Atlas of Details



Gio Ponti, Antonio Fornaroli, Alberto Rosselli, Giuseppe Valtolina, Egidio Dell'Orto, Pier Luigi Nervi, Arturo Danusso. Grattacielo Pirelli 1956-1960

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Atlas of Details is a research project to demonstrate how insightful a section can be, in order to represent the complexity of the architectural artifact, since it allows the simultaneous perception of materiality and form, of building envelope and interior spaces. Atlas of Details is a project by The Formwork, an association established by professors and PhD candidates with diverse academic backgrounds (history, architectural design, technology, preservation) working at the IUAV University in Venice and at the Milan Politecnico. For more information about the Atlas of Details and The Formwork, please contact info@theformwork.org.

The Formwork

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Text

Vincenzo Greco IUAV Venezia

Drawings

Vincenzo Greco IUAV Venezia

Architect

Gio Ponti (1904-1984), Antonio Fornaroli (1906-1983), Alberto Rosselli (1921-1976)

Name of the building

Grattacielo Pirelli

Site

Piazzale Duca d'Aosta, Milan (IT)

Client

Gruppo Industriale Pirelli

Contractors

Bonomi e Comolli SILCE Spa

Engineer

Giuseppe Valtolina (1904-1972), Egidio Dell'Orto (1923-2020), Arturo Danusso (1880-1968), Pier Luigi Nervi (1891-1979)

Other actors

Curtisa (curtain wall project); Feal (curtain wall project); Fratelli Greppi (curtain wall project); Malugani (design and implementation of interior movable walls); ISMES (realization of structural models); Guido Oberti (reinforced concrete works tester).

Building permit

1952: municipal green light for submission of project for new Pirelli headquarters;
1953: outline project presentation and changes to the municipal master plan;
1954: first version of the executive project;
1955: demolition of old buildings;
1955: realization of structural models by ISMES
1955: processing structural solutions.

Start of construction works

1955 late: provisional permit issuance for inland works; 1956 july 12: permit of realisation of the above-ground works.

Intermediate stages

1956: curtainwall prototype design;1957: executive design of curtainwall modules:1958: completion of structural work;1958-1959: curtainwall installation;1959: finishing works.

End of construction works

1960 february: official end of works; 1960 april 4: inauguration of the skyscraper.

Construction system

The structural organism of the Pirelli Skyscraper is defined by Nervi himself as a "gravity" system, that is, one that works thanks to the imposing mass of the structural elements of which it is composed. These, are identifiable in the "spikes," the "butterfly" masonry partitions, and the block of rapid ascension systems. The three elements work in synergy to ensure structural stability within the volume. Another structural element of relevant importance is the floors, which are designed in such a way as to evenly dissipate the loads bearing on them, especially at the central space, as well as

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cooperating with the entire body to ensure the necessary structural stability of the skyscraper.