

A Short Account of the European Architecture of the Box

12 Projects

Introduction

In the USA, very simple, quick and cheap systems – most of them using wood construction – have been developed for individual housing, promoting the development of urban sprawls. In parallel, such systems – most using metal – were developed for factories and office buildings that would supply and provide work spaces for inhabitants of these new suburbs. These new buildings were very pragmatic, a standardized structure and a simple envelop that could host almost any corporate activities. In an american tradition, these buildings were placed repetitively on a grid.

Santa Ana, California – back: Chamalières, France



2 – South Wall – H and K Industries – 1611 South Boyd Street, Santa Ana, scan from “The New Industrial Parks near Irvine”.



Zooming a little bit out from Lewis Baltz’s series “The New Industrial Parks near Irvine”, one will realize why these building should be looked at in detail. They neither bear refinement in their urban integration, nor in their overall form. Instead, Baltz found some interest in looking carefully at their construction. Some of the images even manage to break the

catalog aspect of the book by giving a clue of what is happening inside, providing the reader with a certain feeling of ambiguous intrusion. It is the proof that life is still happening inside this anonymous repetition of steel parallelepipeds. Even though they might represent the lowest act of architecture, their pragmatism and flexibility inspired many.

If the tower was an invention of the 19th Century, the box might be the true invention of the 20th Century. Modernist architects were looking for specific typologies for each programs, the box could be the solution to solve them all.

The typology arrived in Europe at a particular moment of decline of production and raise of activities of services. Therefore, the programs it would host will be different from the large scale corporates' buildings from the United States. In Europe, boxes host museums, theaters, libraries... Buildings of the commons. Also, the urban fabric they sit in



is fundamentally different from the american grid, far more complex. Consequently, their urban implantation should be different, and their form might be contaminated by the context.

What follows is a proposition of a genealogy of the architecture of the box in Europe.

The selection includes 12 projects of various programs. There is no doubt that the box has a potential to adapt, we will try to test until what point.

It also tries to cover the largest specter of scales to be as representative as possible of architectural practice today. Intuitively, it seems hard to reconnect building of individual scale with the purpose of the research, we will see what happens when adding one or two to the mix.

Another variable is the urban condition. At first, one can tell that this subject will be primordial for Europe and its various complex fabrics. The accesses and the way the building touches the ground is essential, therefore boxes are never as pure as promised. The drawing seems to be an adapted tool to investigate this question.

The way buildings are built represents an important part of each set, in pictures as well as in drawings.

The sequence is chronological. Each set is associated with a 300 words presentation text providing a historical frame for the understanding of each project, and bringing coherence to the narration as a whole.

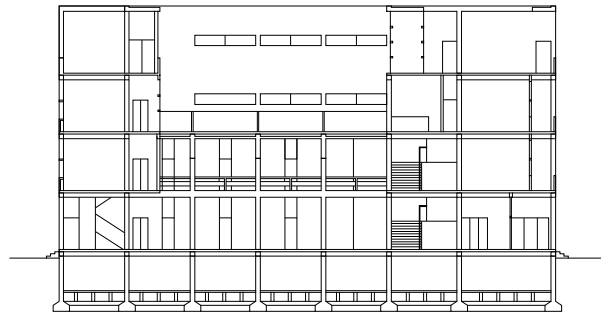
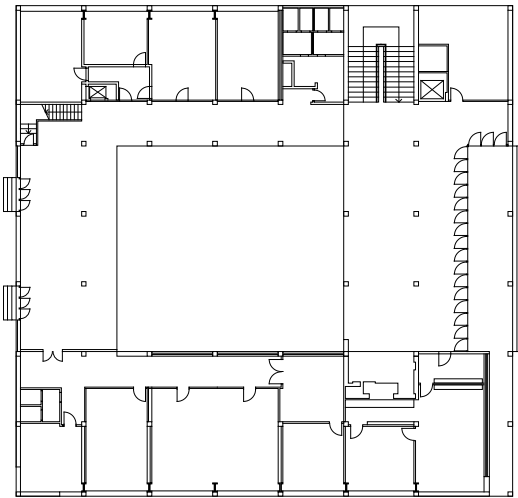
The question of a potential universality of the box is open but yet unresolved. This essay is the first step to a wider picture, which is quite reassuring after all.

- 10 Casa del Fascio, *Giuseppe Terragni*, Como, 1932 – 1936, Political Center, 3878 m²
- 18 Maison du Peuple, *Marcel Lods, Eugène Beaudouin, Jean Prouvé and Vladimir Bodianski*, Clichy, France, 1935 – 1938, Civic Center, 4264 m²
- 26 Nostra Signora della Misericordia, *Angelo Mangiarotti with B. Morassutti*, Baranzate, Italy, 1958, Church, 800 m²
- 34 Centre Georges Pompidou, *Piano + Rogers*, Paris, 1977, Cultural Center, 103.305 m²
- 42 Casa Evolutiva, *Renzo Piano and Peter Rice*, 1978, Bastia Umbra, Italy, Individual House, – 50 / 120 m²
- 50 Centro Torri, *Aldo Rossi*, Parma, 1985 – 1988, Shopping Center, 21.200 m²
- 58 Théâtre Onyx, *Myrto Vitart et Jean Nouvel*, Saint-Herblain, 1988, Cultural Center, 3900 m²
- 66 KunstHal, *OMA Rem Koolhaas*, 1987–1992, Almere, Holland, Museum, 7000 m²
- 74 Maison Latapie, *Anne Lacaton & Jean-Philippe Vassal*, 1993, Floirac, France, Individual House, 185 m²
- 82 Médiathèque Lucie-Aubrac, *Dominique Perrault*, Venissieux, France, 1997 – 2001, Media Library, 5230 m²
- 90 De Kunstline, *Kazuyo Sejima and Ryue Nishizawa*, Almere, Netherlands, 1998–2006, Concert Hall, 10.852 m²
- 98 Gimnasio, *Ábalos & Herreros*, Madrid, Spain, 2003, Sport Hall, 700 m²

106 Appendices

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The Casa del Fascio, renamed Casa del Popolo after the war, is the former headquarters of Como's Fascist Party. It was financed by Rodolfo Bernocchi, a textile contractor, and built between 1932 and 1936 under Benito Mussolini's regime for a functional purpose: provide an elegant framework to fascist manifestations. Since the fall of the regime, it has served a number of civic agencies, including a Carabinieri station and a tax office.

The building is located in a historic urban core of the city, right in front of Como's Cathedral and the Teatro Sociale di Como. The half-cube lies on a mineral piazza, whose tiles continue on both sides of the building and compose the pavement. The whole volume is slightly elevated on a masonry base. Only three steps separate the piazza and the entrance of the building, but it is somehow enough to articulate the inner

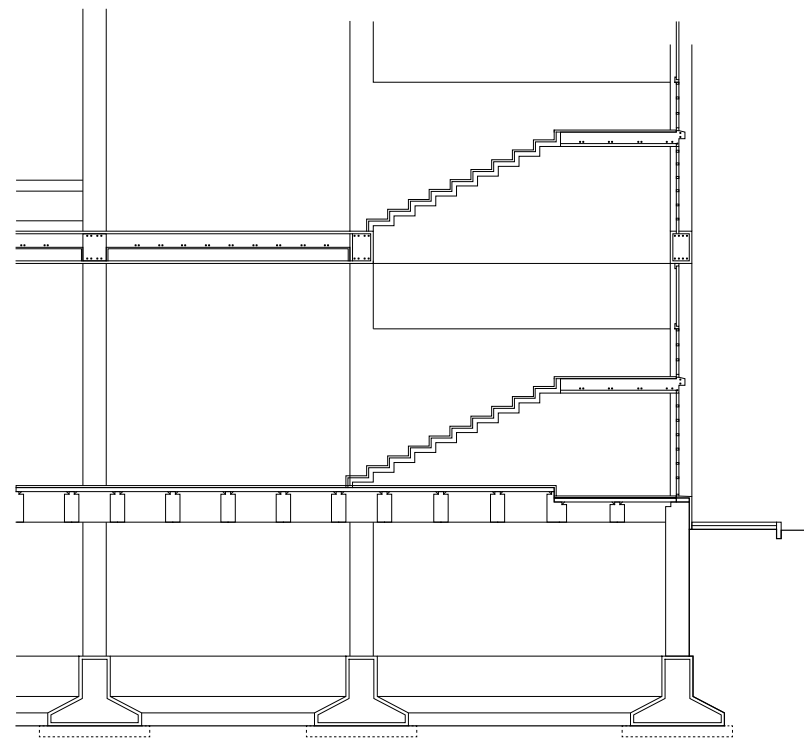
agora of the cortile and the piazza. The facades are made of clear cement, glass and metal, each of them arranged differently, the windows and the external layers of the building are employed in such a way to express the internal organization of the building.

Main Hall – back: North Facade and Como's Cathedral

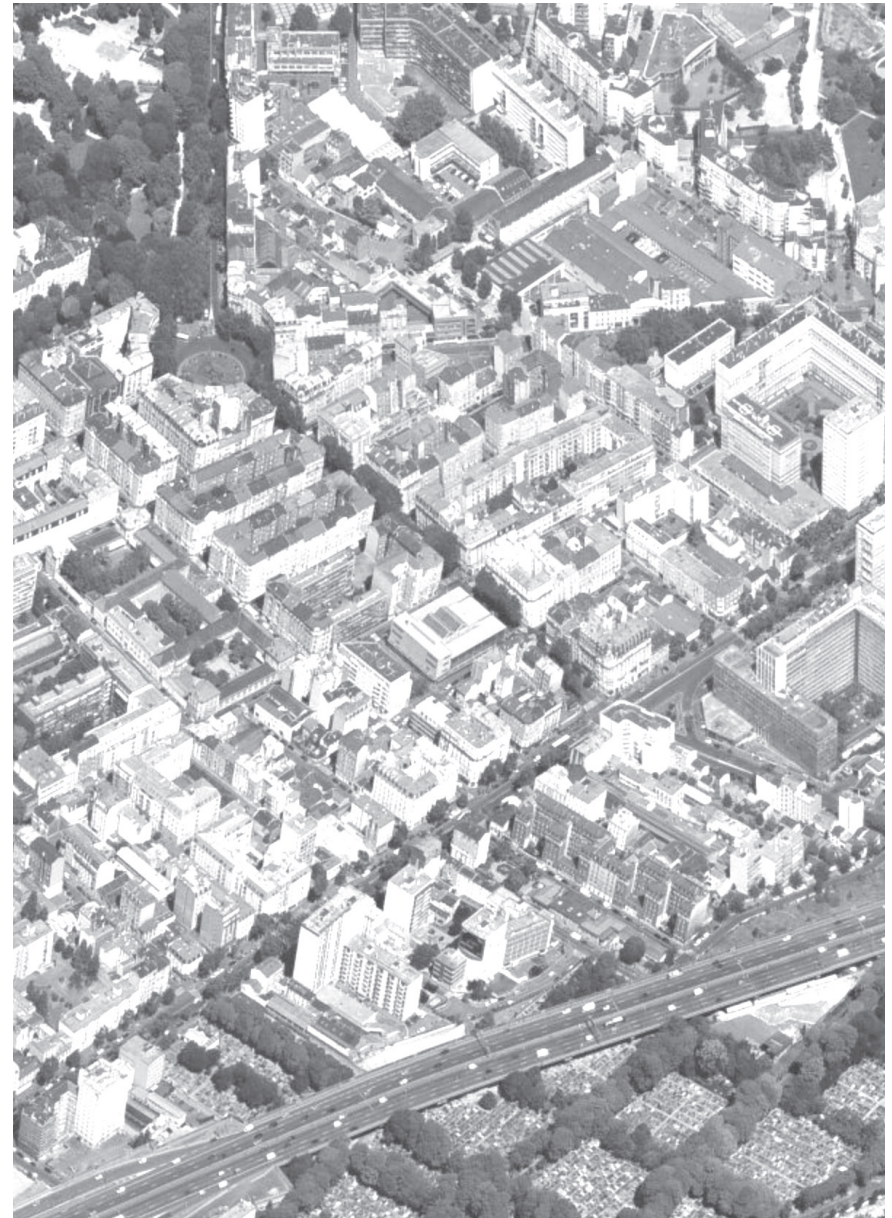


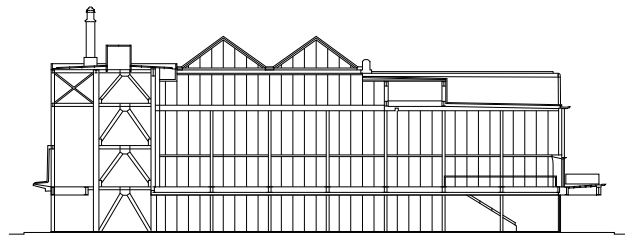
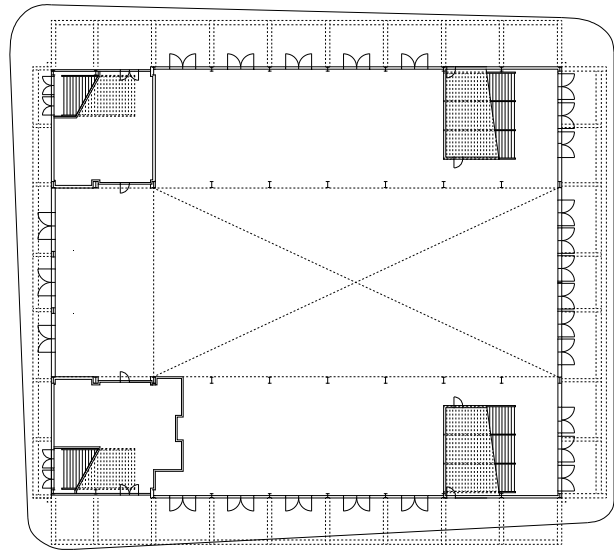
The main entrance is set a little bit back from the facade, and is made through a large series of glass doors that can open simultaneously thanks to an electrical device. The materials have been chosen to create a sophisticated atmosphere on the inside. The concrete framed structure is clad with marble from Botticino and glass bricks. Inside, everything is laid out according to a typical Palazzo plan, the smaller rooms are arranged on both side of a glazed central atrium. The 13.5 m wide main space (three spans) separates two 9 m wide office spaces (two spans); on the east part, the structural plan in the middle is moved 1.9 m towards the interior, in order to build two concrete walls holding the cantilevered main stair.





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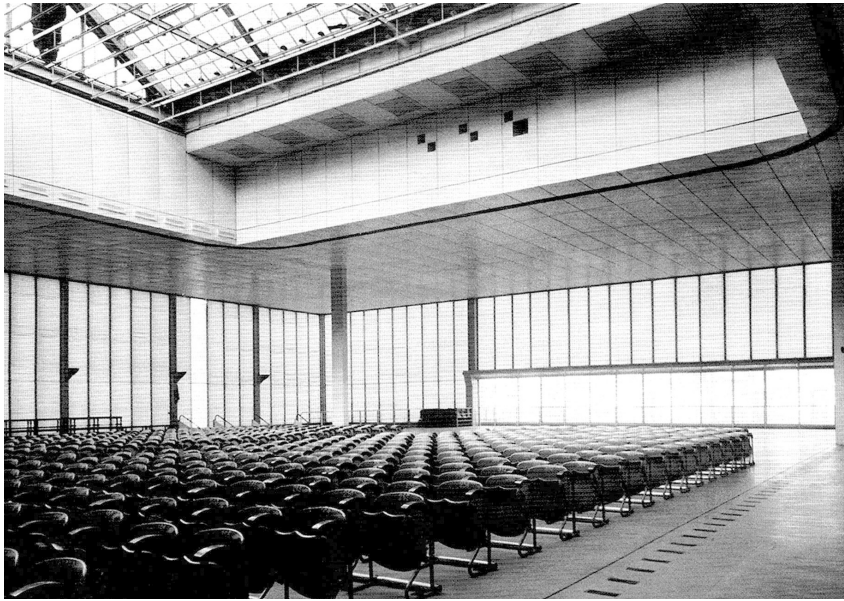
The Maison du Peuple in Clichy is a multi-program building designed in 1935 by Marcel Lods, Eugène Beaudouin, Jean Prouvé and Vladimir Bodiansky. The plot was a rectangle facing a primary road on the small side, and on which an outdoor market took place. Clichy's municipality wanted to extend this market, and to house a "Center for the People", a small cinema and offices for local unions. The architects' solution is based on the fact that the two main programs (market and Maison du Peuple) will never work simultaneously. Therefore, the building should be capable of transforming quickly.



The volume stands free on a block very close to the Boulevard Périphérique and Paris. The facade is made out of simply replaceable 1m steel panels, and 1m translucent panels. A canopy runs all around with an independent geometry from the pavement, they overlap, it somehow includes the pavement to the field of the project, and at the same time gives a certain independence to the construction (building and

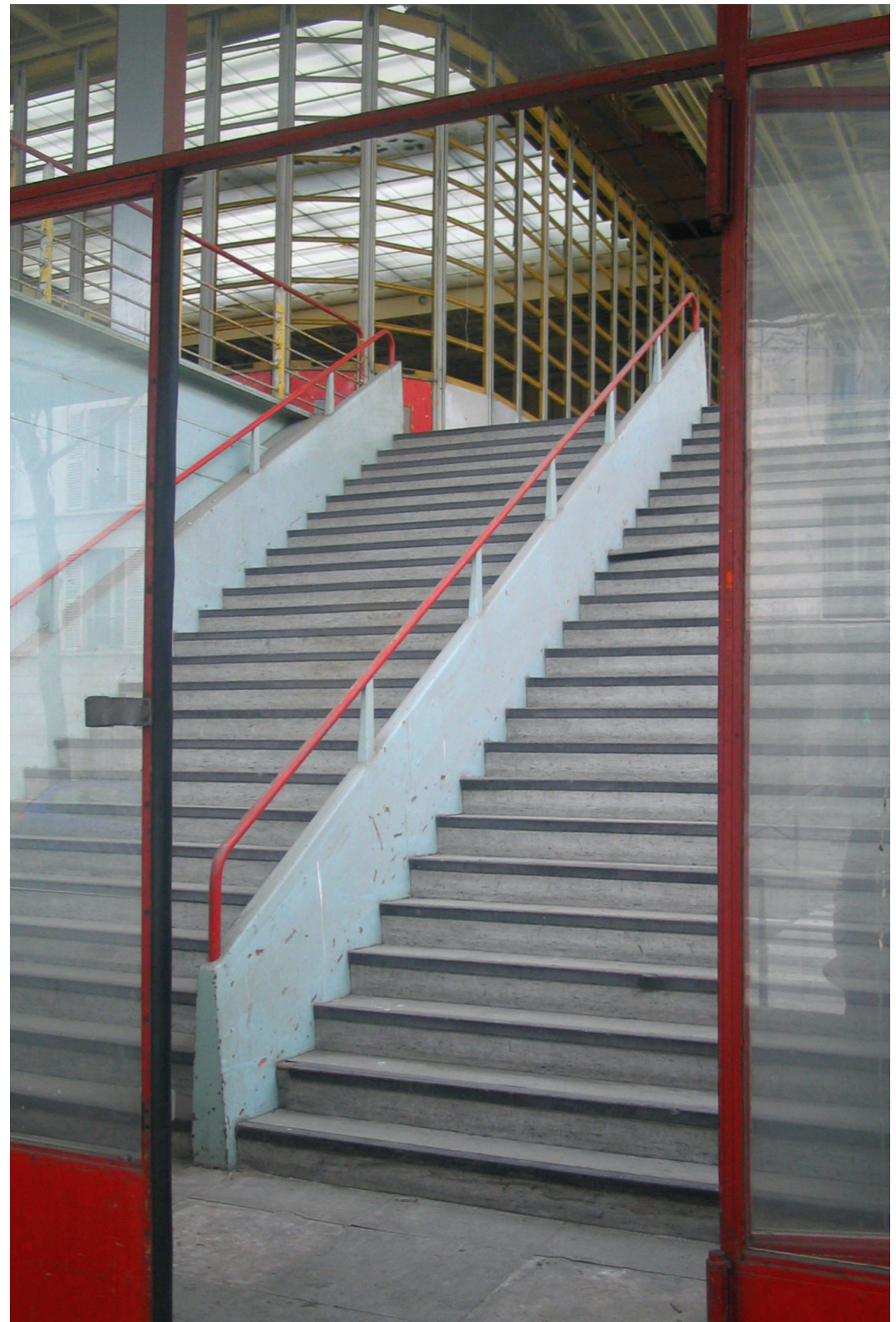
pavement) as a whole. It also provides the shading necessary to turn the ground-floor's windows effectively transparent and open to the street. The main access faces the primary street, each facade have secondary accesses. Stairs on each side of the building lead to the main 10 m high space.

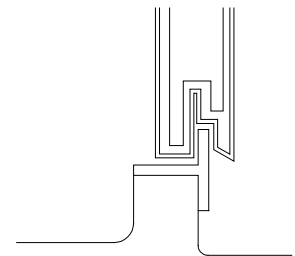
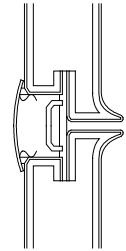
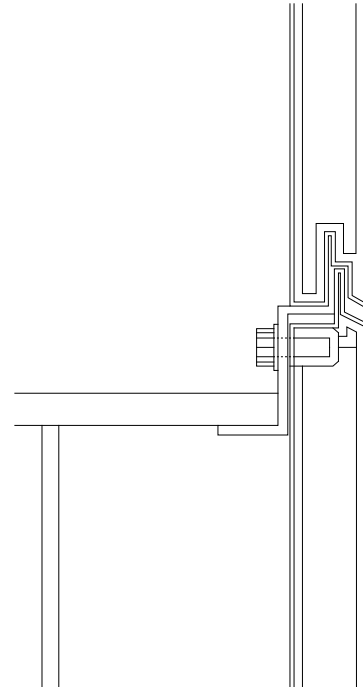
Conference hall — Back: View from the primary road



Inside, the building can be used in different configurations. The floor of the main room is composed of a series of horizontal panels that can be removed and stored to create a 15 m high space on ground-floor. Partitions can be added to host a cinema room with perfectly functional optic and acoustic qualities. The roof can slide on rails in order to bring sun and fresh air to the inside. A huge lift is set on the back of the main room, it covers 92 m² from ground floor to the 1st level.

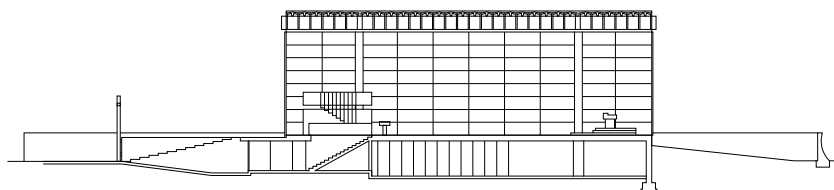
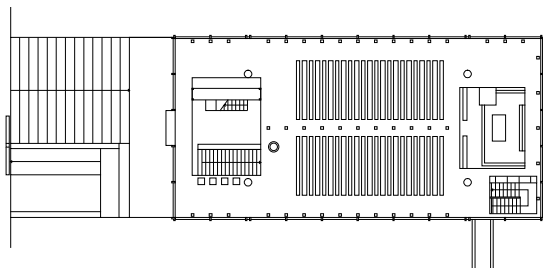
The detailed drawings on next spread represent from left to right the vertical assemblage of the facade's panels, the horizontal assemblage and the vertical joint with the ground.





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The Church of Nostra Signora della Misericordia was developed in 1956 by Angelo Mangiarotti and Bruno Morassutti with the collaboration of Aldo Favini for structures. Situated in a small density area in the suburb of Milan, it was financed by a private donor – a relative of Bruno Morassutti's – who asked for a rectangular plan over an area of about 15x30m. The language chosen brings architecture back to its origins: a base, columns and roof. In the photos of the construction, the Church looks like a classical temple where the pediment has been replaced by a sequence of crosses in the building's structure.



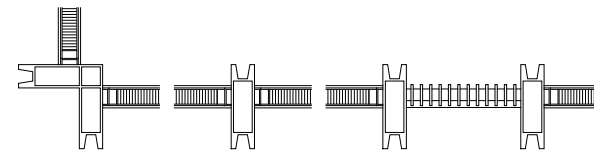
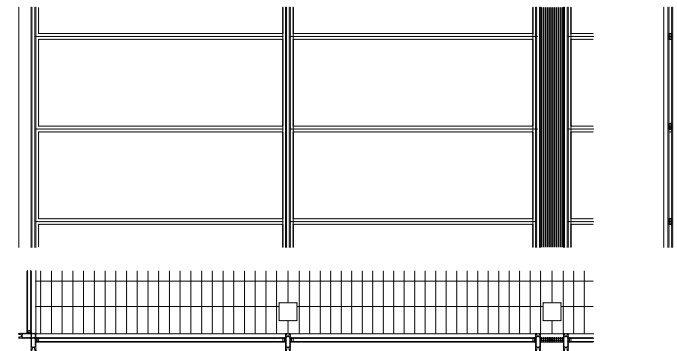
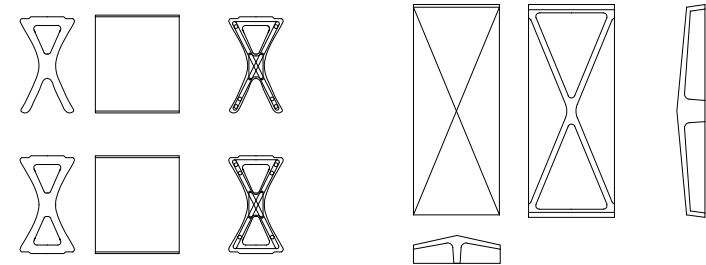
From the distance, only the perimeter, the volume of the main space and the cross appear. The plinth that rises within an area closed off by a concrete and pebble wall – where there is the Way of the Cross created by Gino Cosentino – houses a crypt, di-

rectly accessible from the outside. On the left, off-centered stairs lead to the main entrance, in the middle of the 14 x 10 m main facade.

Interior View – View from the construction in 1955



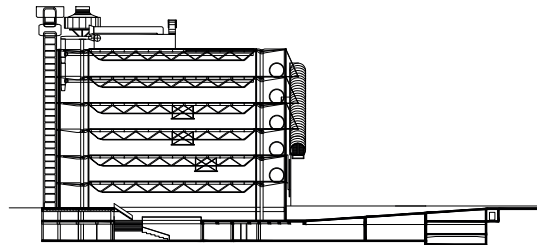
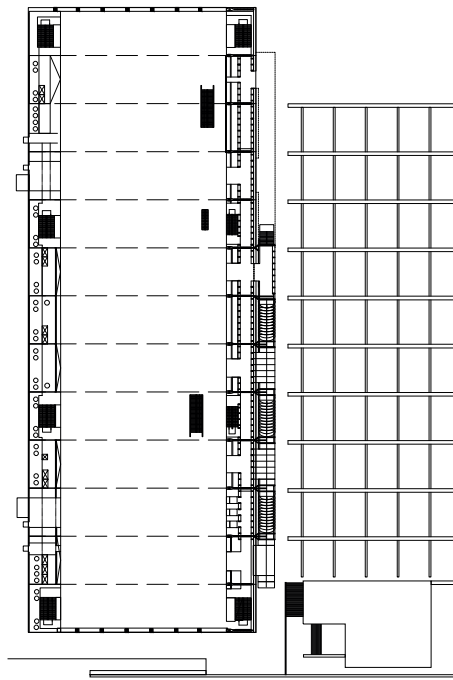
The 180 prefabricated roof elements are held by two main beams with a span of 5.25 m with lateral overhangs of 3.05 m, six secondary beams composed of precast parts, prestressed on site, with a span of 16.80 m and lateral overhangs of 5.90 m. The whole structure is carried by four 8 m pillars resting on the base. The facade is composed of 5.25 m glazed panels sealing a thin layer of plastic insulating material, offering the building its translucent feature. Inside, the widely diffuse light brings some abstraction, emphasized by the particular grain and reflectance of the 14 x 28 centimeters porcelain stoneware used for the church's floor.



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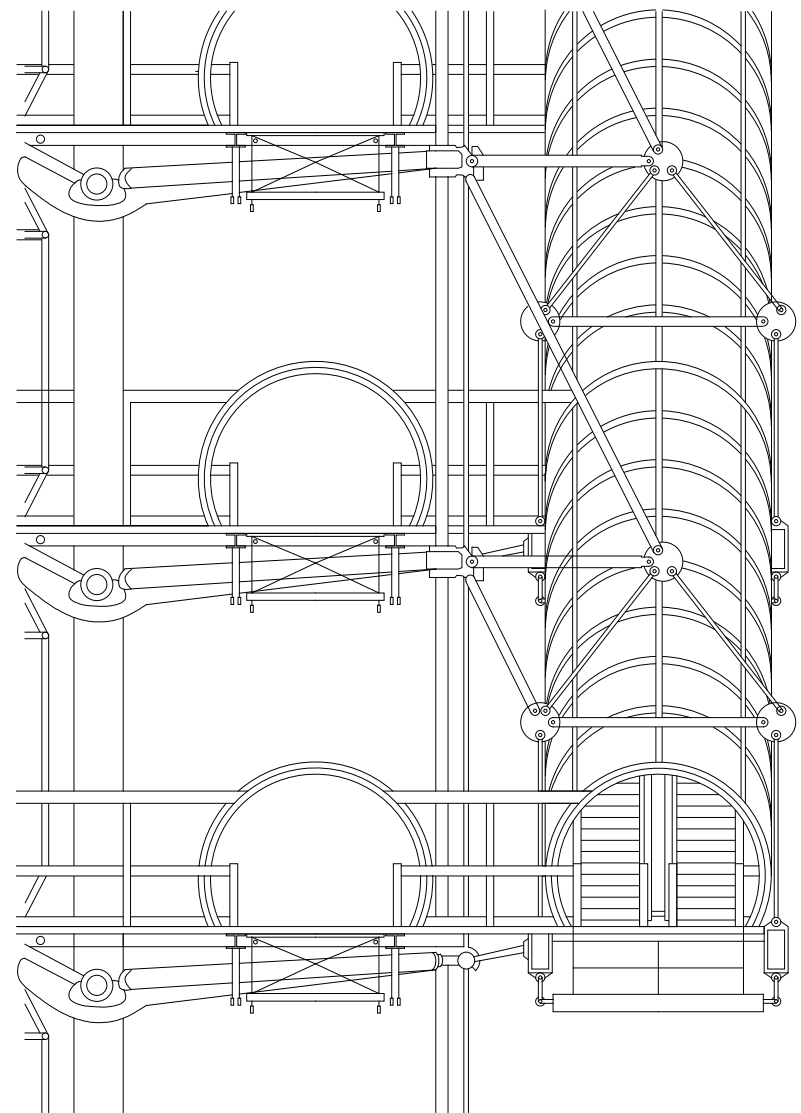
In 1969, President Georges Pompidou organized the first architectural competition in France, for the conception of a new type of cultural center. Chaired by Jean Prouvé, the competition was a great success, almost 700 projects were submitted. Developed for the Plateau Beaubourg, the program was very ambitious : build in the center of Paris a public building that could host a large public library, the Musée National d'Art Moderne, a center for music creation, and space for the growing Centre d'Art Contemporain.

Most of the projects proposed extremely articulated buildings filling the whole plot, usually half-buried, like the Forum des Halles which is still not resolved today. Renzo Piano and Richard Rogers, both still young and unknown architects, came up with a giant flexible box of roughly 153x55 m on the ground, leaving half of the site free for a public space. Most of the features of the project come from this initial decision.



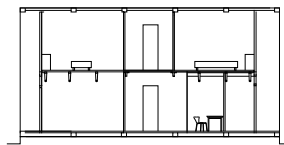
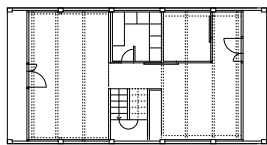
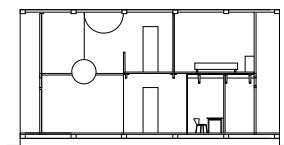
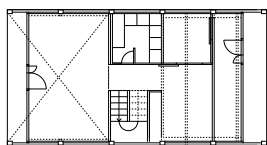
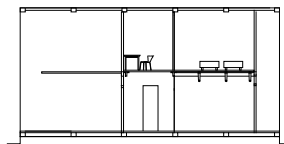
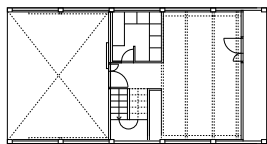
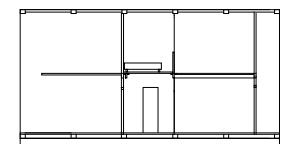
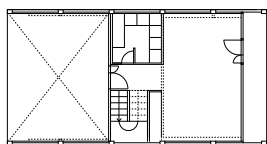
The piazza, gently slopped to reduce the building height, lead to the main entrance and the double height hall. Even though access is one story under the street, the buildings rises at 40 m, 9 m above urbanism regulations of the time. The city accepted but under the condition that the roof should somehow carry a strong public image towards the city. The cantilevered escalators on the main facade fulfill this mission. Structurally, the building is composed of two gigantic porticos holding high trellis beams with a span of 44.5 m with laterals overhang of 5.5 m – beside these, no structural element crosses the building. Likewise, all the technical elements are placed on the perimeter of the building, on one hand to provide a certain technical image, but mostly to provide on every level a 6000 m² deck portionable freely in space and over time.



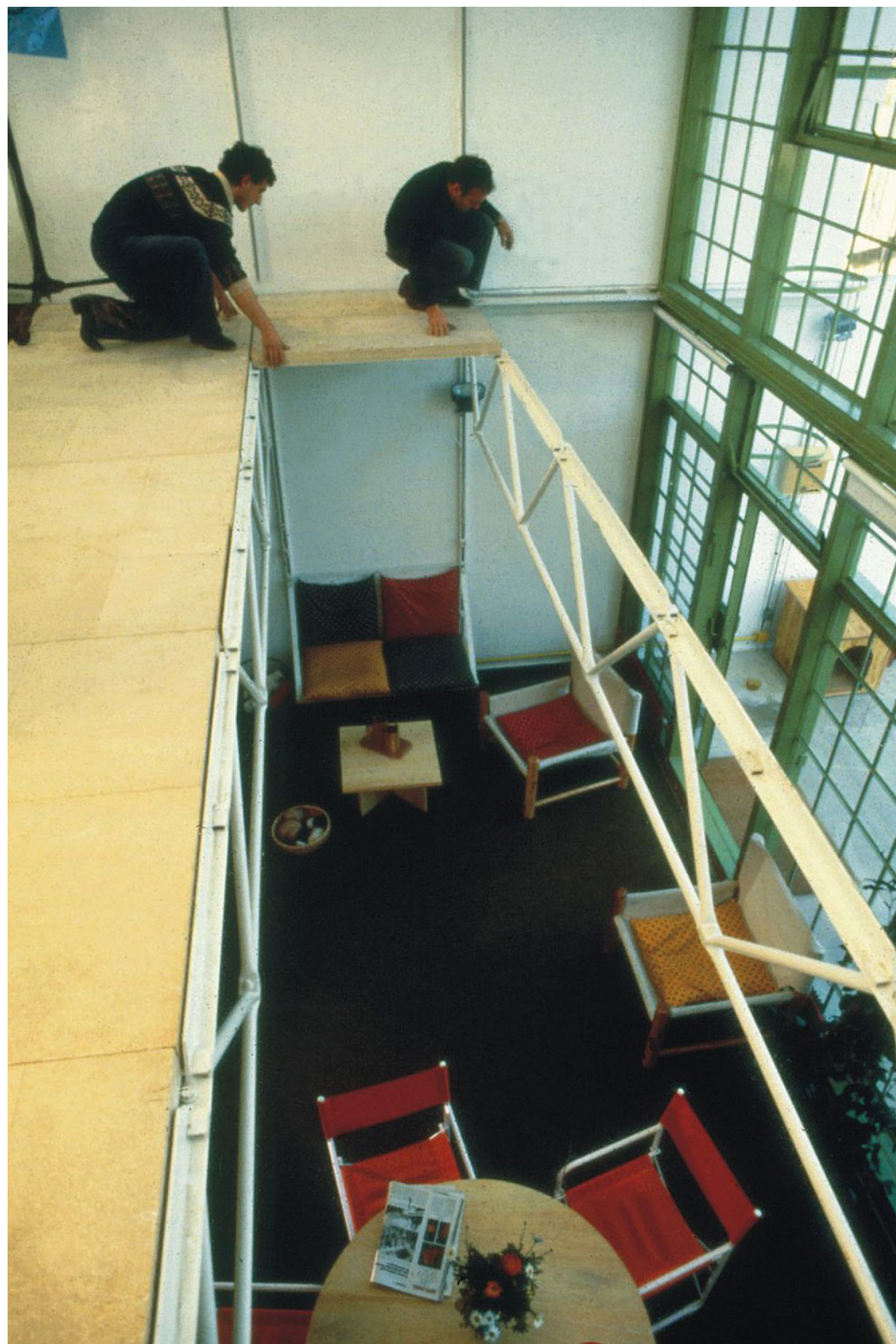


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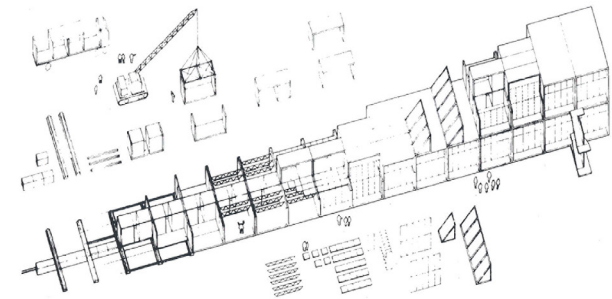


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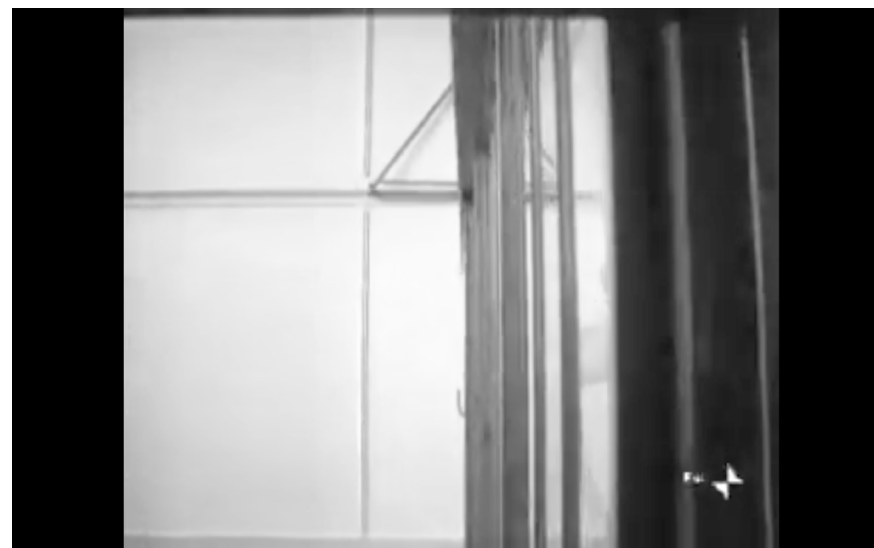




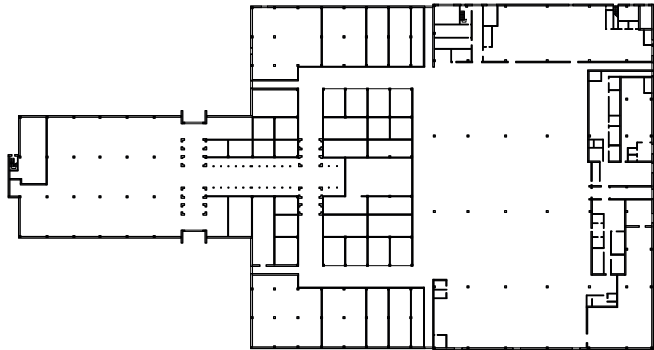
One year after the delivery of the Centre Pompidou, in 1978, Renzo Piano associated with Peter Rice to develop a project of adaptable housing for the municipality of Corciano, near Perugia. They developed a similar strategy to the one for the cultural center, but the span of the beams is 6 times smaller. The big shrinkage of the elements produce a lot more flexibility, and allow the house to change easily according to their inhabitants' needs. Each house could be placed side by side, and on top of each. A prototype was built in Corciano but was demolished (pictures and video). A second was built in Bastia Umbra to host people with psychiatric issues, set free by the Basaglia reform. It may be demolished to leave space for a bigger health center.



A 2.75 m wide and 3 m high core is fixed in the middle, on which partitions can be added to create a room upstairs and two double height spaces on each side. Towards the entrance facade, the glazed structure is fixed 4 m from the core. On the other side, the glazed facade can slide on rails and articulate either a covered outdoor space, or a double height leaving space. On both sides, rails are incrustated in the wall to hold light trellis beams. Two persons can easily instal the beams and the wooden panels of the floor. The whole usable area vary between 50 and 120 m².







Centro Torri is a Commercial Centre designed by Aldo Rossi between 1985 and 1988 in Parma. It combines both classical european tradition, and standards of modern american malls. It is placed in a strategic site in the city, very close to the highway. Even though it is (almost) a single story building, ten brick towers rise at 28 m make the building visible from far away, and highlight the entrances. The continuous brick wall of the perimeter and the towers make the building look in some way like a monument from the renaissance city in the middle of a contemporary industrial area.

“The towers are undoubtedly “happy”, stretching out to heaven. Centro Torri appears to strengthen the effect with the use of the towers, as do public buildings where the names are indicated on the end wall... the brick and ceramic towers in Parma often look like lighthouses on foggy days.”

Entrance gates – Back: View from the main hall

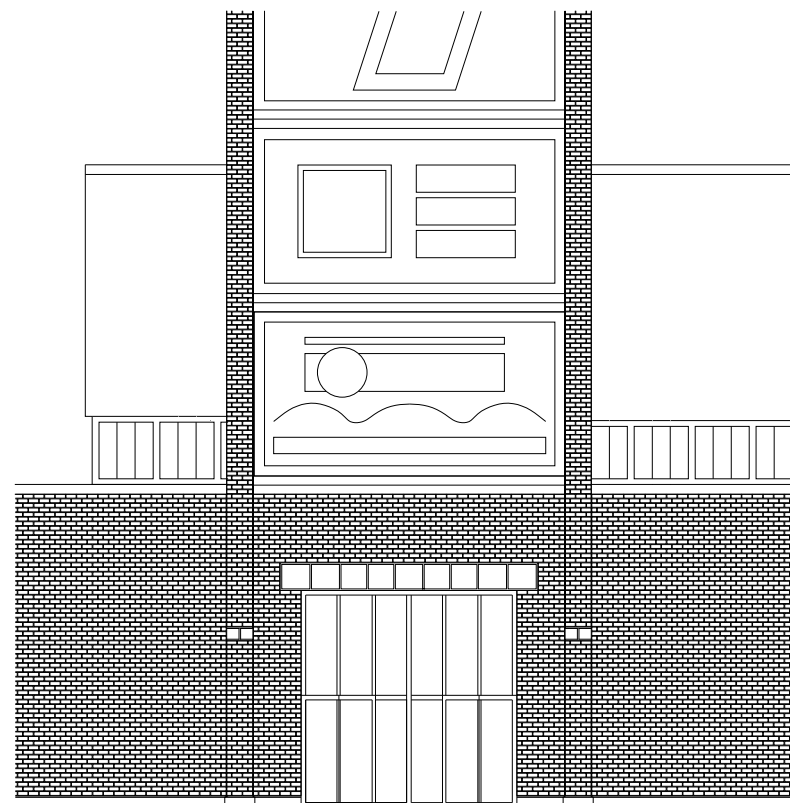


The volume sits on a big parking surface, and is surrounded by a thin pavement. The parking space can be appropriated and host public events. One can enter on each side through the towers, and under big industrial steel lintels painted green. Steel columns also painted green separate the 7 m nave and the 3.4 m aisles of the main gallery. At the end, a rectangular 8.8 m wide gallery hosts supermarkets and shops. The roof is hold by a series of triangular frames placed diagonally at the angles. Rossi already tested this solution one decade earlier in the San Cataldo Cemetery. Both galleries are enlightened by continuous horizontal opening placed under the roof.



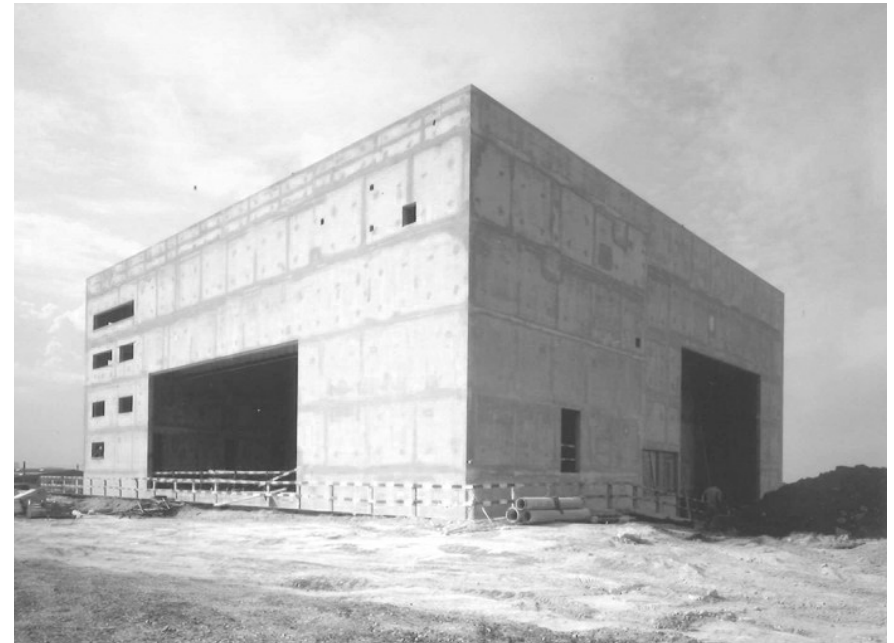
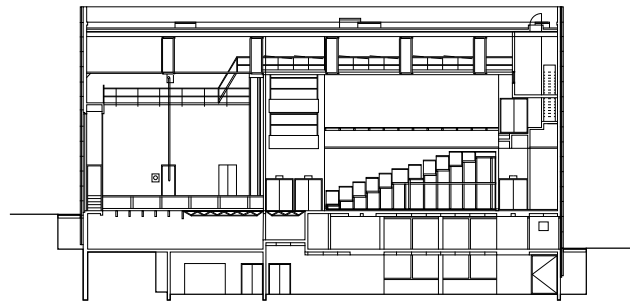
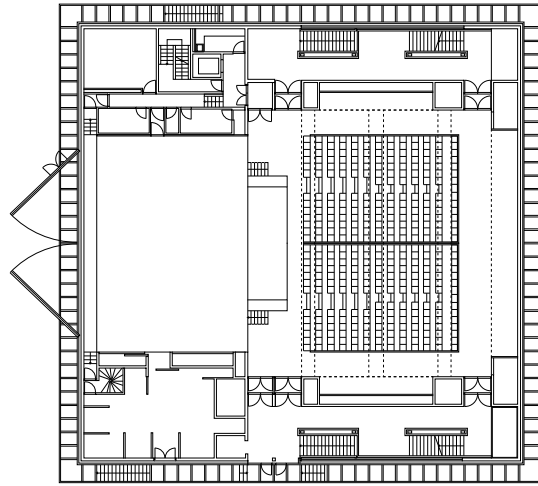
The project was made as a centre for life. At this level, the building is very successful, it became an important gathering point for the city of Parma. Many things are happening, loud music is playing, vendors call passersby with speakers, you somehow feel like you're crossing a traditional Italian market.





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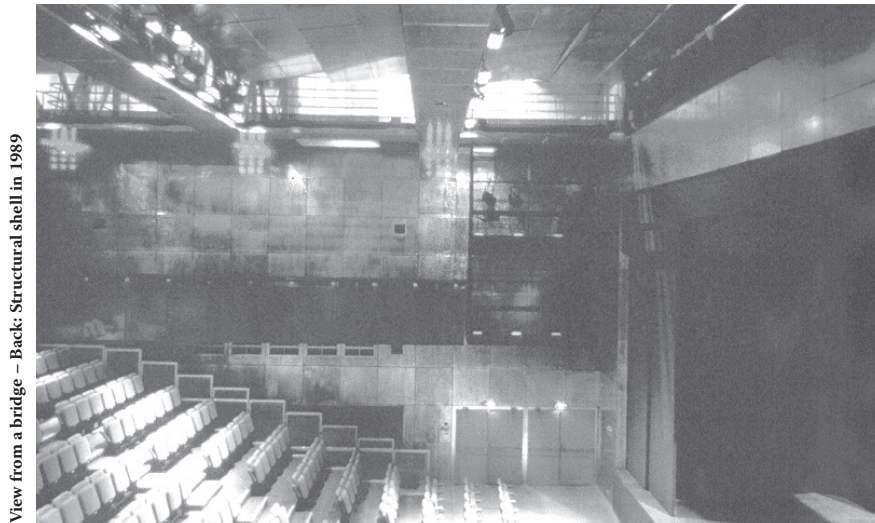




The idea of the Centre Commercial Nantes Atlantis came to Michel Chautin in 1977 when he was mayor of Saint-Herblain. His will was to develop the area at the confluence of the three main districts of the city. The project actually started in 1987 with a set of anonymous boxes, among which a large mall made of suspended steel structures and design by Richard Rogers. One year later, in 1988, Jean Nouvel was offered the neighboring plot to build a cultural center that could be the symbol of the area, and bring culture back in this consumption area.

The parking lot is in itself a landscaped element, bearing the signs of urbanity and of artificiality, slopping gently down towards a small existing artificial lake without any physical rupture. The building is a 33x33x16.5 m concrete box painted black and covered with a metal mesh. The 33 m square is incorporated into this slop with an offset of 1.3 m creating a

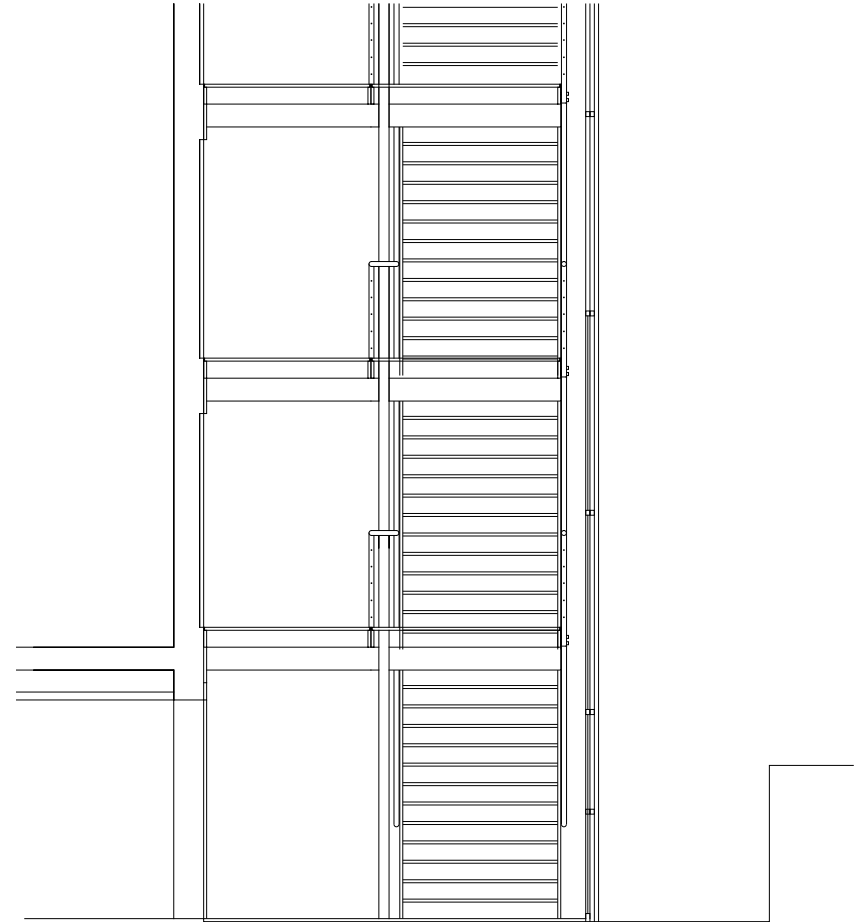
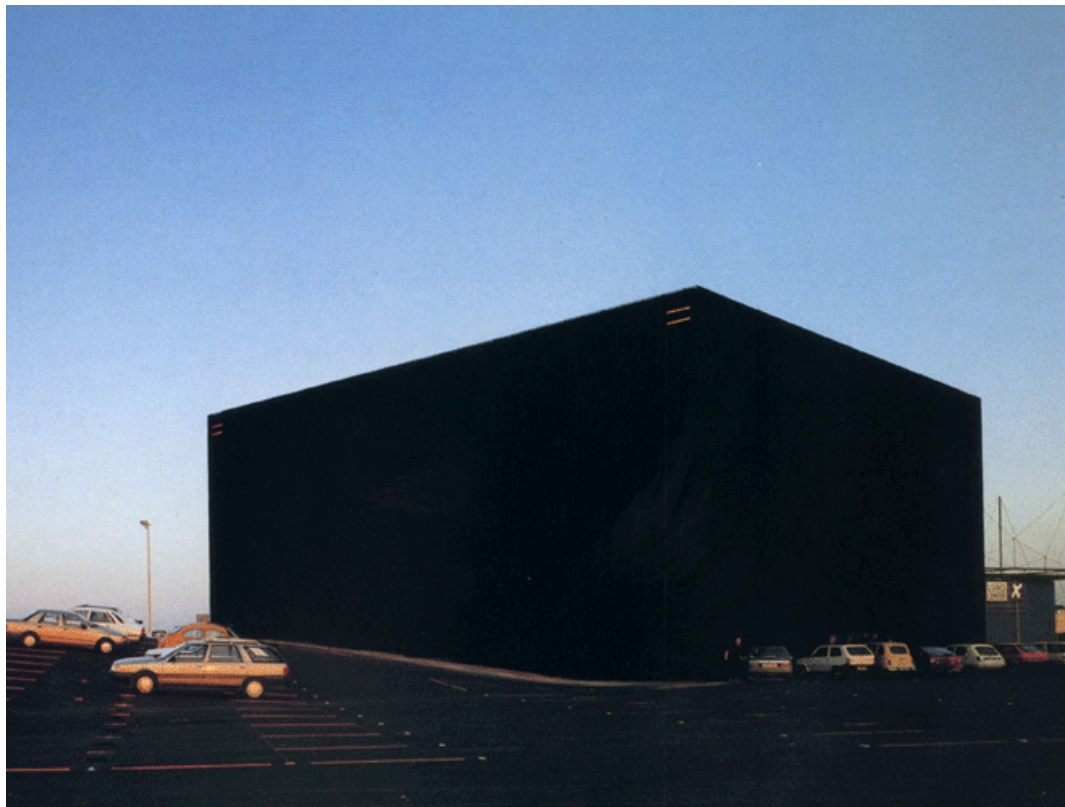
buried circulation surmounted by duckboards at ground level, and developing around the building with stairs to follow the slope of the parking (one floor lower). It also allows circulation around the building, and enlighten the exhibition spaces under-ground. There is one storey gap between the front and the back of the building, the low 2.2 m entrance space and the stage, on first floor, are at the level of the parking. In the main space, all the seats can be retraced to create a large cabaret space. Also, two 7 m swings in the backstage can open, the front stage becomes the backstage and the audience can stand outside as the building turns into an open-air theatre.



View from a bridge – Back: Structural shell in 1989

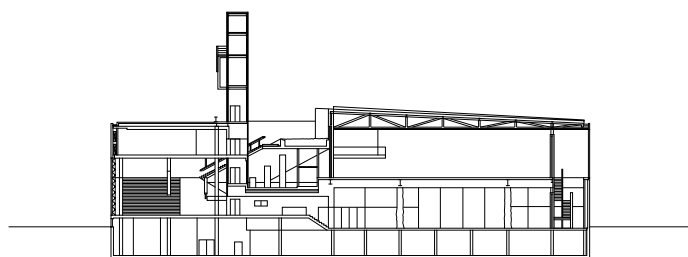
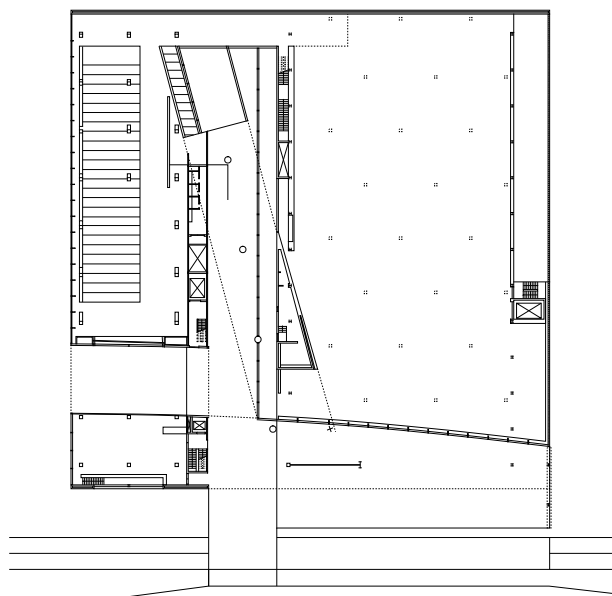
All of these spatial articulations, added to the complex set of stairs and bridges create some confusion on the inside. Except from the backstage (closed most of the time), and the large opening on the north-west facade, the whole building is blind. The different heights inside and the openings are precisely controlled to create an inner world protected from the nasty buildings around, and with a high potential of experimentation.





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0 4 10 20

In the 80's appeared the phenomenon of blockbuster exhibitions; these big popular events increased consequently the mass of visitors in museums. In Rotterdam, most museums were not prepared for such a shift, most had trouble handling their permanent collections and such events at the same time. Joop Linthorst, who was councillor for Finance and Art in Rotterdam saw an opportunity there, and decided to create a museum dedicated to these temporary and intense exhibitions. In 1988, Rem Koolhaas was selected to design the building with an unclear pitch. In a first project, he envisioned a single large floating space, an ambitious plan based on a museum without walls. Wim van Krimpen, the first director of the Kunsthaus declined the project and developed a more precise program with more walls to hang art, and more square meters. It is the program of the building as it is today, demanding three major exhibition spaces to be used jointly or separately, an auditorium and an independently accessible restaurant.

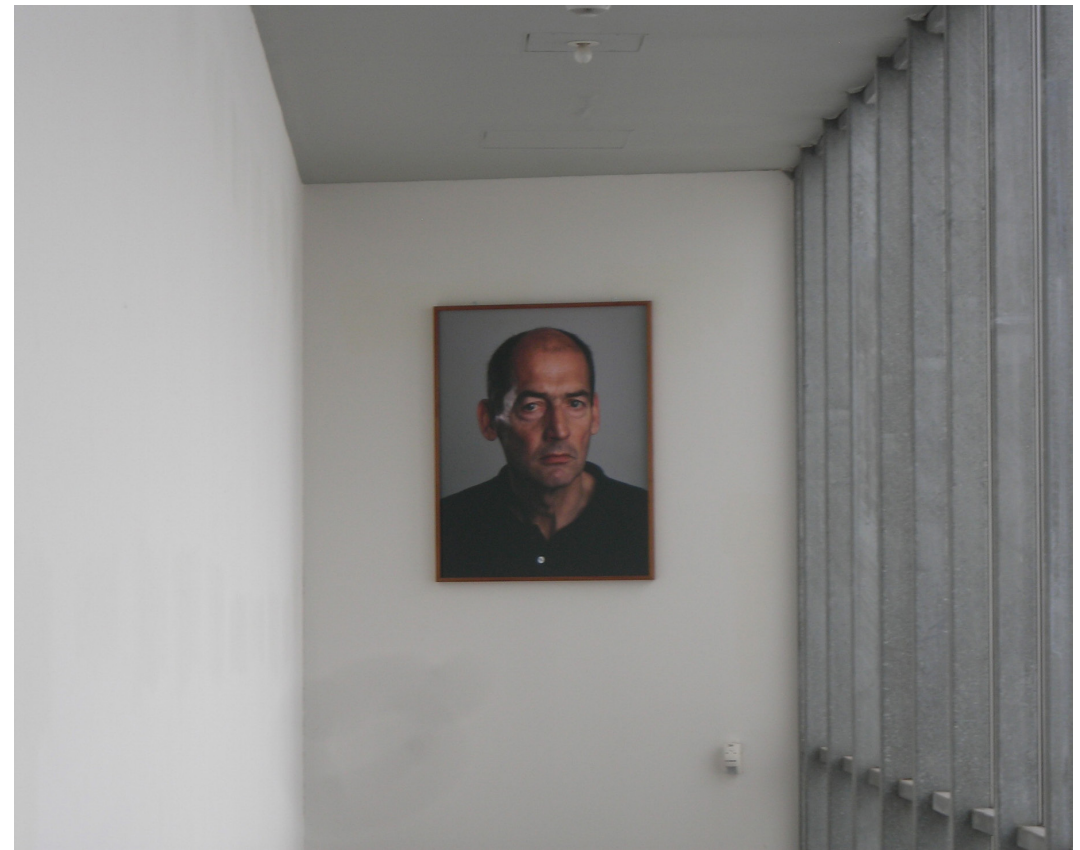
Conference hall – Back: Exhibition room on ground floor

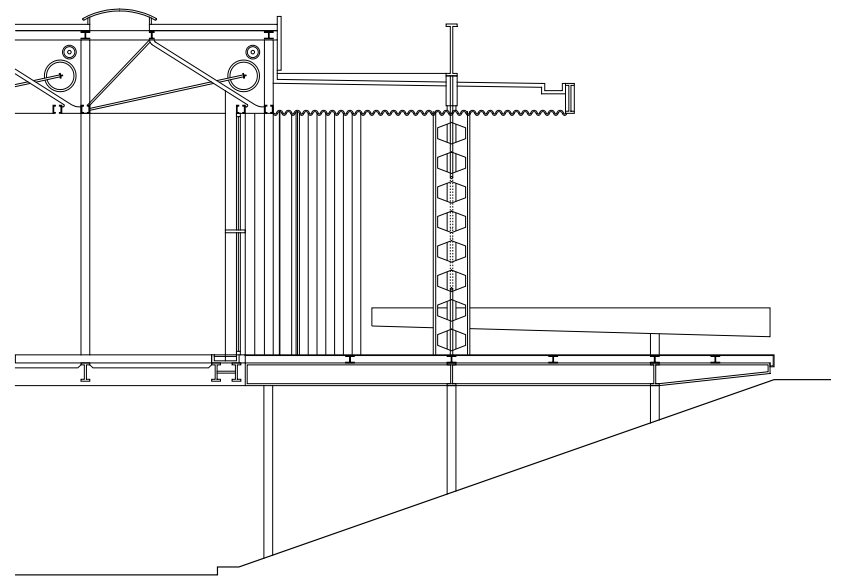


The building is placed between an elevated highway in the south and the Museum Park – a large green area hosting Rotterdam's most prized cultural amenities. It creates a dual condition: an elevated busy and large scale axis on one side, and a calm natural area of contemplation on the other. This condition is translated in two axis crossing the building, one being a small road parallel to the highway a level lower, and a slopping ramp crossing the building in the middle and connecting the front facade to the park. This cross divides the building into four parts.



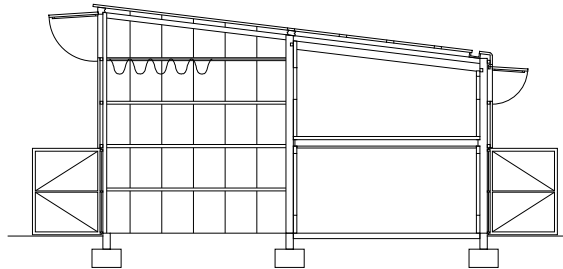
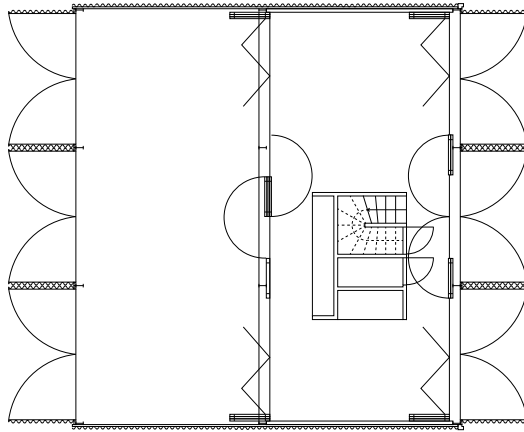
The structure and the facade have a large variety of materials. Concrete and steel support panels made of different glass materials and some opaque panels. The main access is in the middle of the pedestrian ramp through a stairway leading to a hall supported by tree columns. An inner ramp then heads to the second hall, a wide open skylit space facing the boulevard. A third ramp along a roof garden leads to a more intimate single-height hall and further on to the roof terrace.





0 1 3 6





In 1992, a couple with two children commissioned Anne Lacaton and Jean-Philippe Vassal to build their house in Floirac, close to Bordeaux. It was the first commission of the couple, and their first built project. Because the budget was limited, the house had to be very economical. They developed the Prototype Dwelling, an individual housing model composed of two wooden boxes on three levels, sitting in a standard 12 x 9 m plastic horticultural greenhouse. The project was overcoming the 55.000€ budget set in the beginning, the architects had then to investigate a new solution that would fit.



Designed within a 10.6m square, the house consist of a sloping box – 5 m high towards the street and 6 m towards the garden – composed of a simple steel frame, and clad on one half with opaque steel-cement pannels, and on the other with

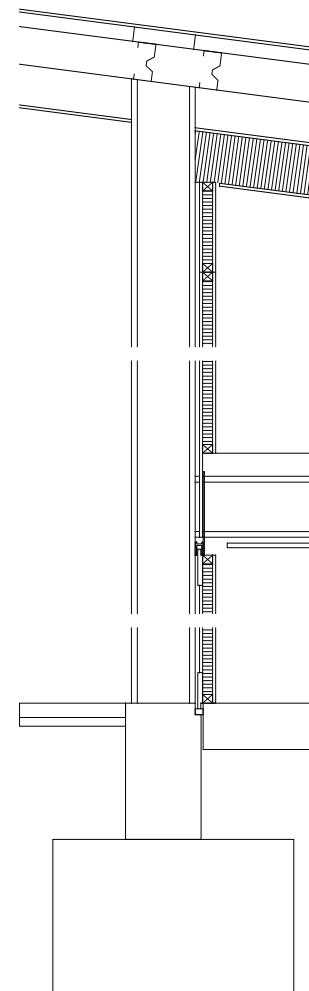
transparent polycarbonate. A wooden box is installed within the steel structure, behind the opaque half of the building. Insulated and heated, it contains the main rooms of the house: the kitchen and a living room on ground floor, and two bedrooms upstairs. The other half of the house remaining free is as an inhabitable greenhouse.

Entrance – Back: Winter living room



The partition system allows the house to adapt through the course of the year. A set of sliding and swinging panels allows both east and west facades to open widely. The limits of the house can then vary from the smallest in winter: the insulated box, to the largest in summer with the greenhouse and even the garden. It also allows the inhabitants to adjust light and views inside the house, and ensure thermal and air comfort.





0 .2 .5 1

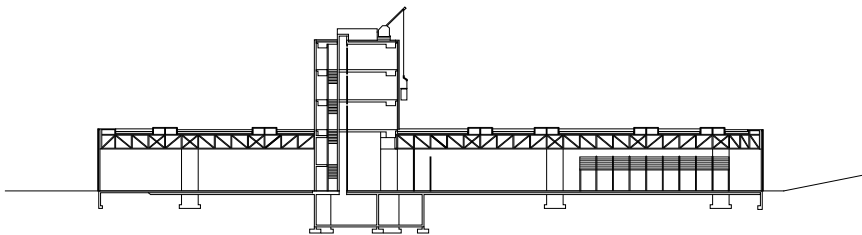
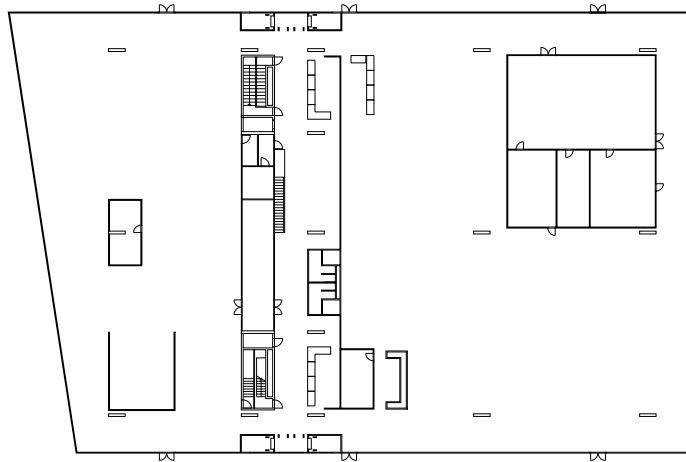


The project was first imagined in the 80's, a media library aiming to bring a cultural and popular response to the diversity of Venissieux's population. Following this strong integration desire, the municipal team made the bet of choosing a site at the border between a small area of individual housing, and the Plateau des Minguettes, a difficult neighborhood of the city at the time. The project was given to Dominique Perrault in 1997, with considerable social expectations.

Metallic cladding



The building is at garden-height, flush with the square and its surroundings. The glass facade is filled with diagonal perforated metal elements placed randomly that create variations in transparency through the approach of the building.



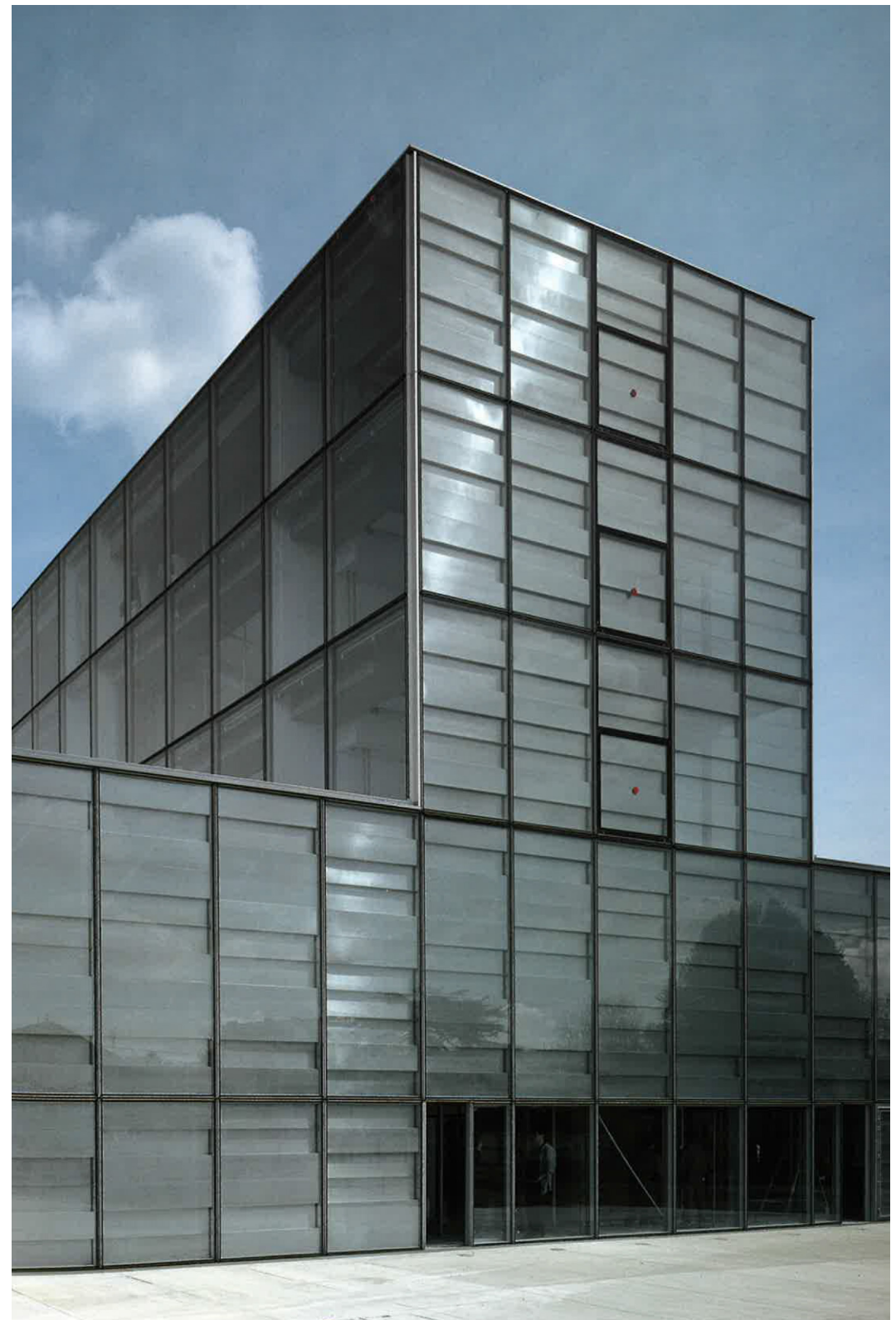
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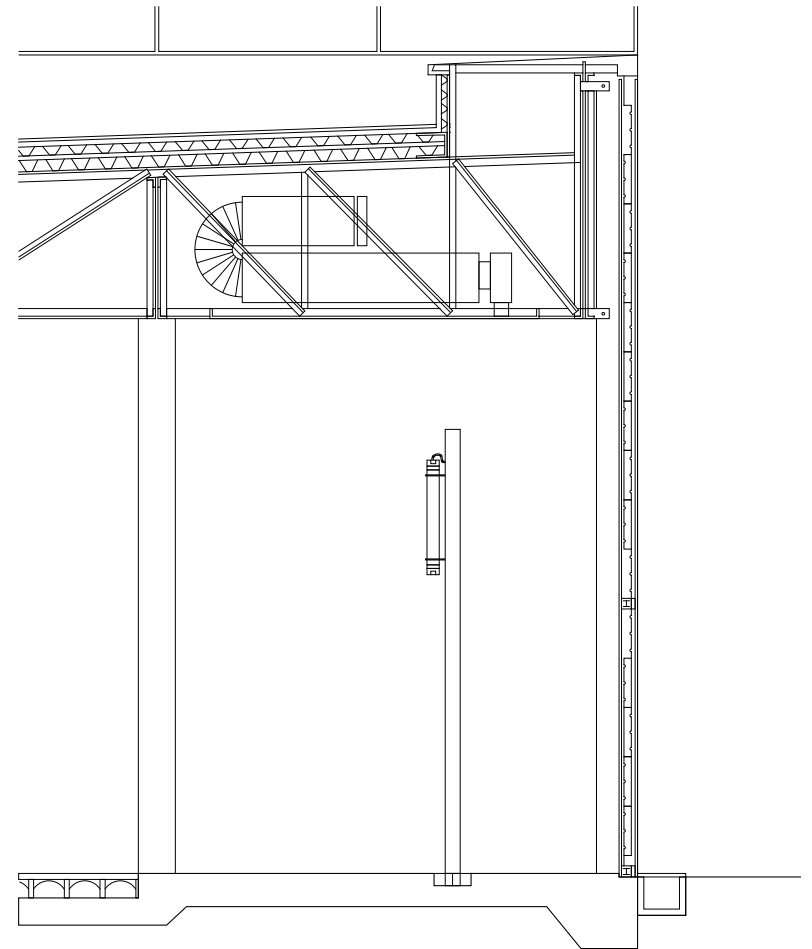
Mainly on one floor, the central section includes three stories of offices. This excrecence advertises the building from the distance. The roof has openings to provide natural enlightenment in the middle of the deep plan. It is held by a huge steel trellis grid laid on concrete walls, with a 19.5 x 16.2 m span. All the functions are brought together in two spaces of respectively 1028 and 1800 m² separated (spatially but not physically) by the “tower”, and girdled by a peristyle gallery open onto the surroundings on one side, and on the activities of the establishment on the other. At the heart of this assemblage, the entrance hall is in the form of an urban passageway between the square to the west, and the meadow to the east.

Main reading room

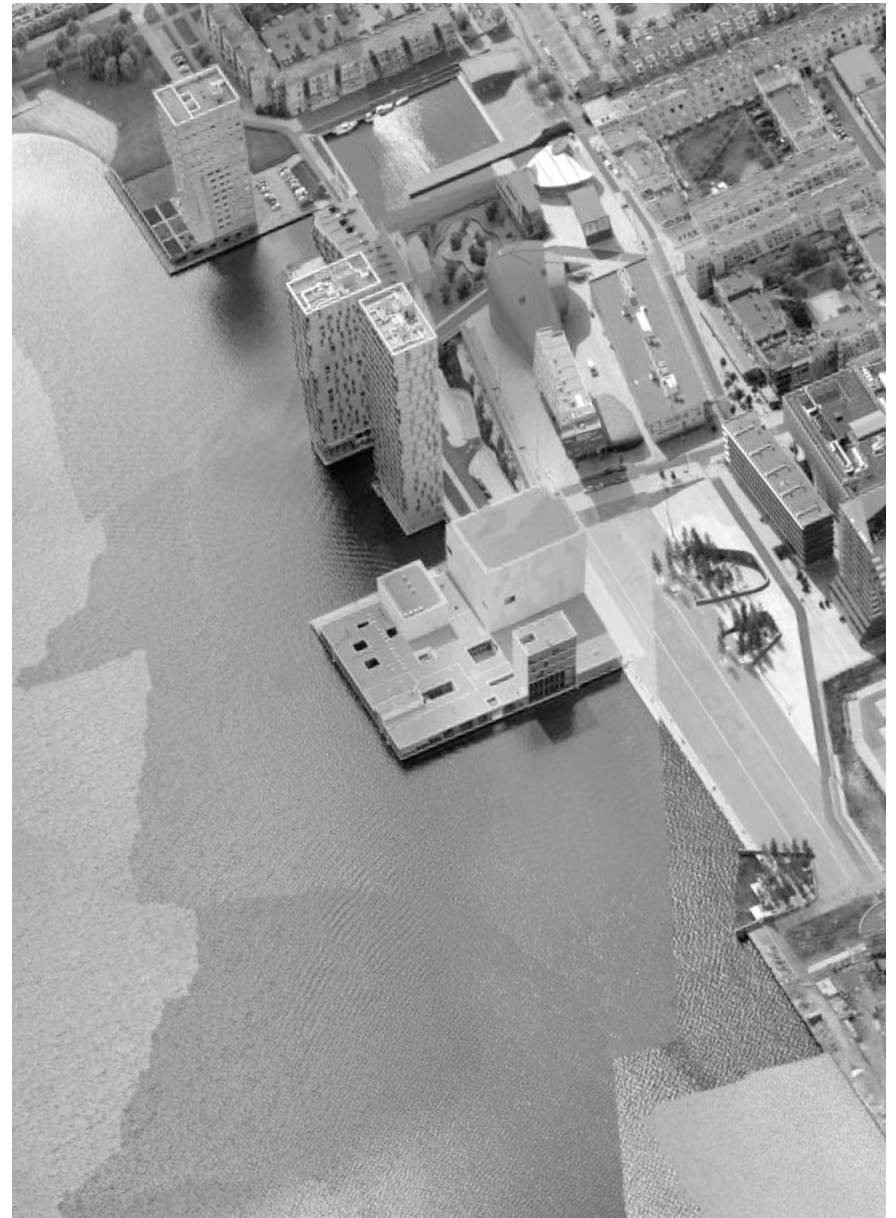


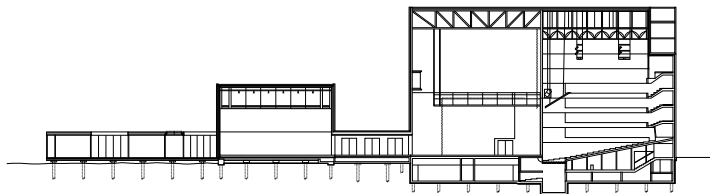
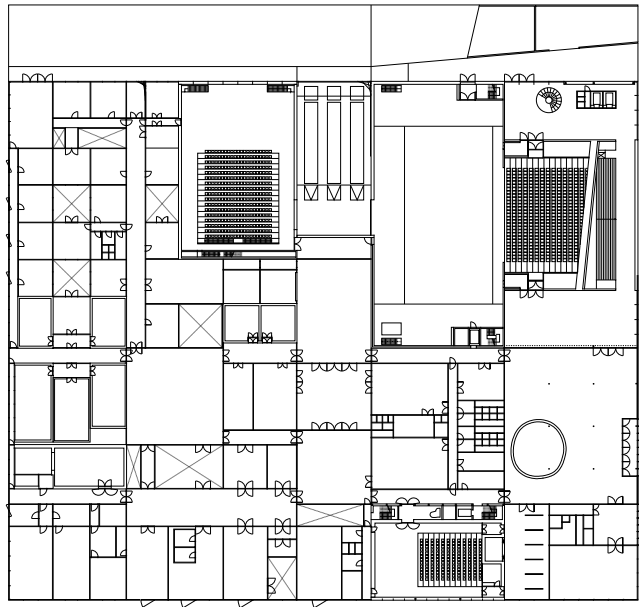
“The economy of the scheme resides in its simplicity : a single ground floor for the mediatheque and a small building for the services, the entire construction beeing compact and treated with « rough » materials.”





0 .4 1 2





In 1994, OMA was commissioned for the master plan of the extension of Almere, a city in growth in the suburb of Amsterdam. Created in 1974, the city counted 100.000 inhabitants after only 20 years of existence, and the double today. The office planned a new city center providing the basis for a number of essential facilities, such as a cultural nucleus (museum, library, theatre) and large scale retail facilities. The Japanese office SANAA was selected to design a cultural community center collecting two large theaters, offices and a number of smaller performance, rehearsal, administrative, and support spaces.



The plot of the building is on an artificial lake, facing large scale public buildings. The program in itself creates a duality: the project should gather professional artists and practicing amateurs under one roof. The form follows these two dimensions and tries to establish a more articulated relation between the horizontal plan of the lake and the vertical feature

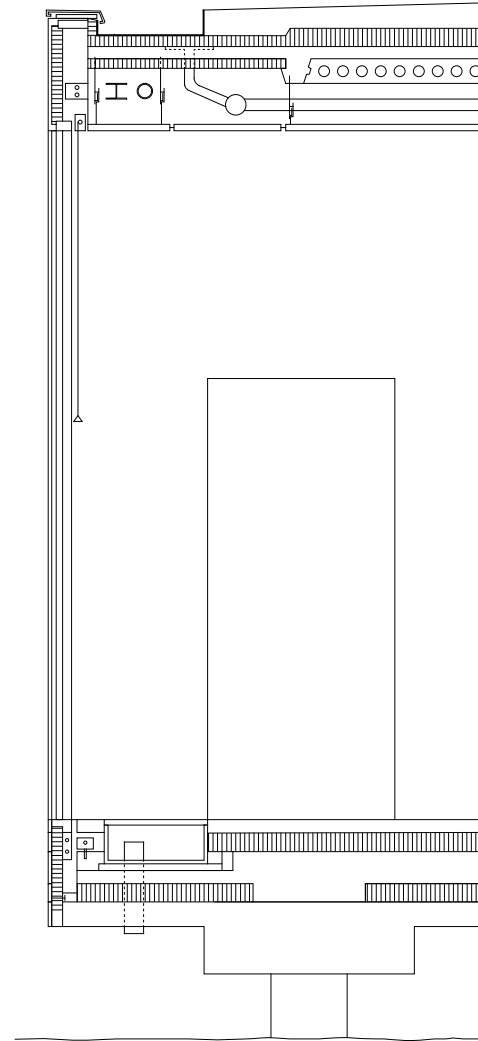
of the surrounding buildings. The footprint is a rectangle of 107x88 m, organized according to an irregular grid made of multiples of 2.52 m, highlighted by the rationale construction of the facade. Regular panels made either from stones or glass clad the whole building and contribute to the rigidity of the structure.

Circulation hall – Back: View from the artificial lake

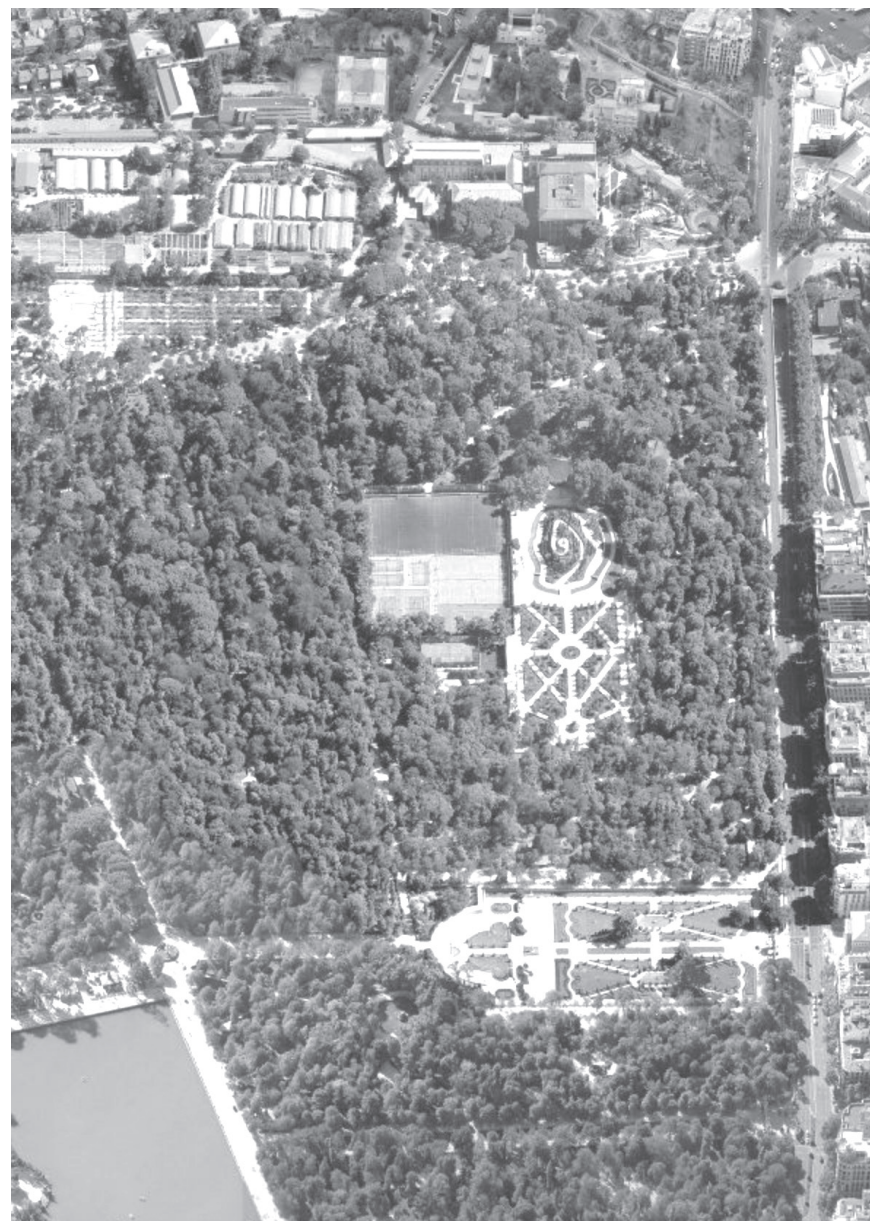


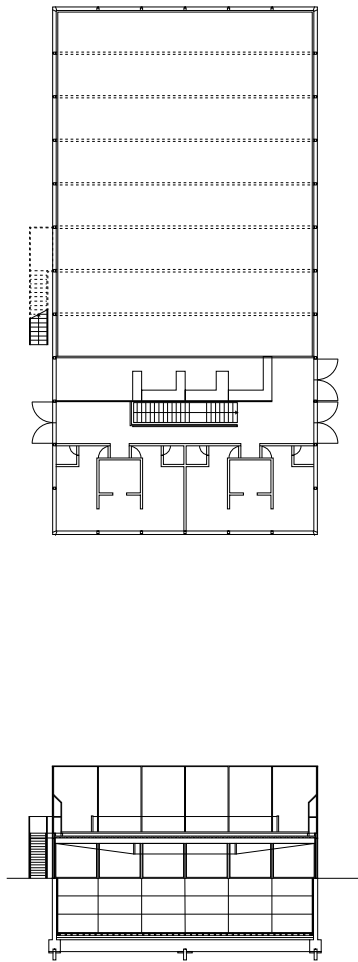
The plan was developed to avoid hierarchies, creating an even covered field of connected rooms organized according to the program. This strategy confers a huge abstraction to the overall layout, emphasized by a delusive structural system of steel flat bar which can work as a column inside a wall no thicker than a normal partition.





0 .2 .5 1





In 1999, the Spanish office Abalos y Herreros won the competition for a sports' hall in the historical park of Buen Retiro. The architects tried to tackle the topic of a pavilion placed in a park today, especially through a precise definition of the envelope. Through its apparent simplicity, the project somehow manages to follow the tradition of the vegetation constructions of the park, especially through the echo to topics such as meshes and edges and a certain radicality in the relationship to nature.

The Gimnasio is a small 18.2 x 36.3 x 3 m box, placed on a 3.75 m excavated concrete block, and surmounted by a 4.5 m mesh perimeter. The whole building is drawn according to a square grid of 3 m, defining a 420 m² double-height gymnasium and two 210 m² levels of offices and changing rooms. The facade is constructed in steel: on ground floor, 14 cm IPN beams are framed by a layer of translucent glass on the inside, and thin metal mesh on the outside that goes on above the ceiling to compose the envelope of the roof. This solution was adopted to protect the building and allow vegetation to grow on.

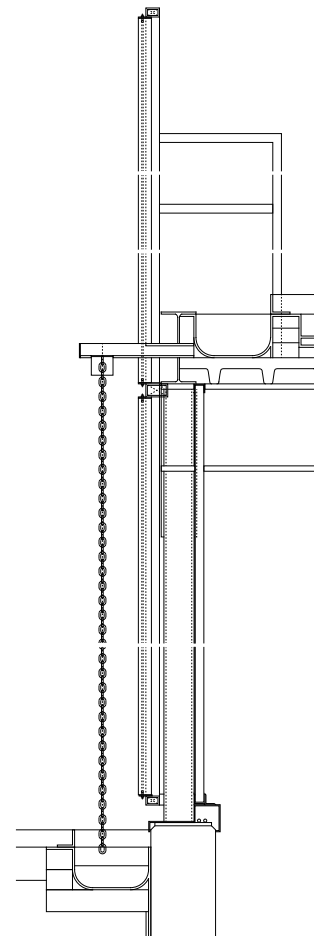
Roof tennis court - Back: Sport hall





The main entrance is on the side of the building, at the limit between both parts. On the left, two closed office spaces face the park, and on the right, a third one (including reception) with glass partitioning overhead the main space. Stairs are placed in the middle to access the changing rooms and the gymnasium. The roof is held by systems of 40 cm high beams with 75 cm high tie rods arranged regularly every 3 m, and with an 18 m span. The translucent layer hides the columns and creates the weird feeling of being under a flying platform bathed in diffuse light. From the exterior, the frames and the metal mesh covered with plants also make bearing elements disappear (or at least slim them to the limit) but this time, it results on a relatively massive image on ground floor which softens upstairs as you can see through with a moiré alteration.





0 .2 .5 1

The two following chapters are not directly linked to the narration, they somehow arrived long before. They carry early obsessions I somehow never managed ever to tackle consistently, or to forget forever. I believe the act of putting these on paper will be a relief, at least to go on lighter. At some point, many of them could have made it to the selection but none could have made the right point alone. Their legitimacy here could – and should – be discussed, but once it's done, let's move on.

I've always found some interests in Jean Nouvel's ability to set "screens". In many of his projects a wall, a partition, a piece of glass facade, is either placed oddly or continues even though the building stops. He uses vertical surfaces as an architectural device to soften frictions with the site. The means are small, but the effects are huge. More than anything, it provides many common features with the selection of the book to buildings we would have never guessed the boxy component. For instance in the Cartier Foundation, a simple layer of glass and steel aligns with the haussmannian facades of the street, and allows the building to develop freely on the site. A small gap frames the huge cedar in front, and the entrance.

Richard Rogers comes next. For a lot of my generation, his projects represent the most mechanical image you could get. But I did not grasp the precision of it, and most of all the kind of irony behind. (Studies of early Ito houses helped I guess, but this is another debate.) What we can see for sure is Rogers' desire to push the experimentations in structural and constructive systems always further, with economy of means constantly at heart.

Jean Nouvel :
The screen and the stage

Theater, Belfort, France, 1984

**Arab World Institute, Paris
France, 1987**

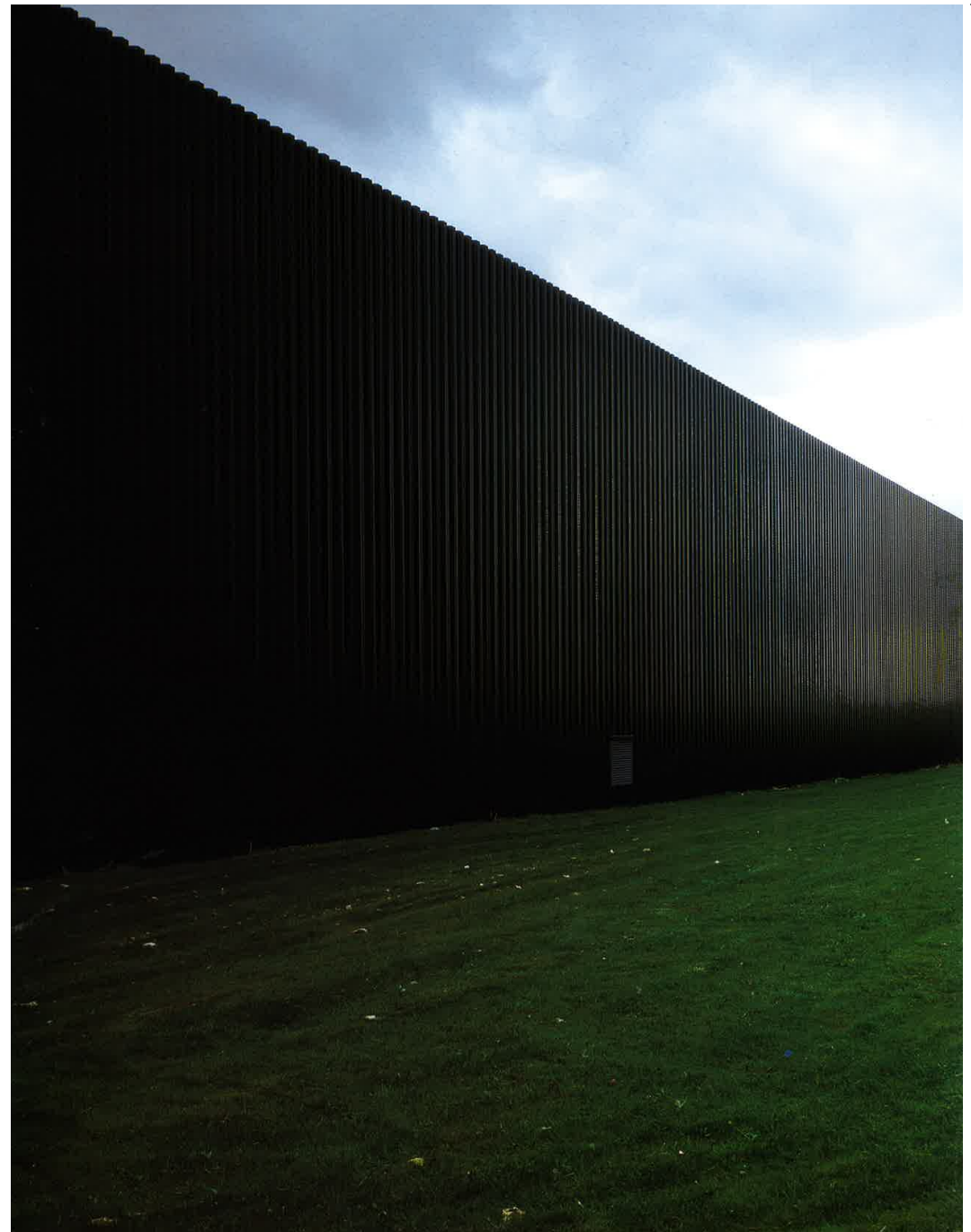
**Poulain Headquarters
Blois, France, 1991**

**Cartier Foundation, Paris
France, 1994**

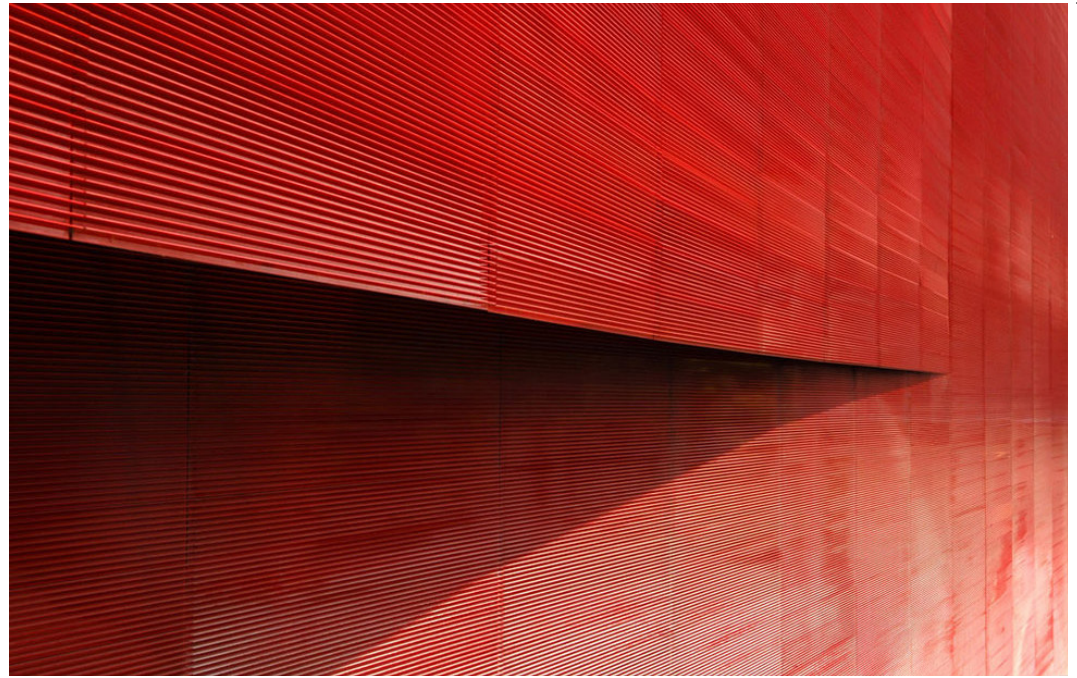
**Brembo Technical Center
Bergamo, Italy, 2007**











**Richard Rogers :
The aesthetic of the machine**

UOP, Tadworth, UK, 1974

**Fleetguard, Quimper
France, 1981**

**PA Technology Laboratory
Cambridgeshire, UK, 1983**

**Inmos Microprocessor
Factory, Gwent, UK, 1987**

**Linn Products
Glasgow, UK, 1987**











Credits

page	source
13	Pierangelo Ragazzini in <i>Giuseppe Terragni la casa del fascio di Como : guida critica all'edificio : descrizione, vicende storiche, polemiche, recenti restauri</i> by Alberto Artiolli, 1989
14	Ibidem
15	Kay Bea Jones, property of Austin E. Kownlton School of Architecture's Digital Library
16	Ibidem
21	A. Salun in <i>Jean Prouvé, le maître du métal</i> by Francois Moulin, 2001
22	Anonymous, property of the municipality of Clichy
23	Patrick Charpiat, <i>Maison du peuple de Clichy, Jean Prouvé, Escalier d'accès au premier étage</i> , 2008
24	Patrick Charpiat, <i>Maison du peuple de Clichy, Jean Prouvé, Monte-charge</i> , 2008
28	Property of architectes SBG, 2014
29	Edward C. Olencki, <i>View from southwest</i> , property of Imageworks, Art, Architecture and Engineering Library, University of Michigan, 1966
30	in <i>Angelo Mangiarotti</i> by Guido Nardi, 1997
31	Ibidem
37	Robert Doisneau, <i>Plateau Beaubourg</i> , 1968
38	View from Exposition Malevitch, 1978
39	Gordon Matta Clark, <i>Conical Intersect</i> , 1975
40	Property of Centre Pompidou, <i>Gros plan sur la structure porteuse : gerberettes, poteaux, tirants</i> , 1975
45	Shunji Ishida, <i>Il Rigo Quarter exterior view</i> , 1978
46	Shunji Ishida, <i>Il Rigo Quarter interior view</i> , 1978
47	Property of Renzo Piano Building Workshop, <i>Axonometric diagram of a group</i> , 1977
48	Screenshot from <i>Renzo Piano : la Casa Evolutiva</i> , for Rai TV, 1978
49	Ibidem
53	Luigi Ghirri in <i>Aldo Rossi, Architettura 1968-1992</i> by Alberto Ferlenga, 1999
54	Barbara Burg & Oliver Schuh, Aldo Rossi, Centro Torri, 2008
55	Luigi Ghirri, <i>Things Which Are Only Themselves</i> , a 1996 exhibition at the CCA (Press Release), and a publication by Paolo Costantini
56	Luigi Ghirri in <i>Aldo Rossi, Architettura 1968-1992</i> by Alberto Ferlenga, 1999
61	Property of Centre Culturel Onyx, <i>Onyx in construction</i> , 1987
62	Georges Fessy, for <i>Architecture & Cie</i> by Hubert Tonka, spring 1990
63	Property of Ateliers Jean Nouvel
64	Georges Fessy, for <i>Architecture & Cie</i> by Hubert Tonka, spring 1990
69	El croquis 53 + 79, <i>oma/rem koolhaas 1987-1998</i> , 1998
70	Ibidem
71	AD Classics: <i>Kunsthal / OMA</i> , 2011
72	El croquis 53 + 79, <i>oma/rem koolhaas 1987-1998</i> , 1998
77	Property of Dominique Perrault Architecture
78	Ibidem
79	El croquis 104, <i>Dominique Perrault 1990-2001</i> , 2001
80	Ibidem
85	<i>Lacaton & Vassal</i> by François de Mazières, Francis Rambert, Anne Lacaton and Jean-Philippe Vassal, 2009
86	Ibidem
87	Ibidem
88	Ibidem
93	Iwan Baan, <i>Schouwburg, Almere – SANAA</i> , 2007
94	Ibidem
95	Addison Godel, property of Austin E. Kownlton School of Architecture's Digital Library, 2008

Credits

96	Iwan Baan, <i>Schouwburg, Almere – SANAA</i> , 2007
101	El croquis 118, <i>abalos & herreros: light; really light</i> , 2004
102	Ibidem
103	Ibidem
104	Ibidem
108	Properties of Ateliers Jean Nouvel
...	Ibidem
117	Ibidem
120	Properties of RSH-P
...	Ibidem
129	Ibidem

Some color images have been turned black and white. All images have been resized as less as possible.

All the drawings have been redrawn. The source came from each offices' respective publication and construction drawings. Redrawing was not only used as an exercise of representation, but more as an exploration tool. In some case, drawings include extrapolations and interpretations based on sketches, axonometries or pictures. Especially for Centro Torri, Onyx, and the Kunsthal, details were based only on 1/200 publication drawings.

Texts are used as a dry historical and descriptive tool. Most of them are based on the own description of each office's project. Municipalities and clients' websites were also used as a source for historical facts.

All aerial view are based on BING MAP images.

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and Andrea Zanderigo

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