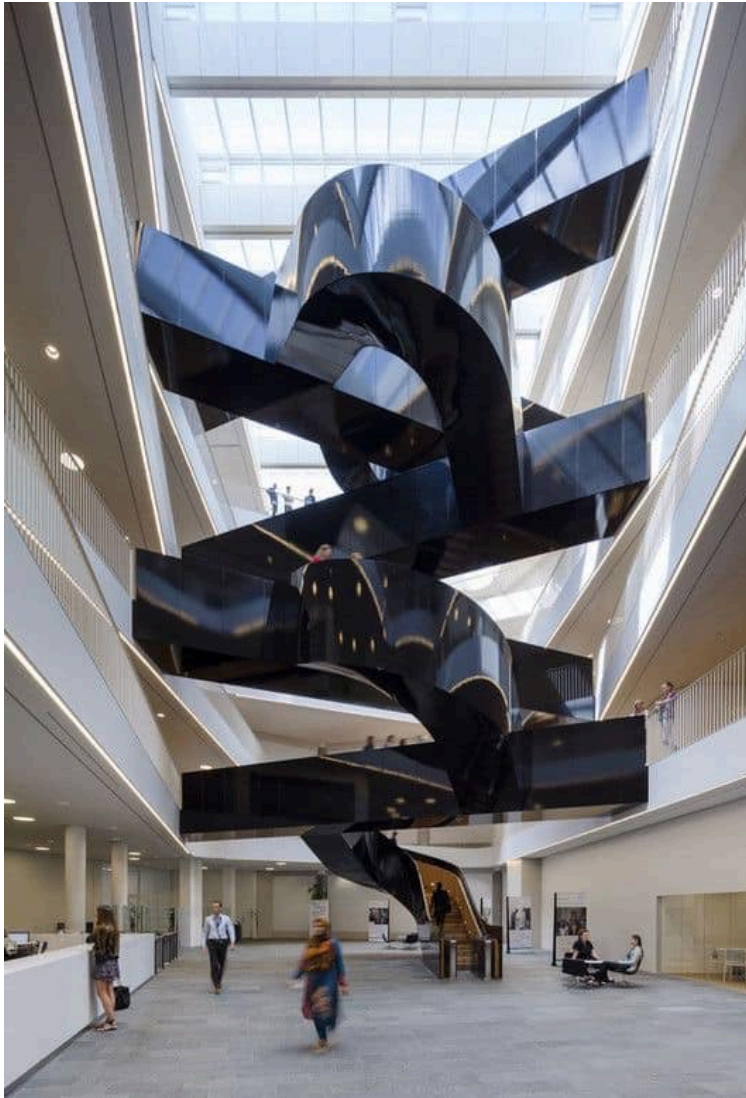






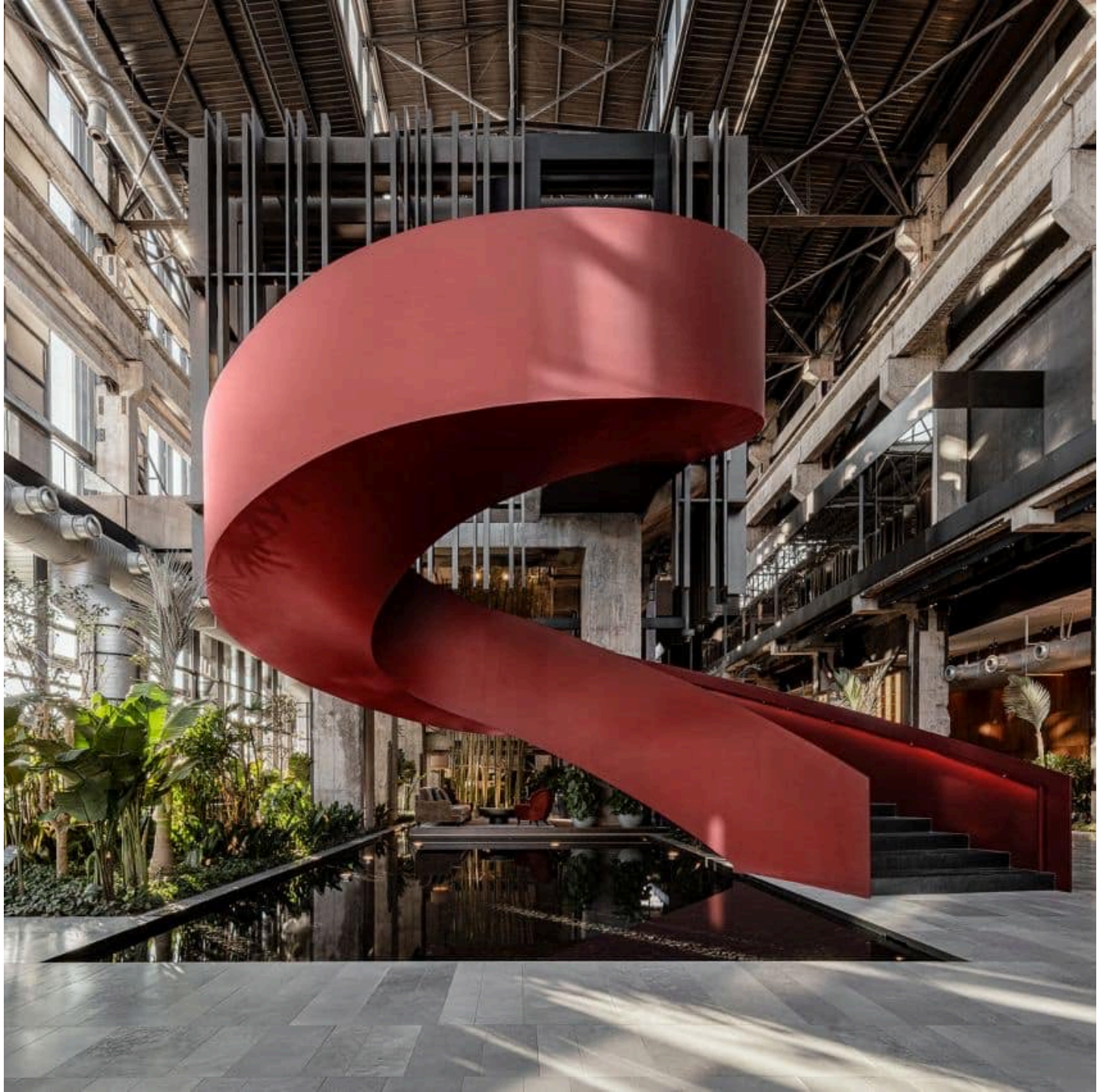


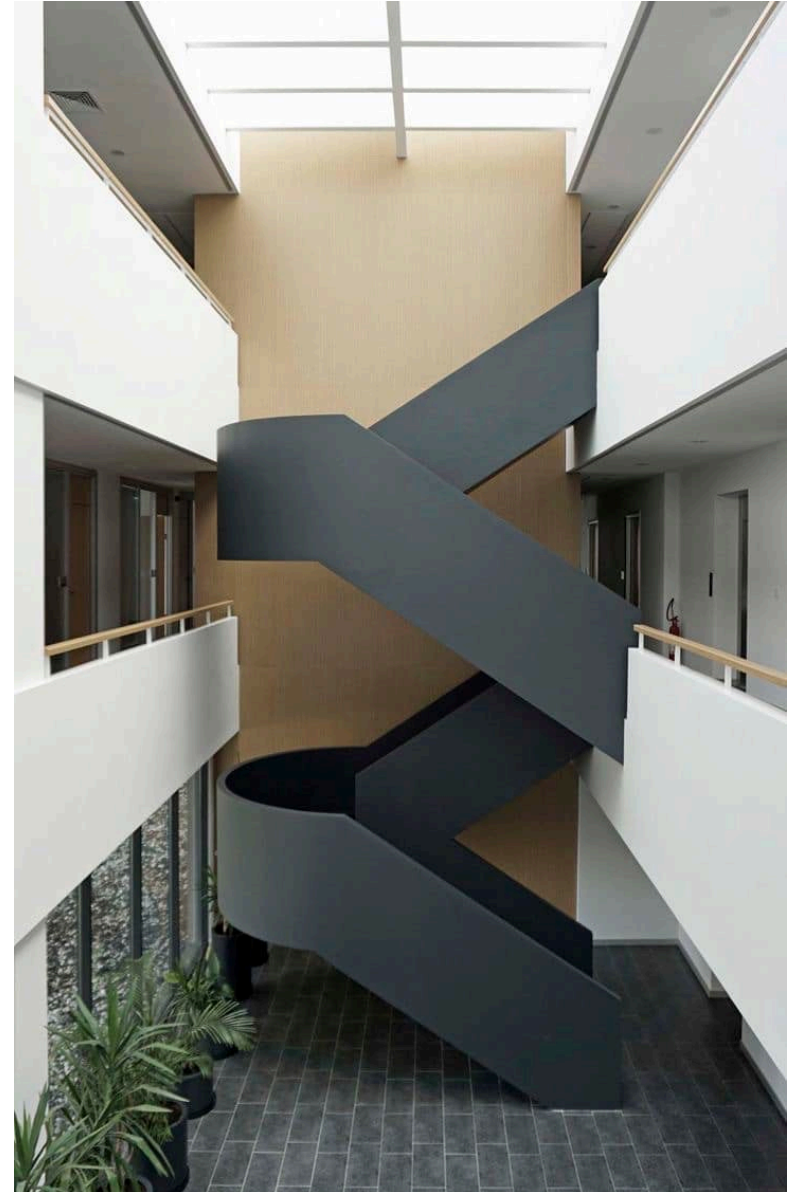


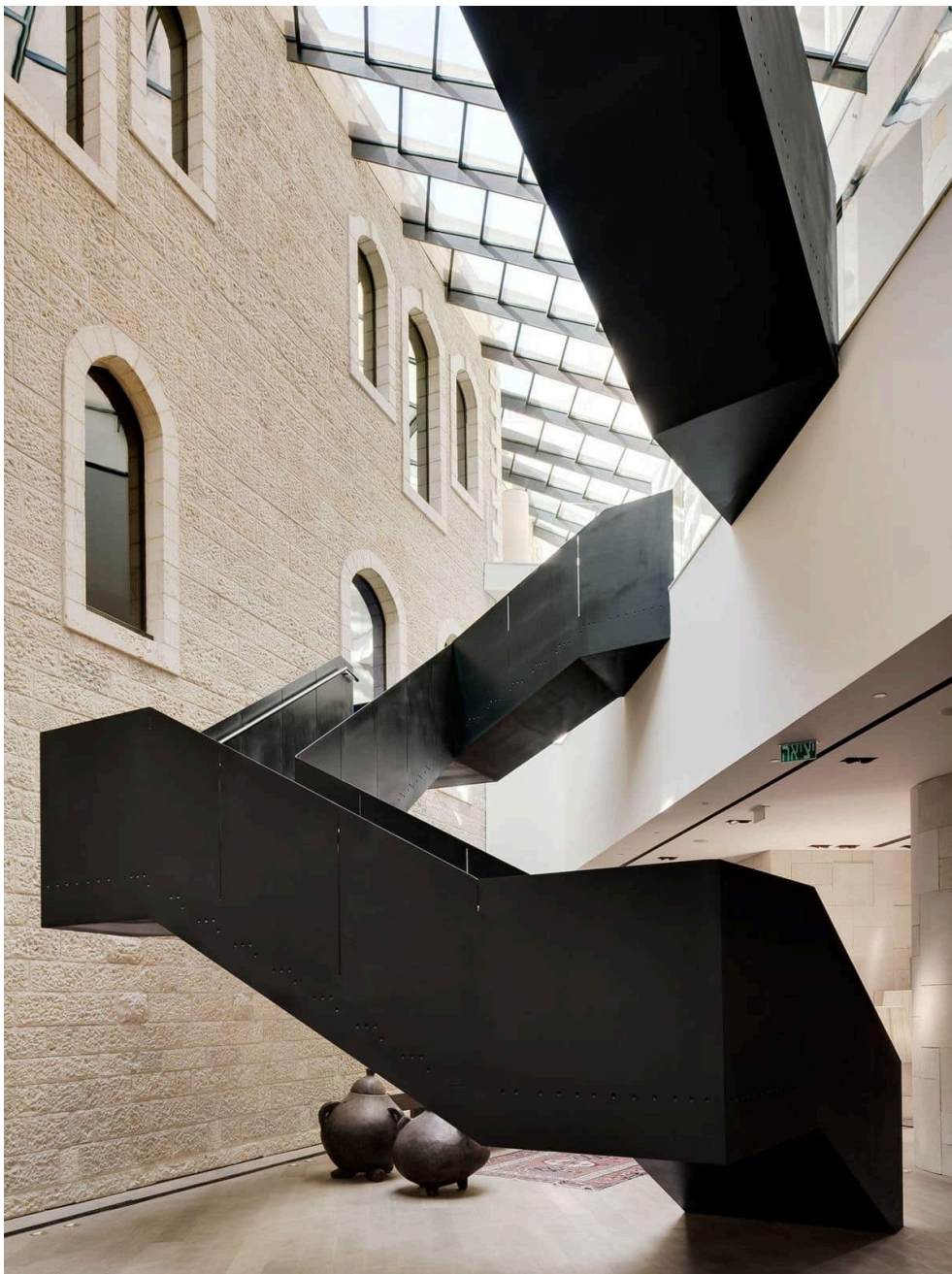


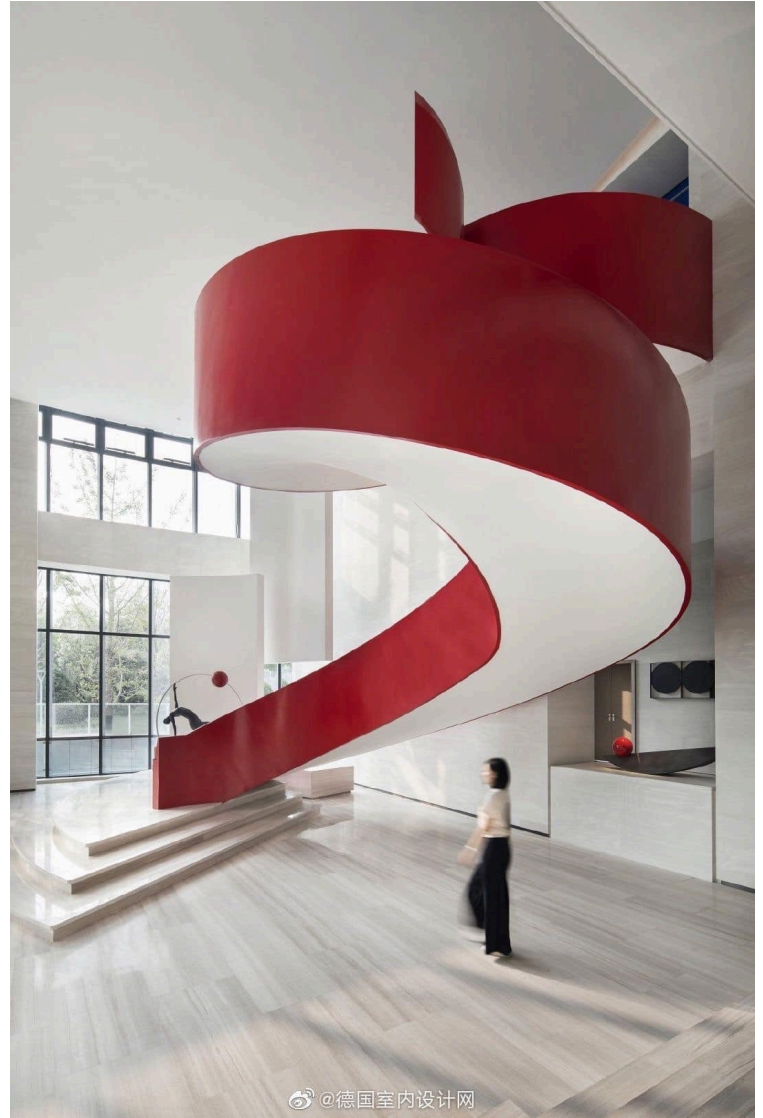


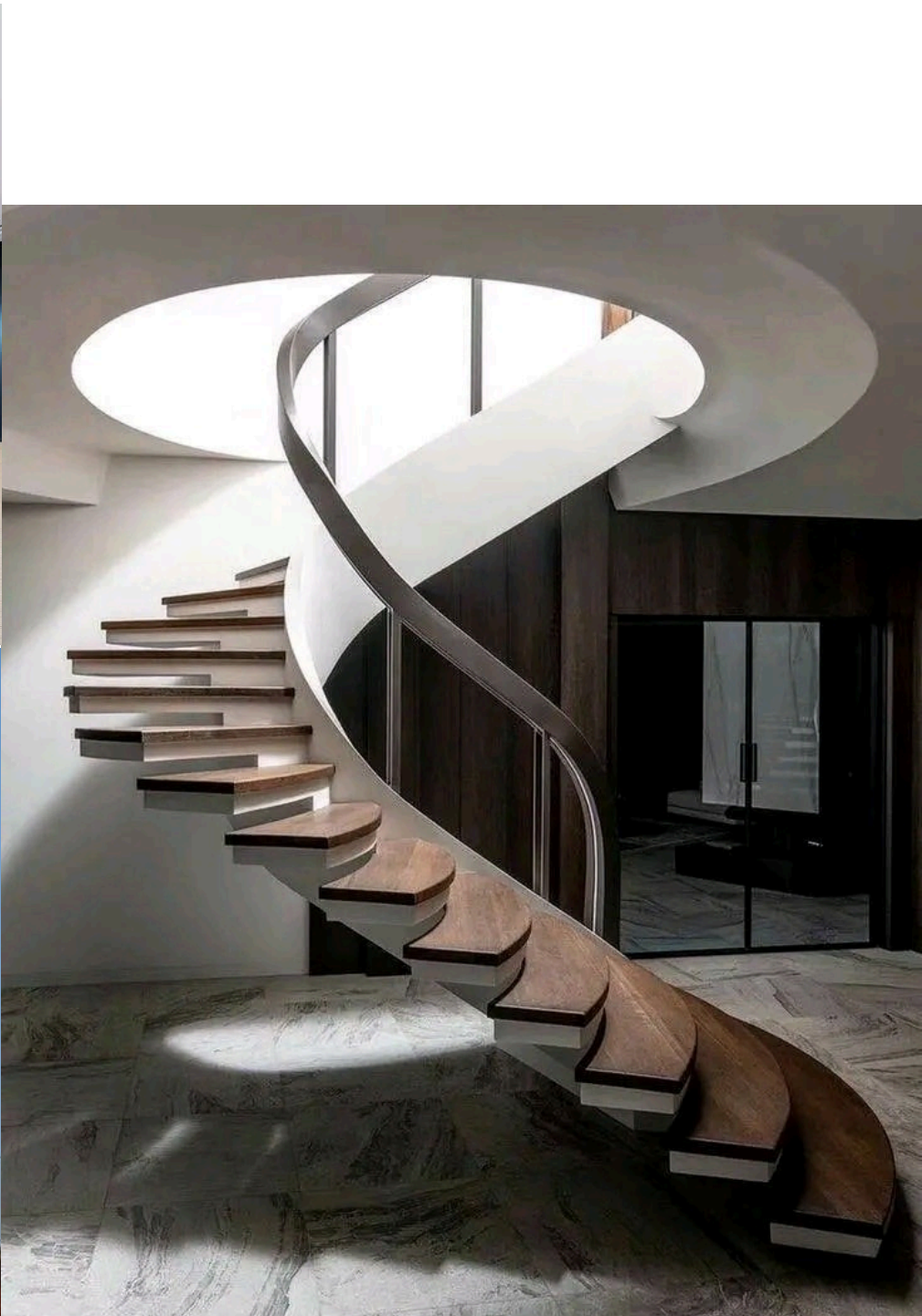
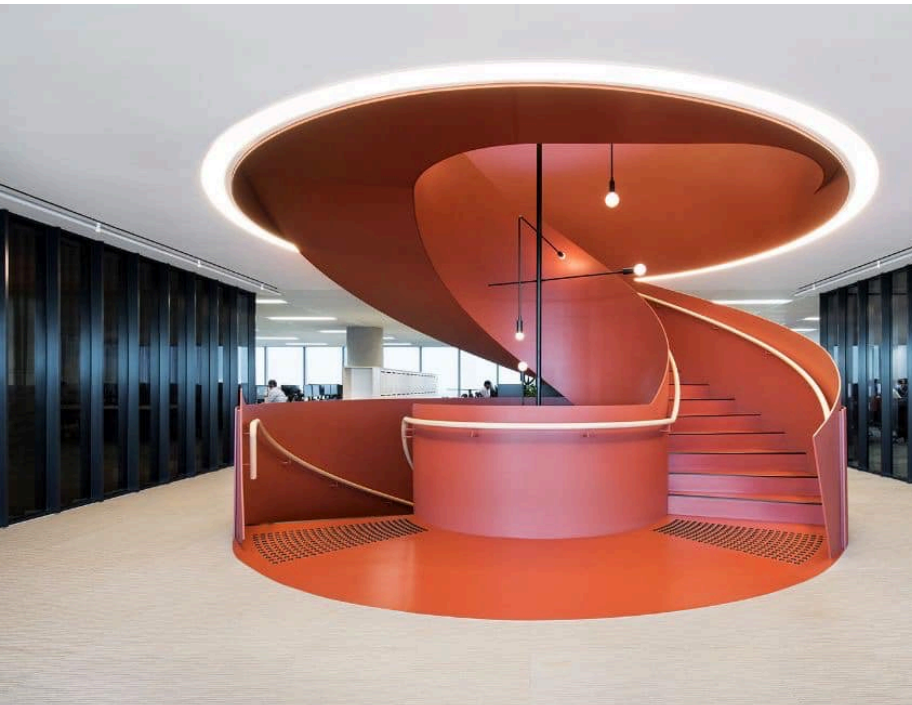


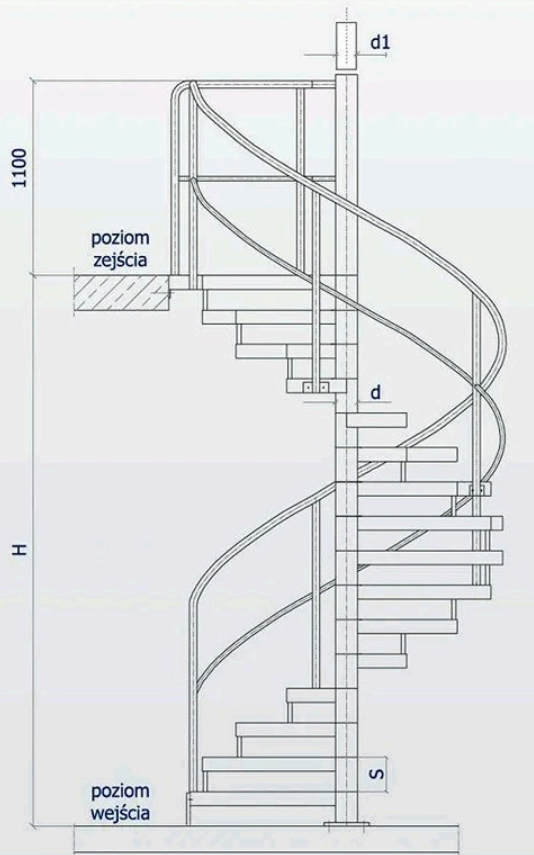










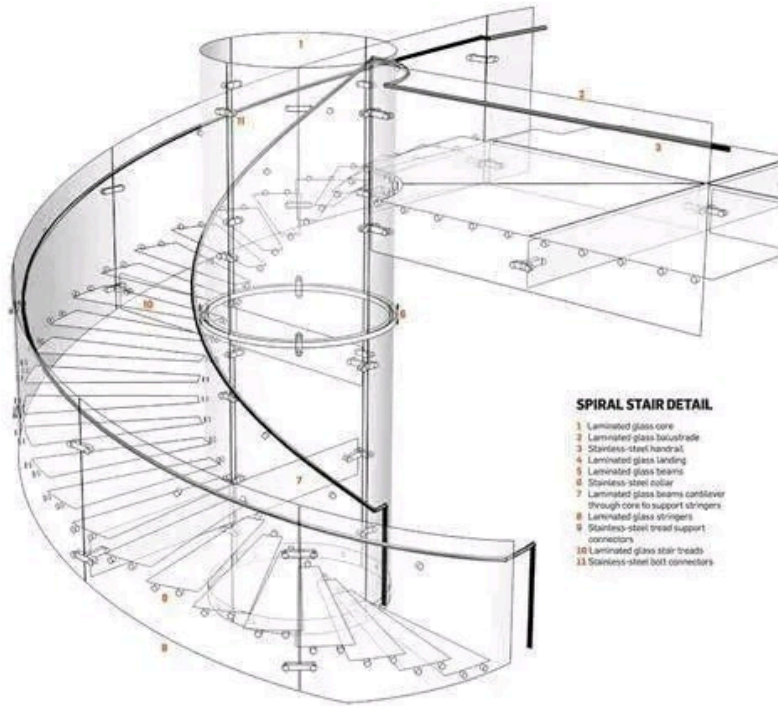


Pomost zejściowy

Pomost jest wypełniony kratą pomostową (wg DIN 24537)

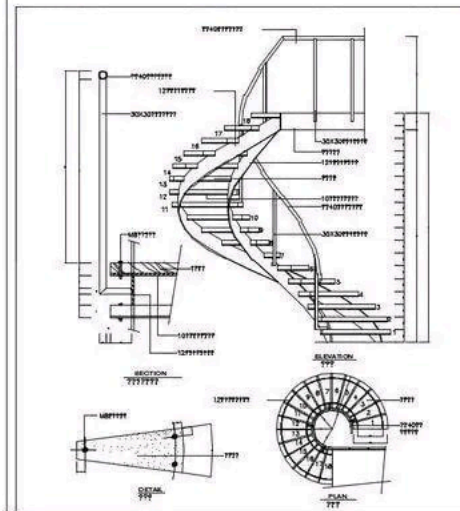
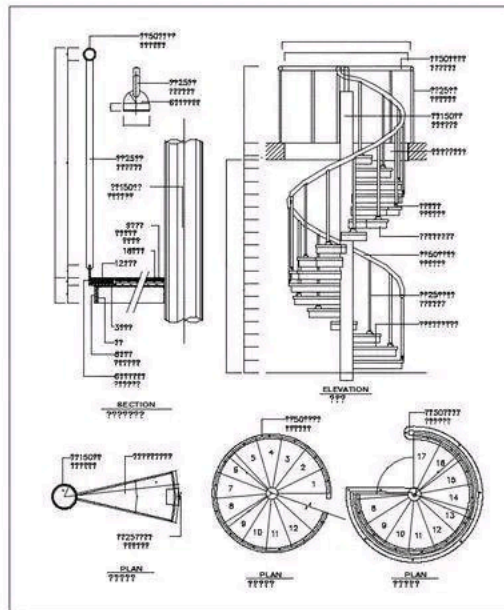
Legenda

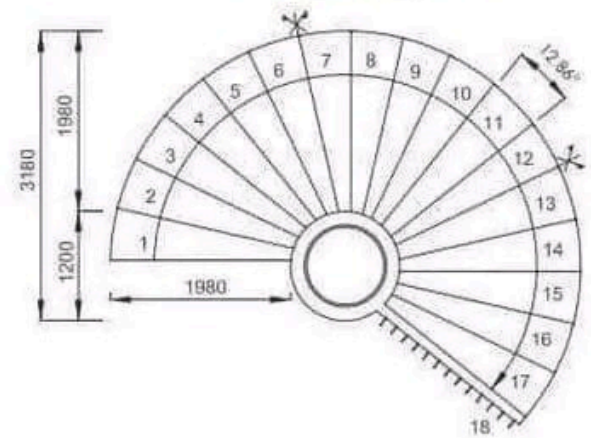
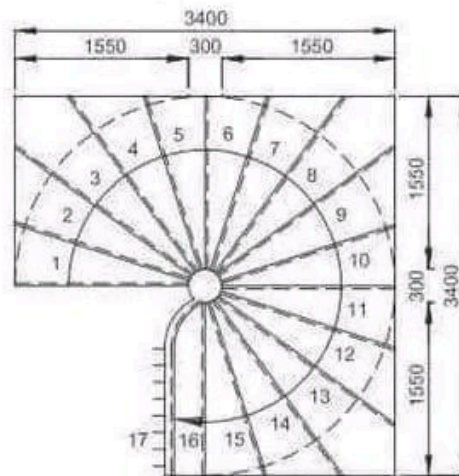
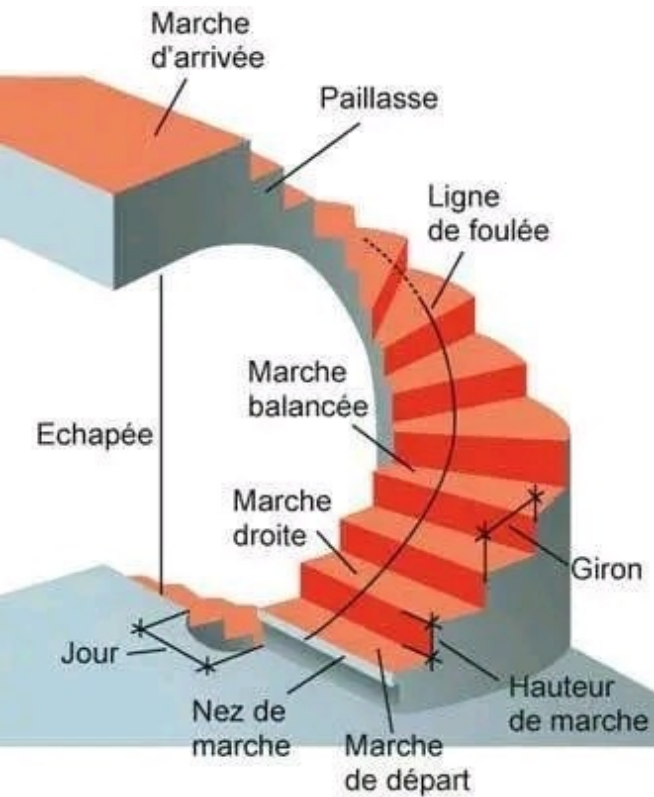
- D - średnica schodów spiralnych z barierką
- d - średnica tulei
- d1 - średnica rury centralnej
- H - wysokość kondygnacji
- S - wysokość stąpania schodów
- A1, B1 - wymiary pomostu



SPIRAL STAIR DETAIL

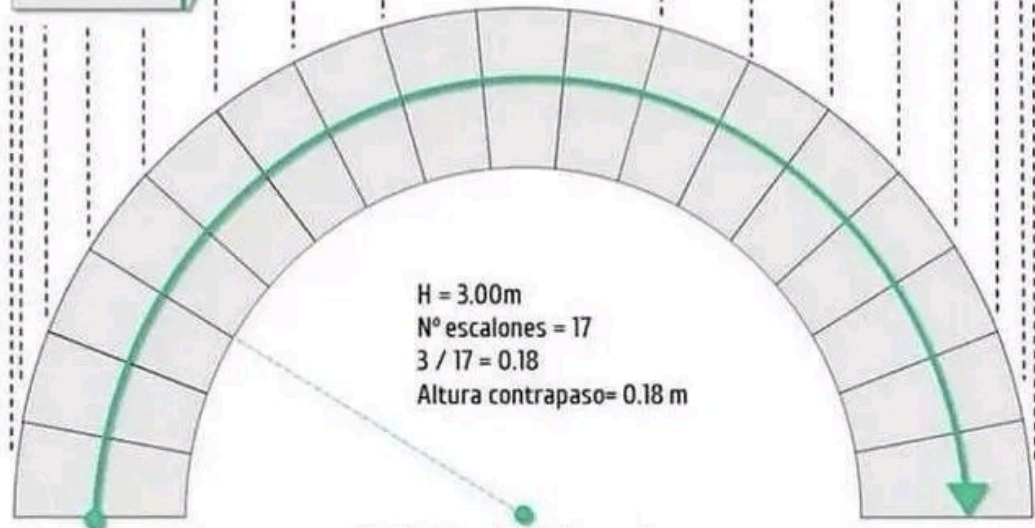
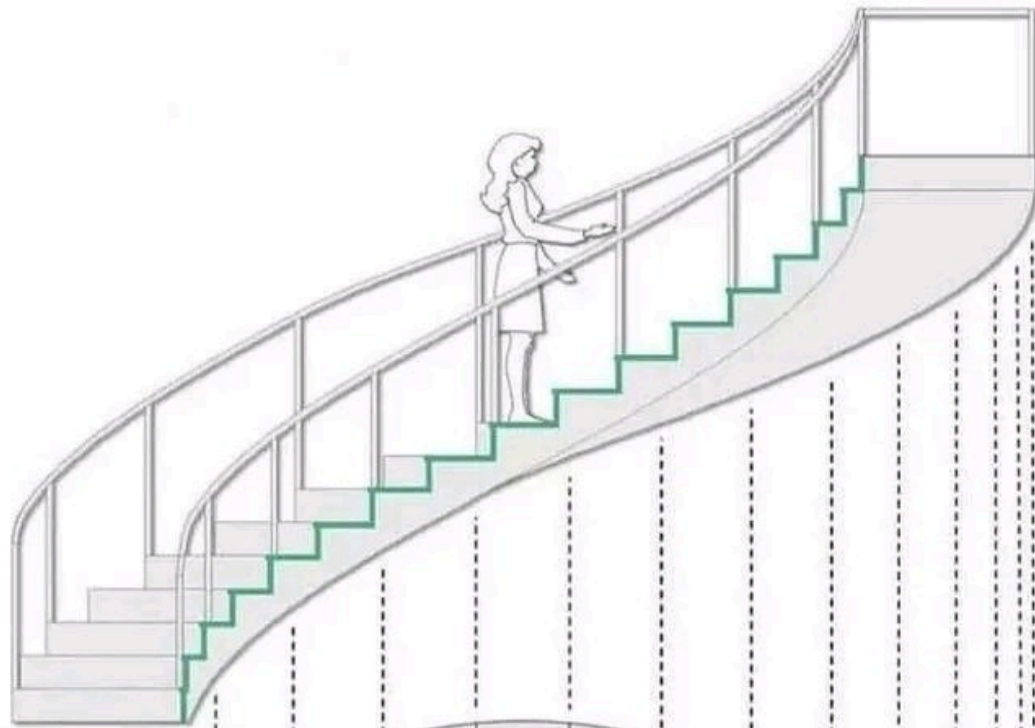
- 1 Laminated glass core
- 2 Laminated glass base/rail
- 3 Stainless-steel handrail
- 4 Laminated glass landing
- 5 Laminated glass beams
- 6 Stainless-steel collar
- 7 Laminated glass beams cantilever through core for support stringers
- 8 Laminated glass stringers
- 9 Stainless-steel tread support connectors
- 10 Laminated glass stair treads
- 11 Stainless-steel bolt connectors





Diameter 300 mm	Max Stair Width 1550 mm
Angle 18°	Weight (max) 2600 kg
Risers from 160 to 190 mm	Rotation Right or Left
Nosing 20 mm	

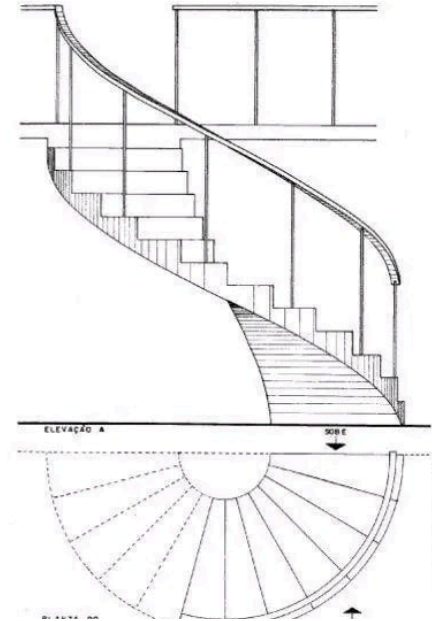
Diameter 1200 mm	Max Stair Width 1980 mm
Risers from 160 to 170 mm	Weight (max) 2400 kg
Nosing 20 mm	Rotation Right or left



H = 3.00m
 Nº escalones = 17
 $3 / 17 = 0.18$
 Altura contrapaso = 0.18 m

0.90m

Doble del ancho de la escalera
 $0.90 \times 2 = 1.80$
 Diámetro = 1.80m



DESENHO MAIS
 DETALHADO DE
 UMA ESCADA
 HELICOIDAL.
 O CORRIMÃO INTERNO
 FOI ELIMINADO PARA
 MAIOR CLAREZA DO
 DESENHO.

Elliptical Stairs
 Overview of assembly

Handrails must be fabricated on top floor (balustrades cut to accommodate handrails) or an weld at meeting edges.

Existing embedded plate as downer/riser
 Size measure 22-01-10.

Finished Floor level
 Concrete slab
 Platform/area ceiling

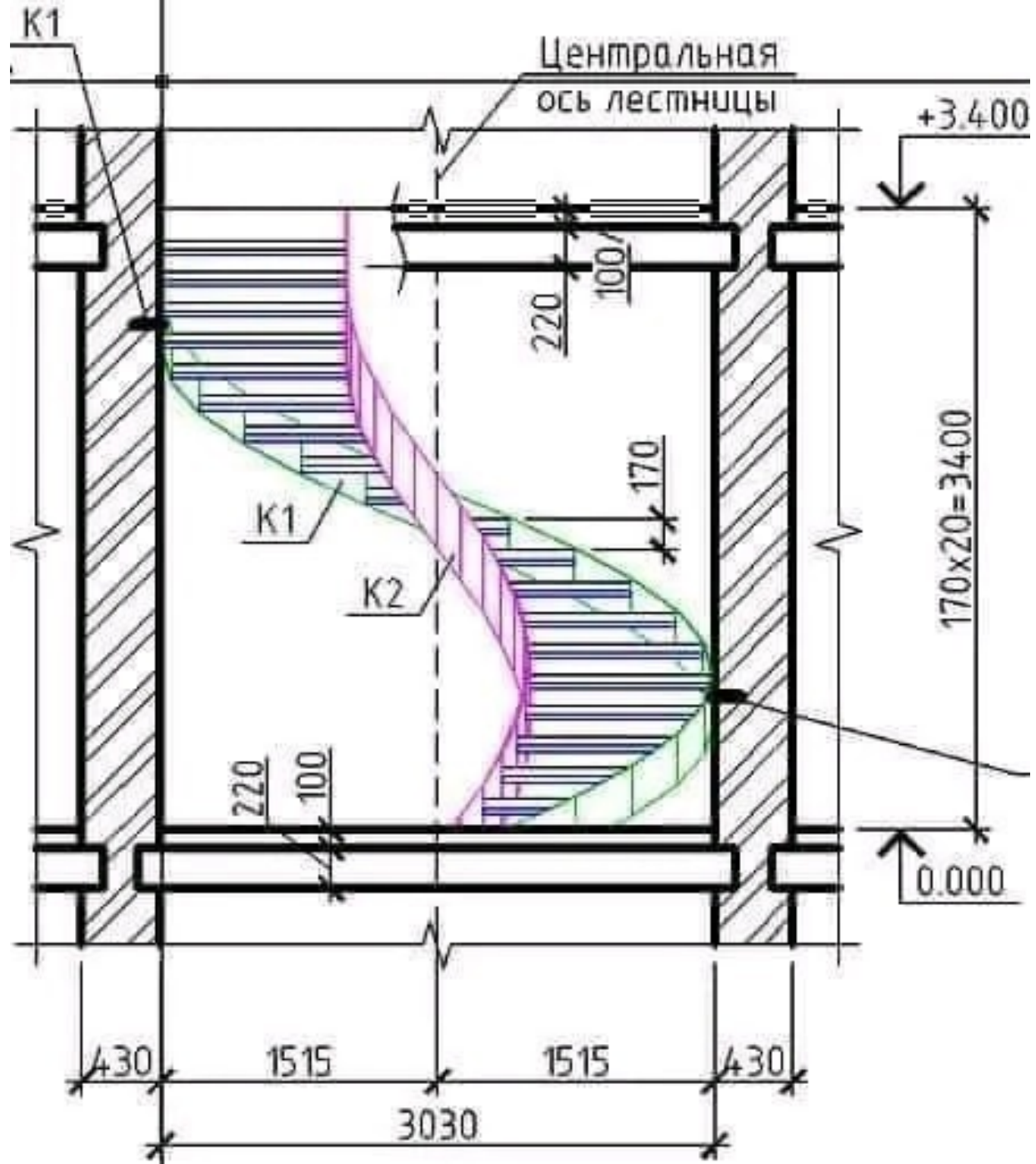
Bottom 3 or top 2 steps have had timber treads applied to show uniformity of finished step height and they are uniform throughout.

Handrail 12mm rolled steel
 To be completed in sections

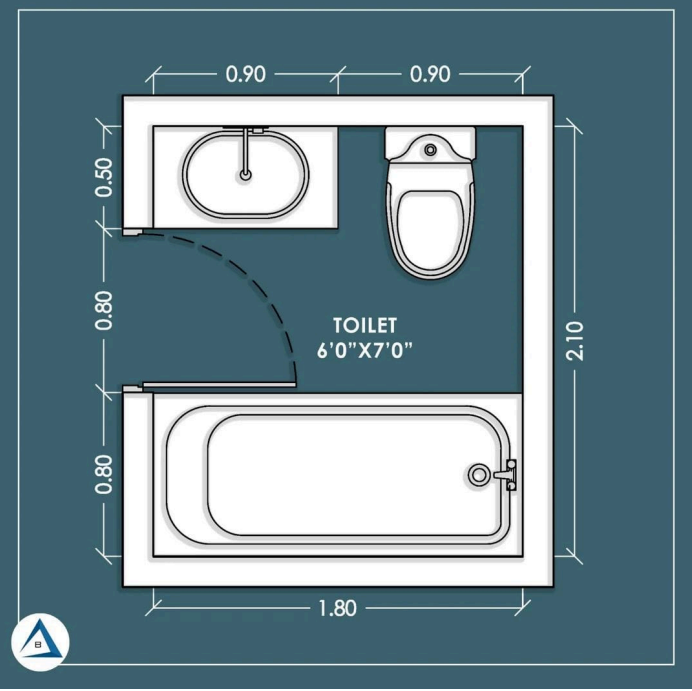
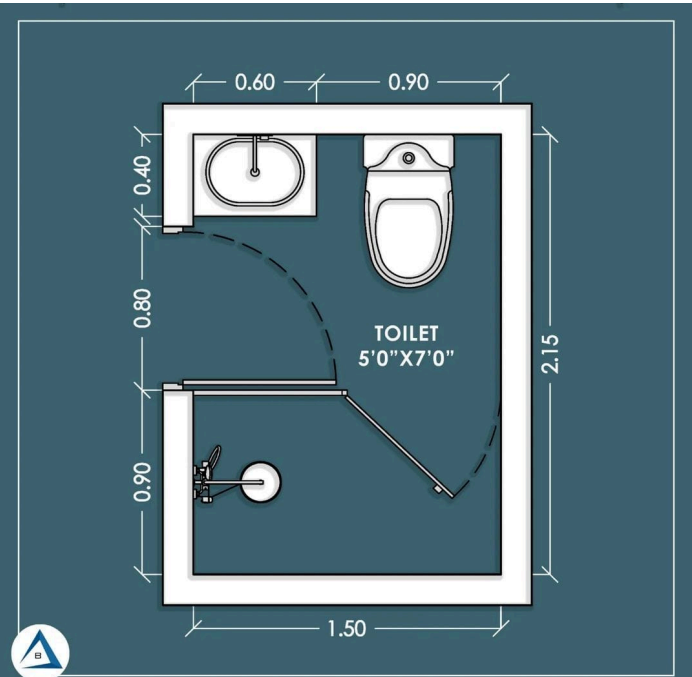
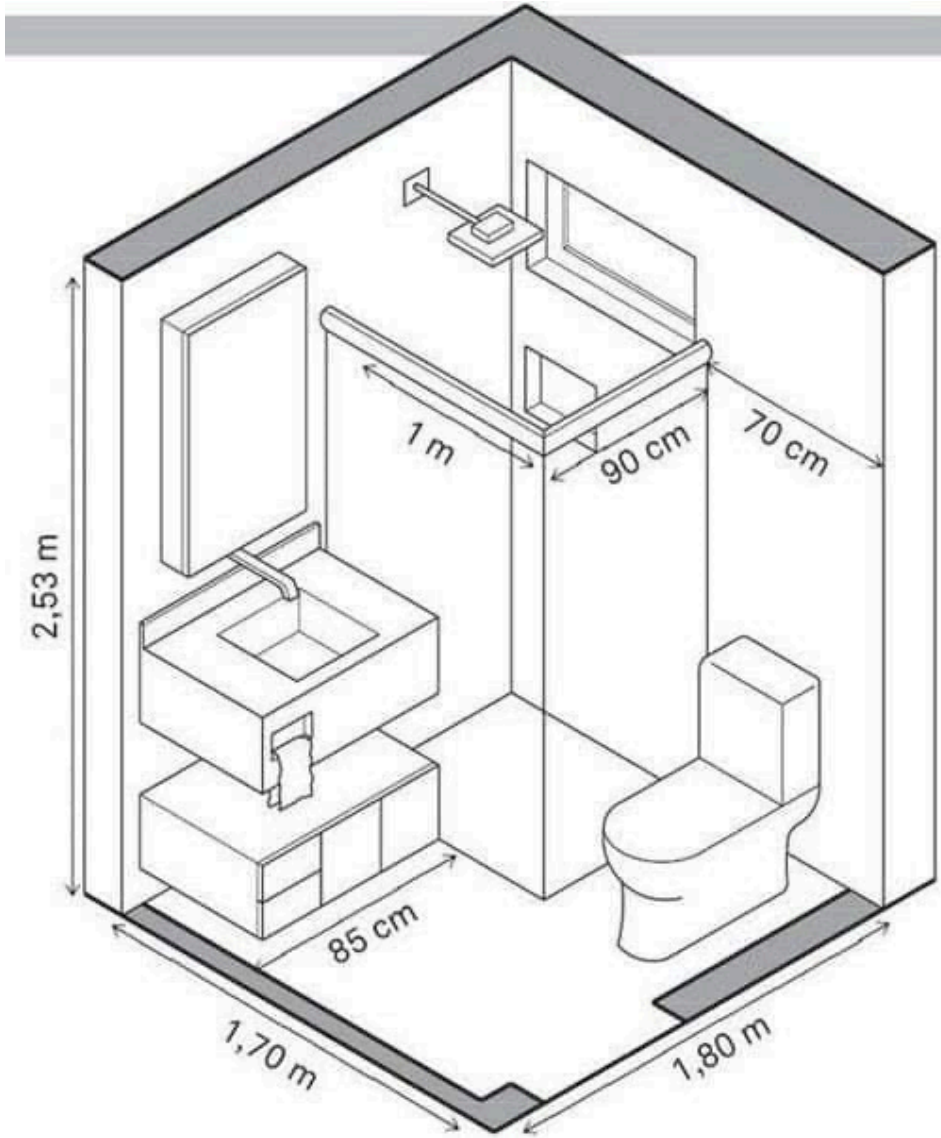
Hand rail on inside of outside balustrade

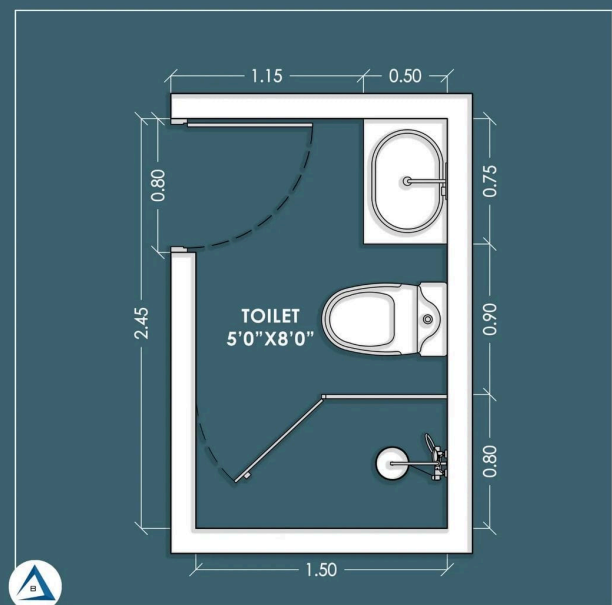
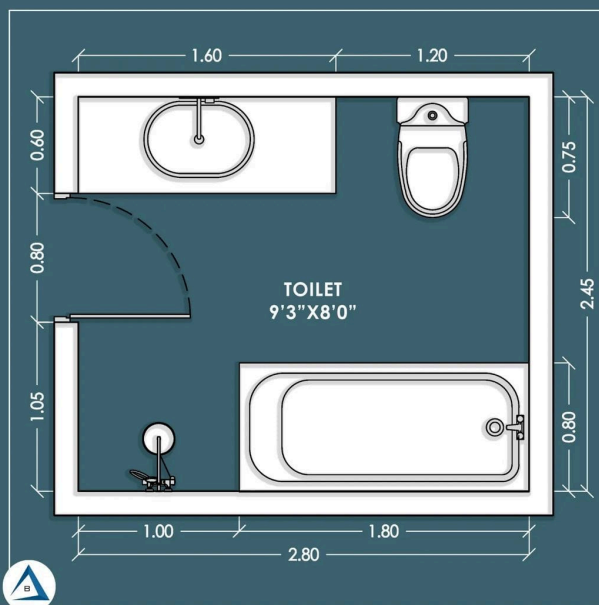
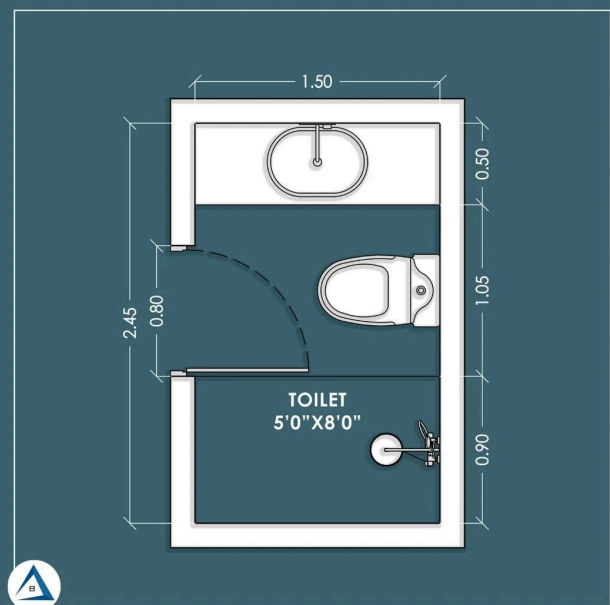
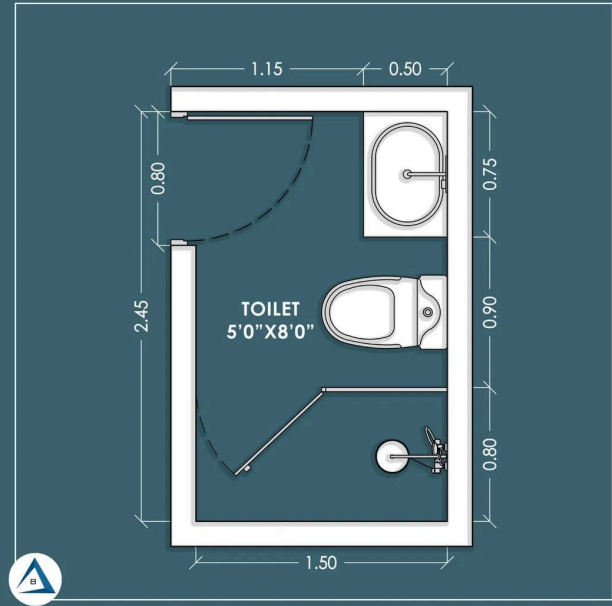
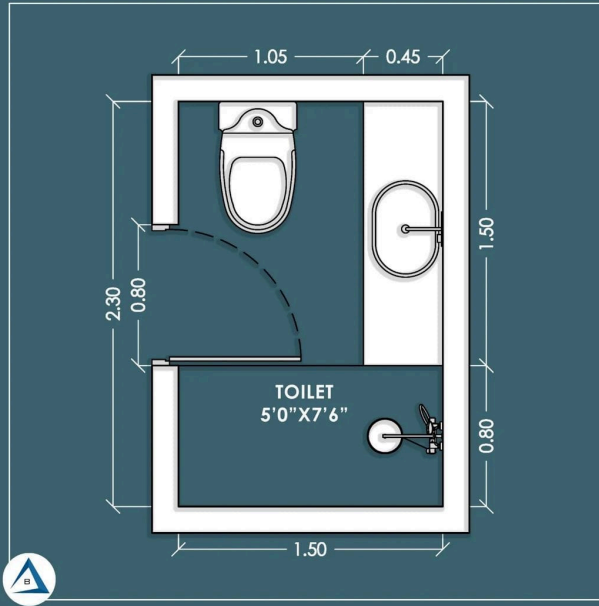
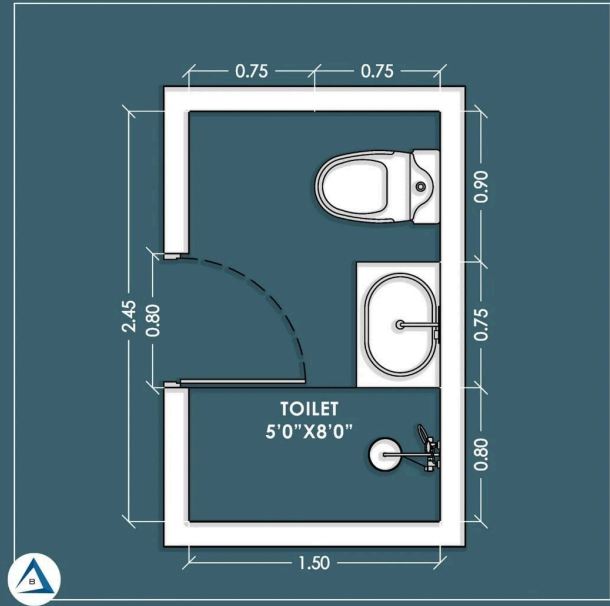
Finished floor level
 Concrete slab
 Steel base plate of stairs weld to embedded plate in concrete slab
 Embedded plate

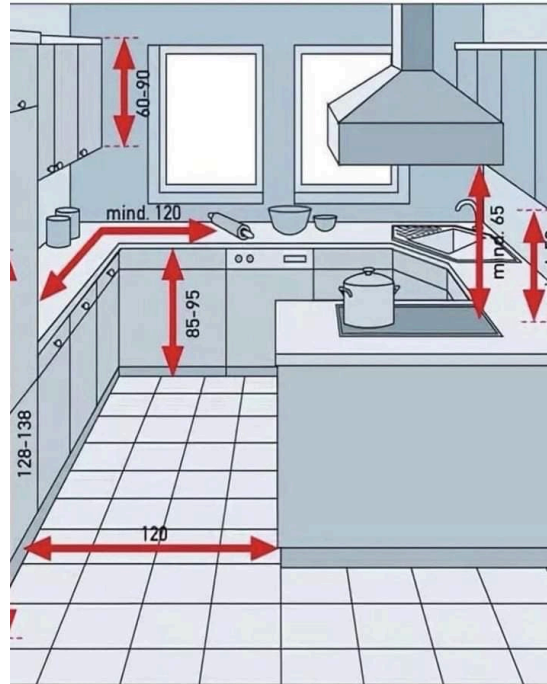
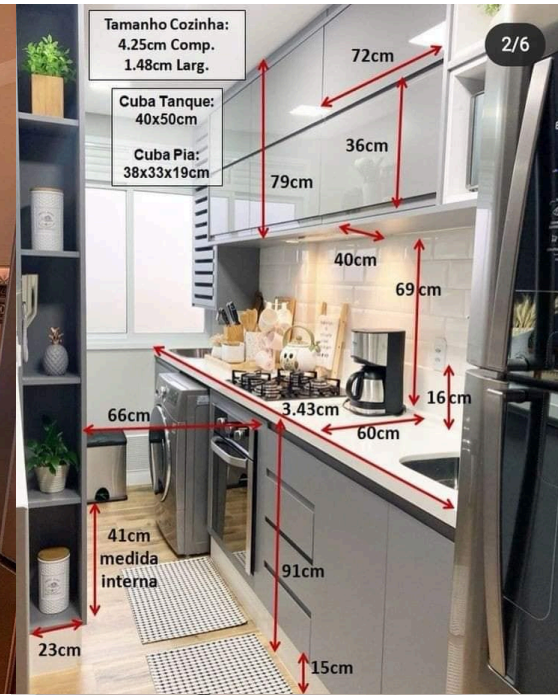
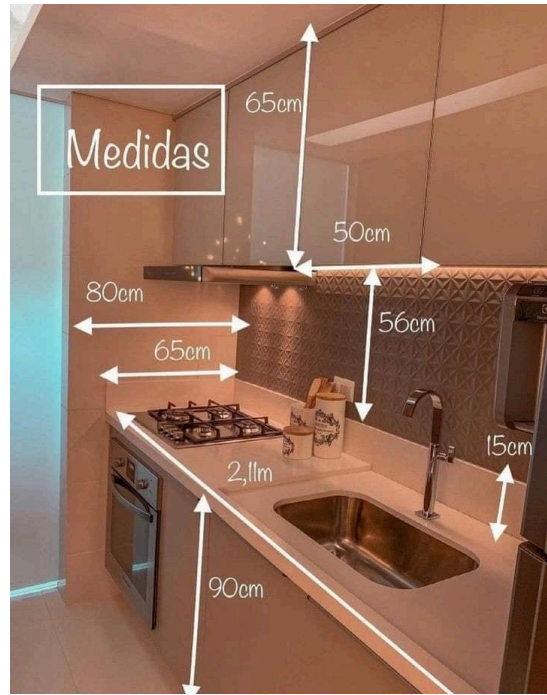
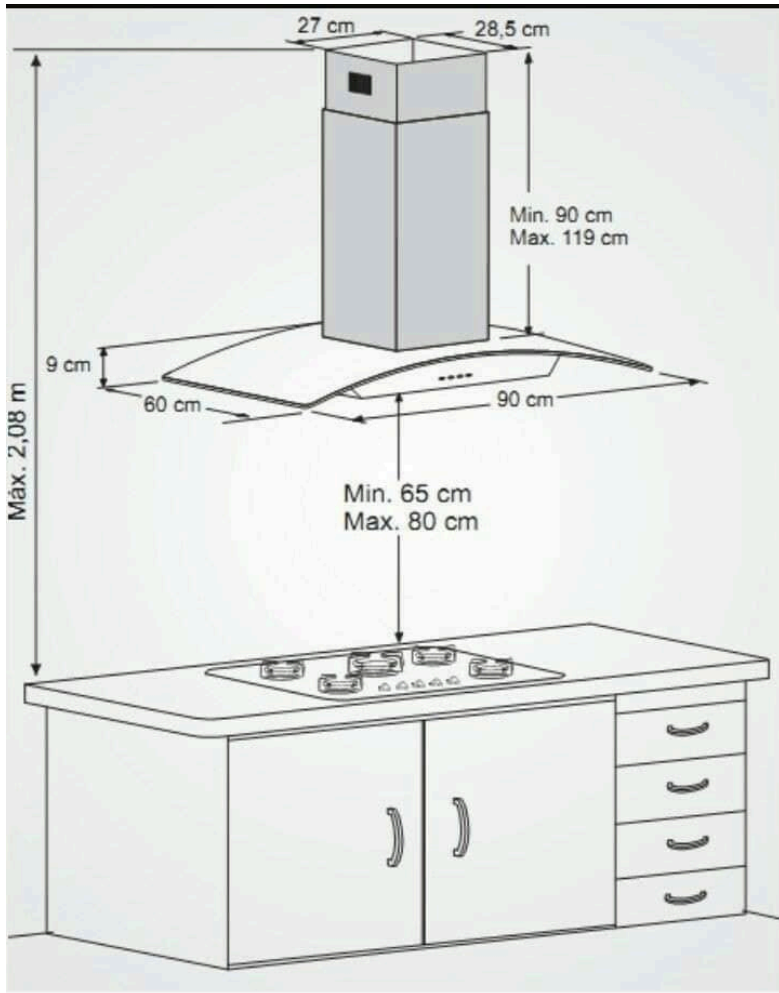
NO	REV	DESCRIPTION	DATE
1	0	ISSUED FOR CONSTRUCTION	10/10/2010
2	1	REVISION	10/10/2010
3	2	REVISION	10/10/2010
4	3	REVISION	10/10/2010
5	4	REVISION	10/10/2010
6	5	REVISION	10/10/2010
7	6	REVISION	10/10/2010
8	7	REVISION	10/10/2010
9	8	REVISION	10/10/2010
10	9	REVISION	10/10/2010
11	10	REVISION	10/10/2010
12	11	REVISION	10/10/2010
13	12	REVISION	10/10/2010
14	13	REVISION	10/10/2010
15	14	REVISION	10/10/2010
16	15	REVISION	10/10/2010
17	16	REVISION	10/10/2010
18	17	REVISION	10/10/2010
19	18	REVISION	10/10/2010
20	19	REVISION	10/10/2010
21	20	REVISION	10/10/2010
22	21	REVISION	10/10/2010
23	22	REVISION	10/10/2010
24	23	REVISION	10/10/2010
25	24	REVISION	10/10/2010
26	25	REVISION	10/10/2010
27	26	REVISION	10/10/2010
28	27	REVISION	10/10/2010
29	28	REVISION	10/10/2010
30	29	REVISION	10/10/2010
31	30	REVISION	10/10/2010
32	31	REVISION	10/10/2010
33	32	REVISION	10/10/2010
34	33	REVISION	10/10/2010
35	34	REVISION	10/10/2010
36	35	REVISION	10/10/2010
37	36	REVISION	10/10/2010
38	37	REVISION	10/10/2010
39	38	REVISION	10/10/2010
40	39	REVISION	10/10/2010
41	40	REVISION	10/10/2010
42	41	REVISION	10/10/2010
43	42	REVISION	10/10/2010
44	43	REVISION	10/10/2010
45	44	REVISION	10/10/2010
46	45	REVISION	10/10/2010
47	46	REVISION	10/10/2010
48	47	REVISION	10/10/2010
49	48	REVISION	10/10/2010
50	49	REVISION	10/10/2010
51	50	REVISION	10/10/2010
52	51	REVISION	10/10/2010
53	52	REVISION	10/10/2010
54	53	REVISION	10/10/2010
55	54	REVISION	10/10/2010
56	55	REVISION	10/10/2010
57	56	REVISION	10/10/2010
58	57	REVISION	10/10/2010
59	58	REVISION	10/10/2010
60	59	REVISION	10/10/2010
61	60	REVISION	10/10/2010
62	61	REVISION	10/10/2010
63	62	REVISION	10/10/2010
64	63	REVISION	10/10/2010
65	64	REVISION	10/10/2010
66	65	REVISION	10/10/2010
67	66	REVISION	10/10/2010
68	67	REVISION	10/10/2010
69	68	REVISION	10/10/2010
70	69	REVISION	10/10/2010
71	70	REVISION	10/10/2010
72	71	REVISION	10/10/2010
73	72	REVISION	10/10/2010
74	73	REVISION	10/10/2010
75	74	REVISION	10/10/2010
76	75	REVISION	10/10/2010
77	76	REVISION	10/10/2010
78	77	REVISION	10/10/2010
79	78	REVISION	10/10/2010
80	79	REVISION	10/10/2010
81	80	REVISION	10/10/2010
82	81	REVISION	10/10/2010
83	82	REVISION	10/10/2010
84	83	REVISION	10/10/2010
85	84	REVISION	10/10/2010
86	85	REVISION	10/10/2010
87	86	REVISION	10/10/2010
88	87	REVISION	10/10/2010
89	88	REVISION	10/10/2010
90	89	REVISION	10/10/2010
91	90	REVISION	10/10/2010
92	91	REVISION	10/10/2010
93	92	REVISION	10/10/2010
94	93	REVISION	10/10/2010
95	94	REVISION	10/10/2010
96	95	REVISION	10/10/2010
97	96	REVISION	10/10/2010
98	97	REVISION	10/10/2010
99	98	REVISION	10/10/2010
100	99	REVISION	10/10/2010

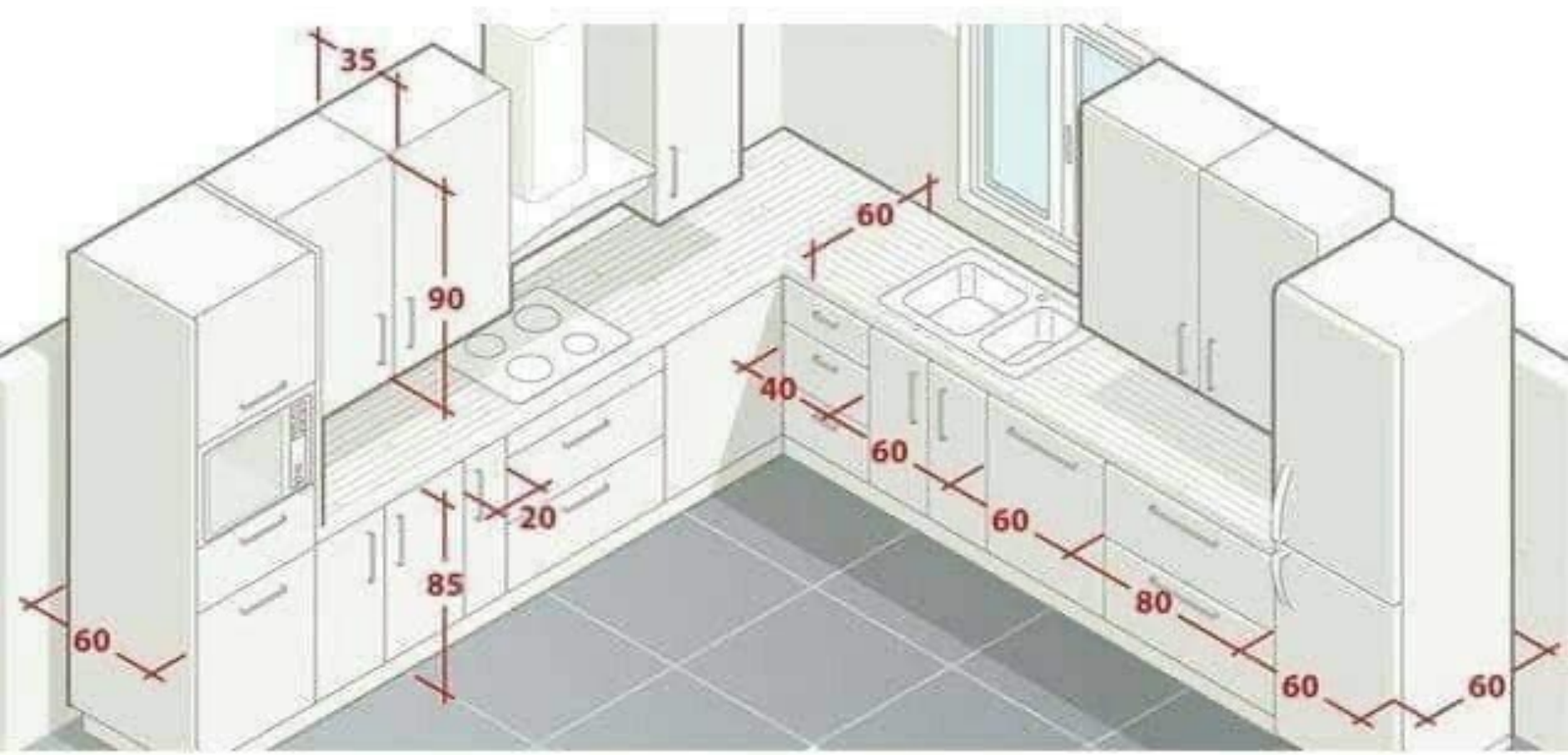


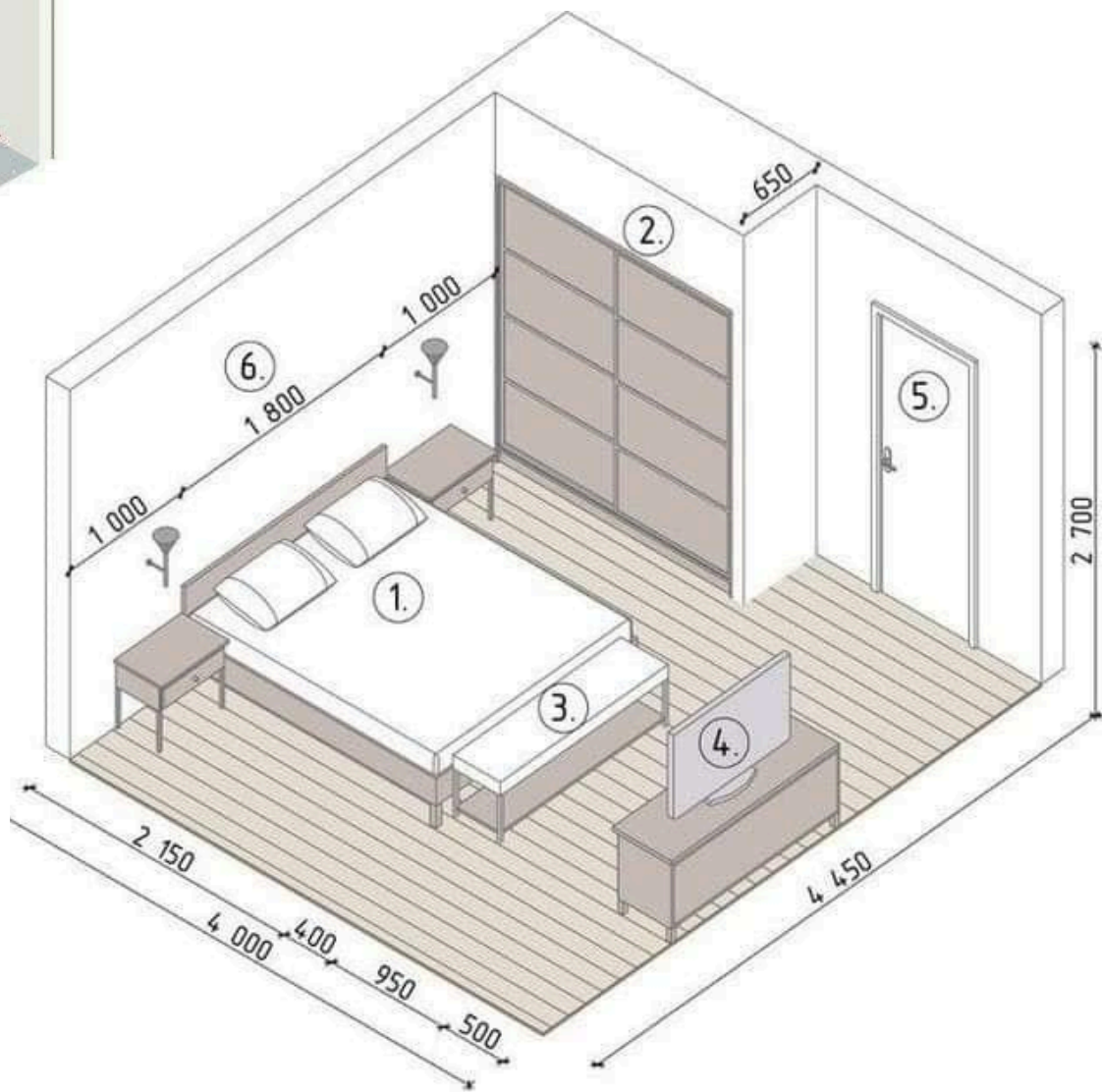
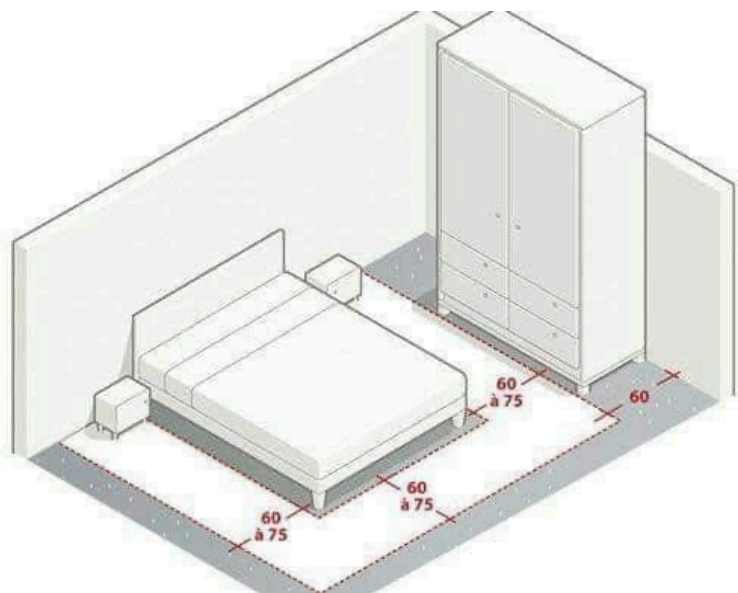














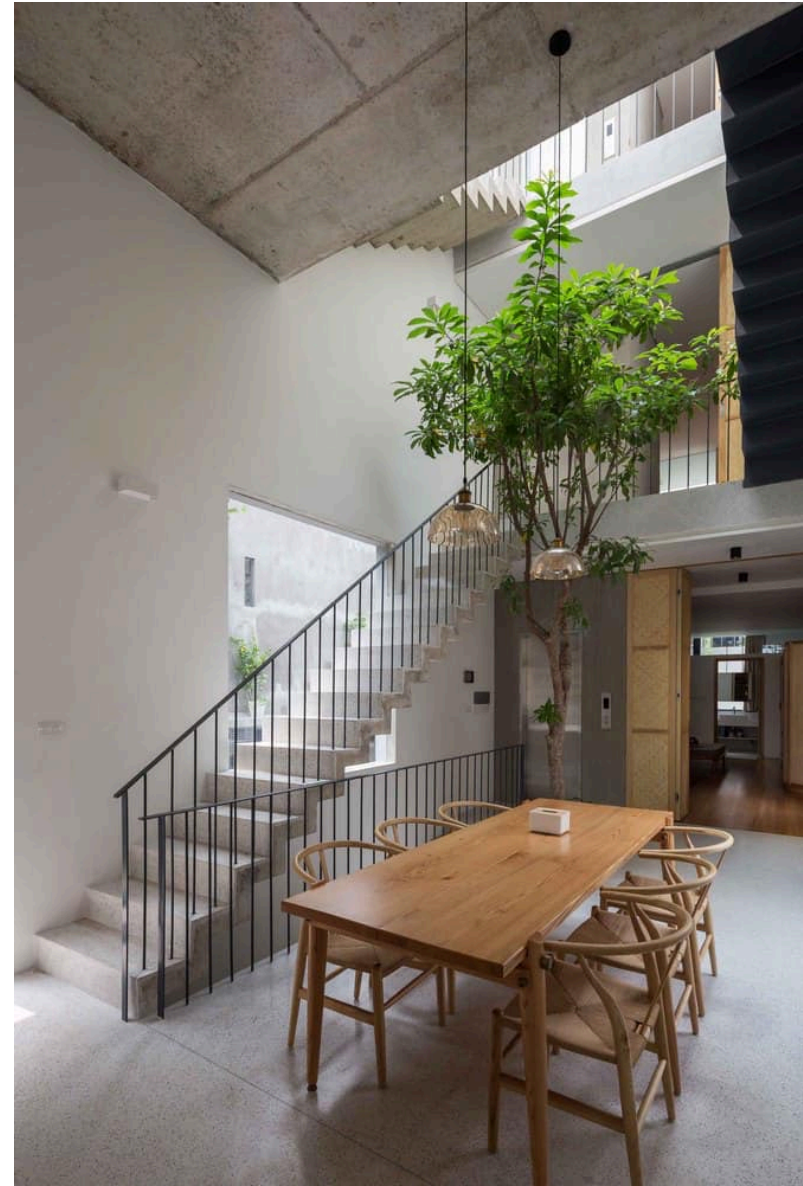






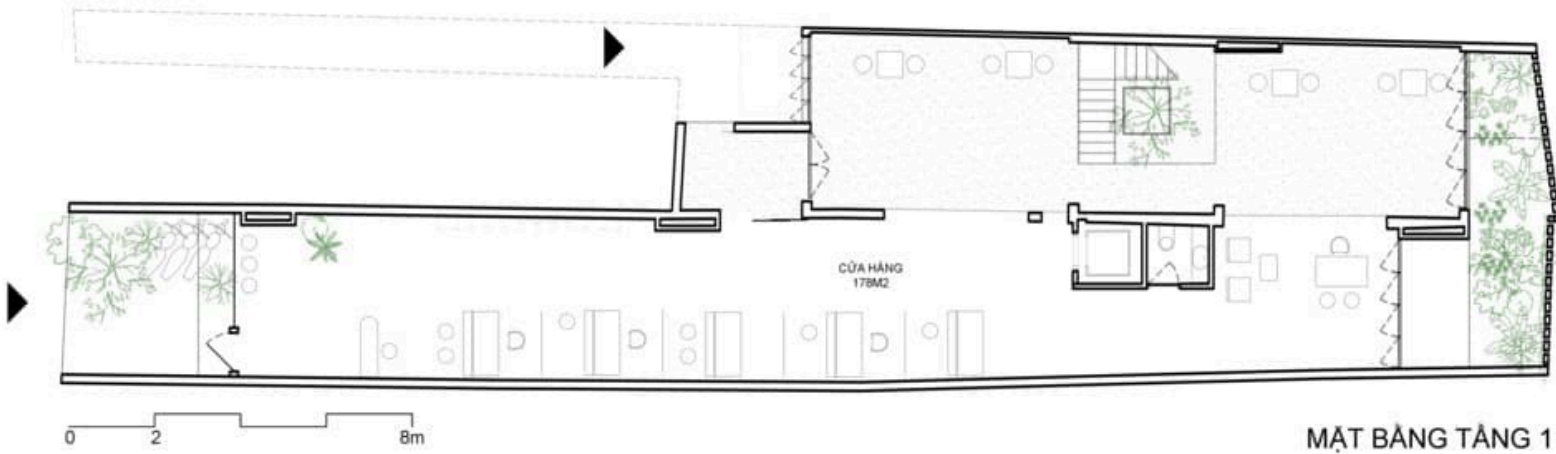
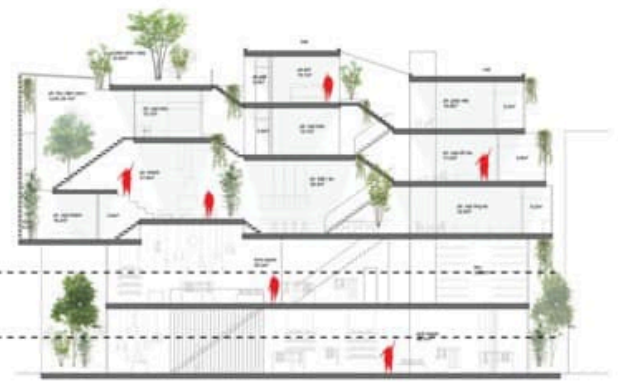




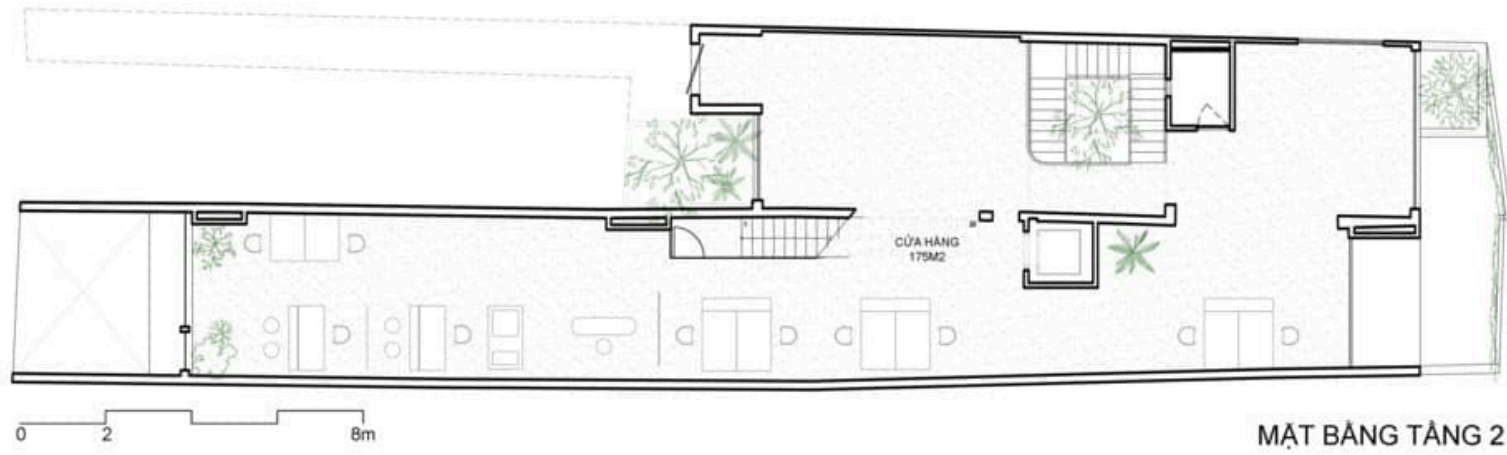


tầng 2

tầng 1



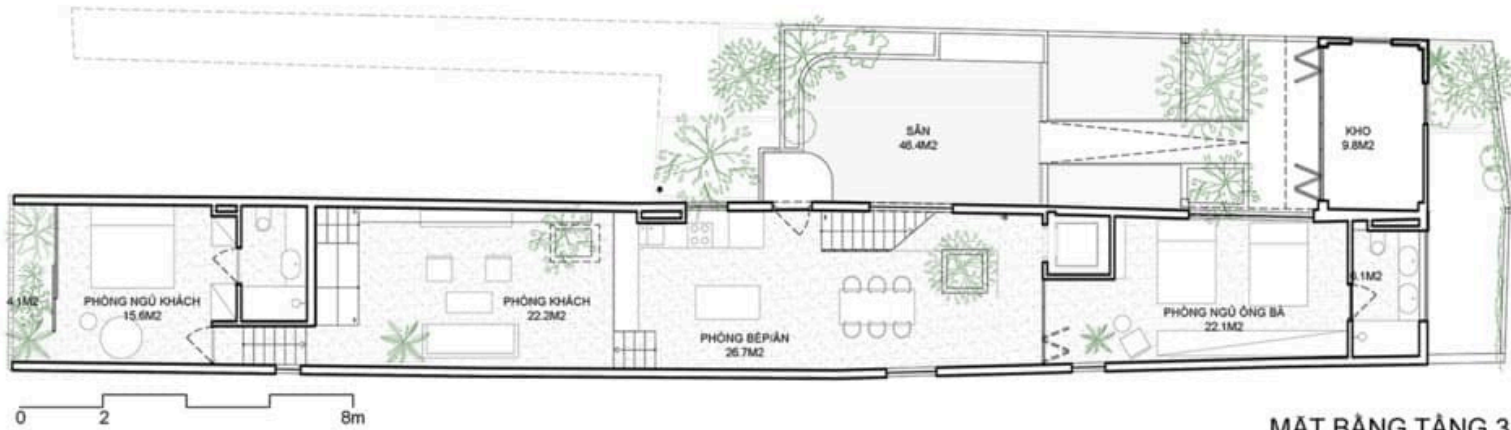
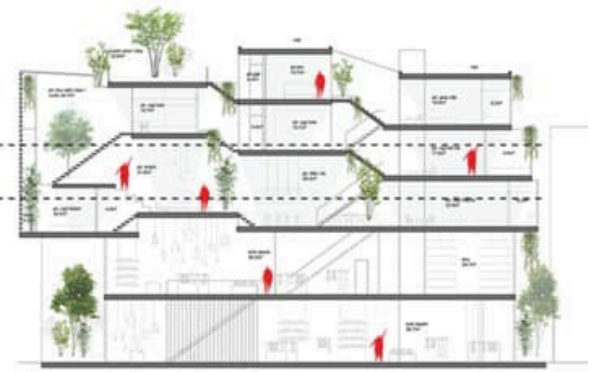
MẶT BẰNG TẦNG 1



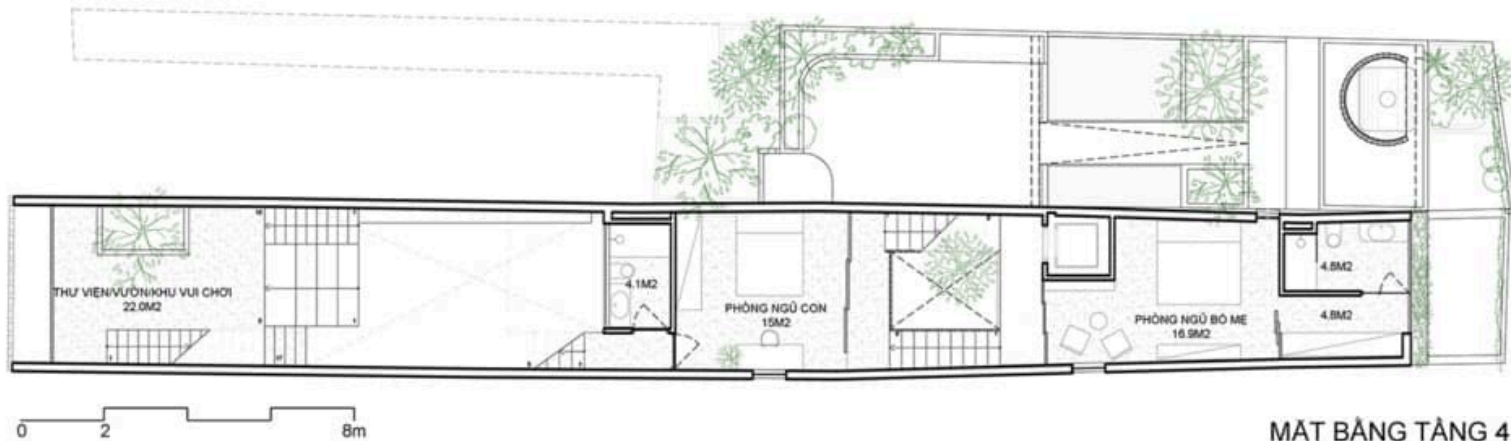
MẶT BẰNG TẦNG 2

tầng 4

tầng 3



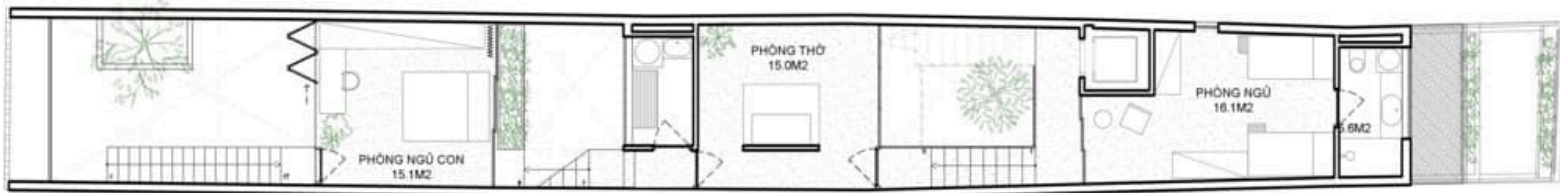
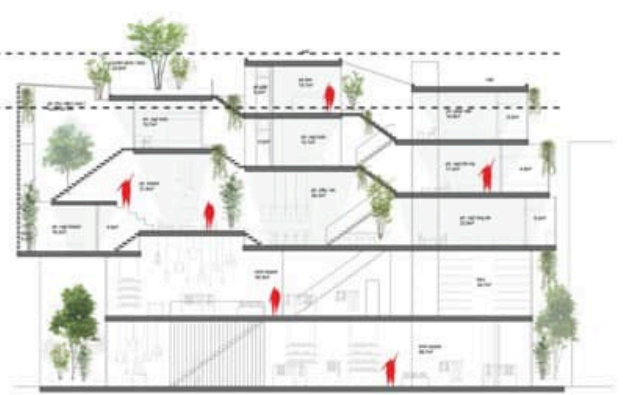
MẶT BẰNG TẦNG 3



MẶT BẰNG TẦNG 4

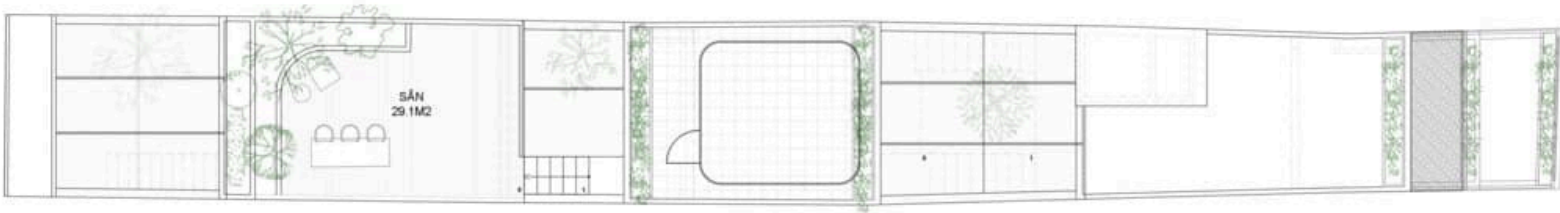
sân thượng

tầng 5



0 2 8m

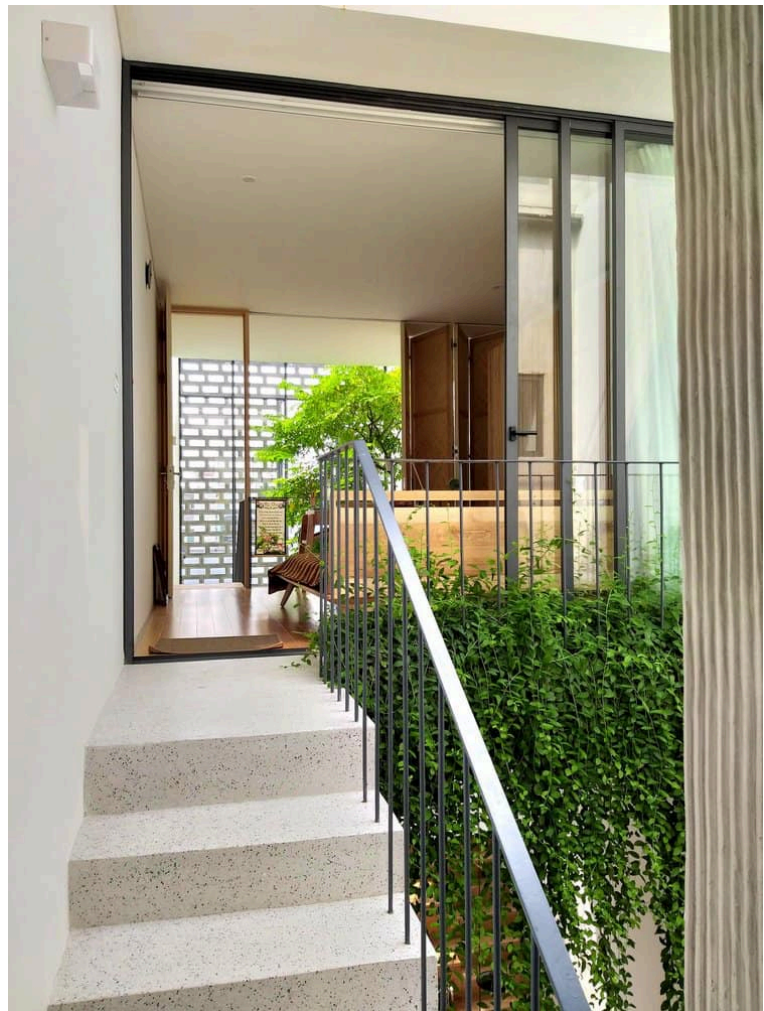
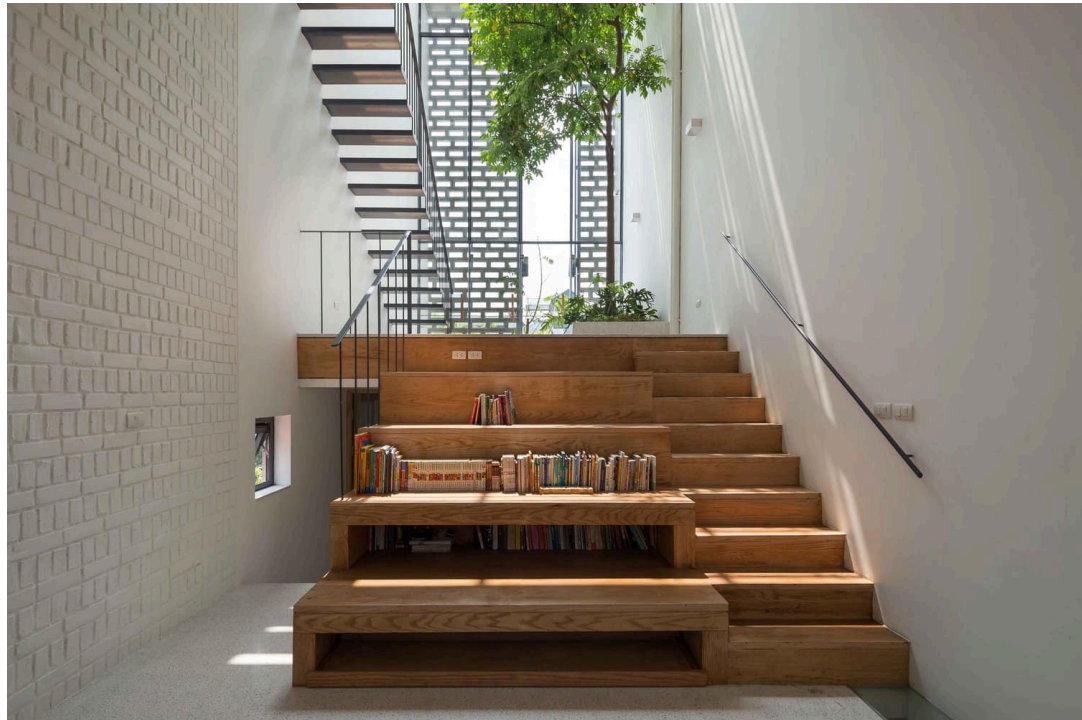
MẶT BẰNG TẦNG 5



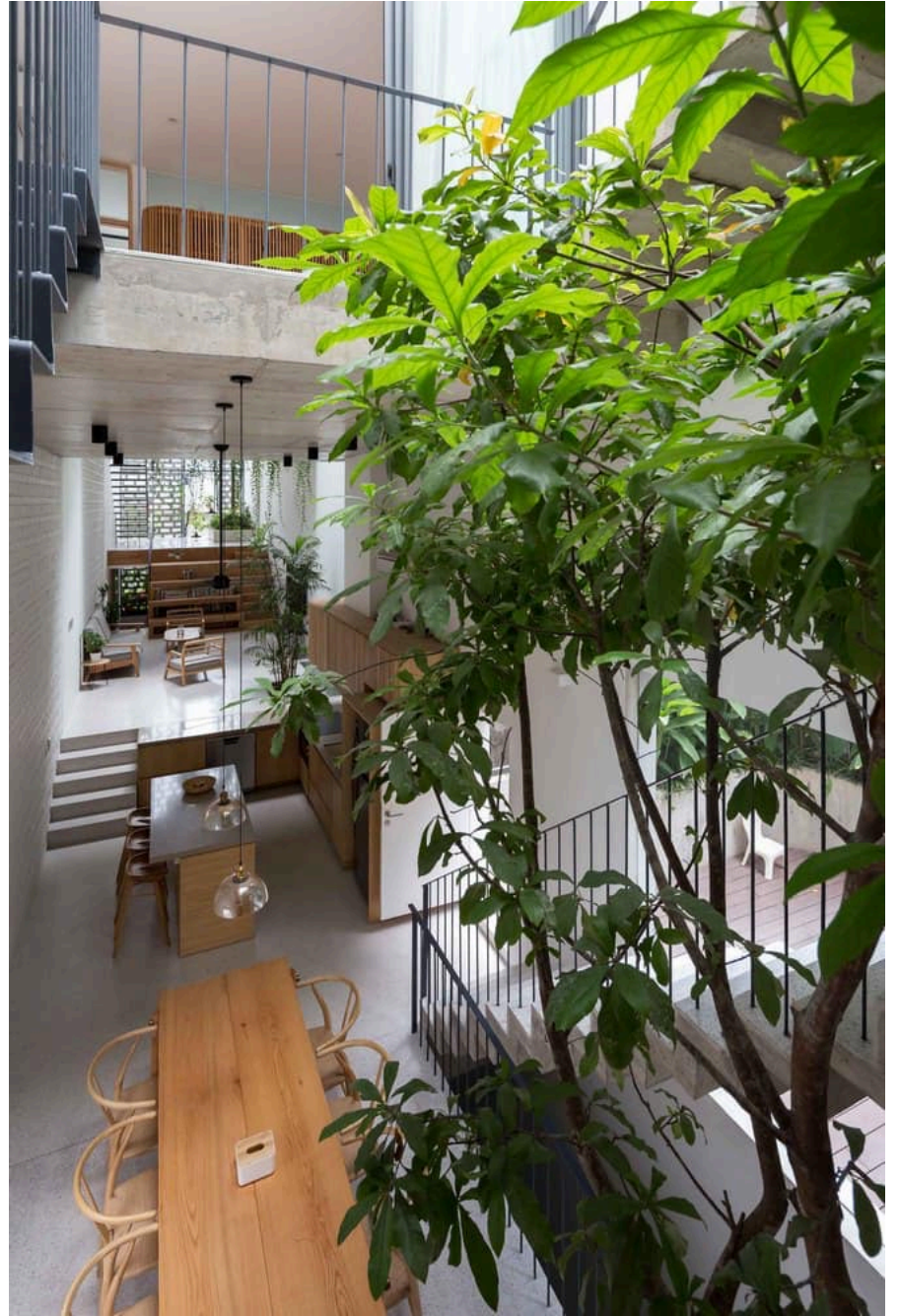
0 2 8m

MẶT BẰNG SÂN THƯỢNG





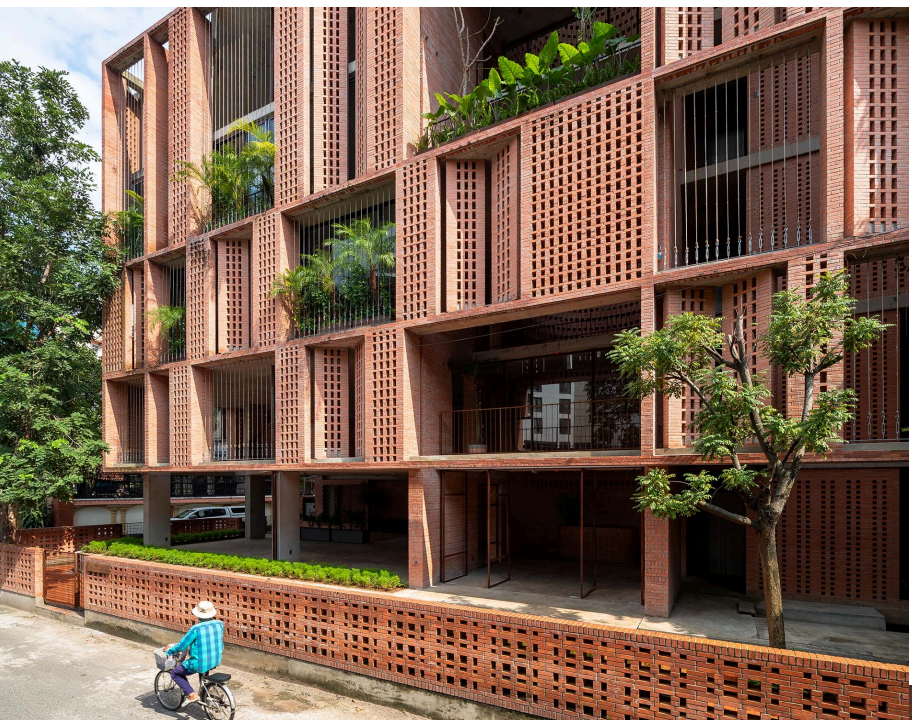


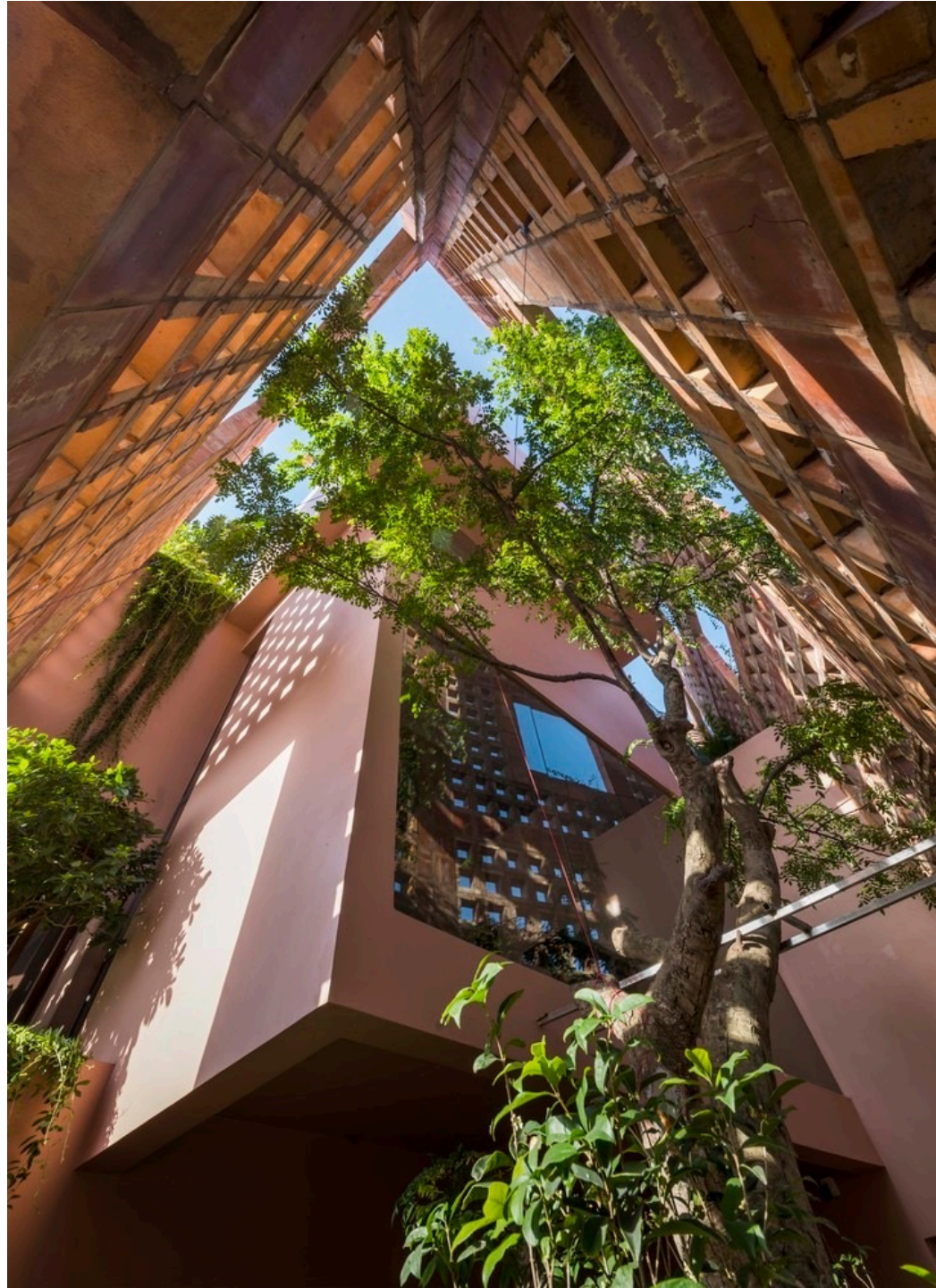


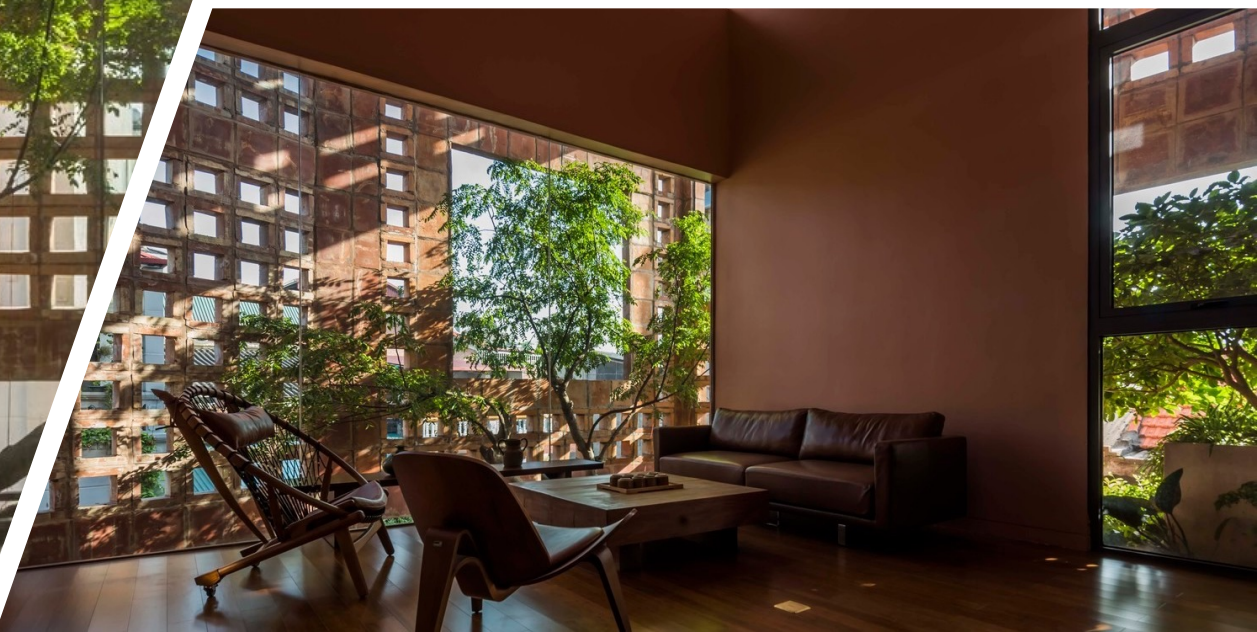




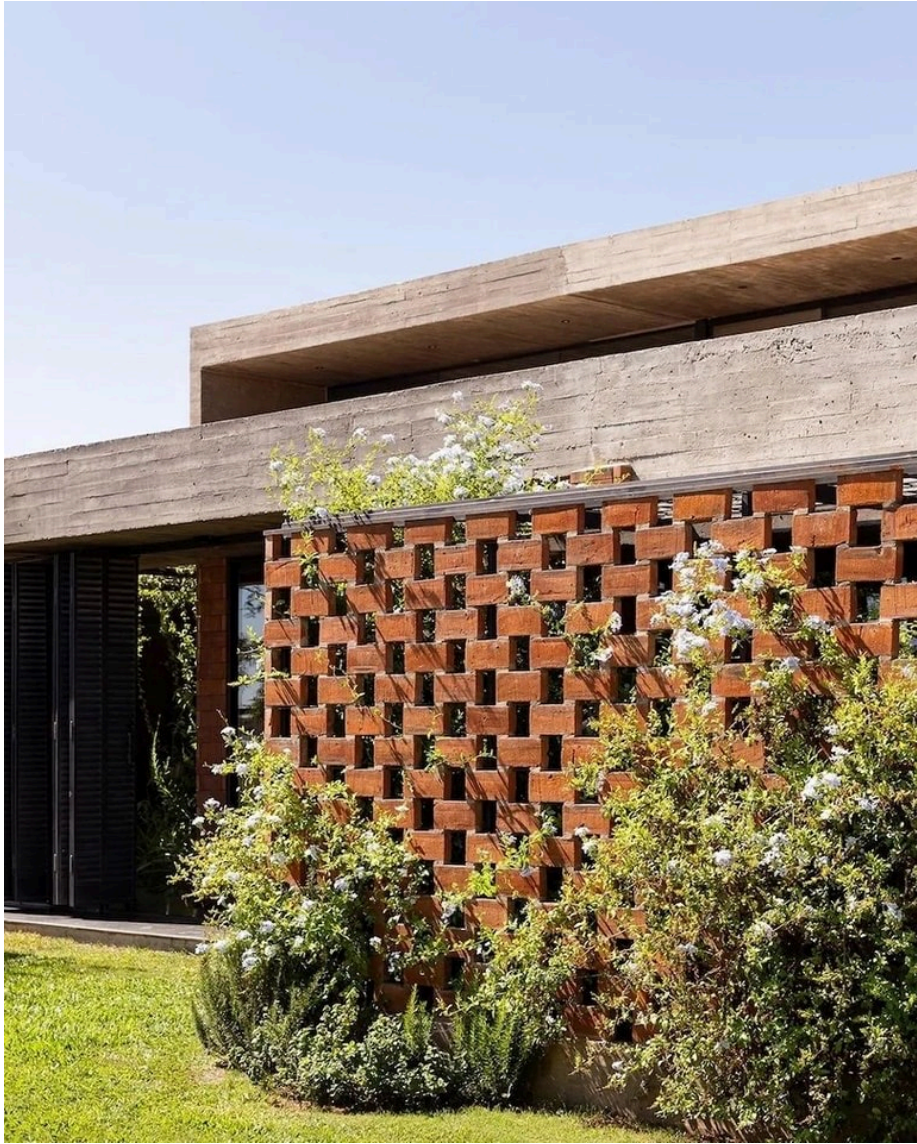


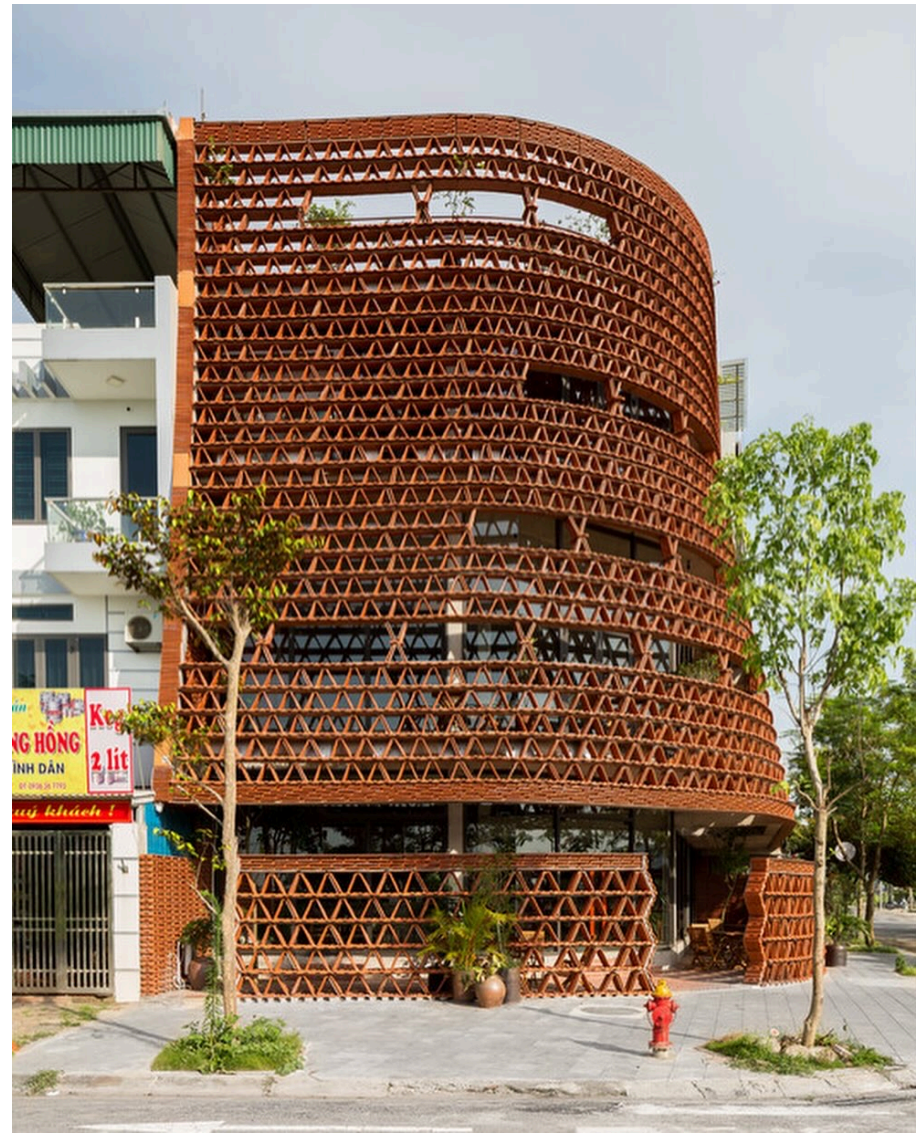










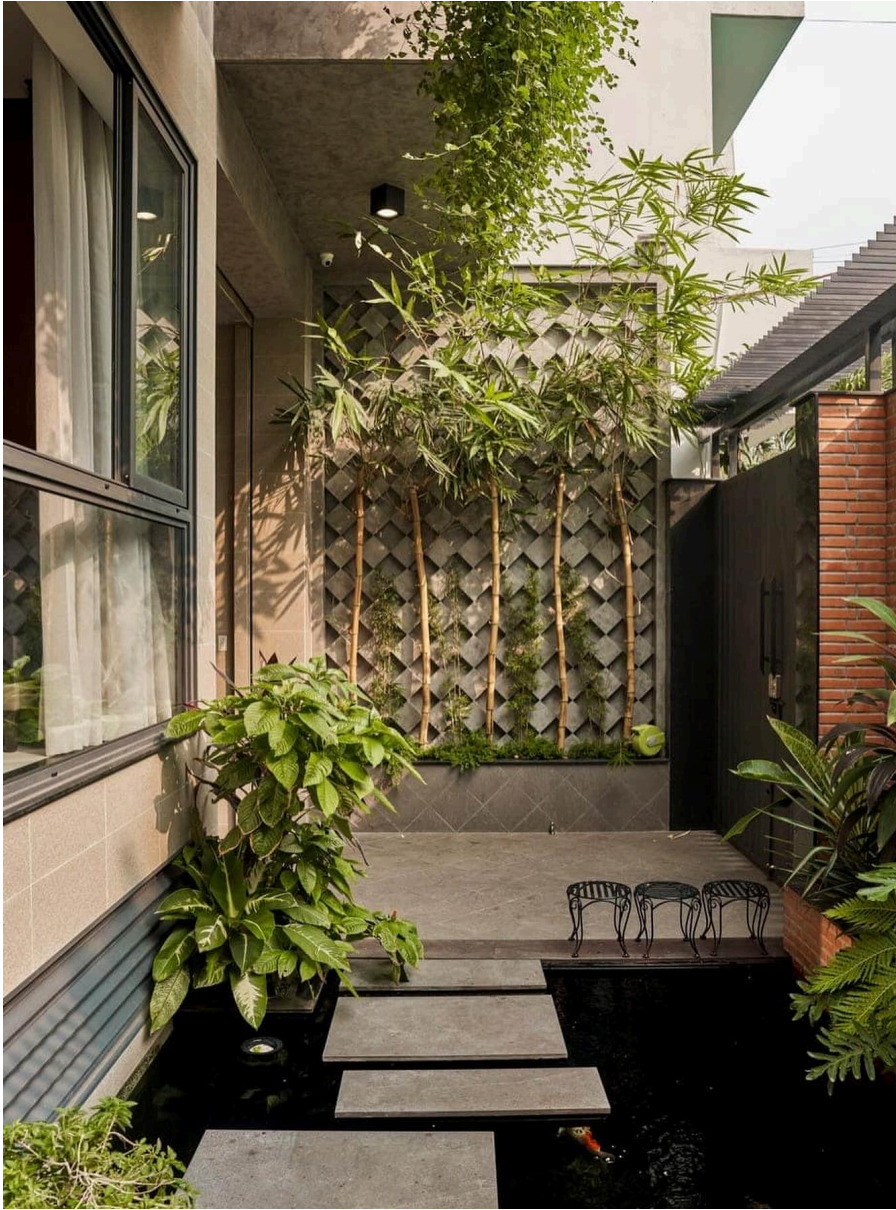








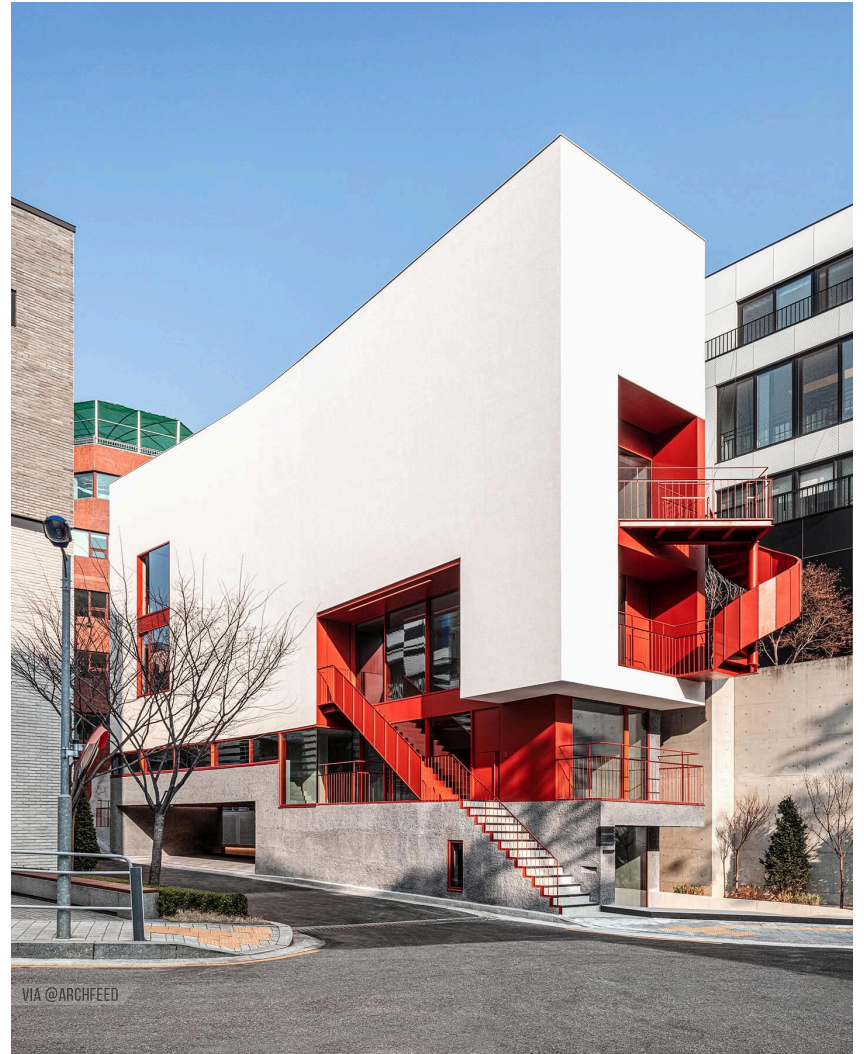


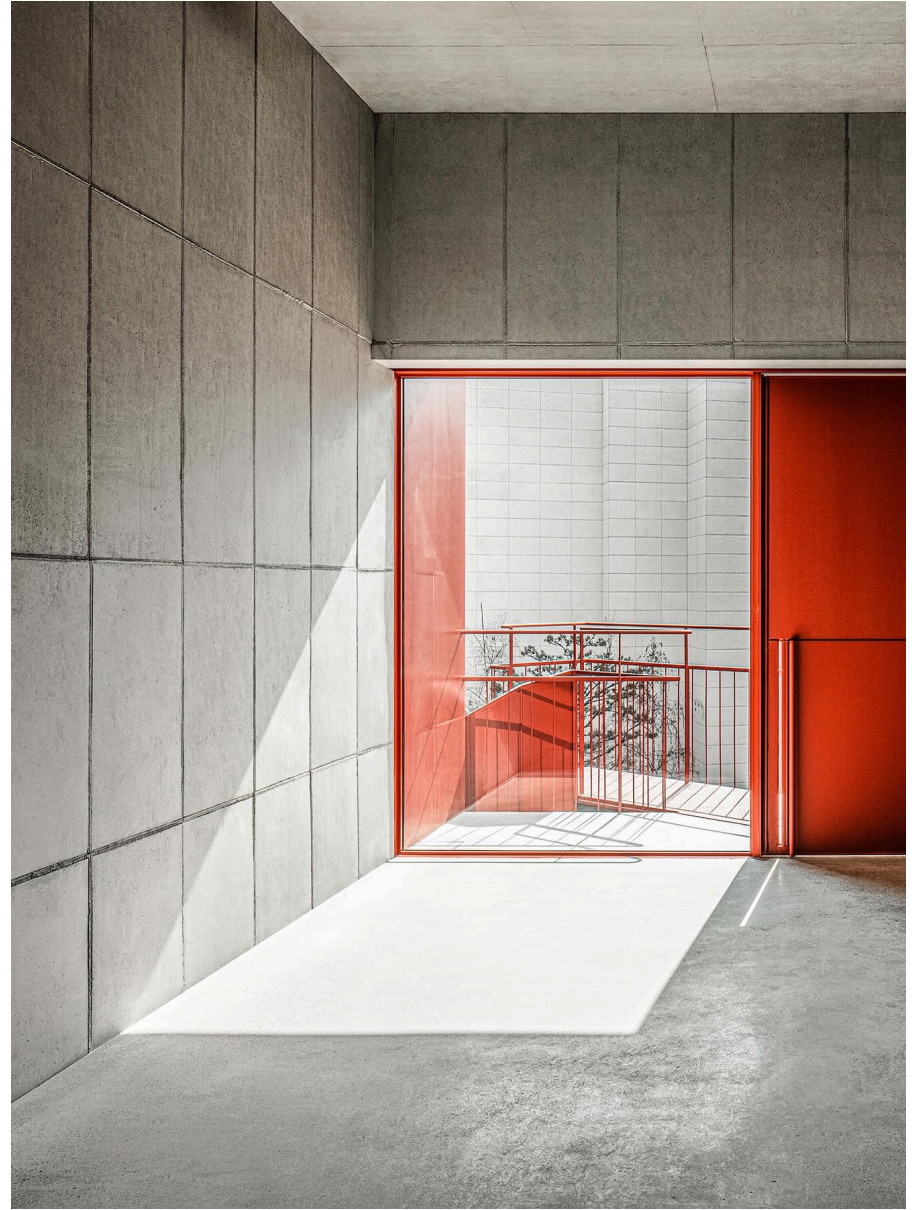
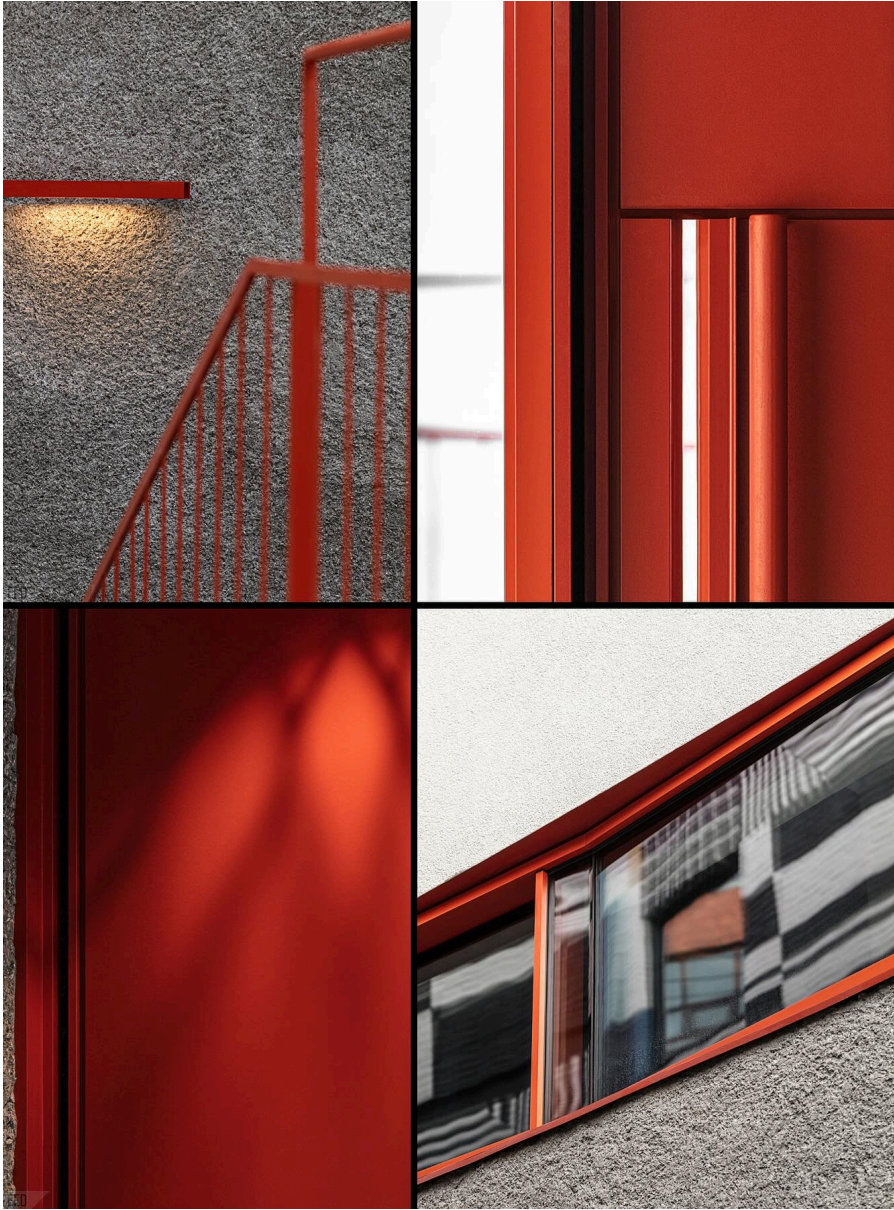


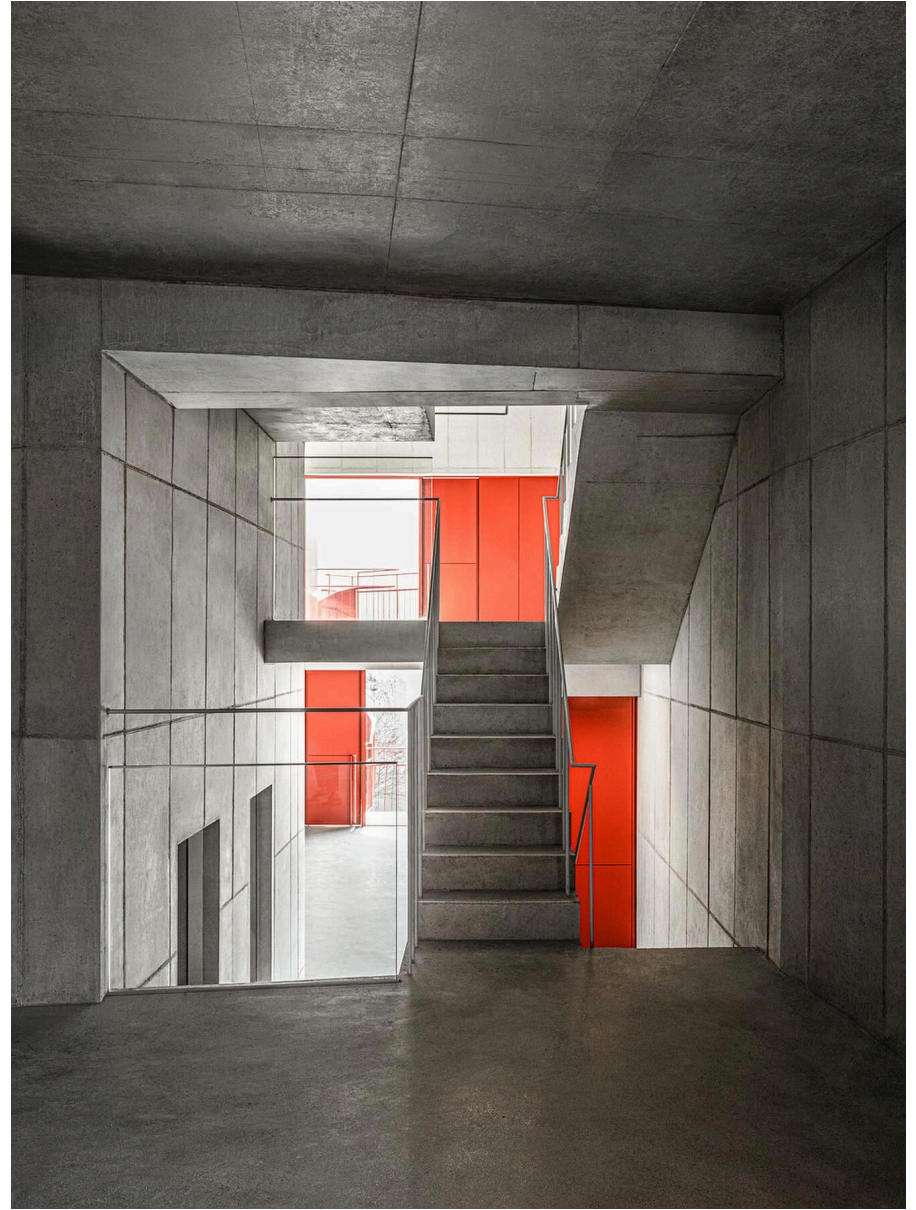


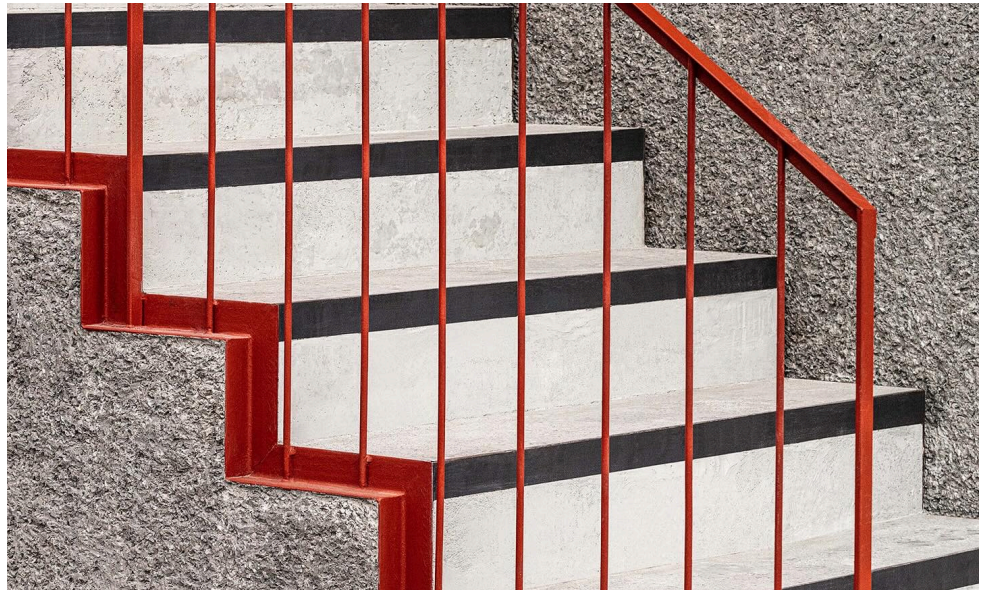
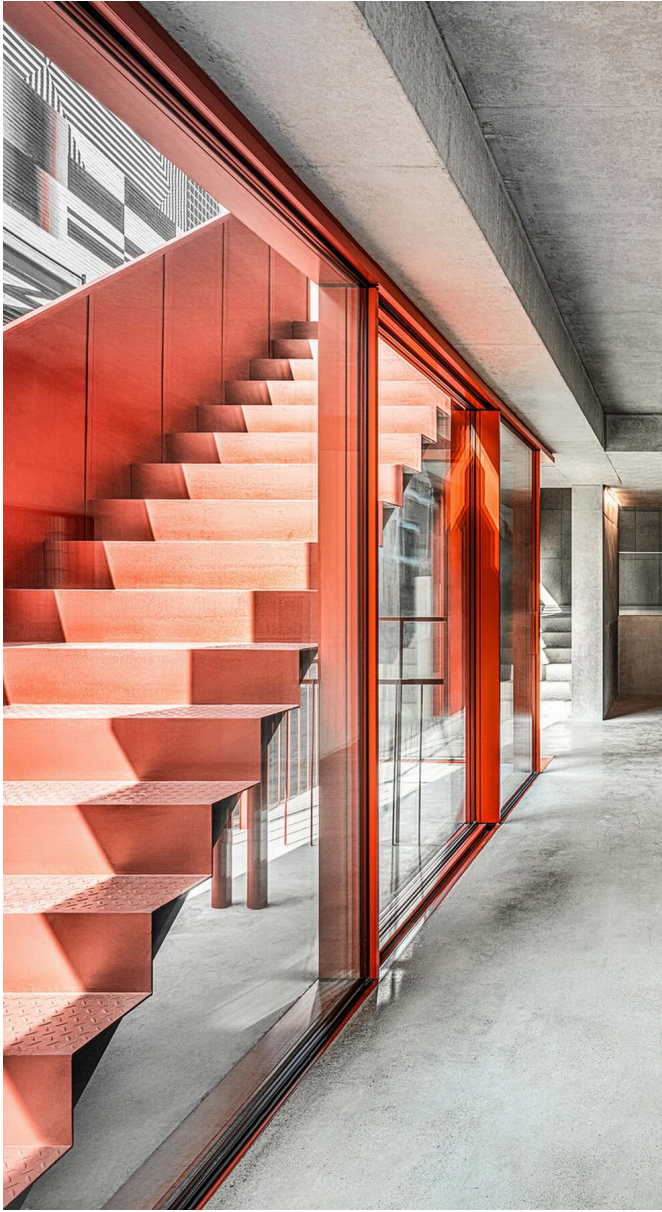


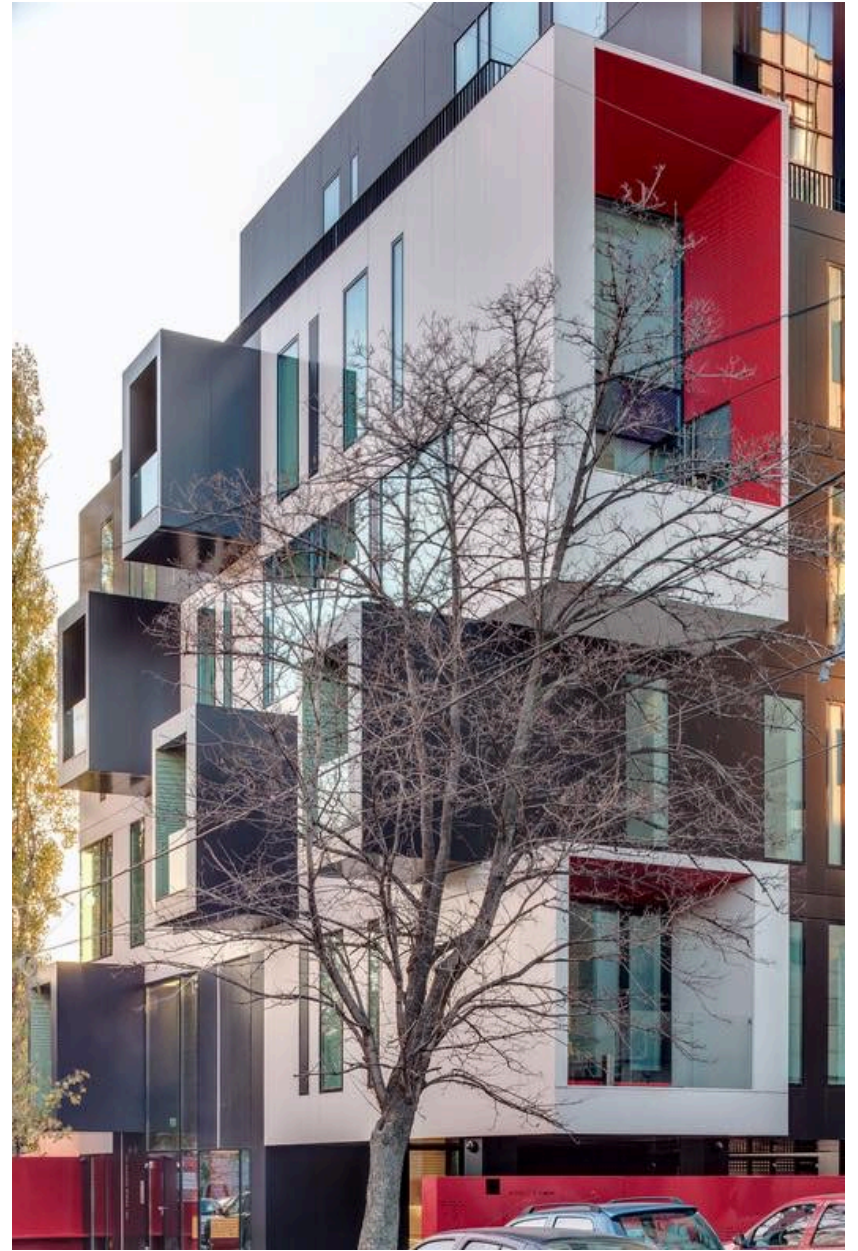


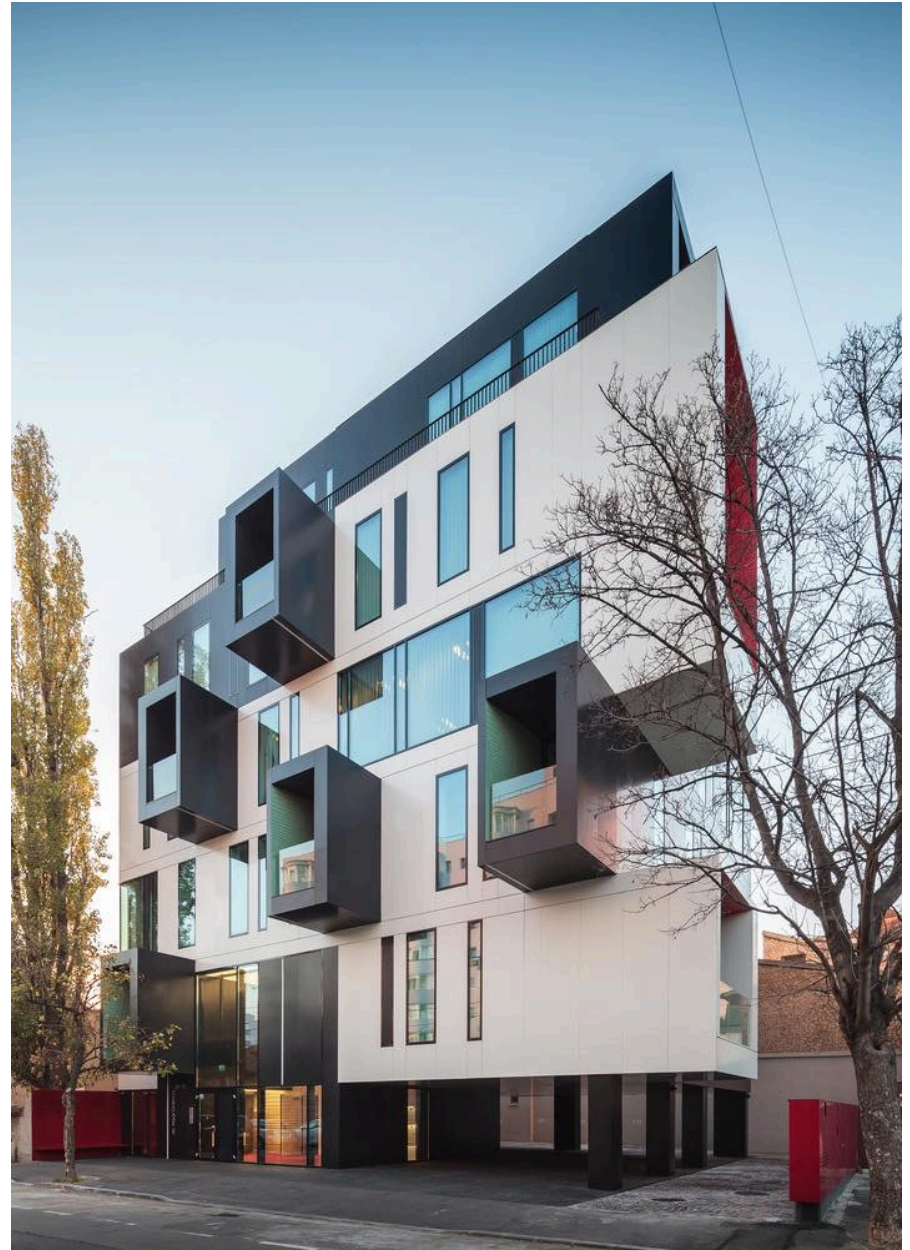




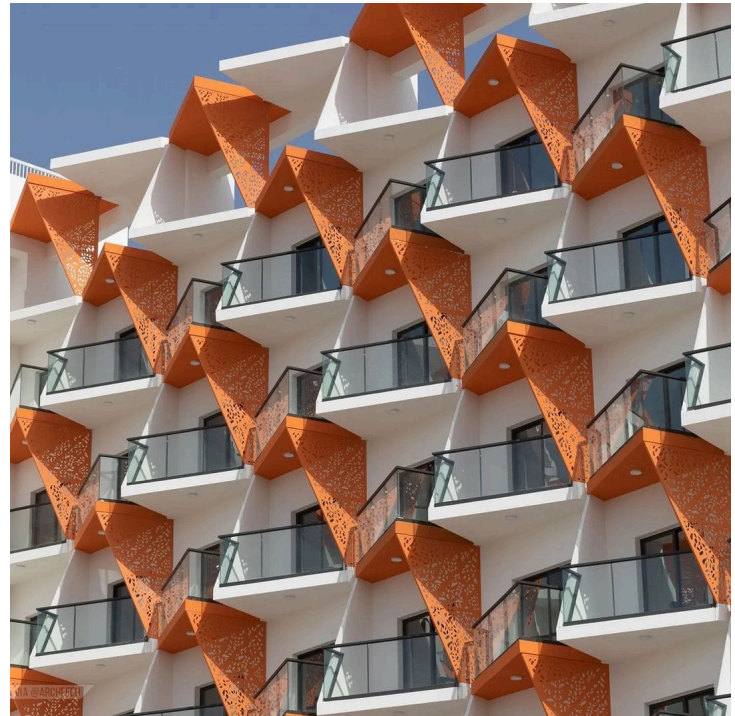




























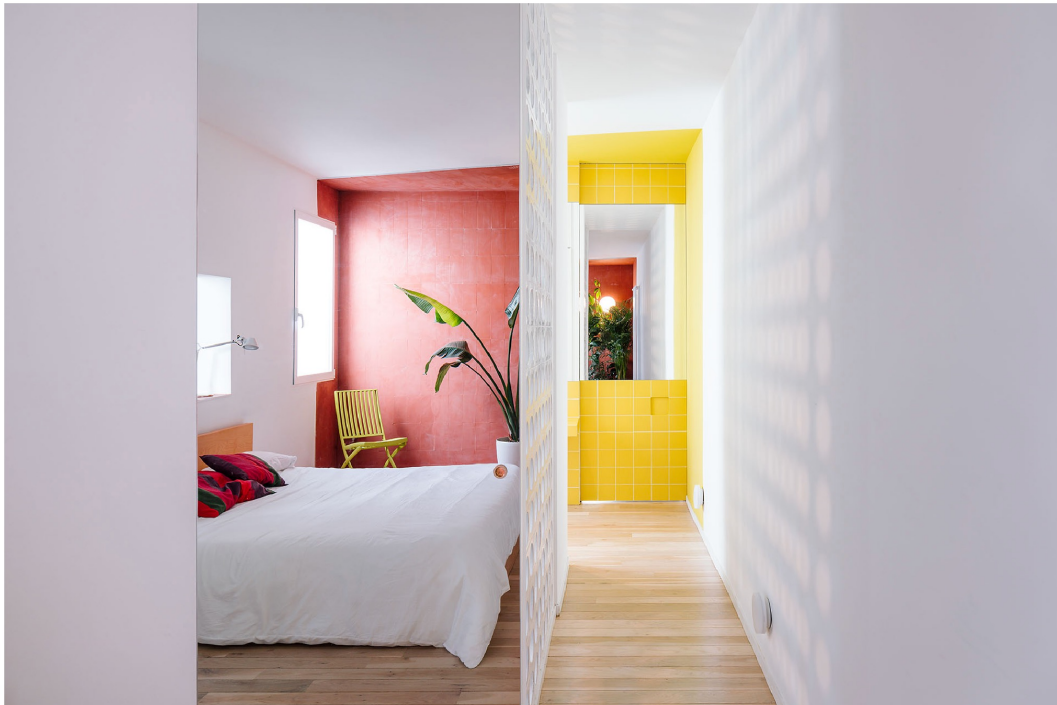








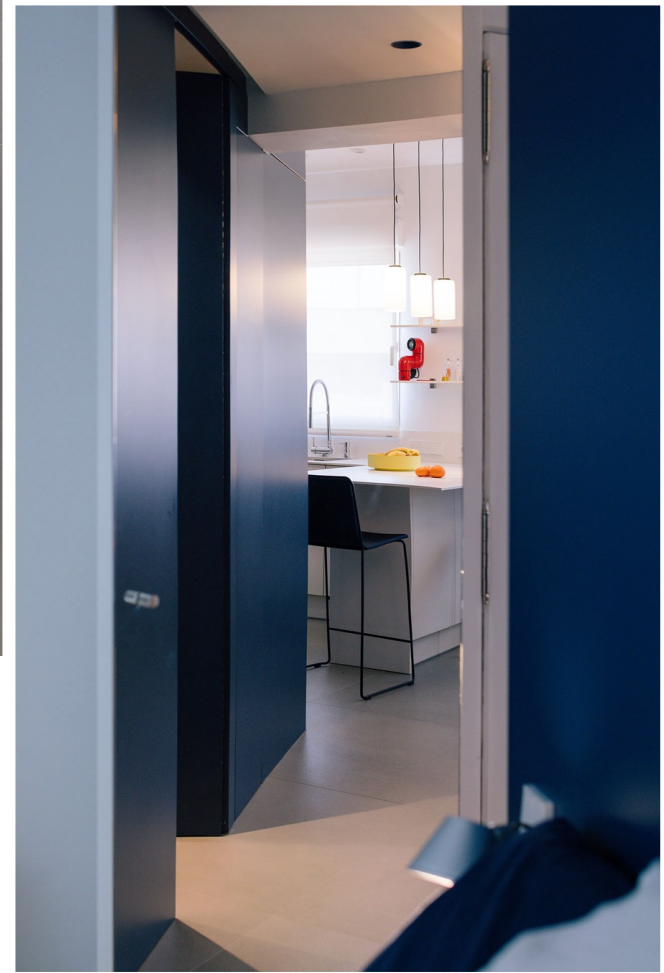
















PLANTA SEGUNDA
cota +7,30m







VIVIENDA 1



VIVIENDA 3



VIVIENDA 4



VIVIENDA 6



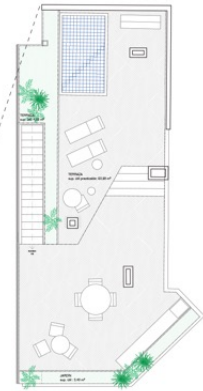
VIVIENDA 2



VIVIENDA 5



VIVIENDA 8



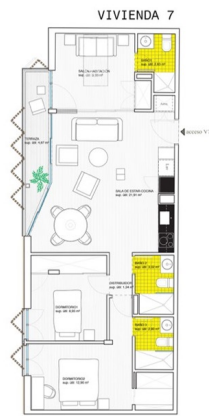
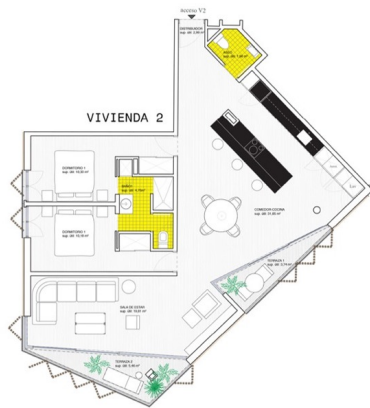
VIVIENDA 9



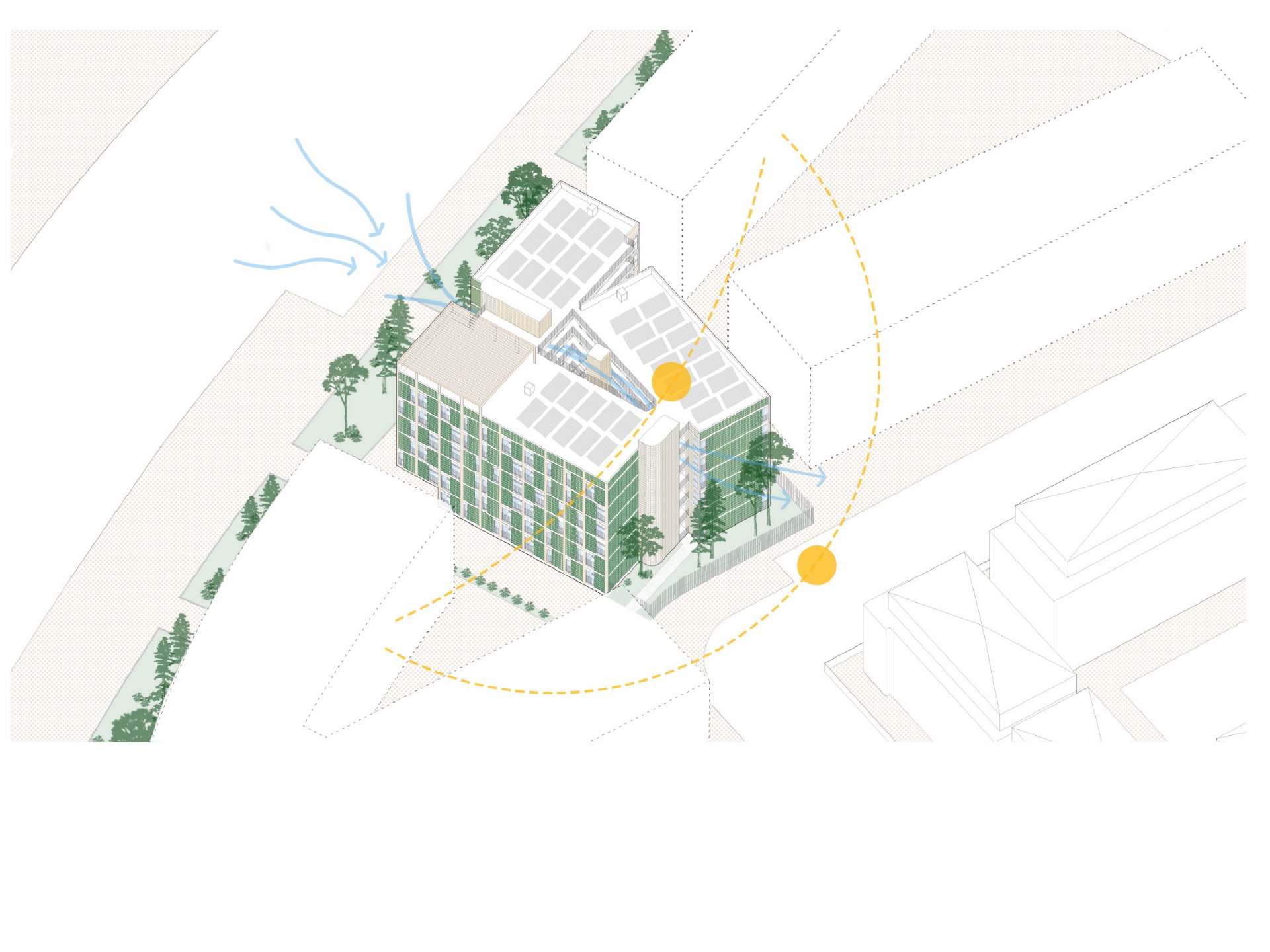
VIVIENDA 7



VIVIENDA 10

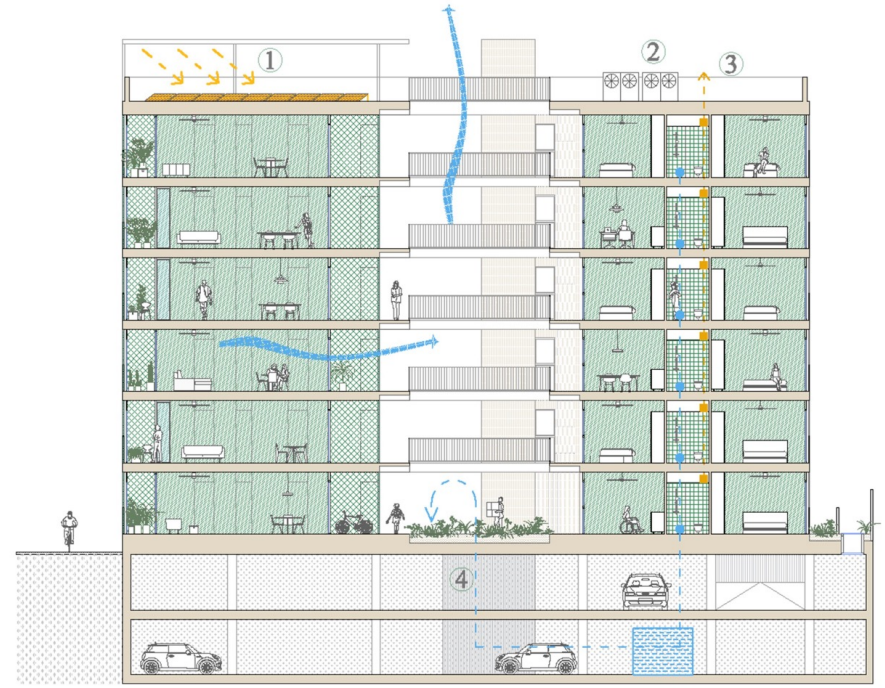
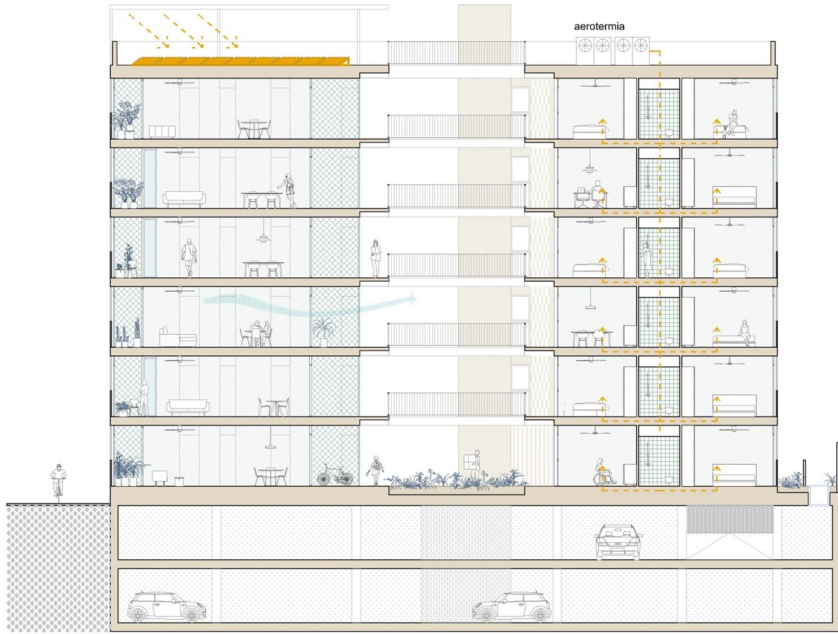








Captació energia solar



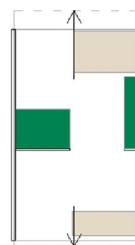
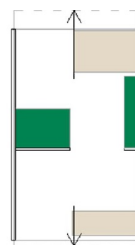


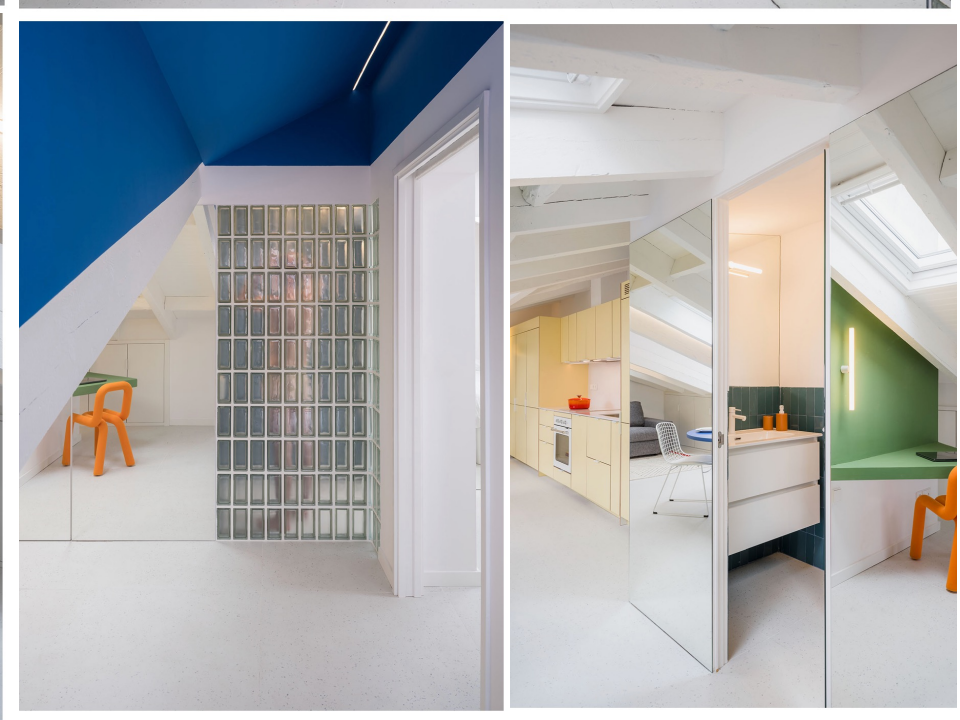
HABITATGE A (44)

- ① Estenedor / galeria d'accés 6.04 m²
- ② Estar / menjador / cuina 24.13 m²
- ③ Bany 4.55 m²
- ④ Galeria flexible 3.78 m²
- ⑤ Dormitori doble (x2) 11.80 m²
- Superfícies útils totals: 62,00 m²

HABITATGE B (24)

- ① Estenedor / galeria d'accés 6.04 m²
- ② Estar / menjador / cuina 20.35 m²
- ③ Bany 4.55 m²
- ④ Galeria flexible 3.78 m²
- ⑤ Dormitori doble 11.00 m²
- ⑥ Dormitori senzill 9.40 m²
- Superfícies útils totals: 55,02 m²















The quest for the House of the Future gracefully reside in the Past, in the local and regional architectural Heritage. Sustainability begins by embracing and understanding the historic architectural language of the region and appropriating it to meet today's cultural, socio-ecological and economic aspirations.

Heritage showcases a multitude of architectural elements such as wind catchers, water basins, compactness of volumes, and materiality. The main purpose of the project is to rehabilitate the past's know-how by applying today's requirements and sustain it for the future.

The project explores three main dimensions:

Air: Invest in wind directions. Capture it to ventilate and cool the spaces.

Earth: Use cool underground water table by generating a close circuit thus participating in reducing water table loss level.

Morphology: Develop an architectural volumetry that responds to functional requirements, secures intimacy, shades outdoor spaces and generates a natural cross ventilation,



INWARD OUTWARD CULTURE

03



ORIENTATION

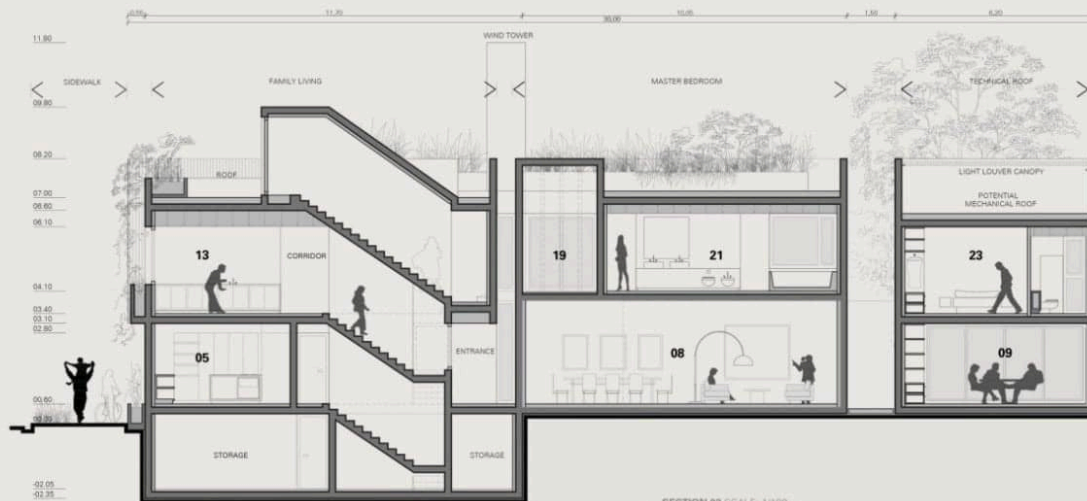
The project is oriented 40 degrees south easterly, to align with the dominant day wind direction. The Majlis / Living double height open space, is oriented to receive directly the wind in its niche. The captured air in this volume is pressured and a whirl effect augment wind speed in the courtyard. The presence of the cooled water basin refreshes the air. The cool air settles down in the courtyard pushing the warm air away through two porositys across the courtyard under the volume tangent to the street. Raising that volume from the ground allow air to freely circulated under the upper mass and ensure a natural cross ventilation system. The upper and the south-western volume form an L shape barrier around the courtyard providing sun protection. The living space on the ground floor is double oriented. It addresses the main courtyard as well as a smaller private garden on the north-western side of the plot. The double orientation allows natural cross ventilation and permanent daylight.

DISTRIBUTION

The two porositys on the ground floor under the first-floor mass, consist of two distinctive alleyways. The first is generous and is dedicated to the node entrance, the porch. The second, narrower, is for the service access driver's room and waste separation area. The entrance porch leads to the southern corner of the courtyard, where the main entrance to the house is defined. Crossing the courtyard leads to a separate entity: the Living / Majlis where guests are generously hosted. The Majlis has a discrete access to the office / library which is also accessible from the private garden. On the east corner of the courtyard, a discrete stair leads to an independent guest room on the upper level. The entire courtyard is raised 45cm above street level. The podium effect perceptible from the porch adds to the monumentality the inner outer.

MATERIALITY

The compactness of the volumes serves the economy and the sustainability of the project. Simple monolithic structure, with moderate spans offers the possibility of a prefabrication process: post-tension hollow core slabs, insulated double walls and a regular glazing module. Local Lime plaster can provide the external walls with a rich palette of finishes and textures. It is cost efficient in application and maintenance. Local natural pigments can also add warm colors the finishes. The pivoting claustra on the south-eastern facade and all sun breakers are made of steel frames integrating a barbusse multiples panels. A locally tough and versatile produced bamboo: It absorbs up to four times more carbon emissions and releases up to 35% more oxygen than other plants. Its uses will augment the bio energy production and industry.



The guest room is positioned at the most silent side of the house, overlooking the courtyard. The main courtyard design, the main window and filtered by the claustra.

The courtyard here provide privacy and allows day and outdoor. Here also receive, driveway to the space in the main facade.

The master bedroom bedroom is located from the end of the facade, overlooking the terrace and small courtyard. The depth of the terrace because provides from direct light.

The master bedroom has a large and generous window on the facade. The orientation of the window allows a natural light and excellent view of the courtyard.

The wall is allowing to development of the wall of a concrete with natural stone. The wall is designed with natural stone. The wall is designed with natural stone.

The master bedroom's bathroom is designed with natural stone. The wall is designed with natural stone.

Wood frame shall going to the facade.

The 30cm high walls in the living room are as a building with wood and natural stone.

The generous space, the potential for a living room to be a living room to be a living room.

Prefabricated mechanical shaft.

Edouardie accommodate the family being security setting the courtyard.

30cm thick of wall for planting trees and shrubs. The wall is designed with natural stone.

Light Louver canopy. The wall is designed with natural stone.

Potential mechanical roof. The wall is designed with natural stone.

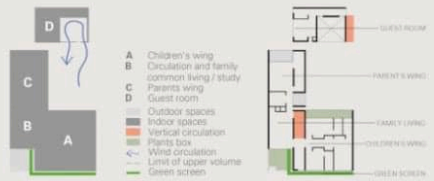
Light Louver canopy. The wall is designed with natural stone.

Potential mechanical roof. The wall is designed with natural stone.

Light Louver canopy. The wall is designed with natural stone.

Potential mechanical roof. The wall is designed with natural stone.

13 Family pantry: 7.00m²
 14 Bedroom D1: 21.20m²
 15 Bedroom D2: 23.50m²
 16 Bedroom D3: 17.80m²
 17 Family living: 37.70m²
 18 Master dressing room: 7.60m²
 19 Master balcony: 4.80m²
 20 Master bedroom: 21.20m²
 21 Master bathroom: 12.50m²
 22 Master terrace: 10.10m²
 23 Guest room: 20.10m²
 Outdoor spaces: 23.70m²
 Total indoor spaces: 158.40m²



FIRST FLOOR SCALE: 1/100

INTERWEAVING SPACES

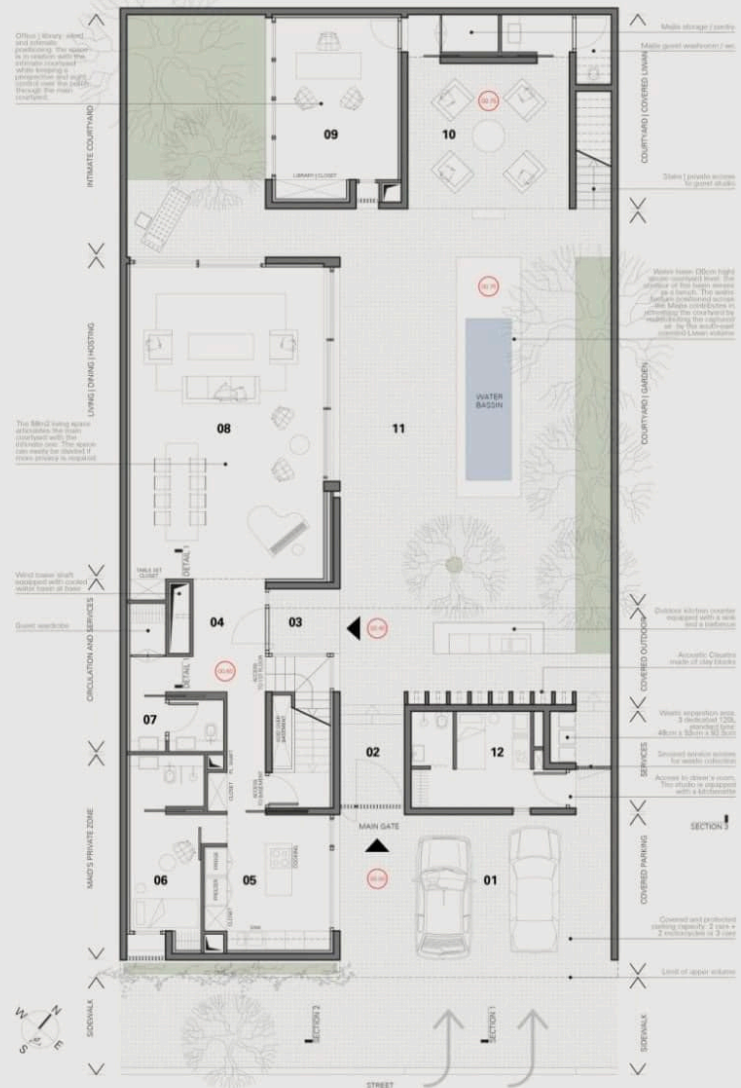


In the realm of architectural innovation, the project unfolds as a carefully orchestrated interplay of elements. The first element is the separation of two entrances - the main entrance and the service entrance. The project consists of main block and a Livan. The first block turns his back to the sun, creating a shaded space. This shaded area

becomes a valuable resource, as it is strategically utilized thanks to the prevailing southwesterly winds during the day and the opposite airflow in the evening. These elements collectively craft a composition of volumes that fosters intimate spaces and optimally utilizes the site's natural attributes.



SECTION 02 SCALE: 1/100



- 01 Parking plot: 42.30m²
 - 02 Entrance porch: 7.60m²
 - 03 Lobby / distributor: 4.40m²
 - 04 Lobby / distributor: 11.30m²
 - 05 Indoor kitchen: 16.00m²
 - 06 Maid's room / bath: 12.30m²
 - 07 Guest washroom: 4.60m²
 - 08 Living / dining: 58m²
 - 09 Office / library: 20.40m²
 - 10 Majlis / Livan: 24.20m²
 - 11 Courtyard / garden: 112.80m²
 - 12 Driver's room / bath: 12.30m²
- Outdoor spaces: 293.10m²
Total indoor spaces: 134.90m²
- Three distinctive volumes interact to avoid direct exposure to sunlight and make use of dominant wind direction generating natural ventilation and cooling.
- The voids generated are hierarchically defined and gradually evolve from the most public to most intimate.
- 01 Interference between public and private spaces.
 - 02 The house.
 - 03 Substance of the house.
 - Outdoor spaces
 - Indoor spaces
 - Vertical circulation
 - Wind circulation
 - Limit of upper volume
 - Entrance gate
 - Service access
 - Buffer zone

GROUND FLOOR SCALE: 1/100

ELEMENTS FOR SUSTAINABLE LIVING

