

# The “Prehistory”

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The Erzelli hill, today the site of Genoa's science and technology park, glittering with the headquarters of some of the world's leading companies, was a blighted industrial estate and an open quarry in the early sixties.

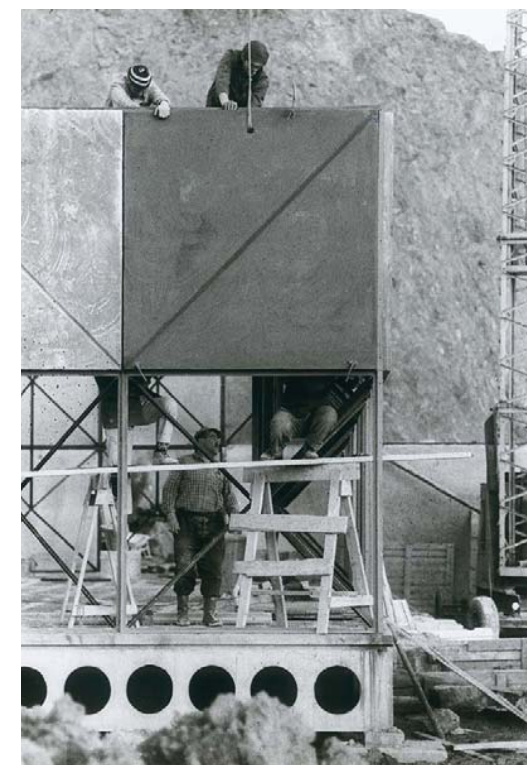
Since the nineteenth century the western belt of Genoa, between Cornigliano, Pegli and Voltri, had been occupied by industry. In 1856 the Genoa-Voltri railway was opened and drove the area's industrial development. In 1874 there were already twelve iron and steel mills adjacent to the machine shops and shipyards. What came to be called "Italy's little Manchester" was growing up. Between 1916 and 1919 the plan for the construction of a new industrial port between Cornigliano and Sesti Ponente was financed and in the late thirties extensive land reclamation was undertaken in the sea to build the airport by excavating the Erzelli hill.

On the hilltop, not far from Italsider, the mammoth steel mill at Cornigliano, Renzo Piano built his first experimental office in 1969. It was evidently his choice of a setting.

*Photo 1\_Piano's office and the Piano Ermanno construction company on the Erzelli hill.*

*Photo 2\_A translucent panel in reinforced polyester for the roof.*

*Photo 3\_ Workers at work on Piano's office.*



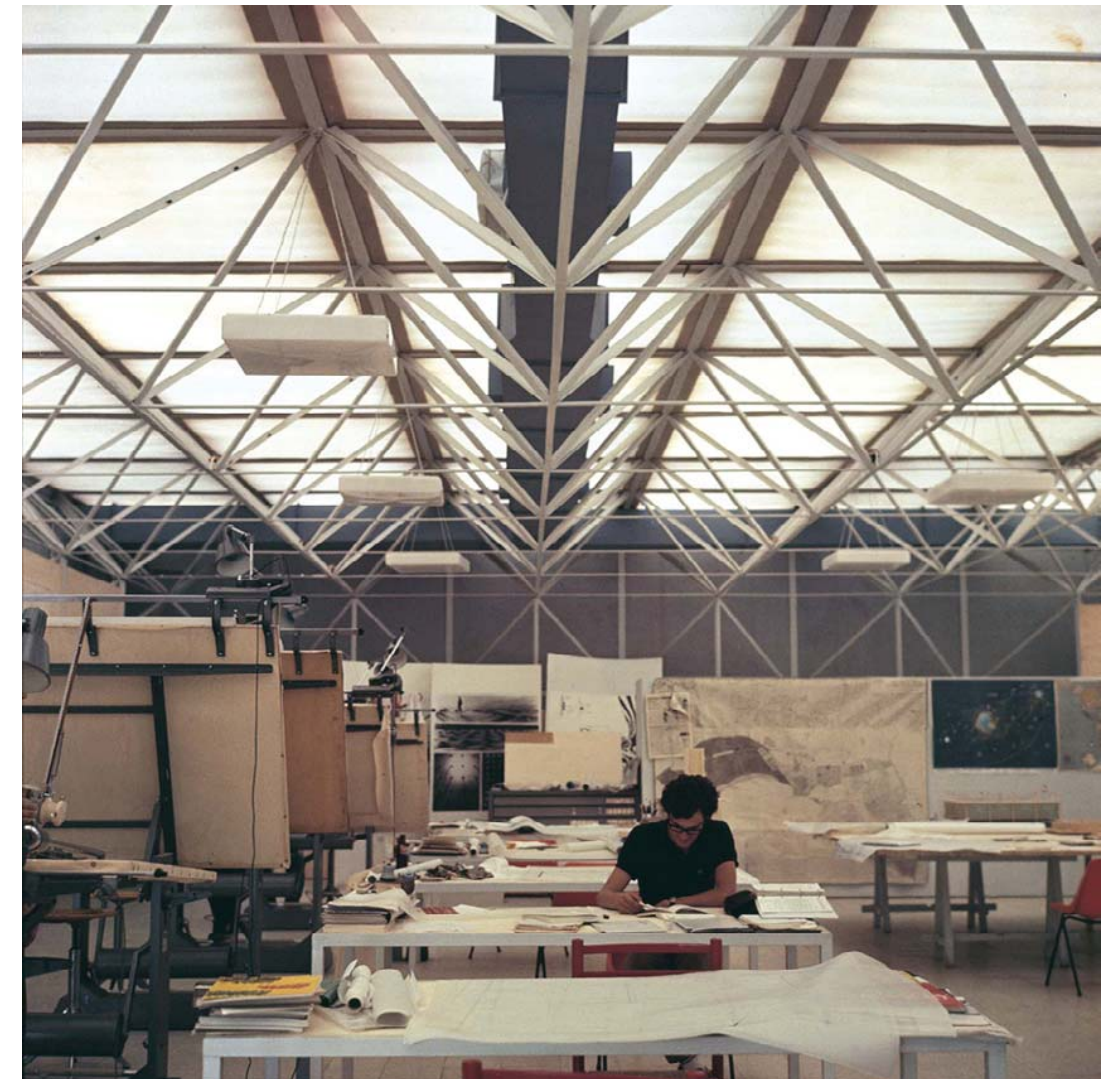


In 1964, after graduating from the Milan Polytechnic and working for Franco Albini and Marco Zanuso's firms, Piano returned to Genoa and began to draft his first projects, alternating work in the office with frequent trips abroad. He went to France, Britain and the United States in particular, looking for personal masters: Jean Prouvé, Zygmunt Makowski and Robert Le Ricolais, to name only a few.

Having to choose a location for his office, Piano settled on the antipodes of the city's monumental center: the Erzelli hill. Piano feels he belongs to industrial western Genoa and chose it as his natural habitat. Hence it is hardly surprising that in 1991, for his Building Workshop's new headquarters, Piano chose to leave the center of Genoa and return to the west, at Punta Nave near Vesima, not far from his birthplace at Pegli and the Erzelli hill.

On the hill, one beside the other, rose the premises of the Piano Ermanno construction company (1966-68) and Piano's office (1968-69). Undoubtedly they were the two most refined buildings he designed during the years of his "prehistory": a term coined by Renzo Piano himself to indicate the period of his youth, cut off by the commission to build the Centre Pompidou (1971-77) and the immense responsibility it entailed.

Photo 4\_The inner space  
lighted up with natural  
light.



The years of his prehistory were notable for constructional experiments, fueling a taste for shaping pieces in sheet metal, steel or plastics for constituting extremely simplified buildings: canopies, small industrial plants or pavilions, assembled with his own hands and with the help of some collaborators. He discovered the basic principles of architecture through daily experience on the building site, experimenting with the use of lightweight materials.

His vocation was certainly inspired by his family background. As is well known, Renzo Piano was born into a family of builders. In the thirties, his father Carlo (1892-1973) and his brothers had set up an artisanal building business and Renzo frequented the family's building sites assiduously as a boy.

After the war, driven by the upswing in the construction industry in Genoa as elsewhere, the business grew rapidly, erecting large residential developments in the western area. The company established its headquarters at Erzelli and in the mid-sixties the management passed from his aging father to his elder brother Ermanno (1928-91).

Photo 5\_ *Piano's office at the top of the Erzelli hill.*





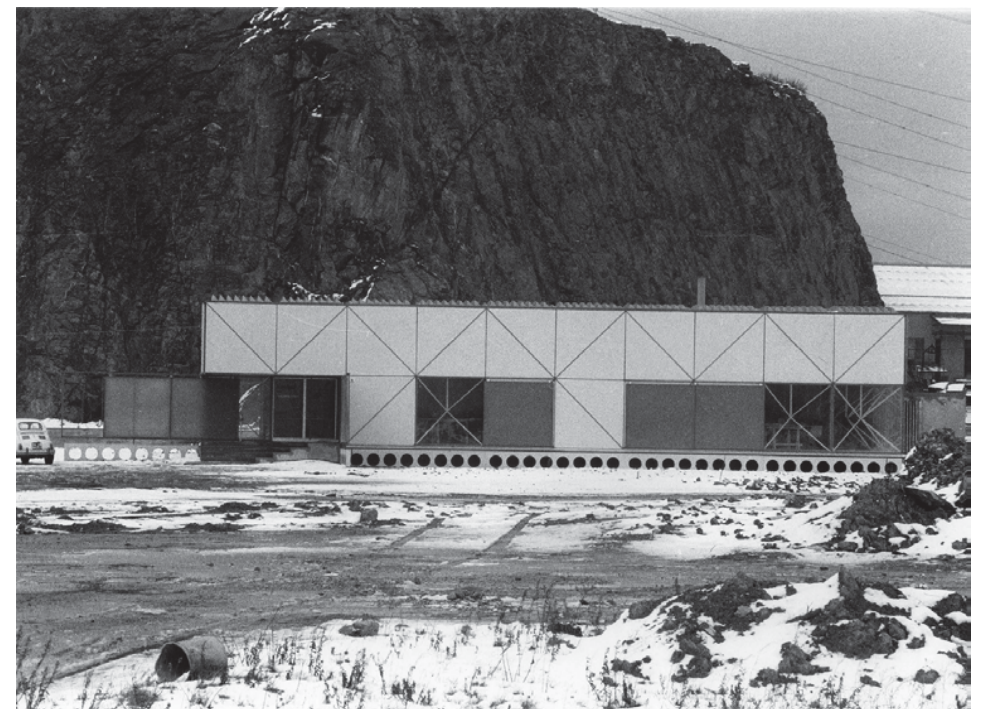
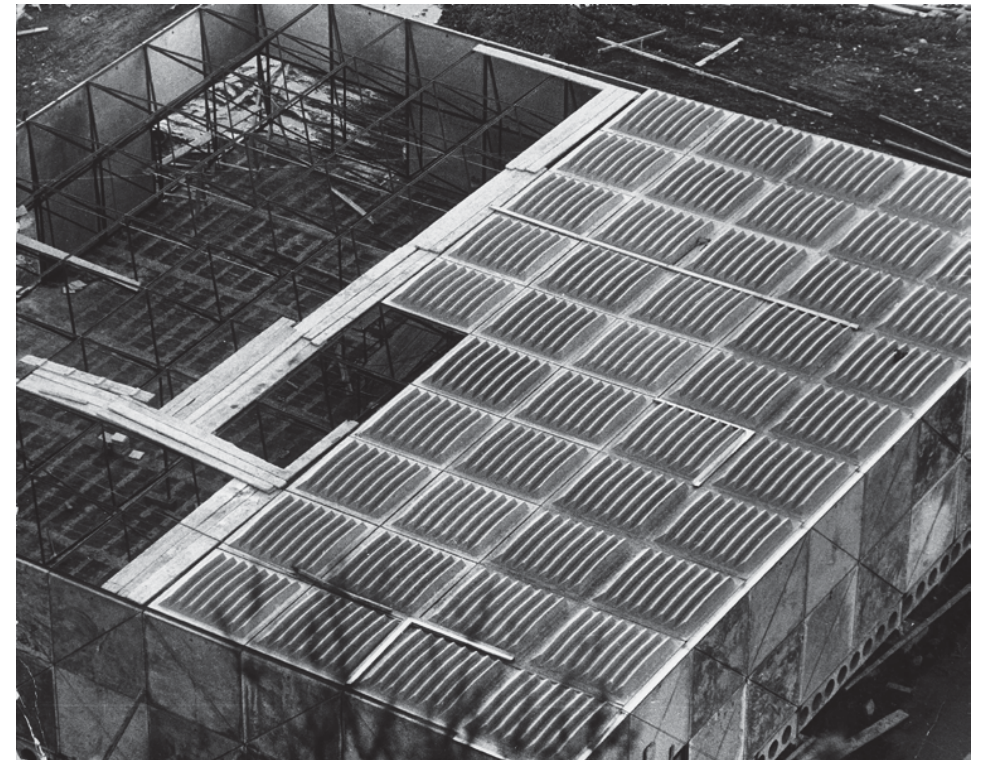
The family's construction company and Ermanno's generosity provided the young architect with notable opportunities. Practically all his early projects and professional opportunities were commissioned by the Impresa Piano Ermanno, work Ermanno generously turned over to his younger brother even though the company had its own technical office. It also assembled his experimental structures and first buildings, while he could use its machinery and workers on his building experiments.

The reason why Piano decided to set up his professional office alongside the family business was therefore essentially a question of method. The proximity of the drawing tables to the company's machinery was functional to his urge to immediately turn out prototypes of the pieces of the experimental buildings he was creating. There was a continuous transfer from the drawing board to the presses and machinery.

He established this distinctive design method while working on his earliest constructions. Obviously developed on a larger scale, it is still embodied in the output of the Renzo Piano Building Workshop, in which the construction of models and mock-ups – parts of buildings on a 1:1 scale – is of fundamental importance to the continuous verification of design insights.

Photo 6 *Assembling of the translucent panel in reinforced polyester for the roof.*

Photo 7 *The accomplished building.*



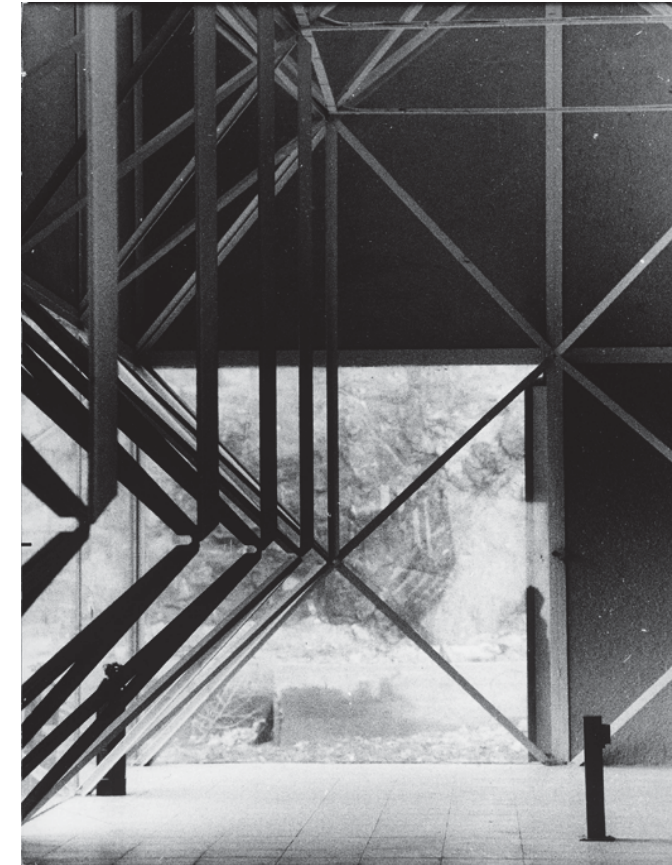


Piano's office studio was a building in which, from the foundations to the roof, every element was a prefabricated industrial component. It consisted of two volumes: the larger, on a plan 20 meters square, was flanked by a cube of reinforced concrete containing the plant. The construction elements were reduced to foundation beams in prestressed concrete, pyramids of steel bars, a wall panel made of lightweight concrete and polyurethane foam and finally a stamped translucent panel in reinforced polyester for the roof.

The foundation beam was of a size that enabled it to be easily handled by small teams of workers. The drilling of the beams allowed for the creation of a ventilated crawl space and easy installation of the systems: air conditioning, plumbing and the wiring in the floor. Steel pyramids, with a base measuring 2 x 2 meters and 1 meter high, supported both the side walls and the roof. The pyramids were transported and installed with a crane. The workers just slotted them together and bolted them firmly in place. The pyramids supporting the roof were traversed by the ducting for the air conditioning, lighting and fire-fighting systems.

Photo 8\_Detail of the building.

Photo 9\_An experimental reinforced polyester space frame.

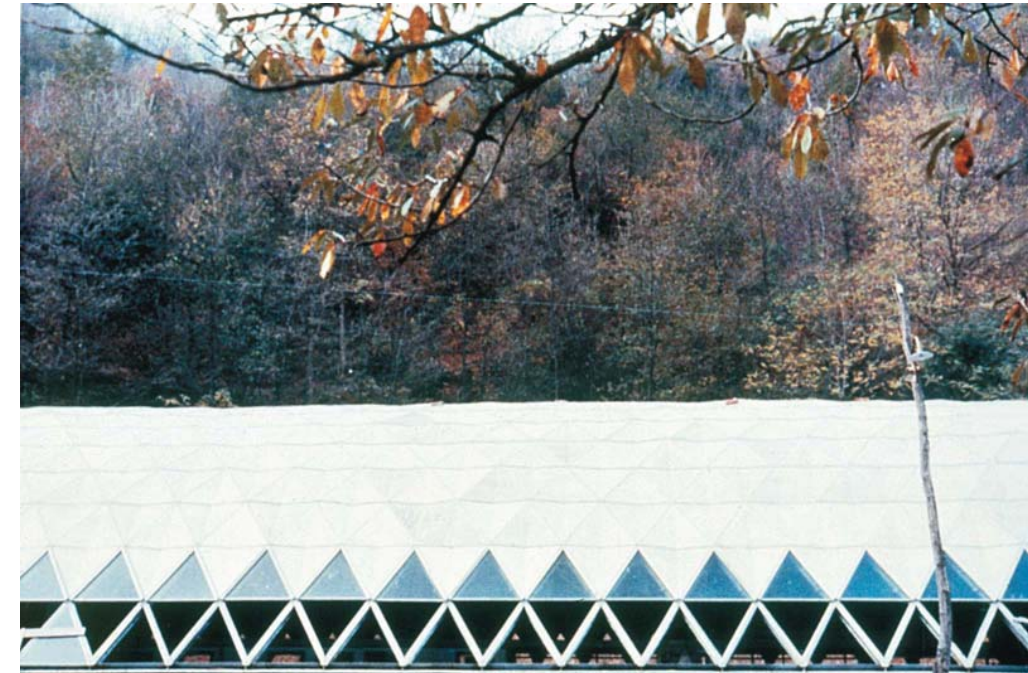


The prefabricated side curtain panel, triangular in form, was 10 centimeters thick, with two layers of light reinforced concrete sandwiching a central layer of polyurethane foam. The panels, which could easily be replaced, were inserted into the grooves of the metal profiles that made up the structural pyramids and were fixed with bolts. Lastly, the shed roofing consisted of two polyester molds with an intermediate anti-condensation tube. The polyester had a matte finish in the oblique sections of the shed exposed to the south, and a translucent finish in the vertical sections facing north.

Yet Piano only occupied the building, so carefully designed and perfectly built, for a few months. By the early seventies he had moved his office to Piazza della Vittoria in Genoa. Despite the air conditioning system, the experimental office was practically uninhabitable. A hermetic box of reinforced polyester, it was hot in summer and freezing in winter. After a few years the refined construction was heavily modified, with inserts in reinforced concrete, and occupied as the company warehouse. Almost unrecognizable, it was finally demolished in the nineties.

Photo 10\_The woodworking workshop.

Photo 11\_The roof of the Ermanno Piano construction company.





A fate shared by practically all Piano's buildings before the Centre Pompidou. Of everything that Piano built in the sixties, during his prehistory, practically nothing stands. Sure enough, the dictionary defines prehistory as events or phenomena before any direct documentation.

Yet the balance sheet of this period is not negative. Piano had conceived these structures as experiments and therefore inevitably liable to a high rate of error and failure. He saw clearly that only by repeatedly experimenting – building, demolishing and rebuilding – could he develop a solid stock of ideas and methods. It was a sequence of trial and error, of knowledge acquired about the static behavior of structures and the correct use of materials that would prove very useful on the first opportunity he would have to erect a real building just a few years later: the Centre Pompidou.

Photo 12\_Detail of the reinforced polyester panels.





PHOTO CREDITS

**Photo 1, cover\_Piano's office and the Piano Ermanno construction company on the Erzelli hill, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_026  
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**Photo 2, pag. 3\_A translucent panel in reinforced polyester for the roof, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_003  
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**Photo 3, pag. 3\_Workers at work on Piano's office, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_004  
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**Photo 4, pag. 5\_The inner space lighted up with natural light, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_005  
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**Photo 5, pag. 7\_Piano's office at the top of Erzelli hill, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_022  
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**Photo 6, pag. 9\_Assembling of the translucent panel in reinforced polyester for the roof, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_027  
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**Photo 7, pag. 9\_The accomplished building, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_030  
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**Photo 8, pag. 11\_Detail of the building, s.d.**

Piano's office - Studio Tecnico in località Erzelli, 1968/1969  
Renzo Piano Foundation Archives, St\_\_032  
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**Photo 9, pag. 11\_An experimental reinforced polyester space frame, s.d.**

Reinforced polyester space frames, 1966/1966  
Renzo Piano Foundation Archives, Pe6\_\_002  
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**Photo 10, pag. 13\_The woodworking workshop, s.d.**

Woodworking workshop - Fabbrica per la lavorazione del legno Ceranesi, 1965  
Renzo Piano Foundation Archives, P65\_\_002  
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**Photo 11, pag. 13\_The roof of the Ermanno Piano construction company, s.d.**

Impresa Ermanno Piano località Erzelli, 1966/1968  
Renzo Piano Foundation Archives, Off\_\_003  
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**Photo 12, pag. 15\_Detail of the reinforced polyester panels, 1966**

Impresa Ermanno Piano località Erzelli, 1966/1968  
Renzo Piano Foundation Archives, Off\_\_004  
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