ATLAS

Housing Precedents

Documentation and Analyses by Students CCA Architecture Spring 2009

Students:

Molly Anderson

Cesar Arellano

Benjamin Barragan

Arun Bisessar

Joshua Campos

Rebecca Dean

Matthew Engman

Brittany Glover

Chris Kluthe

Olga Kozachek

Vivian Kwok

Richard Lyttle

Pia-Jacqlyn Malinis

Carlos Martinez

Ireen Massis

Will Meeker

will weeker

Tali Mithi

Tan Nguyen

Linda Northington

Douglas Ponciano

Rochelle Sandoval

Jacob Sealine

Anand Sheth

Rafael Silva

Carmen Smith

Alison To

Bret Walters

Michael Wlosek

Michael Wu

Alex Yeh

Min Chin Yi

Duncan Young

Maryam Zahedi

Elyce Zahn

Instructors:

Kory Bieg

Jesper Gottlieb

Virginia San Fratello

Kristen Sidell

Antje Steinmuller

Leonardo Zylberberg

Coordinator:

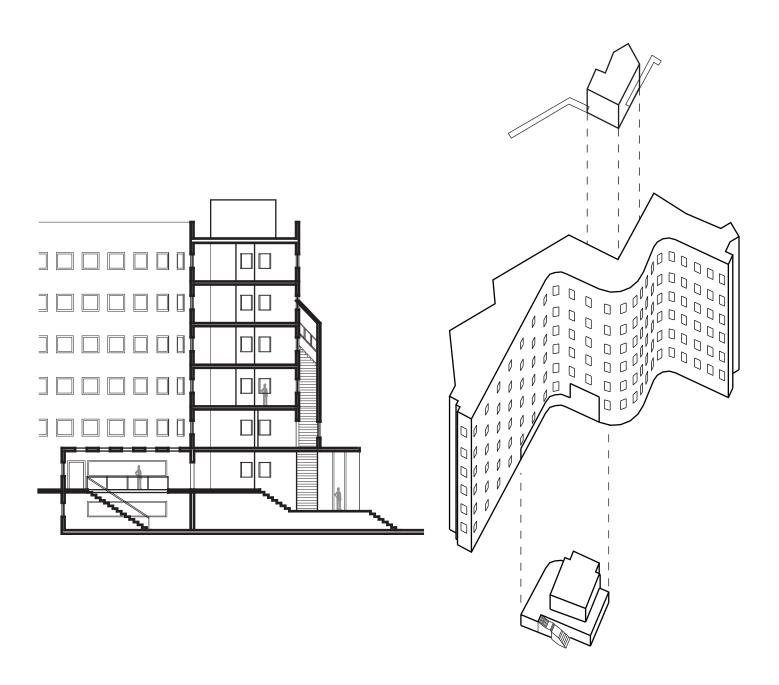
Jordan Geiger

	This book is comprised of work by undergraduate students, responding to a subjectively chosen ist of precedents compiled by the instructors of the current housing studio.
C	t is the result of collective research and analysis, swift work and standardized output that enables clear comparisan as a useful reference; and can serve as the basis for transformative and generative use in the design of students' own projects.
	The formatting and organization of the book were inspired by the book Floor Plan Atlas Housing / Grundrissatlas, Wohnungsbau, edited by Friederike Schneider.

Architects, Projects:

Alvar Aalto, Baker House Dormitory Alvar Aalto, Hansaviertel Apartment Block Alvar Aalto, Kauttua Stepped Apartments Tadao Ando, Rokko Housing II Atelier 5, Thalmatt Housing Bjarke Ingels Group, Mountain Dwelling Charles Correa, Kanchanjunga Apartments Office d'A, Macallen Building Steven Holl, Void Space / Hinged Space Hermann Hertzberger, Diagoon Dwellings Arne Jacobsen, Haendelallee 38-39 Le Corbusier, Unité d'Habitation / Cité Radieuse Lundgard & Tranberg, Tietgen Dormitory MVRDV, Mirador MVRDV, Silodam Housing Neutelings Riedijk, Hollainhof Jean Nouvel, Nemausus OMA / Rem Koolhaas, Friedrichstraße Housing OMA / Rem Koolhaas, Nexus World Housing Renzo Piano, Rue de Meaux Alfonso Reidy, Conjunto Residencial Pedregulho Moshe Safdie, Habitat '67 SANAA, Gifu Apartments Hans Scharoun, Romeo and Juliet Rudolph Schindler, Pueblo Ribera Court Alvaro Siza, Bouca Social Housing Giuseppe Terragni, Casa Giuliani-Frigerio UN Studio, Water Villas Almere Ludwig Mies van der Rohe, Lakeshore Drive Apartments Erik van Egeraat, Housing 13, IGA '93 Aldo van Eyck, Orphanage

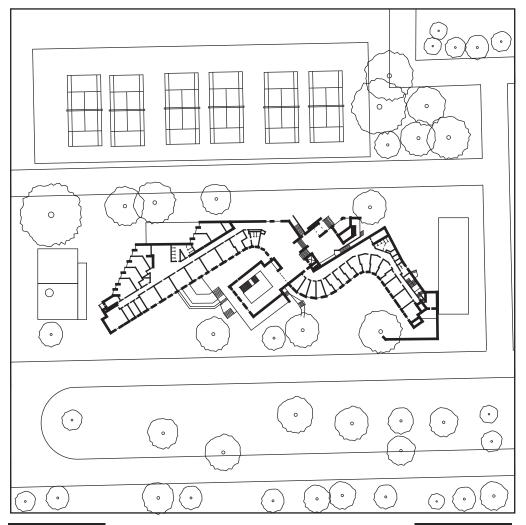
Peter Zumthor, Residential Home for the Elderly



Analysis

The Baker House Dormitory is situated on the southern side of the Massachusetts Institute of Technology, placed adjacent to the charles river. the dormitory is 'W' shaped with an entryway and dining facilities intersecting the base form in the center. The entryway of the dormitory is recessed as is the dining hall and lounge generating a more intimate space with the long curving hall. Negative space created from the 'W' shape and its rectilinear city block also creates additional alcoves of greenery, giving unique and selected experiences. Much like the individual indentations of the dormitory, each room funnels a new experience from corridor to room and room window to exterior for the occupant as the corridors undulates in curves. Circulation throughout the dormitory is standardized and simple as there is one corridor that leads through the center of the building. Verical circulation is, however, unique, in that it is extruded from the base curve, forming two diagonals stemming from the main entry. (picture 2) It also provides a consistent view port that allows views across to the adjacent tennis courts and is constructed of similar windows like the individual dormitory windows.





- 2 unit

Unit Plan Key

- 1 live
- 2 eat
- cook sleep
- 5 bathe







Architect Alvar Aalto

City / Location

Cambridge, Massachusetts

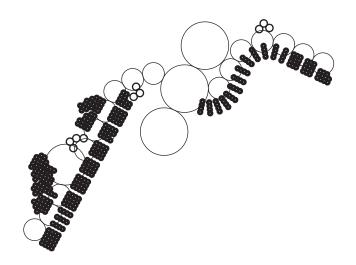
Year Designed / Built

1947 / 1949

Area, # Floors, # Units

x SF 6 Floors 33 Units / Flr

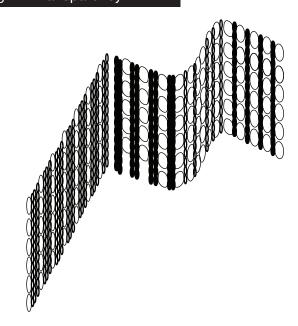
Part-Whole Relationships



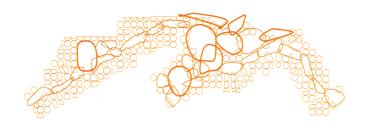
Thresholds + Porosity

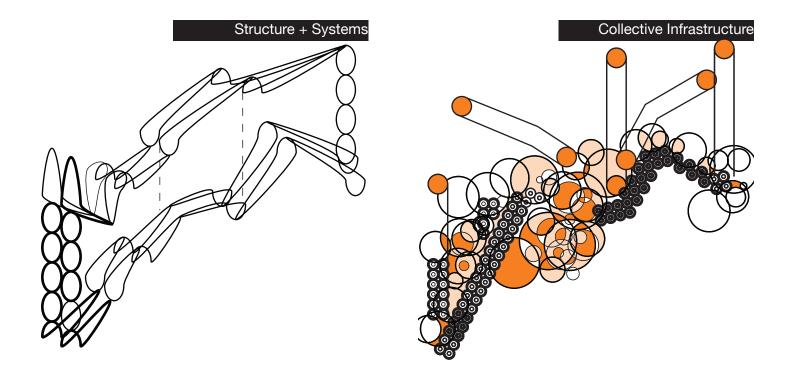


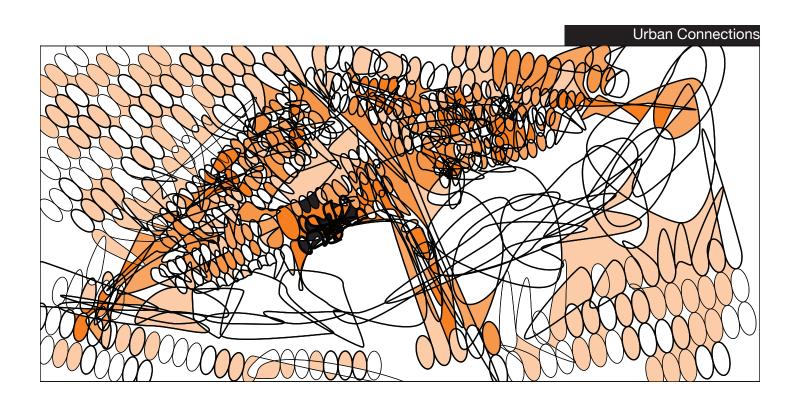
Light + Transparency

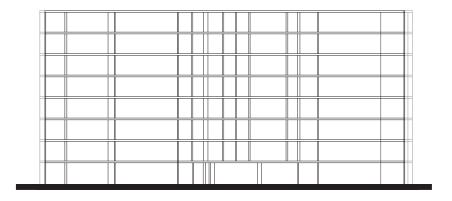


Access + Circulation

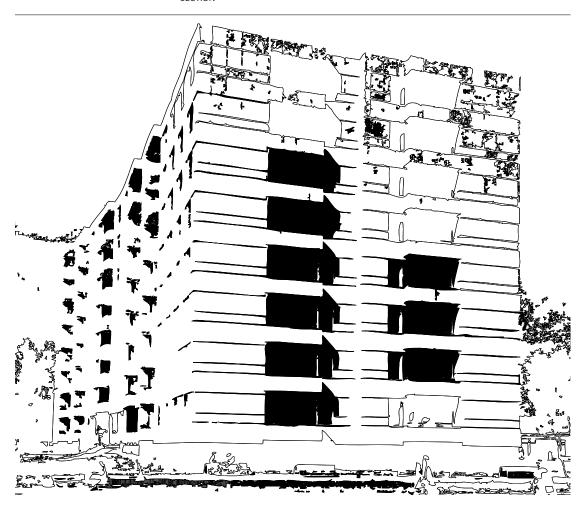








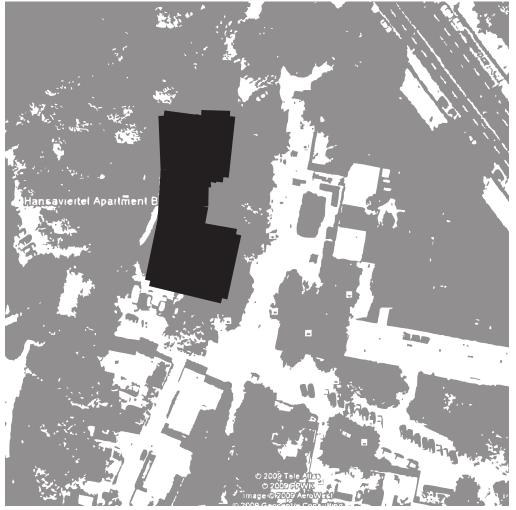
SECTION



Analysis

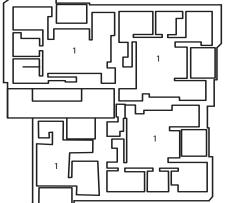
The Hansaviertel Apartment Block was designed by Alvar Aalto. It consists of 78 apartments grouped in 8 stories. They were built in 1957 in the city of Berlin. The floor plan rotates around a common central stair corridor. The apartment plan is formed around the narrow balcony. The circulation between rooms is connected organically and it moves around the center without stopping. The balconies are deeply inset, giving depth to the building as a whole instead of leaving it a solid block. The plan is modern, with much open space just as in an atrium which is used to create a sense of outdoors within a dwelling. The individual apartments are not the only areas of open space. On the ground floor of the apartment block there exists an open communal space. So, in a way, the floor plan mimics the ground floor; private space is formed around the public space.





Unit Plan Key

- live
- 2 eat
- sleep
- 4 bathe



Architect

Alvar Aalto

City / Location

Berlin

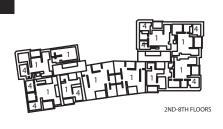
Year Designed / Built

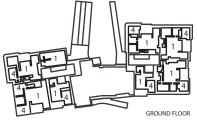
1957

Area, # Floors, # Units

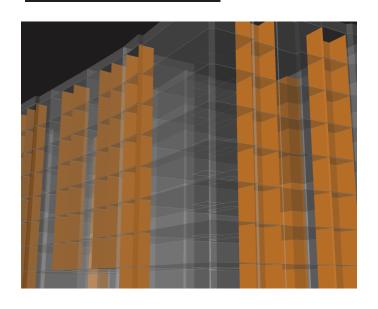
Area (SF) 8 Floors 78 Units

- Plan Key 1 common
- 2 unit

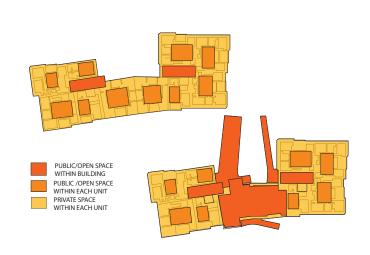


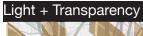


Part-Whole Relationships



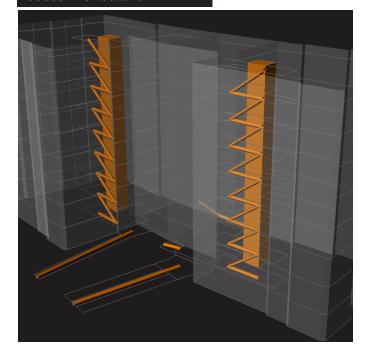
Adjacencies: Public vs Private



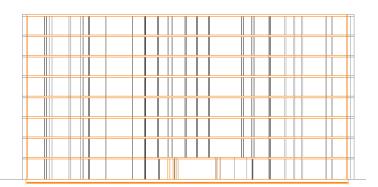




Access + Circulation

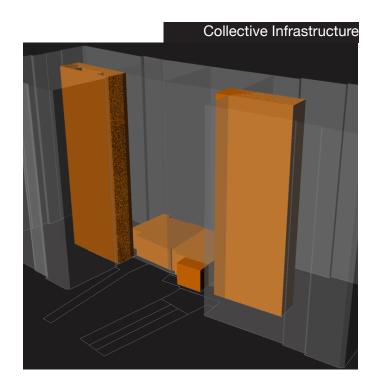


Structure + Systems



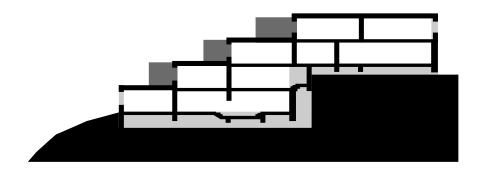
STRUCTURAL/LOAD-BEARING ELEMENTS, FOUNDATION/GROUNDWORK

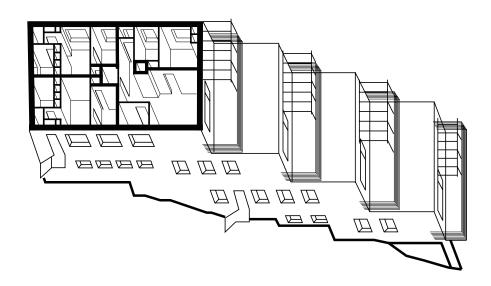
ELEVATION/SECTIONAL VIEW



Urban Connections







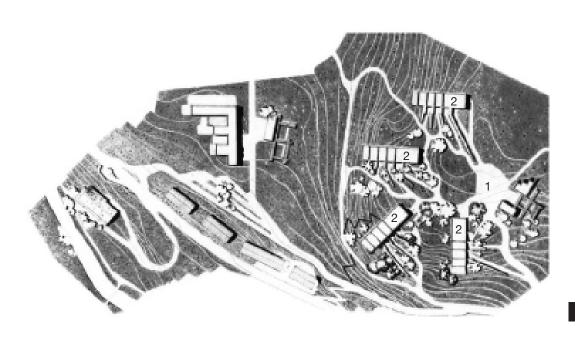
Analysis

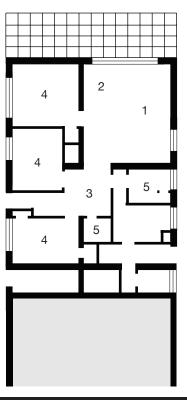
Simple in organization and strategy, the Kauttua Stepped Complex responds a sloping landscape through a conventional means of stacking and offsetting to create private outdoor spaces. Each building is oriented by the direction of the slope as well as the rotation of the sun to maximize day lighting among all for complexes, while at the same time surrouding a flat, central shared space. Aalto also creates an spatial sequence, as one travels from the rural hill into the very compartmentalized unit, the resident moves among an ordered scale of public and private space at all times.











Architect

Alvar Aalto

City / Location

Kauttua, Finland

Year Designed / Built

1937-1940

Area, # Floors, # Units

16,000 sq. ft. 4 Floors 16Units

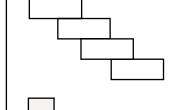
Plan Key

- 1 common
- 2 unit

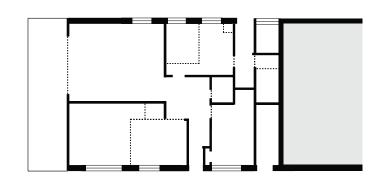
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

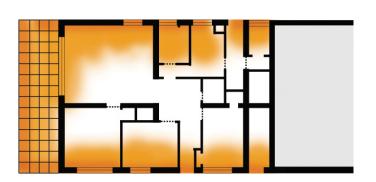
Part-Whole Relationships



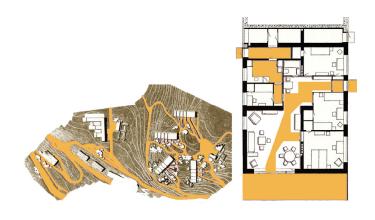
Thresholds + Porosity



Light + Transparency

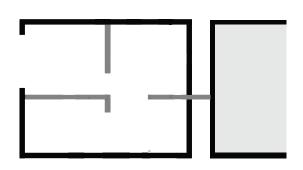


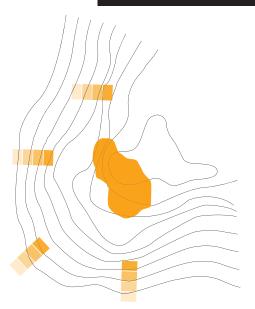
Access + Circulation



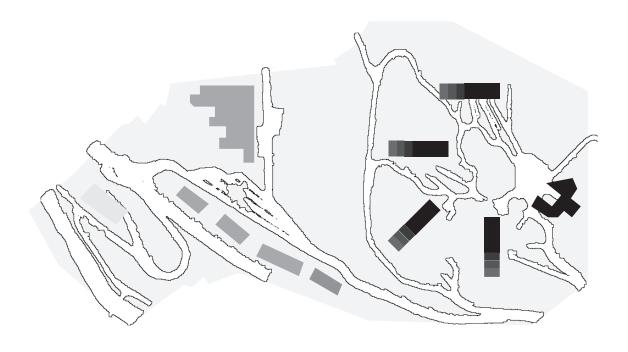
Structure + Systems

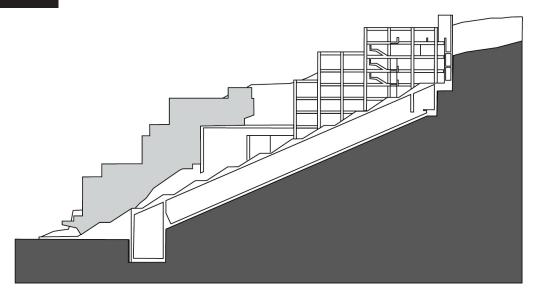
Collective Infrastructure

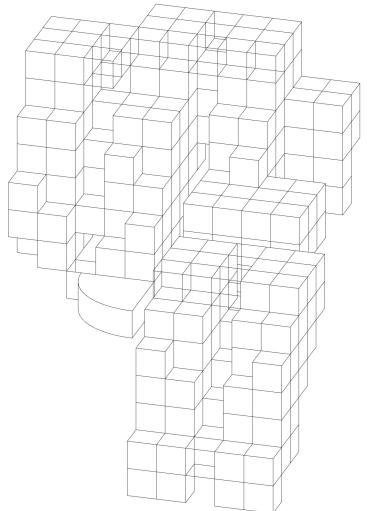




Urban Connections



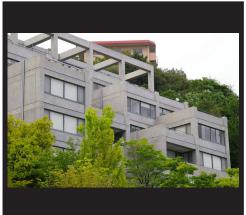




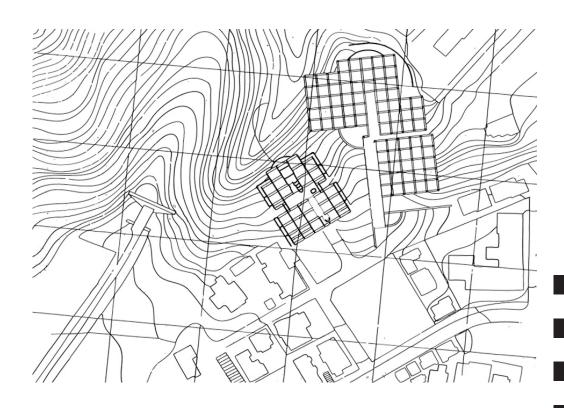
Analysis

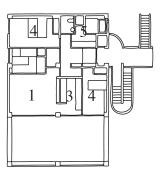
The Rokko Housing in Kobe is an experiment in social architecture. Multi-family housing is not usually desirable and never thought of as a place or the elite. The architect, Tadao Ando, built this housing structure for the social elite. His idea was that even if the residents don't interact, the fact that they have chosen to live in this housing means that they have chosen to be in this "collective spirit." The Rokko Housing consits of a repeating series of rectangular blocks that form a grid. It embodies the "spirit of the cube" which provides an interesting juxtapostion with the mountain that it sits on. Each unit has an unobstructed view of the sea and a private outdoor terrace.











Architect

Tadao Ando

City / Location

Kobe, Japan

Year Designed / Built

1985-1993

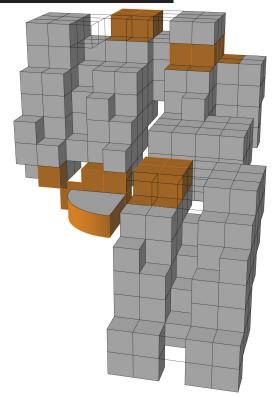
Area, # Floors, # Units

277(SF)/Cube 12 Floors 50 Units

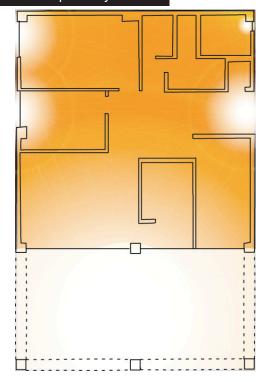
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

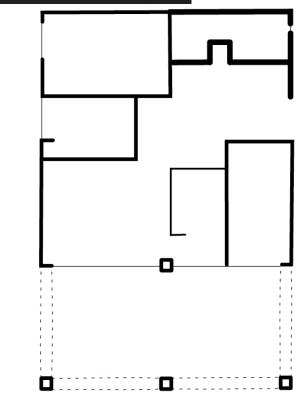
Part-Whole Relationships



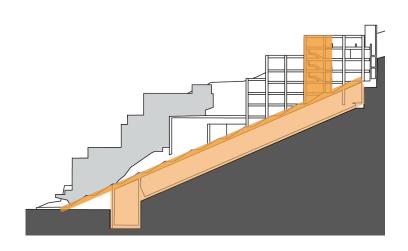
Light + Transparency

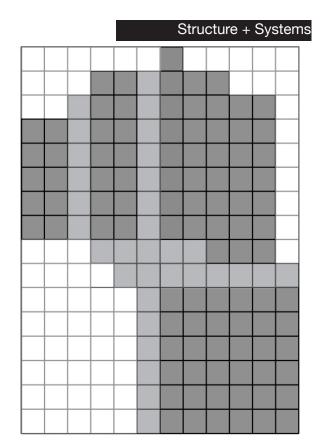


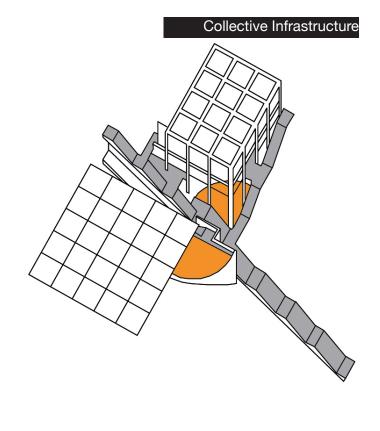
Thresholds + Porosity



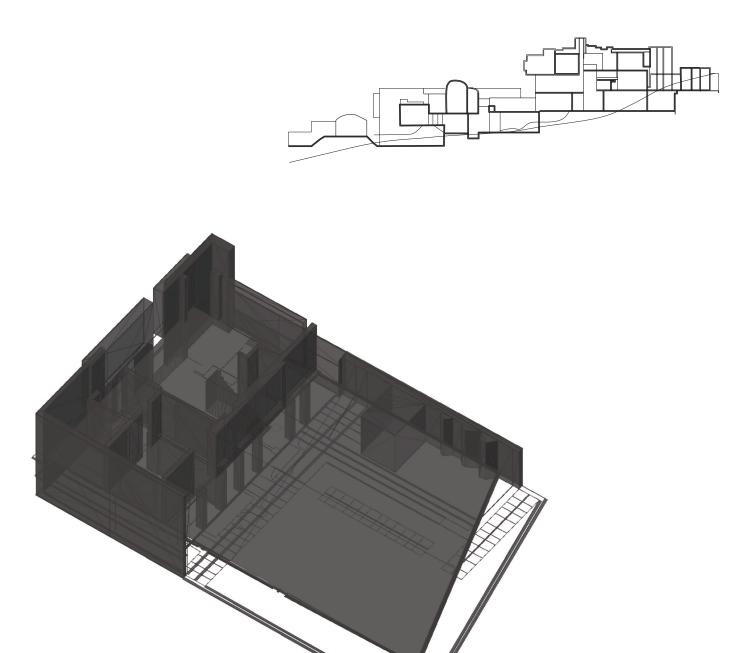
Access + Circulation







Urban Connections



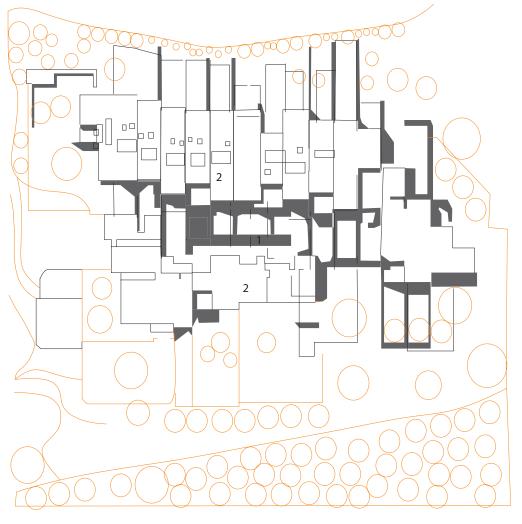
Analysis

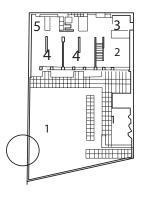
The Thalmatt housing project reflects the ideas of a village. The tightly stacked terrace houses and seclusion from all its surroundings along with the vegetation that keeps it almost completely secluded creates a unique connection between indoor privacy and outdoor privacy. Concrete is consistently used in this project which gives it a feel of complete opacity and privacy. Light is entered into the house by cut outs in various places in the walls and ceilings. Shared terraces and common spaces bring the "village" together creating an easy circulation and access into all houses in the center of the project.

Thalmatt Housing









Architect

Atelier 5

City / Location

Bern, Switzerland

Year Designed / Built

1974

Area, # Floors, # Units

18 Terraces houses 2-3 story units

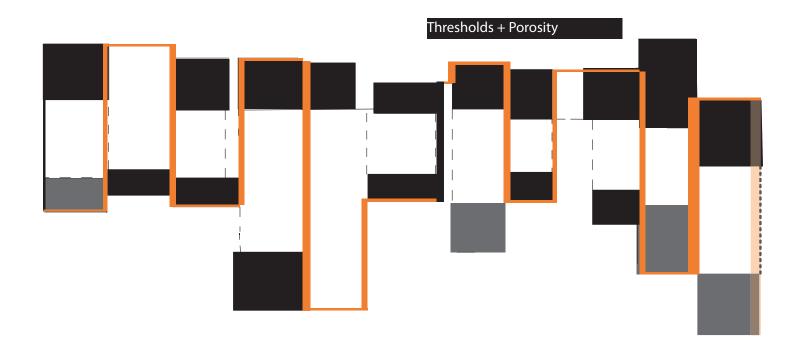
Plan Key

- 1 common
- 2 unit

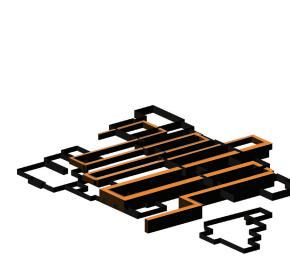
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Thalmatt Housing

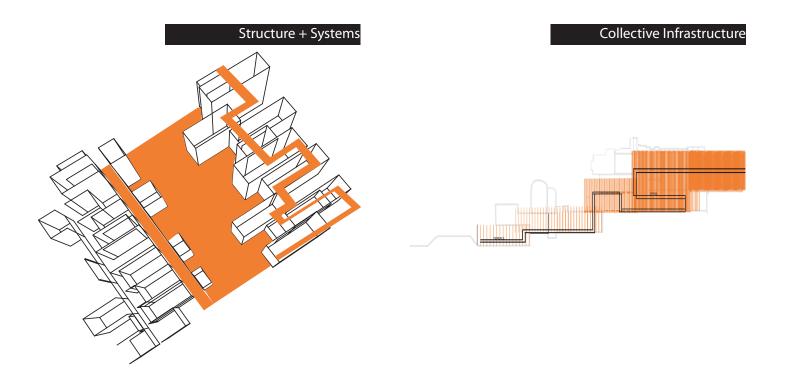


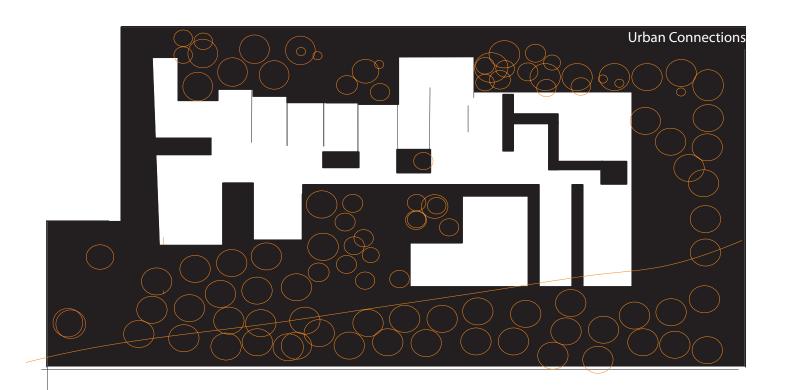




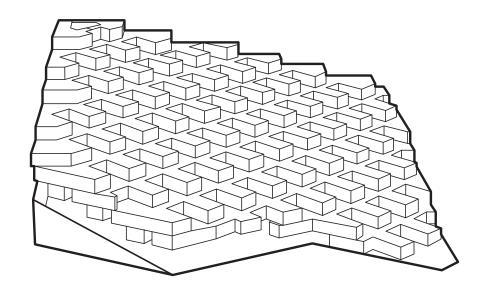
Access + Circulation

Thalmatt Housing





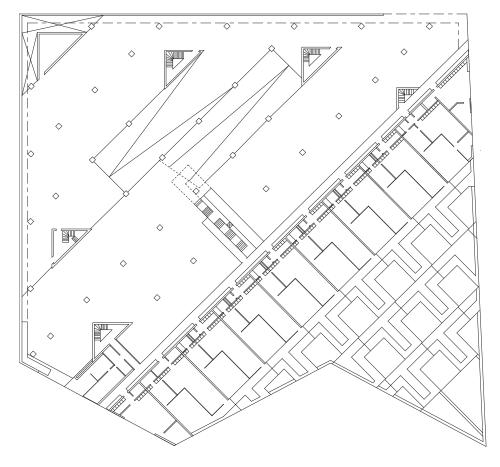


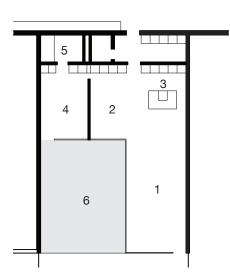


Analysis

Mountain Dwelling utilizes the symbiotic relationship of parking to housing to combine the suburban backyard experience with urban density. The parking structure serves as the foundation for the housing program. The housing units are stacked in a diagonal, like the slope of a mountain. This allows for each unit to have views and light from the south.







Architect

Bjarke Ingels Group

City / Location Copenhagen

Year Designed / Built 2006/2008

Area, # Floors, # Units

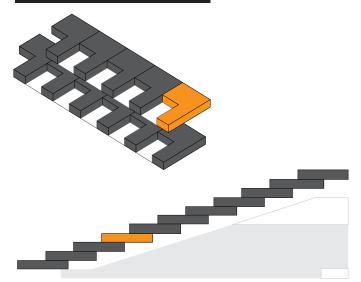
Area (SF) 10 Floors 80Units

3 Floor Plan

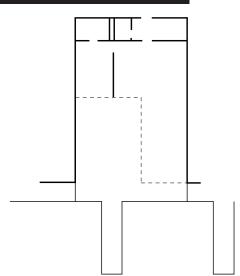
Unit Plan Key

- 1 Live
- 2 Eat
- 3 Cook
- 4 Sleep
- 5 Bathe
- 6 Outdoor Courtyard

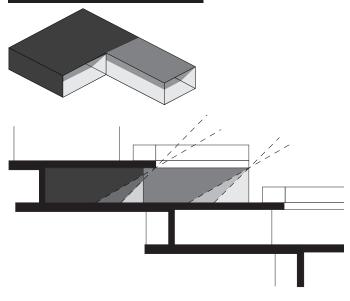
Part-Whole Relationships



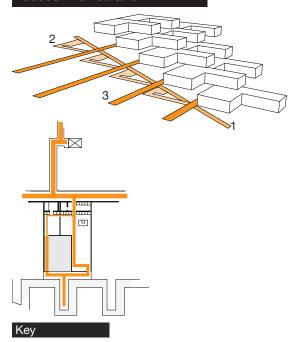
Thresholds + Porosity



Light + Transparency



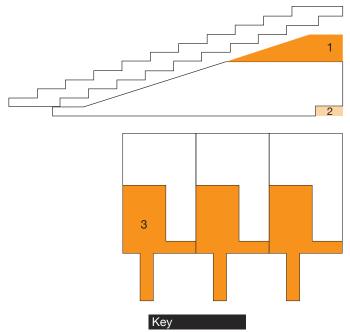
Access + Circulation



- 1 Sloping elevator
- 2 Footbridge
- 3 Access corridor

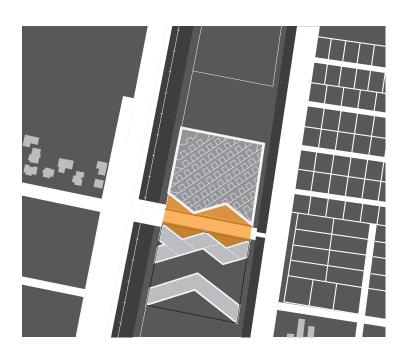
Structure + Systems

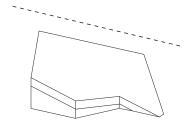
Collective Infrastructure

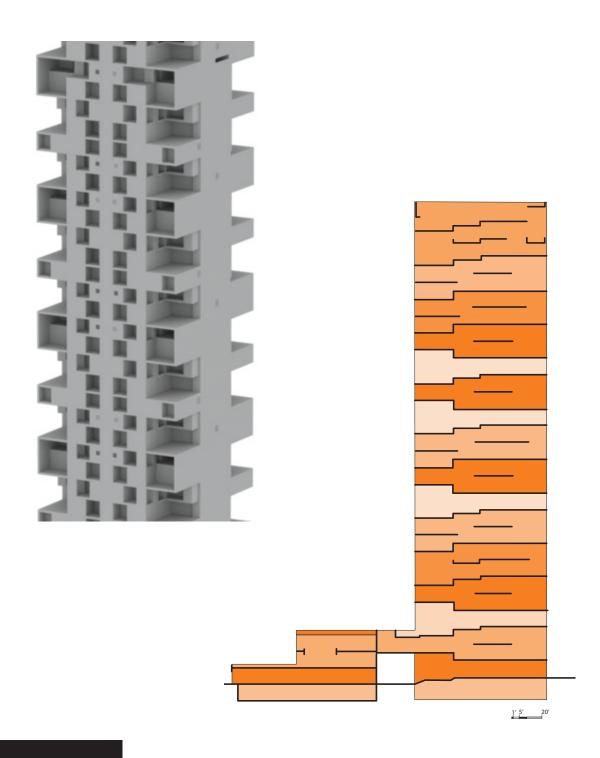


- 1 Common Area
- 2 Commercial
- 3 Courtyard Space

Urban Connections







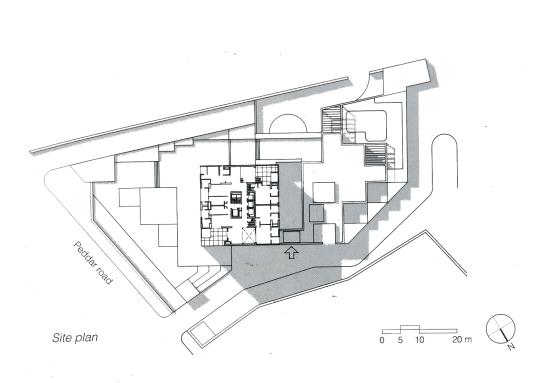
Analysis

Employing vernacular strategies, Charles Correa uses a series of verandas and open floor plans to create the units of the Kanchenjunga apartments, located in Mumbai, India. Verandas opening to the West and East allow for views and cooling sea breezes, while protecting from harsh sun and monsoons. The aggregation of these units is based upon programmatic needs of smaller to larger families. This aggregate is formed by interlocking the units in section, which produces two predominant results. Firstly, double story voids are produced, which allow multiple terraces for each unit. Secondly, the slight elevation changes more intimately define different spaces within the open floor plan.













Architect

Charles Correa

City / Location

Mumbai, India

Year Designed / Built

1970-83

Area, # Floors, # Units

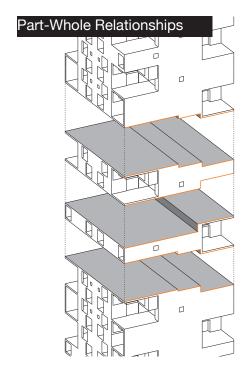
46,580 (SF) 28 Floors 32 Units

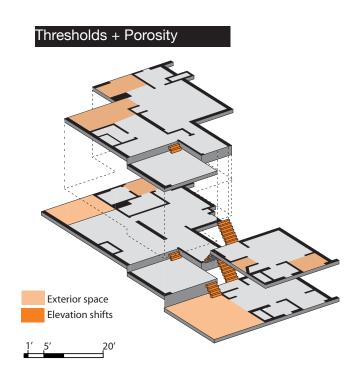
common

2 unit

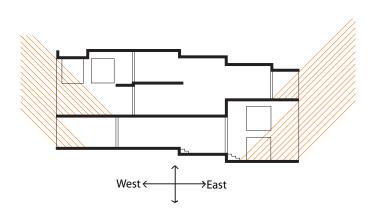
Unit Plan Key

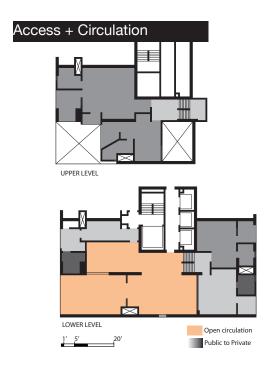
- 1 live
- 2 eat
- cook
- 4 sleep
- 5 bathe

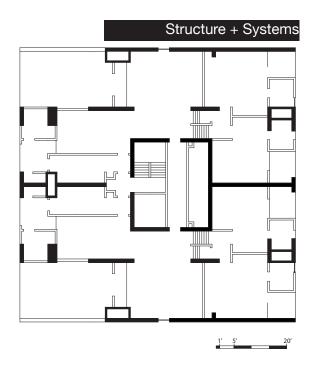


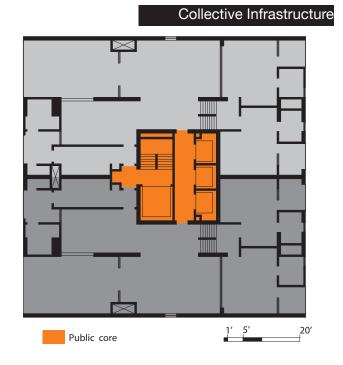


Light + Transparency



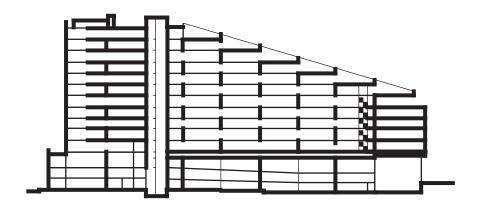


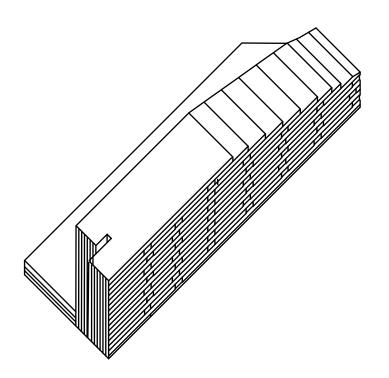




Urban Connections



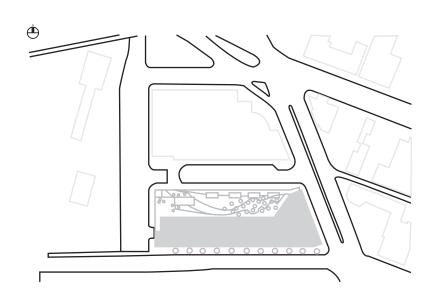


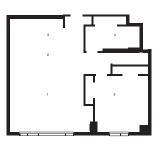


Analysis

Situated in Downtown Boston, the Macallen Condominiums, designed by Office DA, introduces sustainable design to a highly industrious site. The design solution is a direct response to the site through its scale, environmental conditions, and proximity to Downtown Boston's skyline. These factors then dictated how the units were going to be aggregated to compose one cohesive building. The building takes on a wedged shape that tapers at the east side as a gesture responding to an urban scale to the residential side conforming to the architectural scale. In addition, the tapering of the building generates the opportunity to stagger the units from west to east. Staggering the units then allow the design to incorporate rainwater as a recyclable method used to irrigate the green rooftops. Its north facing façade accompanied by brises-soleil reduces heat gain and loss while also serving as a shading and natural lighting for each unit. Lastly, the façade allows the units to isolate views into Downtown Boston while blocking out industry views.









Unit Plan

Architect

Office dA
City / Location

Boston, MA

Year Designed / Built

2002 /2007

Area, # Floors, # Units

350,000 (SF) 11Floors 140 Units

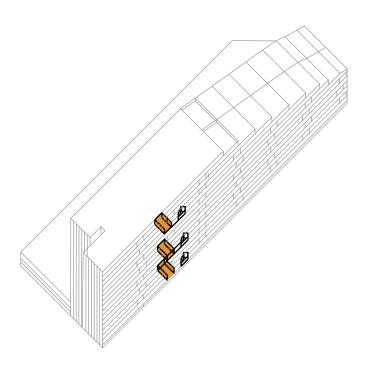
Plan Key

- 1 commor
- 2 unit

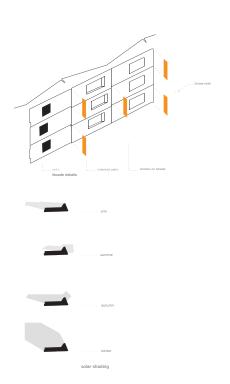
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

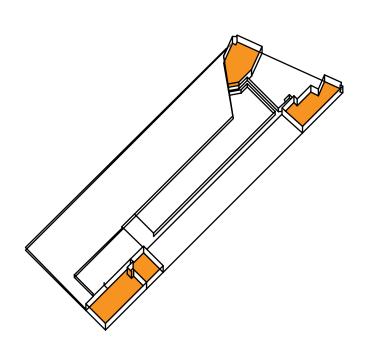
Part-Whole Relationships



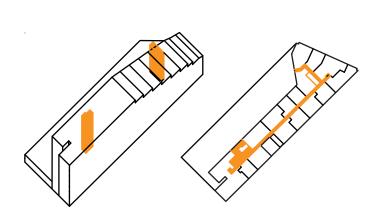
Light + Transparency



Thresholds + Porosity



Access + Circulation

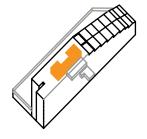


Structure + Systems

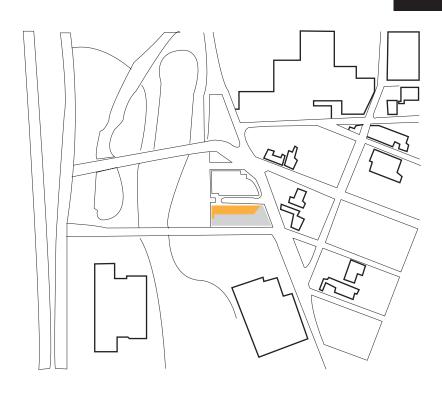


Collective Infrastructure

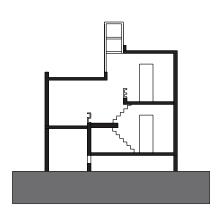


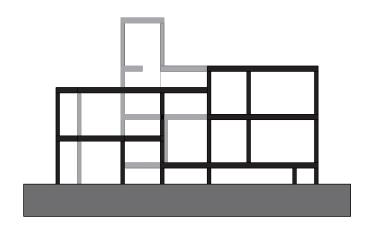


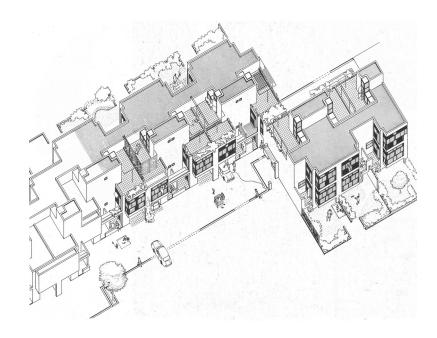
Urban Connections



Diagoon Dwellings







Analysis

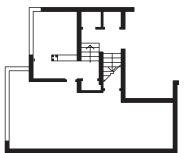
The Diagoon House is based on the idea of an 'incomplete building'. Meaning the plan is to some extent indefinitive. The units maximize program flexibility within the same underlying structure. There are two fixed cores; one encloses the stairs, and the other contains a kitchen and a bathroom. In between the fixed cores are a series of half-story levels. The first level contains the entrance, a workroom with storage and a small or large garage. Up a half-story, the core that contains the kitchen is the focus point leaving the space around it up for interpretation. Moving up another half-story to the third level, private rooms can be configured around the core containing the bathroom. Each Unit is a mirror of the adjacent units. The structures of the cores are shared with the units on either side. On the exterior, the units share roof terraces and outer courtyards.

Diagoon Dwellings

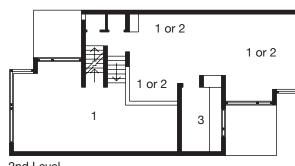


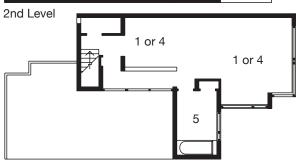




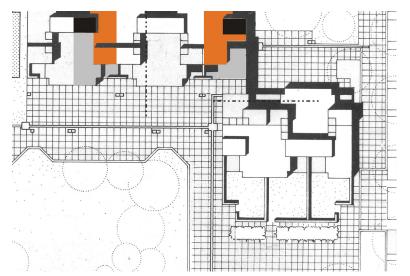


1st Level





3rd Level



Architect

Herman Hertzberger

City / Location

Delft / Beethovenlaan 62

Year Designed / Built

1971

Area, # Floors, # Units

Area (SF) 2 to 3 story 8 Units

Plan Key

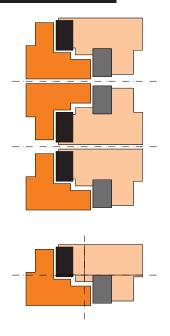
- 1 common
- 2 unit

Unit Plan Key

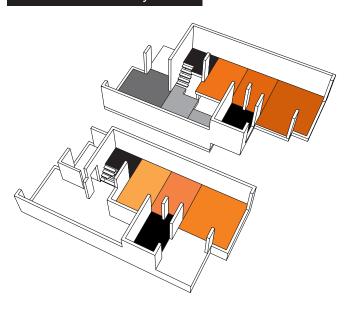
- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Diagoon Dwellings

Part-Whole Relationships



Thresholds + Porosity



Light + Transparency



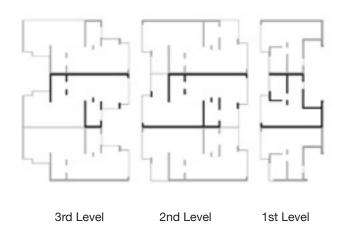
Access + Circulation

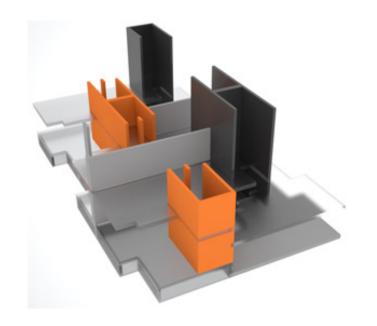


Diagoon Dwellings

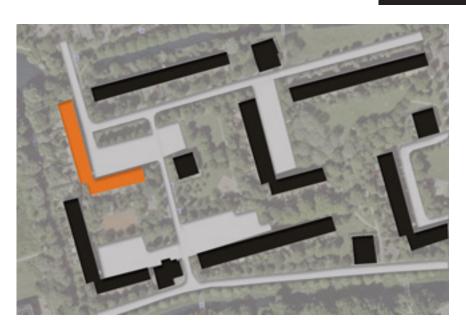
Structure + Systems

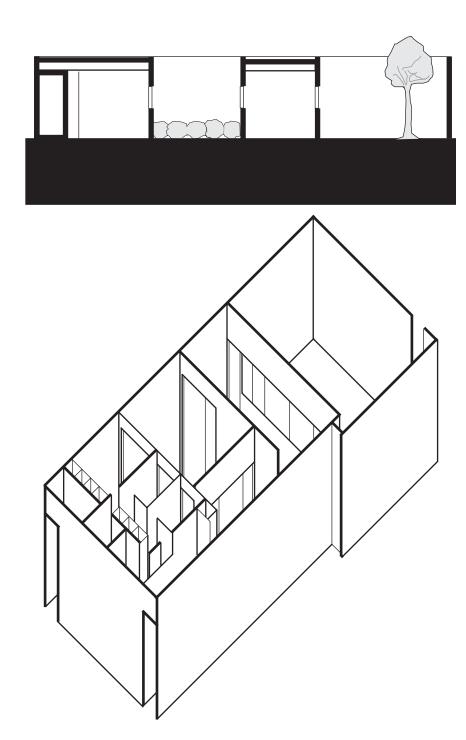
Collective Infrastructure





Urban Connections





Analysis

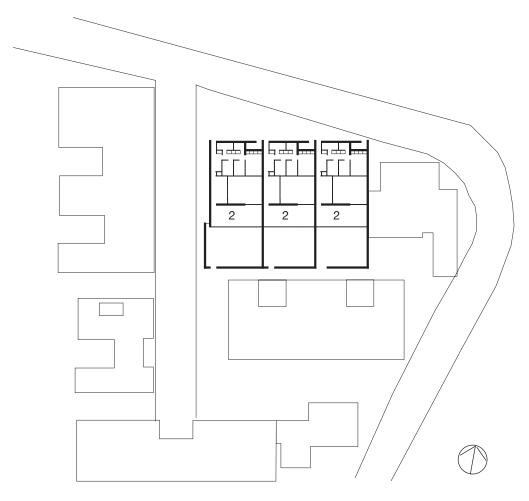
This series of homes was designed and constructed for the "Interbau" 1957 in Berlin. This exhibition offered various solutions for the housing shortage resulting from the bombing of Berlin in World War II and subsequent sequestering of this area by Soviet forces – actions necessitating the optimal use of architectural space. The house maximized security and privacy through use of a solid perimeter wall. These units face north-south, with the windows lying primarily on the south faces of each unit. This configuration maximizes the opportunity for natural lighting throughout each habitable space. Light enters into the small residence through the creation of two internal landscaped courtyards which serve to visually enlarge the 712 square foot home. The bedrooms, kitchen and living room all ring the smaller greenspace, which is accessed from either the kitchen or the living room. The living room is further lit by the larger courtyard which lies to the south side of this space.

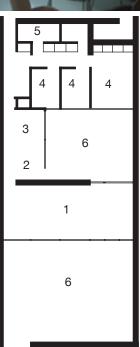
Haendelallee 33 - 39











Architect

Arne Jacobsen

City / Location

Berlin, Germany

Year Designed / Built

1956 / 1957

Area, # Floors, # Units

712 s.f. (interior space)

1 Floor

3 Units

Plan Key

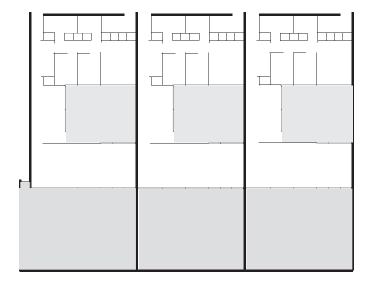
- 1 common
- 2 unit

Unit Plan Key

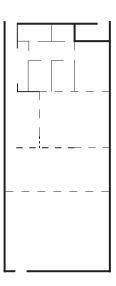
- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe
- 6 garden

Haendelallee 33 - 39

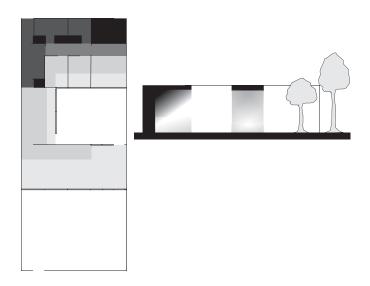
Part-Whole Relationships



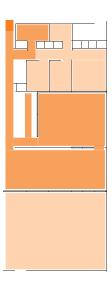
Thresholds + Porosity



Light + Transparency

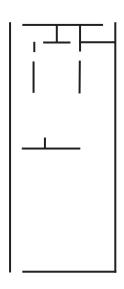


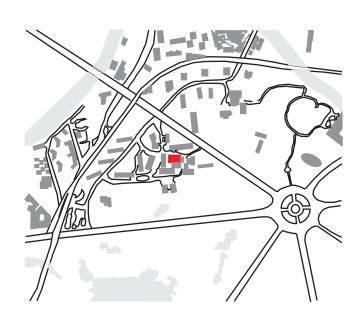
Access + Circulation



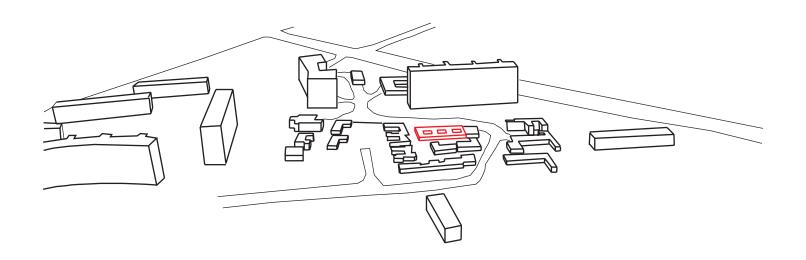
Structure + Systems

Collective Infrastructure

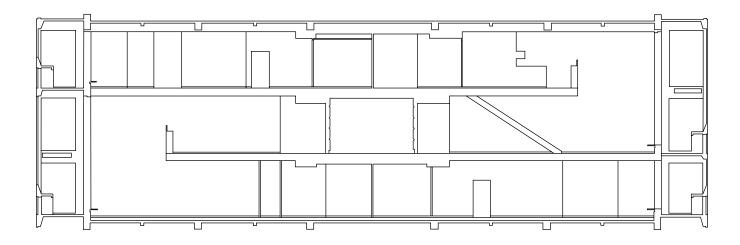


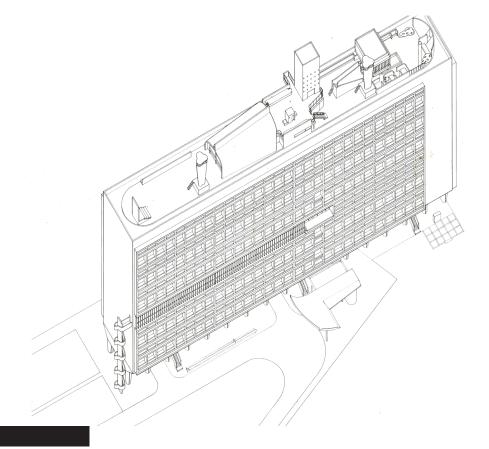


Urban Connections



Unite d'habitation



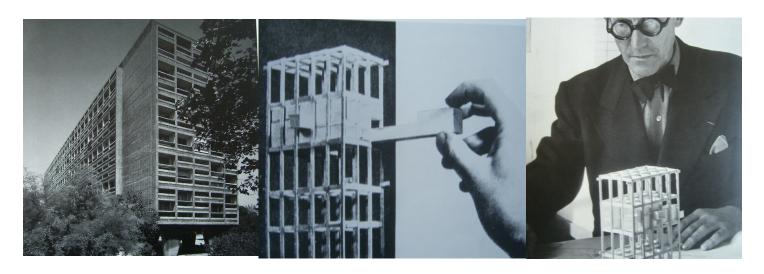


Analysis

Industry creates pure forms of a modern intention to illustrate the virtue and structural freedom of urban dwelling. Corbusier's Unite d'Habitation began with a modular interplay between interlocking forms producing a multi leveled interwoven urban dwelling. The vertical garden city within Marseilles, France produced a new architectural and social typology to aid the housing crisis of post war France. This new typology was primarily achieved through a structural freedom through reinforced concrete and steel to show that dwellings can be standardized to meet the need of men whose lives are standardized.

The machine age had brought about this new transition and modeled an archetype for construction after the pure unfaltering precision of the mechanical world. This mechanical presence is interlinked into the central urban core of multiple two story modular units interlocked through a centralized circulation. Above this mechanized unit is a more natural and freely formed concrete exterior that attempts to escape the rigid modular dwellings. Light and air freely moves through each solar oriented unit to maximize exposure to either eastern or western light. Every attention to detail portrays Corbusier's commitment to discovering an underlying architectural order equivalent to that of only nature.

Unite d'habitation





Scale 1/32" = 1'-0" In Section Scale 1/128" = 1'-0" In Plan

> Architect Le Corbusier

City / Location

Marseille, France

Year Designed / Built

1947 /1952

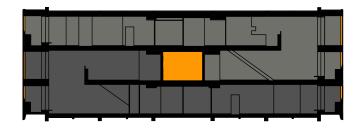
Area, # Floors, # Units

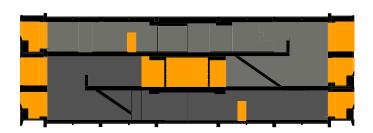
Area: 386,130sq ft

Floors: 12 Units: 366

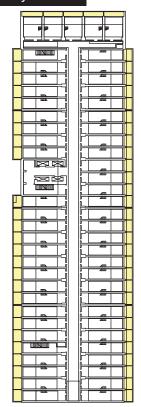
Part-Whole Relationships

Thresholds + Porosity

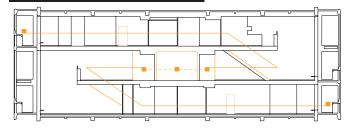


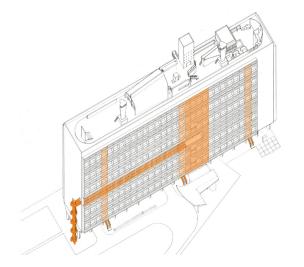


Light + Transparency

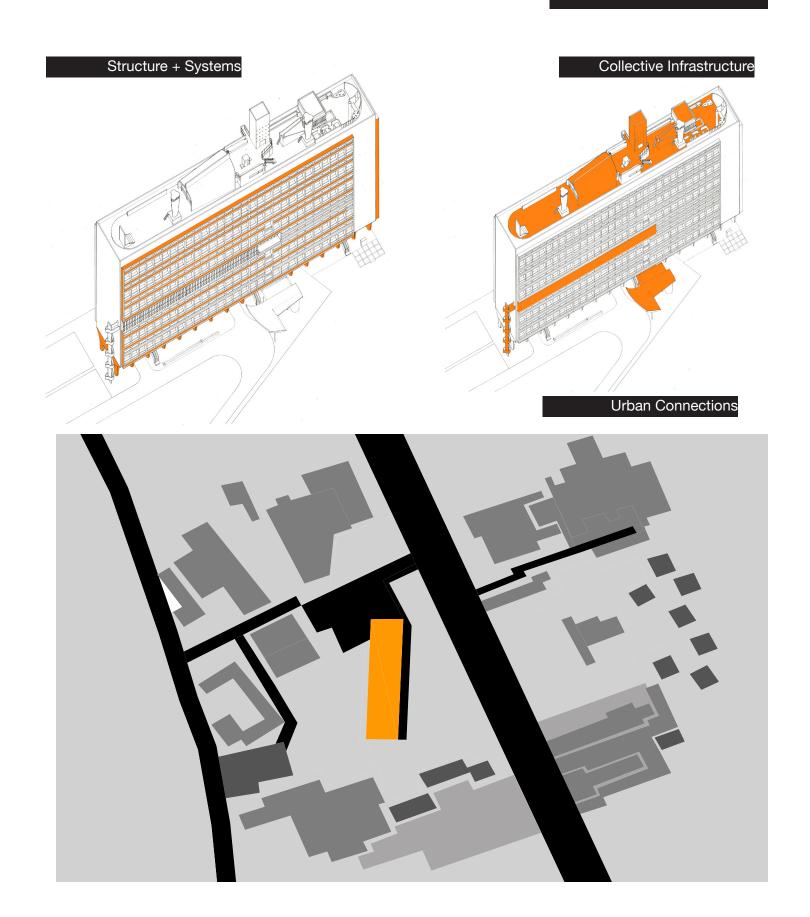


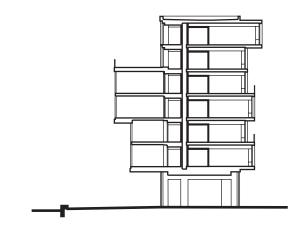
Access + Circulation

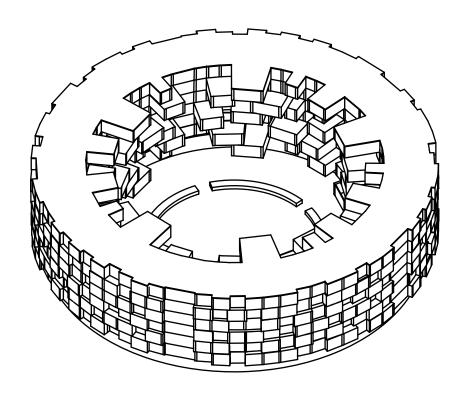




Unite d'habitation



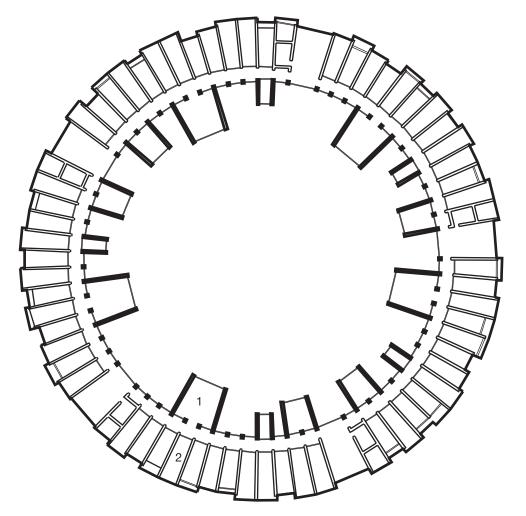


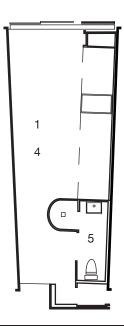


Analysis

Lundgaard and Tranberg's Tietgen Dormitory in Copenhagen is a symbolic building designed to function as an ideal living space for college students. The formal symbolism resides in the fact that the building is circular while the rooms are separate projecting volumes – representing the unique individual within the united community. The schematic symbolism resides in the layout and separation of public and private. The private dorm rooms are positioned along the outer circumference of the building facing outward, while the semi-public spaces, such as kitchens and study areas, are positioned along the inner circumference facing the public central courtyard, which is open to residents and non-residents alike. The Tietgen Dormitory is strikingly similar to a panoptical prison in Cuba – all of the occupants of the public spaces are constantly under surveillance, not by prison guards, but by each other. The public spaces are oriented toward each other as an attempt to evade the feeling of isolation typical of many dorm residents.







Architect

Lundgaard and Tranberg

City / Location

Copenhagen, Denmark

Year Designed / Built

2002/2003-2006

Area, # Floors, # Units

288,000 sq. ft. 7 Floors 360 Units

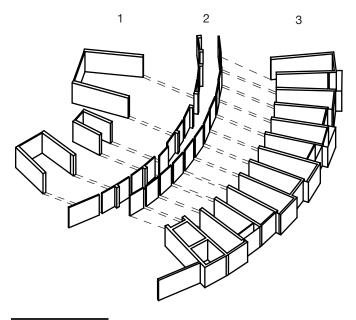
Plan Key

- 1 common
- 2 unit

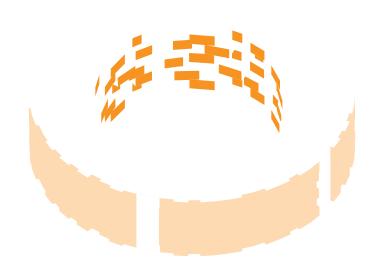
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Part-Whole Relationships



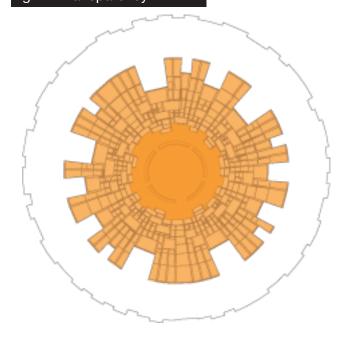
Thresholds + Porosity



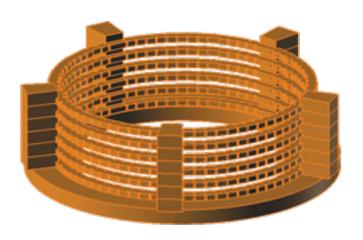
Kev

- 1 Common
- 2 Corridor
- 3 Private

Light + Transparency

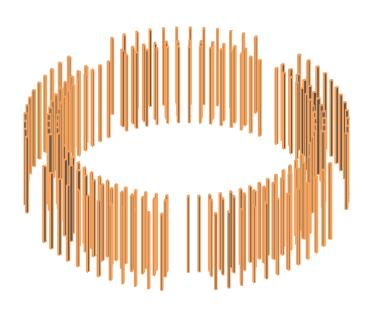


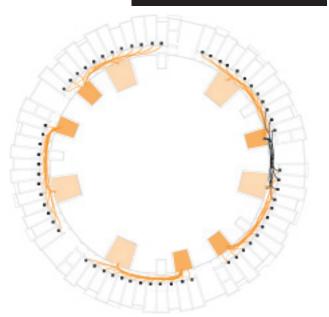
Access + Circulation

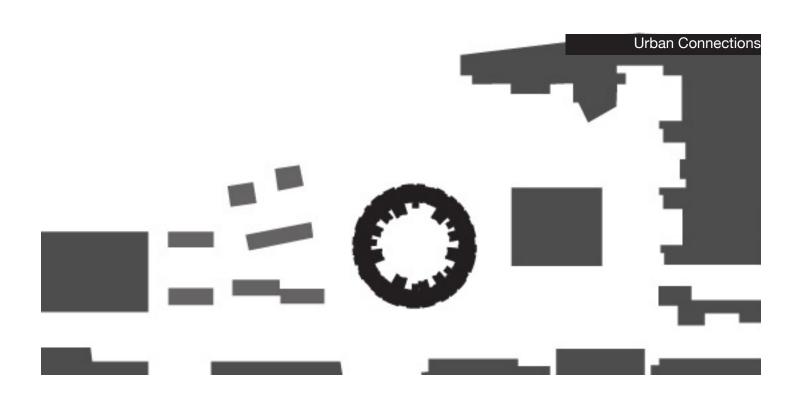


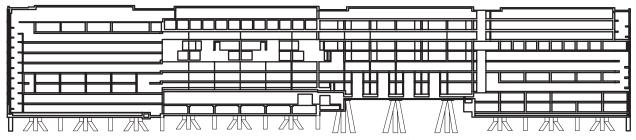
Structure + Systems

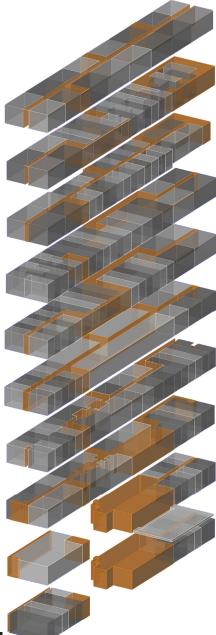
Collective Infrastructure











Key

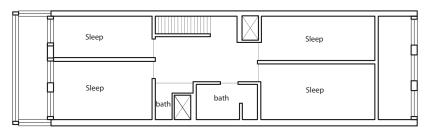
- 1 Neighborhoods
- 2 Circulation

Analysis

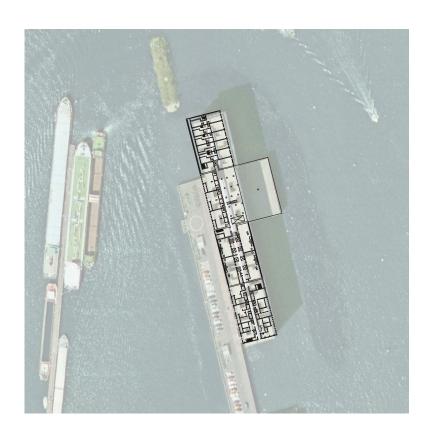
Located in the western part of the Amsterdam Harbor, Silodam housing was created to densify the city. A former dam where a silo building existed was turned into a new neighborhood that includes a new sunken parking garage, and renovation to the old silo building. A new foundation was added to support renovations.

To accommodate the changing market, different housing types were created. The different series of housing types counter balance the desire for individuality. A mixed program created 157 houses (to buy or rent), offices, work spaces, commercial spaces, and public spaces. The apartments differ in size, cost and organization. The different spaces generate "mini-neighborhoods" of 8-12 apartments, blocks of apartments which are surrounded by a corridor, garden, gallery, and hall. These neighborhoods are made apparent through the use of color on the interior. Because of the economic difference in the program spaces, the use of material on the exterior also varies.





Unit Plan Scale 1/16"=1'-0"



Architect MVRDV

City / Location Amsterdam / The Netherlands

Year Designed / Built

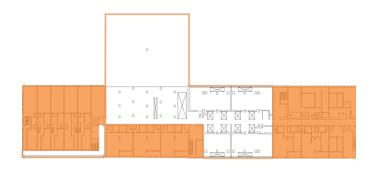
1995/2002

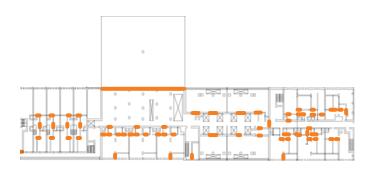
Area, # Floors, # Units

approx. 27,986(SF) 10 Floors 157 Units

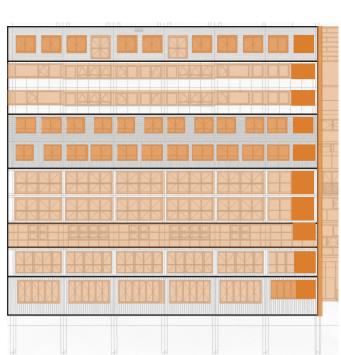
Part-Whole Relationships

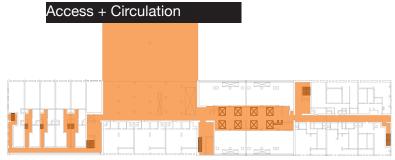
Thresholds + Porosity

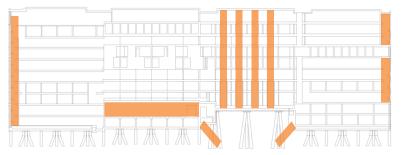




Light + Transparency

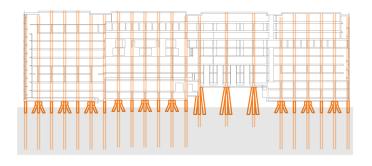


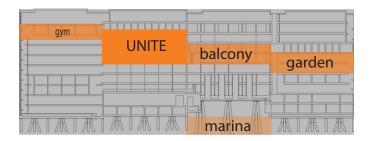




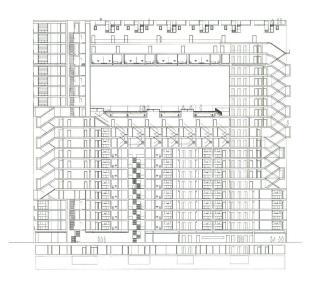
Structure + Systems

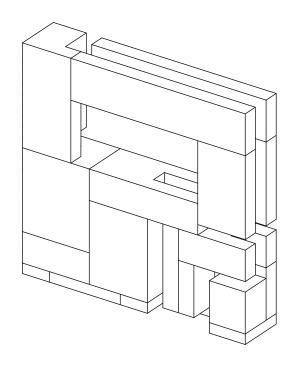
Collective Infrastructure











Analysis

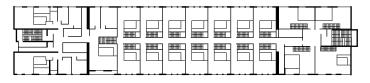
Mirador breaks away from the uniformity of the six storey blocks in Madrid by flipping the building to create a tower with a four storey high patio at ten floors above ground, which provides an amazing view of the city and the surrounding mountains. This superblock is made up of 165 housing units of various types in nine different building blocks, stacked on top of each other, with each block being made up of the same type of units. The façade treatment is reflective of the apartment sizes within each block. For instance, larger materials used on the exterior represent larger units, while smaller materials represent smaller units. The fire stairs of the building are turned into public spaces that strap around the blocks and connect the entire housing units together. The landing spaces and corridors that emerge are then served as community courtyards.

Mirador





Level 14

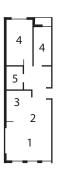


Level 12



common

2 unit



Architect MVRDV

City / Location Madrid / Sanchinarro

Year Designed / Built

2001 / 2005

Area, # Floors, # Units

273,327 SF

22

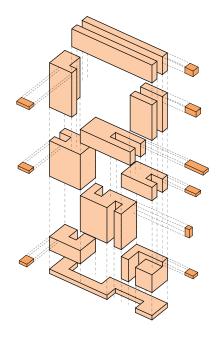
165

Unit Plan Key

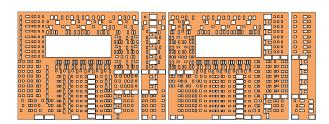
- 1 live
- 2 eat
- cook
- 4 sleep
- 5 bathe

Mirador

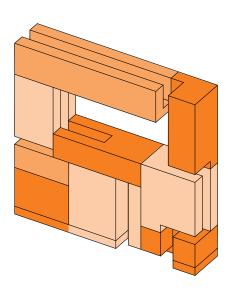
Part-Whole Relationships



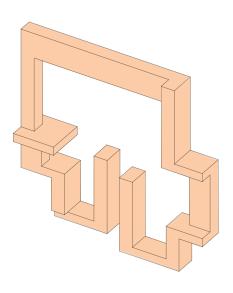
Light + Transparency



Thresholds + Porosity

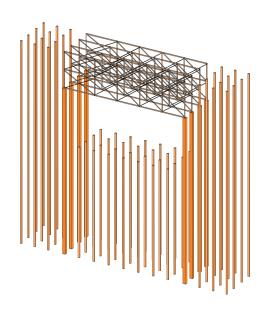


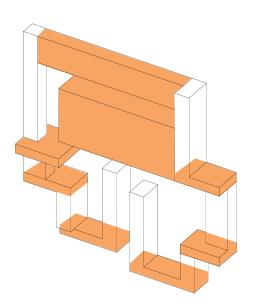
Access + Circulation



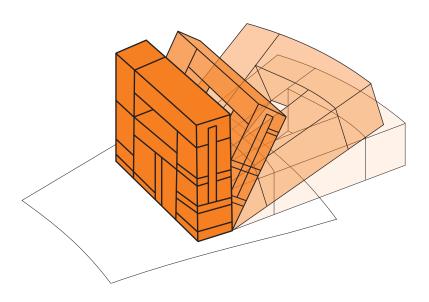
Structure + Systems

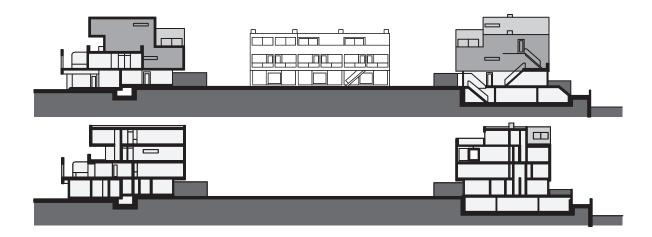
Collective Infrastructure

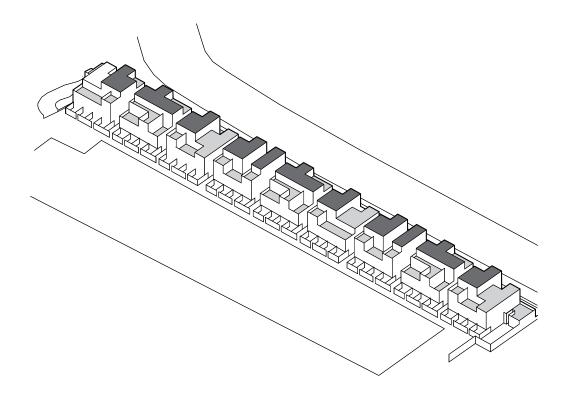




Urban Connections



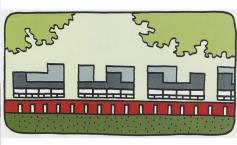




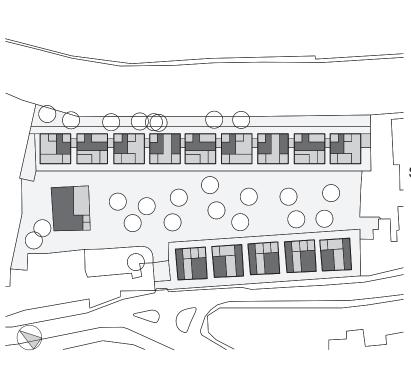
Analysis

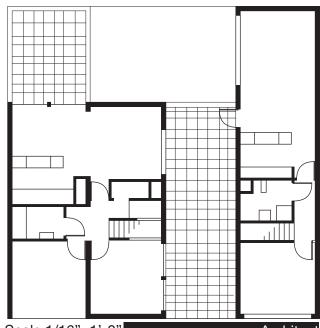
Neutelings Riedijk utilized the idea of bringing the rural into the heart of the city by creating a central courtyard that in turn became an oasis for those living in Hollainhof. Each block holding 6-8 units also has terraces or outdoor private space built into it based on the configuration of the 16 x 16 meter blocks. The organization also responds to its surroundings (the old canal to the east and a busy road and train track to the west). At each level the aggregate is responding to the occupants' needs to get away from the city and brings a piece of the rural inward.











Scale 1/16"=1'-0"

Architect

Neutelings Riedijk

City / Location

Ghent/Belgium

Year Designed / Built

1993/1998

Area, # Floors, # Units

177,000 sq.ft.

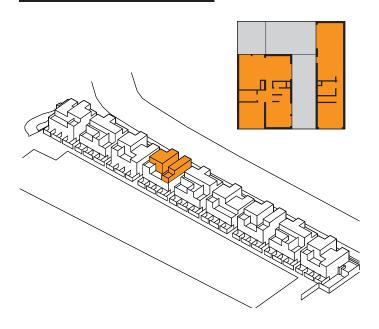
120

- common
- 2 unit

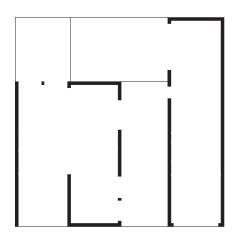
Unit Plan Key

- 1 live
- 2 eat
- cook
- sleep
- 5 bathe

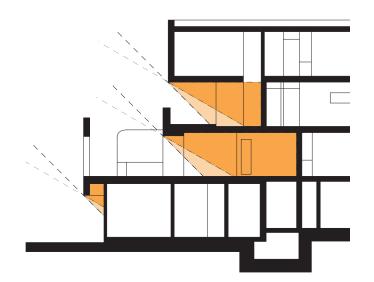
Part-Whole Relationships



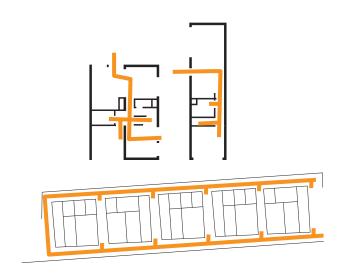
Thresholds + Porosity



Light + Transparency

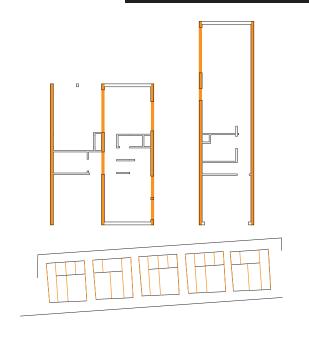


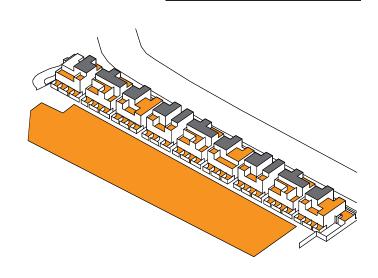
Access + Circulation



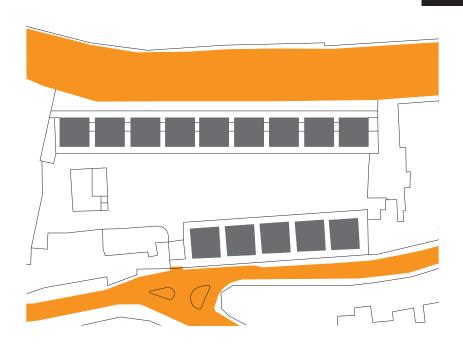
Structure + Systems

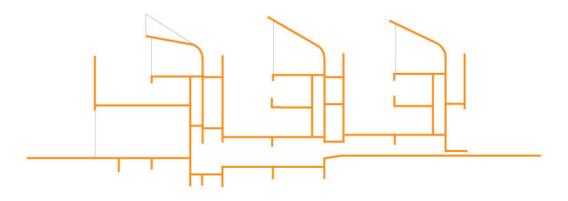
Collective Infrastructure

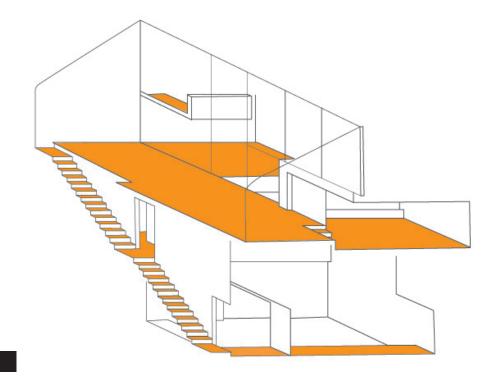




Urban Connections







Analysis

Nexus World represents OMA's first project in Japan, part of a larger housing development the design consists of two 12 unit buildings adjacent to each other.

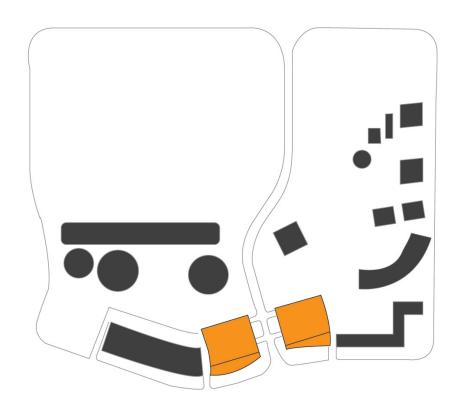
A perceived floating soild black band on the second floor acts as a visual plinth for two adjacent towers, while serving as a mechanism for changing experiential space. Devoid of interior hallways the 12 unit buildings are designed as three story residences separated by private light corridors.

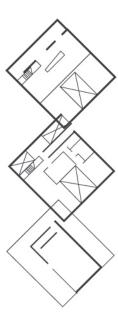
Circulation occurs in common spaces before entering private living quarters. Units are designed around each light well, stretching through the unit down to the first floor entry courtyard.

Second floor living quarter open onto private courtyards, allowing light into the otherwise closed space living space. Third floor residences open to the light and outdoor terraces and retail space acts as a threshold from the street part of a larger planned urban space.

Nexus World







Architect OMA

City / Location

Fukuoka, Japan

Year Designed / Built 1991

Area, # Floors, # Units

3 Floors 2 Units

- Plan Key 1 common
- 2 unit

Unit Plan Key

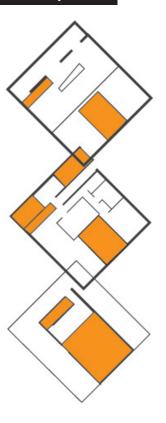
- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Nexus World

Part-Whole Relationships



Thresholds + Porosity



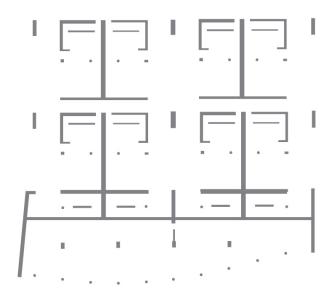
Light + Transparency

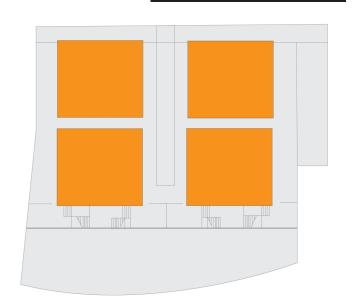
Access + Circulation



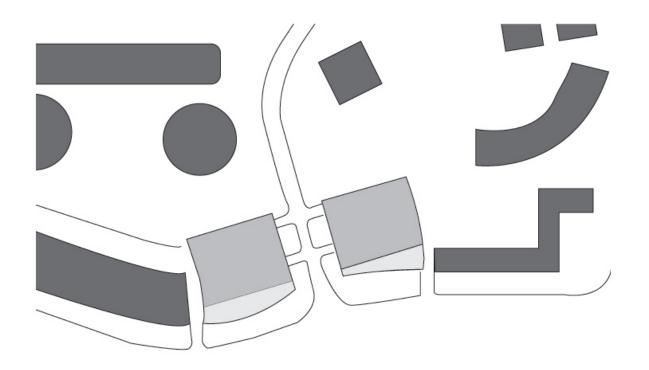
Nexus World

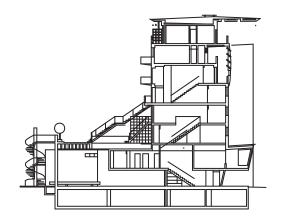
Collective Infrastructure

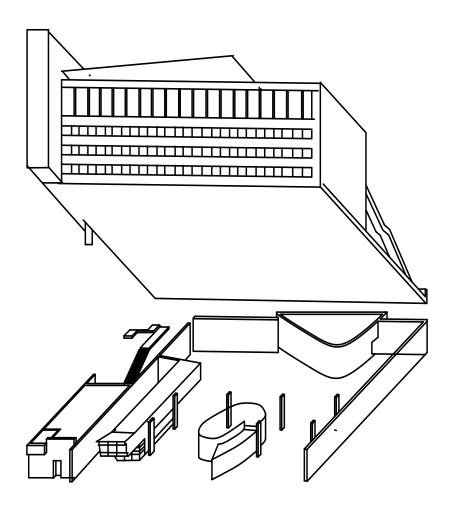




Urban Connections







Analysis

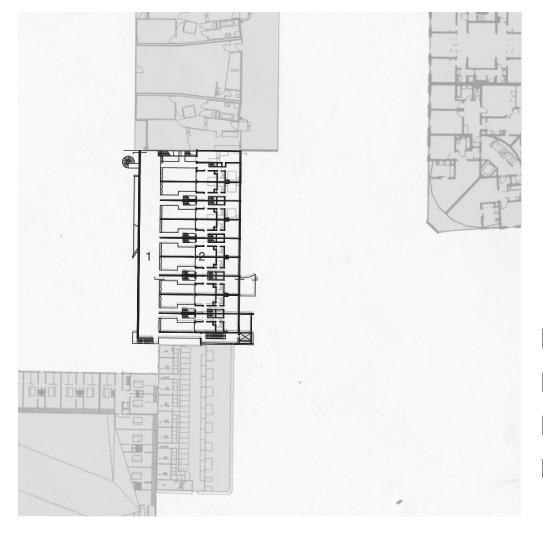
The Friedrichstrasse apartments in Berlin by OMA, are a series of spaces organized in a formal manner in which there are three layers, the maisonettes, the flats, and the penthouses. There are two floors, which act as retail and galleries and there are five floors of housing units. Repetitive modules that change in form with each level build each of these floors up. The façade also changes as it moves up the floors, in texture and appearance. Columns and load bearing walls support the building and the ground floor is open, allowing passage through. The building is split between the East and West with reference to Berlin Wall and the east and west distinguishes program within the unit. The back of the building holds roof gardens and terraces, so that there is open space, both from the back and the street level that sandwiches these apartments or enclosed spaces. Circulation through the build-

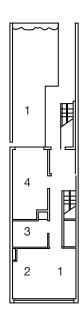
ing is composed of several stairways that allow the residents to reach their floor, either from the interior or exterior of the building.











FI. 2

Architect

OMA/ Rem Koolhaas

City / Location

Berlin, Germany

Year Designed / Built

1990/Berlin

Area, # Floors, # Units

Area (SF) 7 Floors 26 Units

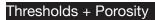
Plan Key

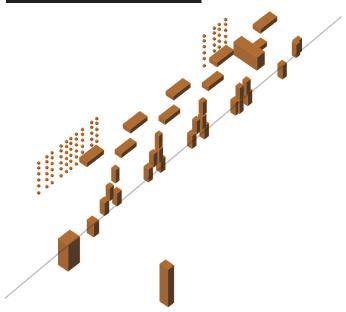
- 1 common
- 2 unit

Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Part-Whole Relationships

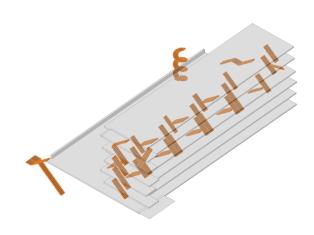




Light + Transparency

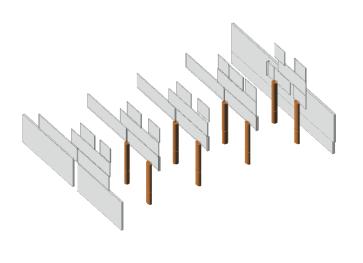


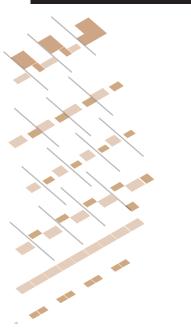
Access + Circulation



Structure + Systems



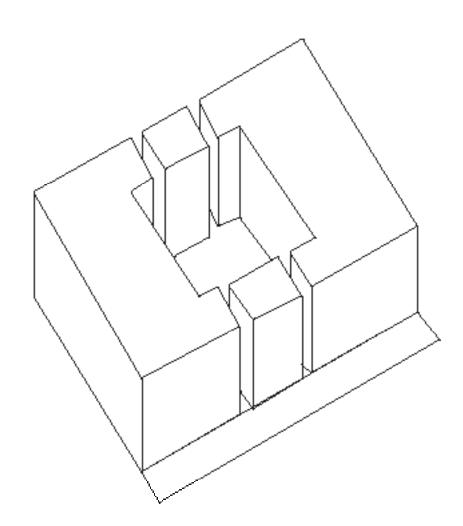






Rue De Meaux Housing





Analysis

Renzo Piano -Rue De Meaux Housing.

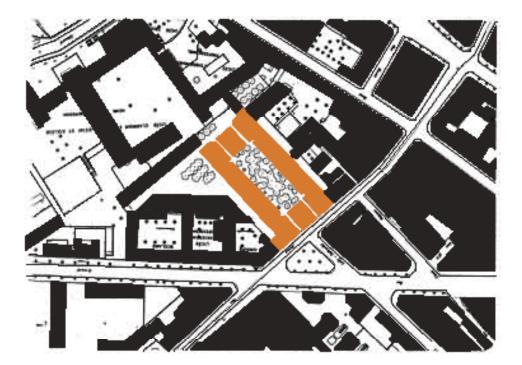
. Rue De Meaux housing is situated in the busy and well-known street of Paris Rue De Meaux (R.D.M). In despite of it being in a crowded tourist area R.D.M provides its residents to have a peaceful environment by having a central garden. It is a low-rise building giving it the sense of being easily accessible The central garden is not only open for the residents but also the public. It acts as a pathway where people can either access their apartments or to the other side of the street while experiencing tranquility. Although the apartments are separated into 4 parts surrounding the central garden, they are still very much intact because the central garden brings all its residents together

Rue De Meaux Housing









Unit Plan (1 or 2) Here Scale 1/16"=1'-0"

Architect

Renzo Piano

City / Location

Paris/64 Rue De Meaux,16th,

Year Designed / Built

1988-1991

Area, # Floors, # Units

Area (SF) # 6 floors # 220 units

Plan Key

1 common

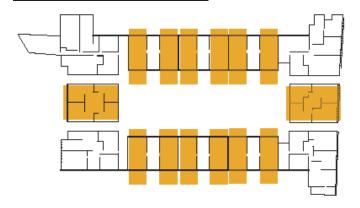
2 unit

Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Rue De Meaux Housing

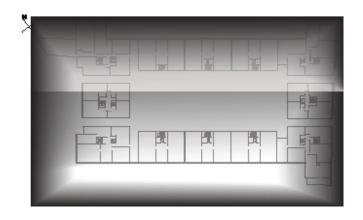
Part-Whole Relationships



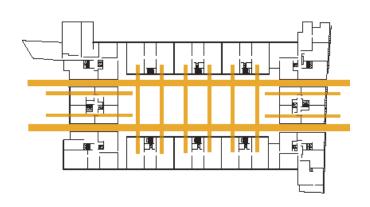
Thresholds + Porosity



Light + Transparency

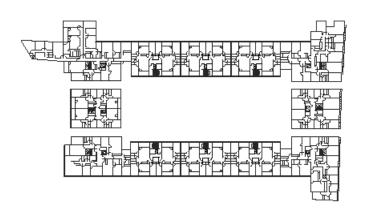


Access + Circulation

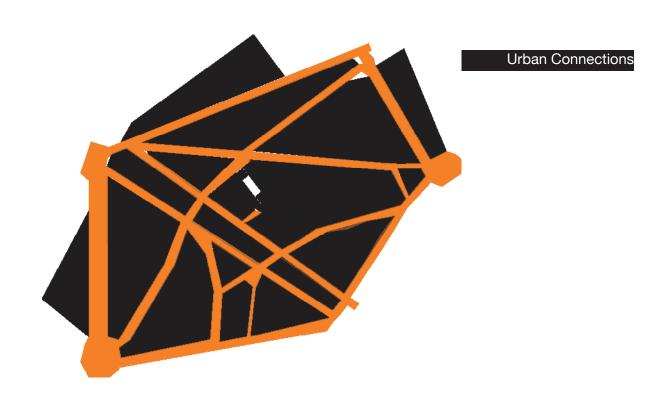


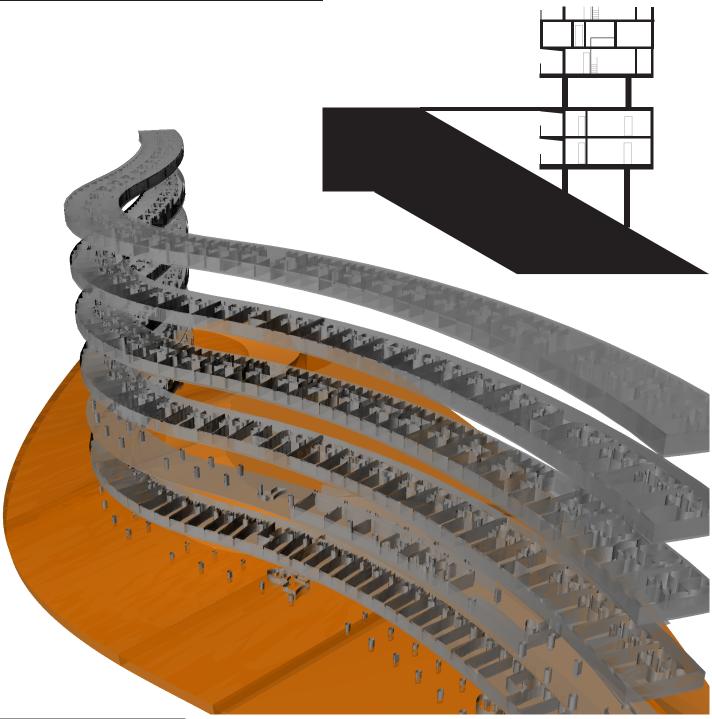
Rue De Meaux Housing

Structure + Systems





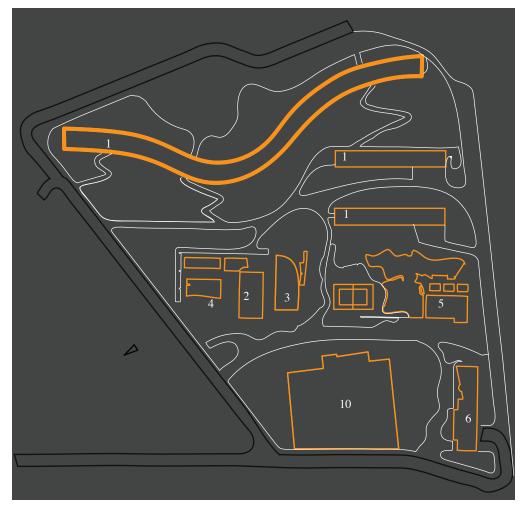


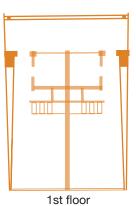


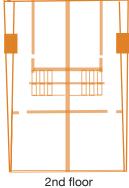
Analysis

The Pedregulho flows along a small hillside, floating over the rest of this sprawling residential complex. Integral to the design is an unusual treatment of common space and initial thresholds. The building is lifted off the ground on pilotis. This is mirrored by the entry level, a vast open-space that frames the mountains in the distance and breaks the weight of the structure. The facade is a multi-colored patchwork of panels, and an abundance of strip windows. The front is a broken layering, screening, and alternating of Brise Soleil panels. At the time it was built, the complex was the epitome of modernity, a rarity in governement housing. Pools, multiple laundry facilities, and a dedicated school were provided to improve worker's lives along with that of their families. This building is a prime example of early Modernity in Brazil which was heavily influenced by the similar movement in Europe, but developed its own energy and passion through the plasticity of concrete, and forms which resonated with the tropical passion of the incredibly diverse Brazilian people.









Architect

Reidy, Affonso E

City / Location

Rio de Janeiro, Brazil

Year Designed / Built

1947 / 1958

Area, # Floors, # Units

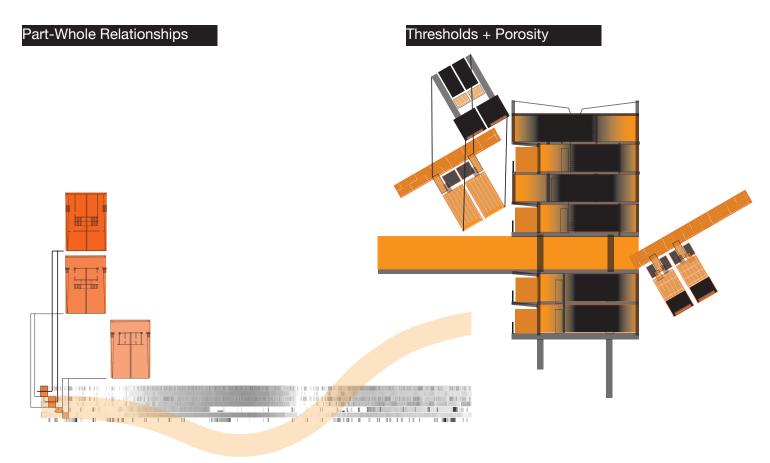
6 Floors 328 Units

Plan Ke

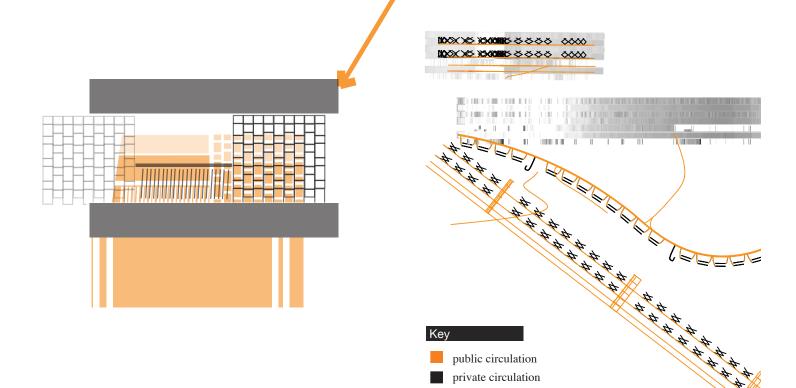
- 1 apartment block
- 2 elementary school
- 3 gynasium
- 4 swimming pool
- 5 health center
- 6 shopping center
- 7 playground
- 8 daycare
- 9 kindergarten
- 10 existing workshops

Unit Plan Key

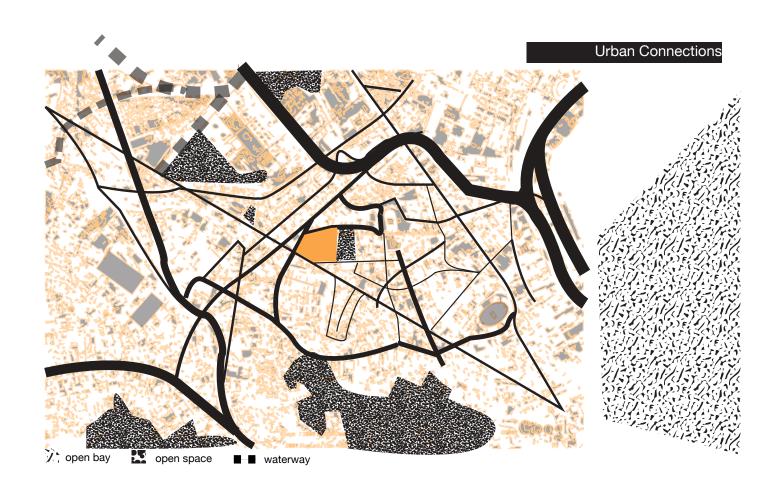
- 1 live-eat
- 2 cook
- 3 sleep
- 4 bathe

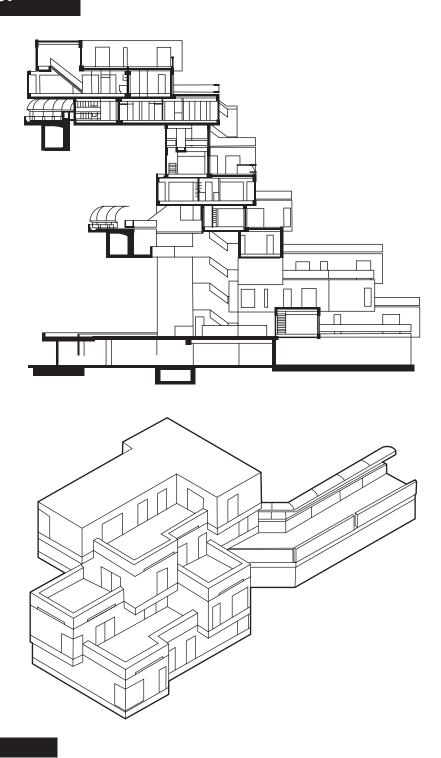






Structure + Systems Collective Infrastructure



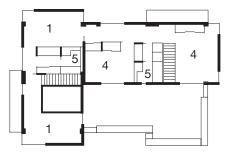


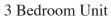
Analysis

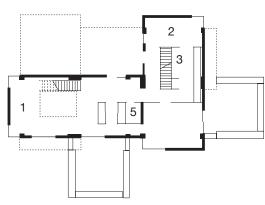
Habitat 67 was designed by Moshe Safdie in Montreal Canada, for Expo 67. The prefabcricated module used in this design was a basic rectangle that measured 17 feet by 38 feet by 10 feet high. Vertical circulation is by three elevator cores spaced evenly throughout the complex. What helps create a sense of community as well as access to private individual apartments and public community spaces are a series of horizontal walk ways called "pedestrian streets", on every thrid level. The efficiency of the retangular modules allow them to carry all of the structural loads, they are connected to each other by using high-tension rods, cables, and welding allowing for a continous structure. The offseting of the module is a technique used that created semi private roof gardens for each module. Large voids between the housing clusters allow for light and air to pass through. The original design for Habitat 67 consisted of a 22-story section with a toal of 1,200 housing units, 350 room hotel, two schools, and a neighborhood shopping area. Only 158 units where built.

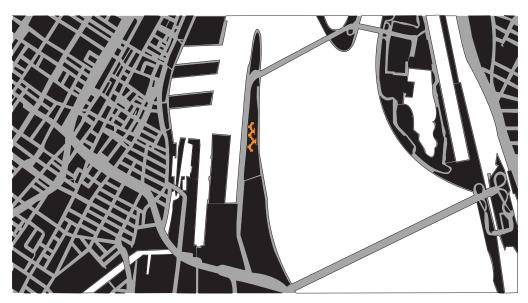
Habitat 67





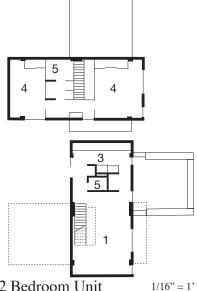






Plan Key

- 1 common
- 2 unit



2 Bedroom Unit

Architect

Moshe Safdie

City / Location

Montreal / Canada

Year Designed / Built

1961 / 1967

Area, # Floors, # Units

1 BR 600 sqft/4 BR 1800 sqft # 12

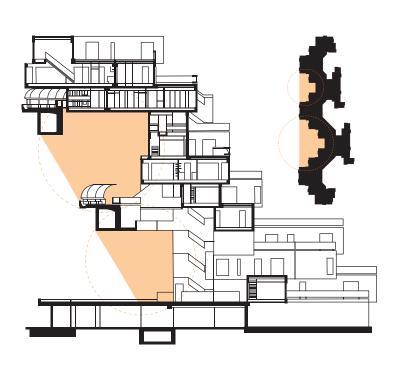
158

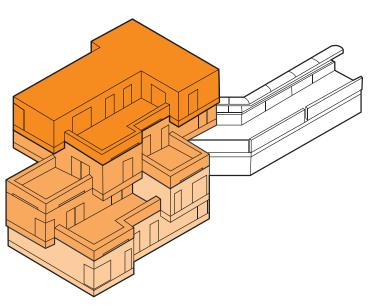
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Part-Whole Relationships

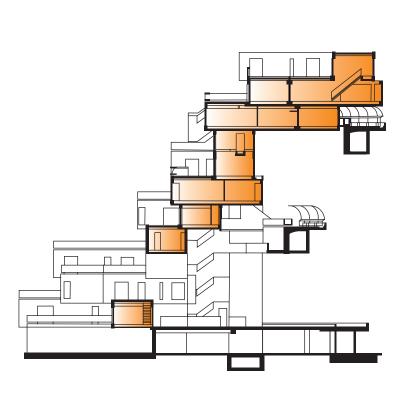
Thresholds + Porosity

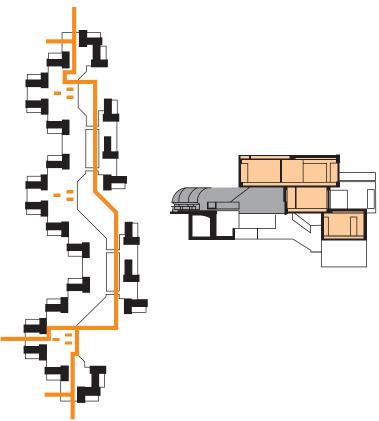




Light + Transparency

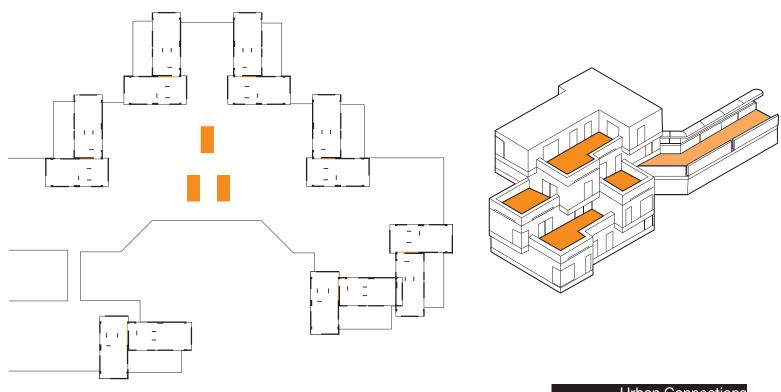
Access + Circulation



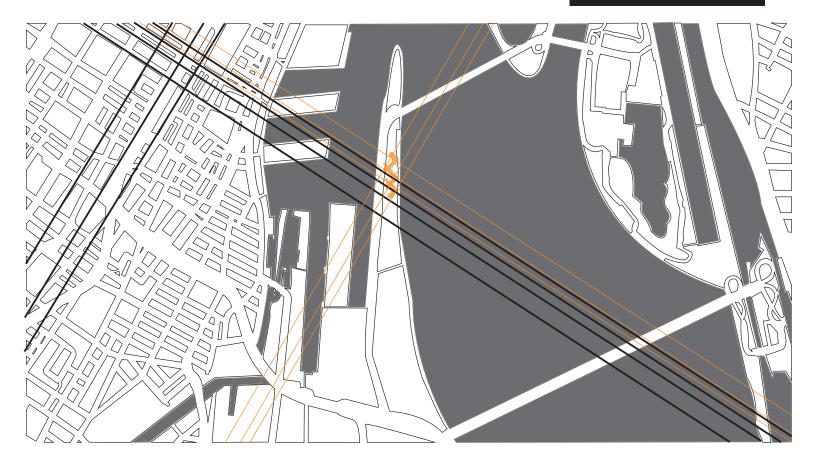


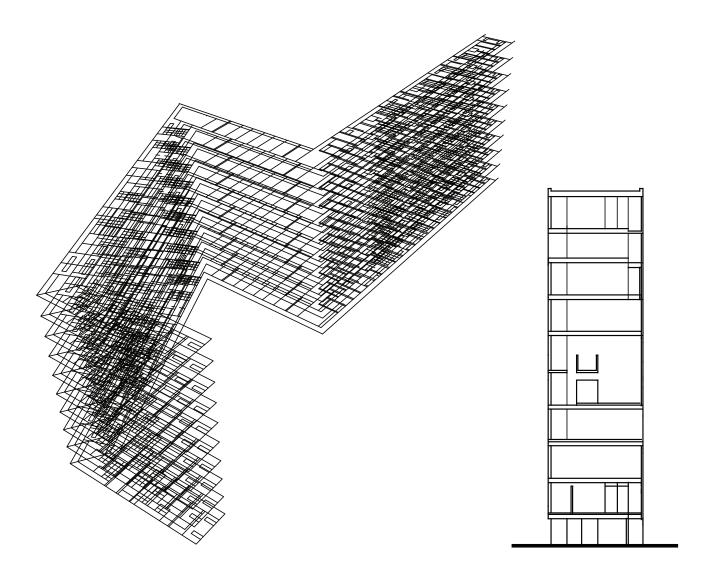
Structure + Systems

Collective Infrastructure



Urban Connections



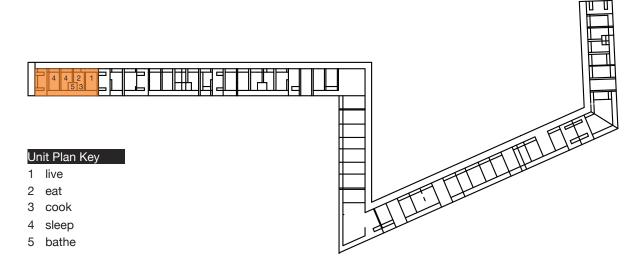


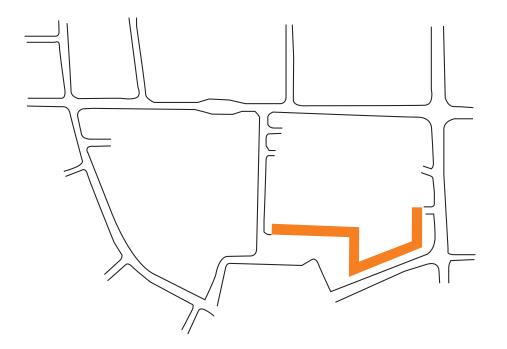
Analysis

Purpose of the Research: towards the privatization of exterior space

Based around collective housing, SANAA looked into the home being comprised of living, dining and kitchen spaces and their proximity to each other as well as the surrounding units. Four hundred thirty apartment units were created as a public housing reconstruction project in the Gifu Prefecture of Japan. It began in 1993 as a Metropolitan Housing Study by the Tokyo based firm Arata Isozaki Altier. Isozaki brought together a group of women architects to redefine what the modern day Japan housing block could be. **Objectives of the research** One hundred seven units needed to be built in the SANAA part of the project. That guideline came from the research that resulted in the need to pack 120 units into a hectare of space. This lead to the complex rule based aggregation strategy to efficiently pack the apartments into the site while allowing for some double height spaces and voids. **Methodology of Research: the landscape of the volume.** SANAA created one terrace per housing unit; each unit is made up of between one and three bedrooms, a kitchen, a terrace, a sunroom and a bathroom. The biggest observation they made and changed was the use of exterior space in collective housing as being private. The result was void spaces through the thin building that allowed for openness for the inhabitants as well as for inhabitants surrounding site while re-envisioning the collective housing block as a community-housing perimeter.







Architect SANAA

City / Location

City / Location Here

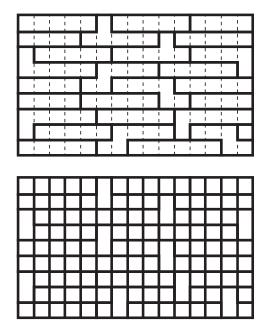
Year Designed / Built

1994-1996 / 1996-2000

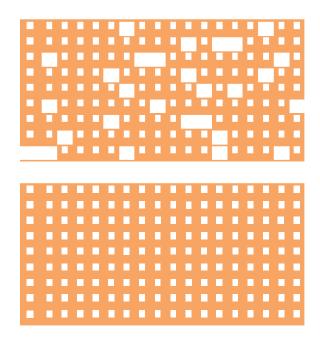
Area, # Floors, # Units

107,445 (SF) 10 Floors 107 Units

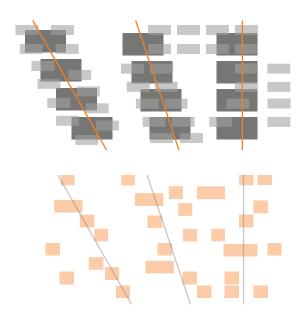
Part-Whole Relationships



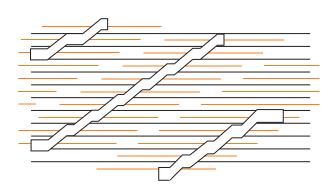
Social - Physical Porosity



Formal Facade Transparency



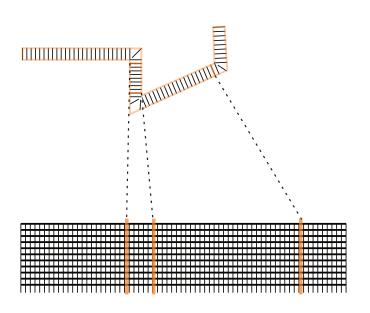
Access + Circulation

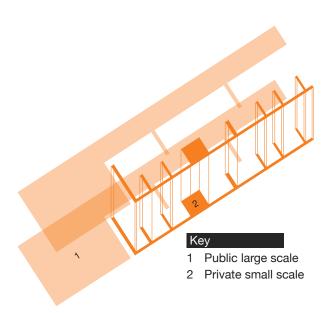


distance walked in 30 seconds

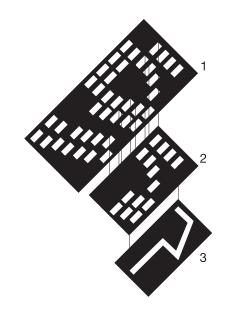
Structure + Systems

Collective Infrastructure





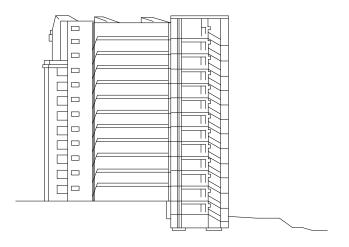
Urban Connections

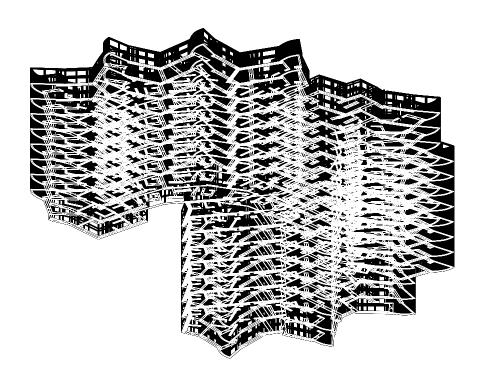


Key 1 Existing 430 units

- 2 Existing 107 units
- 3 SANAA 107 units





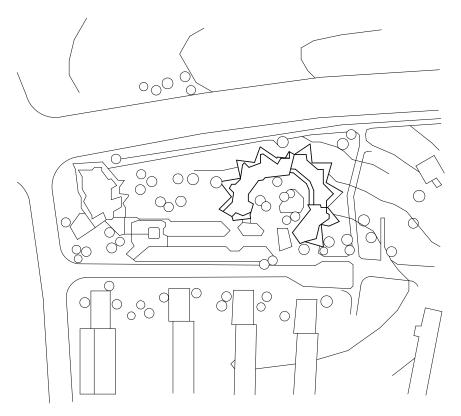


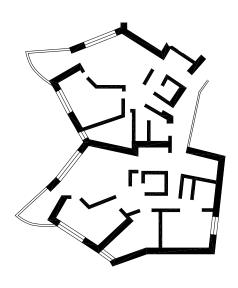
Analysis

The residential tower of Juliet is situated in Stuttgart, Germany. The design purpose is to obtain an organic solution instead of a rectangular high rise. It is a slab block with central lift tower, which has been curved into a ring. The access galleries are on the concave side, embracing a dramatic area-like approach space, while the flats fan out to make the most of the available views. The flat is also fanned out from east to west following the path of the sun to gain maximum sunlight.









Architect

Hans Scharoun

City / Location

Stuttgart / Germany

Year Designed / Built

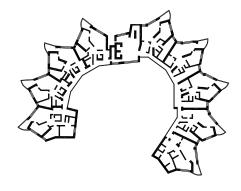
1955 - 1959

Area, # Floors, # Units

Balcony Multiple Dwelling 12 Storeys 9 Units Per Storey

Plan Key

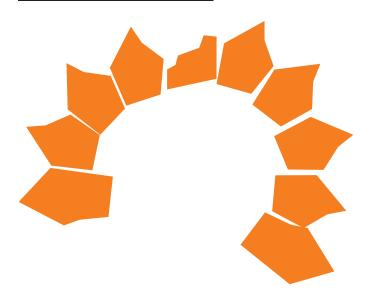
- 1 common
- 2 unit



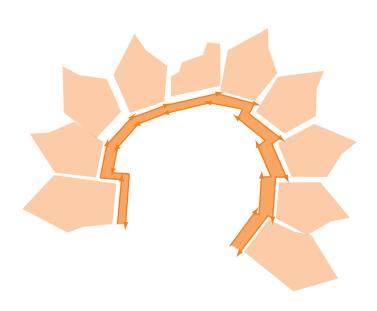
Unit Plan Key

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Part-Whole Relationships



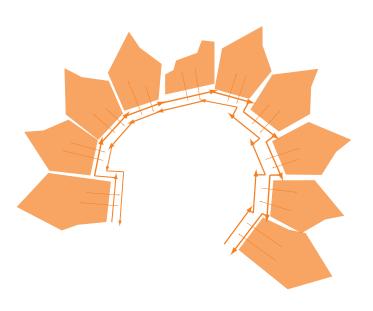
Thresholds + Porosity



Light + Transparency

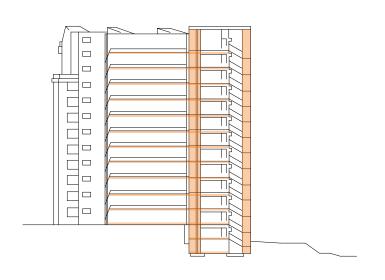


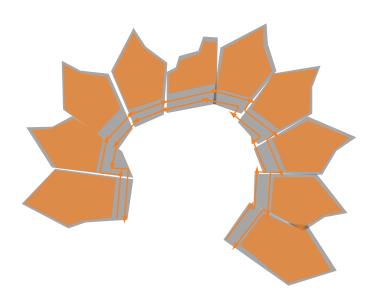
Access + Circulation

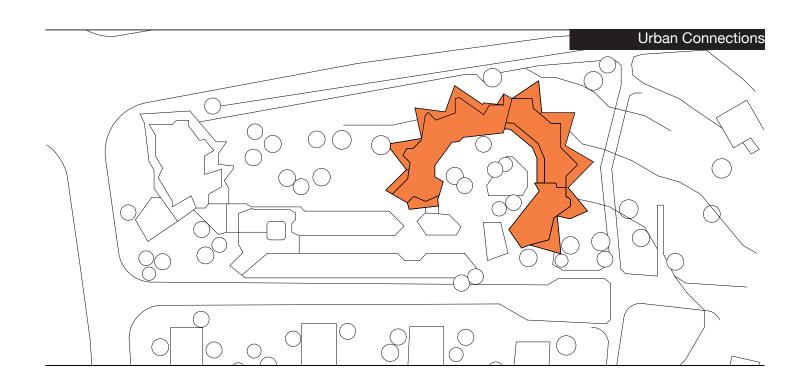


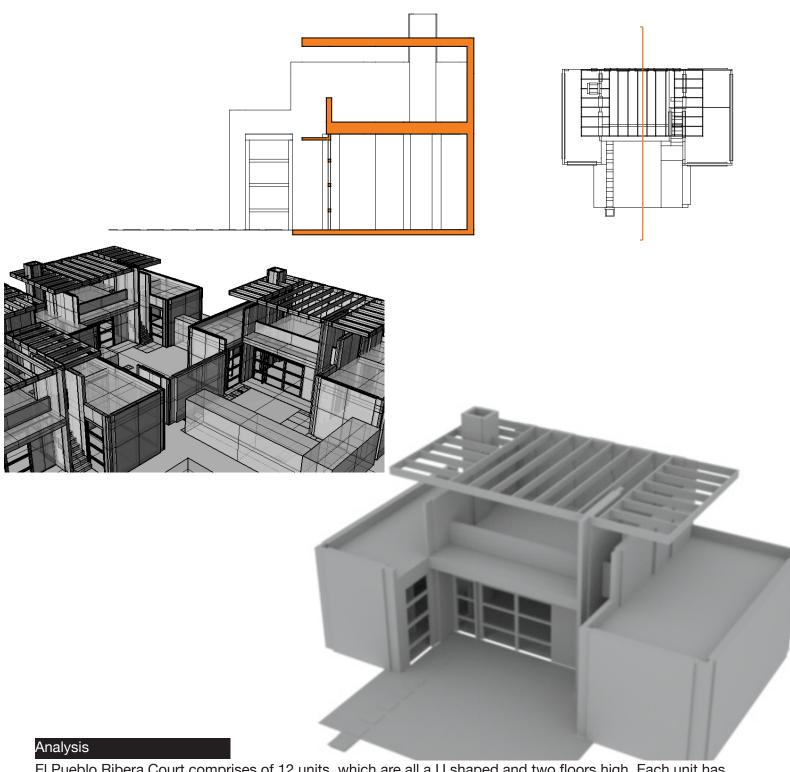
Structure + Systems

Collective Infrastructure









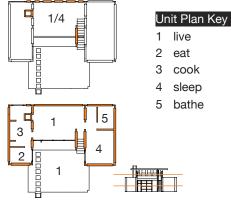
El Pueblo Ribera Court comprises of 12 units, which are all a U shaped and two floors high. Each unit has one parking space and they are accessible by an alleyway, which divide the court into two sides. Entrances to these units are through a patio, which are enclosed by hedges. Program for the lower level is a bedroom, a bathroom, living room, kitchen, nook, and porch, on the second level is a roof terrace with a view of the ocean. The units are constructed from concrete slabs and walls, and the pergola that covers the roof terrace is wood. There is a sense of privacy in the outdoor spaces, with the high hedges and the extended ceilings on both levels. With these attributes it blurs the transition from interior to exterior, it makes the exterior just as private. Each unit shares walls, on one side interior and the other exterior. These units are close to one another but how they are planned out, they are all private dwellings.











Unit Plan Scale 1/32"=1'-0"

Architect

Rudolph M Schindler

City / Location

La Jolla, California

Year Designed / Built

1923-1925

Area, # Floors, # Units

Area (SF) 2 Floors 12 Units

Gravilla Street

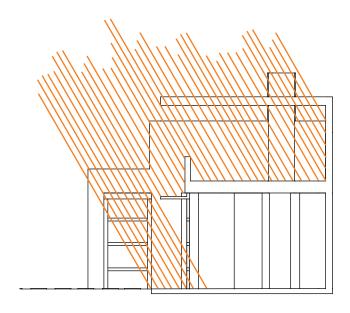
Part-Whole Relationships





Patio Entrance Roof Access Unit Access

Light + Transparency



Access + Circulation



Structure + Systems

Collective Infrastructure

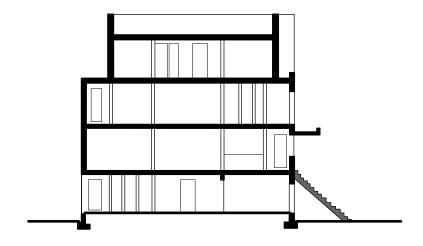


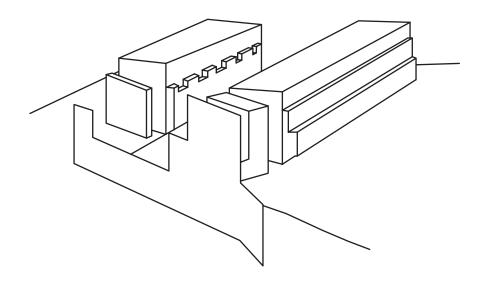


Kev

- 1 Public Roads
- 2 Parking
- 3 Walkways







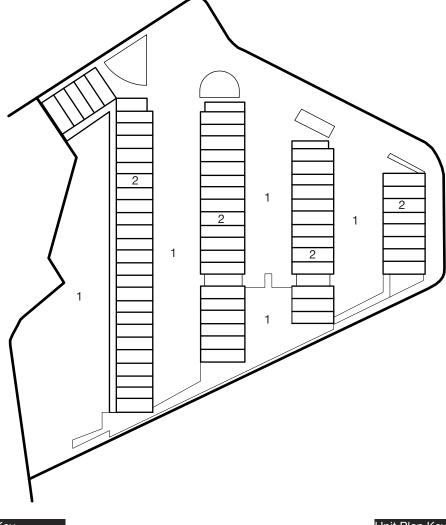
Analysis

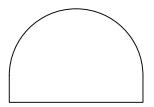
The Bouca Social Housing was designed in 1973 by Alvaro Siza. The Bouca Housing is located in Porto Portugal. The Bouca Housing was designed as a response to inadequate housing conditions: rent racketing, illegal housing, overcrowding and a lack of sanitary facilities. A spine wall is used to screen out the adjoining railway embankment. The housing units are arranged perpendicular to the wall, creating long courtyards in between the buildings. There are a total of 138 units. Each unit is two stories high. The bottom units can be accessed either through the first or the second floor. All of the units have its private balcony. The rows of units are arranged in such a way that the stairs are never facing the private balconies. At the end of each row, facing the main street entrance, there were to be public facilities: such as laundry, library, and shops.

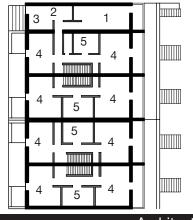












Architect

Alvaro Siza

City / Location

Porto/Portugal

Year Designed / Built

1973/1977

Area, # Floors, # Units

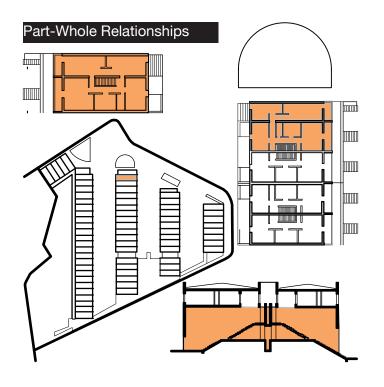
Area (SF) 4 Floors 138 Units

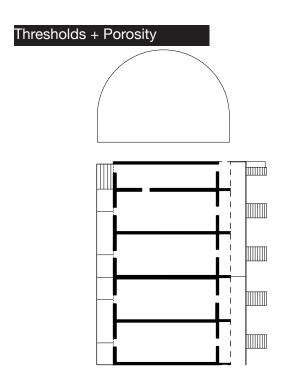
Plan Key

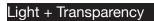
- 1 common
- 2 unit

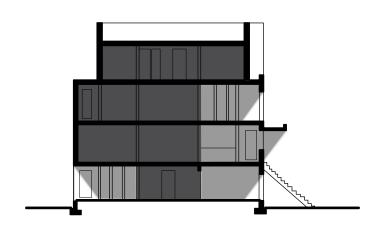
Unit Plan Key

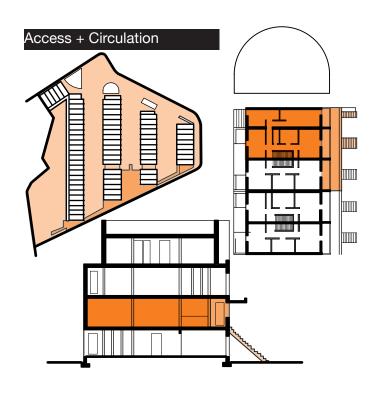
- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

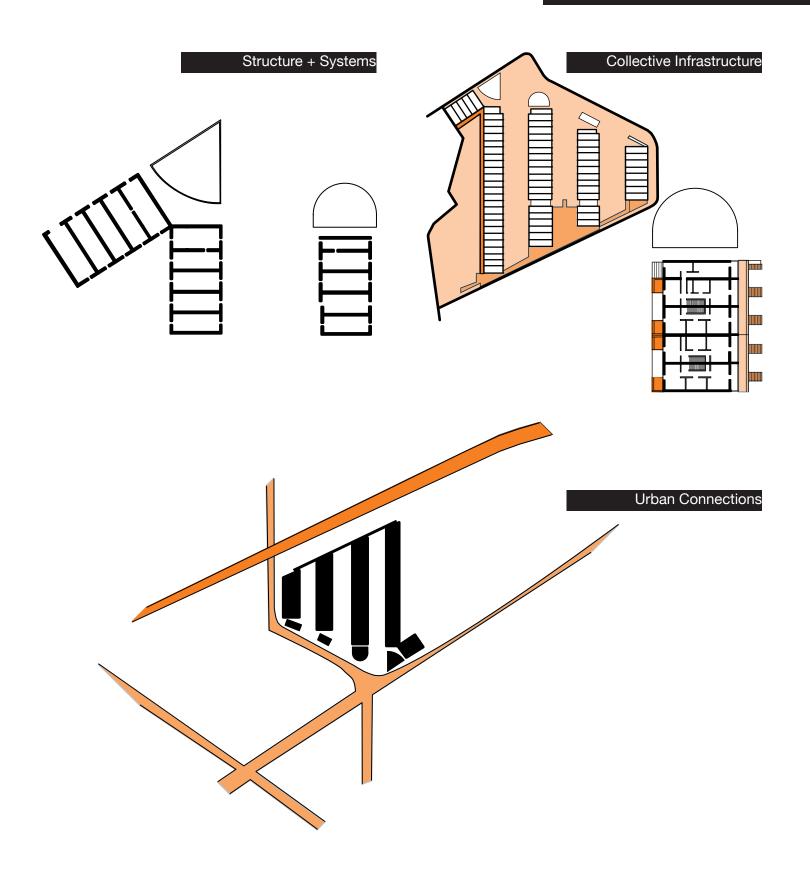


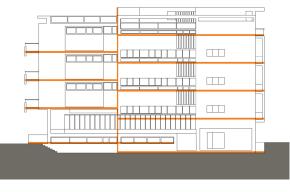


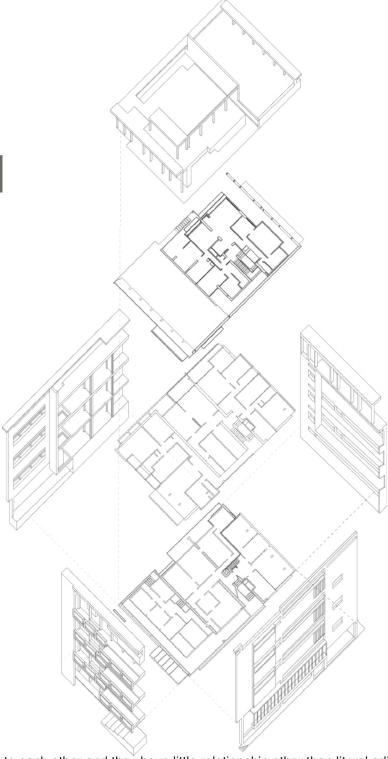










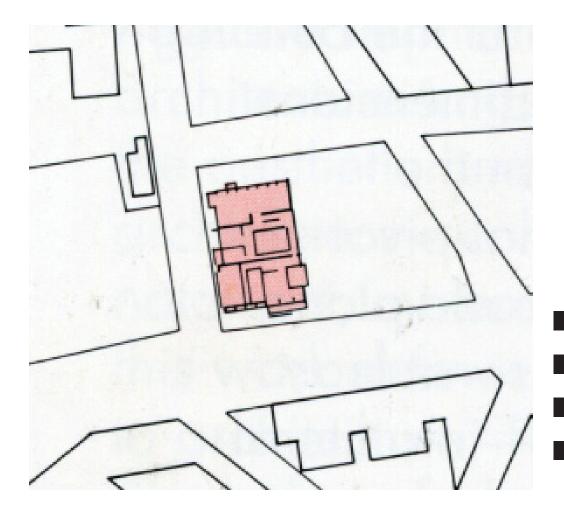


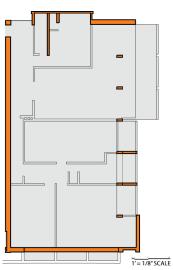
Analysis

All of the facades conceptually unrelated to each other and they have little relationship other than literal adjacency and appear to be facades from different buildings. For example, the diagonal repetitions of elements, such as the vertical slots at the southwest and northeast corners, suggest oblique symmetry and relation around adjacent sides. However, the open fragmented corners, the discontinuous North to South graining and the general lack of coherent imagery in the whole combine to suggest readings of the four facades as unrelated and isolated.

The major changes on the outside do not correspond with insides; however, the sections reveal development of a split-level that can't be seen from the facades. The whole building seems to be split in three main parts, where the major vertical circulation is split by the division between two-thirds and one-third segments. The oblique views indicate fragmentation and separation in the structure. In the Casa Giuliani-Frigerio, the idea of visual resolution is suspended through the production of an open reading that defies hierarchy, linearity, and conclusion.







Architect

GIUSEPPE TERRAGNI

City / Location

COMO, ITALY

Year Designed / Built

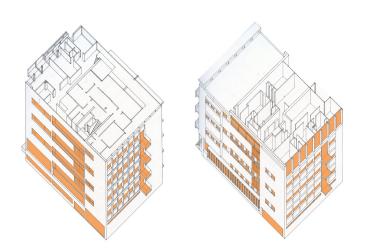
1939 - 1940

Area, # Floors, # Units

Approximately 33660 (SF) 5 Floors 14 Units



Light + Transparency

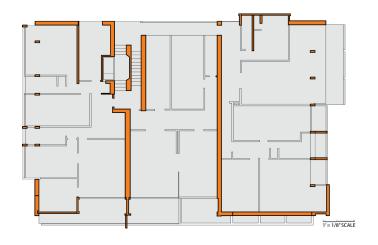


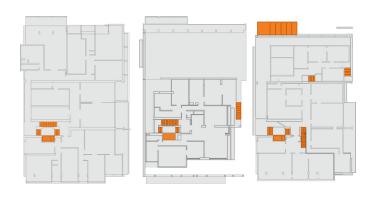
Access + Circulation



Structure + Systems

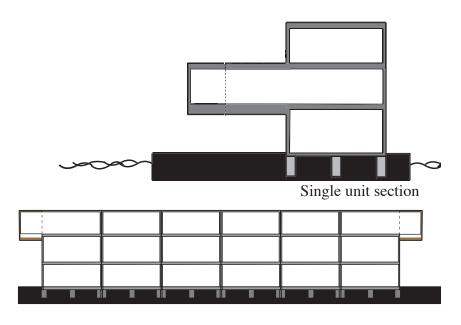
Collective Infrastructure

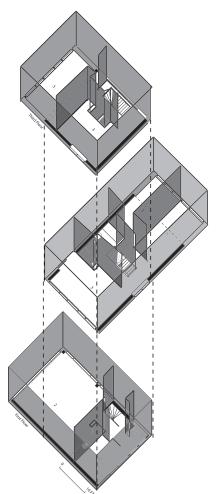






Urban Connections





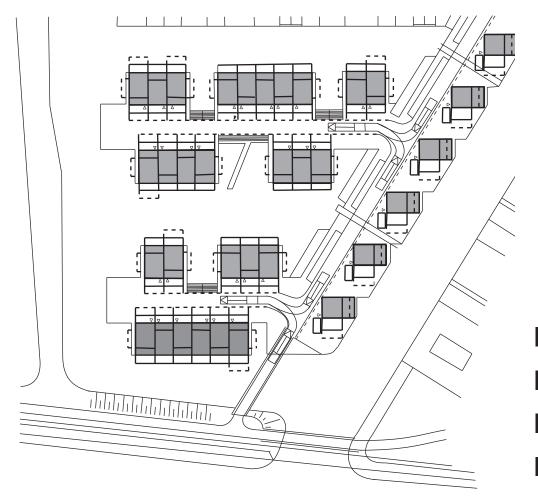
Analysis

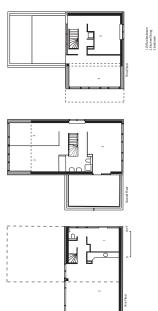
At the Water Villas, UN Studio wanted to create a flexible housing unit where the occupants can modify their own space. To do this, the architect designed a tunnel like interior and pre-fabricated steel frame box as an option for room extension, each extension can increase the room 161sq feet more. The architect shifted the box like units on each level to create a sense that life could be arranged in a different manner. The shifts of these box units make the whole neighborhood seem like a free arrangment of spaces to reflect the flexible housing units of the Water Villas. The architect separated the single-family homes as a single units home by itself and the multifamily homes were clustered together. The units on the single family home were shifted in a cross stacked pavillon while the clustered dwelling units were shifted in a parallel box like schemes for a rhythm of projection and recesses. With the shifts of each box units, it creates an exterior space for a balcony or a garden.











Architect

UN Studio

City / Location

Almere, The Netherlands

Year Designed / Built

1999 / 2001

Area, # Floors, # Units

Avg 1,775 sq ft per unit 3 Floor per unit 48 Units

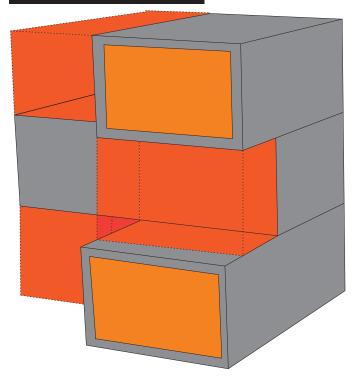
Plan Key

- 1 common
- 2 unit

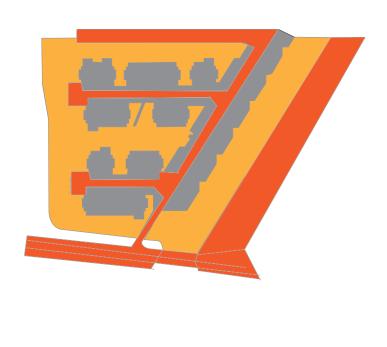
Unit Plan Key

- 1 office/bedroom
- 2 kitchen/living
- 3 bedroom

Part-Whole Relationships



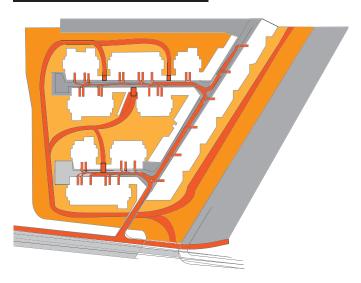
Thresholds + Porosity

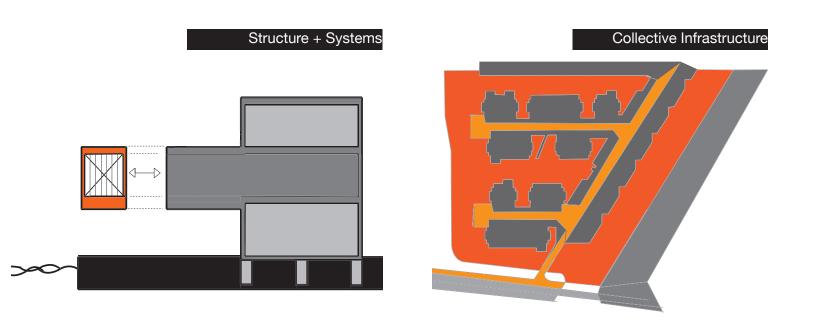


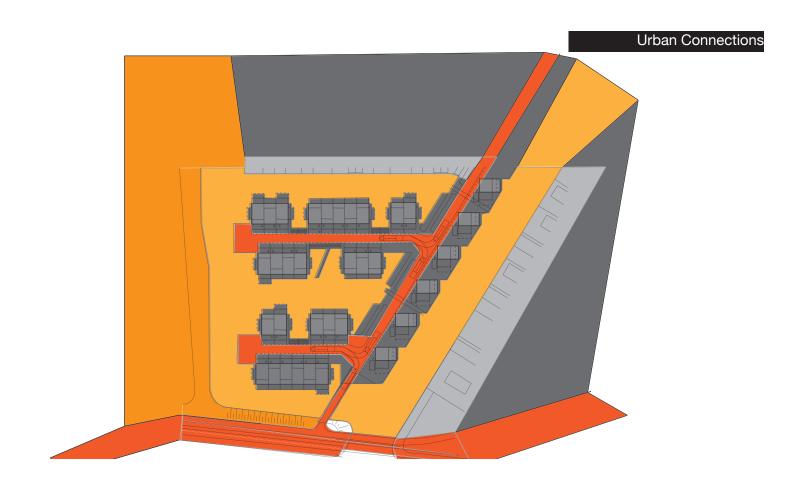
Light + Transparency



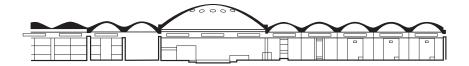
Access + Circulation

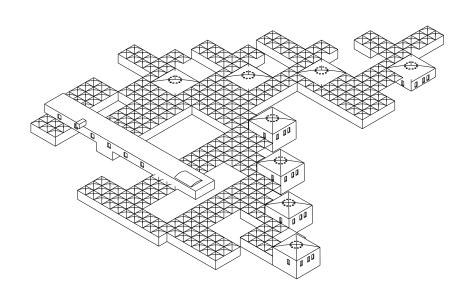






Orphanage



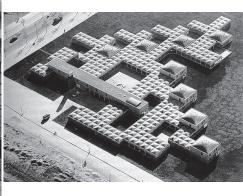


Analysis

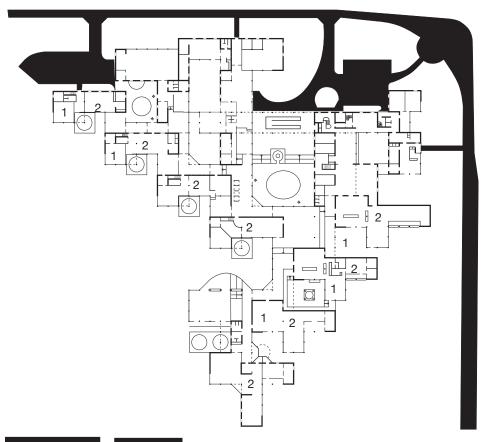
The layout reconciles the advantages of a centralized structure with those of a decentralizes pattern of pavilions. The pavilions system is transformed into a continuous but perforated built volume within which both the pavilions and the main block are identifiable. The entrance court is the main core of the building. Its connected by a spacious lobby where the buildings two internal corridors intersect. The residential units are arranged in a staggered formation, giving each of them a communication with an individual outdoor space and with their respective internal corridors. Its dual scale success relies on a tactical arrogation of individual units throughout the building, with an articulation of large and small, inside and outside, each defined in its own right, while interlocking rhythmically. Underlying this balance is a strictly upheld architectural order, consisting of columns, load-bearing walls and architraves which combine to form a square grid of beams. The roof domes on top of the grid provide a continuous tectonic language as well as spatial continuity.

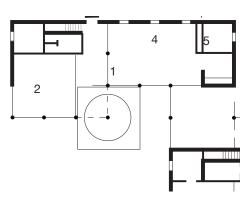
Orphanage











Architect

Aldo Van Eyck

City / Location

Amsterdam, Netherlands

Year Designed / Built

1955 / 1960

Area, # Floors, # Units

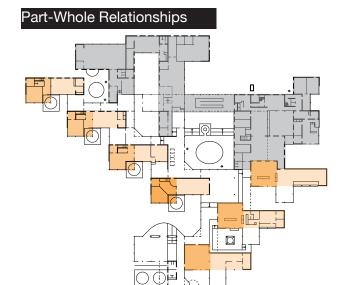
56,000 SF 2 Floors 80 Units

Plan Key

- 1 common
- 2 unit

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

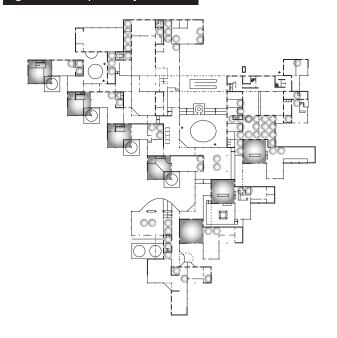
Orphanage



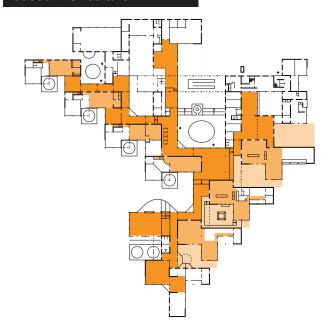
Thresholds + Porosity



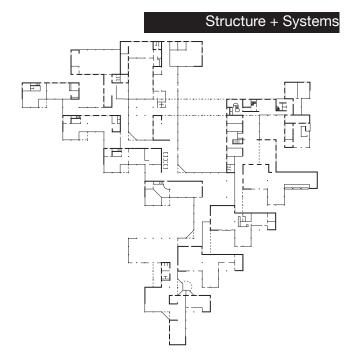
Light + Transparency

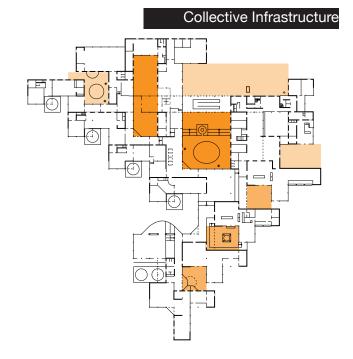


Access + Circulation

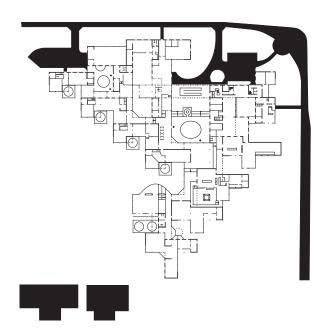


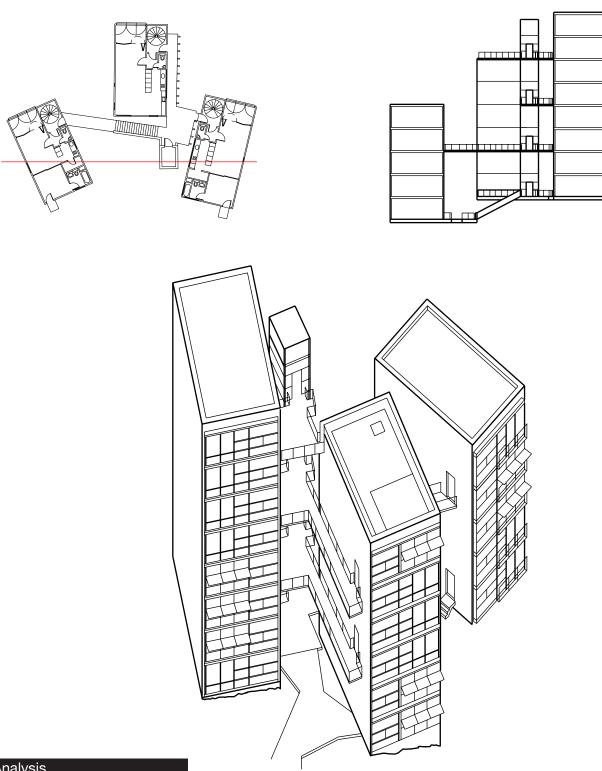
Orphanage





Urban Connections



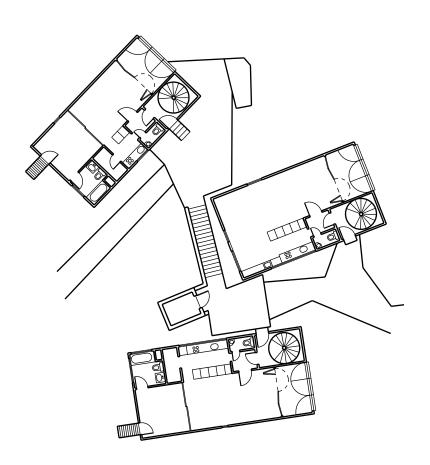


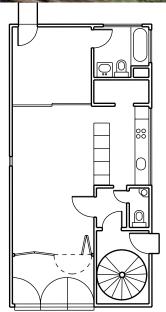
Analysis

This project is titled "Housing 13", and was designed by Mecanoo Architekten, headed by Erick Van Egeraat. It was designed in 1989-91 for the 1993 International Garden Exhibition (IGA) in Stuttgart, Germany. The IGA '93 was a themed exhibition, the theme being "Ecology and the Change in Modern Lifestyles". The basic thesis of the project is that architecture should allow for the changes, the flux that we find in our daily lives. As our lives change, our architecture would do well to follow suit. We can see this theme played out in the plan drawings; the interior public spaces are outfitted with sliding panels, creating a transmutable living space. Ecology also plays a role. All apartments have ample southern exposure, equipped with louver systems in order to facilitate passive capture of light and heat. The air exchange is passive as well, in fact this was one of the factors that drove the overall form.

Housing 13, IGA '93







Architect

Erick Van Egeraat

City / Location

Stuttgart, Germany

Year Designed / Built

Designed 1989, built 1993

Area, # Floors, # Units

22,000 sq. ft. 8 floors 19 units

Plan Key

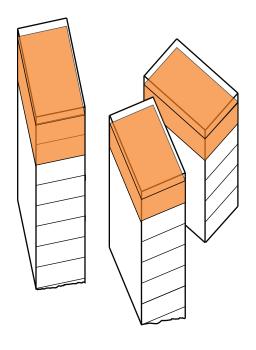
1 common

2 unit

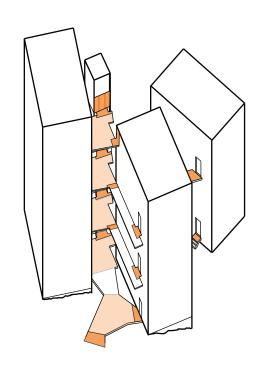
- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Housing 13, IGA '93

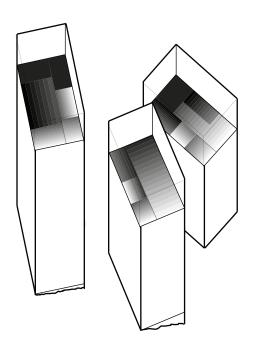
Part-Whole Relationships



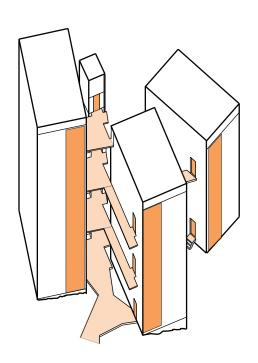
Thresholds + Porosity



Light + Transparency

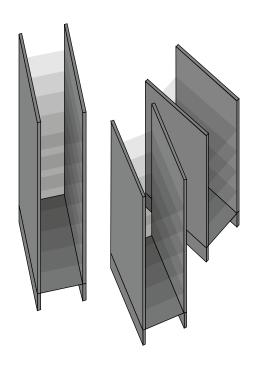


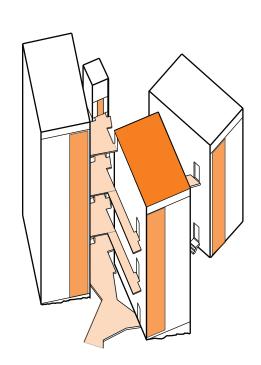
Access + Circulation



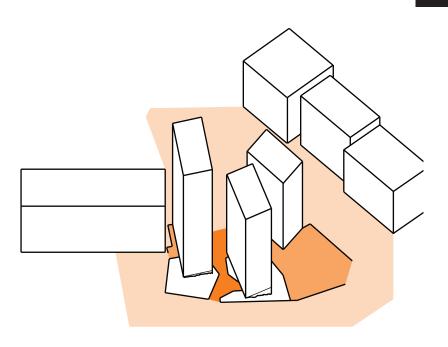
Structure + Systems

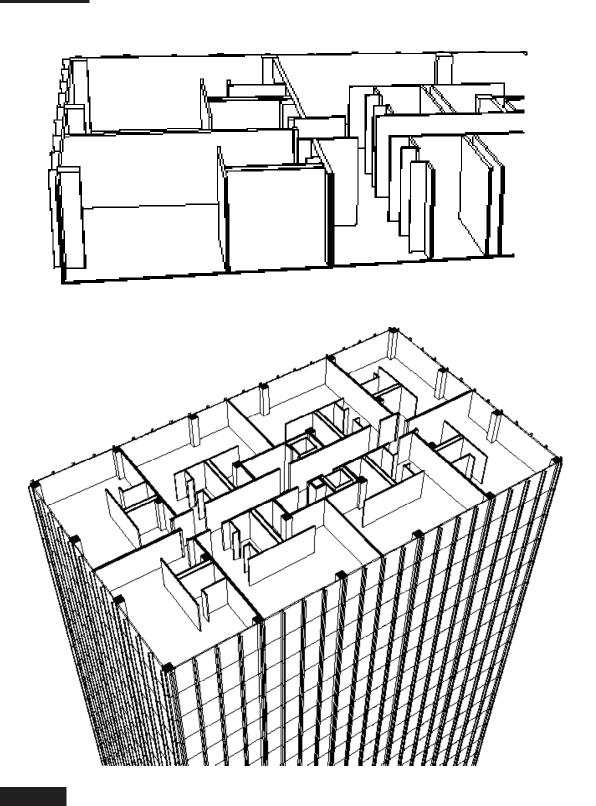
Collective Infrastructure





Urban Connections



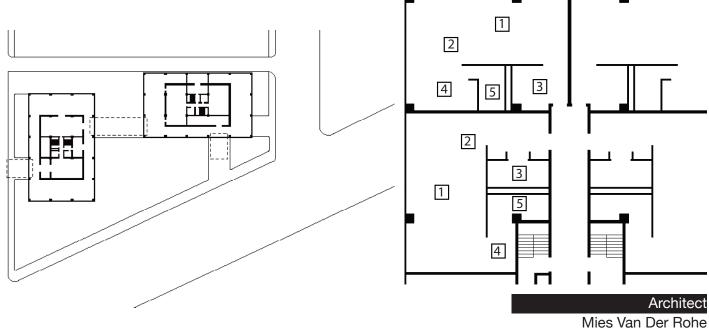


Analysis

The goal of the project was to create the essential open space expressed vertically. Mies idea was to translate the terrace in front of a country home into the floor level of a high rise. This was achieved through the use of steel and glass construction with floor to ceiling windows, which Mies referred to as "skin and bones". Elevators and plumbing are stacked vertically in order to achieve freedom of the interior. The solution found for the skin system was to go beyond seeing structure and skin as separate systems rather as a whole. Mies aesthetic goal was to make the skeleton visible from the outside, which was done through the attachment of primarily ornamental I-beams to the vertical exterior mullions. The skin was constructed from modular units in what Mies called the "Industrialization of Architecture". The towers were raised up on pilotis as a gesture of independence from the site.

Lake Shore Drive





City / Location Chicago

Year Designed / Built

1948-1951

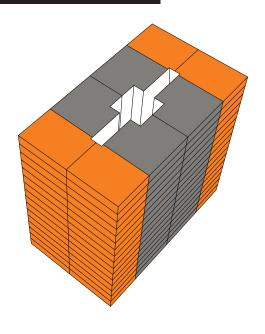
Floors, # Units

(2) 26 Floor Towers 312 units

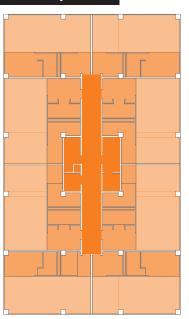
- live
- 2 eat
- 3 cook
- sleep
- 5 bathe

Lake Shore Drive

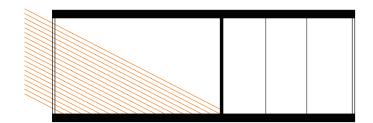
Part-Whole Relationships



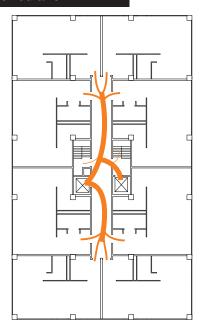
Thresholds + Porosity



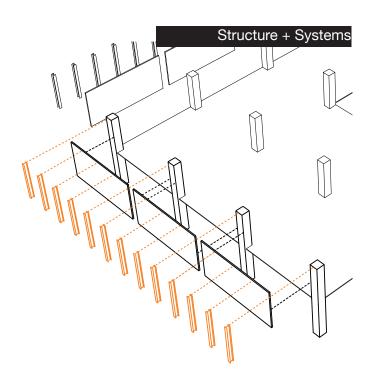
Light + Transparency

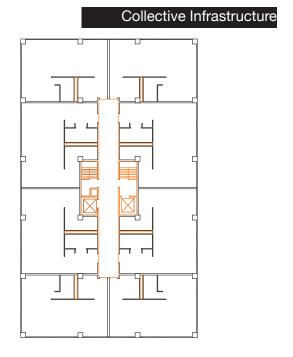


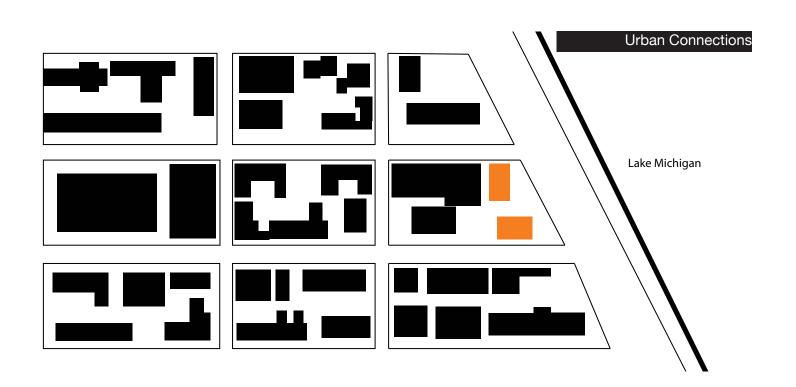
Access + Circulation



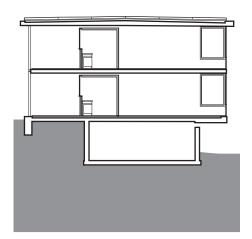
Lake Shore Drive

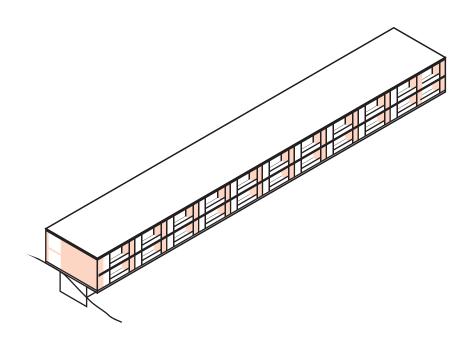






Residential Home for the Elderly



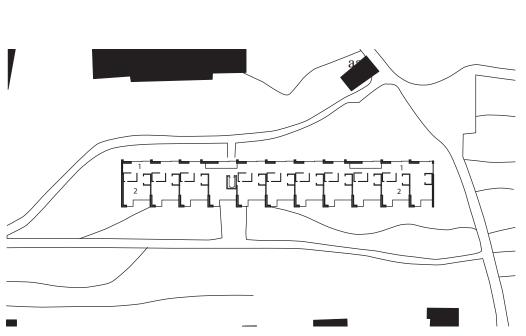


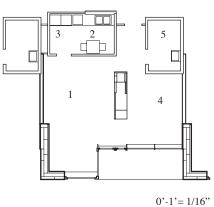
Analysis

The building is situated in the suburban landscape looking onto the old center of Masans. Located behind the new complex is the old nursing home, which is available as needed. The new home is designed for elderly people who can care for themselves. The arrangement of buildings along a broad courtyard and an orchard of fruit trees to the west create a rural and informal atmosphere. Exterior corridors connect the 21 apartments, a guest room and a ward room creating a building that is relaxed and comfortable within the broad mountain scenery. A simple trio of concrete, tufa, and larchwood provided the materials for the craftsmanship persistent throughout the building. The timber floors sound hollow when you walk, an integrated veranda is perfect for sitting and enjoying the views. Each kichenette incorporates a window looking onto the outdoor corridor. These kitchenettes, together with the bathrooms blocks, form elements that are placed at regularly spaced intervals at the center of the overall plan - surrounded by a continuum of space.

Residential Home for the Elderly







Architect

Peter Zumthor

City / Location

Chur, Switzerland

Year Designed / Built

1989-1993

Area, # Floors, # Units

8,000 sq.ft(footprint)

2

21

Plan Key

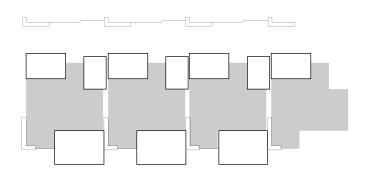
- 1 common
- 2 unit

- 1 live
- 2 eat
- 3 cook
- 4 sleep
- 5 bathe

Residential Home for the Elderly

Part-Whole Relationships

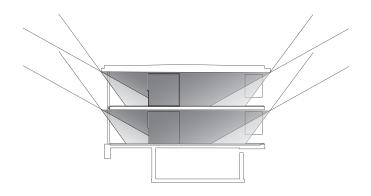
Thresholds + Porosity

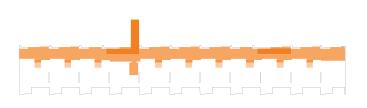




Light + Transparency

Access + Circulation





Structure + Systems

Collective Infrastructure

