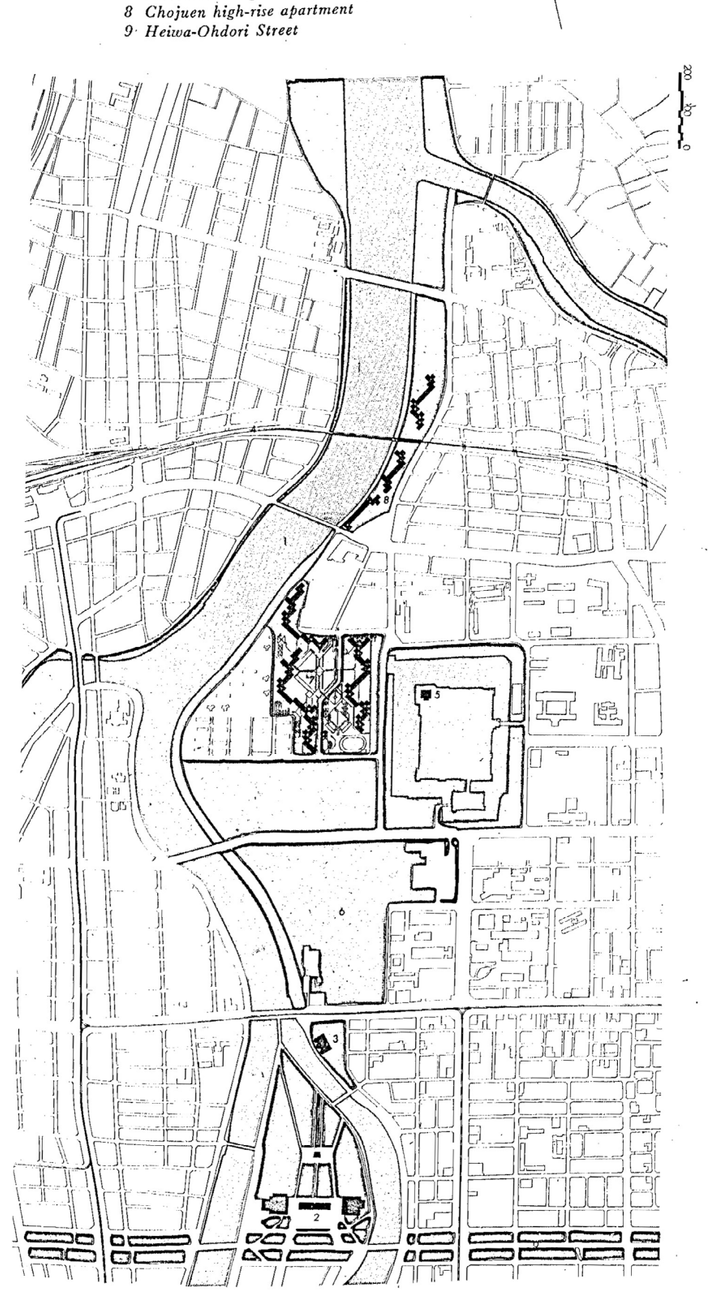
TEMPELHOFER FELD CO-OP

RESEARCH
HOUSING SYSTEMS

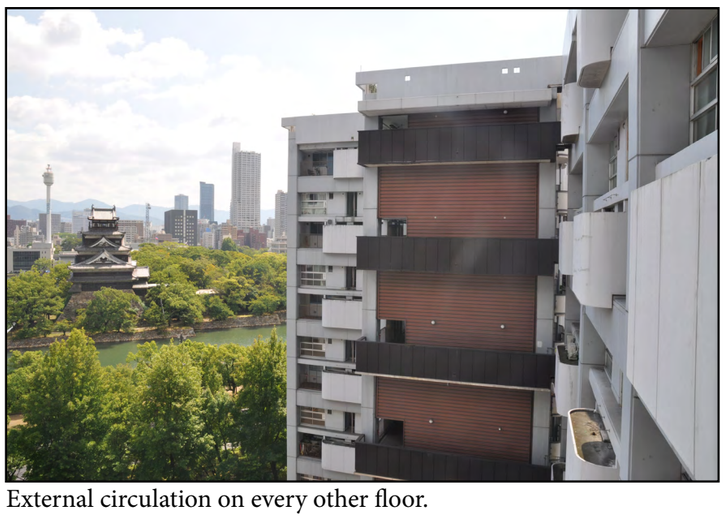
Project	Motomachi + Chojuen
Apartments	
Architect	Masato Otaka
Location	Hiroshima
Year	1974
m²	-
Program	housing for 10,000 people.

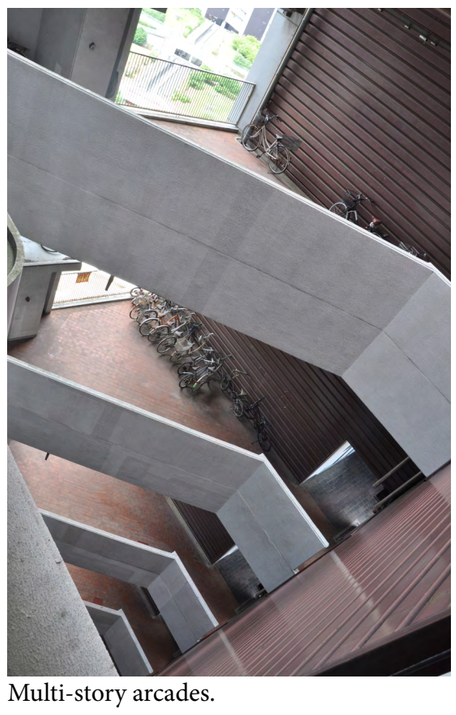
Hiroshima after WWII.

The site is near a memorial park, the center of the atomic blast.
Originally a military camp, the site then became an illegal, overcrowded refugee camp after the war.
Housing was desperately needed, so medium density housing was initially provided for some refugees, but only for 900 families out of 4000. This was clearly not enough.
It was decided that high rise housing in a park-like setting along the river would be built, with land provided by the city as an extension of the Hiroshima memorial park. It was the densest multifamily housing in Japan.



Plot plan of Motomachi and Chojuen districts and memorial park.


External circulation on every other floor.


Multi-story arcades.

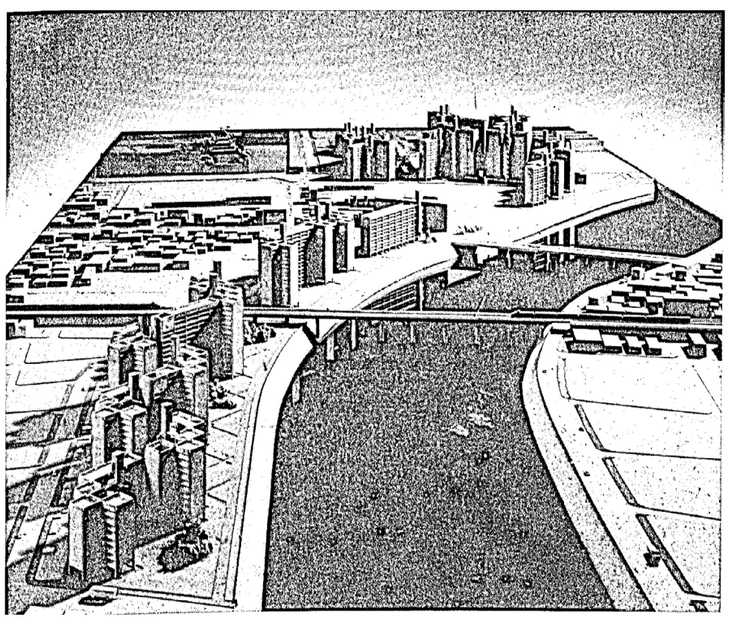
Structurally, all buildings are supported on (prefabricated) pilotis. Floor structure alternates between a combination steel frame and cast-in-place contrete on circulation floors to resist lateral loads, and precast concrete on the intermediate floors. Circulation runs the length of every other floor, which nevertheless provides access to the upper story apartments through individual stairs. This creates a skip-stop gallery, where two floors are accessible through one hallway. The buildings are connected in L-shapes, with vertical circulation (elevators and stairs) located at the intersections in multistory, open-air arcades that also function as meeting places.

In total there is housing for 10,000 people, plus peripheral commercial and social functions:

A	primary school
B	kindergarten
C	nursery schools
D	shopping
E	commercial
F	hospital
G	youth center
H	elderly center
I	restaurants
J	roof garden
K	swimming pool

In addition there is a choice of prefabricated elements:

1	balconies
2	railings
3	tatamis
4	windows
5	containers
6	room dividers
7	doors


Model Photo. Chohjuen residence below left, Motomachi above.

The settlement consists of two groups of buildings, one on a narrow strip of land along the river, 12-14 stories tall, called Chohjuen. The other is the Motomachi complex, located on a rectangular site and zig-zagging around a central open space. Motomachi rises 8 stories near the Hiroshima castle in the east, and steps up to 20 floors in the northwest.


L-shaped Motomachi stepping up to 20 stories at NW end.

Ground floor (or basement?) commercial corridor with light wells. A park is above.

UNITS/USER PROFILE

Abdul came to the United States in 1972.
He is part of an extended Yemeni family that owns a number of businesses- including virtually all the news stands- at this end of Manhattan Avenue, themain shopping Street.
Abdul has run some of them, Including some retail efforts that failed. For the past few years he has managed the corner store called Greenpoint's Finest Deli. The store, whcih expanded in the 1990s, recently closed for remodeling for six months and was reborn as a modernized store serving hipster tastes.

Rani and Moe opened G&S Truck and Auto Repair almost two years ago. They immigrated from Israel in 2002.
Their Shop is very close to the Pulaski Bridge to Queens. It is on McGuinnes Boulevard, a street dating from the mid-60s, when master planner Robert Moses created it as a through truck route between two highways in the midst of a residential area.
There are a dozen of small car and truck shops along here, but G&S is doing well.

Paul Kang and his wife immigrated from Korea about thirty years ago.
They have operated a photo and electronics street in the neighborhood for most of that period and moved, as a photo and framing shop, to the present location about ten years ago. They now live in Queens, another more suburban borough of New York City. Their daughter, who used to help out in the store, went to MIT. Paul and his wife jointly run the store.

Living room showing tatmi size standard components.

APARTMENT SYSTEM

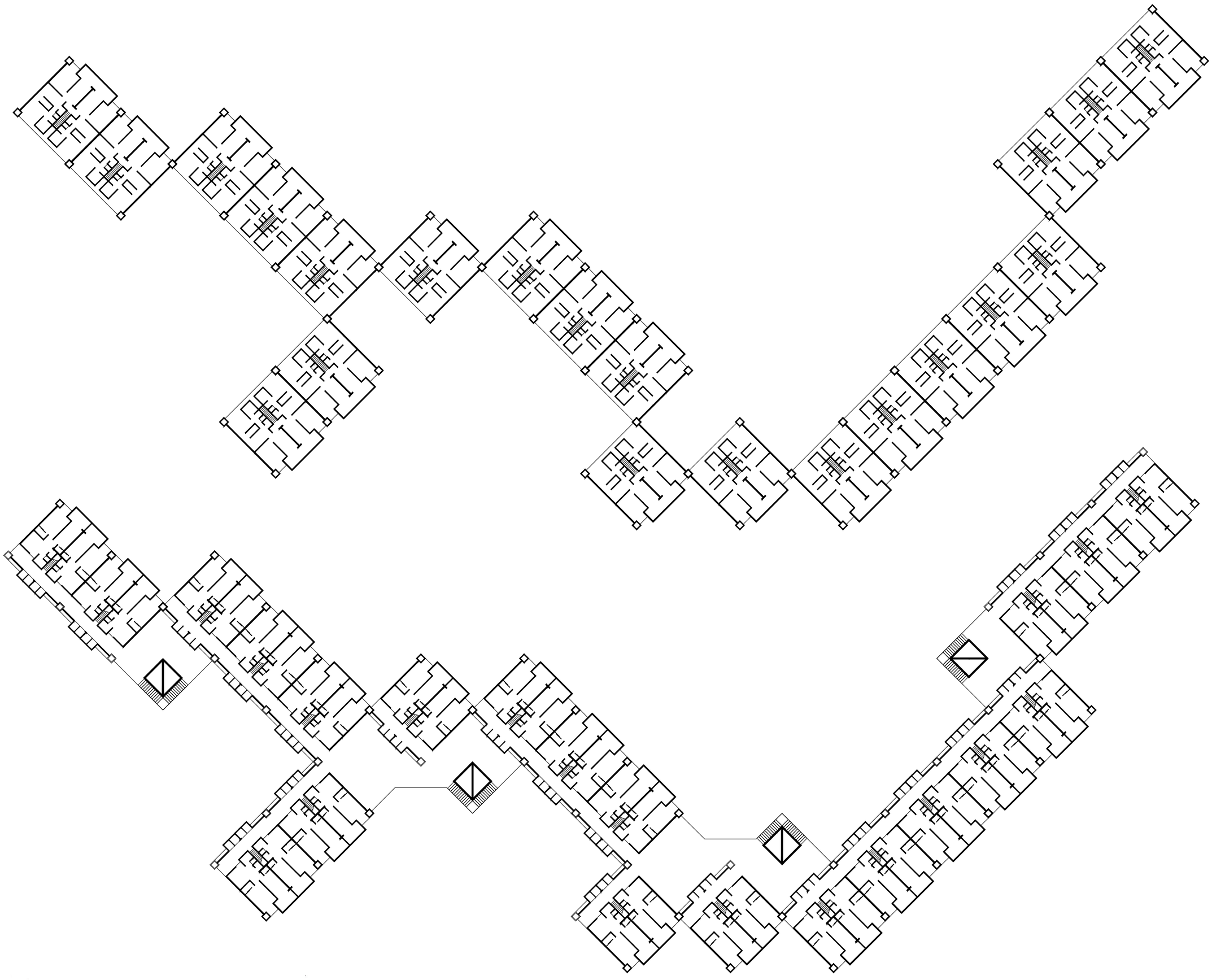
View of exterior corridor and smaller apartment below, with larger, stair-accessible apartment above.

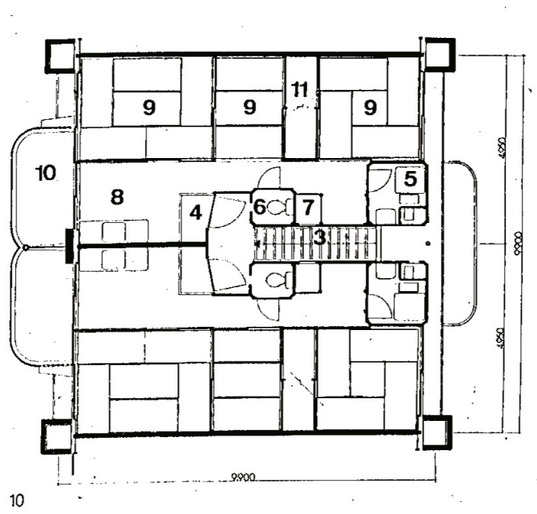
Circulation level apartments are small, about 42 sq. m., yet contain both a shower room and separate wc. Storage space is located both in the apartments and in „floating“ containers in the corridors opposite the apartments. Stair accessible apartments are larger, with two additional rooms.

The basic measurement within the apartments is the tatami, with a proportion of 2:1. This forms the standard measurement of both floor and wall components.

APT. FLOOR PLANS SECTIONS AXONS? FROM JA

APARTMENT SYSTEM





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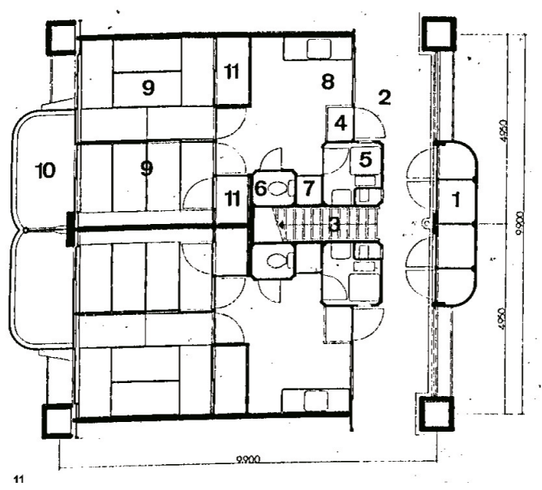

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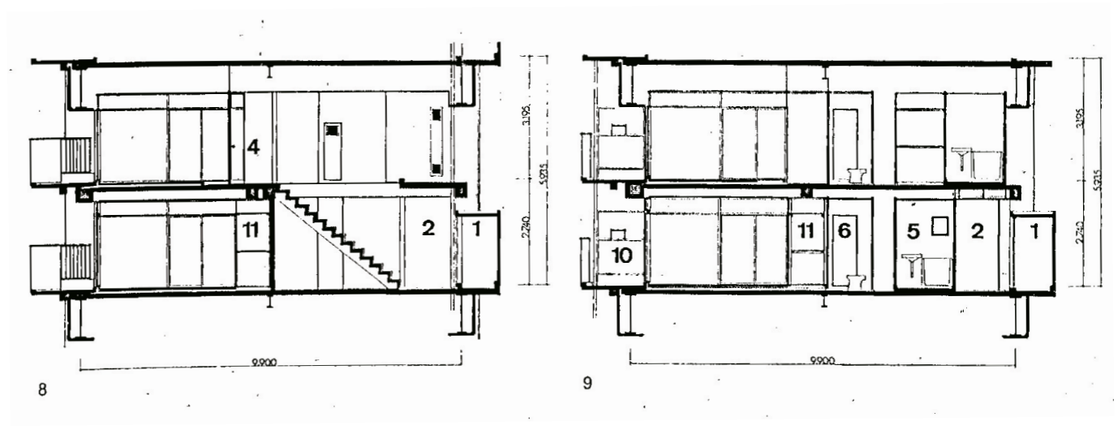

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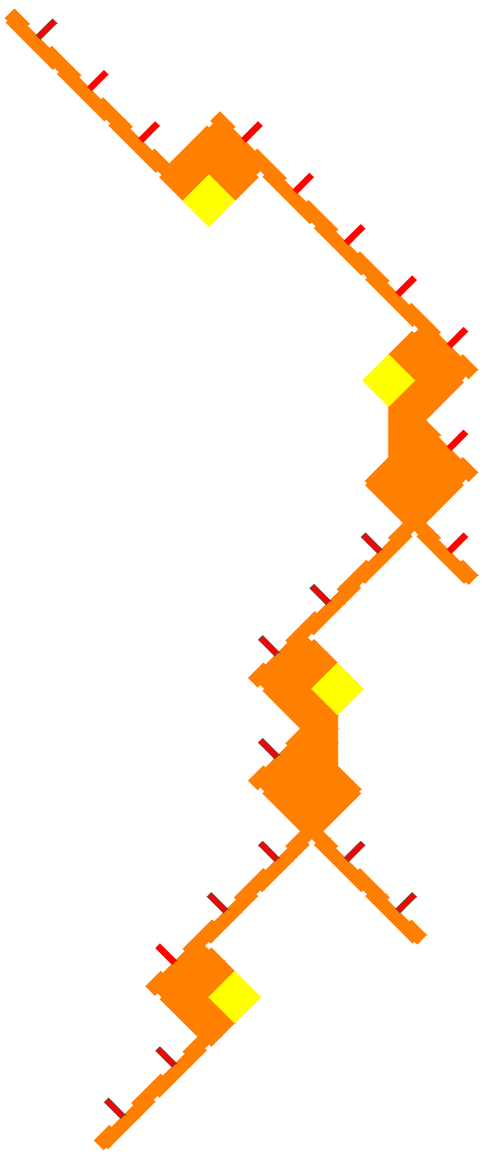
FEATURE – CIRCULATION FOR MEETING POINTS



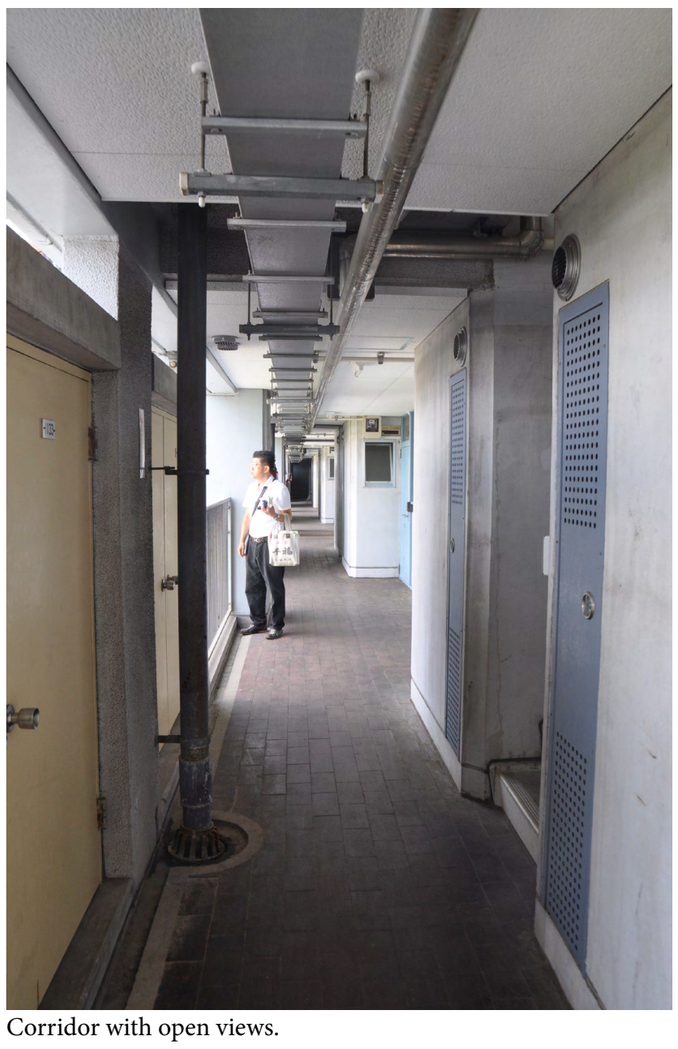
Walking towards or walking away. Chance meetings. Serendipity, luck, socializing.

Decision-making. Go the same way every day or try something new? New directions.

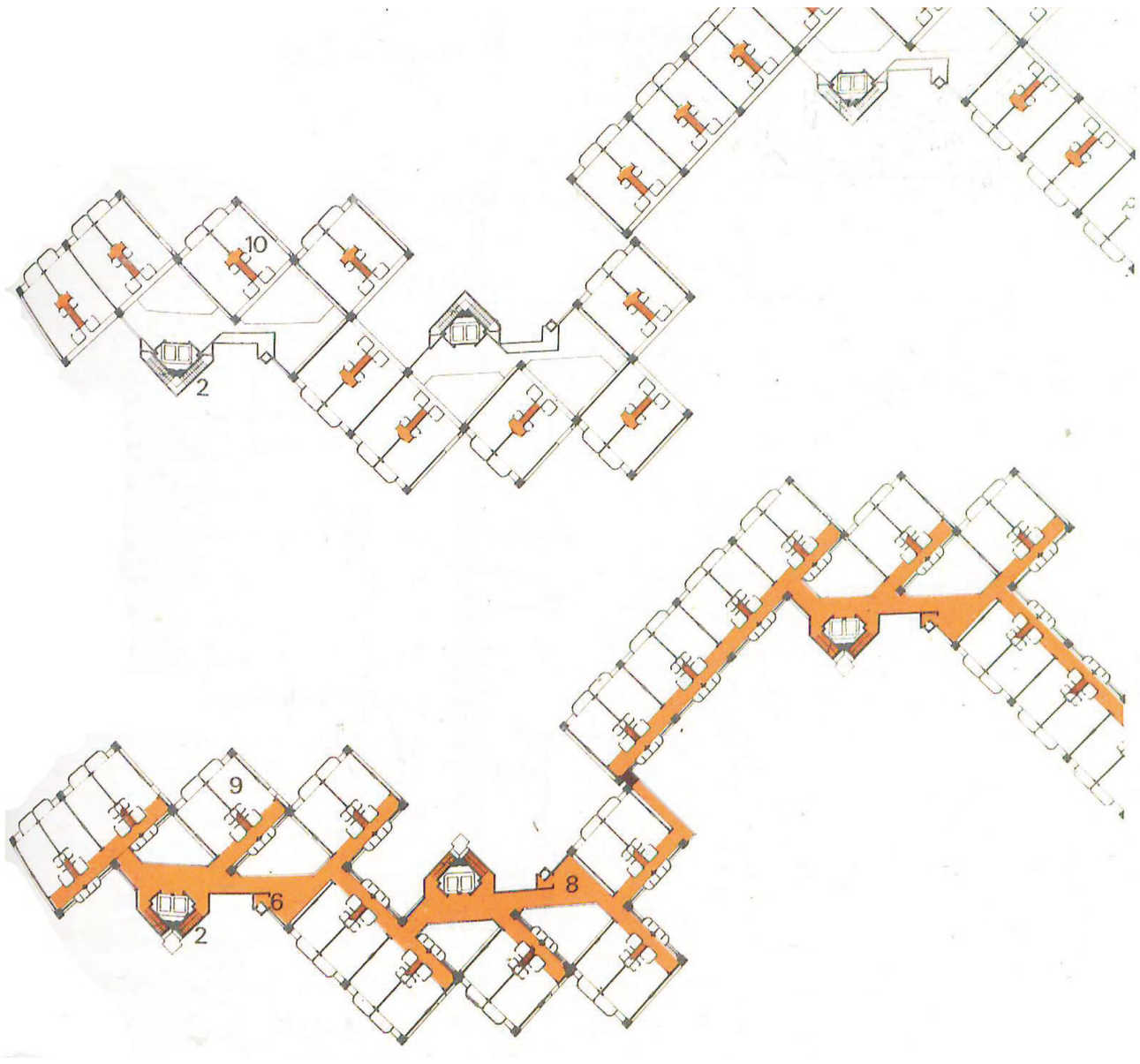
Who will I meet? A neighbor I like or someone I want to avoid? What will I find out by running into someone? Gossip about the building, other neighbors, news? The corridor is neither private nor public and yet it is a little of both. Those you pass have a connection to the building, your home, and therefore have something in common with you. The corridors are long, seemingly endless when one is tired and wants to be home. Since they belong to everyone but no one in particular, they are generic, the monotony, however, thankfully broken by views to the outside. One can pause and take in the world from a different vantage point with every new view, before continuing on one's journey.

The corridors of the Motomachi include open terraces at the intersection of corridors, at the meeting point of two buildings, in an arcade two floors high. There are corridors only on every second floor, the floor above accessible only through individual stairs to each apartment. Where one floor accesses the circulation the next floor is completely cut off from movement. It is static, compartmentalized, more private. Yin versus yang. They intersect when the apartments above use the corridors below. (How does below intersect with above to complete the yin-yang symbolism?) Therefore the nodes have an important function, bringing the residents together who might otherwise never interact. This is crucial to build a community, where people look forward to leaving their apartments, meeting and chatting with their neighbors

Gallery node at intersection of corridors



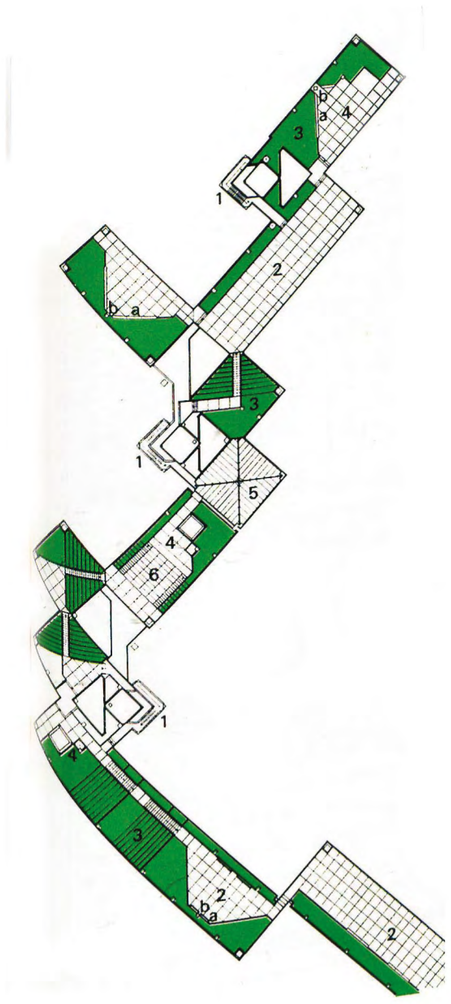
Corridor with open views.

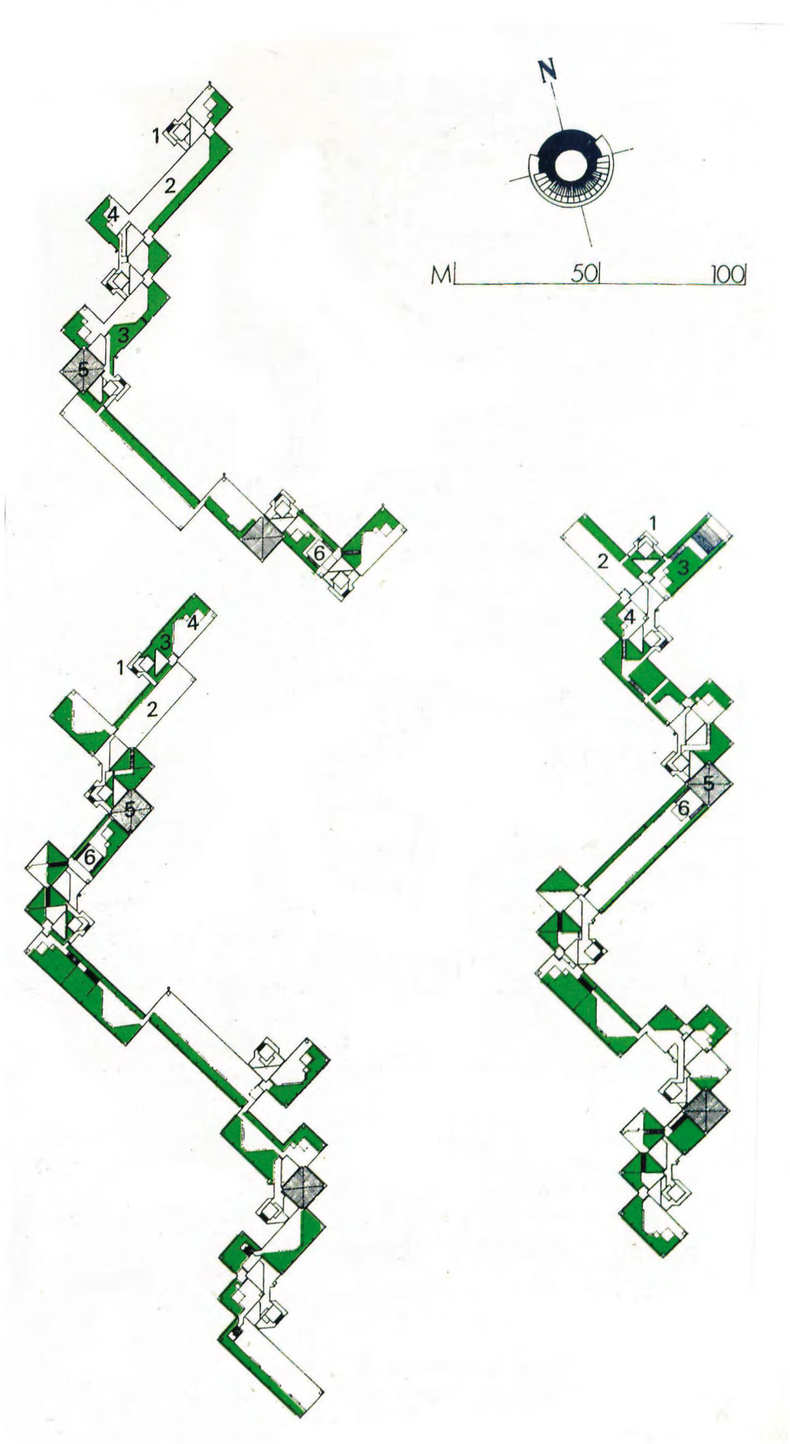


FEATURE – COMMUNAL ROOF GARDENS

The roof garden is a living, semi-private space. There one can claim a piece of land to grow vegetables, herbs and flowers, and thus take part in the rhythm of nature while gaining a sense of empowerment over one's environment. It is a communal space, where one can escape the confines and perhaps the loneliness of the small apartment downstairs and the noise of the city.

The roof garden, as an outdoor circulation space, shares some qualities of the corridor but is actually its opposite. Where the corridor is closed, the roof garden is open to the sky and the surrounding city. Where the corridor dictates the path, the roof garden leaves one free to amble. Where the corridor prescribes pauses and nodes of activity, the roof garden lets the residents decide the locations of their activities themselves. The corridor is the circulation to a goal. The roof garden however, has no goal, and therefore you are free. You don't have to go anywhere or do anything. Or you can grow food for your family and take in the views on a stroll. The corridor is predefined, the roof garden is open to personal intervention.



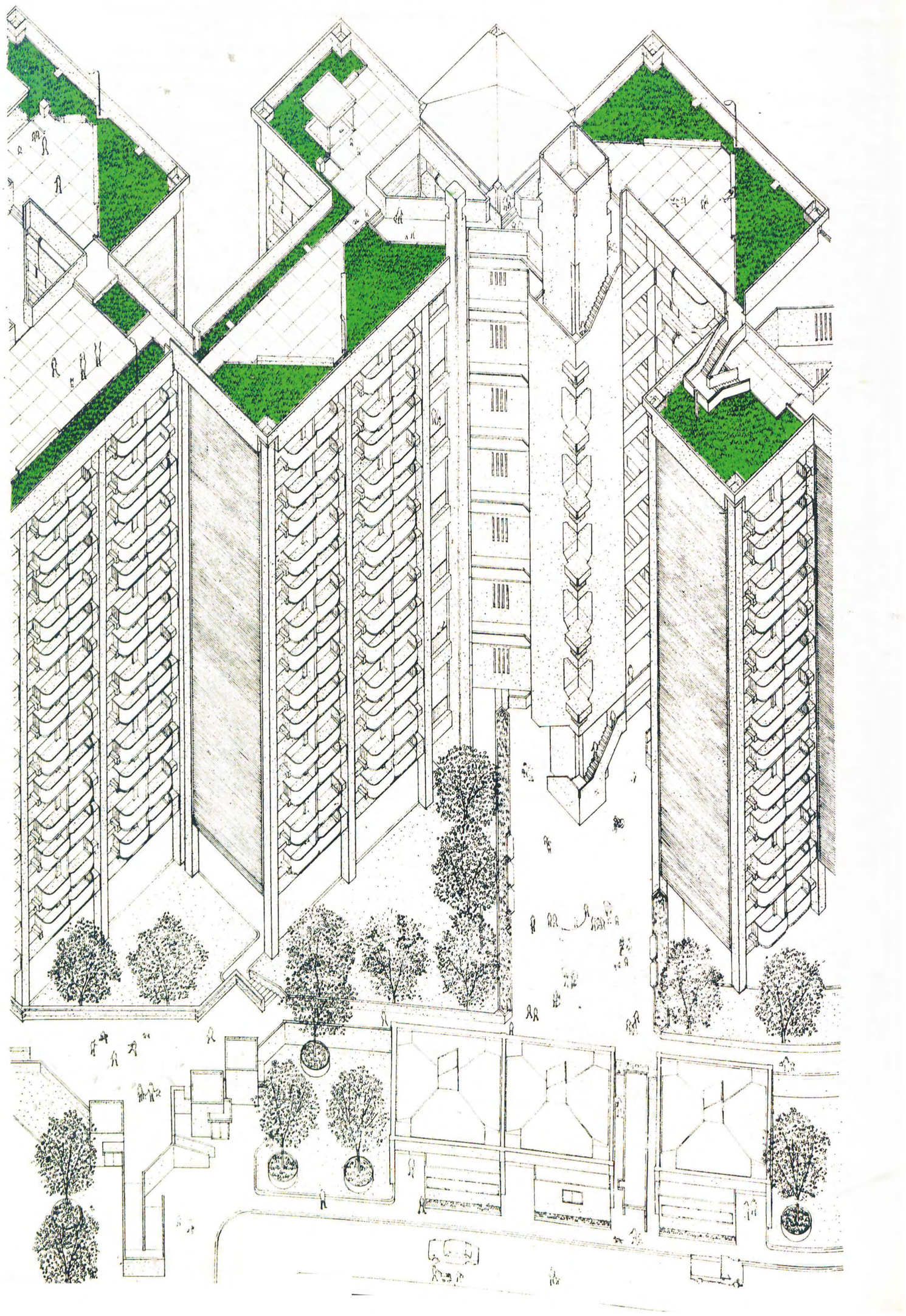


It can be a meditative space. It can be a social center. It can be an exercise oasis. It can be a source of income.

There is a connection to the commercial ground floor activities in that food and flowers can be grown on the roof and sold in the shops and restaurants below.

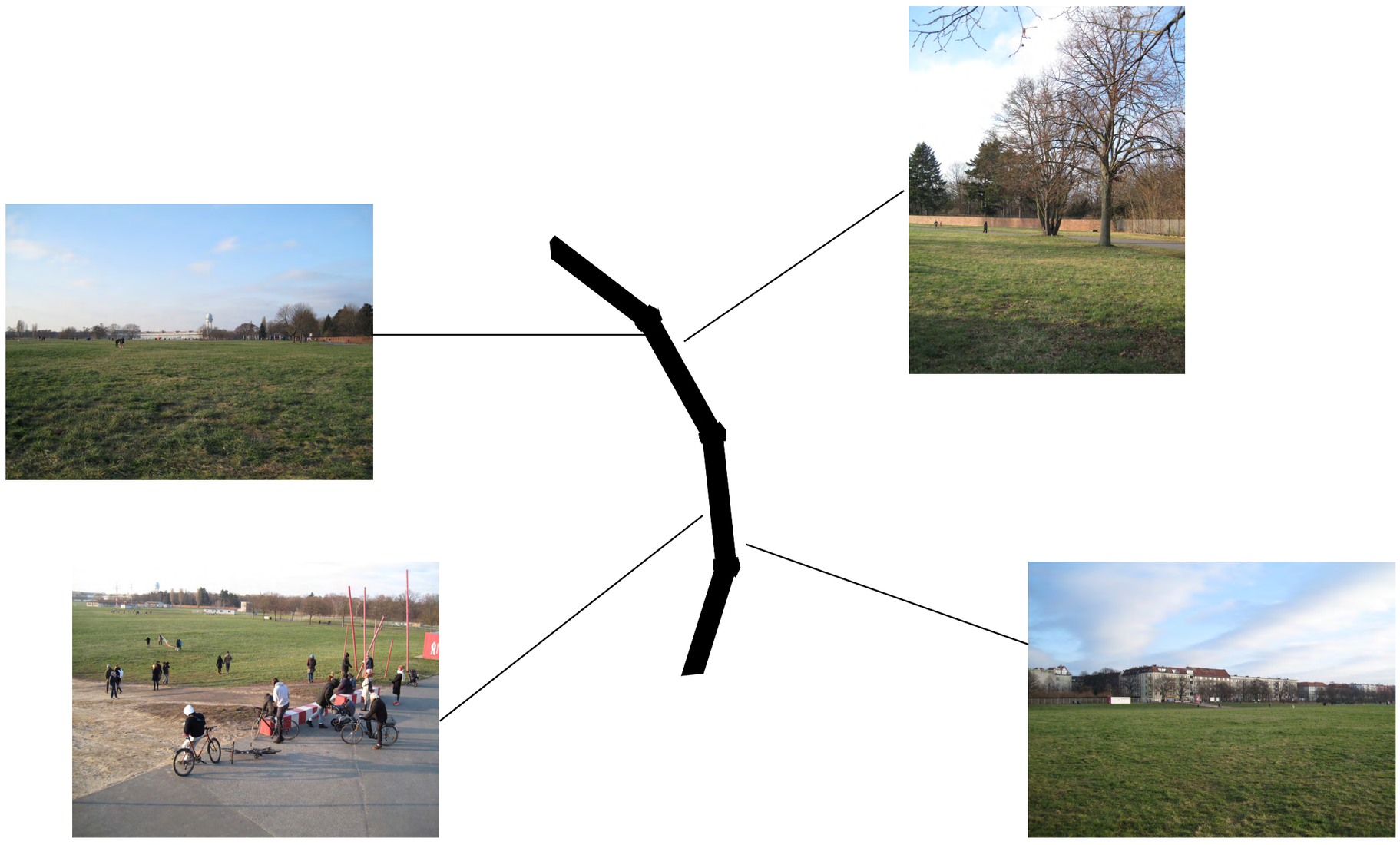
It can be a meditative space a social center an exercise oasis a source of income

AXONOMETRY



S-SCALE CONFIGURATION

Number of units	144
Number of Inhabitants	264
Unit Sizes	30- 60 - 90 sq. m.



CONCEPT

cooperative empowerment

The main concept of the apartment complex is to empower residents through cooperative control of the communal spaces. These are retail spaces on the ground floor, and coworking and event spaces on the top floor. The residents will decide (vote) on how the spaces will be used, rented out and to whom. The recommendation is that some retail space be dedicated to food, including one or two supermarkets and a cafe. These will also accomodate the needs of the many visitors to Tempelhof field. An additional shop renting equipment for freetime activity will also be welcomed by visitors as well as residents. This retail floor will generate income for the maintenance of the building, and more.

The coworking spaces on the top floor will be attractive to visitors and residents due to the unique long distance views over the field and the neighboring trees. Coworking is becoming very popular around the world and a profitable business. Just look at the prime property that the company „Wework“ occupies in many major cities, to name a few top Berlin addresses: Potsdamer Platz, Kurfurstendamm and Alte Schoenhauser Strasse. Creatiing coworking spaces will benefit both the community and the residents, as many people like to work away from home but not in a standard office environment, and not too far away from home.

views in both directions

Again the unique long distance views of Tempelhofer Feld come into focus for the design of the apartments. To take advantage of the unique open field, the apartments have views on both sides. The single loaded corridor is external with a generous width of 2 1/2 to 3 meters across and 6 meters high. This will encourage activity in the corridor, chance meetings, and to pause and take in the view of the field and the trees. To prevent the apartments from becoming too dark on this side of the building, the corridor exists only on every other floor and is therefore 6 meters high. Residents of the upper floor reach their apartment by stairs off the corridor. This stepped corridor system allows plenty of light to reach what is normally a dark, windowless side of apartments.

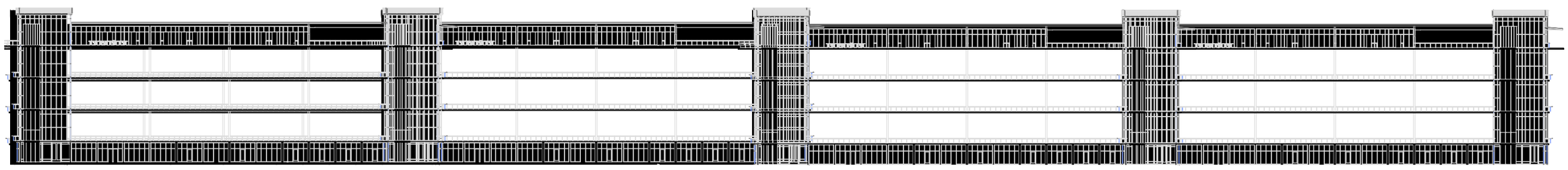
USER PROFILES

student
Sarah, 23, moved to Berlin 3 months ago to study architecture at the TU. She likes the neighborhood of Neukölln but sometimes finds the city distracting and needs a quiet place to study. She really appreciates the co-working space in the building. There she can study in a quiet atmosphere while getting out of her 30 sq. m. apartment. She also loves the service provided by the cafe below. They have an app where you can order food and drinks and they'll deliver it right to your location upstairs. She also met her present boyfriend there, at a community meeting. He lives on the floor above.

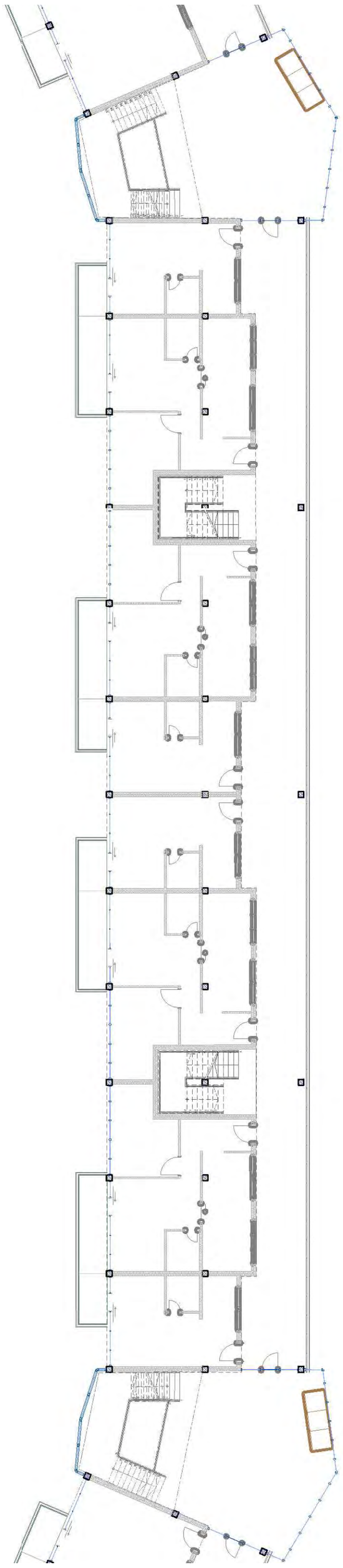
elderly retired couple
Eddy and Roberta, both 75. Eddy worked in advertising in New York and still does some freelancing. He can work from home but prefers to be around other people and misses the dynamic office atmosphere. He really likes the fact that there is a working communal space in the building, so he can enjoy both retirement and the social aspect of the apartment complex. Roberta too likes that there are places where she can go and meet the neighbors and people in the neighborhood, or sit and contemplate the long distance views of Tempelhofer Feld. They also appreciate that they can rearrange their apartment spaces to accomodate their sons when they come to visit.

couple with children.
Florian and Kate have one child and one on the way. Florian works part time for an engineering firm in town, while Kate is an interaction specialist who works at home. Since their child is only 5, one of them has to be home in the afternoon. Kate tends to work in the communal space for a change of scene before picking up her daughter. Then Kate returns with Leonora to the working space where there is plenty of room for Leonora to play with other children there. Kate really likes the flexibility of the working space: children can play there and the residents decide themselves how to use the spaces and what's allowed. Florian paints part time and prefers to use the communal space as his atelier. He just puts together some panels and voila, he can create relatively private space while having a two story high atelier. He's even had an exhibition there.

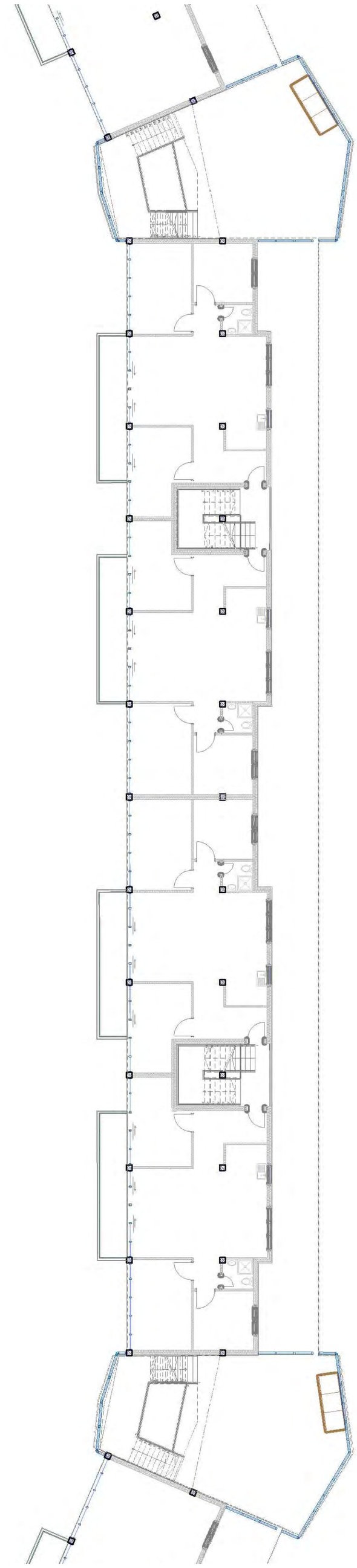
PUBLIC VS. PRIVATE SPACE



APARTMENT SYSTEM

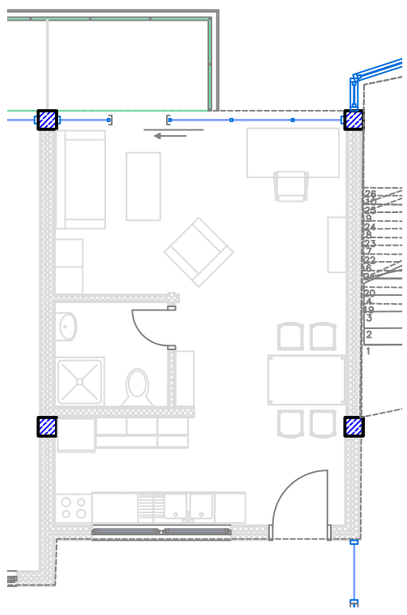


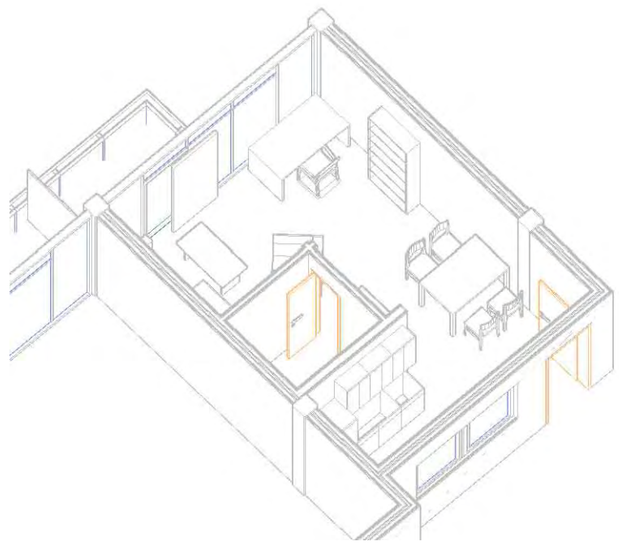
1st, 3rd & 5th floor plans
30 & 60 sq. m. apartments
scale 1 : 200

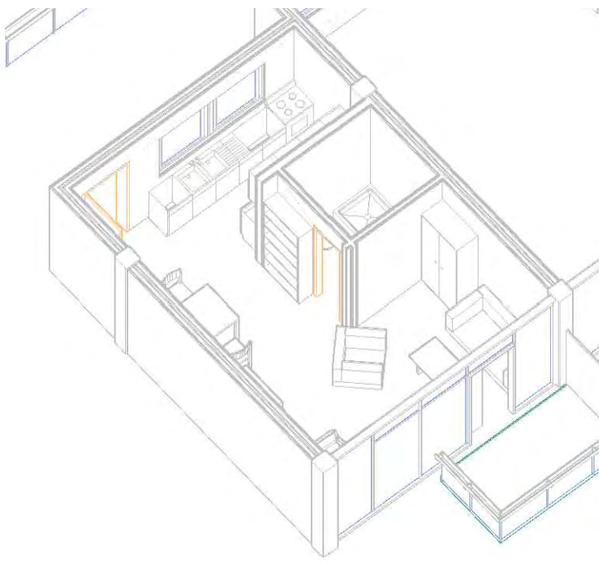


2nd, 4th, & 6th floor plans
90 sq. m. apartments
scale 1 : 200

30 sq. m. apartment
floor plan and axons both directions
scale 1:100

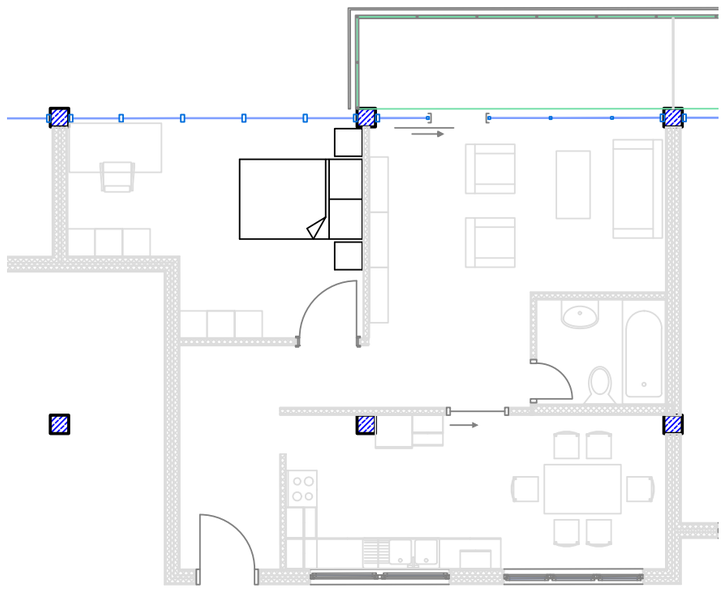




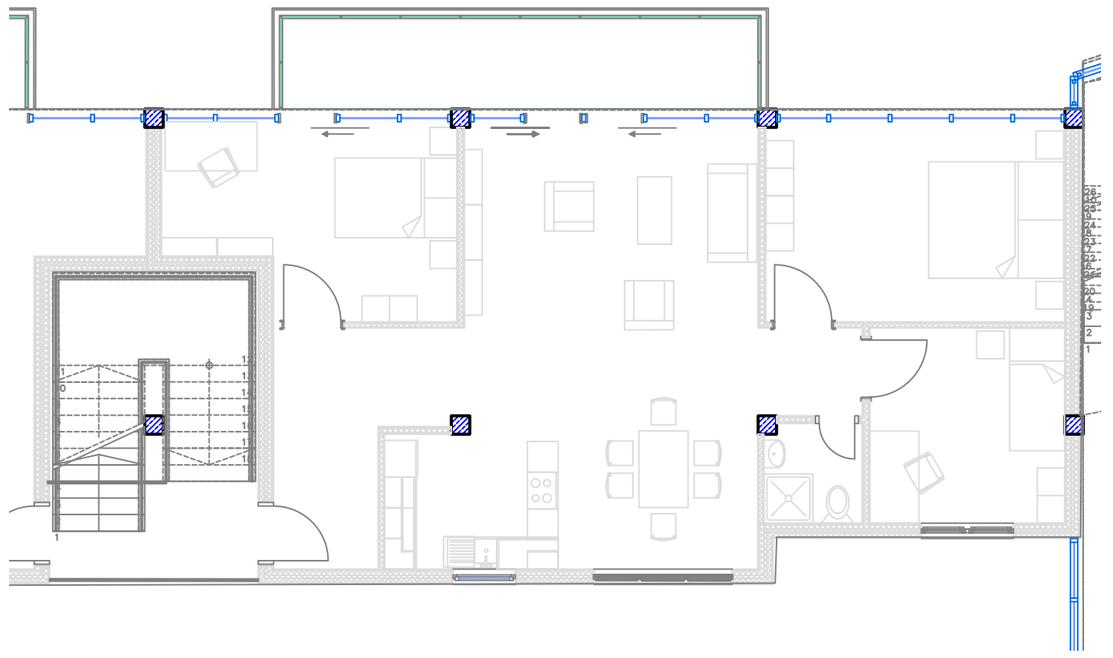


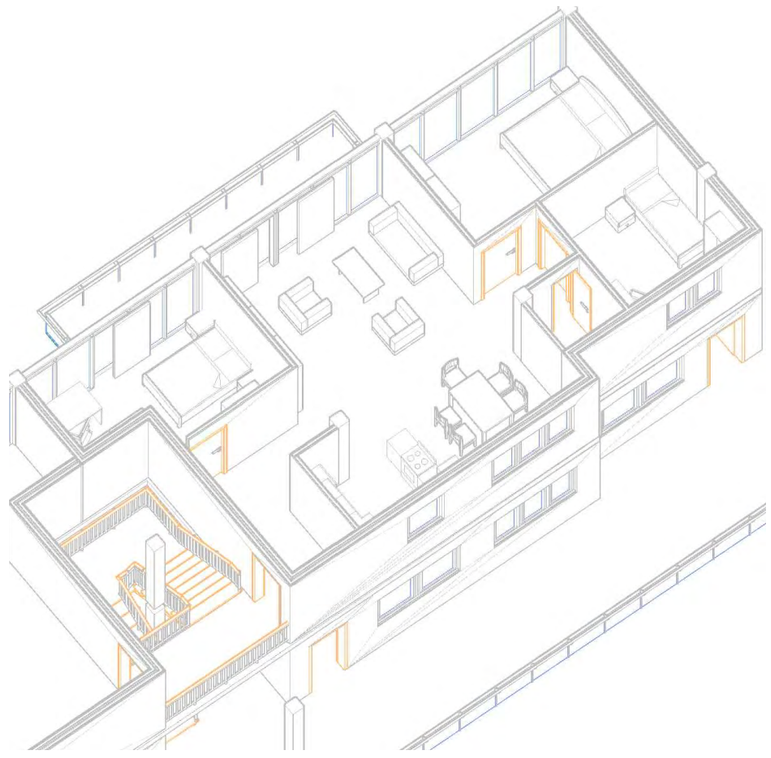
APARTMENT SYSTEM

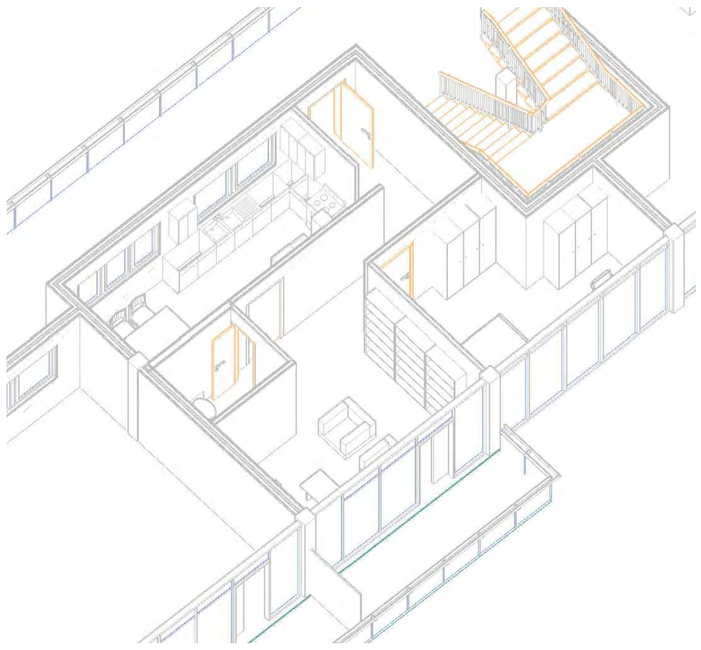
60 sq. m. apartment
floor plan and axons both directions
scale 1:100

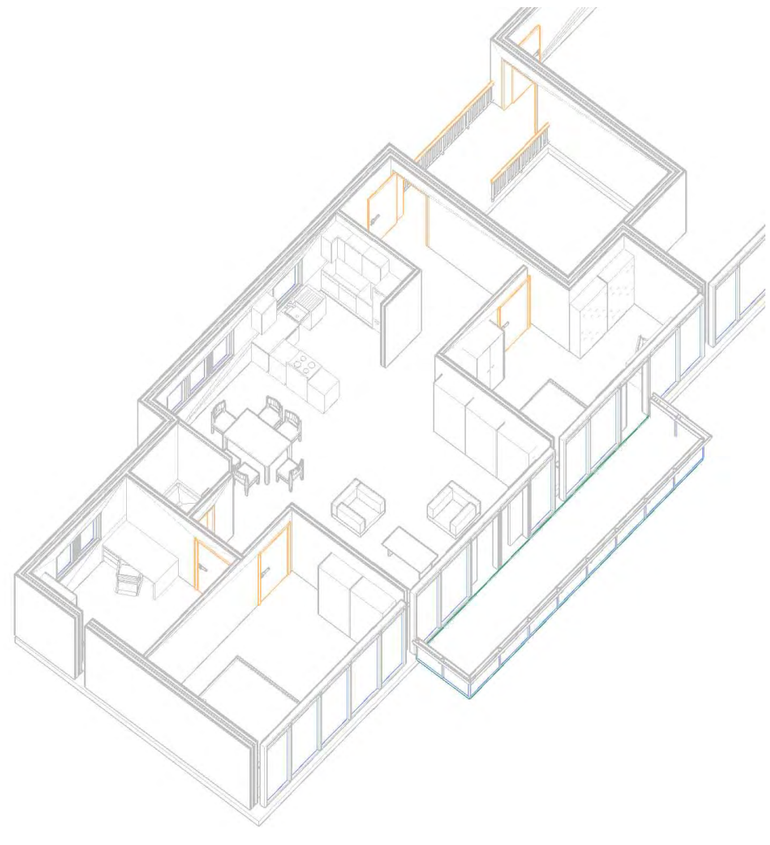


90 sq. m. apartment
floor plan and axons both directions
scale 1:100

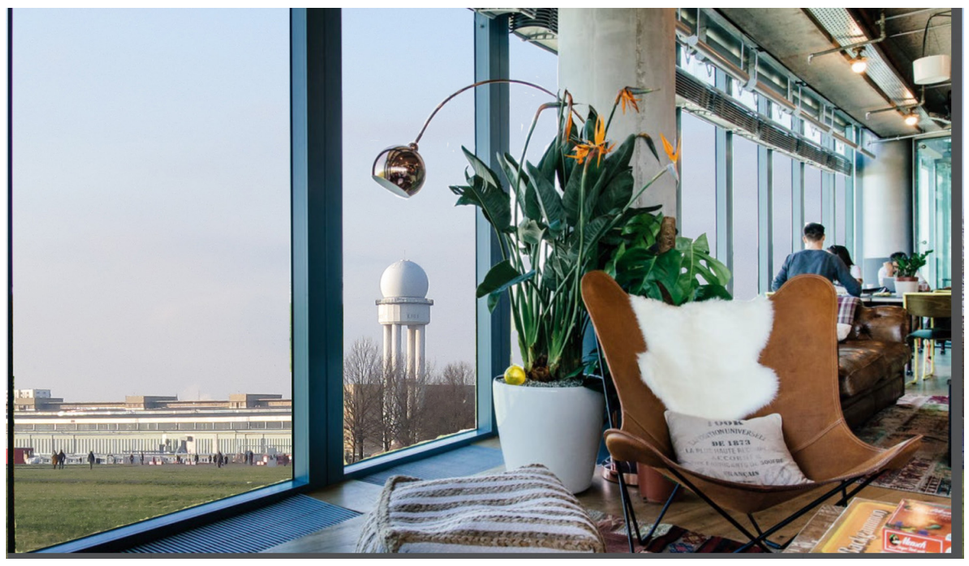








FEATURE – COWORKING SPACE



Today the line between work and leisure has been blurred. Many people work at home rather than spend a lot of time commuting to an office. Increasingly popular is to get out of the house by going to a local co-working space. There you can rent a desk and be around other people, while benefitting from the infrastructure.

I want to incorporate that trend into the apartments at Tempelhofer Feld. My concept is to provide space for the things we do every day. The co-working area will act not only as a group space but also as an extension of the residents‘ apartments: a space to do extra curricular activities not otherwise possible or desireable in the apartment. While the space would be free for residents, it would generate income for the complex by renting out workspace to the public.

Public space has become our semi-private working space. This is noticeable in the public sphere. Many people are staring at a screen, oblivious to the activity around them. They may not be working, or you could say they are working on their digital currency, or at least their digital social life. The internet is creating a dual phenomena. While people are becoming more isolated through technology, work is breaking the confines of a prescribed office and blending into common spaces.

In this way I think the apartment/co-working complex reflects today‘s airport environment in several ways. First, there is a shopping arcade on the ground floor. What airport doesn‘t double as a shopping mall today? Then, when you reach your gate, and even before, you can lounge around in comfortable chairs and work on your laptop in the airport foyers.
When people work in the communal space, they will have a view overlooking the airport and former landing field. Their thoughts can fly as they create something new.
It is a combination of past, present and future. The view is of the past, a now defunct airport. The present is of lving and working spaces, with an eye to flexibility for the future. Both in the physical space and in how and where we spend our working time.

Flexible space means flexible use. The co-working space can easily be transformed into a residential meeting space, as an exhibition space for local artists, then as a lecture hall. The possibilities are endless, and with the unique, outstanding view overlooking the airfield, the space will bring in enough outside „co-workers“ to subsidize some of the building‘s maintenance fees.

People need options. They need a diversity of spaces and events to enrich their lives. Doing everything within the 4 walls of ever-decreasing apartments sizes is difficult and montonous. That is why cafes and public co-working spaces are so popular. Who can afford to rent a second space to do work? People want control over their time and space, so many welcome this development of working anywhere, anytime at an affordable price.

FEATURE –COWORKING SPACE

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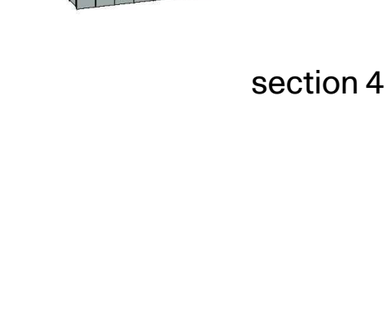
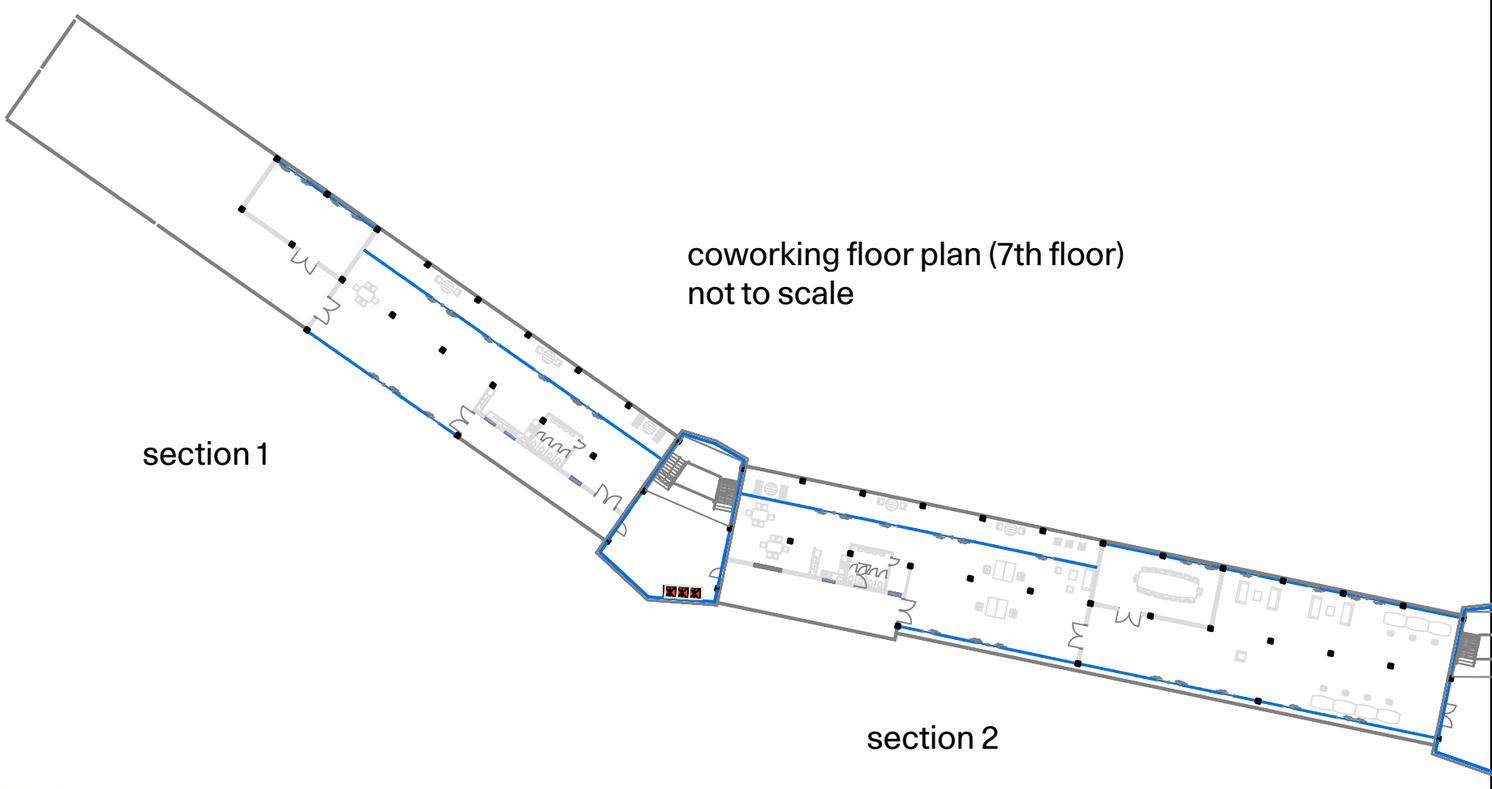


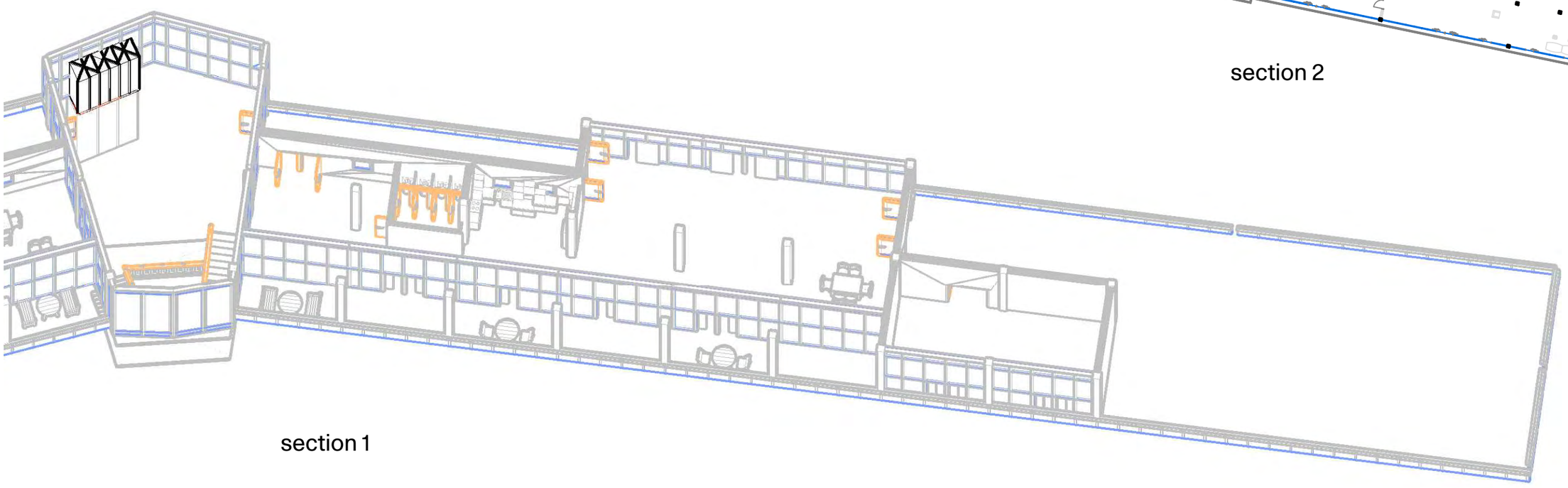
section 4



coworking floor plan (7th floor)
not to scale

section 1

section 2



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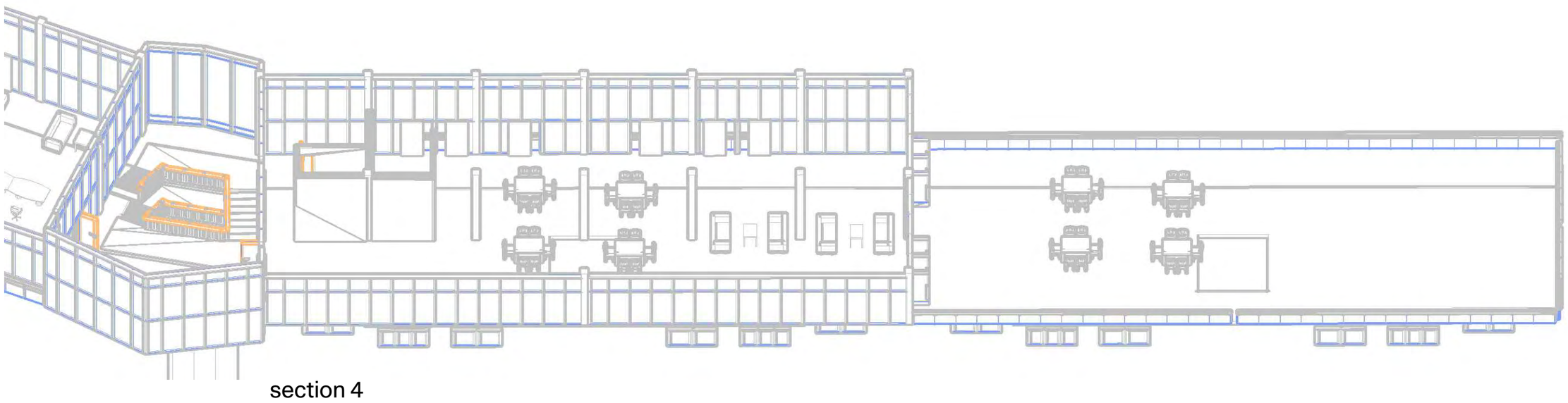
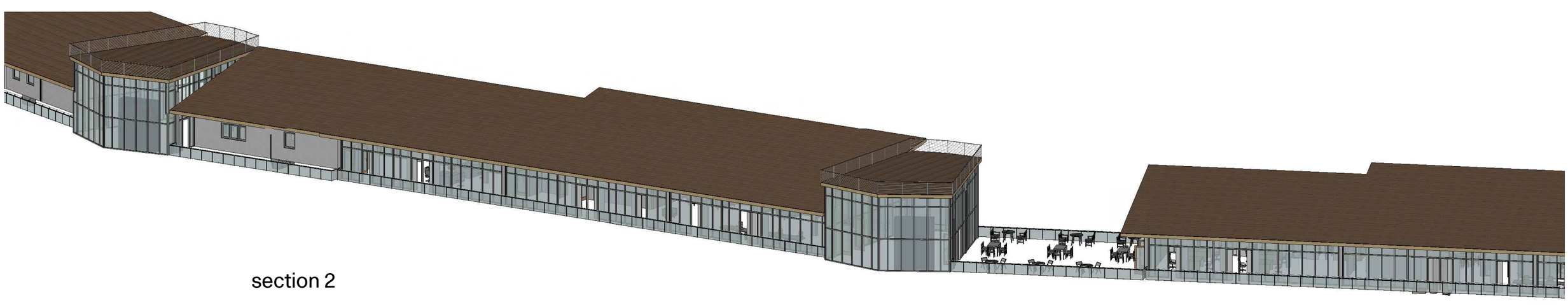


section 4

AXONOMETRY



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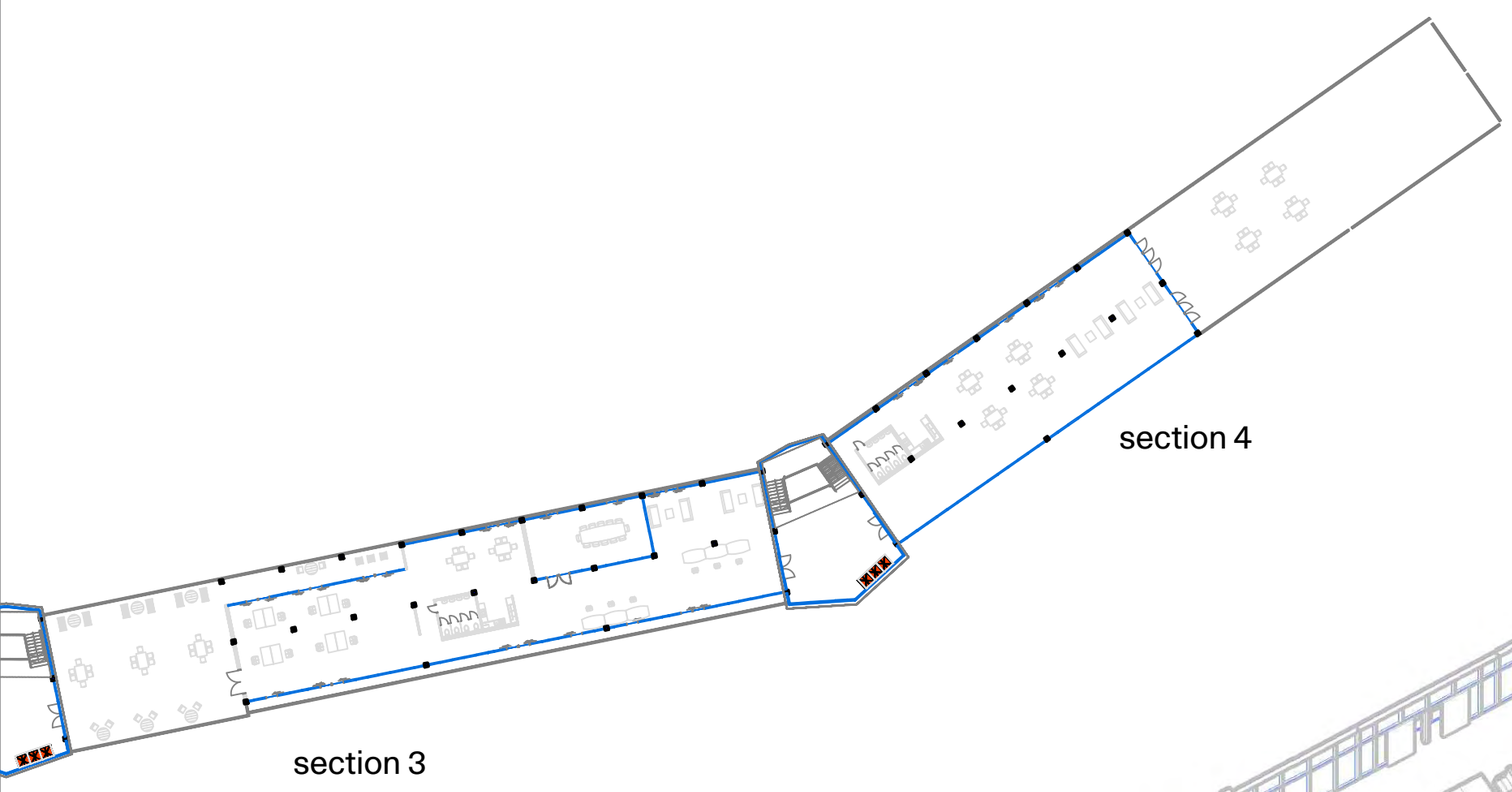

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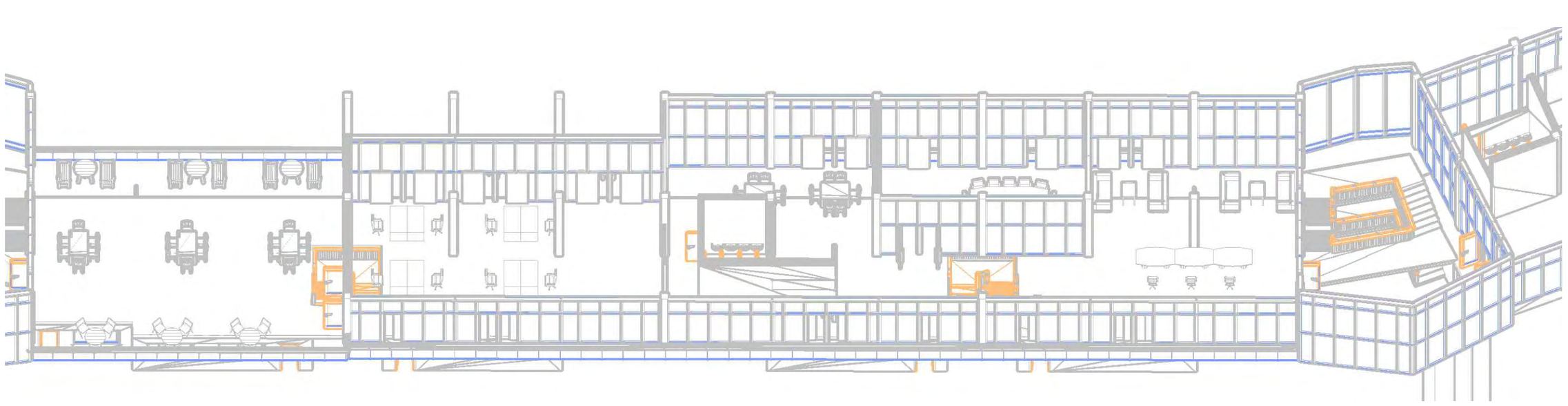
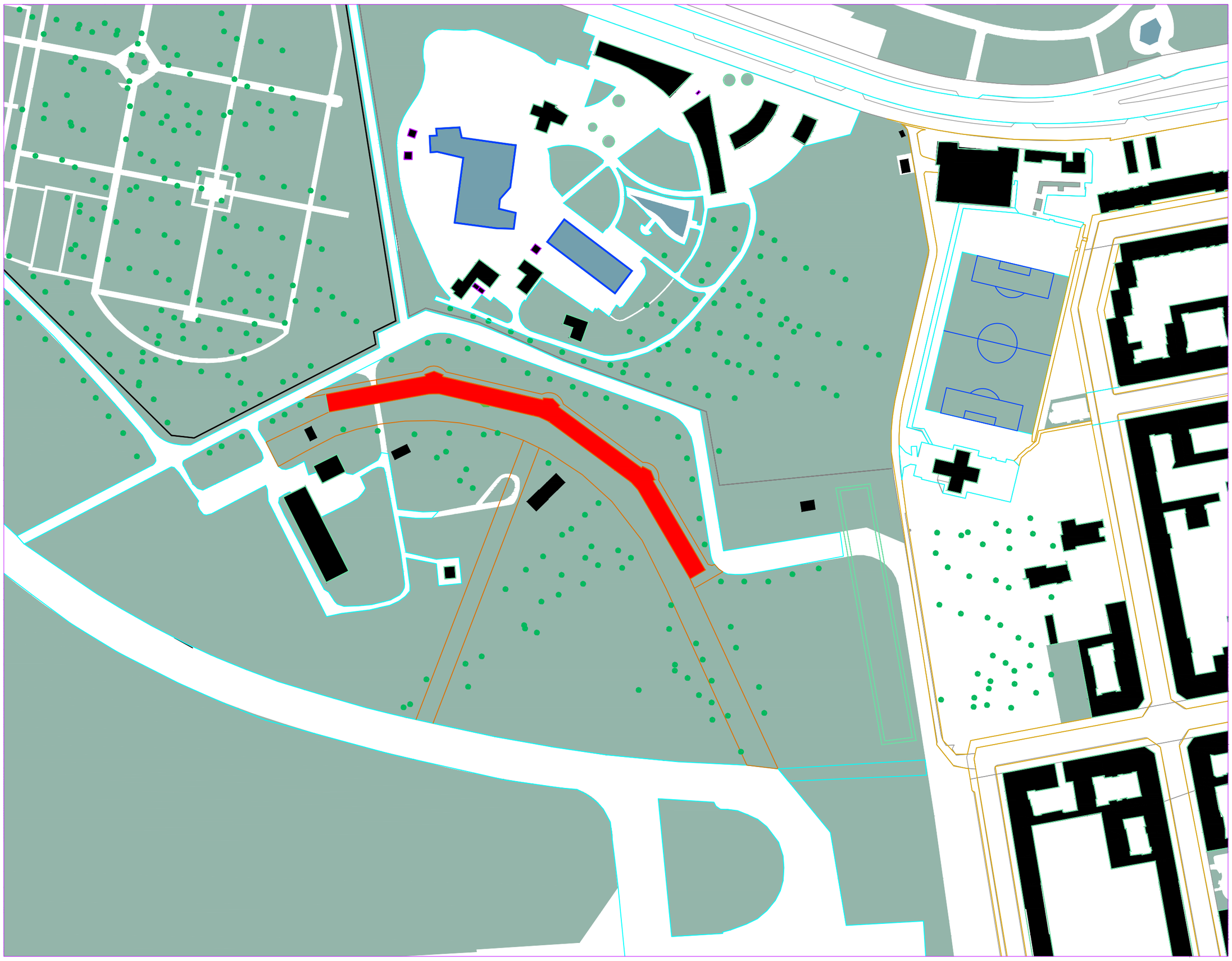


section 3

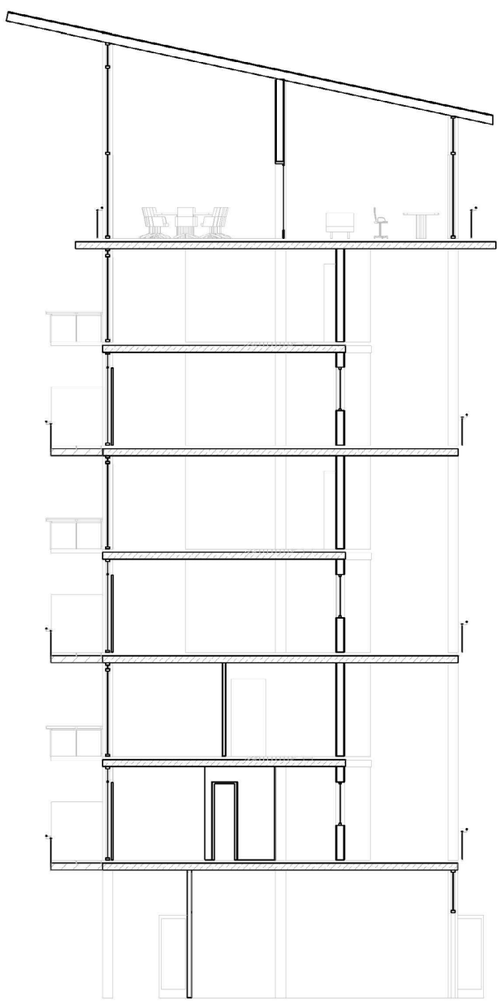
XL–SCALE AGGLOMERATION

CONCEPT

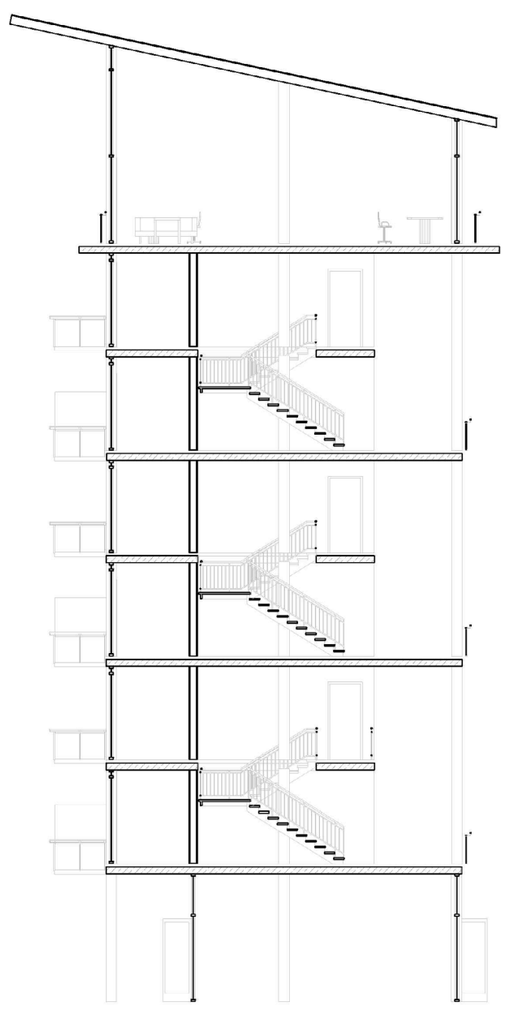
SITE PLAN



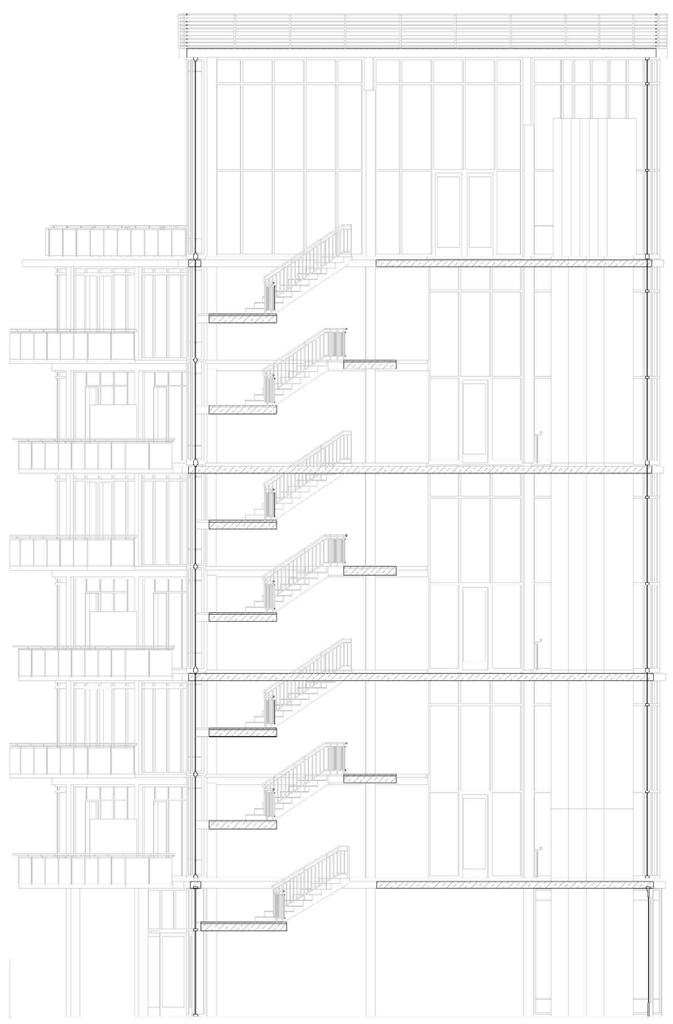
SECTION/ELEVATION



section through apartments.
corridor is on the right, balconies on the left.



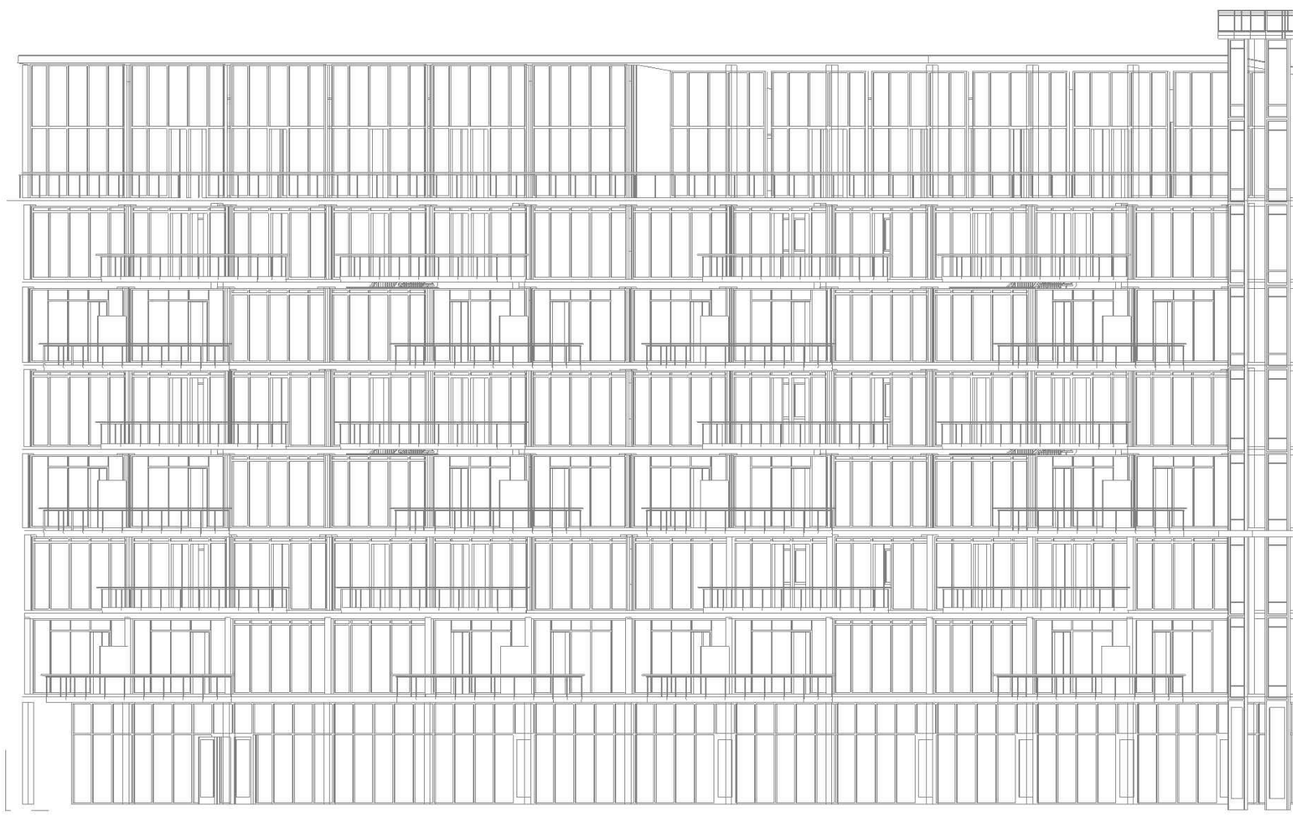
section through stairs to upper apartments



section through vertical circulation showing stairs and elevators.

SECTION/ELEVATION

elevation of corridor side.



elevation of balcony side.

AXONOMETRY CORRIDOR SIDE

AXONOMETRY
FIELD SIDE