

R+EVUE

20%

VACANT OFFICES SPACES

06

HOUSING PROJECTS

08

CASE STUDY



EDITED BY
Prof. Marc Frohn
Tim Panzer

PROOF READ
Emmet Elliot

Federico Perugini
Horan Bengert
Irene Gazzillo
David Waser
Pierre Genay
Maša Moric

ROMEO & JULIA

12

Hans Scharoun

Romeo & Julia
Stuttgart, Germany
1959

ALTONAER STRASSE

16

Oscar Niemeyer

Altonaer Straße
Berlin, Germany
1957

NEXUS WORLD

20

OMA

Nexus World Housing
Fukuoka, Japan
1991

ESCHER TERRASSEN

24

E2A

Escher Terrassen
Zurich, Switzerland
2014

KITAGATA APARTMENTS

28

Kazujo Sejima &
Ryue Nishizawa

Kitagata Apartment Building
Gifu, Japan
1998

MAIA 1 COMPLEXO

32

João Álvaro Rocha

Maia 1 (Complexo Habitacional do
Outeiro)
Maia, Portugal
2000

FRIEDRICH- STRASSE

36

OMA

Friedrichstraße
Berlin, Germany
1989

LUETZOW- STRASSE

40

IBUS

Lützowstraße
Berlin, Germany
1989

LAKE SHORE DRIVE

44

Ludwig Mies van der Rohe

860/880 Lake Shore Drive
Chicago, USA
1951

HARUMI APARTMENTS

48

Kunio Maekawa

Harumi Apartments
Tokyo, Japan
1958

Organizational and administrative activities have shed their typological corset. Having cut spatial ties to the office, they are now at home almost anywhere.

According to current studies, around 20% of office space in Germany will be obsolete in the medium term¹. This corresponds to a floor area of more than 75 million square meters. Calculated against the average per capita living space of 47,7 sqm², this represents enough space to house almost 2 million people.

This equation is grossly simplified. It is problematic for, amongst other reasons, its exclusion of variables such as a building's structural character, its urban location, and its proximity to technical and social infrastructures.

The current demand for living space - especially in metropolitan areas - and the simultaneous necessity to establish more sustainable architectural practices, makes the conversion of existing buildings inevitable. This brings the above-mentioned issues to the fore, and will require the analysis of these buildings' potentials and the architectural tools for exploiting them.

R+EVUE 2 presents ten case studies, each making use of the same already-vacant office structure: an administrative building from the 1970s in Hamburg Wandsbek. The object under investigation serves as a stand-in for the office buildings which pervade the peripheries of large German cities. Through consideration of this building's specific structural and urban characteristics, various strategies for reappropriation are examined.

The studies were produced systematically: the same office structure superimposed with ten residential projects, selected to form a broad typological spectrum. The frictions and conflicts which arise during this overlay process become catalysts for specific design solutions and raise more general questions about the reappropriation of existing structures. By adapting the characteristic typological features of the residential buildings to the structure of the office building, new and unexpected approaches are generated.

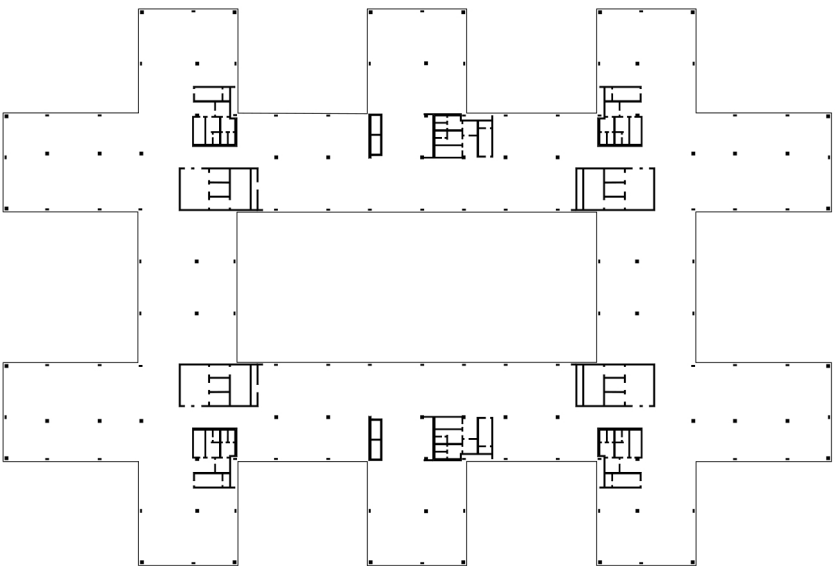
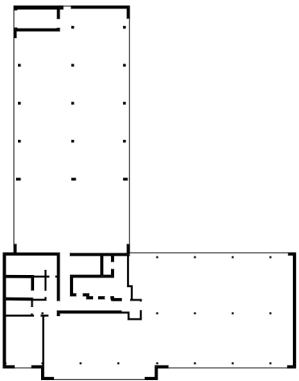
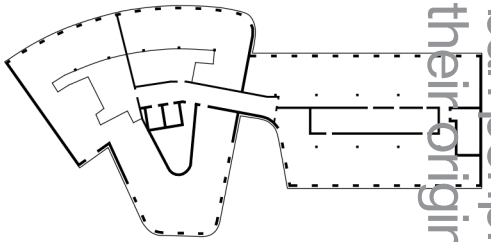
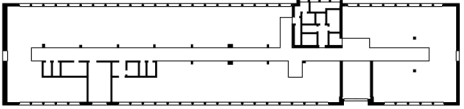
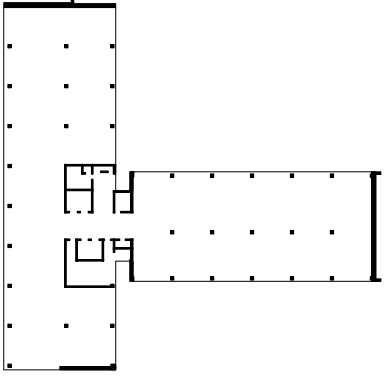
The depth and extent of each study's intervention is measurable against the existing structure. In the form of red-yellow plans and visualizations, both demolition measures and structural additions are clearly illustrated.

¹ Astheimer, Sven; Freytag, Bernd; Heeg, Thimeo; Jung, Marcus; Psotta, Michael: Jedes fünfte Büro wir nicht mehr gebraucht werden, in: *F.A.Z.*, 08/07/2020, p. 22

² Statistisches Bundesamt (Destatis): *Wohnungsbestand nach Anzahl und Quadratmeter Wohnfläche*, Deutschland, 2021

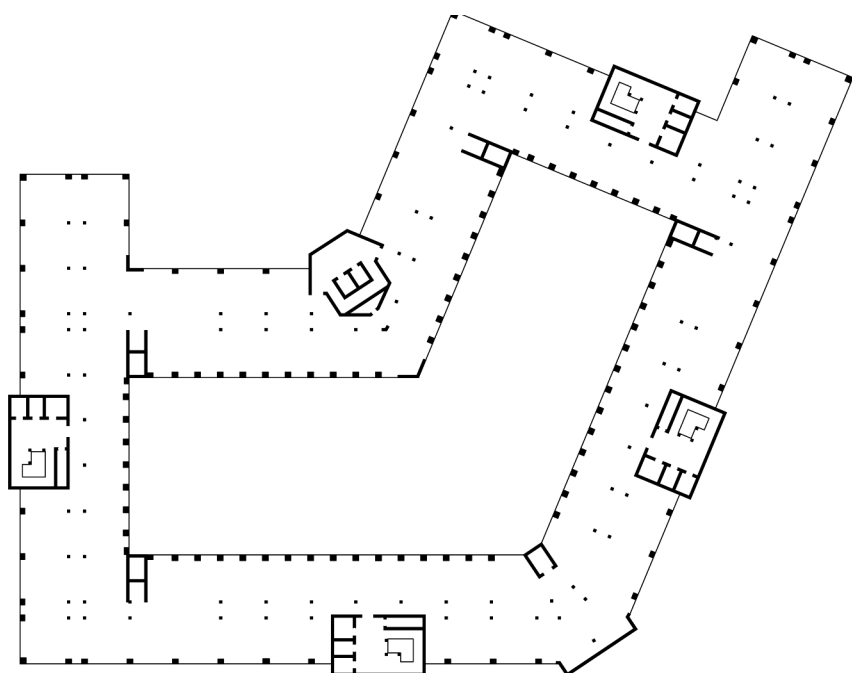
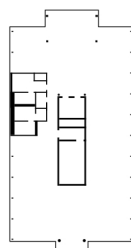
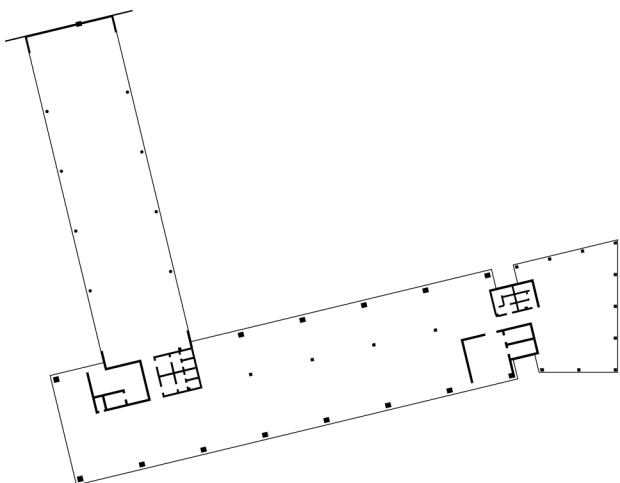
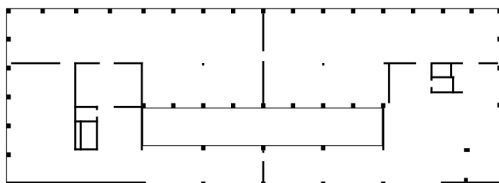
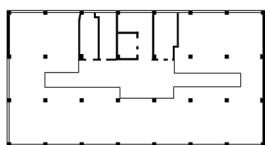
VACANT OFFICE

All of the structures are located in the urban periphery. All were built in the 1970s and 1980s. Today, all are difficult to lease in their original function.



The 10 office buildings shown are an excerpt from portfolios of German real estate companies.

ICE SPACES

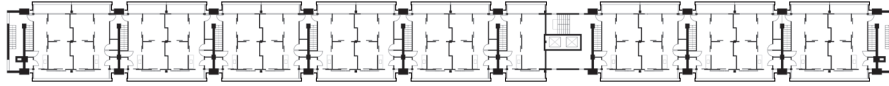


HOUSING

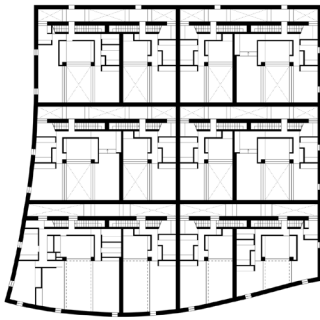
PRO

The different housing references are all projected onto the structure of one vacant office building. Because its concrete skeleton is typical for an entire generation of commercial structures, the findings of the housing projections resonate beyond this specific case study.

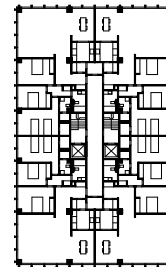
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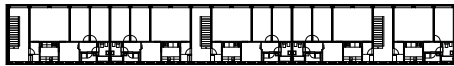
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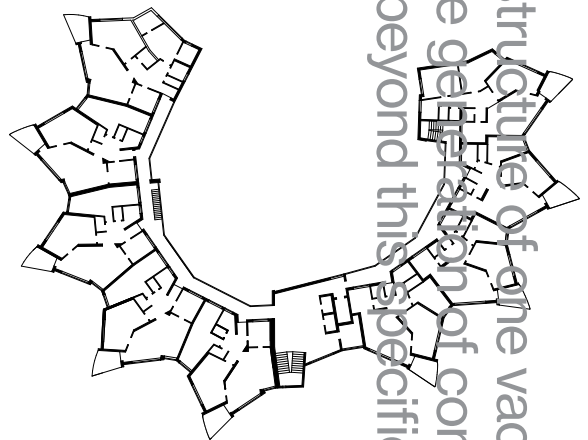
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4



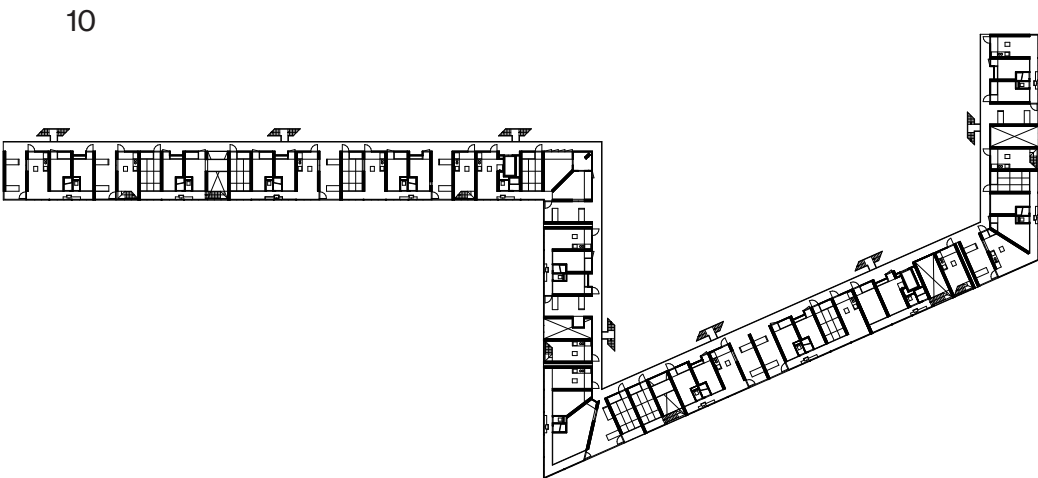
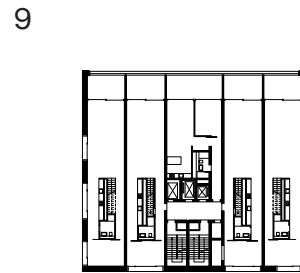
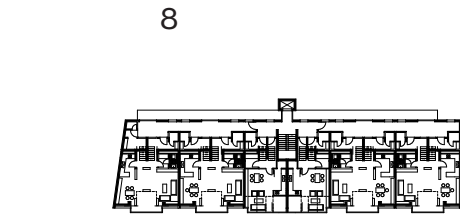
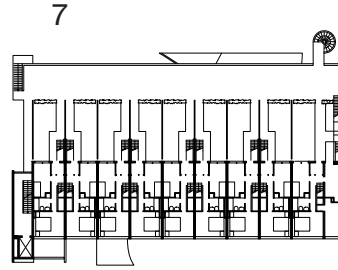
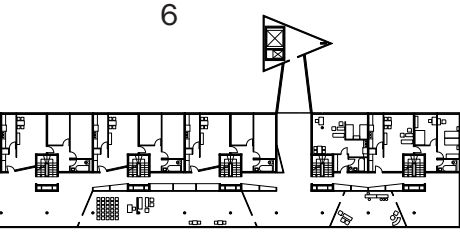
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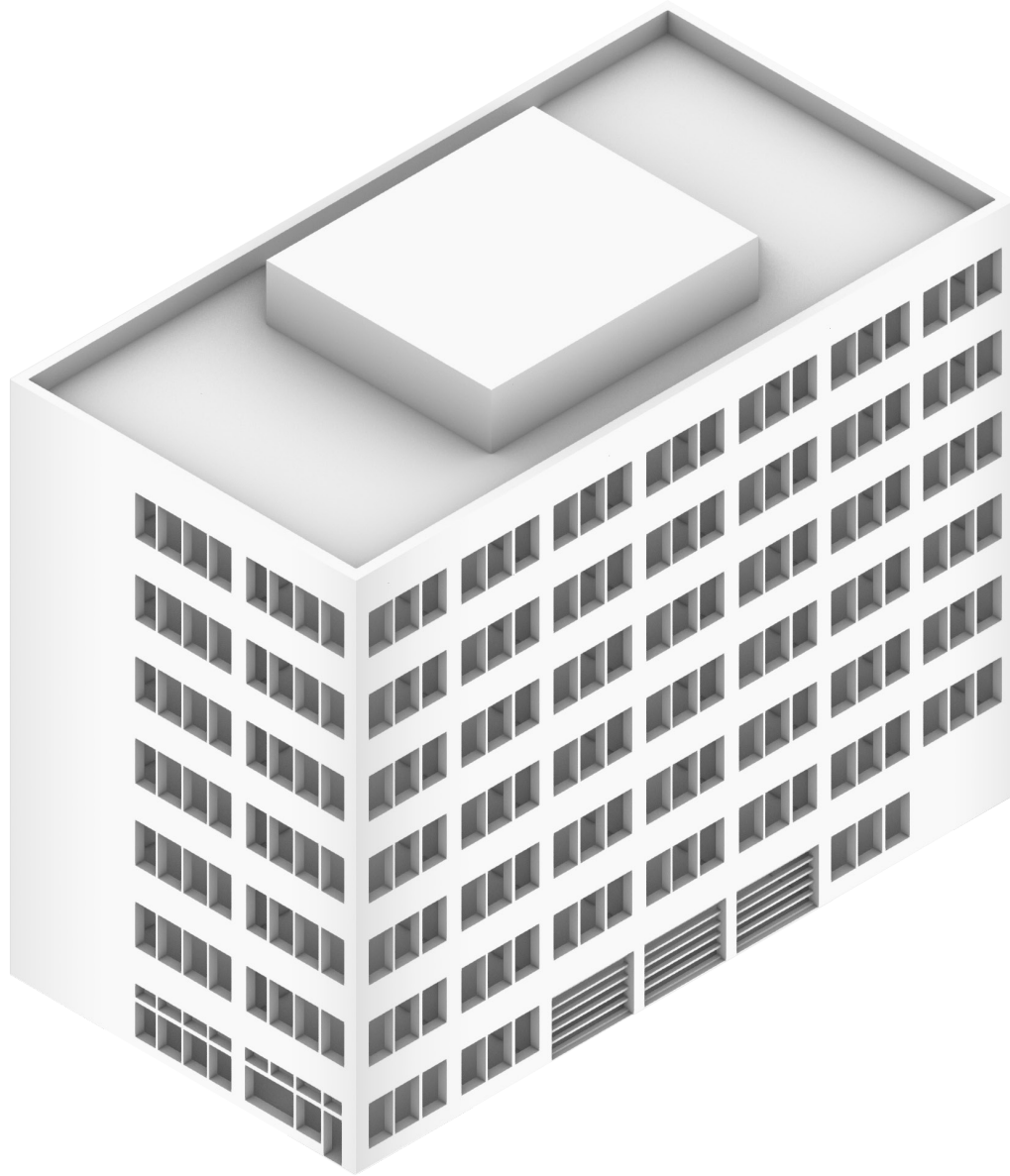
1. Kunio Maekawa / Harumi Apartments / Tokyo, 1958 2. OMA / Nexus World / Fukuoka, 1991
3. Ludwig Mies van der Rohe / Lake Shore Drive / Chicago, 1951 4. João Álvaro Rocha / Maia 1 (Complexo Habitacional do Outeiro) / Maia, 2000 5. Hans Scharoun / Romeo & Julia / Stuttgart, 1959

PROJECTS

The excerpt from the portfolio of office buildings is contrasted with a selection of residential building references. The ten residential building references cover a wide range of different circulation typologies, apartment types, construction principles and scales.

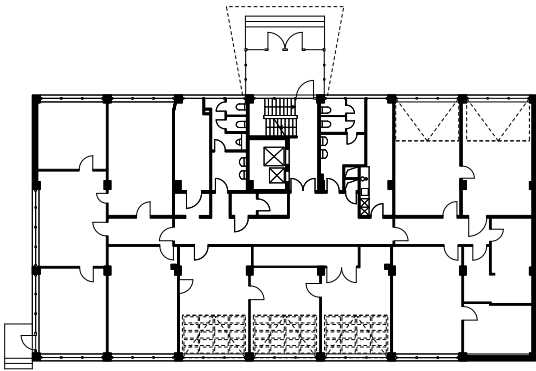


CASE STUDY

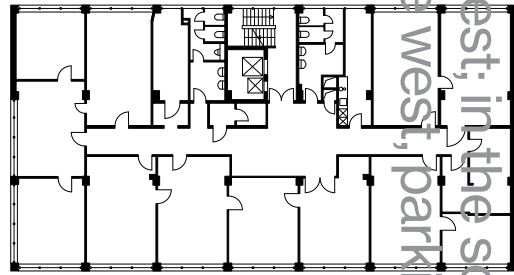


Isometric View

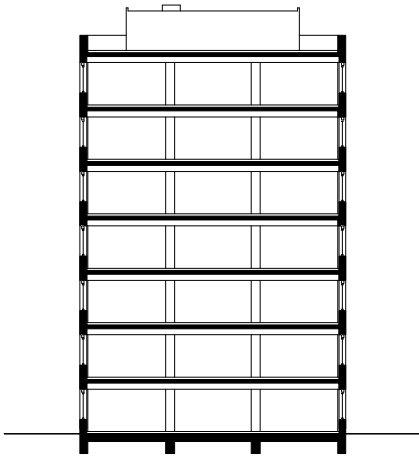
Part of a small office enclave surrounded by row-like residential buildings, the case study is situated along one of the arterial roads in Hamburg Wandsbek. The 7-story reinforced concrete skeleton is formed by a column grid of 4.8m x 5.8m. Its office spaces are oriented east-west; in the south, the building directly shares a party wall with an adjacent structure. To the west, parking lots span the length of the building.



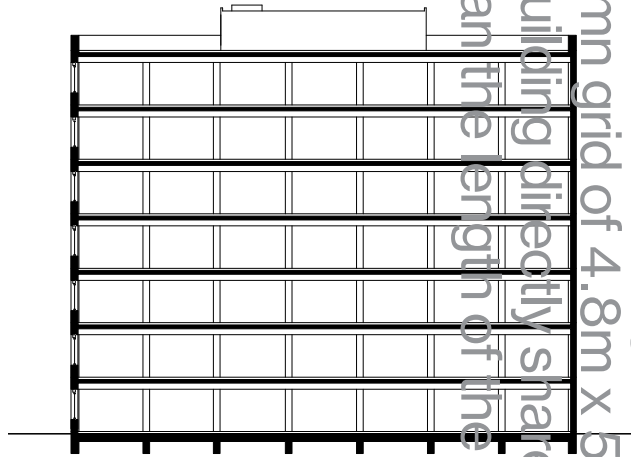
Ground floor



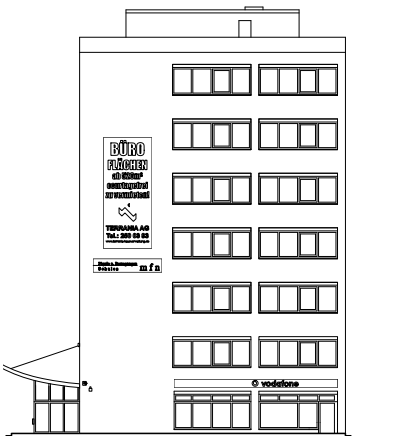
Standard floor



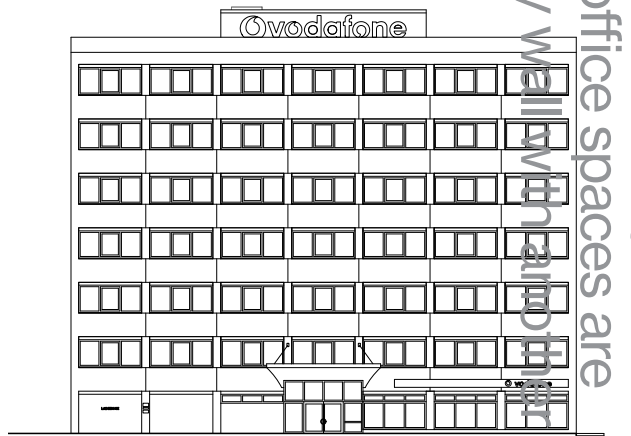
Cross section



Longitudinal Section



Side elevation



Front elevation

ROMEO

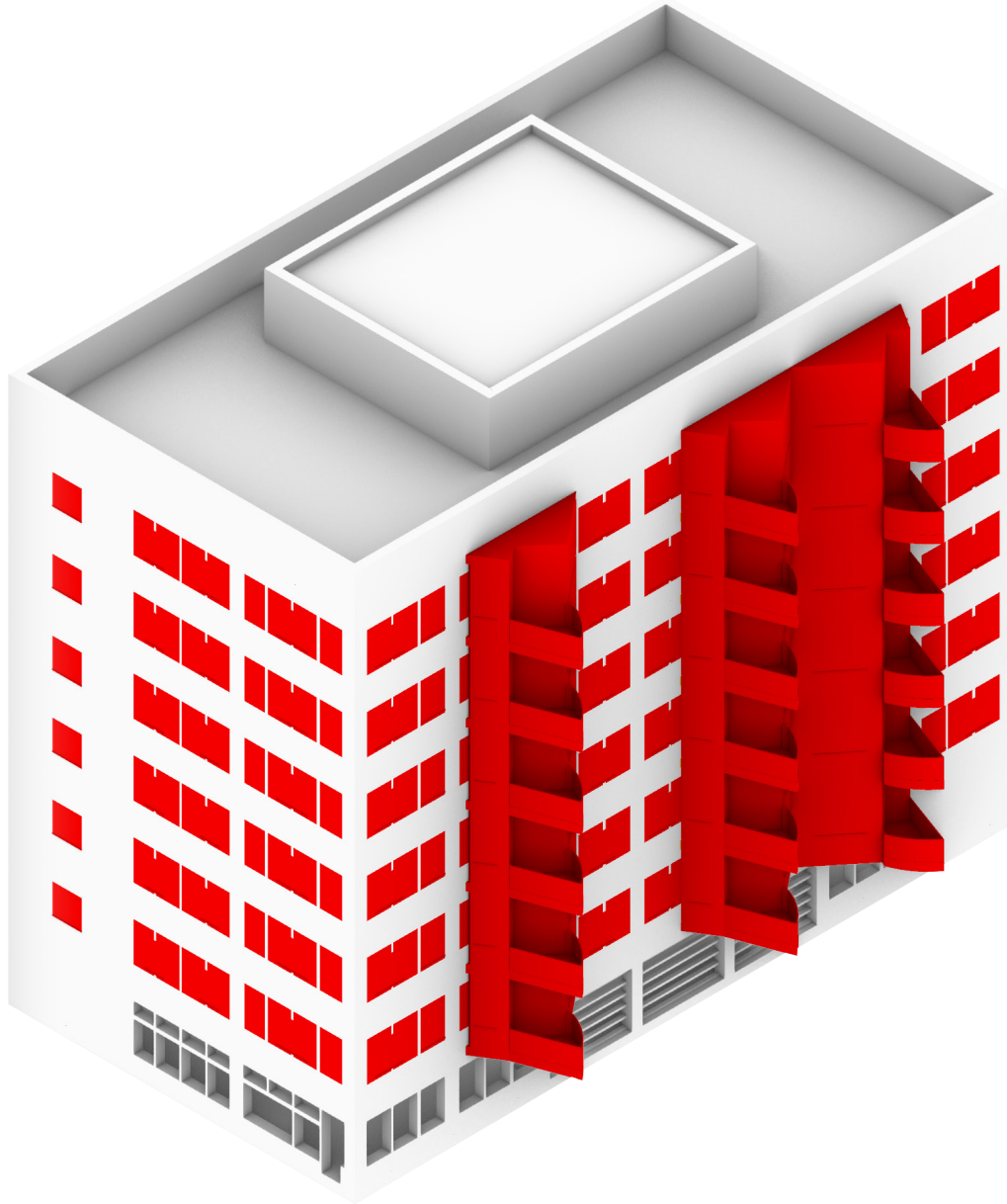
&

JULIA

Hans Scharoun

Romeo & Julia
Stuttgart, Germany
1959

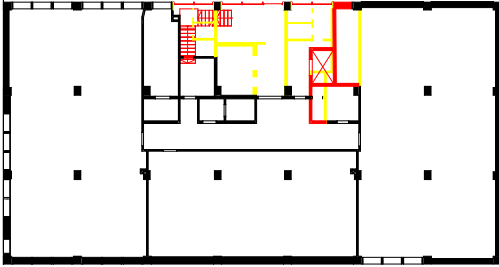
The load-bearing reinforced concrete structure and the space-defining walls detach from each other.



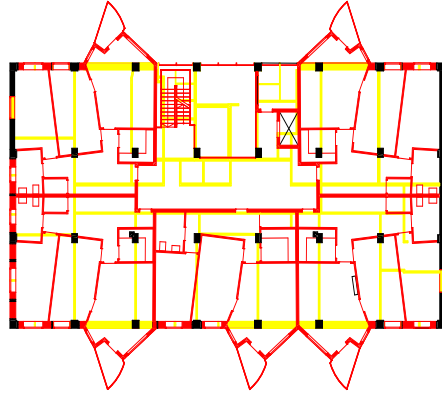
Isometric View

IA

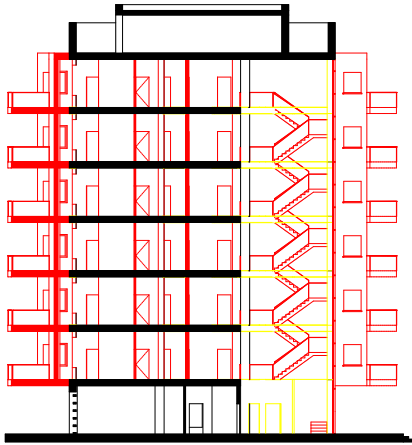
Scharoun's geometrically complex spatial network, optimized for its southern orientation, cannot be fit into the orthogonal skeleton structure.



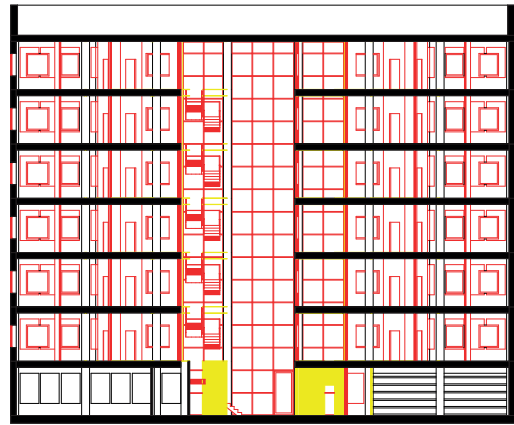
Ground floor



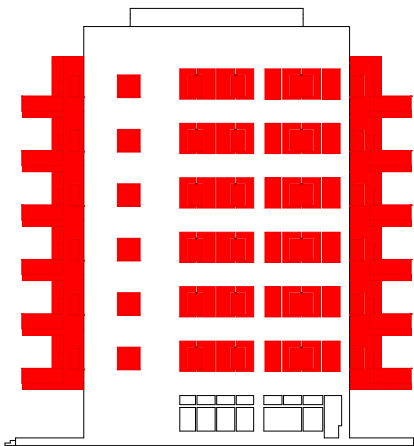
Standard floor



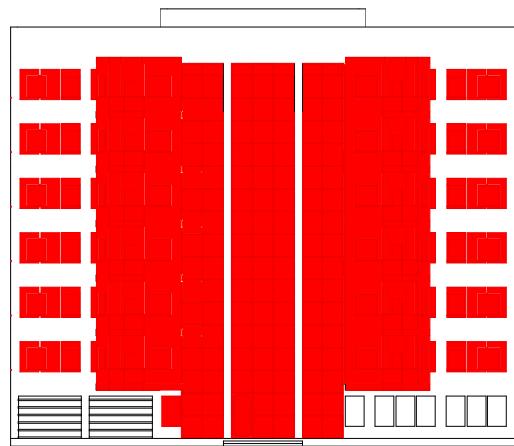
Cross section



Longitudinal Section



Side elevation

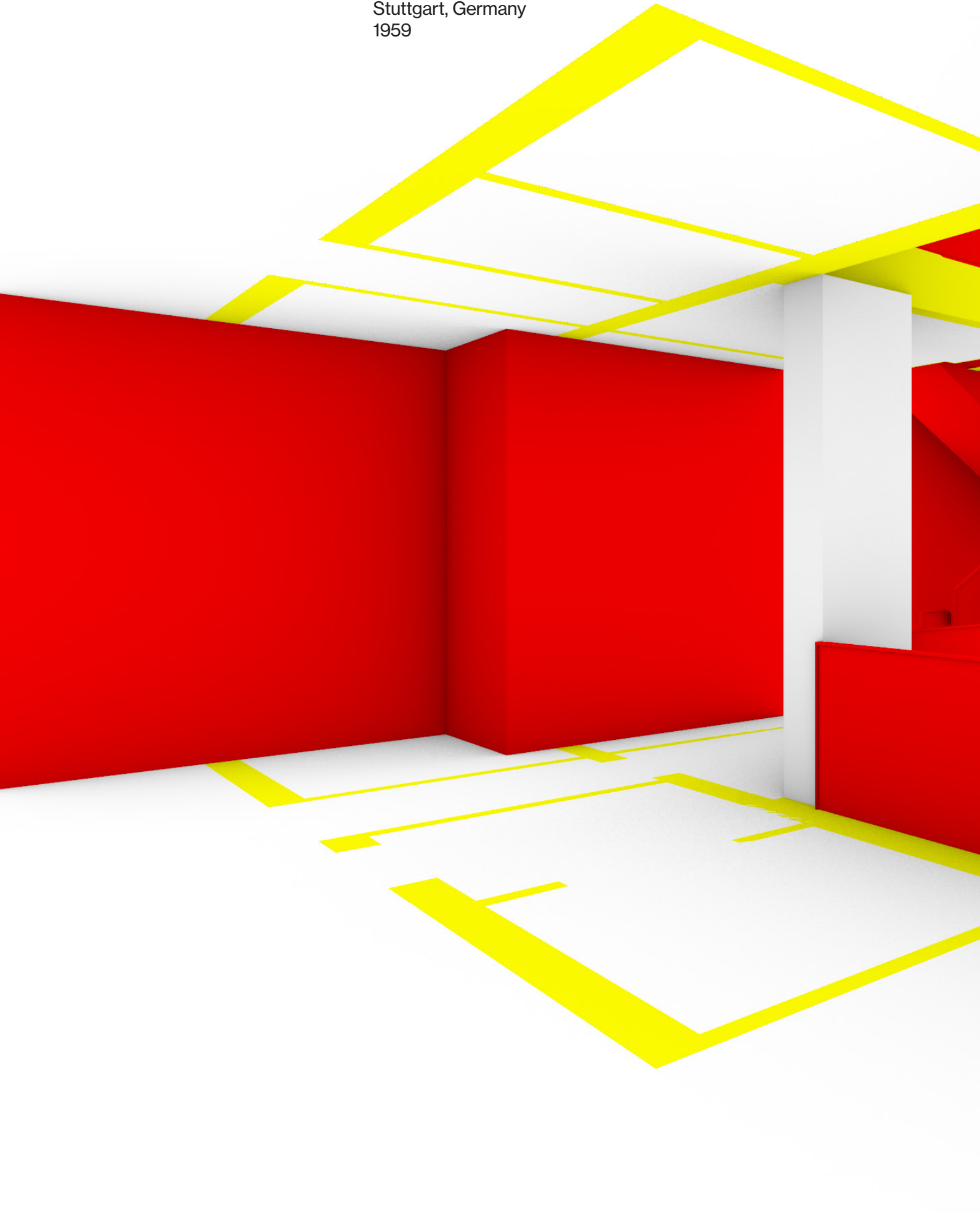


Front elevation

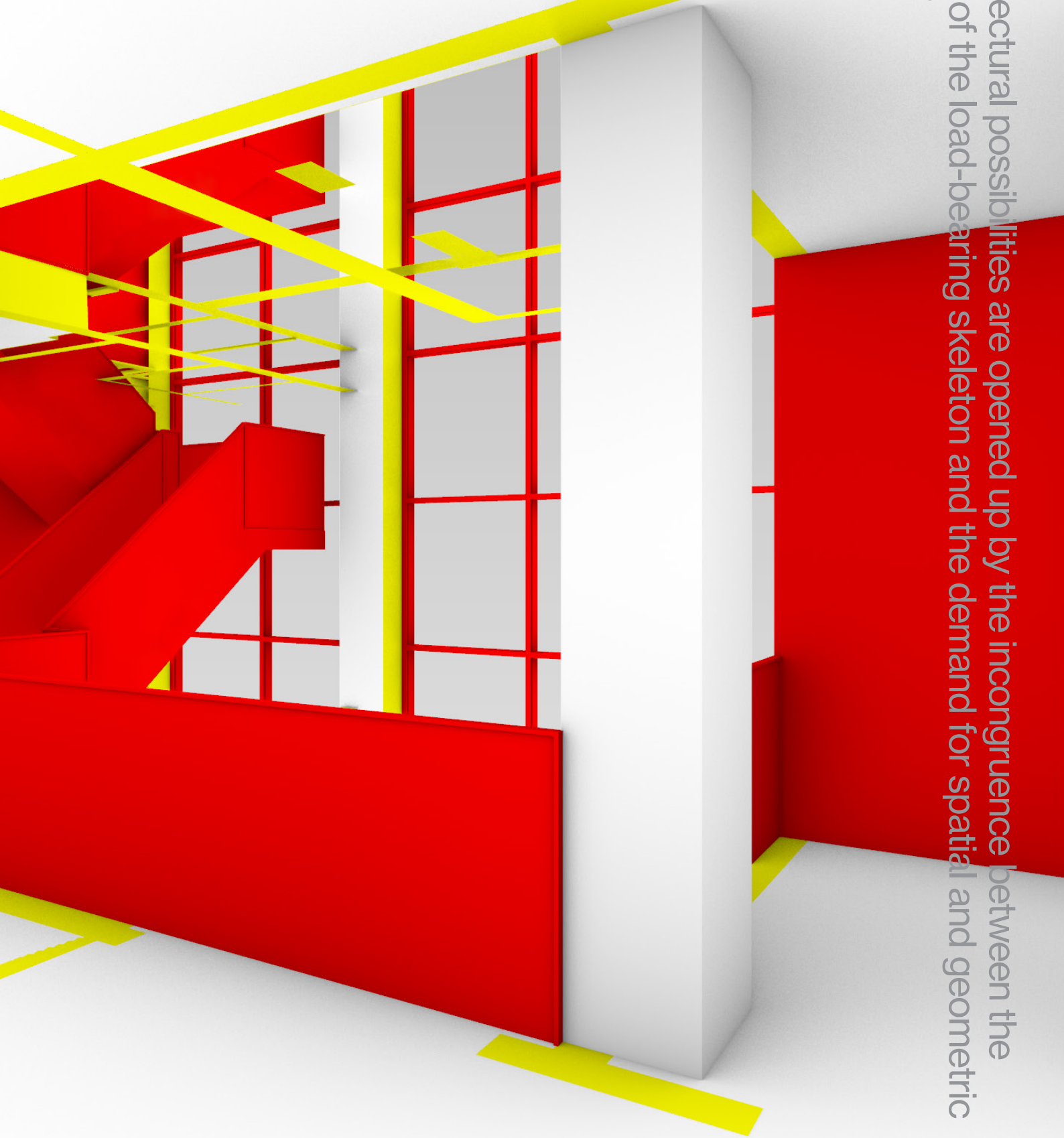
ROMEO & JULIA

Hans Scharoun

Romeo & Julia
Stuttgart, Germany
1959



What architectural possibilities are opened up by the incongruence between the universality of the load-bearing skeleton and the demand for spatial and geometric specificity?

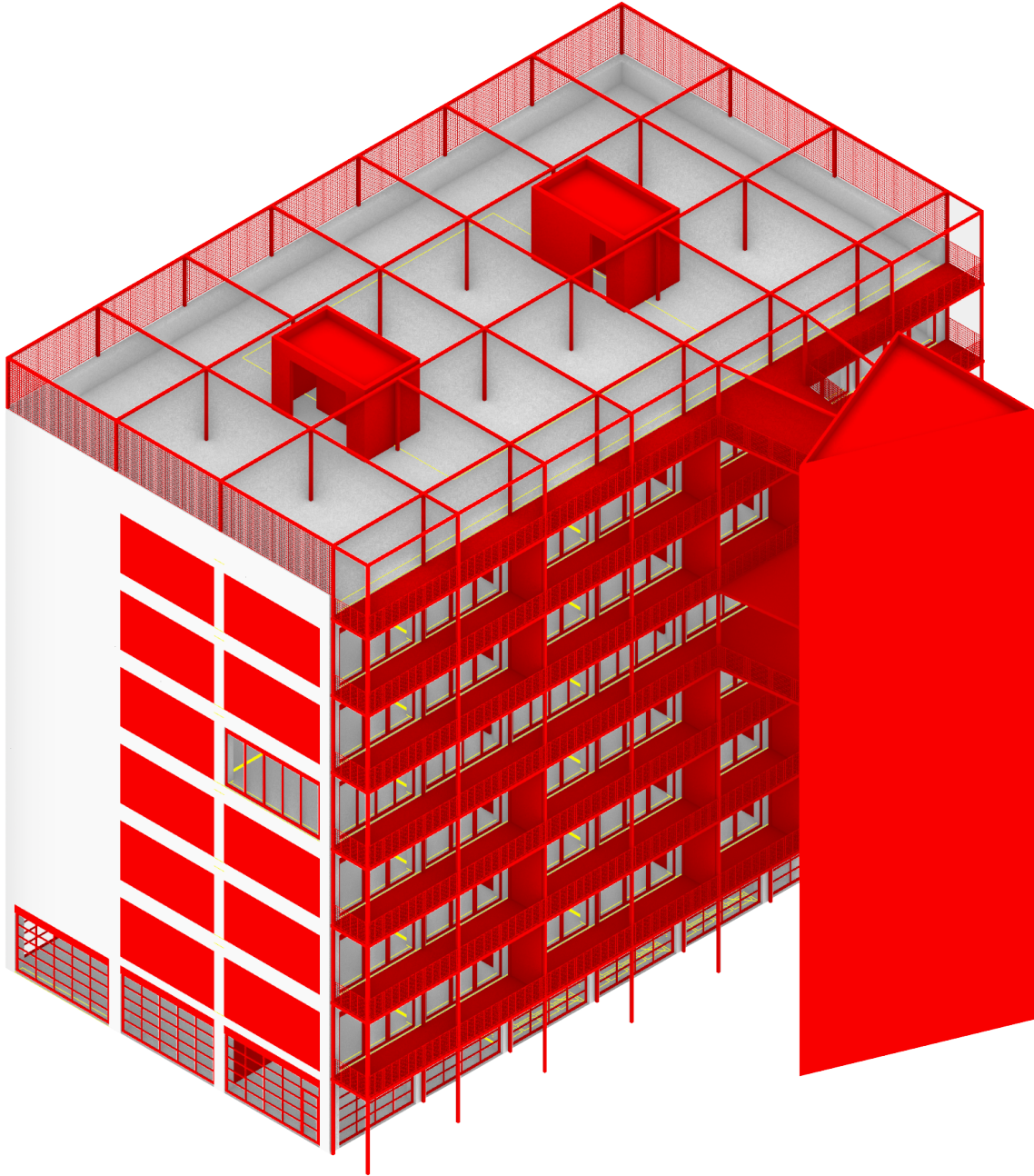


ALTONAER

Oscar Niemeyer

Altonaer Straße
Berlin, Germany
1957

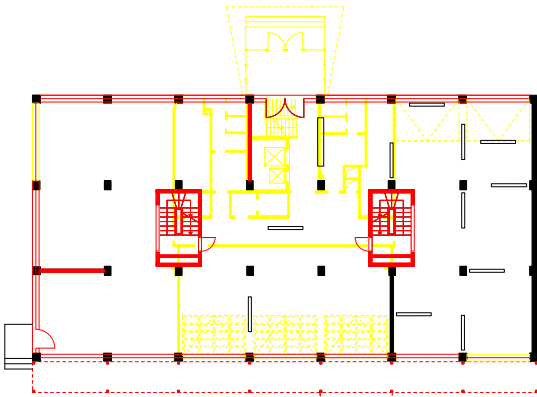
ST
The relationship of the ground-floor to the urban landscape thus emerges as the core issue of the transfer.



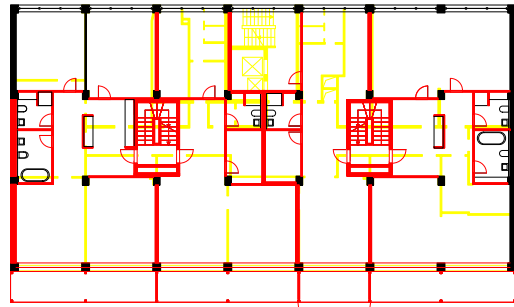
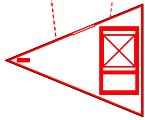
Isometric View

RASSE

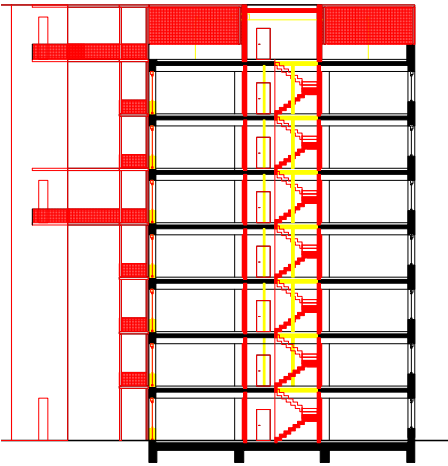
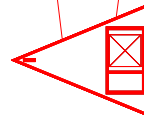
The standard floor plan of Niemeyer's residential building on Altonaer Strasse in Berlin can be transferred to the office building with surprisingly little conflict. On the ground floor, however, its iconic v-shaped pilotis are non-existent.



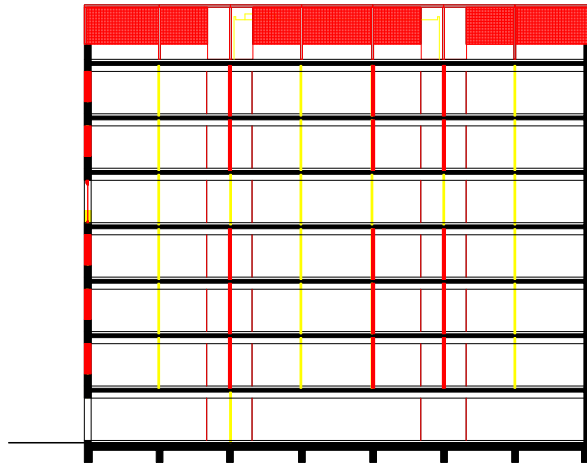
Ground floor



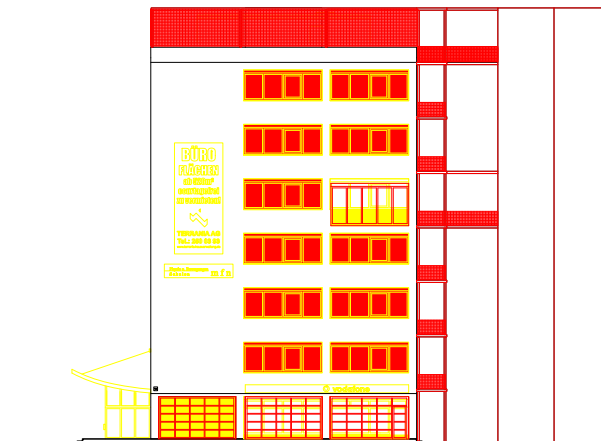
Standard floor



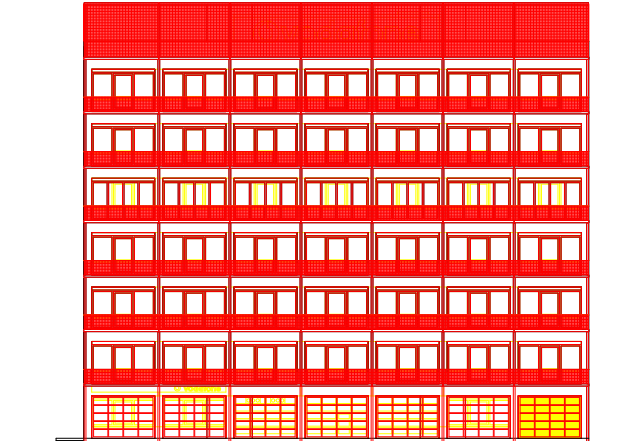
Cross section



Longitudinal Section



Side elevation

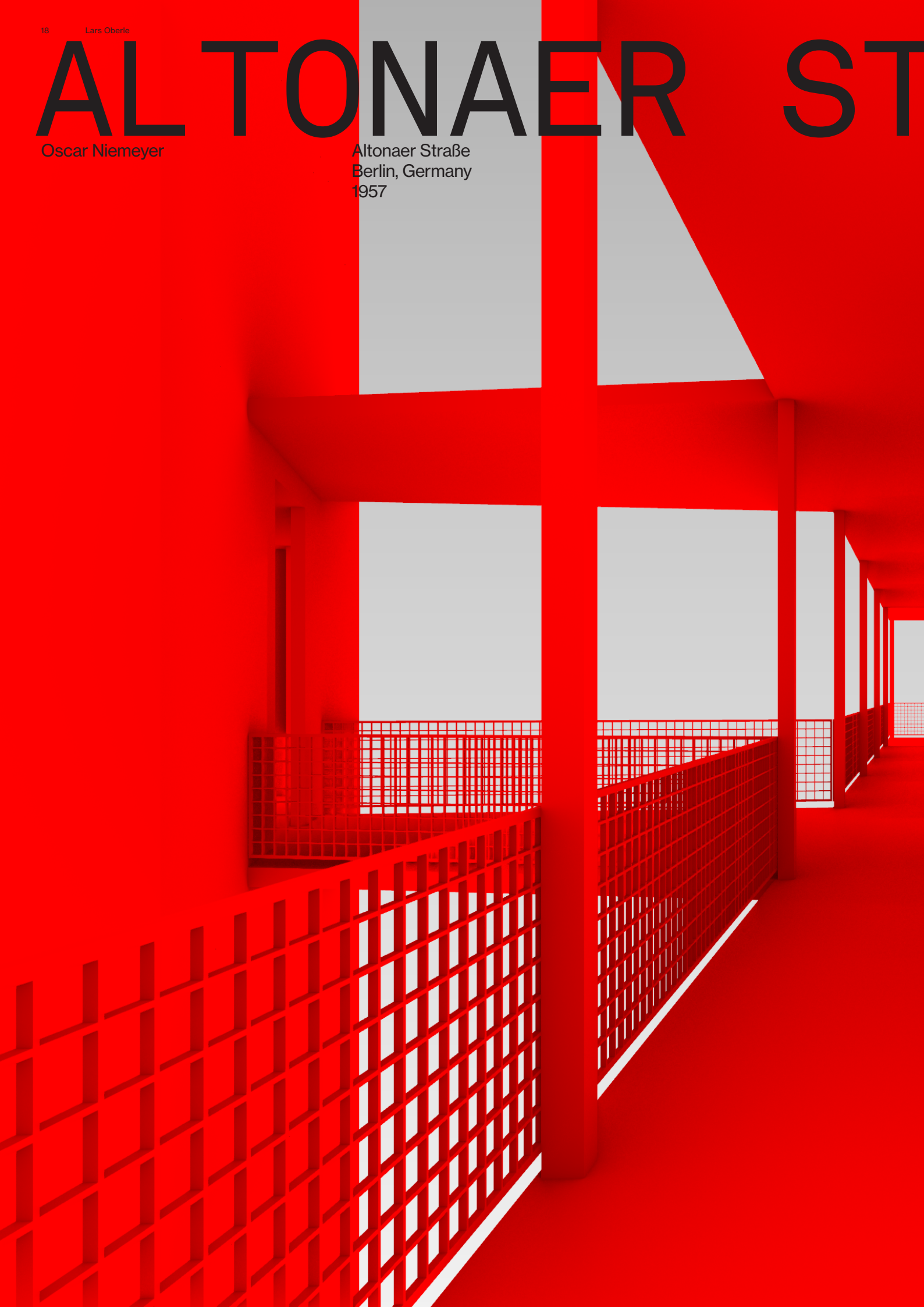


Front elevation

ALTONAER ST

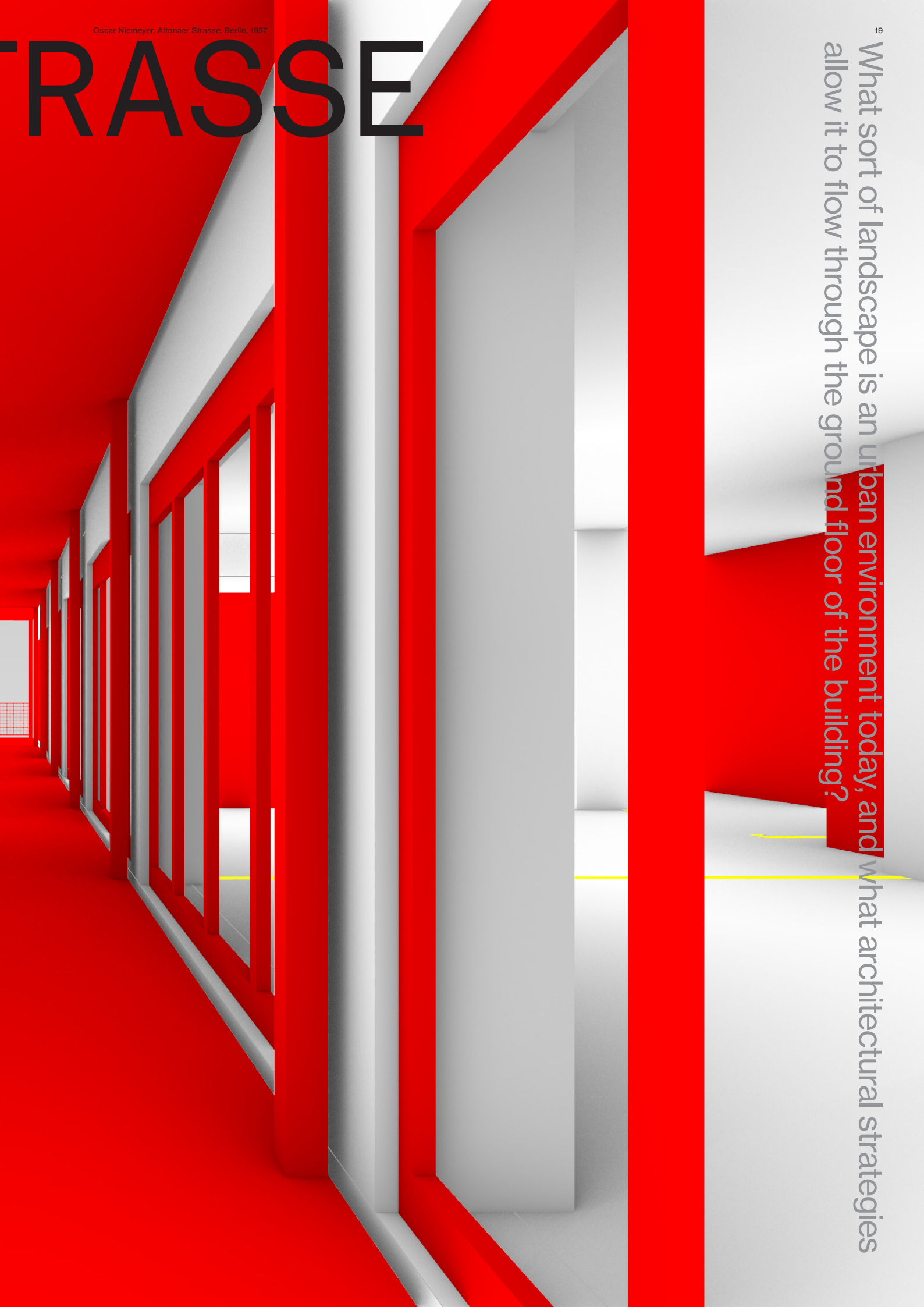
Oscar Niemeyer

Altonaer Straße
Berlin, Germany
1957



STRASSE

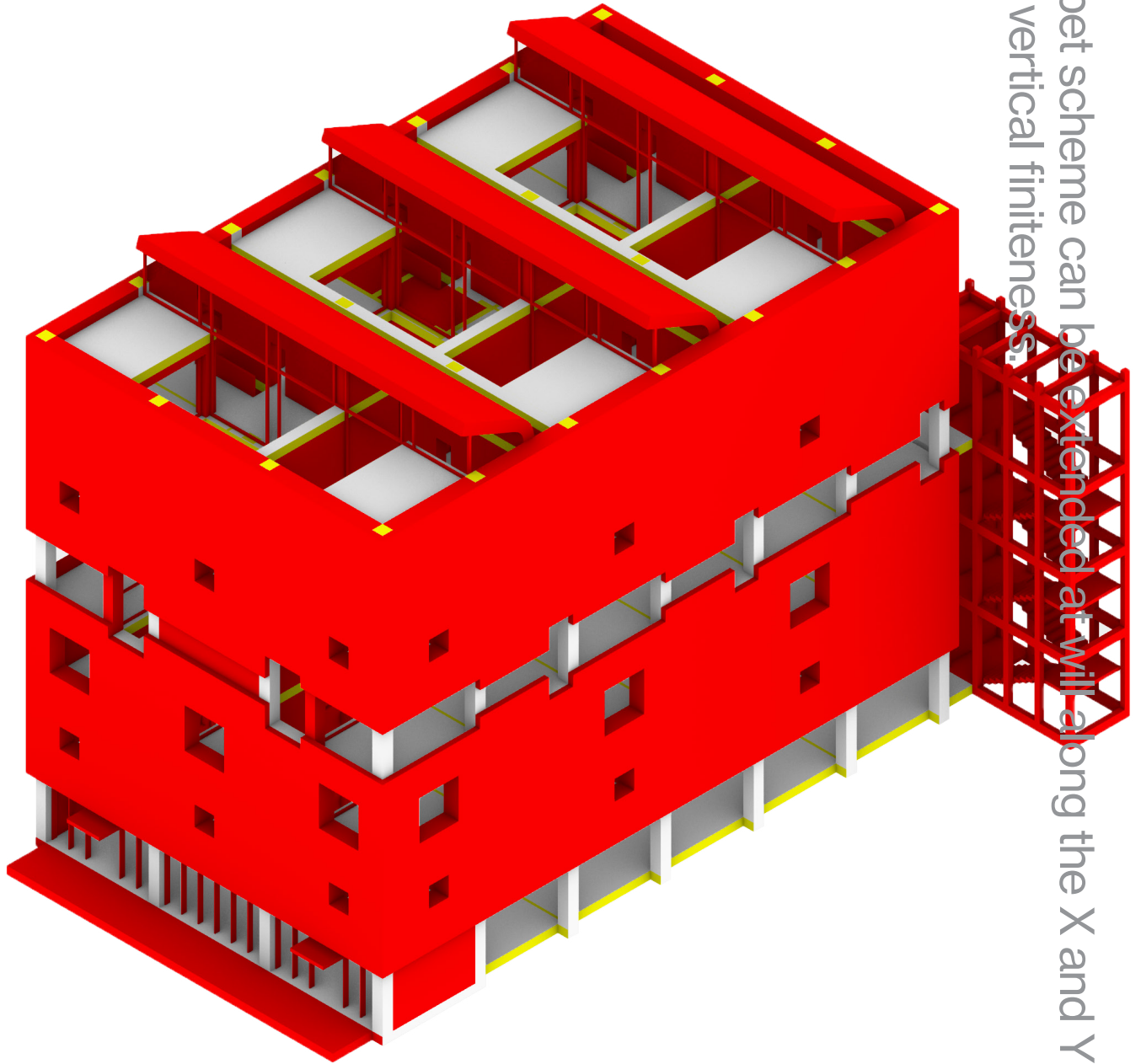
19
What sort of landscape is an urban environment today, and what architectural strategies allow it to flow through the ground floor of the building?



NEXUS WORLD

OMA

Nexus World Housing
Fukuoka, Japan
1991

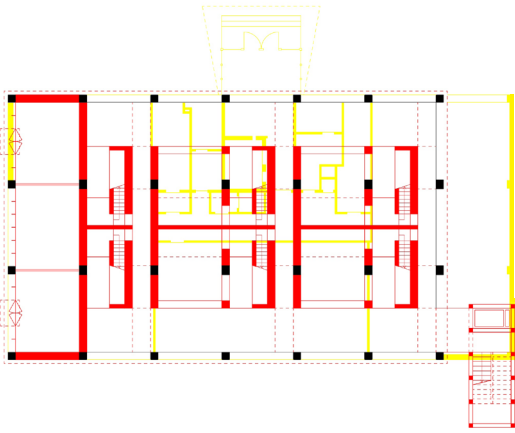


While OMA's carpet scheme can be extended at will along the X and Y axes, the undulating roof implies a vertical finiteness.

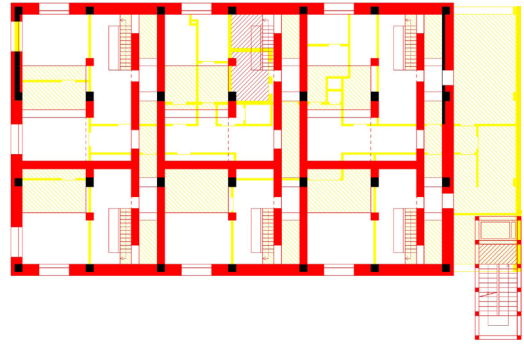
Isometric View

HOUSING

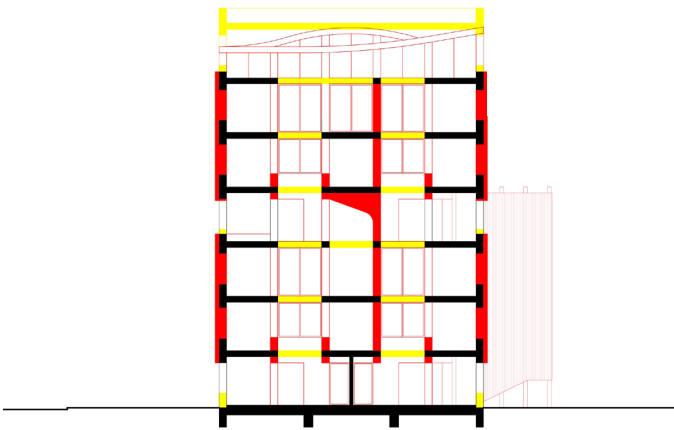
The two blocks of Nexus World Housing are stacked on top of each other. This vertical doubling necessitates a gap for access and daylight between the second and fourth floors of the structure.



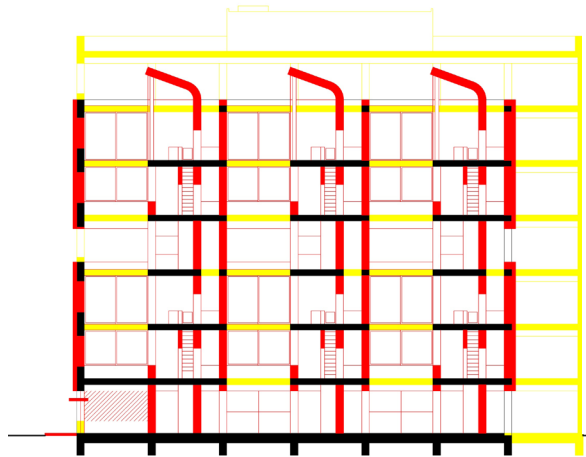
Ground floor



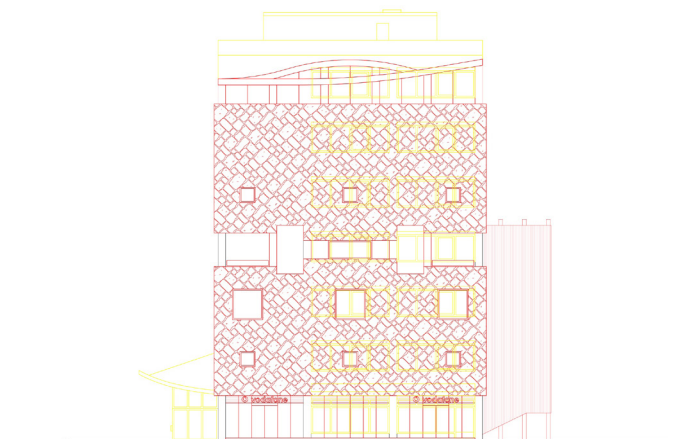
Standard floor



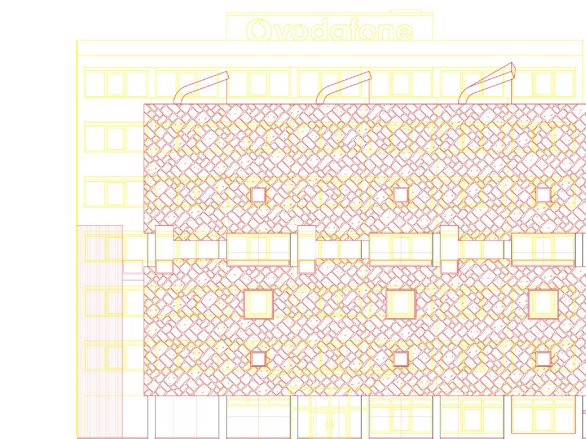
Cross section



Longitudinal Section



Side elevation

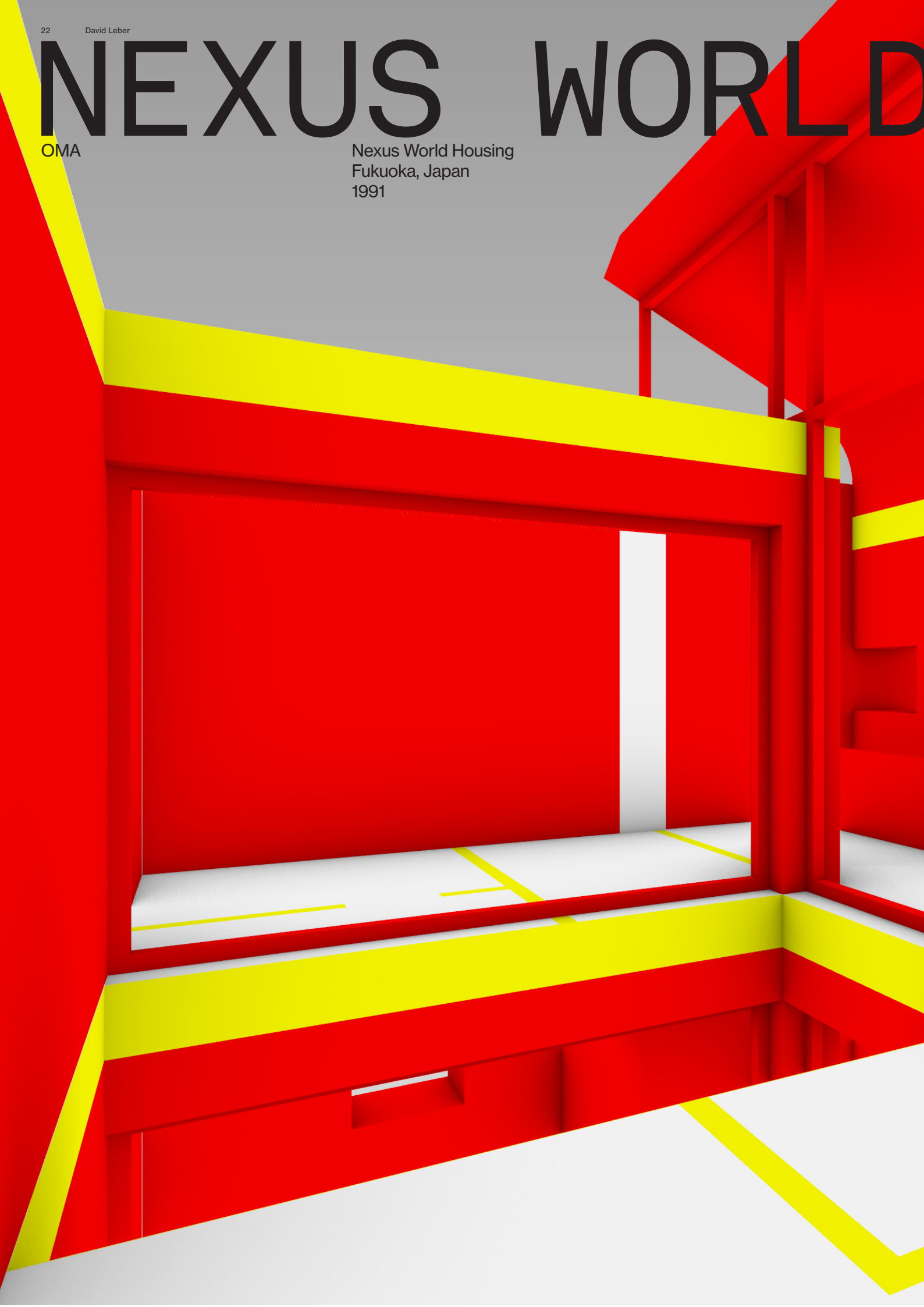


Front elevation

NEXUS WORLD

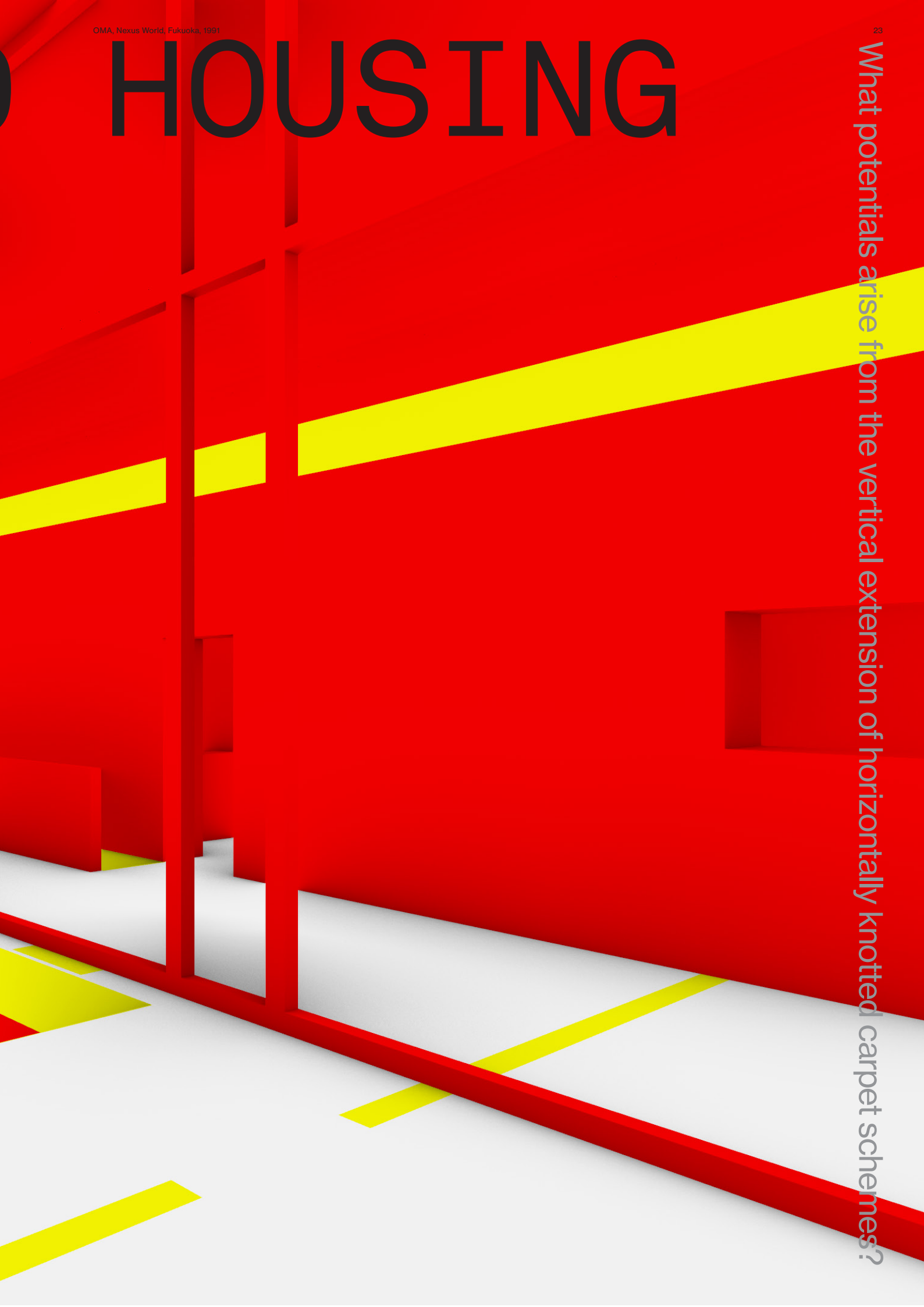
OMA

Nexus World Housing
Fukuoka, Japan
1991



HOUSING

23
What potentials arise from the vertical extension of horizontally knotted carpet schemes?



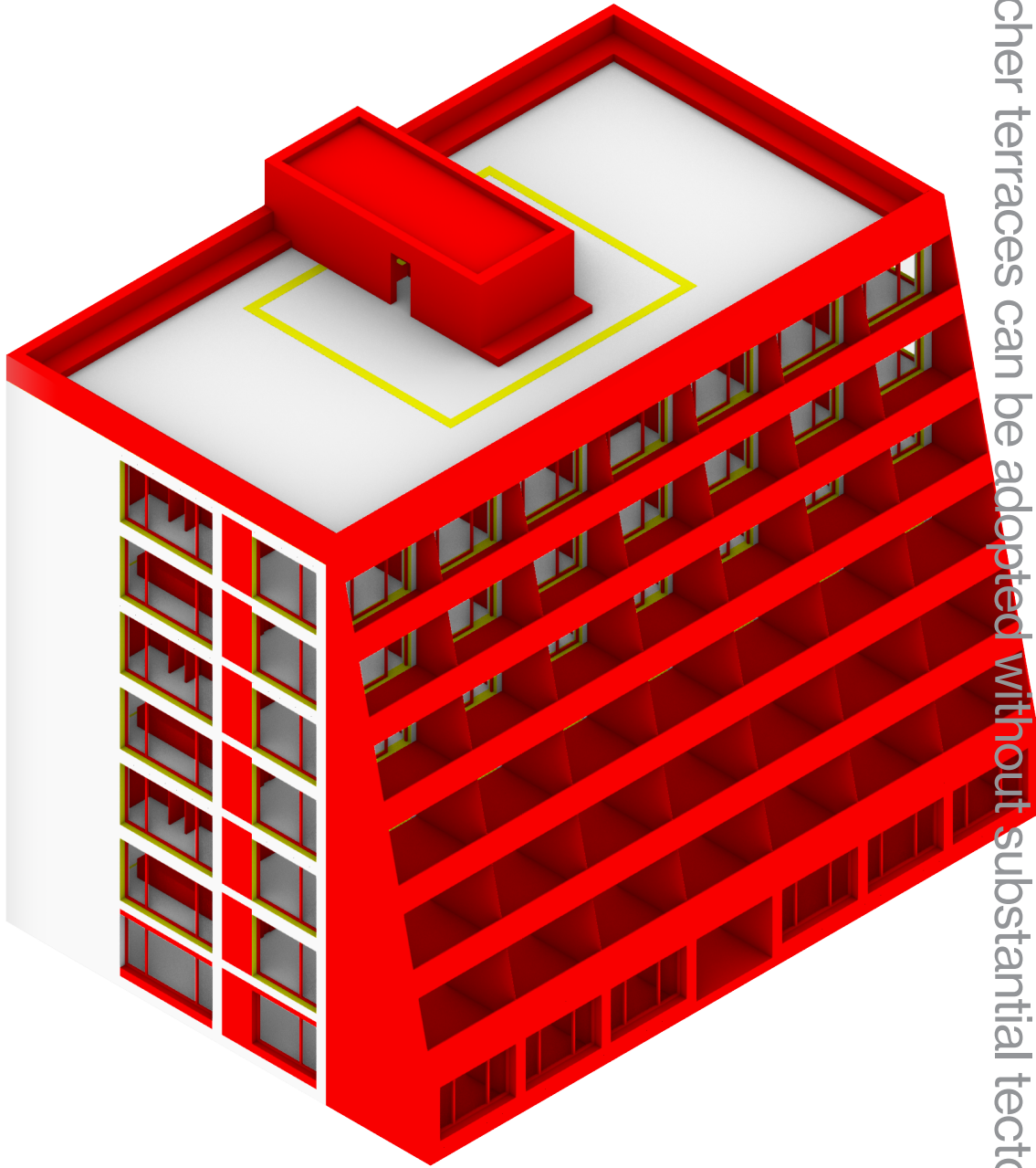
ESCHER

E2A

Escher Terrassen
Zurich, Switzerland
2014

TERR

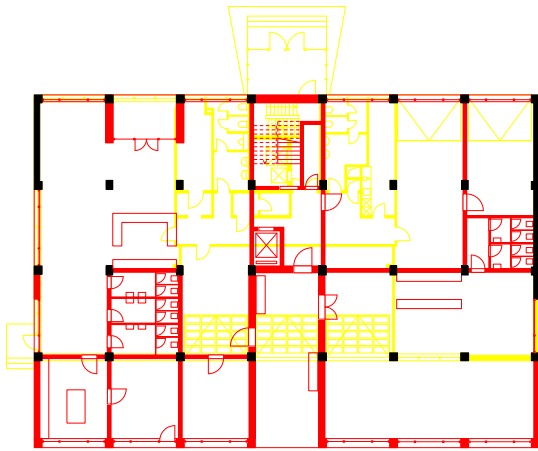
To produce this quality within the office structure, the distinctive, grandstand-like terrace sheaf is placed along the full length of its west facade. Inside the building, the cross-wall structure of the Escher terraces can be adopted without substantial tectonic alteration.



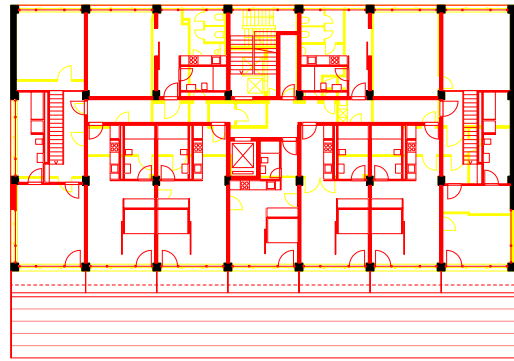
Isometric View

RASSEN

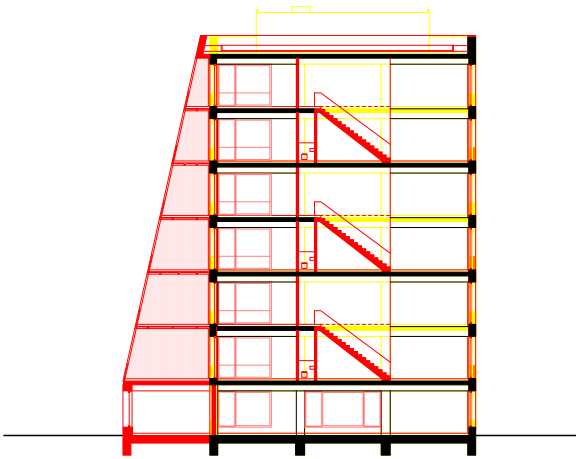
The promise of the Escher Terraces project is the private experience of the urban panorama.



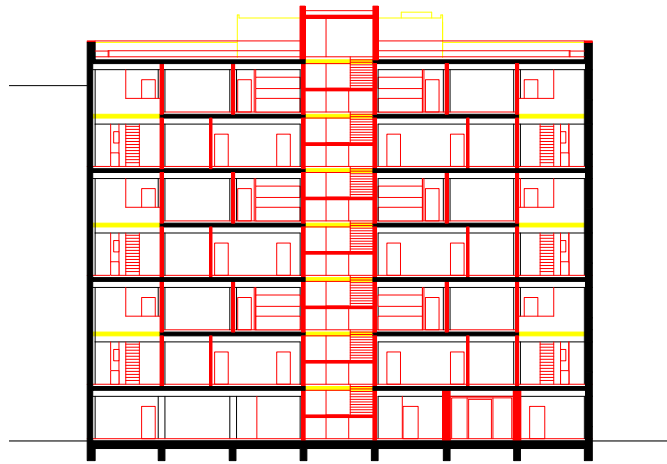
Ground floor



Standard floor



Cross section



Longitudinal Section



Side elevation

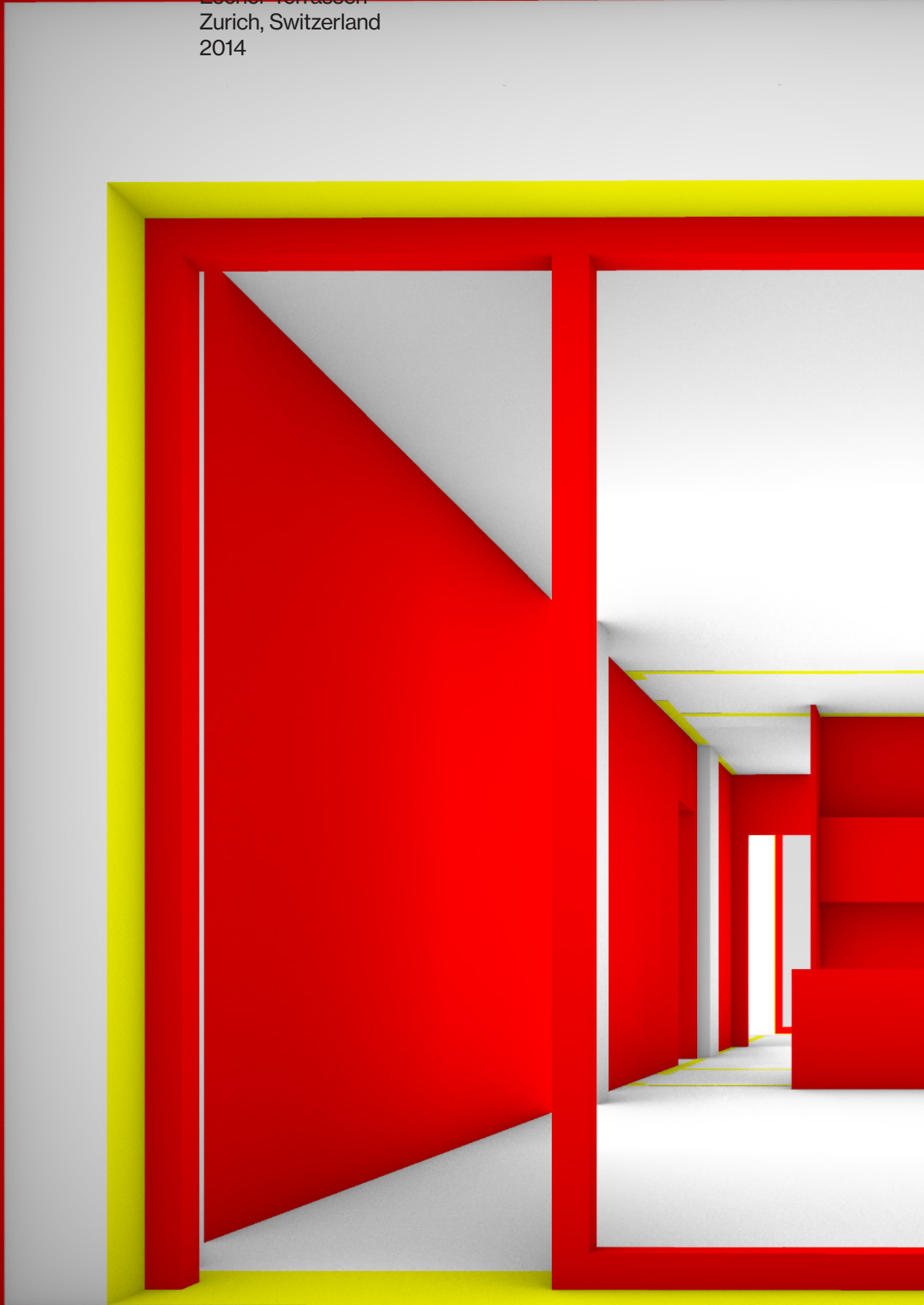


Front elevation

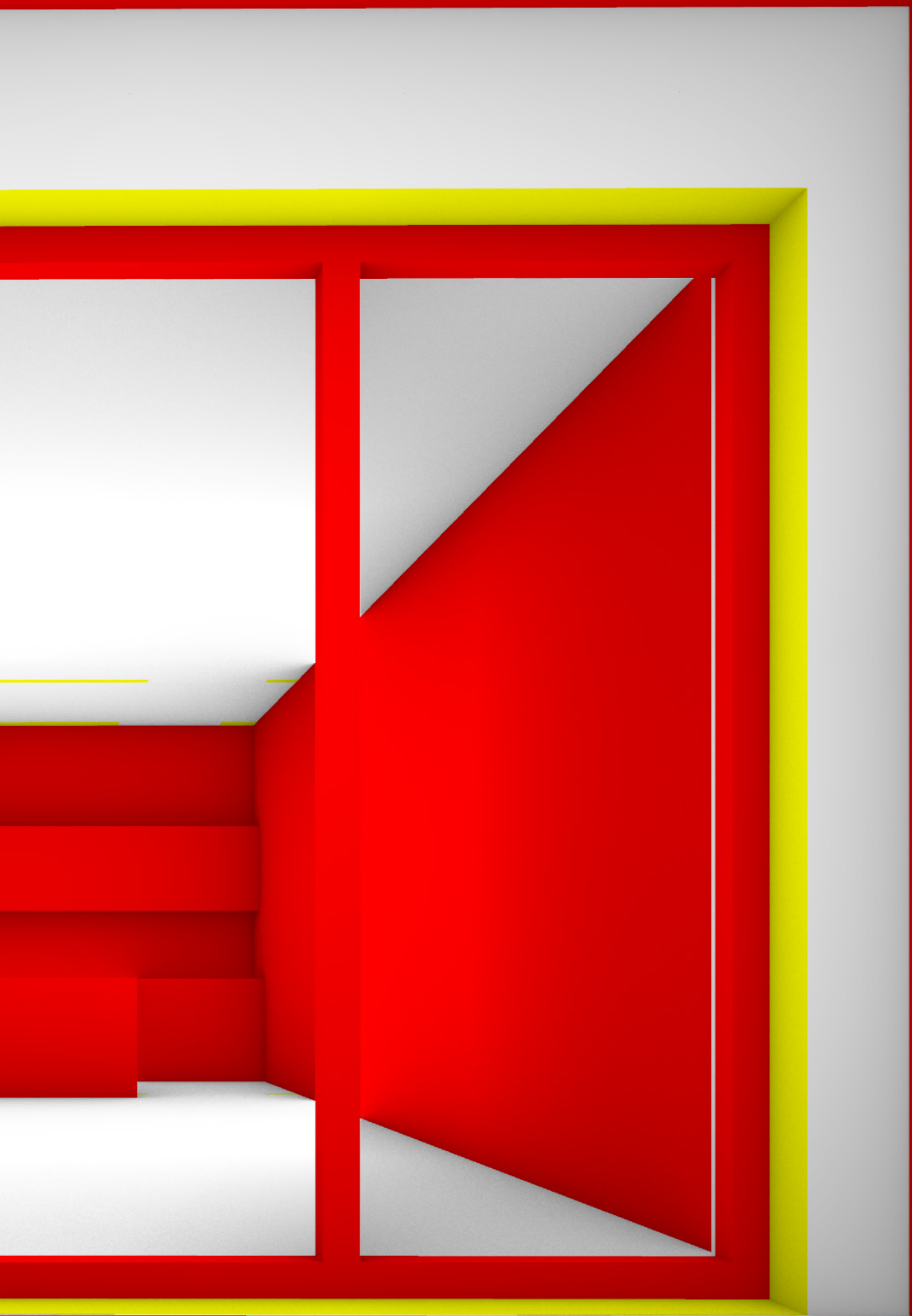
ESCHER TERR

E2A

Escher Terrassen
Zurich, Switzerland
2014



RASSEN



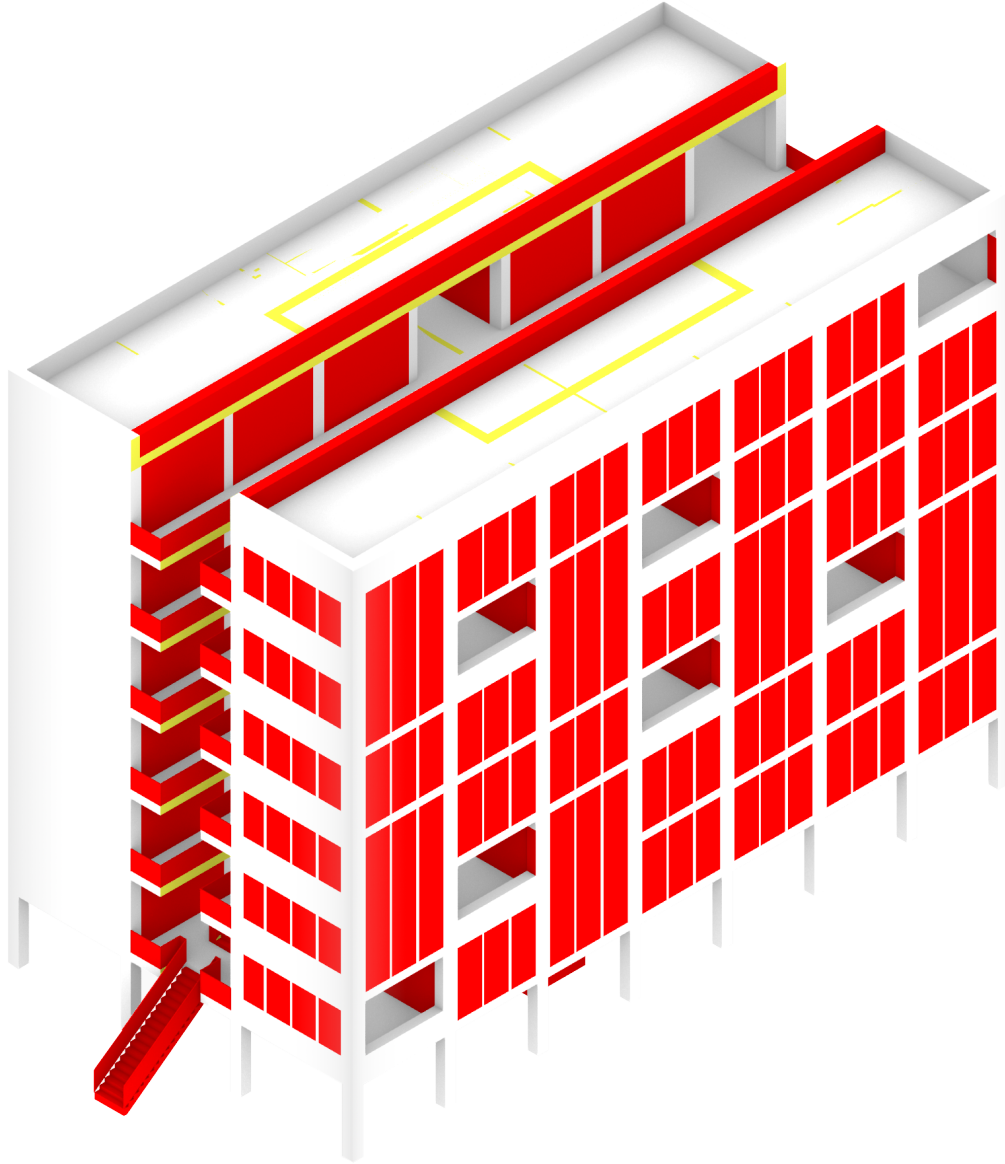
Can any existing office building become an urban panoramic living through the addition of an exterior terrace shelf?

KITAGATA

Kazujo Seijima & Ryue Nishizawa

Kitagata Apartment Building
Gifu, Japan
1998

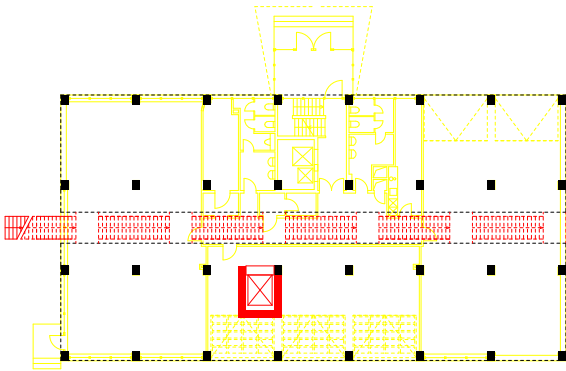
AP
In contrast to the Kitagata apartment building, the case study faces urban fabric in both directions.



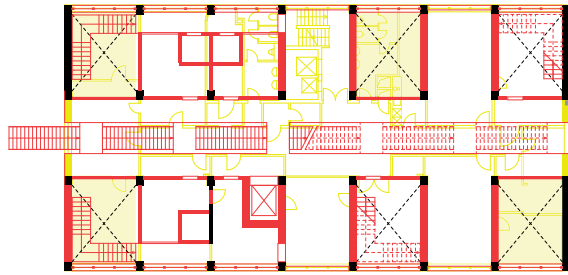
Isometric View

APARTMENTS

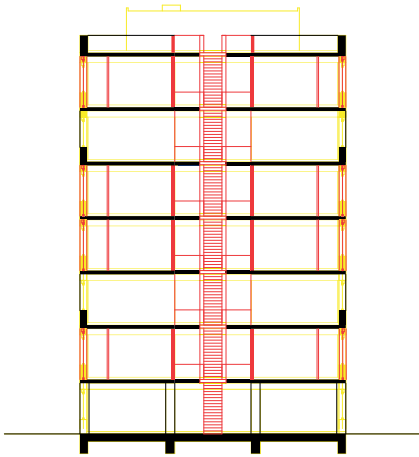
The Kitagata apartment building is characterized by its polarity. The glazed façade of the rooms faces the city, while the circulation facade is sealed toward the adjacent urban green island. Patios puncture the building, connecting the two sides to each other.



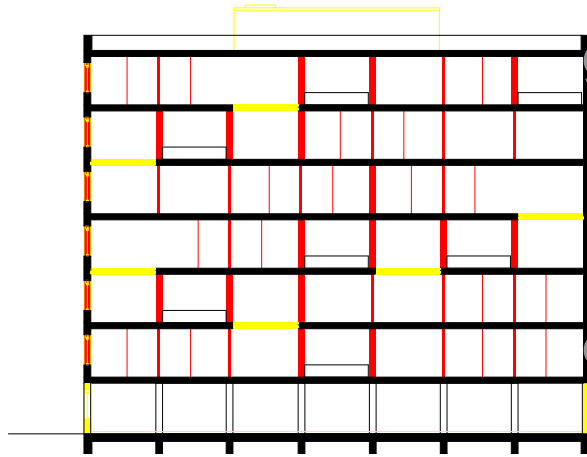
Ground floor



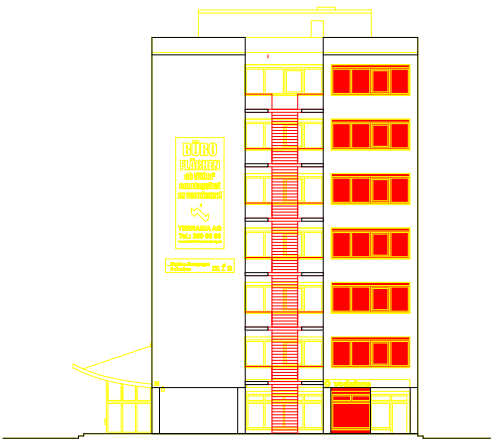
Standard floor



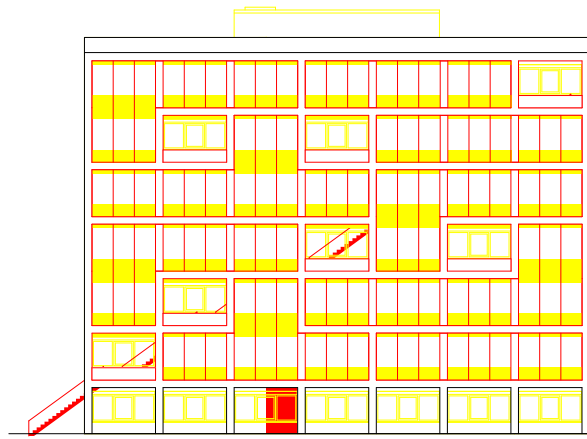
Cross section



Longitudinal Section



Side elevation



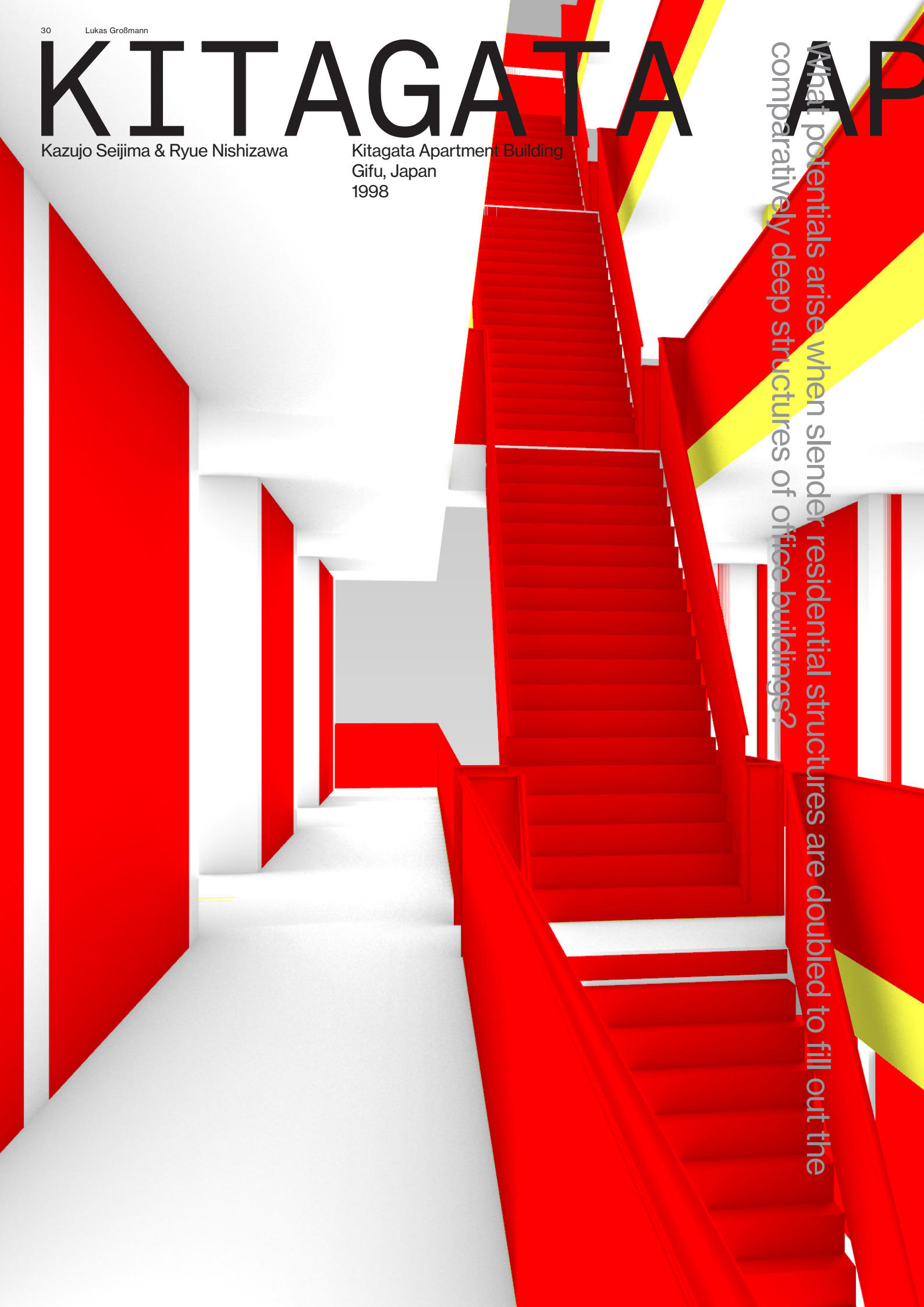
Front elevation

KITAGATA

Kazujo Sejima & Ryue Nishizawa

Kitagata Apartment Building
Gifu, Japan
1998

What potentials arise when slender residential structures are doubled to fill out the comparatively deep structures of office buildings?



APARTMENTS

In the transfer, the Kitagata structure is doubled and mirrored, with rooms oriented on both sides toward the surrounding city. The resulting shared circulation space between the two flanks becomes a neighborly intermediate zone. A series of patios penetrating both flanks create multi-layered relationships to the two urban sides.

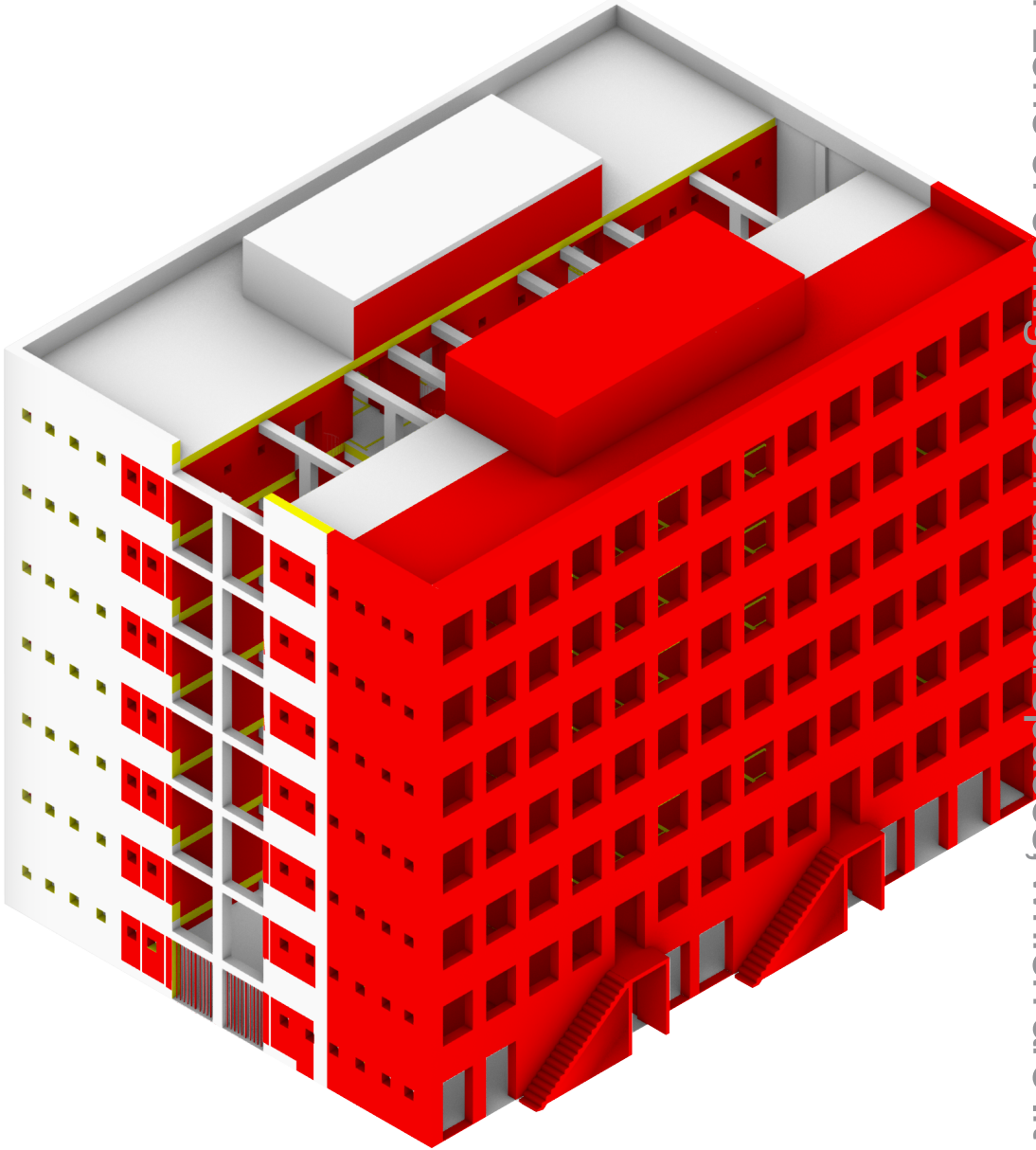


MAIA 1

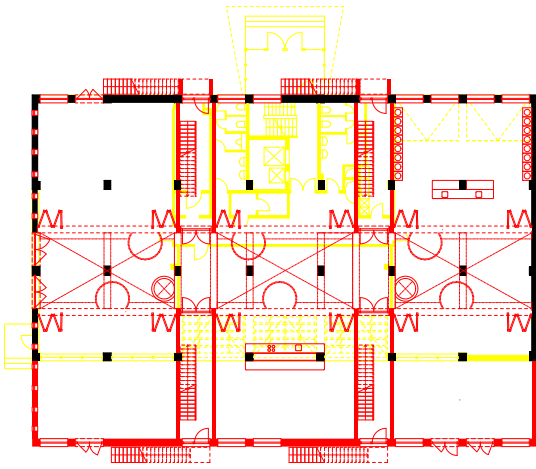
João Álvaro Rocha

Maia 1 (Complexo Habitacional do Outeiro)
Maia, Portugal
2000

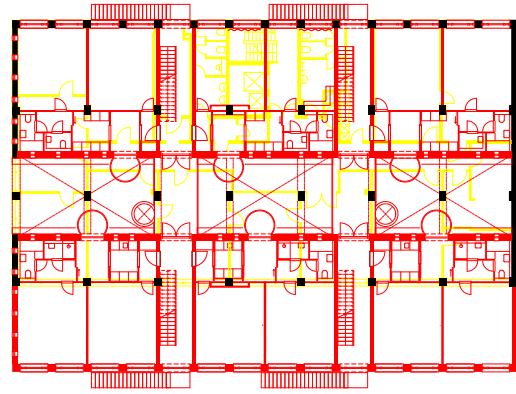
This one-sided orientation is a reflection of the floor plan, which is divided longitudinally into two zones. A compact zone of ancillary rooms on the street side serves and connects the larger zone of contiguous individual spaces, which are lit by the ribbon windows.



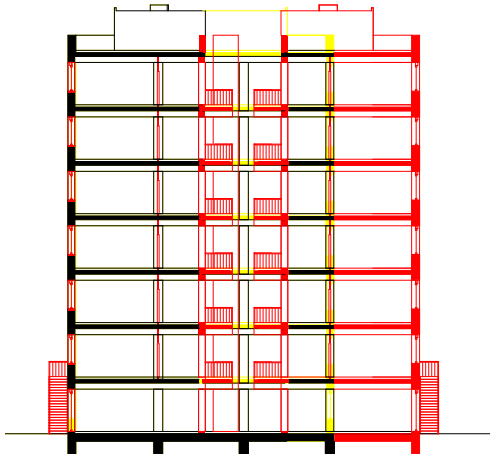
Toward the street, Maia 1 presents a nearly closed facade. On the opposite side, the building opens up with continuous bands of windows.



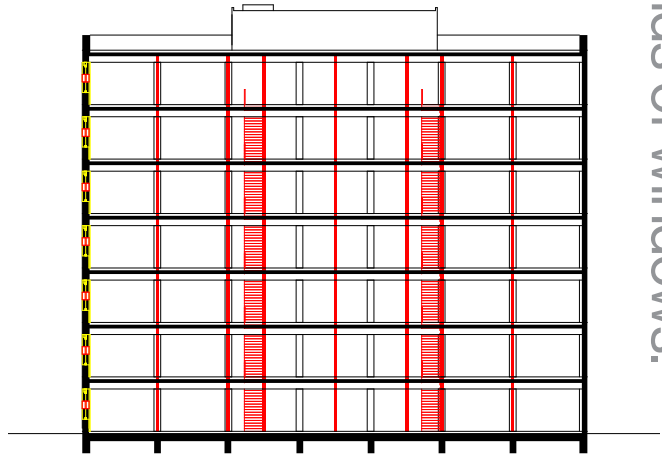
Ground floor



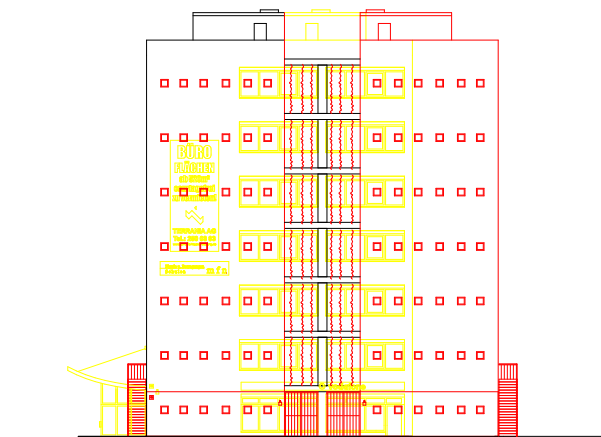
Standard floor



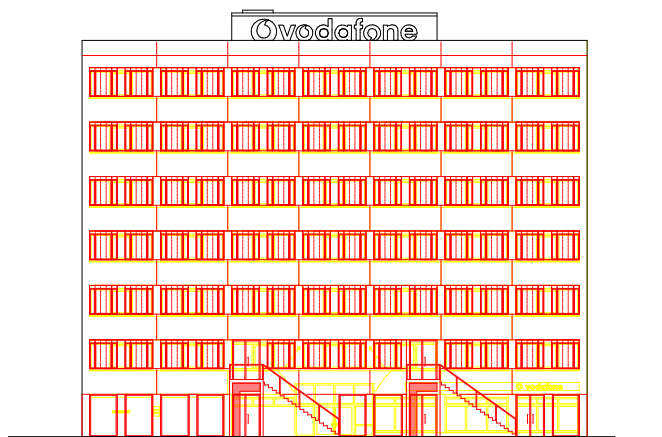
Cross section



Longitudinal Section



Side elevation



Front elevation

MAIA 1

João Álvaro Rocha

Maia 1 (Complexo Habitacional do Outeiro)
Maia, Portugal
2000

Does the incorporation of the streetspace along the central axis of the building fulfill the modern promise of the rue interieur?

In the transfer, an additional structural bay is added to the existing structure. The organizational principle of Maia 1 is doubled and mirrored, creating a new, central zone, toward which the “street side” rooms are oriented.

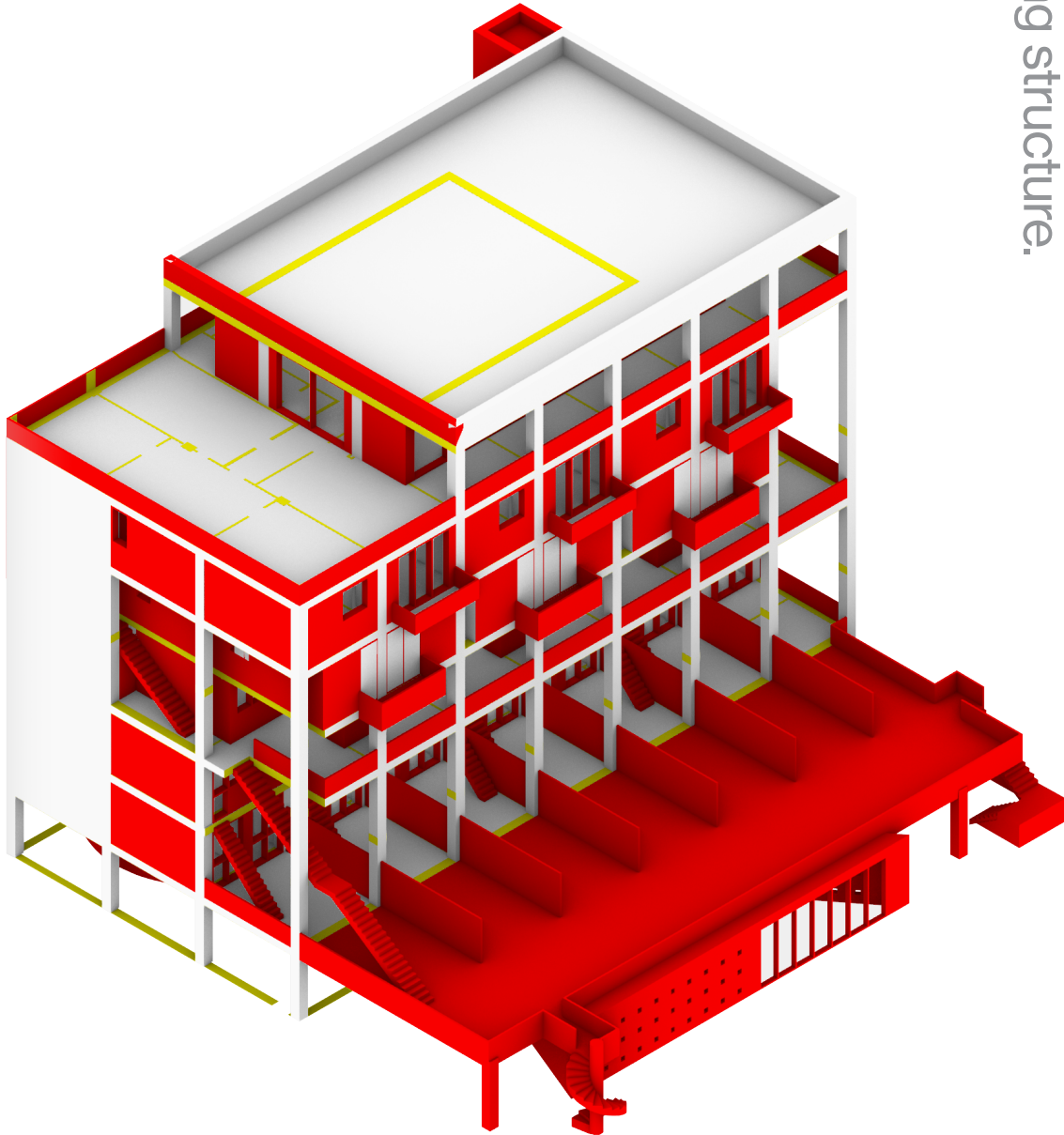


FRIEDRICHSTRAÙE

OMA

Friedrichstraße
Berlin, Germany
1989

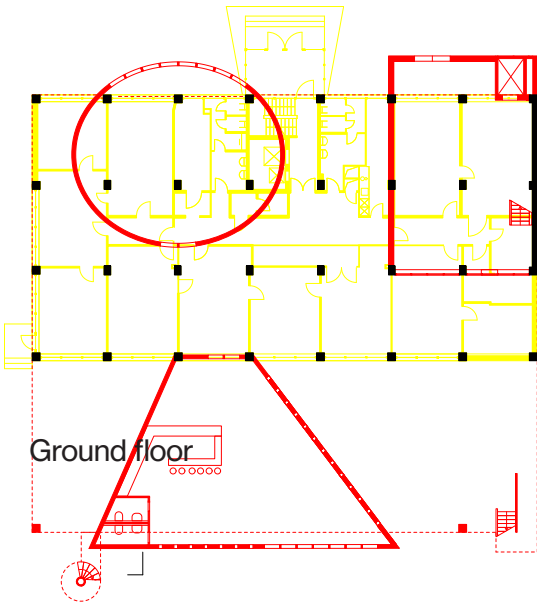
In the transfer, a podium is added to the office building as an extension of the ground floor. Above this new "elevated ground," different residential typologies are stacked floor by floor into the existing structure.



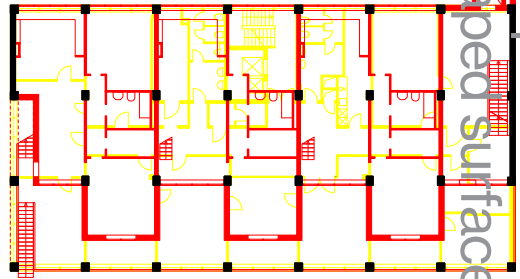
Isometric View

RASSE

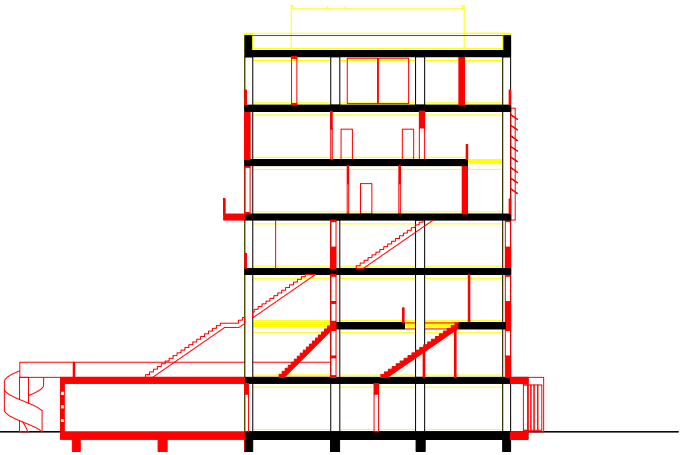
The starting point for OMA's project on Friedrichstrasse is the second ground plane, or "elevated ground". This podium separates the street-facing activities with their semi-permanent pavilions from the residential cosmos above. The podium forms an artificial landscape sloped surface on which an "apartment building" with all apartments is built.



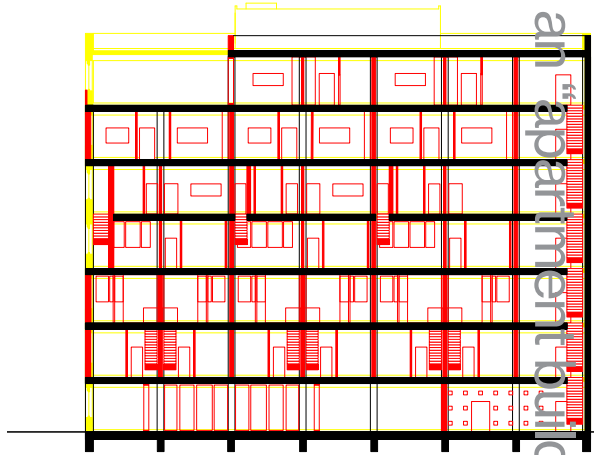
Ground floor



Standard floor



Cross section



Longitudinal Section



Side elevation



Front elevation

FRIEDRICHST

OMA

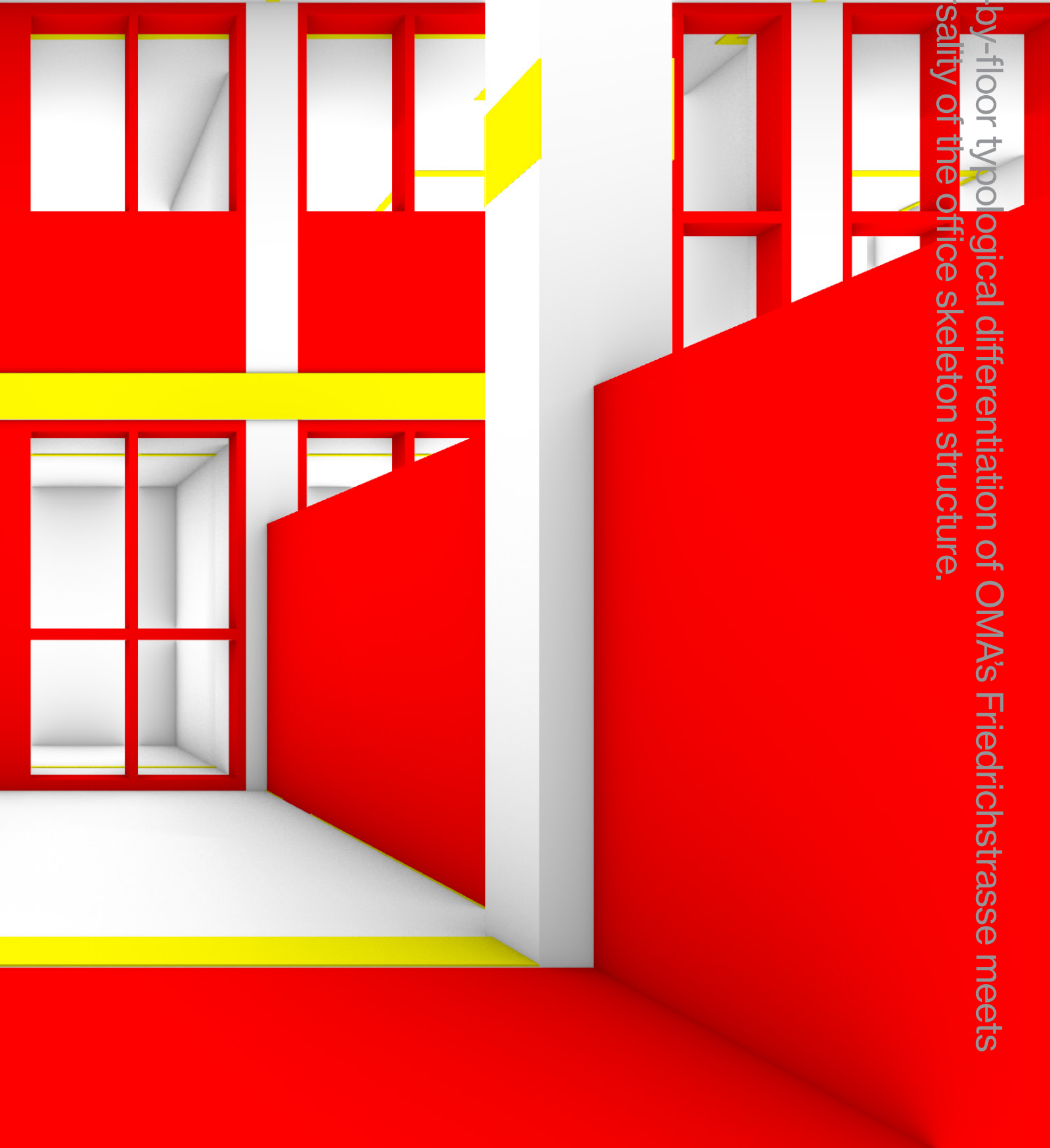
Friedrichstraße
Berlin, Germany
1989

How much typological diversity does a universal floor grid allow, with what degree of freedom and under which limitations?



TRASSE

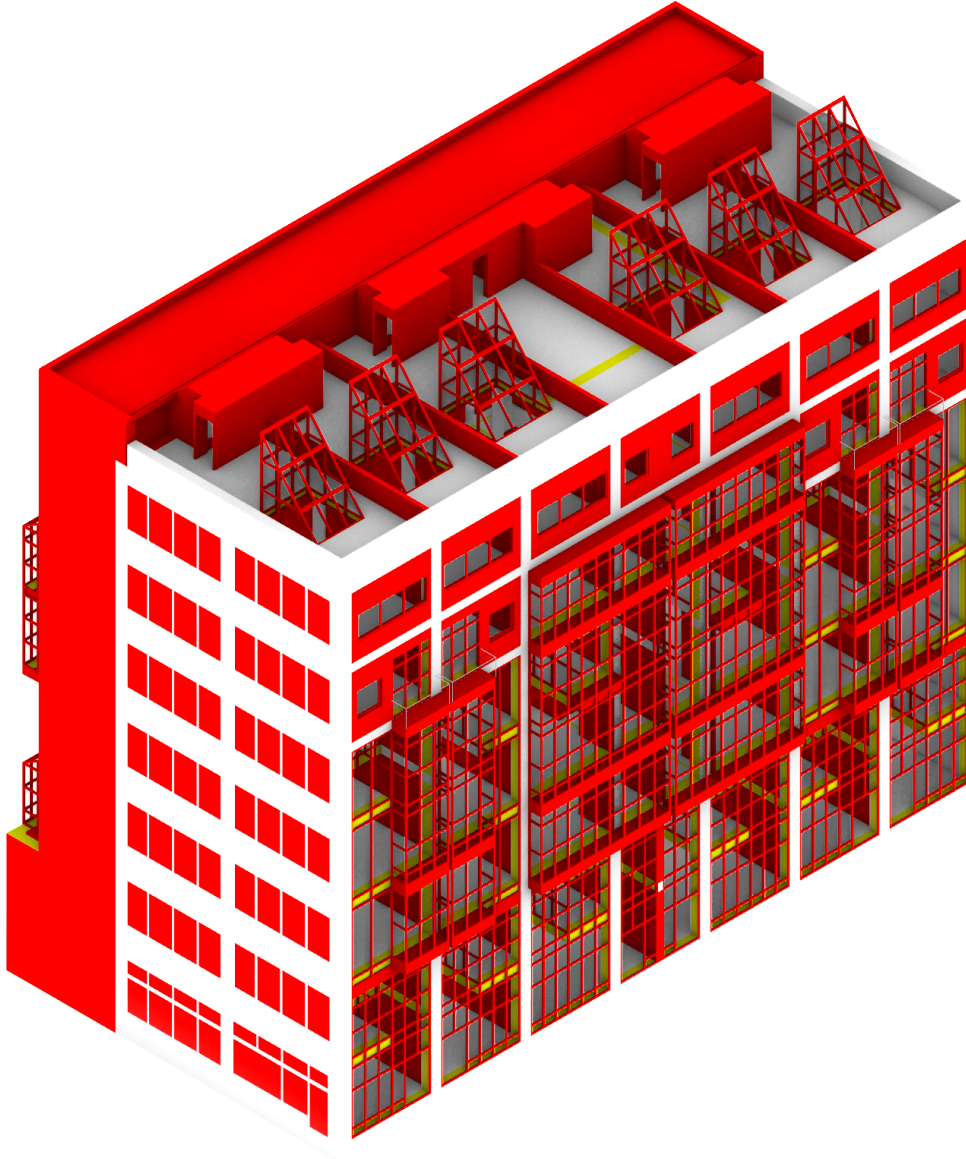
The maximal floor-by-floor typological differentiation of OMA's Friedrichstrasse meets the maximal universality of the office skeleton structure.



LUETZOWSTRASSE

IBUS

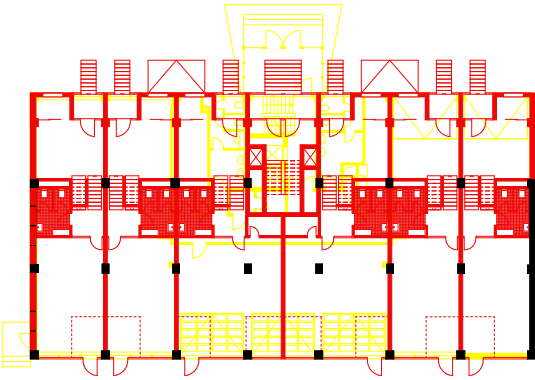
Lützowstraße
Berlin, Germany
1989



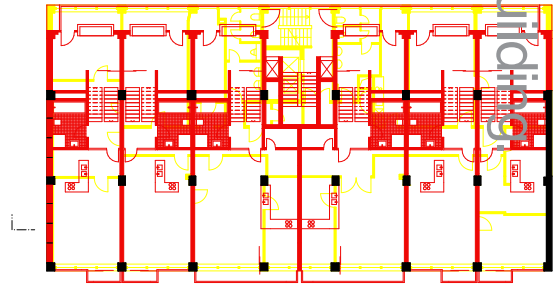
In transferring the split-level principle to the office structure, neither lighting nor temperature control are in the foreground, but rather the question of the resulting spatial added value. It seems therefore acceptable that the partial deconstruction of the concrete skeleton and its subsequent extension come with considerable expense.

ASSE

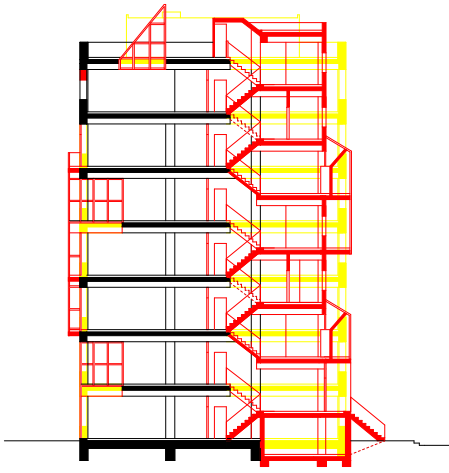
With the Lützowstrasse social housing project, IBUS architects are investigating various measures to maximize natural lighting and temperature control through architectural means. Their foremost strategy, split-level construction, allows the flat winter sun to penetrate the building



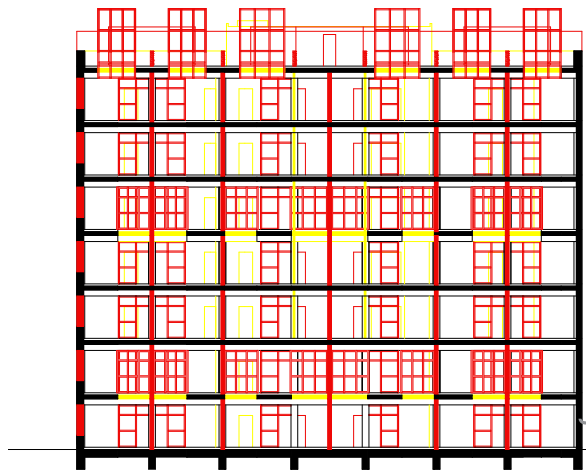
Ground floor



Standard floor



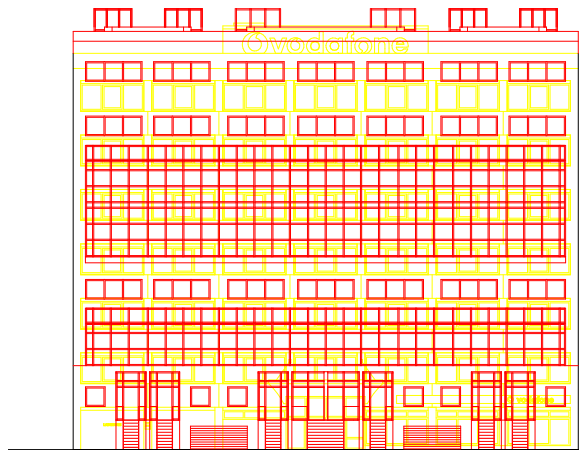
Cross section



Longitudinal Section



Side elevation

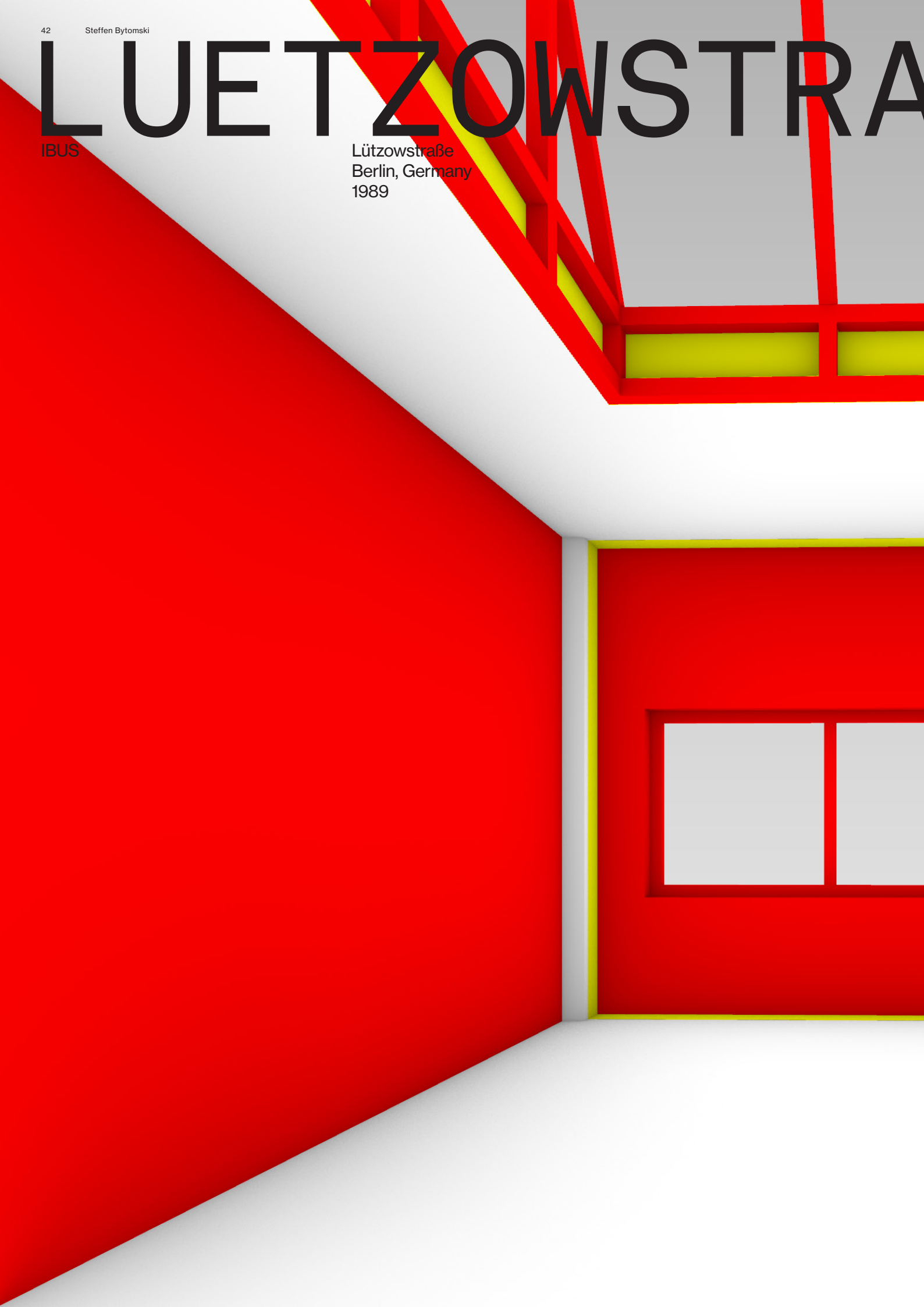


Front elevation

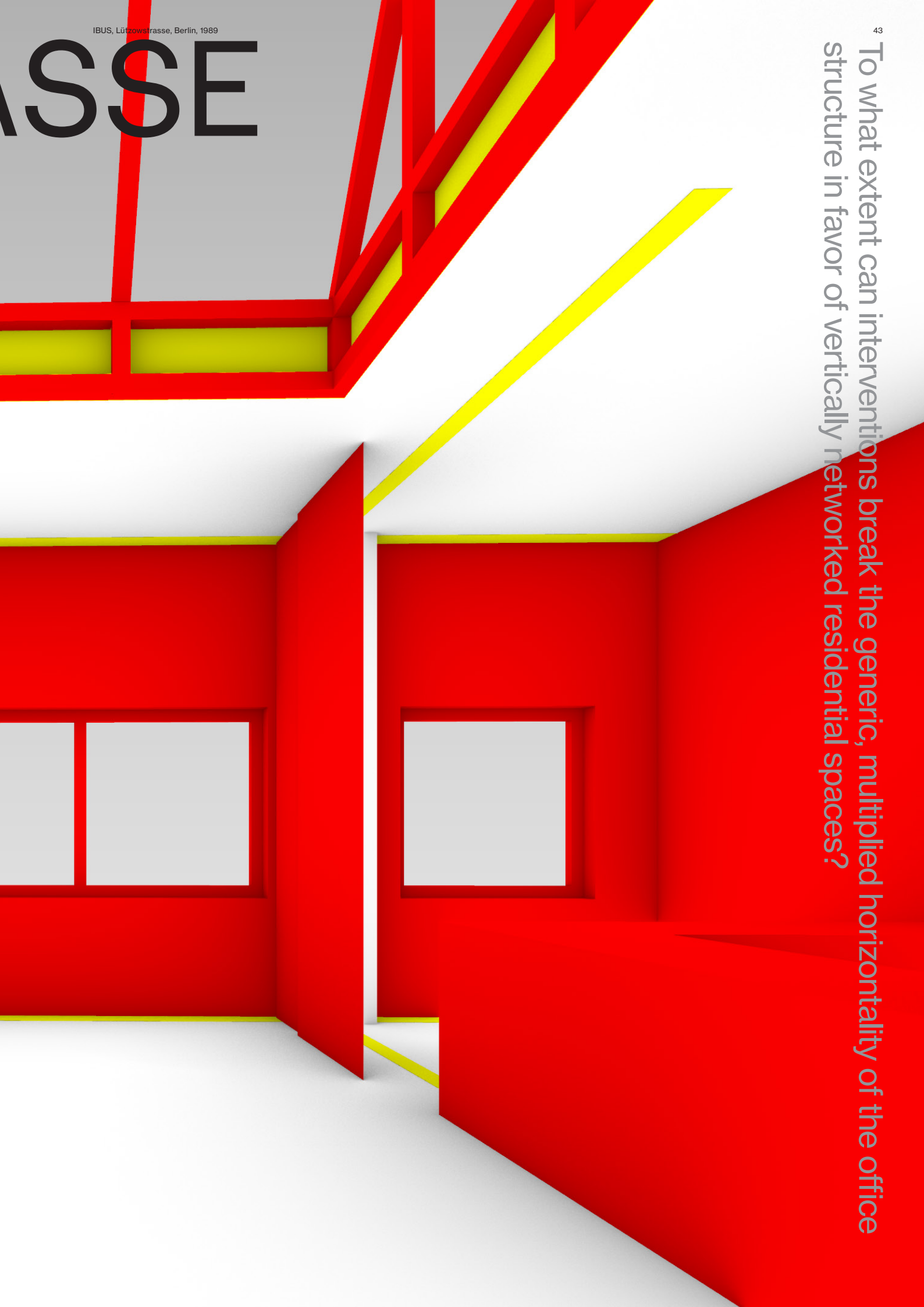
LUETZOWSTRA

IBUS

Lützowstraße
Berlin, Germany
1989



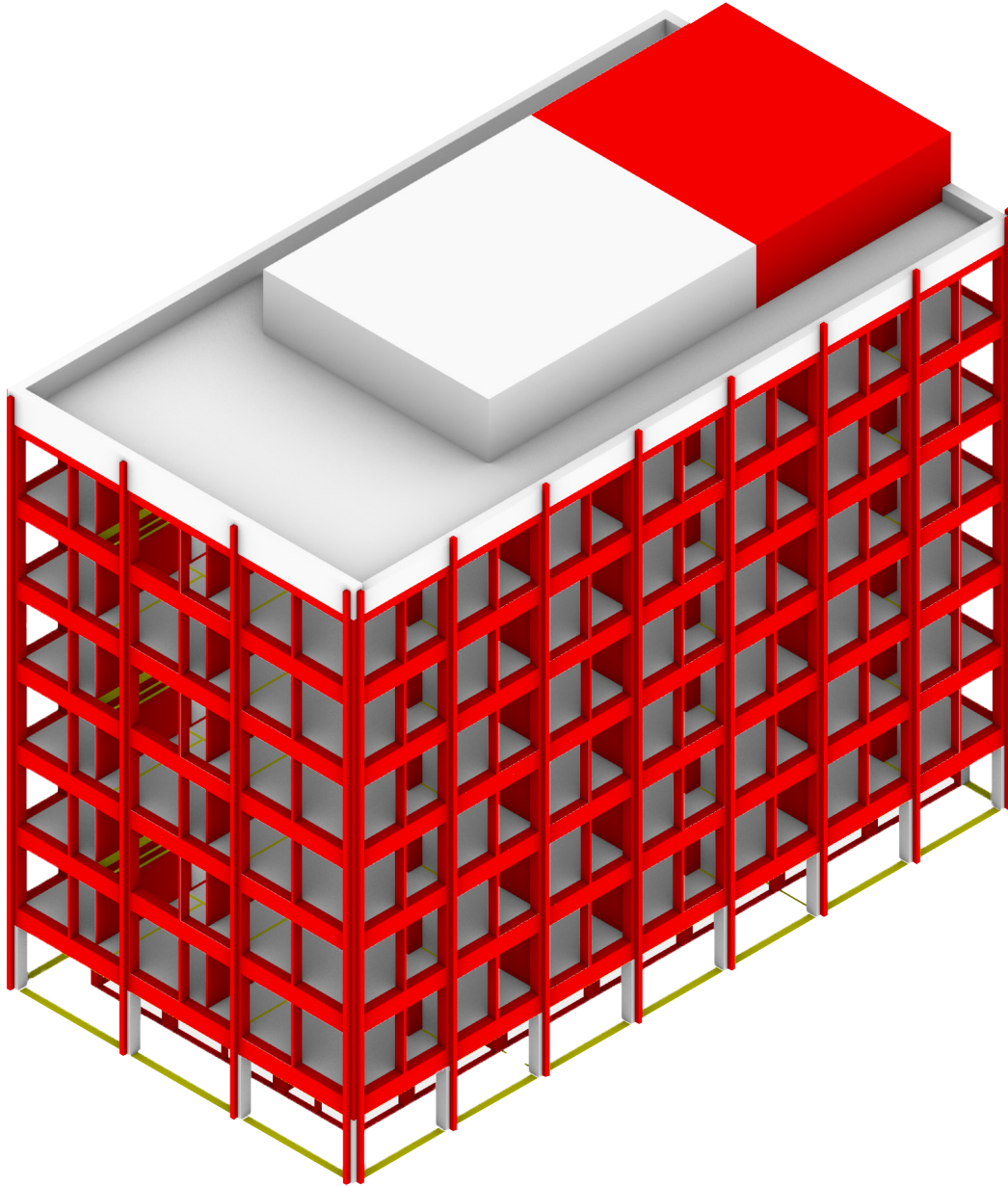
To what extent can interventions break the generic, multiplied horizontality of the office structure in favor of vertically networked residential spaces?



LAKE SHORE

Ludwig Mies van der Rohe

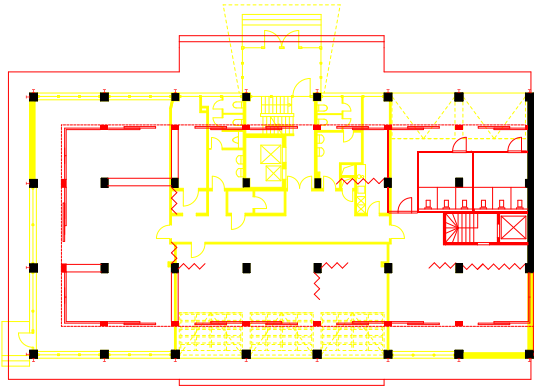
860/880 Lake Shore Drive
Chicago, USA,
1951



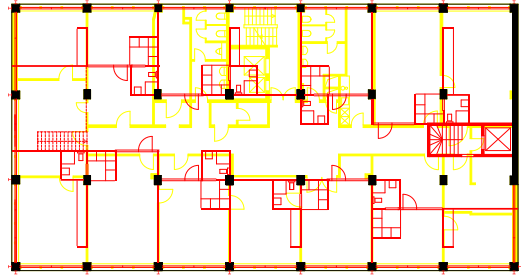
In the transfer, the symmetrical perfection of the circulation must be adapted to serve a building with a party wall to the Southeast. The circulation must partially shift, allowing in daylight. This shift forms the prelude to a new, diagonally stepped circulation space.

DRIVE

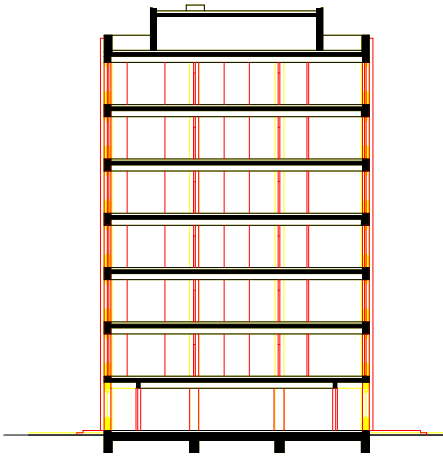
Mies van der Rohe's Lake Shore Drive apartment ensemble with its symmetrical interior circulations thrives on the solitary nature of the buildings.



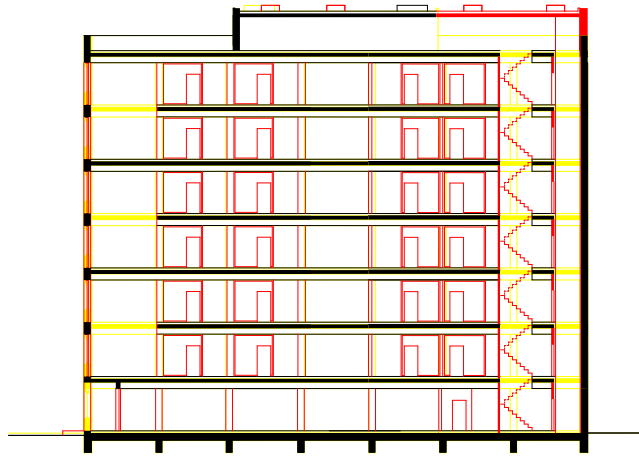
Ground floor



Standard floor



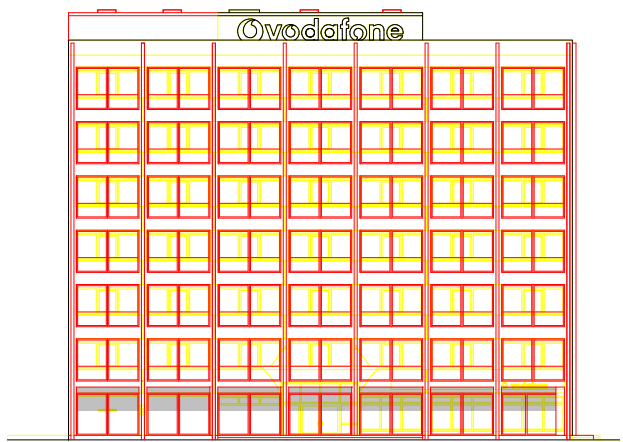
Cross section



Longitudinal Section



Side elevation

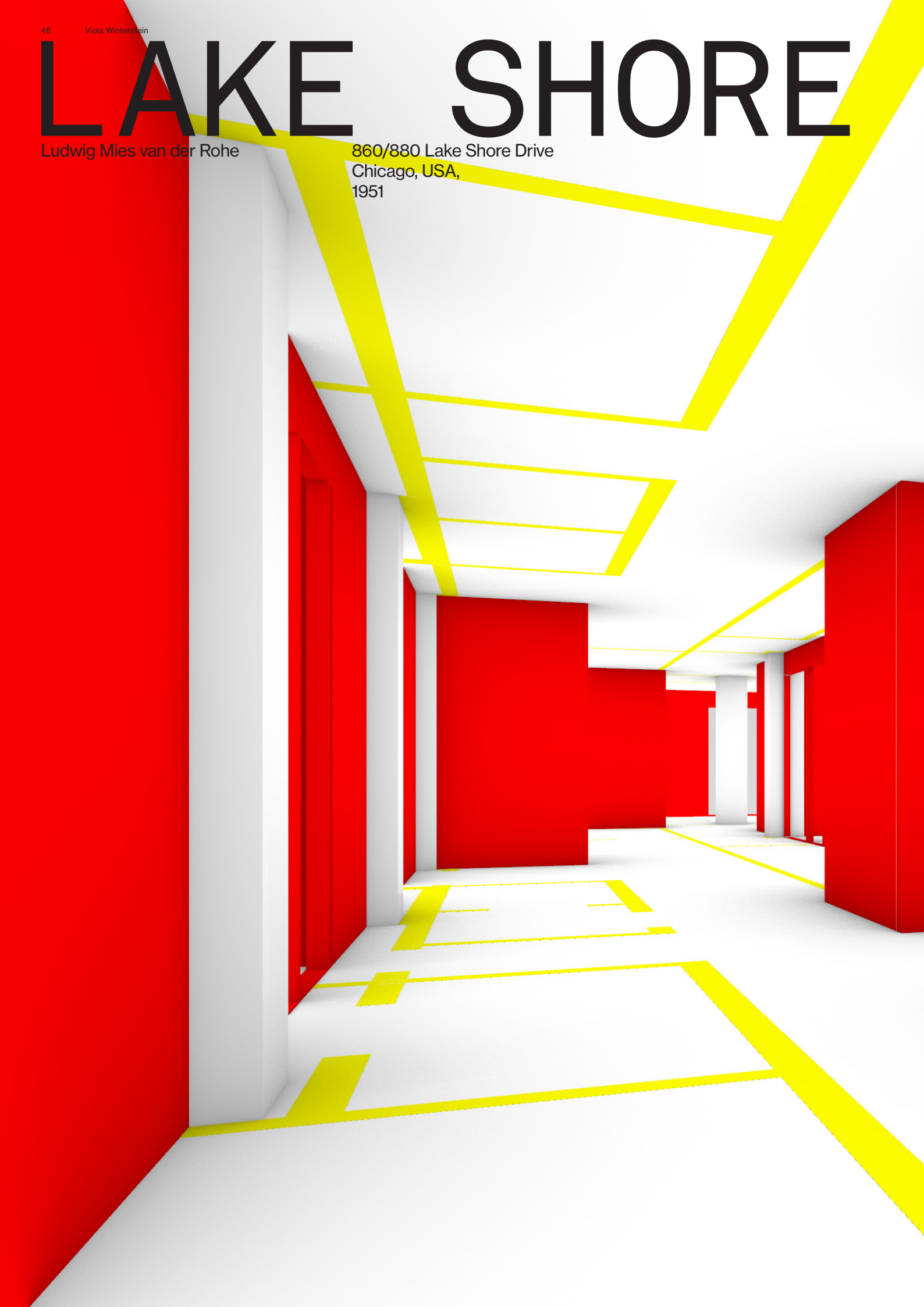


Front elevation

LAKE SHORE

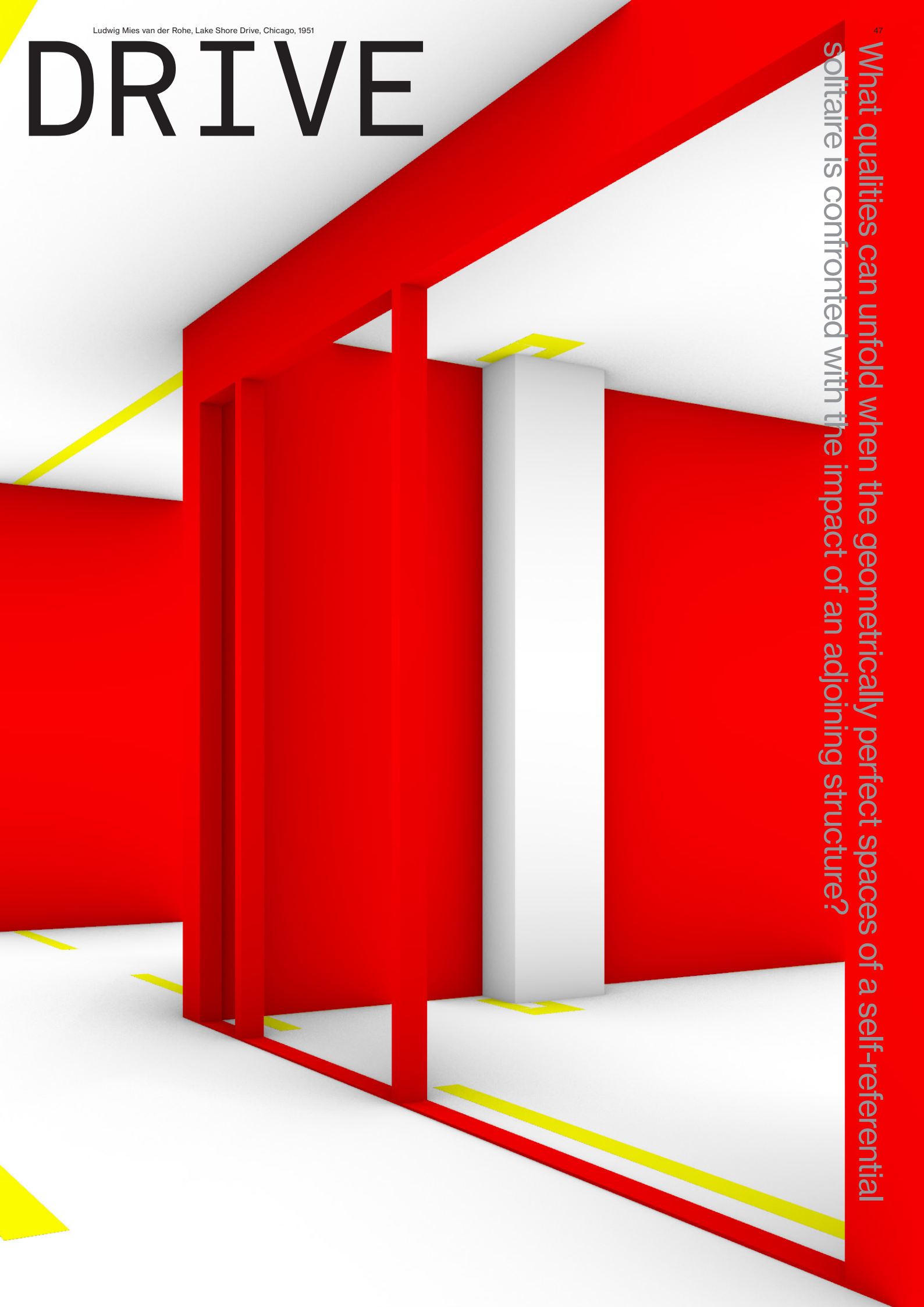
Ludwig Mies van der Rohe

860/880 Lake Shore Drive
Chicago, USA,
1951



DRIVE

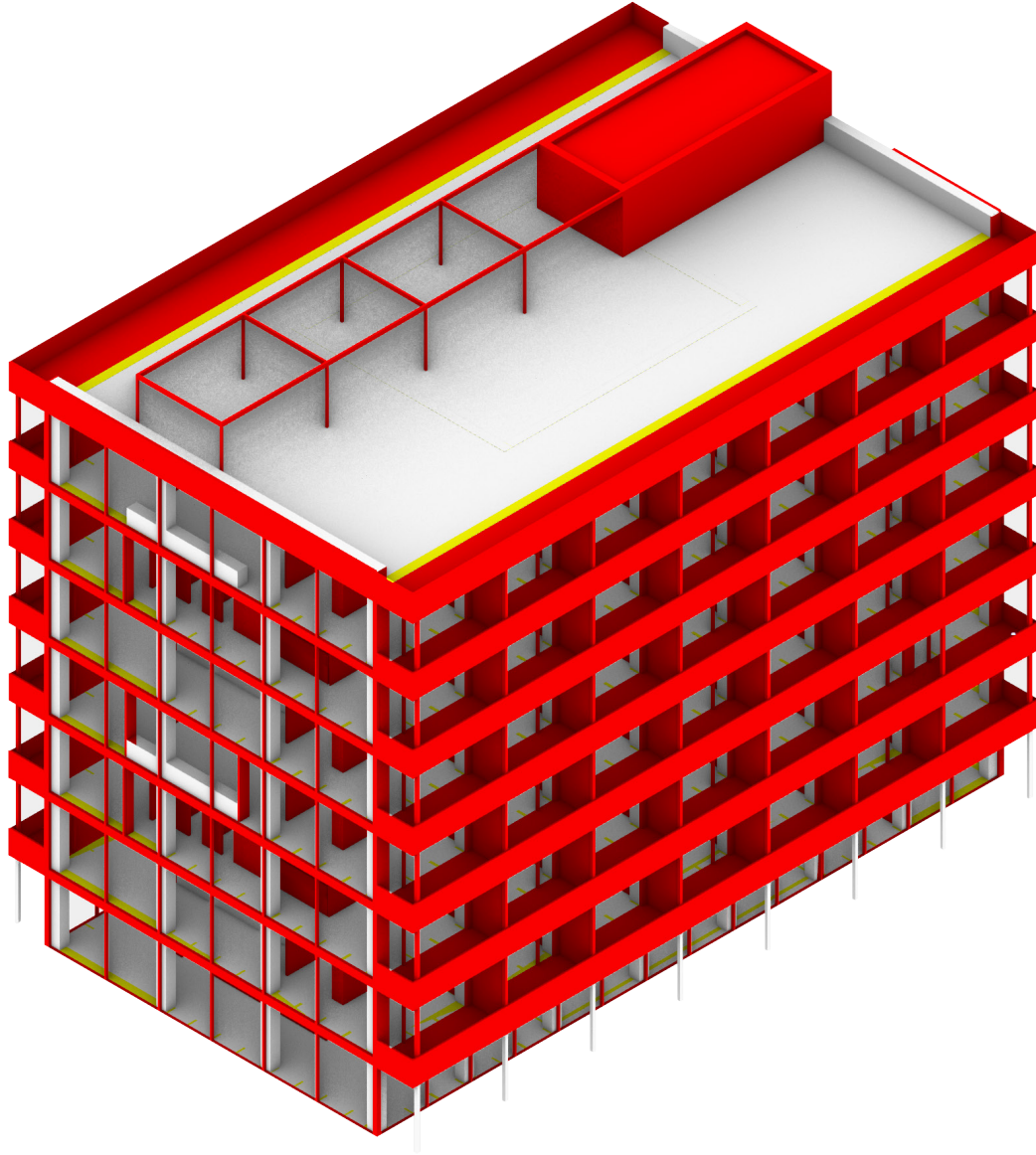
47
What qualities can unfold when the geometrically perfect spaces of a self-referential
solitaire is confronted with the impact of an adjoining structure?



HARUMI APARTMENTS

Kunio Maekawa

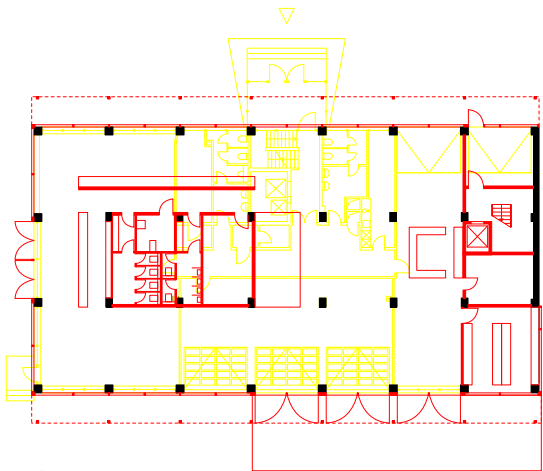
Harumi Apartments
Tokyo, Japan
1958



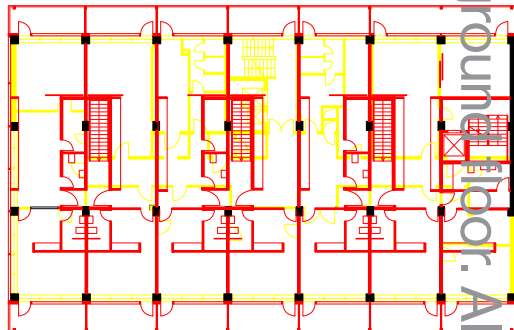
Isometric View

APARTMENTS

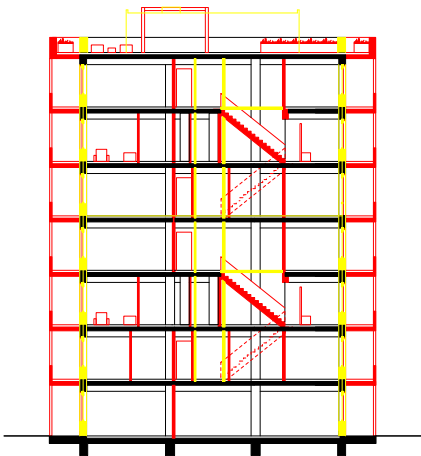
Maekawa's project does not hide its adaptation of the essential sectional principle of Le Corbusier's Unité d'Habitation. Here, single-story and maisonette units are bundled into three-story stacks and inserted into a prefabricated reinforced concrete skeleton sitting atop a public ground floor. All apartments are oriented in an east-west direction.



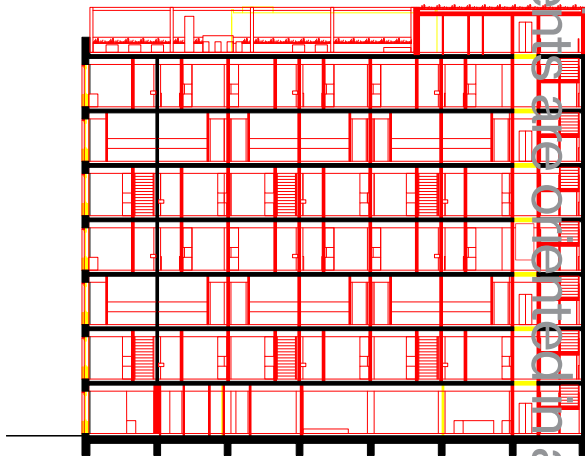
Ground floor



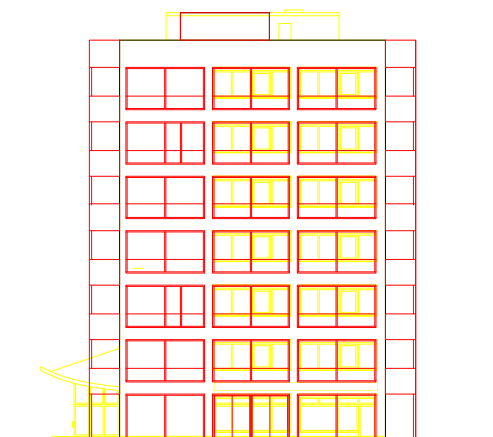
Standard floor



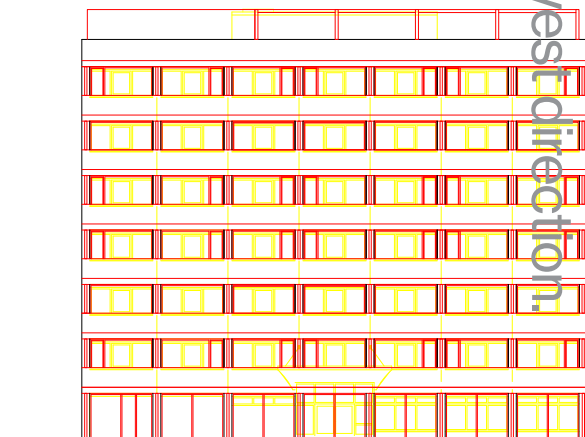
Cross section



Longitudinal Section



Side elevation



Front elevation

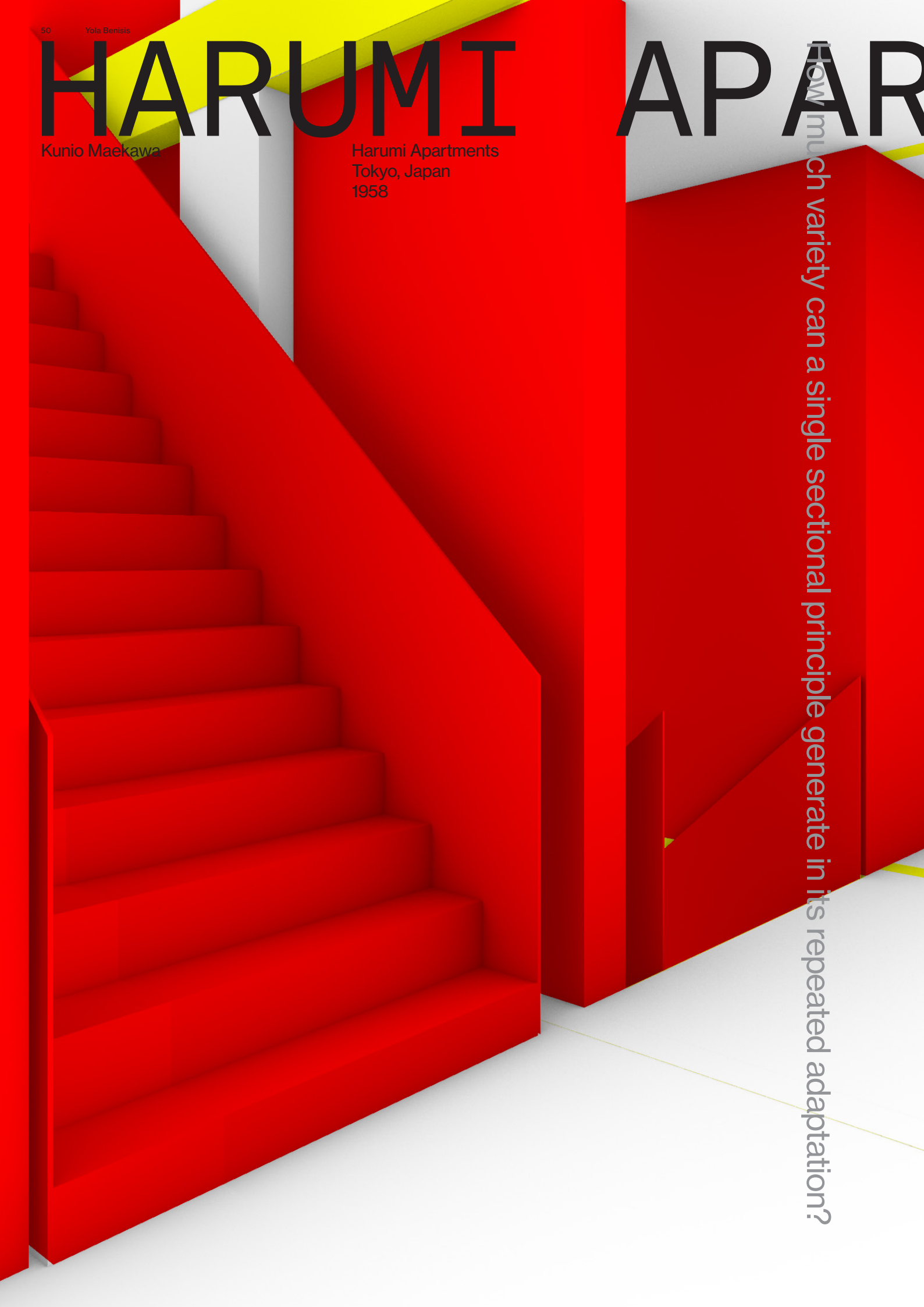
HARUMI

Kunio Maekawa

Harumi Apartments
Tokyo, Japan
1958

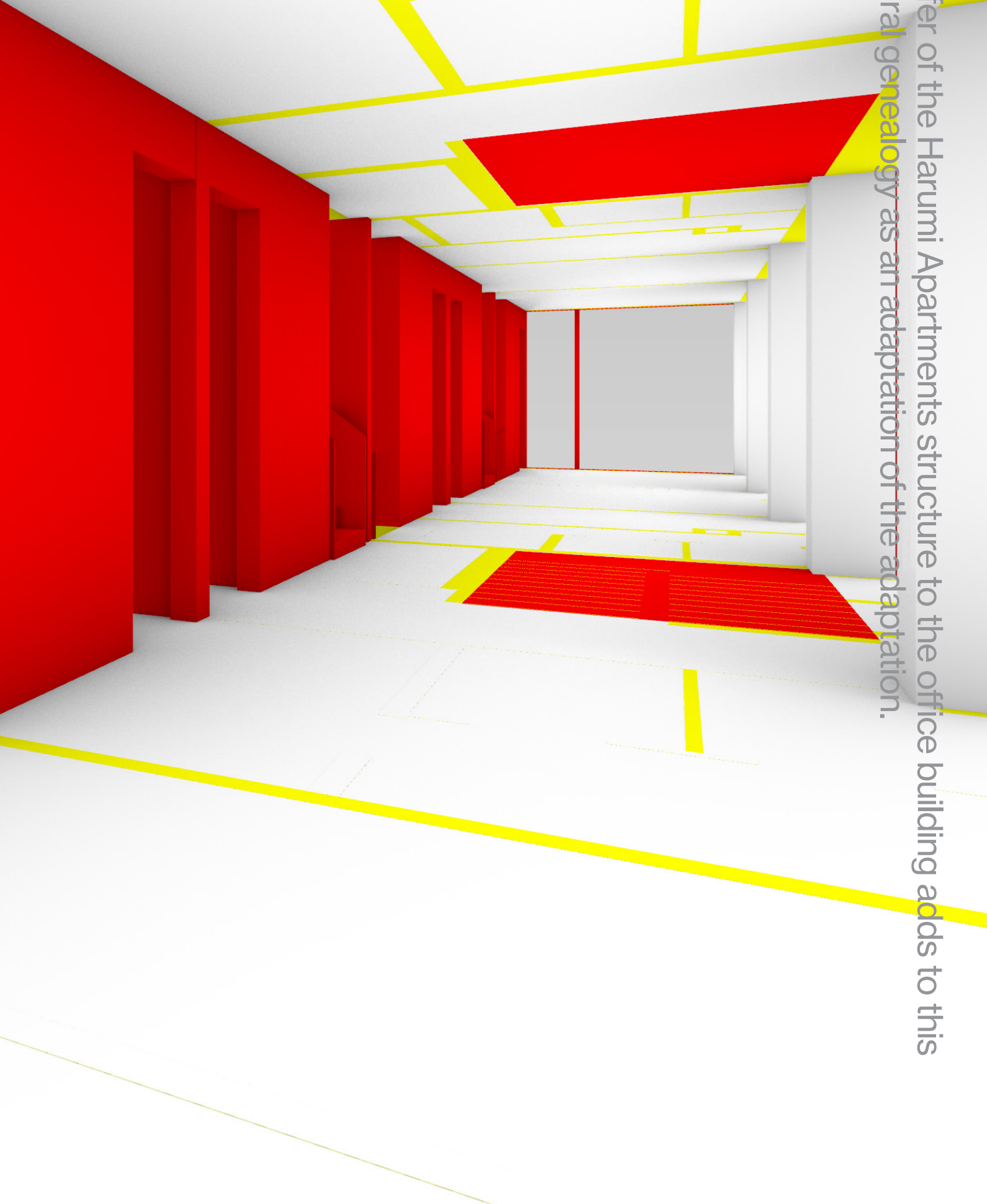
APAR

How much variety can a single sectional principle generate in its repeated adaptation?



APARTMENTS

The transfer of the Harumi Apartments structure to the office building adds to this architectural genealogy as an adaptation of the adaptation.



WHEN CIRCUM-
STANCES DEFEY
ORDER, ORDER
SHOULD BE NEEDED OR
BROKEN: ANOMALIES
AND UNCERTAINTY-
TIES GIVE VALIDITY
TO ARCHITECTURE