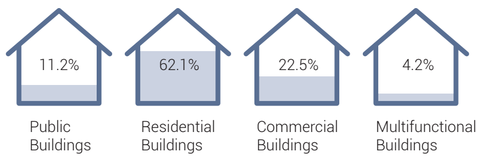
TITLE

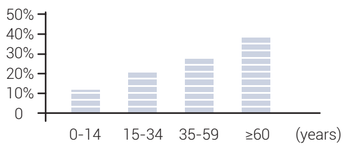
Affected by the aging of the population, the phenomenon of high vacancy rates in a large number of historic houses in the city. The young people will choose to live in a new apartment building with convenient transportation and complete facilities according to the requirements of work and life.

The project is an 11-story single building in a corner of Piazza Della Repubblica, mixing the function of a private building connected with the buildings on both north and east sides. Due to the age of the buildings, the facilities are relatively old and the residents are mostly elderly. And the larger area of each household cannot be used reasonably.

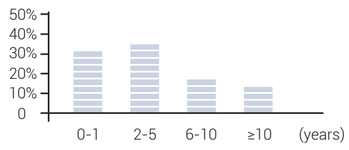
How to let contemporary young people and the elderly live together in this building is the answer to the reuse of space.



Type of Housing



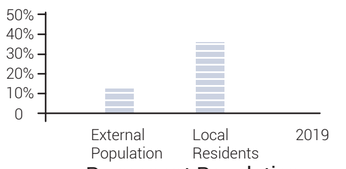
Age Distribution



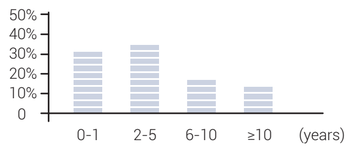
Time of Residence



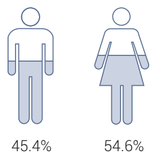
Mode of Transporation



Permanent Population



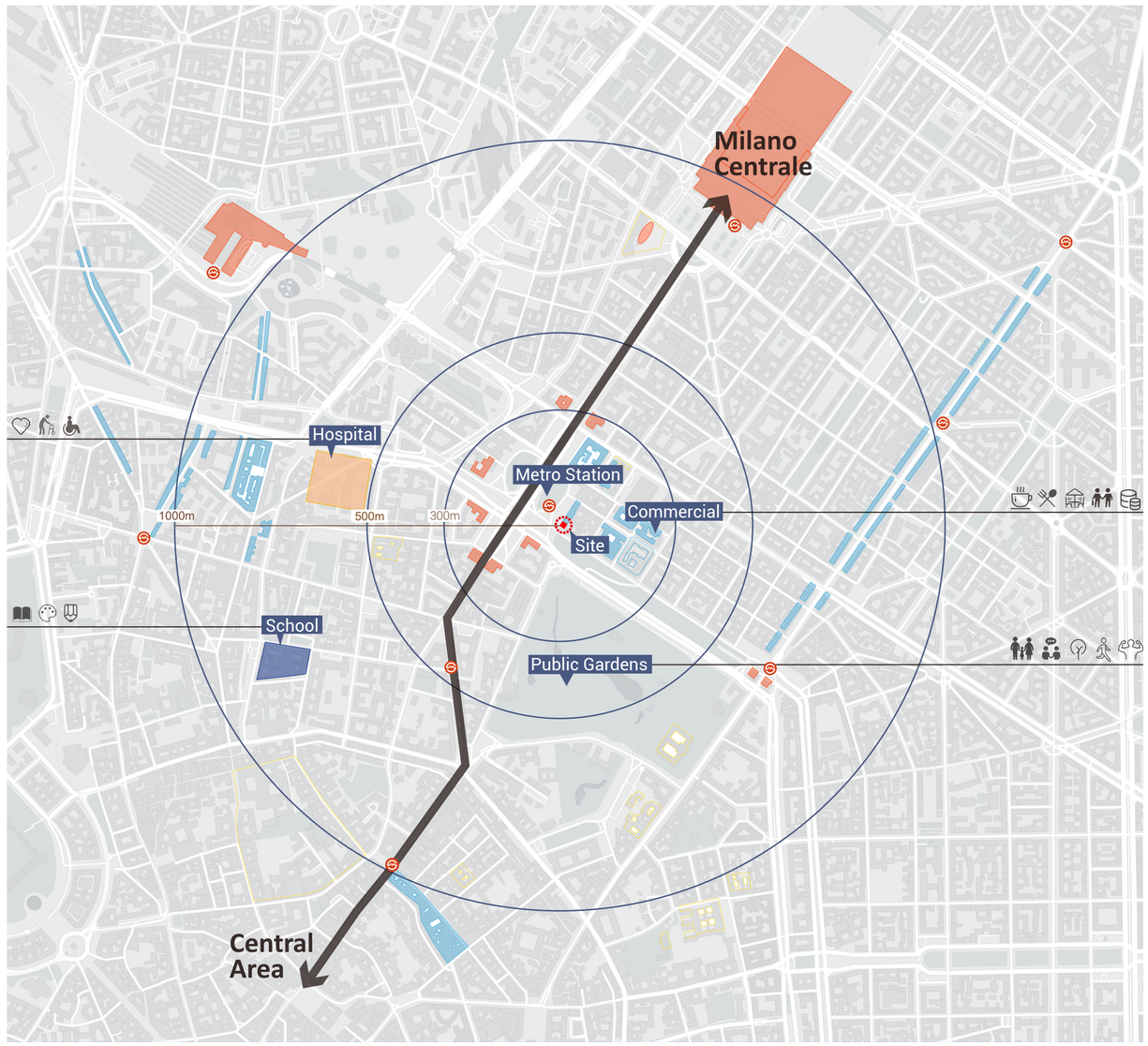
Time of Residence



Male to Female Ratio

SITE ANALYSIS

Commercial / School - Youth



VISION

In this long-established apartment building, the original residents are still able to retain their memories of their previous lives, while also meeting the living habits of the new young residents and building a bridge for the common life of two generations.



1945

After the end of the Second World War, the city was full of ruins and lack of material conditions.

1955

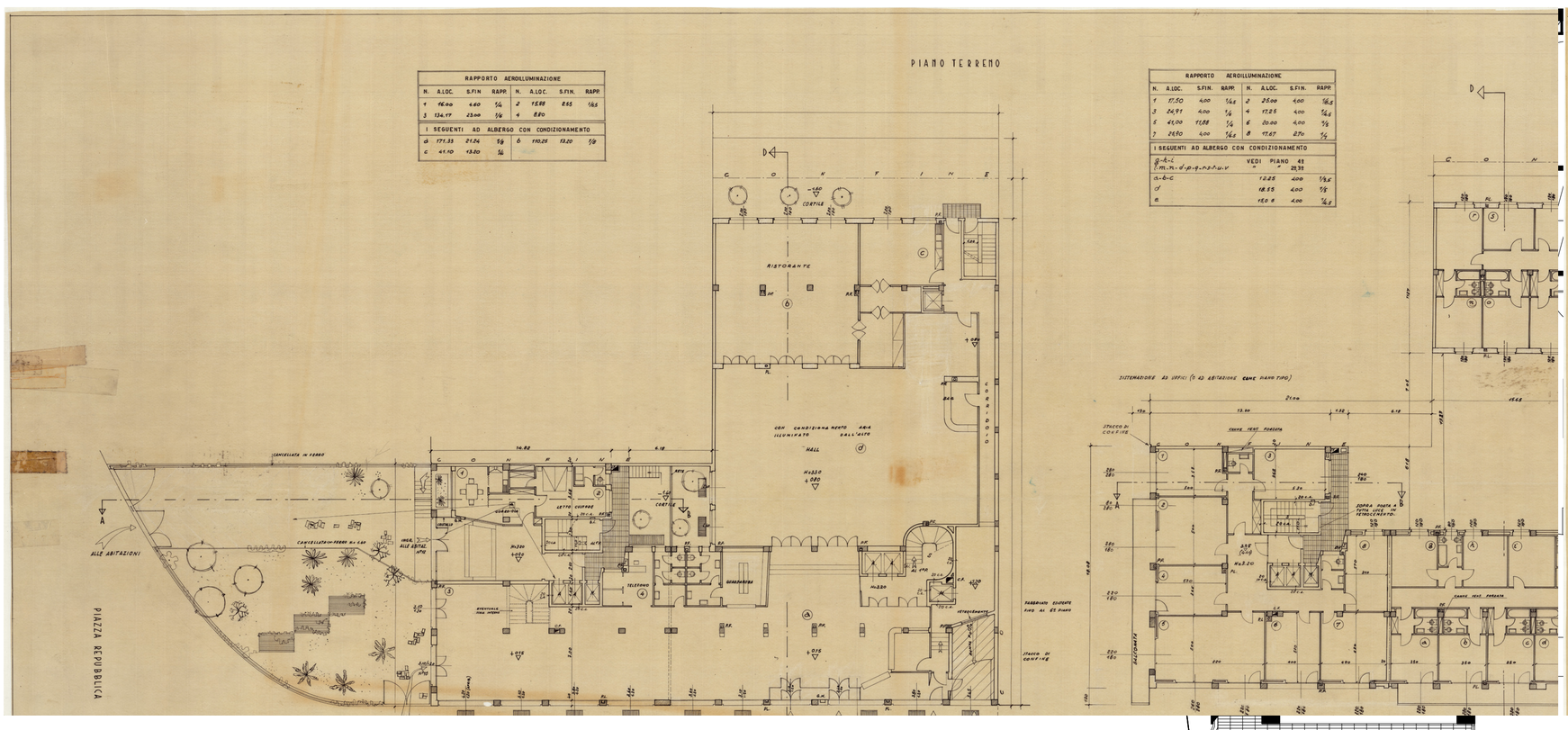
A new modern building was built at PIAZZA DELLA REPUBBLICA, symbolizing a new beginning. The young people at that time worked hard for the future of the city and the individual.

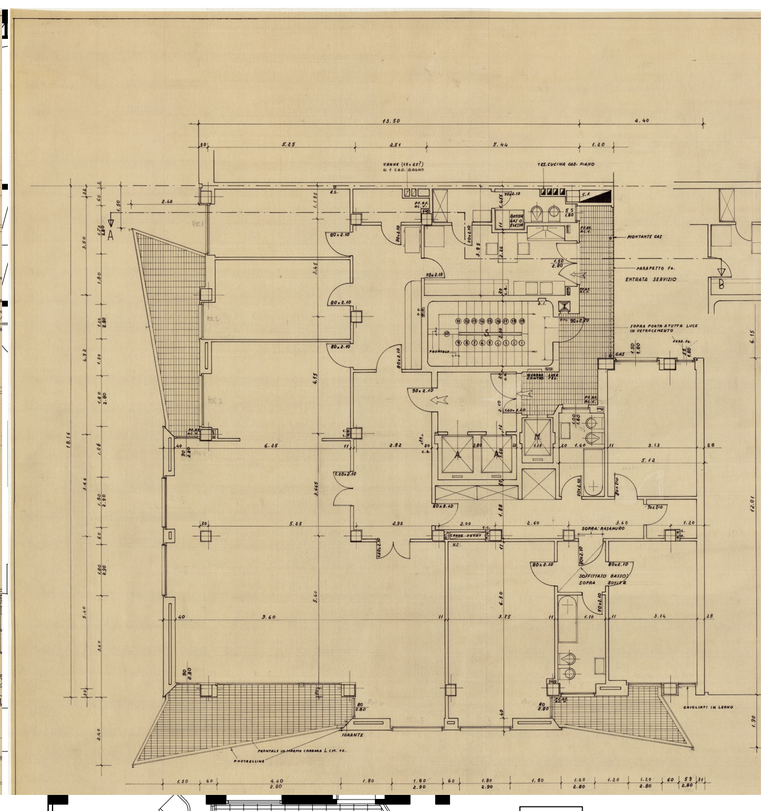
2020

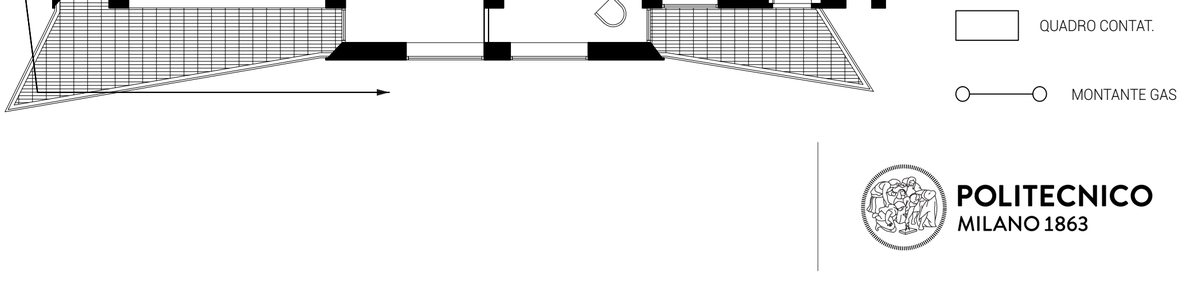
There are fewer and fewer original households in the building and they are entering old age. And many young people live in this area.

BASIC INFORMATION OF THE BUILDING

ORIGINAL TYPICAL FLOOR PLAN







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REGENERATING AND RE-INHABITING POST-WAR HOUSING HERITAGE
professors: G.Caramellino, L.Daglio, L.Ottolini

FINAL EXAM DELIVERY

TITLEOFTHEBOARD
additional infos (scales, type of schemes)

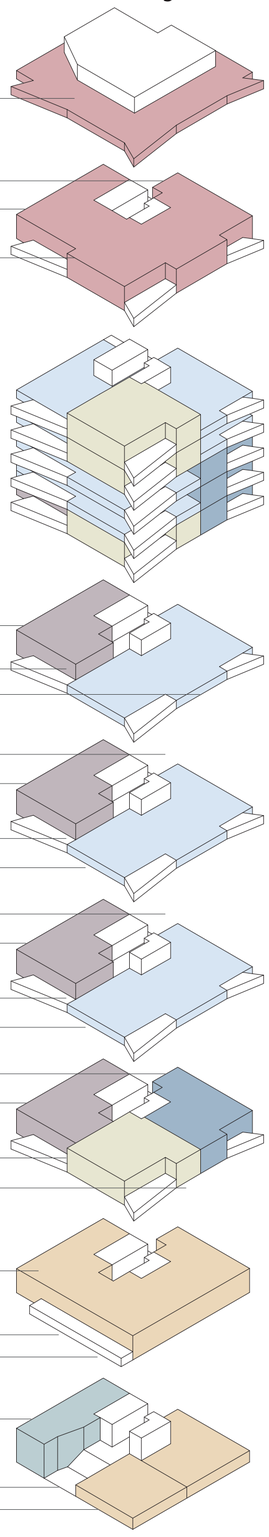
GROUP 0
Name Surname, Name Surname, Name Surname

POLITECNICO MILANO 1863

SOLUTION A

BLOCK / CONCEPTION

The entire building is divided into four sections: ground space, dwelling unit 1, dwelling unit 2 and roof space.



ROOF SPACE

Gallery / Hall 46 m²

TWELFTH FLOOR

Y Type A 51 m²
E Type A 76 m²
Gallery / Hall 46 m²

ELEVENTH FLOOR

UNIT 2

SIXTH-TENTH FLOOR

UNIT 1

E Type A 76 m²
E Type C 79 m²
Green Lounge 72 m²

FIFTH FLOOR

Y Type A 51 m²
E Type A 76 m²
Y Type C 25 m²
Workshop 98 m²

FOURTH FLOOR

E Type B 73 m²
E Type A 76 m²
Y Type C 25 m²
Game Room 75 m²

THIRD FLOOR

Y Type A 51 m²
E Type A 76 m²
Y Type B 61m²
Co-working Space 43 m²

SECOND FLOOR

GROUND SPACE

Library 76 m²
Toilet 17 m²
Cafe 134m²

FIRST FLOOR

Security Room 49 m²
Lobby 32 m²
Cafe 148 m²

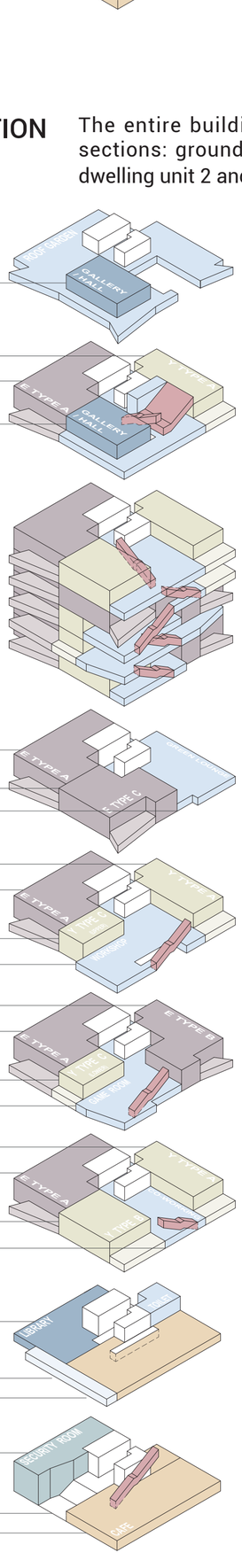
GROUND FLOOR



SOLUTION B

BLOCK / CONCEPTION

The entire building is divided into four sections: ground space, dwelling unit 1, dwelling unit 2 and roof space.



ROOF SPACE

Gallery / Hall 46 m²

TWELFTH FLOOR

Y Type A 51 m²
E Type A 76 m²
Gallery / Hall 46 m²

ELEVENTH FLOOR

UNIT 2

SIXTH-TENTH FLOOR

UNIT 1

E Type A 76 m²
E Type C 79 m²
Green Lounge 72 m²

FIFTH FLOOR

Y Type A 51 m²
E Type A 76 m²
Y Type C 25 m²
Workshop 98 m²

FOURTH FLOOR

E Type B 73 m²
E Type A 76 m²
Y Type C 25 m²
Game Room 75 m²

THIRD FLOOR

Y Type A 51 m²
E Type A 76 m²
Y Type B 61m²
Co-working Space 43 m²

SECOND FLOOR

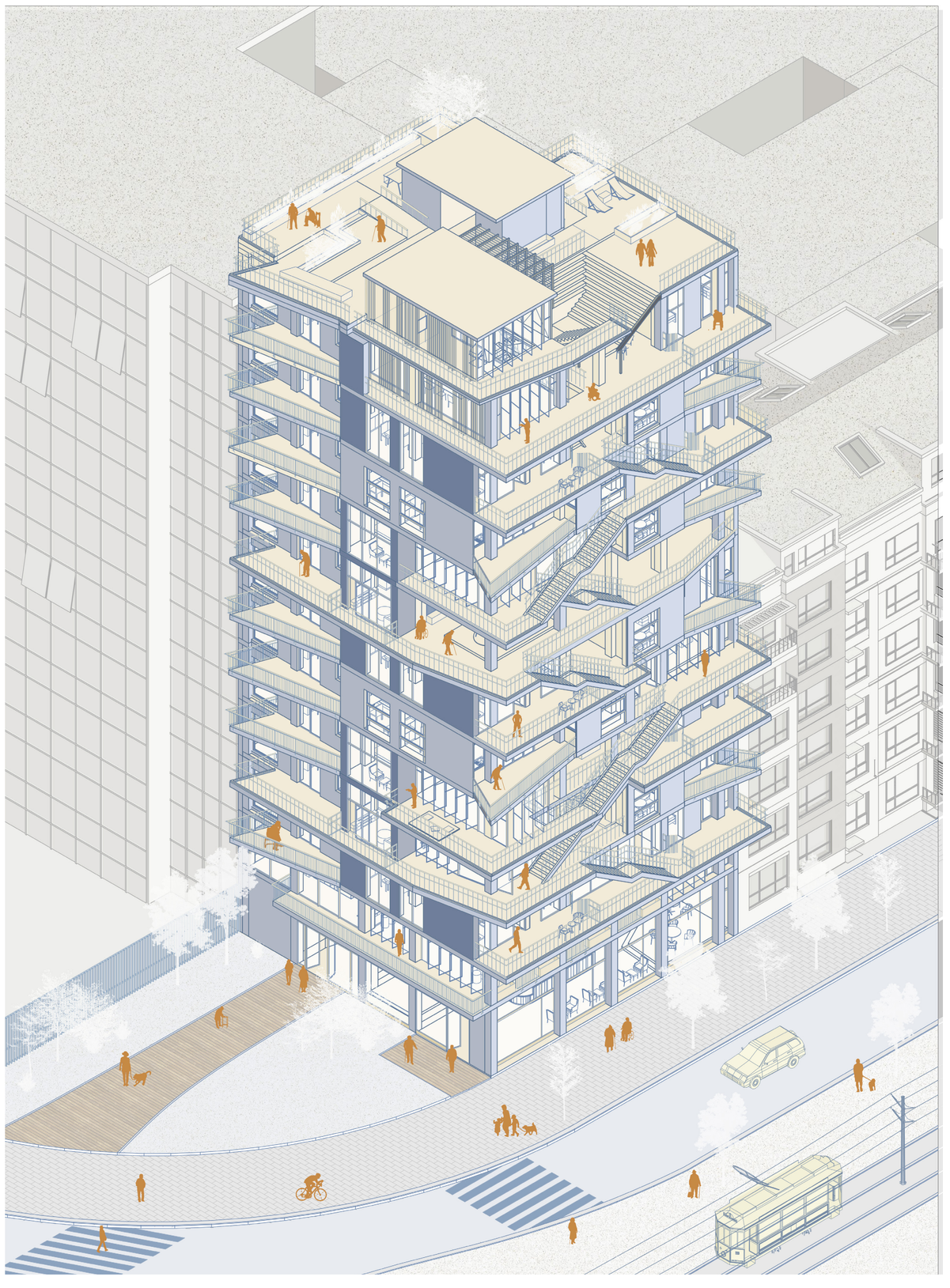
GROUND SPACE

Library 76 m²
Toilet 17 m²
Cafe 134m²

FIRST FLOOR

Security Room 49 m²
Lobby 32 m²
Cafe 148 m²

GROUND FLOOR



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additional infos (scales, type of schemes)

GROUP 0
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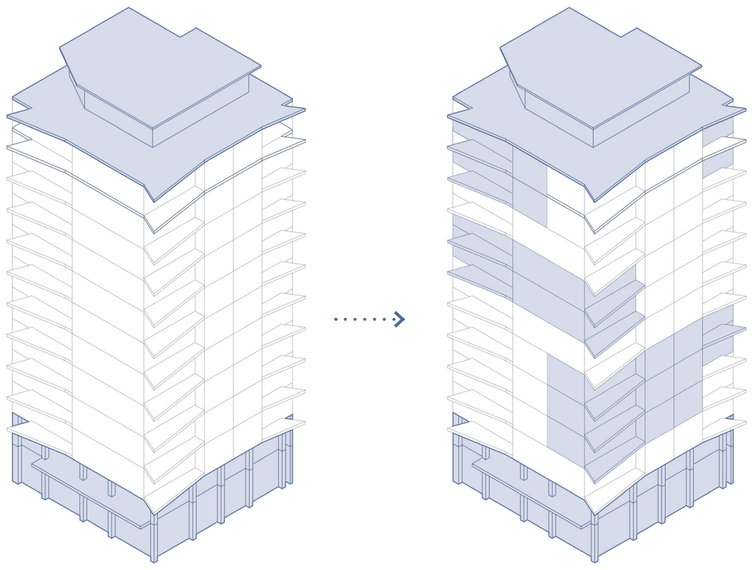
SOLUTION A

PUBLIC/PRIVATE -RELATIONSHIP



ORIGINAL APARTMENT

The public space of the original building is set at the bottom and top of the building, with a single function and poor accessibility. In the middle is the residential space of the same type.

MIXED-USE BUILDING

XXXX

USERS ANALYSIS

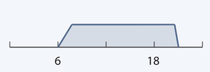
FAMILY



Age

25-65

Time active



Communication space



Required space



Family formation



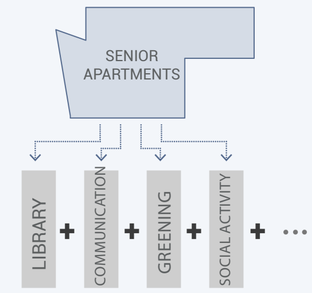
Public space function



Older occupants are mainly living alone or with husband or wife. There are certain requirements for the area of the space. For public spaces, pursue more greening and a quiet rest environment.

Organization of public and private spaces

According to the living habits of the elderly, the residential space and public space present a point-to-point relationship.



WORKER



Age

20 - 45

Time active



Communication space



Required space



Team formation



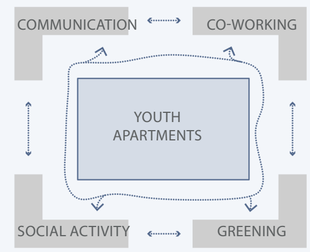
Public space function



Young occupants are not very demanding for space because they are mostly single or small family couples. However, due to the presence of people working from home, there is a high degree of flexibility in the layout of the interior of the house. For public spaces, they want more communication space, and private space and public space are closely combined.

Organization of public and private spaces

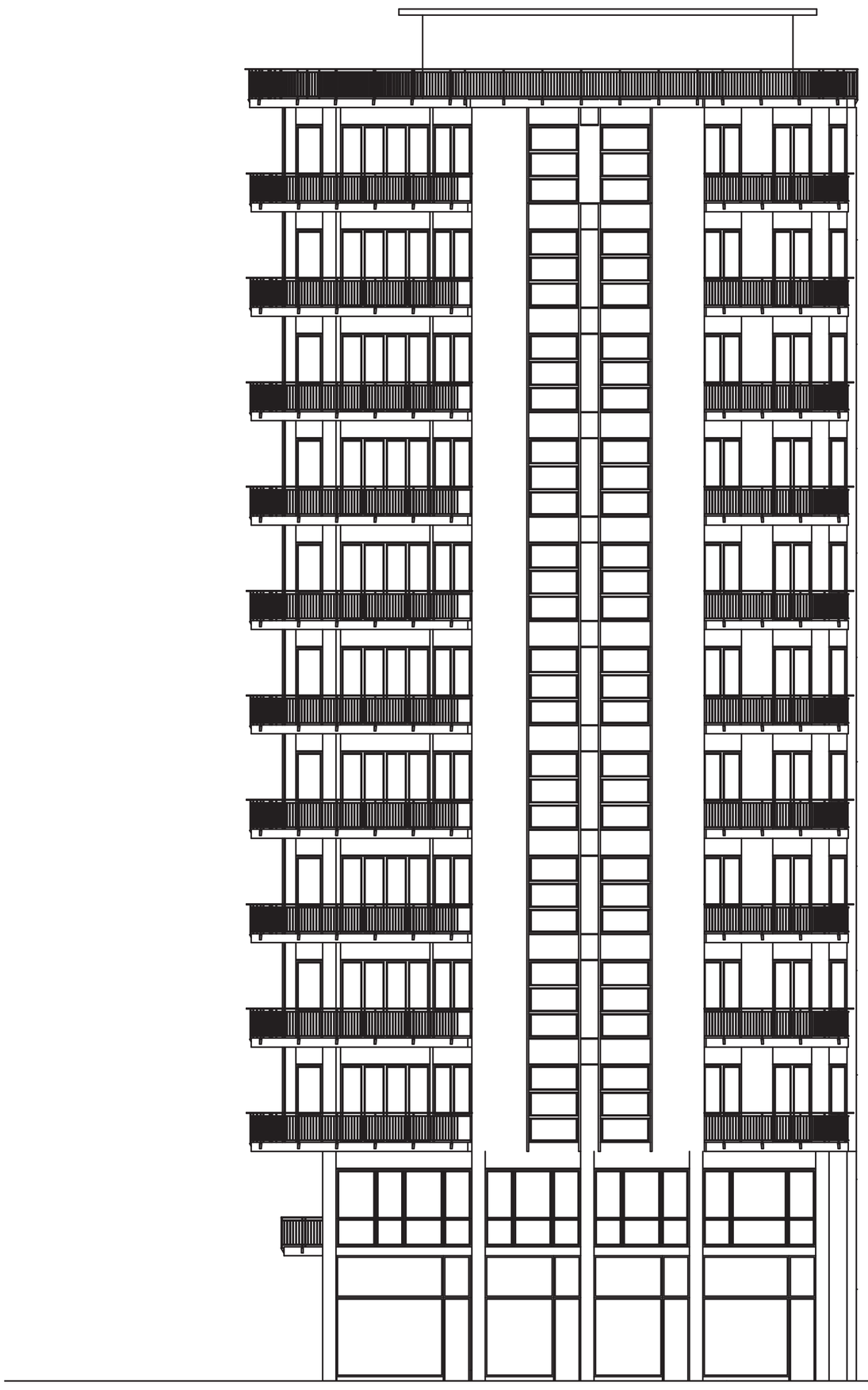
Public spaces tightly surround youth residential spaces to enhance accessibility of space.



CASE STUDY



ELEVATION 1:150



ELEVATION 1:150

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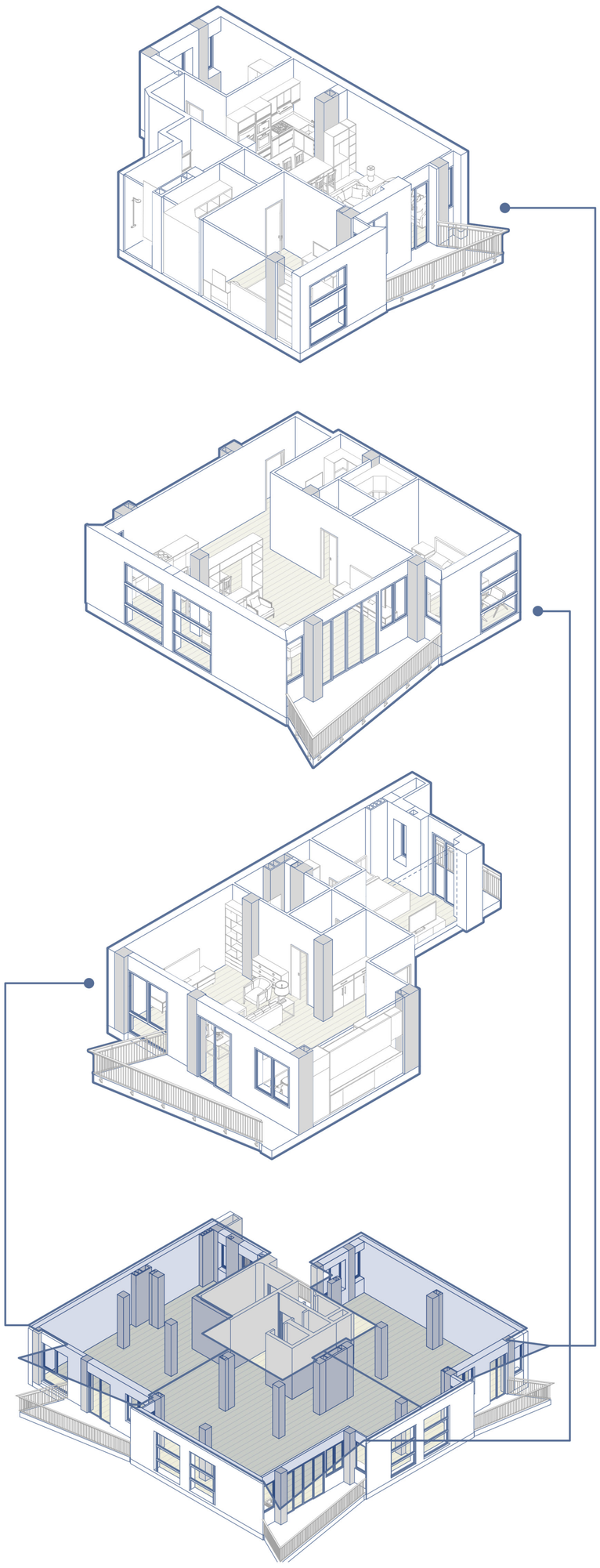
FINAL EXAM DELIVERY

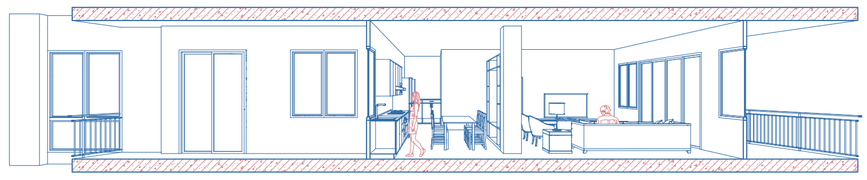
TITLEOFTHEBOARD
additional infos (scales, type of schemes)

GROUP 0
Name Surname, Name Surname, Name Surname

POLITECNICO MILANO 1863



APARTMENT



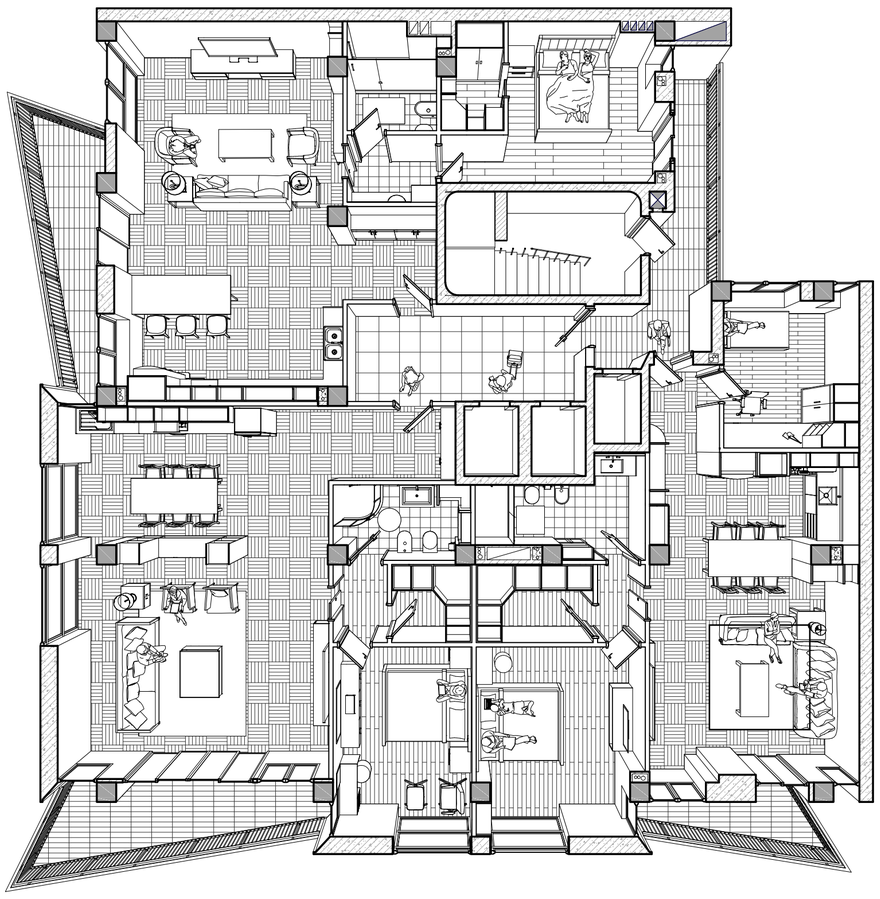
SECTION A-A 1:100



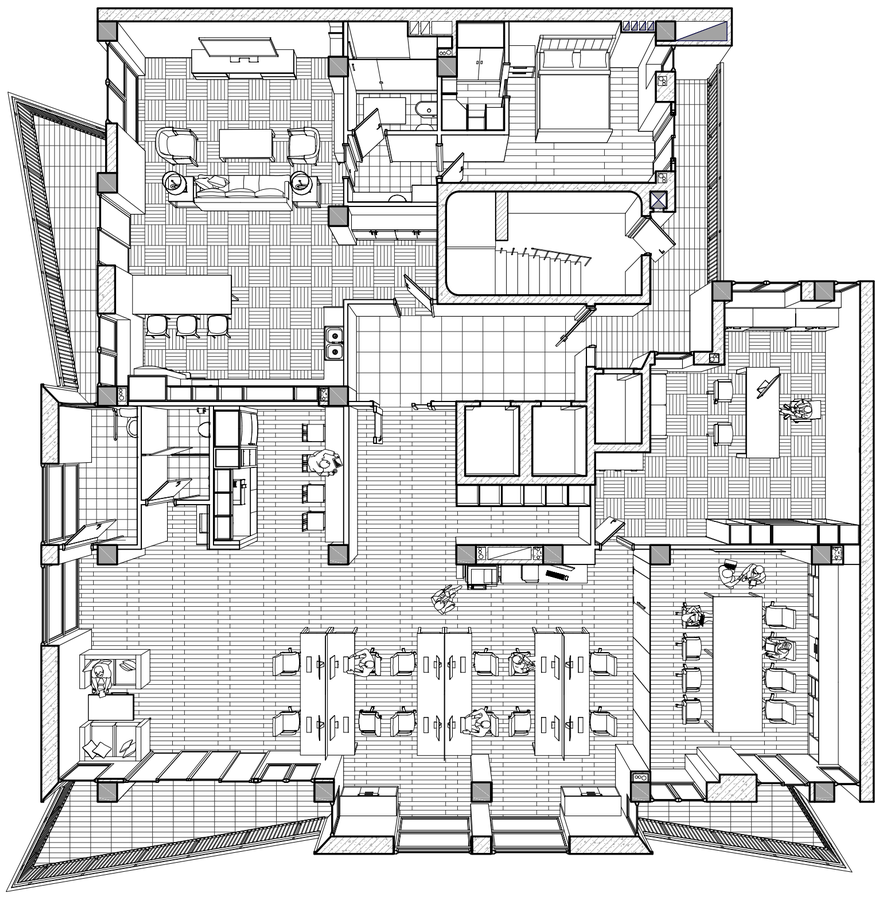








Typical Floor Plan-
Three apartments 1:100



Typical Floor Plan-
Office 1:100

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additional infos (scales, type of schemes)

GROUP 0
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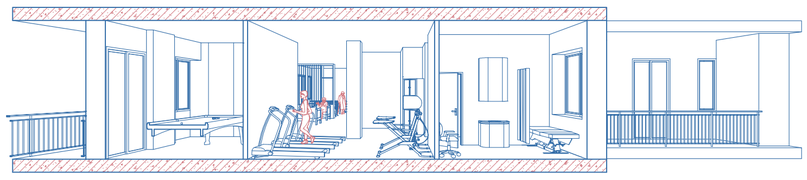
MILANO 1863

SENIOR CENTER

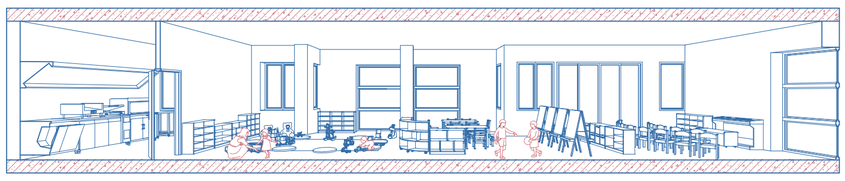


SECTION D-D 1:100





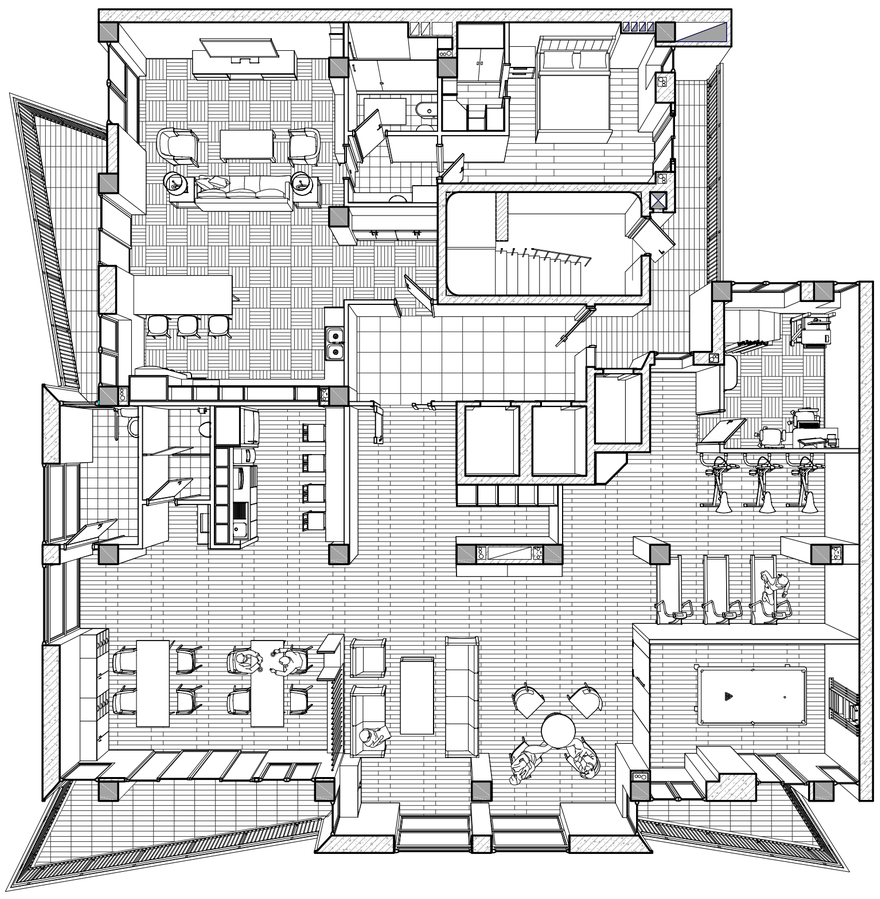
KINDERGARTEN



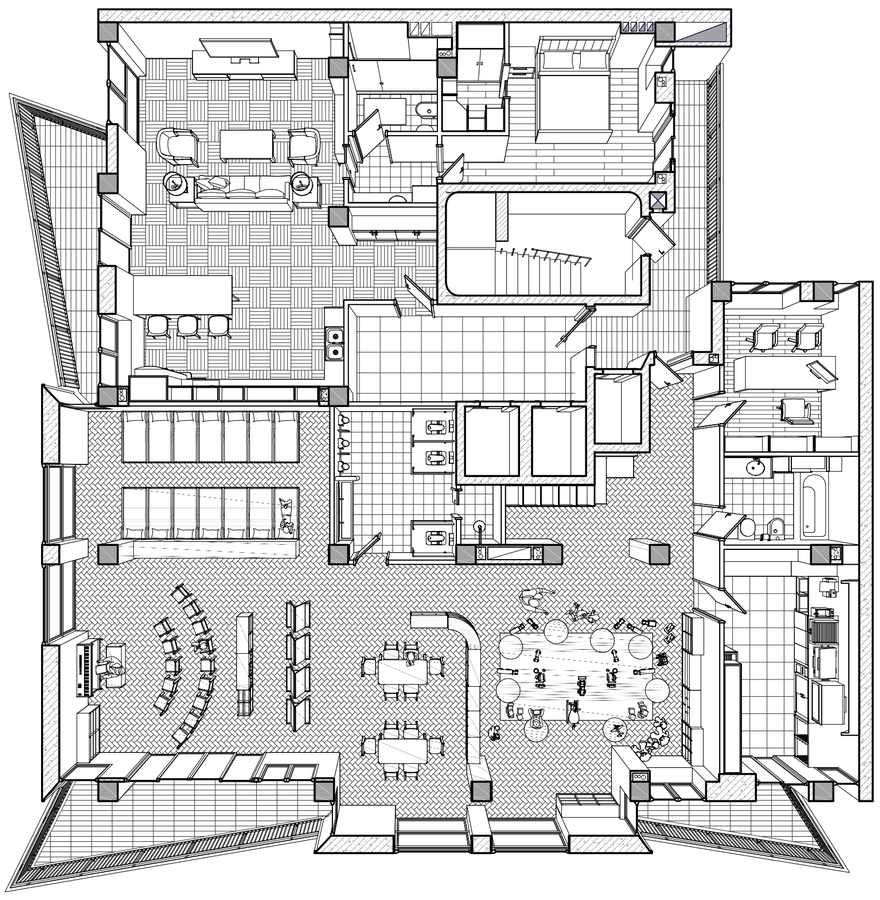
SECTION C-C 1:100







Typical Floor Plan-
Senior center 1:100



Typical Floor Plan-
Kindergarten 1:100

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FINAL EXAM DELIVERY

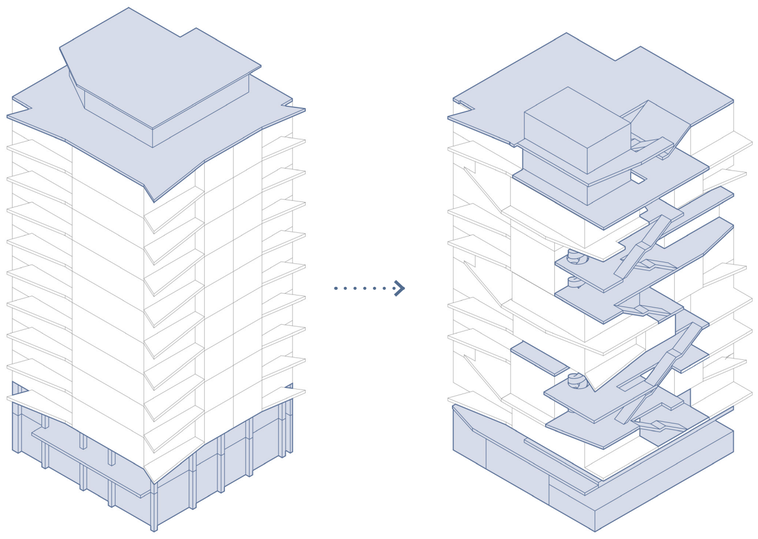
TITLEOFTHEBOARD
additional infos (scales, type of schemes)

GROUP 0
Name Surname, Name Surname, Name Surname

POLITECNICO
MILANO 1863

SOLUTION B

PUBLIC/PRIVATE -RELATIONSHIP



ORIGINAL APARTMENT

The public space of the original building is set at the bottom and top of the building, with a single function and poor accessibility. In the middle is the residential space of the same type.

MIXED COMMUNITY

Connects the negative space in different residential types, and combines the height and size of the space to form an active space with specific attributes. The addition of a large amount of public space effectively enriched the lives of residents living in this apartment building.

USERS ANALYSIS

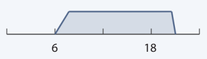
ELDER



Age

60 - 95

Time active



Communication space



Required space



Family formation



Public space function



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Organization of public and private spaces

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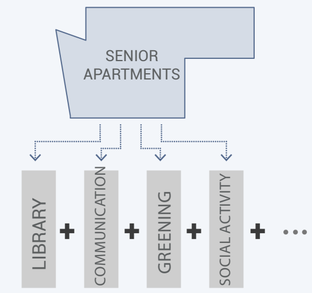


YOUTH



Age

20 - 35

Time active



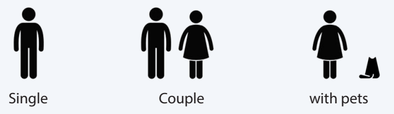
Communication space



Required space



Family formation



Public space function



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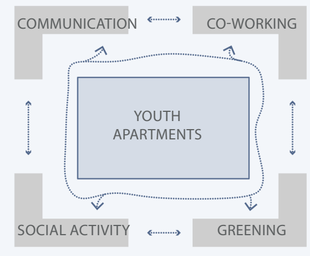
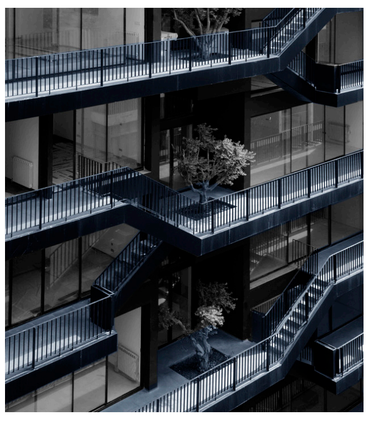


CASE STUDY



BALCONY AND CORRIDOR

Indoor and outdoor
Accessibility

Through the stairs, connect the corridors of each public space to form a smooth spatial streamline.

- Plot #183
  Bernard Khoury Architects



LANDSCAPE

Greening
Lighting

Redefining the role of flower beds, in addition to providing space greening, as a façade, increasing the permeability of the space, so that the interior has better lighting.

- Resort in House
  ALPES Green Design & Build



ROOF GARDEN

Stepped functional zoning

Maximizing the green area atop, the roof is divided into parallel bands of greened roofs and tiled roofs in an alternating sequence.

- Mr. Hoan's Hanging Garden
  Vo Trong Nghia Architects



ELEVATION 1:150



ELEVATION 1:150

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FINAL EXAM DELIVERY

TITLEOFTHEBOARD
additional infos (scales, type of schemes)

GROUP 0
Name Surname, Name Surname, Name Surname

POLITECNICO MILANO 1863

[GROUND] SPACE

According to the floor, this section is divided into two parts, which are open to the public and serve only the residents.

Among them, the ground floor, the lobby is connected to the outdoor garden, and the height difference formed by the steps forms different functional areas. Use the coffee shop along the street to extend to the outdoor garden, making efficient use of indoor and outdoor spaces.

The first floor opens the original interior space, forming a semi-open indoor garden and an indoor multi-purpose activity room and library. The indoor garden has a large number of rotatable glass doors that allow the garden to be lighted and ventilated through different angles while maintaining a wide line of sight.





ORGANIZATION OF PUBLIC SPACE

The four-story residential layer forms a dwelling unit that increases the utilization of public space and the accessibility of traffic lines within the dwelling unit. In the case of maintaining three apartments on each floor, the combined use of the remaining negative space allows for a good combination of private living space and public event space.

A unit is formed every four to five floors, providing a variety of public spaces to meet the different needs of residents for shared space.

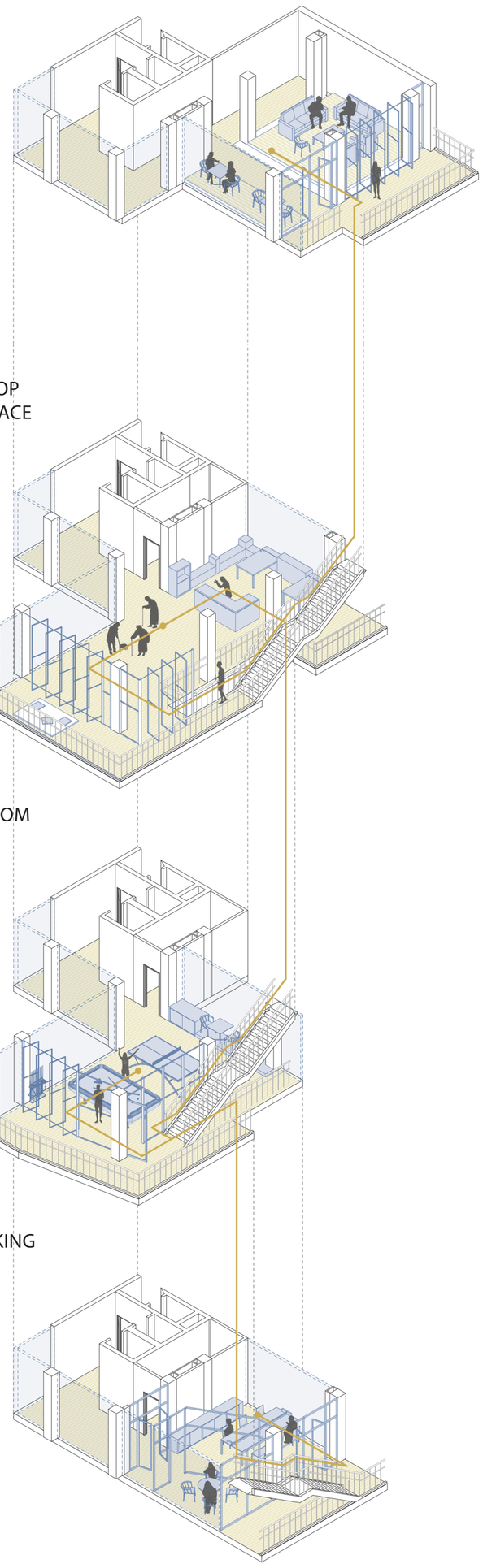
FOUR-STORY SPACE UNIT

[5F]
/ CHATTING ROOM
/ GREEN LOUNGE

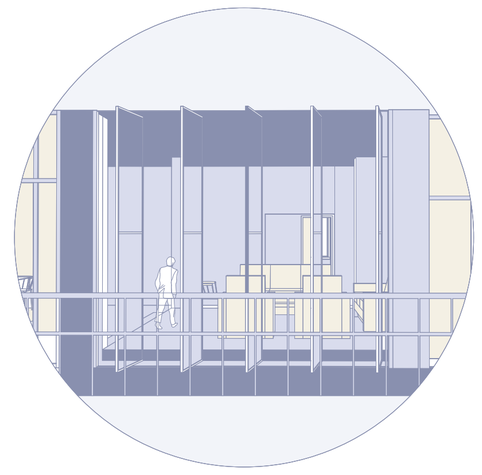
[4F]
/ WORKSHOP
/ EVENT SPACE

[3F]
/ GAME ROOM

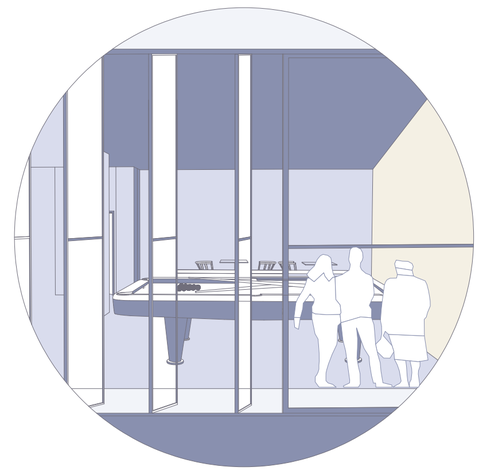
[2F]
/ CO-WORKING SPACE



SCENE









Ground Floor 1:100

First Floor 1:100

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TITLEOFTHEBOARD
additional infos (scales, type of schemes)

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POLITECNICO MILANO 1863

SENIOR APARTMENT

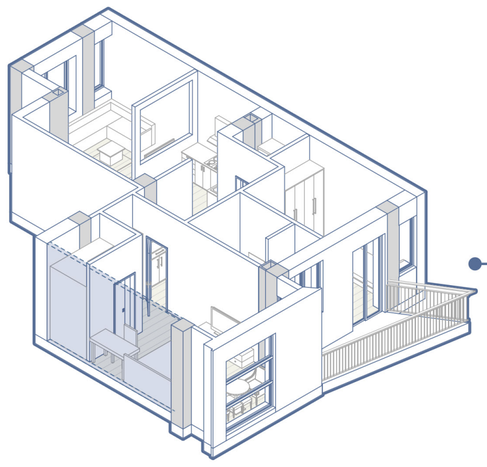
The purpose of space is not only to live, but also a carrier of memory. For the elderly living in this building, it is necessary to help them retain the look of their original home.

Centered on three triangular balconies, the original plane is dismantled into three types of apartments, and the elderly can choose the blocks they wish to keep. So each floor has a block for the original apartment.

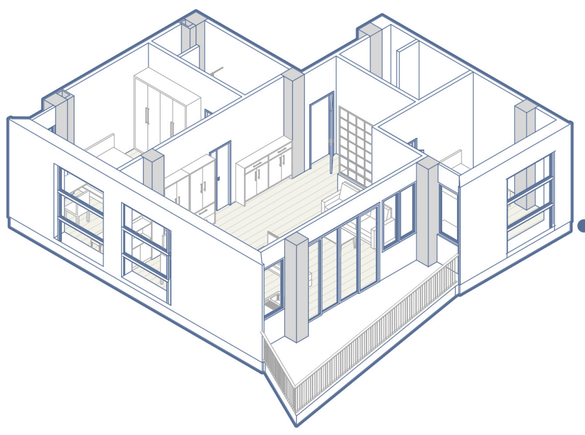
While re-adjusting the occupancy rate of the entire apartment, it is possible to retain the living space of special significance to the greatest extent.

SPACE SEPARATION

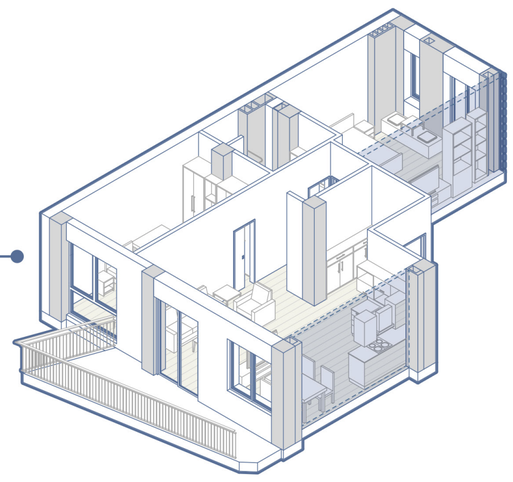
TYPE C
Area: 91.8m^2
Interior area: 85.5m^2
Balcony area: 6.3m^2
Number of bedrooms: 2



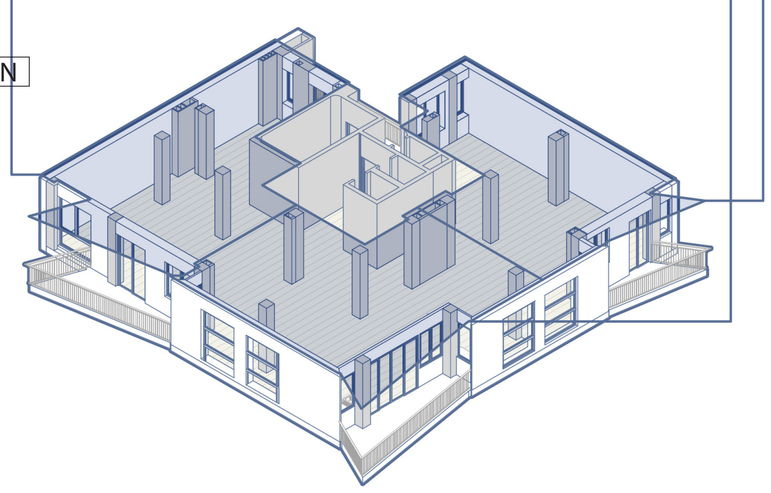
TYPE B
Area:102.5m^2
Interior area: 88m^2
Balcony area: 14.5m^2
Number of bedrooms: 2



TYPE A
Area: 99.8m^2
Interior area: 86.6m^2
Balcony area: 13.2m^2
Number of bedrooms: 2

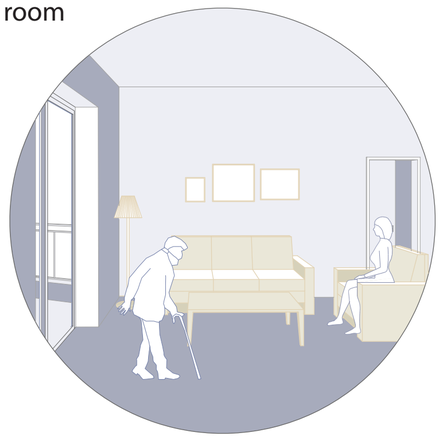


ORIGINAL PLAN
Area: 354m^2

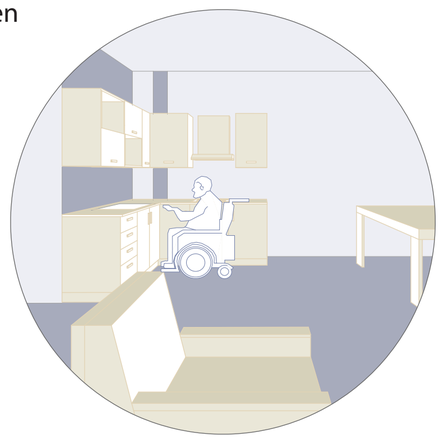


DAILY LIFE

living room



kitchen

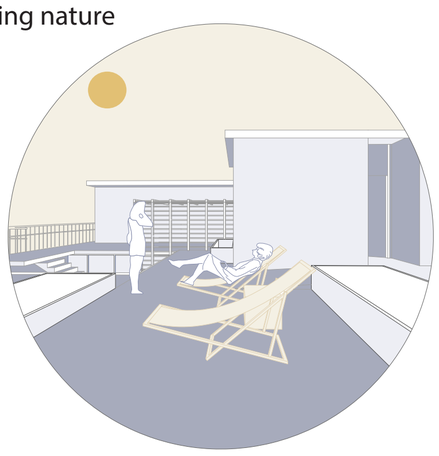


SOCIAL LIFE

social activity



touching nature



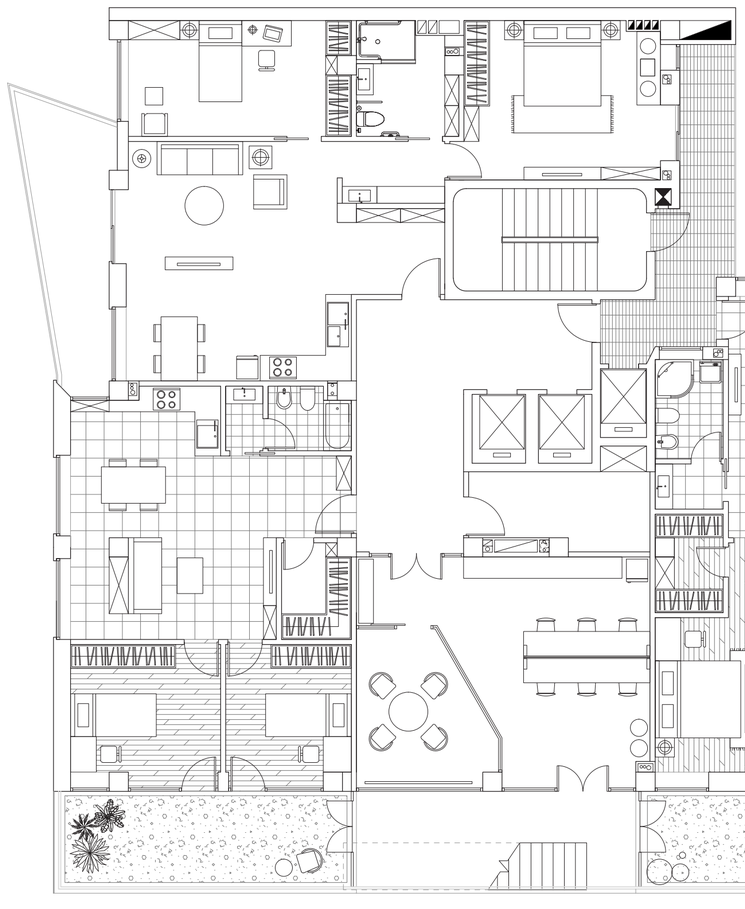
PRIVARE TO PUBLIC

Separation of public and private spaces is achieved by the direction of sight and the openness of the space.

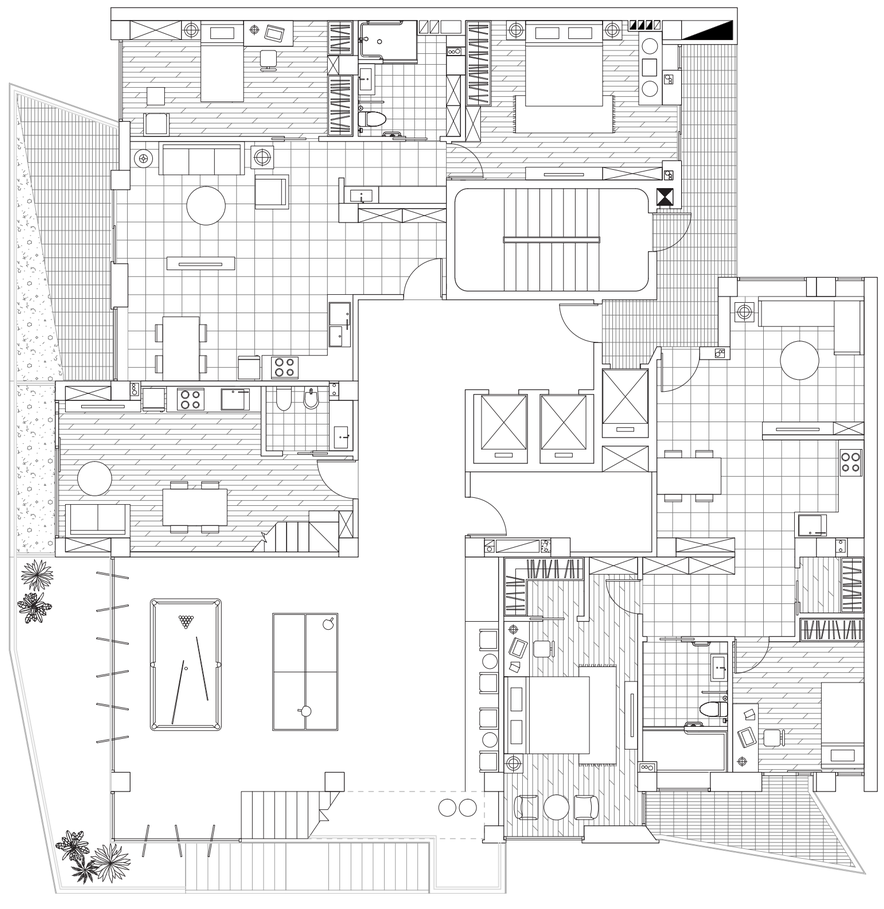
Stairs are placed between each floor to improve accessibility within the living unit and to effectively encourage residents to participate in social activities.







Second Floor 1:100



Third Floor 1:100

Master degree in Architecture, Built Environment, Interiors
FINAL THESIS STUDIO E
REGENERATING AND RE-INHABITING POST-WAR HOUSING HERITAGE
professors: G.Caramellino, L.Daglio, L.Ottolini

FINAL EXAM DELIVERY

TITLEOFTHEBOARD
additional infos (scales, type of schemes)

GROUP 0
Name Surname, Name Surname, Name Surname

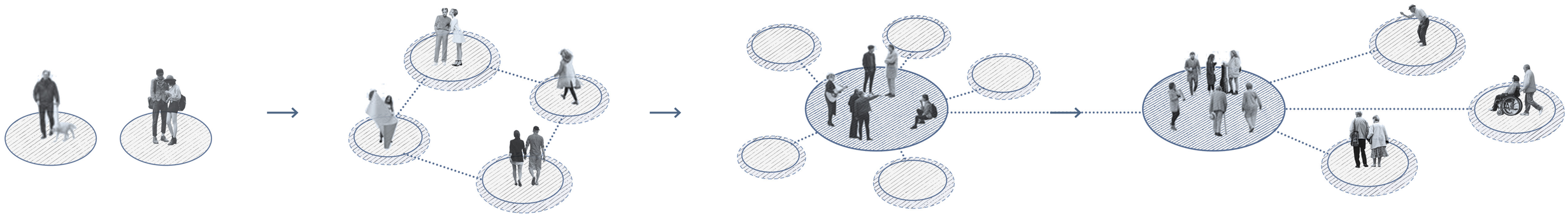
POLITECNICO
MILANO 1863

YOUTH APARTMENT

According to young people's needs and living habits, there are four corresponding apartment spaces suitable for home workers, singles, young couples (no children).

According to the social network model of contemporary youth, the organization of small apartments and multiple public spaces is formed. For newly built youth apartments, the connection to public spaces is closer.

SOCIAL ORGANIZATION



Individual

Network

Group

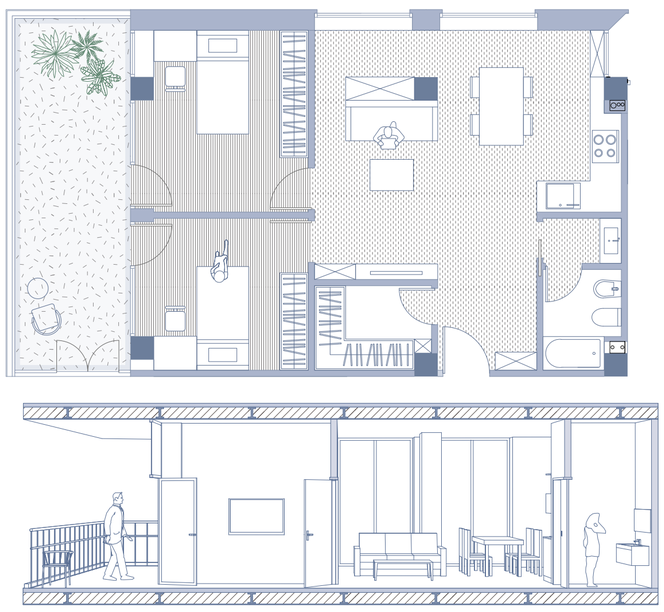
Shared space for elder and youth

TYPOLOGY

TYPE A

Area: 84.8m^2
Interior area: 67.8m^2
Balcony area: 17m^2

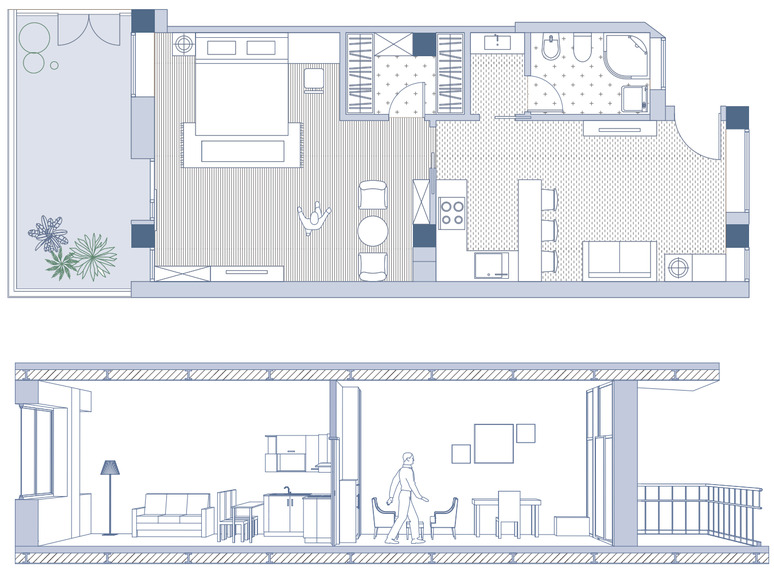
There are two bedrooms, this type is suitable for young couples.



TYPE A

Area: 74.4m^2
Interior area: 61m^2
Balcony area: 13.4m^2

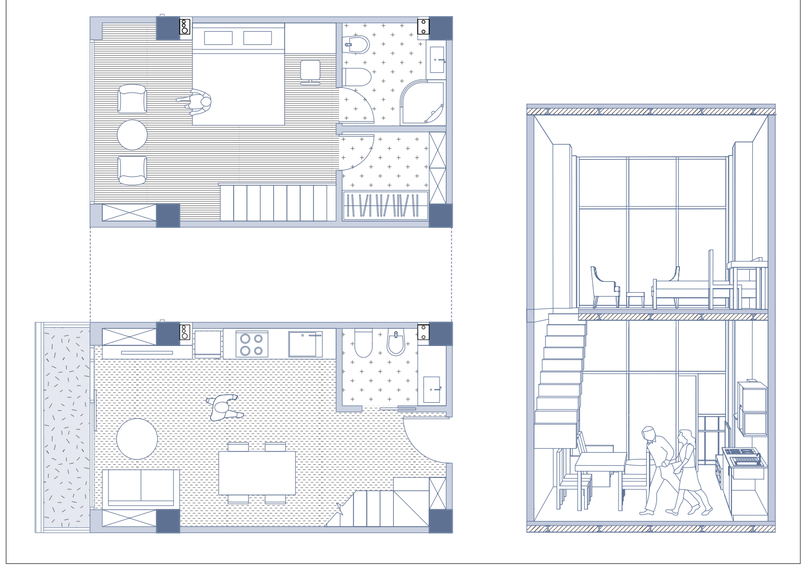
The bedroom is large in size, and the space can be flexibly used, which is suitable for home office workers.



TYPE A

Area: 62.6m^2
Interior area: 58.2m^2
Balcony area: 4.4m^2

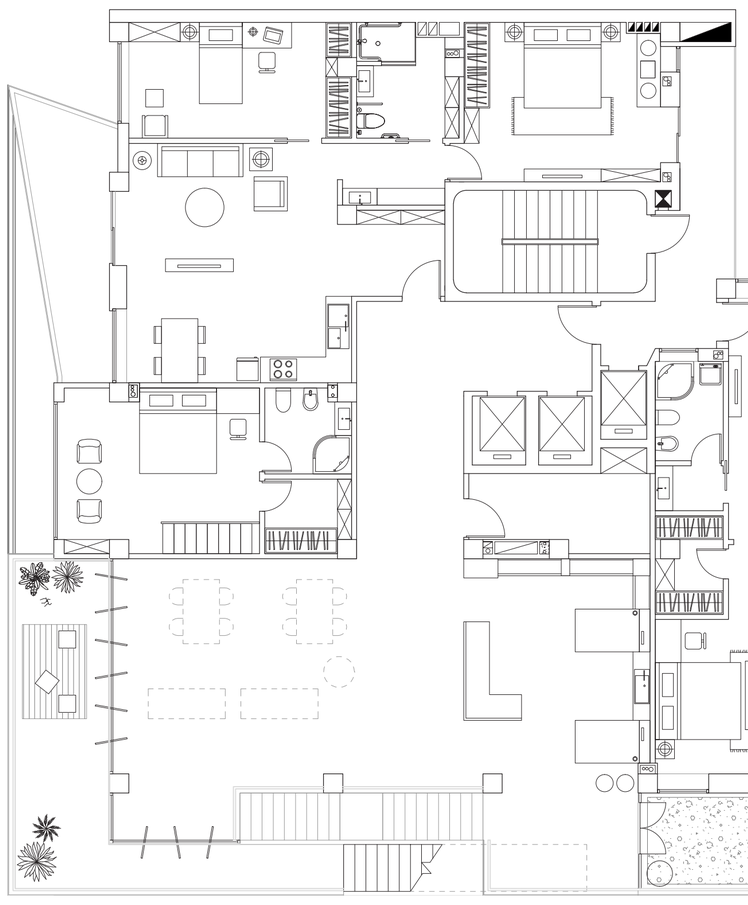
The loft structure makes indoor use a variety of possibilities and can be used as a personal studio.



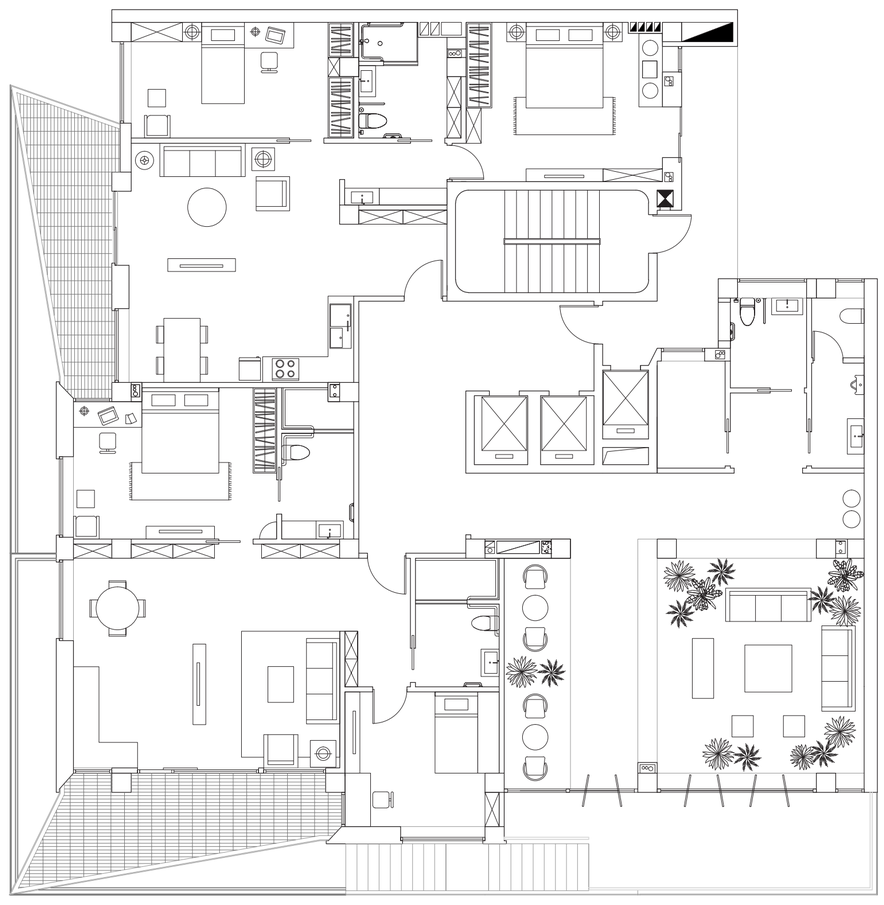








Forth Floor 1:100



Fifth Floor 1:100

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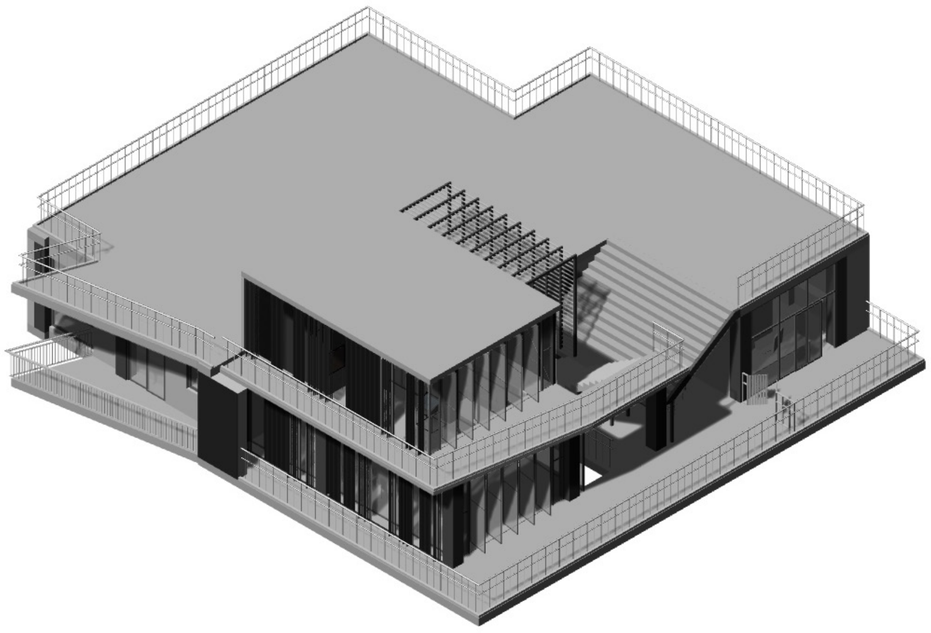
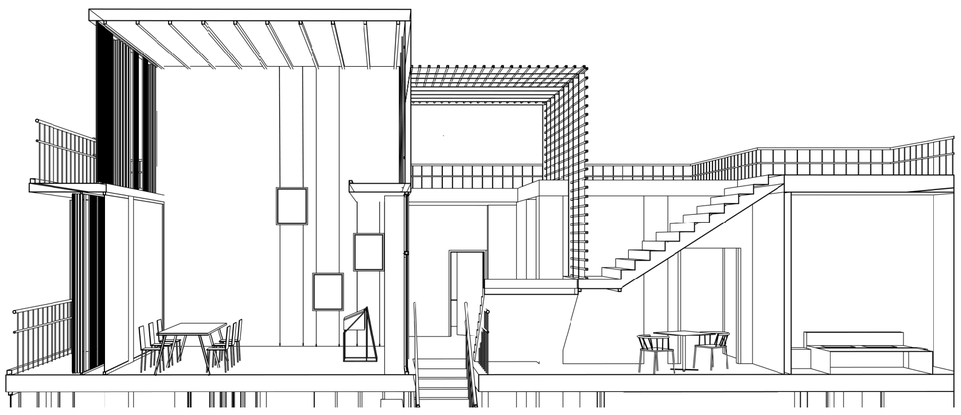
MILANO 1863

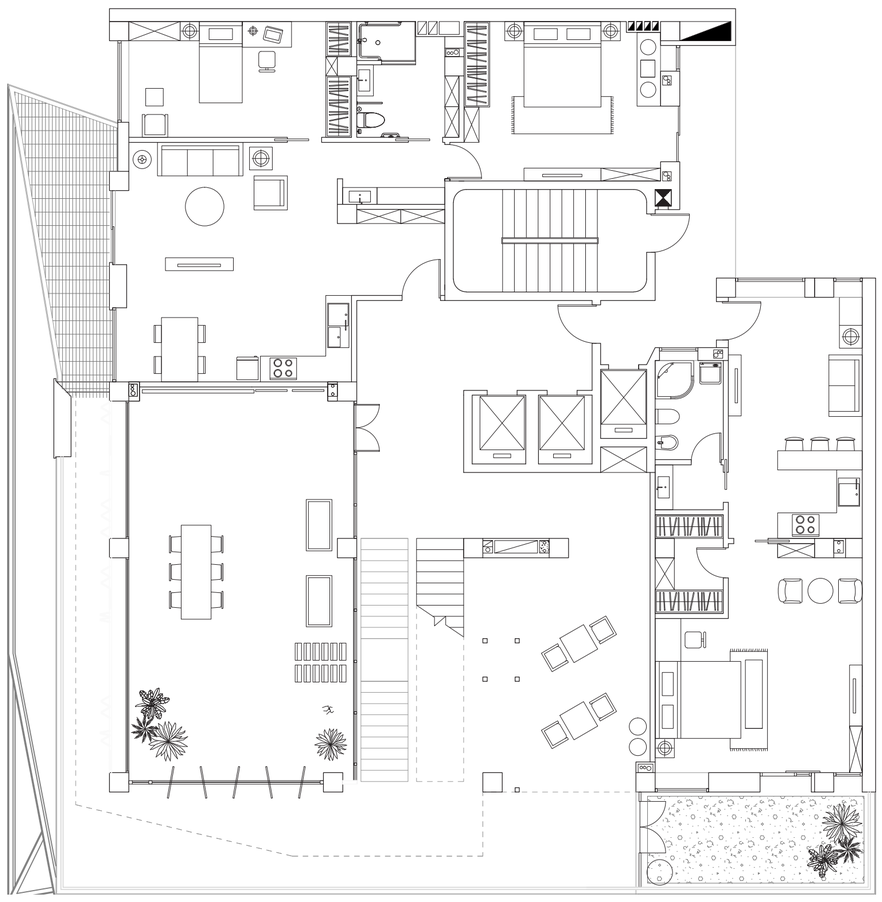
ROOF GARDEN

On the top floor of the building, it is effective to use the space property with good lighting and unrestricted height, and set up a multi-functional exhibition hall to provide occupants with auditoriums, art galleries and other uses. And through the multi-layered facade, can control the degree of lighting in the room to meet the needs of different uses.

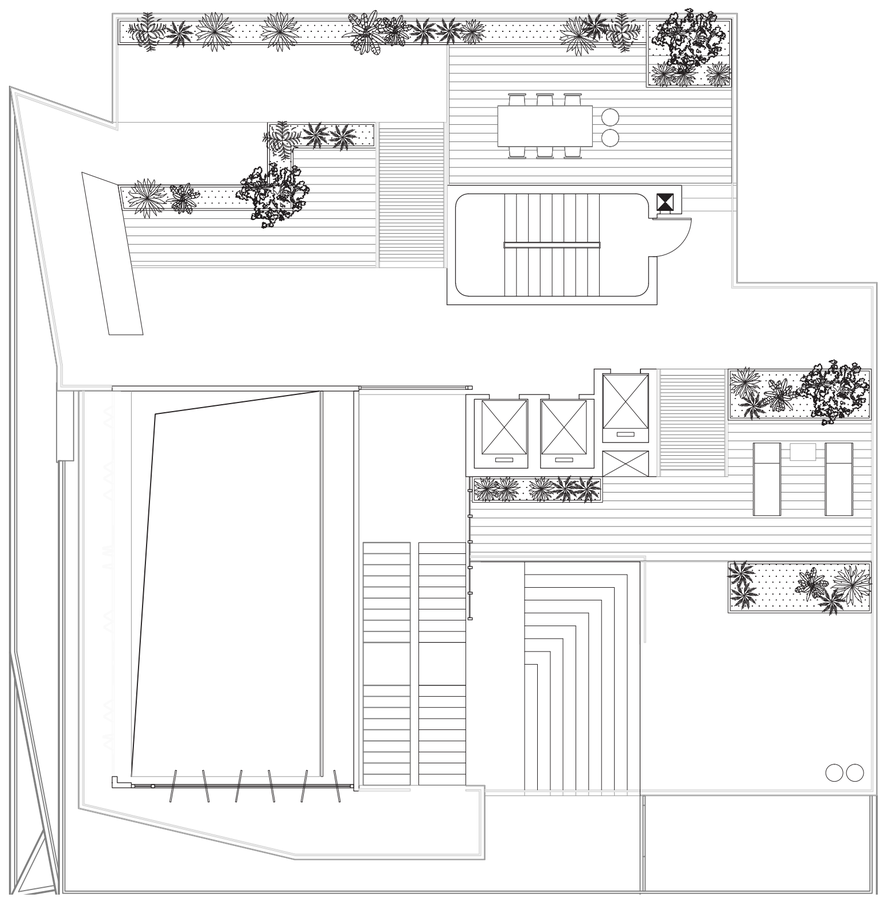
Through the large staircase to break the rigid definition of indoor space and roof space, the two-story space is connected as a whole space. And the transition space in the two-layer space can also have a thoroughfare. Combined with the exterior wall of the multi-purpose hall, an open-air cinema can be formed.







Eleventh Floor 1:100



Twelfth Floor
(Roof) 1:100

Master degree in Architecture, Built Environment, Interiors
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FINAL EXAM DELIVERY

TITLEOFTHEBOARD
additional infos (scales, type of schemes)

GROUP 0
Name Surname, Name Surname, Name Surname

POLITECNICO
MILANO 1863