

Leonardo Ricci and the Project for the “Man-Machine Space”: the Goti Factory (1959)

Goti Factory, Man-machine space, Relational Architecture, Structure, Mezzanine floor

/Abstract

The Goti factory was built between 1959 and 1960, when Ricci was managing to translate into reality some fundamental principles of his spatial research: the design method of the “form-act”, the community ideal and the anonymous, relational and existential architecture. This text aims to frame the project in Ricci’s work and clarify these design ideals and how they are found in the analyzed project, exploiting the reading of archival sources and contemporary projects or with a similar program. Furthermore, the Goti Factory is placed in the years in which Ricci begins an intense exchange with the United States, which will allow him to approach the founding theories of Urban Design, therefore to resolve, thanks to them, that tension between opposites that animated his research, finally reaching the definitive evolution of his design method.

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"Is work a curse or a blessing?"

In October 1959 Leonardo Ricci was commissioned by the industrialist Nazareno Goti to build his large yarn factory on the state road between Prato and Campi Bisenzio, one of the largest industrial districts in Italy and one of the most important for the production of woolen products. Goti left the architect complete freedom in designing, he only required to return to the usual costs of an industrial warehouse, and set two main objectives to the project: to create a beautiful work space that enhanced the conditions of the workers, and to integrate production, commercial and residential functions. In the relationship with the client, that equal partnership which allowed the achievement of anonymity in architecture for Ricci come true: Ricci responded to Goti with a simple and effective project, created thanks to the collaboration of the engineer Enzo Trapani, who carried out the structural calculations, and by the architect Fabrizio Milanese, who took care of the interior design. In 1960 the factory was finished, it was then abandoned from the 1980s to 1996, when, after being purchased by the Goti Manufacture, it underwent a heavy renovation carried out in 1997 by the engineer Alessandro Moscardi.

Leonardo Ricci was commissioned to design the Goti Factory during the Spring semester in which he was a visiting professor at the Massachusetts Institute of Technology (MIT). In conversation with Antonio Nardi, recalling the emotion of being summoned to MIT, Ricci said:

In the meantime, I was commissioned to design a yarn factory near Prato. Who would have guessed! Not because I didn’t love designing factories. It was one of my favorite themes. But I never imagined that one day a customer would look for me to do something practical, functional, rational. As long as craftsmanship existed, the human space and the machine space had their chance to coexist. In the factory, on the other hand, the machine had occupied the space of man to the point of turning the man into a machine. Instead, machines and humans could coexist. It was a small experiment, a yarn factory, but I understood that a new space for man and machine would also be possible in a company like Fiat¹.

The Goti factory was designed and built in a short time, between 1959 and 1960, when Ricci was managing to translate into reality some fundamental principles of his spatial research: the “form-act” design method, the community ideal as well as anonymous, relational and existential architecture. This text aims to frame the project in Ricci’s work and clarify how it differentiate from other projects and to what extent it employs the design ideals common to his work, how they are found in the analyzed project, exploiting the reading of archival sources and contemporary projects or with a similar program. Furthermore, the Goti Factory is placed in the years in which Ricci begins an intense exchange with the United States, which will allow him to approach the founding theories of

¹ Antonio Nardi, *Leonardo Ricci. Testi, opere, sette progetti recenti di Leonardo Ricci* (Pistoia: Edizioni del Comune di Pistoia, 1982), 33. All the translations from Italian into English in this text are by the author.

Urban Design, therefore to resolve, thanks to them, that tension between opposites that animated his research, finally reaching the definitive evolution of his design method.

After his first appointment as visiting professor at MIT, Ricci published his book *Anonymous (XX century)* (1962), in which he also reflected on the factory architectural program starting from the workers' acts and from the melted space for the man and for the machine:

I said: let us examine the actions of our day. Those others, instead, used to examine those actions as institutions. Let's see the difference. Let us take some of these acts. The workingmen get up in the morning and go to work. For the others, the problem presented itself in these terms: they had to circumscribe a working zone in the city, the industrial zone, for example; locate it in such a way that the wind-borne fumes and smoke should not infest the residential zones; they had to build streets wide enough to contain the traffic of public and private means of transportation, and so on. My problem is different. It arises from the root. My problem is: is work a curse or a blessing? It is a necessity. If it is a necessity, must this work be done with joy and participation, or painfully and in a detached manner? If it is to be done joyfully and with participation, what must the factory be, and what must be its position in the city? What should be the relation between work and rest, between factory and home? From such an analysis, perhaps, something new will be born. Almost certainly there will no longer be industrial zones and residential zones, separate and hostile, but an osmosis will be attempted between factory and home, and a relationship created somewhat like the old one between workshop and home in the ancient city, when the workman was a craftsman rather than an industrial worker².

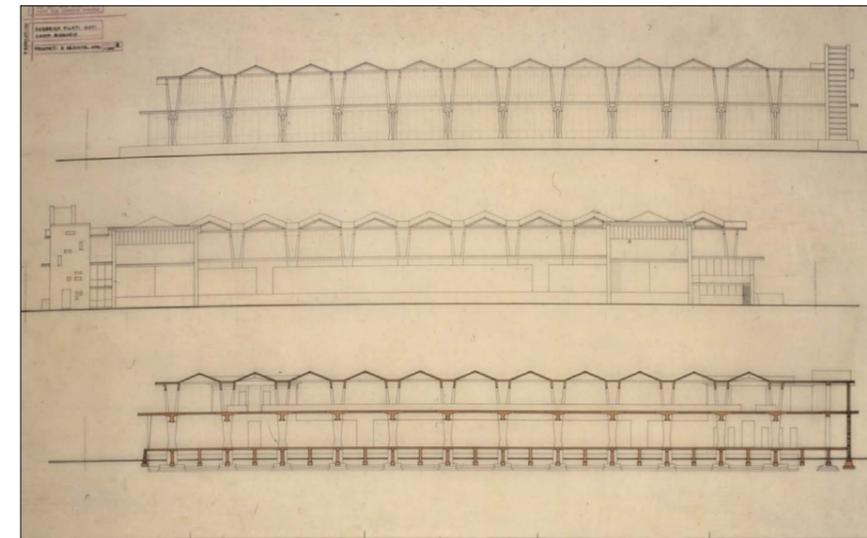
After graduating with Michelucci in 1941, Ricci maintained the master's teachings as the foundation of his work and, precisely in the Goti Factory project, the most important of them is recognizable: the art of detachment, which the master delicately outlined in a letter addressed to Ricci:

Dear Leo, (in your interview) since I am not a "teacher", I have tried to "teach" my alleged disciples more the art of "detachment" than the chain of "submission". I tried to identify in everyone, and in you in particular, what were those elements of diversity, with respect to my points of view, capable of favoring the development of a new identity³.

For the first time in the project of the Goti factory, tricuspid pillars appear, whose Y-shaped ramifications anticipate some of Michelucci's solutions of the following years and, as Giovanni Klaus Koenig claimed, «the step forward in structural freedom, marked by Michelucci in the church of the Autostrada, perhaps would have not happened if the pupil had not, at that moment, influenced

² Leonardo Ricci, *Anonymous (XX century)* (New York: George Braziller, 1962), 188.

³ Letter from Giovanni Michelucci to Leonardo Ricci, published in Nardi, *Leonardo Ricci*, 8.



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the teacher. That is, Ricci's personality, so impetuous and experimentalist, must have contributed to giving rise, after the Bolognese period of rigorous research, to the new spatial plasticism that characterizes the last Michelucci⁴.

Michelucci's reflection on the branched pillars is contemporary of some of his projects: the sketches for the Gambero Rosso tavern are from 1958-60, the church of the Immacolato Cuore di Maria in the Belvedere village of Pistoia, is contemporary with the Goti Factory, the Autostrada church was built in 1960. Ricci, seeing the bronze model, wrote: «a structure of a new type, self-supporting like a "shell" of an automobile, a sort of organism made up of thin straight and upside down vaults, integrating and balancing between them» and he adds «it will be created using steel ropes suspended on branched pillars». [Fig. 1]

The coeval project for "Casa Teorica" (1956-1958), clearly shows the application of the "form-act" design method, which is opposed to the practice of overlapping functional models and is based on the rejection of *a priori* forms, in order to design and create spaces that make the acts of men desirable. It consists in designing starting from human acts and activities excluding any pre-defined morphological conception⁵.

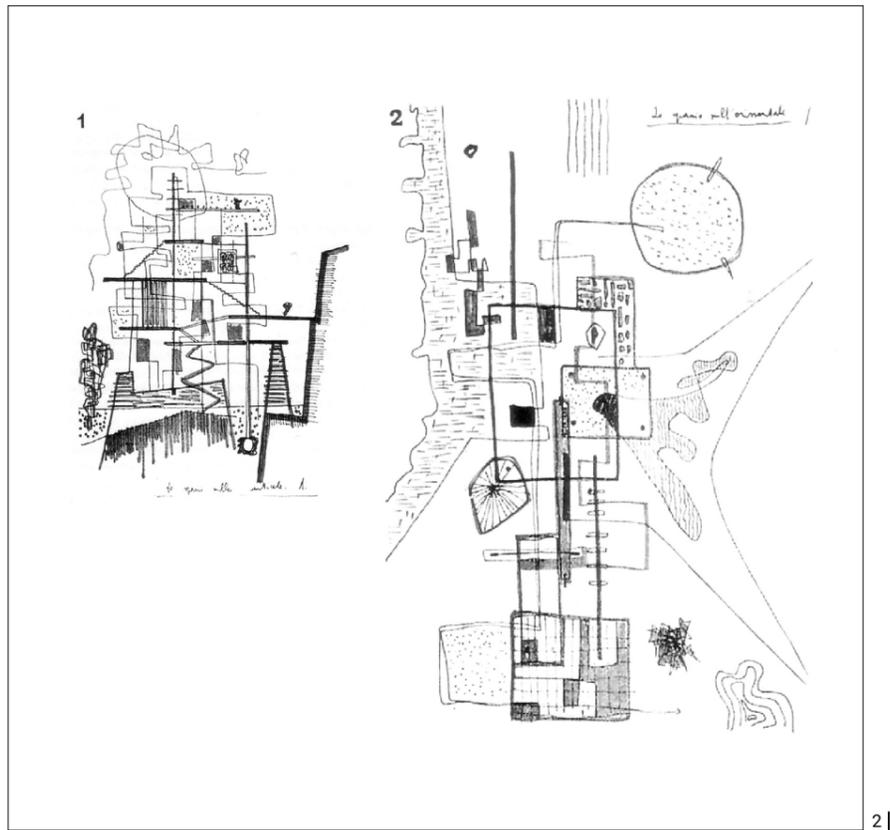
Casa Teorica is an experimental project for a house. Client of himself, Ricci could design without constraints and find spatial solutions adaptable to the multifiform and fickle needs of the family. By reading the drawings, an asymmetrical and dynamic space emerges which flows according to all possible movements, which contracts and expands on staggered levels, where there is no hierarchy of routes. In the sketches entitled "vertical space" and "horizontal space" published

⁴ As the paragraph was translated by the author, it is worth quoting here also Koenig's original Italian words: "Il passo in avanti nella libertà strutturale, segnato da Michelucci nella chiesa dell'autostrada, non sarebbe forse avvenuto se l'allievo non avesse, in quel momento, influenzato a sua volta il maestro. Cioè la personalità di Ricci, così irruenta e sperimentalista, deve aver contribuito a far sorgere, dopo il periodo bolognese della ricerca rigorosa, il nuovo plasticismo spaziale che caratterizza l'ultimo Michelucci". Giovanni Klaus Koenig, *Architettura in Toscana 1937-1968* (Torino: ERI, 1968), 148. Marzia Marandola, "Libertà e logica: forme e tecniche del costruire", in Claudia Conforti, Roberto Dulio, and Marzia Marandola, *Giovanni Michelucci (1891-1990)* (Milano: Electa, 2006), 72.

⁵ Leonardo Ricci, "Ricerche per una città non alienata", *Linea-Struttura, Rassegna Trimestrale di Architettura Arti Visive Design*, no. 1-2 (1967): 7-11.

Fig. 1

Goti Factory, elevations and section, scale 1:100, CSAC, B038571S.



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in an article by Giovanni Klaus Koenig in 1958⁶, the spatial interpenetration dominates and each space is not concluded in itself, but is integrated into the entire composition, it cannot be isolated or replaced.

This project has marked Ricci's research with a different spatial quality, which respected the concept of existence as an experience. In this sense, according to Koenig, the building respects the Mumfordian equation "city-sign of integrated social relations", which can «be transcribed, by removing the summation sign, in "house-sign of family relations"⁷. The sketches in the vertical and horizontal dimensions are therefore conceptual schemes of existence. [Fig. 2]

At the end of the Fifties, Ricci is known on the international scene thanks to some projects of greater resonance such as the Ecumenical Waldensian village of Agàpe in Praly (1946-1951), and the village of Monterinaldi (1949-1963), which allow us to address a design theme very dear to Ricci and traceable in the project under analysis: the project for the community space, one of the key themes of the post-war period aimed at the physical and social reconstruction of Italy, widespread and declined in several contexts, involved in the process of rehabilitation of the Italian social disease caused by the devastating effects of the war and the eclectic figure of the architect⁸.

6 Giovanni Klaus Koenig, "Leonardo Ricci e la 'casa teorica' (alla ricerca di un nuovo spazio architettonico)", *Bollettino Tecnico - Rassegna Bimestrale Fondata nell'Anno 1936*, no.7-8, 24-27.

7 Koenig, "Leonardo Ricci e la 'casa teorica'".

8 Marco Biraghi, and Alberto Ferlenga, eds., *Comunità Italia* (Milano: Silvana Editoriale, 2015), 16-21.

Fig. 2

Leonardo Ricci, "Theoretical House", sketch on the vertical and on the horizontal dimensions, images published in Giovanni Klaus Koenig, "Leonardo Ricci e la 'casa teorica' (alla ricerca di un nuovo spazio architettonico)", *Bollettino Tecnico - Rassegna Bimestrale Fondata nell'Anno 1936*, no.7-8 (1958): 3-12.

The social dimension of architecture is a guiding principle for the Agàpe project and the subsequent Village "Monte degli Ulivi" in Riesi (1962-1968). In both, different authors recognized the kibbutz as the model Ricci referred to as a religious, social and political model for the community⁹, which, since the 1930s, embodied the values of Zionism, self-employment, equality, democracy, and mutual responsibility. The kibbutz model easily matched the experiences and reflections in the sociological and urban planning fields that led figures such as Danilo Dolci, Adriano Olivetti and Carlo Doglio¹⁰ with the aim of achieving, through "bottom-up" planning, that ideal of "nameless" architecture which in Agàpe and in the Fabbrica Goti took the form of a "fulfilled utopia" of common life and work¹¹. Ricci also succeeds, in both projects, in the attempt to annihilate the usual relationship between architect and client, eliminating any hierarchy of power or intervention on the project of the figures involved in the design and executive process. In his *Anonymous (XX century)*¹² he declares his intention to free himself from any hierarchy or conception of style and the will to make the architectural form correspond to an act of existence, announcing the existential, anonymous and relational phenomenological dimension of architecture:

[...] And there is no need of justifications, a priori. God has made all this, so it will be there tomorrow: Hell, Purgatory, and Heaven. Or else all this is born out of chaos, and tomorrow there will be nothing. But what need is there of all this? Why detach ourselves from experience? Basically it is all so simple. It is enough to exist. It is enough to find the relationships among the things that exist. It is enough to create new relationships among things. It is enough to create living things with living things¹³.

In many writings¹⁴ Ricci explained his conception of democratic architecture, shared with Bruno Zevi¹⁵, descending from the repulsion of the tragedy of the war and from the conviction that organic architecture should be understood as an invention of the temporalized space for human life. It is connected to Michelucci's concept of "anonymous architecture": the architect's duty is to disappear in front of the architecture to transform the rationalized function into a natural functionality. The relational value of architecture becomes the object of analysis for Ricci, who clearly refers to the studies of Enzo Paci in an unpublished

9 Bruno Zevi, "Il kibbutz nei feudi della mafia", *L'Espresso*, July 14, 1963; Bruno Zevi, foreword to Aryeh Sharon, *Kibbutz + Bauhaus: An Architect's Way in a New Land* (Berlin: Kramer Verlag, 1976); Antonietta Jolanda Lima, "Leonardo Ricci: Riesi, un villaggio come un kibbutz = Riesi like a kibbutz", *L'Architettura: cronache e storia*, no. 41 (1995): 409.

10 Carlo Doglio, and Paola Venturi, eds., *La Pianificazione organica come piano della vita?* (Padova: Cedam, 1979), 9-18, 349-86.

11 Emanuele Piccardo, ed., *Leonardo Ricci. Fare Comunità* (Busalla: Plug_in, 2019).

12 Ricci, *Anonymous*, 1962.

13 Ricci, *Anonymous*, 1962, 19.

14 Among others, Ricci, "Ricerche per una città non alienata", 39-51; Leonardo Ricci, "New Towns' a scala territoriale", *Spazio e Società*, no. 3, (1976): pp. 73-81.

15 Bruno Zevi, "Tra i due Leonardi fiorentini", in *Leonardo Savioli: il segno generatore di forma-spazio, catalogo della mostra (Firenze, Archivio di Stato, 23 September-25 November 1995)* (Città di Castello: Edimond, 1995), 42; Ilaria Cattabriga, "Leonardo Ricci and Bruno Zevi: the translation of 'anonymous' and 'organic' in the 'open work'", in *Bruno Zevi. History, Criticism and Architecture after World War II*, eds. Matteo Cassani Simonetti and Elena Dellapiana (Milano: Franco Angeli, 2021), 66-80.

text preserved in his Casa Studio entitled "Prolusione al corso di Urbanistica"¹⁶. Ricci's space is phenomenological, an "umwelt" in which the concepts of distance and proximity of things cannot be controlled with geometric measures, but belong to the realm of experienced sensations.

The Goti Factory is a relational space that is part of a series of unrealized projects by Ricci for the work space¹⁷, which belong to the second half of the 1950s and 1960s in which it is possible to trace some interesting compositional and volumetric solutions that are comparable and similar to principles of urban design, which allow Ricci to apply the "form-act" to the city¹⁸. These civil architecture projects and work spaces for commercial, residential and administrative purposes allowed Ricci to design public spaces intended as the connective tissue of parts of the city capable of hosting the flow of life of citizens, recalling the projects of bridges to be rebuilt in Florence immediately after the war.

When Ricci was designing the Goti Factory, the needs of the working class were central for the political and architectural debate of the time. Adriano Olivetti's commitment to the channeling aspirations of the community and working life into high architectural achievements is the central example¹⁹: in the Olivetti factory in Pozzuoli (1955) Luigi Cosenza studied the production process with the idea of overcoming the assembly line through an organization of work based on the individual work phases to build a high-tech model factory. As in Capalle, the design of the paths and connections constitutes the project core and the building offers the possibility of expansion and equidistant paths between the workplaces and the obligatory passages for control and sorting.

Ricci approaches the factory typology with his characteristic experimentalism: he is not interested in replicating a model, but in "building" a new idea of space capable of hosting new ways of living and working. Ricci once again "rebels" against tradition: he observes previous architectures of factories but considers them unsuitable for today's man because they were made by different men, with different needs and habits. Therefore, he invented a new space, and reworked the typology. He abandoned the model of the factories in the Florentine and

16 "Prolusione al corso di Urbanistica", typescript kept in Casa Studio Ricci, 1-9. Enzo Paci's interest in contemporary architecture had given rise to original reflections contained in numerous essays in which he defines his relational thinking, assuming the connotation of what was called his "relational phenomenology". Among others: "Il cuore della città", *Casabella-continuità*, no. 202 (1954): vii-x, "Problemativa dell'architettura contemporanea", *Casabella-continuità*, no. 209 (1956), "La crisi della cultura e la fenomenologia dell'architettura contemporanea", *La Casa*, no. 6 (1960), Paci, *Relazioni e significati*, Vol. III (Milano: Lampugnani Nigri, 1966). See also the entire issue of the journal *Aut aut* dedicated to Enzo Paci: "Enzo Paci: Architettura e filosofia", *Aut aut*, no. 333 (January-March 2007).

17 The Skyscraper in Genova Brignole (1955), the Commerce Chamber of Carrara (1956), The Flowers Market in Sanremo (1958-1959), and the Office Building in Milan (1960-1970).

18 Urban Design considered the city as the largest plural entity and practice and uses all those elements and forces interacting in the urban space that escape the direct control of the designers but which become part of the project itself. Brent D. Ryan, *The Largest Art. A Measured Manifesto for a Plural Urbanism* (Cambridge-MA: MIT Press, 2017).

19 About the work and intellectual activity of Adriano Olivetti see: Mario Labò, *Adriano Olivetti: l'aspetto estetico dell'opera sociale di Adriano Olivetti* (Milano: Görlich, 1955); Carlo Ludovico Ragghianti, "Adriano Olivetti", *Zodiac*, no. 6 (1960): 3-13; Bruno Caizzi, *Camillo e Adriano Olivetti* (Torino: Unione Tipografica, 1962); Carlo Olmo, *Costruire la Città dell'uomo: Adriano Olivetti e l'urbanistica* (Milano: Edizioni di Comunità, 2001); Davide Caleddu, ed., *Adriano Olivetti Stato federale delle comunità. La riforma politica e sociale negli scritti inediti (1942-1945)* (Milano: Franco Angeli, 2004); Scrivano, *Olivetti Builds* (Milan: Skira, 2011); Alberto Saibene, *L'Italia di Adriano Olivetti* (Milano: Edizioni di Comunità, 2017).

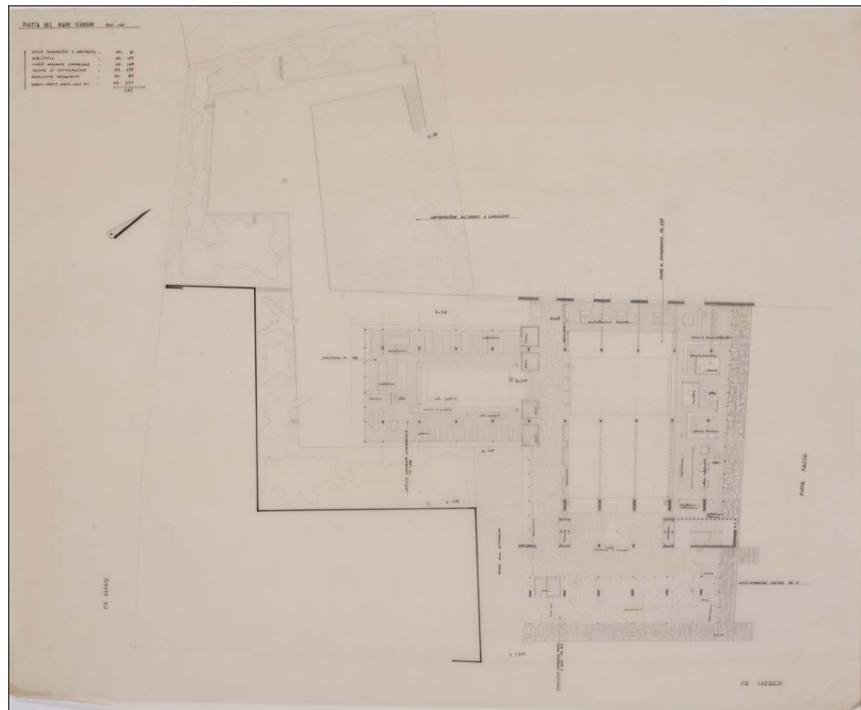
Prato plains (the classic vaulted brick shed), revolutionizing the space from its inside. It is an important step in the functional and typological research on the production space.

The integration of the human and machine spaces

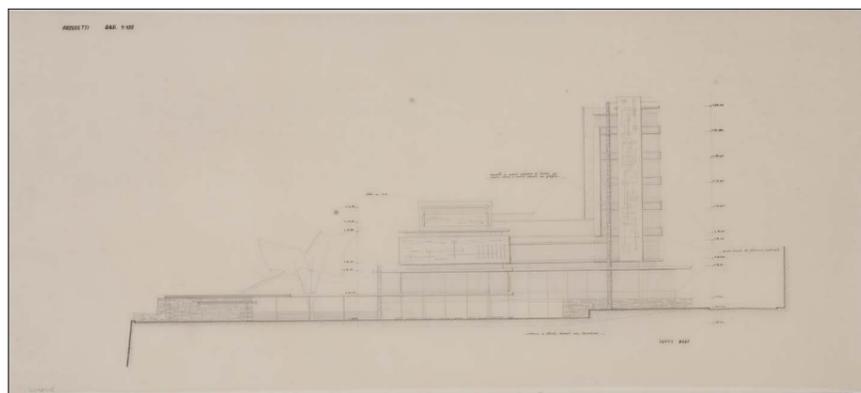
The strength of the Fabbrica Goti project lies in the fact that the house and the factory, central themes of Ricci's research, are addressed and integrated simultaneously. In the first version of the project, Ricci blends residential, manufacturing and commercial functions, finding a surprising solution to the tension between rigor and dynamism in the combination of pure geometric shapes to design a "factory-home" where the acts of working, producing, selling, and living could result integrated and part of a unique system. The objective is the improvement of the work environment: the human being is always at the center of Ricci's architecture and architecture is the space that develops around the man.

The Goti factory is made up of recognizable parts, juxtaposed in finite and elementary forms that are combined according to the internal paths. The volumes, both in plan and in elevation, are legible and can be compared with other Riccian architectures for the work space. By juxtaposing volumetrically different bodies, Ricci designed dynamic parts of the urban fabric, as clearly emerged in other competition projects we are going to analyze such as the Genova Brignole Skyscraper (1955), the Carrara Chamber of Commerce (1956) and the Flowers Center in Sanremo (1958-1959).

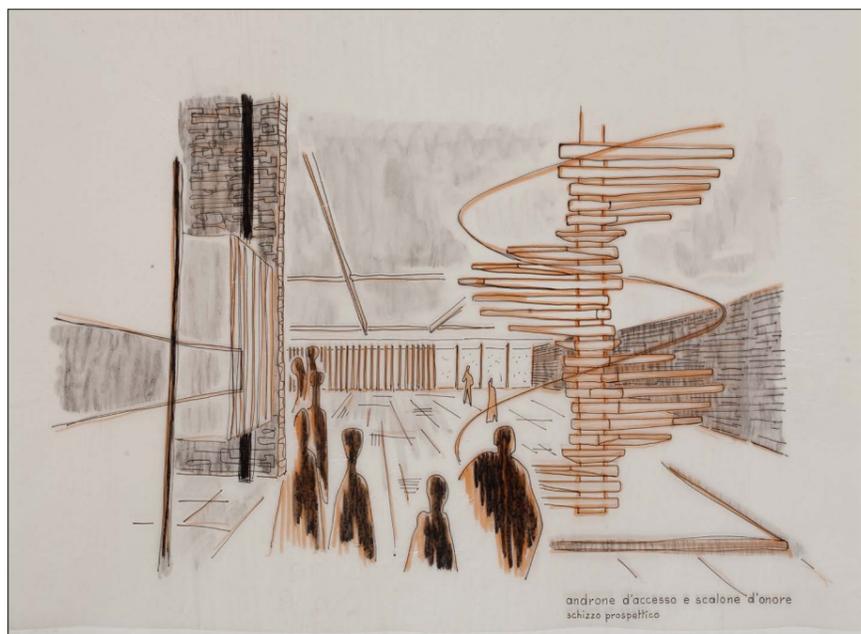
In the 1950s, Ricci worked in Carrara and in Liguria. In 1956 he took part in the national competition for the headquarters of the Chamber of Commerce of the municipality of Carrara, whose project consisted of a horizontal body of a raised square-plate and two vertical turiform bodies that housed the stairs. These generated a volumetric composition typical of Ricci's macrostructural projects, in which the different buildings were balanced by vigorous horizontal bodies or by those characteristic vertical elements present in numerous other projects such as the project for the Teatro dei Leggieri in San Gimignano (1962-65), the competition project for the Fortezza da Basso (1967), the project for Dog Island (1968-70), or precisely in the massive walls of the Goti factory, which anchor the building to the ground and balance the composition of volumes. In the Carrara Commerce Chamber, the walls merged their monumental and solid character with a band of narrow windows, triggering a vibrant game with the large horizontal windows of the adjacent volumes and creating an alternation of solids and voids. Ricci honored the nature of the place, using Carrara marble panels as fixed elements of a flexible wall for an office and sculpting an imposing spiral staircase with marble steps in the entrance hall that recalled the spatial sharpness of Michelucci's projects. [Fig. 3-4-5] The plan was asymmetrical and provided for a space for collective exchange in the light of a common



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Fig. 3

Project for the Commerce Chamber of Carrara, plan of the ground floor, scale 1:100, CSAC, B038604S.

Fig. 4

Project for the Commerce Chamber of Carrara, elevation, scale 1:100; CSAC, B038605S.

Fig. 5

Project for the Commerce Chamber of Carrara, sketch of the entrance hall; CSAC, B038607S.

idea of working life²⁰. The idea of improving the human work environment is a challenge that Ricci welcomed and won. The factory overlooked the Lucca provincial road towards Prato, and therefore enjoyed a wide visibility in the urban district in which it is located. Ricci saw the factory building as a new piece of the 'new city', just as its construction constituted a transformative event that involved its surroundings and the life that took place in it.

As Maria Clara Ghia suggests, in Capalle Ricci reinterprets the model of the new industrial building from the turn of the century, Peter Behrens' AEG turbine factory from 1909, because it frees up the side elevations, characterized by the scansion of the pillars, and recalls the Steinberg hat factory in Luckenwalde by Erich Mendelsohn (1921) for the succession of gables in the lower part of the façade²¹.

In the project, Ricci heralds the large-scale ambitions of the imposing exposed reinforced concrete structures of the brutalist neighborhood of Sorgane, begun in 1957. The strength of the structures left exposed is especially evident in the interiors²², to which Ricci mostly works to reconnect the lives of those who live there.

In Casa Studio Ricci only one magazine article is preserved about the factory (see images n. 8-9-10 of the relevant archival record), which is described by Wanda Lattes as an industrial building "very different from the one hundred and fifty spinning and weaving mills already scattered throughout the territory of the Municipality of Prato"²³.

The importance of Leonardo Ricci's project is reflected in the beauty of the factory, in its soft tones in the gray of the concrete and in the black of the frames of the large luminous windows, placed in a high spatial quality, in which the emerging production capacity of the Prato textile industry was enriched and constituted an important factor in the realization of the work.

The building has a longitudinal layout, parallel to the two road axes within which it is positioned and is divided into two main contiguous parts which correspond to a physical and conceptual subdivision of the factory: on the avenue the single production hall, on the back the service spaces. This functional division is then reflected in the exterior, clearly legible also in the treatment of the facades. One huge space contains the whole factory: spinning and carding on the ground floor, first floor hairdressing salon.

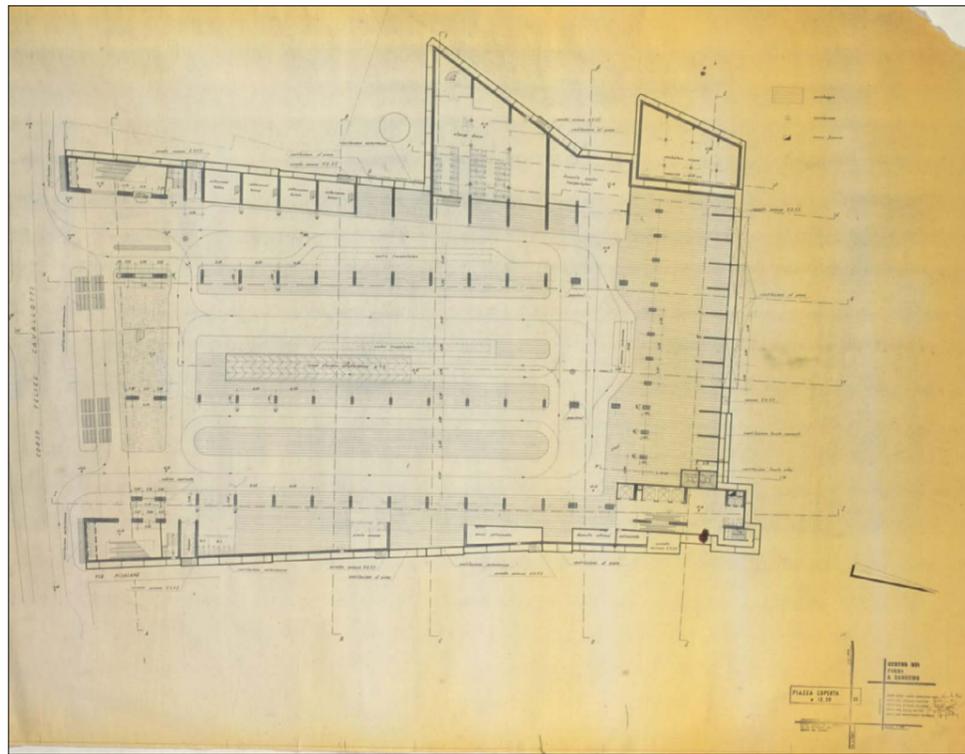
Around it, the place of production, there is a whole series of environments organized in bodies of variable depth and external treatment attached to a comb central hall on two levels, connected to each other by differences in height: there are two avant-corps of lateral bodies of the warehouses for the arrival and

²⁰ Vasič Vatovec, *Leonardo Ricci architetto "esistenzialista"*, 31; Maria Clara Ghia, *La nostra città è tutta la Terra. Leonardo Ricci architetto (1918-1994)* (Wuppertal: Steinhauser Verlag, 2021), 200.

²¹ Ghia, *La nostra città è tutta la Terra*, 215.

²² Vasič Vatovec, *Leonardo Ricci architetto "esistenzialista"*, 38.

²³ Vasič Vatovec, *Leonardo Ricci architetto "esistenzialista"*, 38.



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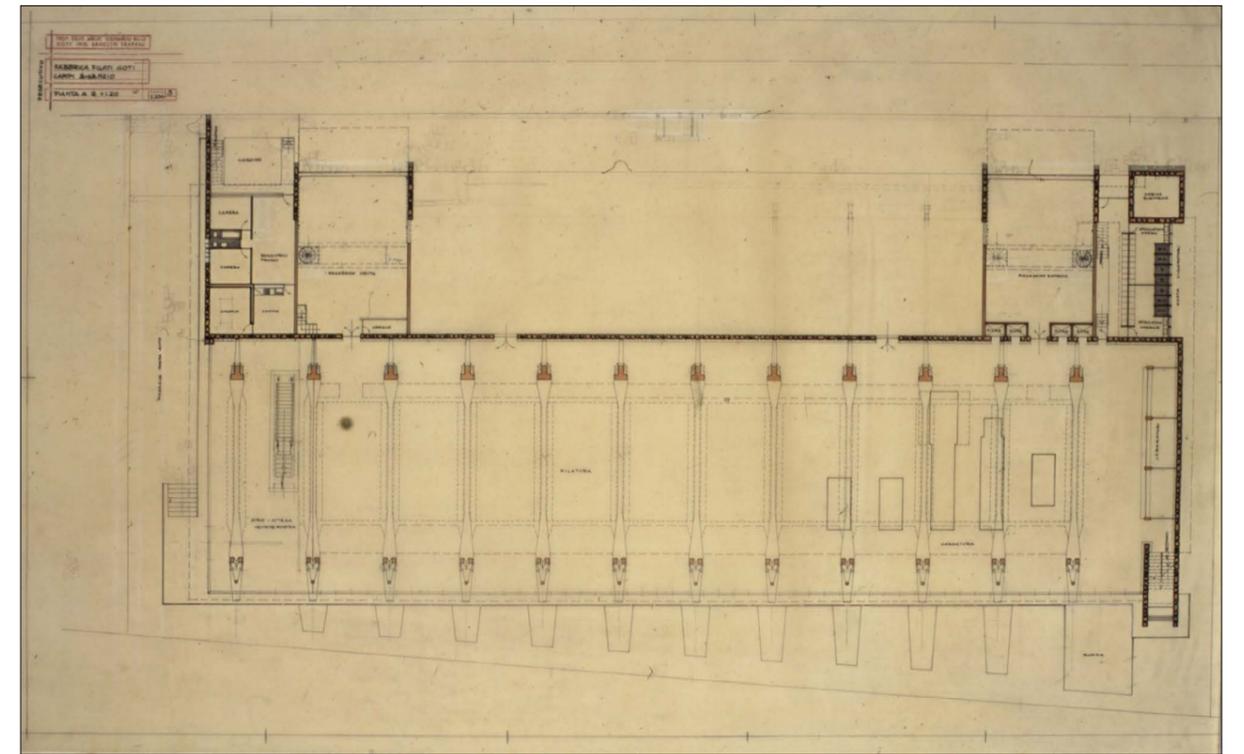
departure of the trucks, closed on the long sides and illuminated by the free road front; to the north there is an accommodation with kitchen, bathroom and bedrooms and to the south there are the changing rooms, the toilets and the electric tower, like a detached body, a massive stone fortification.

Two different design variants of the project exist but some invariants are recognizable: the living room, rear warehouses, the entrance. The greatest variations occur on the south side, with a notable downsizing in the design of the services: the toilets set back from the edge of the facade and the electric tower stands as an element in its own right and the turreted body of the stairs appears. The central part between the two buildings of the warehouses is also the subject of numerous elaborations ranging from the raised terrace, to the single-storey block, up to the current construction by Moscardi.

The entrance is from the north side elevation, while the spinning premises were attached to the south of the tower at the end of the 1960s.

The factory program integrates different functions such as management rooms, rest rooms for workers, storage and loading points, the production hall and the staff dressing room. The building occupies 2600 square meters and a volume of 28,600 cubic meters. It includes a single main hall, a very large room that houses all the factory activities, equipped with a bridge placed halfway up the total height to accommodate machinery and men. The primary space of the factory is the main hall, which defines it entirely, both in its dimensional and spatial and linguistic characteristics, it consists in one single basilica space divided into twelve rhythmic bays created thanks to the use of transversal organic frames in reinforced concrete. The theme of the hall as important common public space

Fig. 6
Leonardo Ricci, Enzo Bienaimé,
Gianfranco Petrelli, Project for
the Flowers Center in Sanremo,
plan at the first floor, CSAC,
B020677S.



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is fundamental also in the Flowers Center of Sanremo: Ricci designed it in the same year of the Goti Factory with Enzo Bienaimé, Gianfranco Petrelli and others. It will not be built due to administrative problems after being approved. For the Center a parking lot, a hall, a tower and shipping boxes were planned. The heart of the project is the sorting square with an imposing roof for a span of fifty metres, supported by a structure made up of corrugated steel frames with pyramidal support points in a first version and a trestle in the second. The joints between the tower, the regular shapes of the boxes and the parking lot, and the large square, are studied in the two versions to seek the best balance between orthogonal elements and fan-shaped openings, between material masonry elements and light windows, between vertical and horizontal. [Fig. 6]

In the Goti Factory the structure generates a fluid space, without barriers or hierarchies, that also expands in height, on staggered floors, without physical or visual barriers among spaces. Everything flows, the space is capable of accommodating different ways of working and living, and is characterized by an expressionist and brutalist load-bearing structure that allows natural light to enter and permeate the single-room space. It is a system, characterized by a large single hall with a roof with broken lines and tricuspid support pillars in reinforced concrete, and is aimed at favoring the continuity of the spaces and the movement of the factory workers in the different work activities at all levels.

The architect's intent is to oppose the man-machine combination, widespread in industrialized society, trying to overcome the model of the shed covered by a brick vault. Using local stone, reinforced concrete and glass, Ricci built a large central atrium intended for the industrial work to which a stairwell with a glass

Fig. 7
Goti Factory, plan at 1,2 m,
scale 1:100, CSAC, B020677S.

tower with brise soleil and two lateral bodies inserted in the main rectangular room with warehouses and service rooms was added. [Fig. 7]

I wanted to transform the classic pillar in order to make it a free thing, [...] it was the first time I had a factory problem and I wanted to interpret the man-machine relationship, which I have seen so far expressed in a symbolic way. I looked for the terms of the natural man-machine relationship, a relationship that was as natural as that of an individual in front of his piece of furniture, his home, and I tried to re-establish a balance. Man is no longer lost in front of the machine, but contained like it in a single living space²⁴.

Two arms block the beam of the first floor, and then spread out into smaller sections to support the roof. A third arm supports the shelf that supports the window on the second floor so that the light penetrates the horizontal partitions and invests the large single hall. What is more, the gallery is almost suspended and recalls the structure of a bridge: it is contained within the single hall, to support men and machinery. It does not touch the external longitudinal walls, allowing the light to penetrate even from the highest windows. The strip adjacent to the facade is therefore a full-height space, an uninterrupted unicum from the ground to the roof.

Here a parallelism with Michelucci's Cassa di Risparmio is also traceable: there the band adjacent to the façade is full, a balcony overlooking the hall, here there is a reversal, it is a void that links the two floors. This mezzanine floor allows an increase in the surface, doubling the exploitation of the volume, so as to amortize the construction cost of the reinforced concrete structures which cost more than normal beams or standard sheds. Since the cost of the "Y" pillars, inspired by the "tree" reinforced concrete pillars, was higher than that of normal pillars, the architect decided to use them for a room twice as high as a normal shed and built the bridge for increase the available work surface (11 meters wide and 67 meters long). These pillars make it possible to resolve distribution, structural and lighting issues in the large hall: the sequence of twelve bays is strengthened by the triangular tympanums, on which the inclined window rests (see image n. 3 of the archival record).

Leonardo Ricci's project "is a single space that changes function through various alternatives²⁵" which solves spatial problems by facilitating both the production process and social dynamics.

The industrial process is simplified by a correct combination of vertical and horizontal paths, designed by superimposing plans and sections starting from the movements of men and machines, with the aim of minimizing the time spent by workers during the production cycle²⁶. As Koenig observed, the Goti factory is a "[...] rare, if not unique, example of a Prato factory that departs from

24 Quotation published in Wanda Lattes, "Perchè è nata la fabbrica "bella", *Il Giornale del Mattino*, July 31, 1960.

25 Lattes, "Perchè è nata la fabbrica "bella".

26 Vasič Vatovec, *Leonardo Ricci architetto "esistenzialista"*, 42-43.



the typology of the brick vaulted shed. The tricuspid reinforced concrete pillars (in the production hall), the broken roofs and the continuity of the internal space between the various levels are all inventions by Ricci for a new form of textile establishments and, for once, they are also perfectly functional²⁷.

The project was completed without the residential tower foreseen by Ricci's project, a distinctive element that appears in many projects, among which the most exemplary is the Brignole Skyscraper, for commercial, hotel, residential and administrative use. The tower would perhaps have gone to compose the counterpoint of the vertical tower on the horizontal plate, a typical composition of Ricci projects with a mega-structural theme as well (see the panel kept in CSAC: images n. 4-5 of the archival record). [Fig. 8-9]

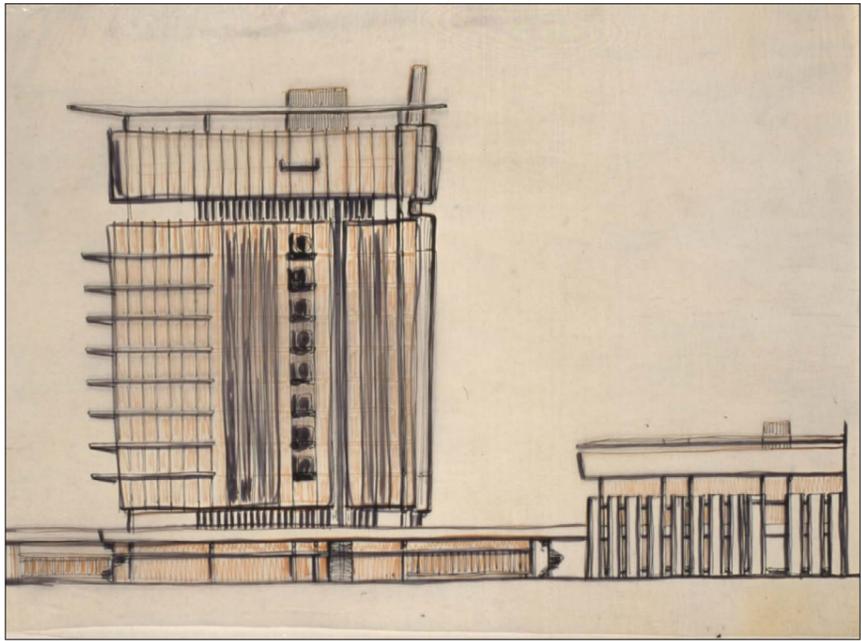
Also in the project for an office building in Milan, whose designs were approximately developed in the decade 1960-1970, the theme is the aggregation between an anchor plate on which a tower-shaped body

27 Koenig, *Architettura in Toscana 1931-1968*, 148.



Fig. 8-9

Leonardo Ricci, Enzo Bienaimé, Gianfranco Petrelli, Project for the Skyscraper in Genova Brignole, perspective views, CSR.



10 |

is grafted, crowned this time by a projecting slab that recalls themes of Le Corbusier derivation, also dear to Leonardo Savioli. At CSAC many freehand sketches, made with Indian ink on tissue paper are kept: in them the light and nervous stroke suggests the attention to the investigation of the paths that serve to put the workers in contact, the investigation of the relationships between solids and voids, between horizontal elements and vertical bodies that contain the stairs, between the rhythmic scansion of the small windows and glazed cuts. Also interesting is the study of the attack on the ground, imagined through large partitions and pillars. **[Fig. 10]**

In the Goti Factory the principle of compositional order is entrusted to the structure, which is often the only element in Ricci's architecture that survived the disjointed complexity of his works. Here, on the contrary, it is the only element that emerges from an almost abstract backdrop. The materials and shapes are chosen for their corporeality, for their ability to create atmospheres and signals. The rough surface of the reinforced concrete contrasts with the abstract white plaster scores and the dematerialized glass surfaces, the gray concrete and the black fixtures are the background to the colorful material of the different wool balls. The materials are those of Ricci's poetics: local stone, glass, reinforced concrete frames as sculptural elements, slabs and finally plaster scores, composed with careful calibration.

The main elevation of the building denounces the internal space of the single hall facing the street and is an expression of the organization of the internal space: it is organized in continuous overlapping horizontal bands, which describe the levels of the building: a stone base corresponds to the basement and solves the building's connection to the ground, detaching the building from the ground as if it were on an "ancient" base, while the two windowed bands, entirely glazed, illuminate the continuous internal space. The upper band is a

sloping wall that leans against the ramifications of the pillar. Like many other works by Ricci, the building arises from a precise dialectic: on the one hand, rising tectonic elements from the ground, like the remains of ancient buildings, like a primary structure; on the other, the construction made of reinforced concrete floors, pillars and glass boxes which is grafted onto the first. The disconnection in height is entrusted precisely to the tree-like pillars and to the glass that frees the mass.

To re-propose the subdivision of the internal floors, a projecting reinforced concrete slab performs an evident stringcourse, a sort of strongly projecting balcony that suspends the upper inclined wall, set back from the ground floor level. The strong horizontal development finds its counterpoint in the stony tower that ends the glazed bands to the south and contains the stairs that connect the two levels, glazed on the front and shaded by a brise soleil in horizontal strips: a recurring lexical element in Ricci, it is also found in his house, in the Fattiroli House, in the project for Agàpe.

The north elevation allows to read the transversal system of frames that structure the space and keep the building standing. A glazed volume resting on the base concludes with the compact housing block, a stone wall punctured by a few irregular openings allows for a glimpse of the rear composition, made up of independent parts.

The southern elevation is the one that undergoes the most changes: there Ricci works on the juxtaposition of material portions in stone - massive in their thickness revealed by the setbacks and openings - and abstract planes in white plaster. It is delimited on both sides by the tower of the stairs and that of the electrical substation, the wall is massive and with it the architect marks the link with the regional tradition and with the place, however interpreted with plastic dynamism.

The front on the back has undergone several revisions and the archival documents do not help establish whether what we see today belongs to a modification by Ricci in the years immediately following the construction or if it is the result of posthumous rearrangements. The central part is in fact "filled" by a tall body that contains the warehouses interrupted by two projecting glazed stairwells that surround a front with three horizontal plastered and glazed bands with projecting balconies. This configuration prevents the autonomous reading of the parts of the building.

To conclude, in the Goti Factory Ricci achieved a strong material effect and compositional experimentation by exploiting contrasts of materials and volumes. To do this, a new structural system allowed him both to anchor the building to the ground and lighten it in height at the same time. However, while the compositional figures and elementary forms often fail in Ricci's work, here there is order and compositional clarity. Ricci's compositions are often more open, broken, incomplete, the result of interrupted, stratified lines, terrains that flex, forms that fit together, eluding typological references, while in the Goti Factory

Fig. 10
Leonardo Ricci, Project for the
Office Building in Milan, sketch
of the elevation, B038584S,
CSAC.

he used rigor and order. Indeed, the overall system, despite providing for a considerable complexity of interpenetration of spaces, is characterized by a great simplicity in the way in which their integration takes place: the compositional rule of the modernist disarticulation of the organisms prevails, so the disassembled unity of the architectural organism is reassembled with architectural objects with regular figures, ordered and legible.

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