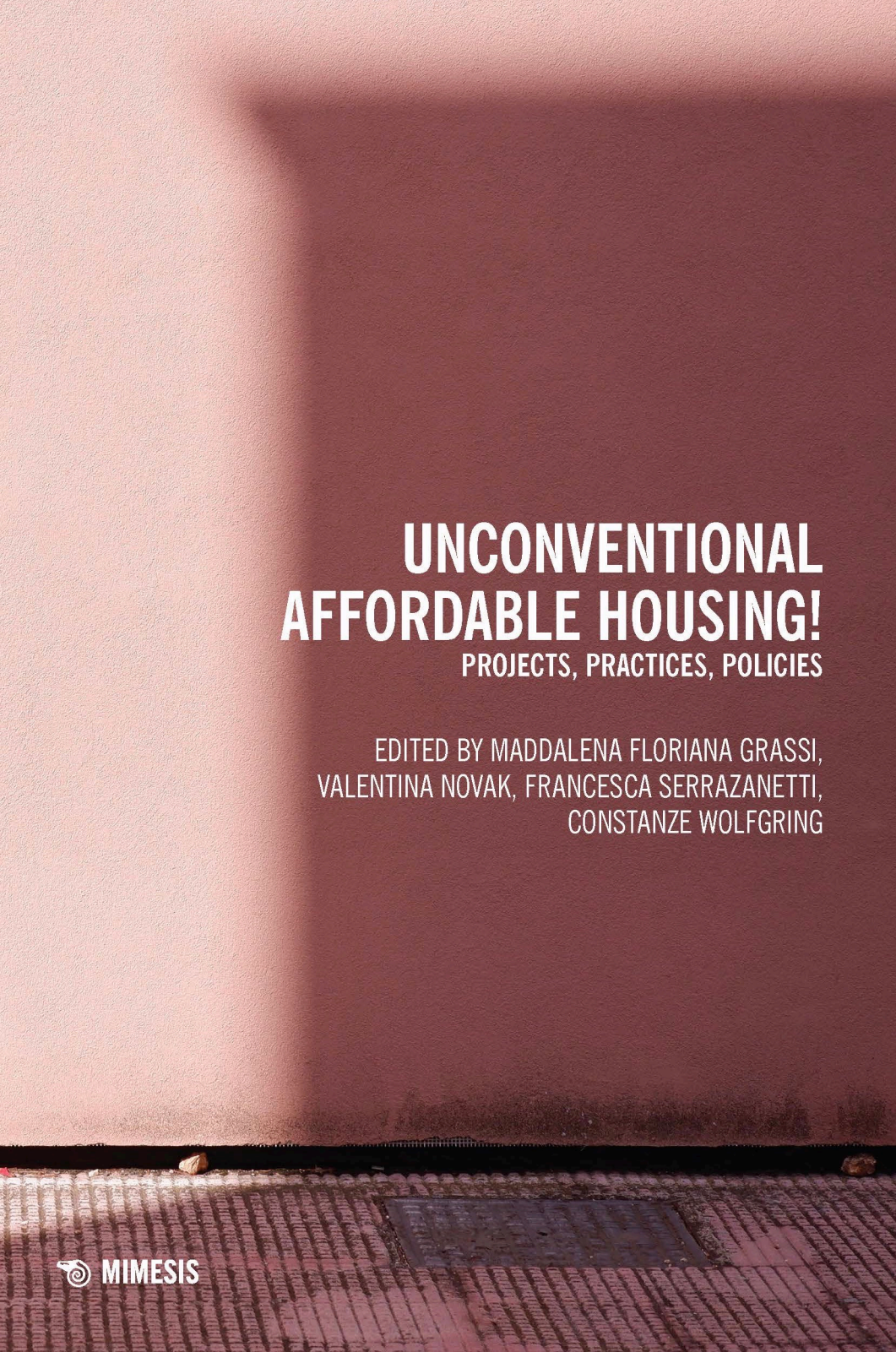

UNCONVENTIONAL AFFORDABLE HOUSING!

PROJECTS, PRACTICES, POLICIES

EDITED BY MADDALENA FLORIANA GRASSI, VALENTINA NOVAK, FRANCESCA SERRAZANETTI, CONSTANZE WOLFGRING

MIMESIS

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Edited by
Maddalena Floriana Grassi, Valentina Novak,
Francesca Serrazanetti, Constanze Wolfgring

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INDEX

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TERZO PALAZZO EX-SNAM OFFICES
A catalyst for affordable housing and urban regeneration in San Donato Milanese

Introduction

The European housing crisis is a phenomenon also felt in San Donato Milanese, a municipality facing some specific challenges such as the urban impact of two derelict office headquarters located in a strategic position, therefore risking the rise of a big "empty centre", coupled with an ageing population (now living in oversized apartments) while the young active population struggles to find local housing responses. This led the municipality to consider in its territorial governance plan the mandatory conversion of these highly qualified office buildings into mixed-use housing to revitalise the area.

That is the case of the office building known as "Terzo Palazzo SNAM", designed by Franco Albini and Franca Helg with Antonio Piva and Marco Albini (1973), today listed for the quality of its architectural features and landscaped surroundings, an urban landmark in a green park.

Considering the academic goals of the PRIN project "UAH! Unconventional Affordable Housing"[1], led by Politecnico di Milano, this was recognised as a good opportunity for applied research through design, namely in final projects for masters' theses in architecture, exploring ideas and diverse housing solutions for a universe of people associated into unconventional households that face strong hardship in the housing market, both in terms of affordability and space solutions.

Therefore, this paper revolves around the academic masters' thesis project developed by Kerstin Letitia Tafaro and Moham-

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1 As described in the editorial.

mad Reza Farahbod, transforming the "Terzo Palazzo SNAM" into a hybrid building capable of attracting diverse residents but also becoming the so far nonexistent civic centre that the municipality aims at and San Donato Milanese needs.

San Donato and Metanopoli

The municipality of San Donato Milanese is in the south-east of Milan and belongs to its metropolitan area. The city emerged as a small village along the Roman Via Aemilia (today: via Emilia) and is located today at the start of the Autostrada del Sole highway. This strategic position, further highlighted by relevant public transportation (metro line, train station, the vicinity to the Milan Linate Airport) gives the city a strong "satellite" character, with people moving daily between San Donato and Milan, for work and housing convenience. Additionally, the presence of one of the main hospitals of the metropolitan area of Milano is another attractor towards the city, bringing in patients, visitors, and hospital workers.

The city's development is historically unique, being directly linked to the establishment of the headquarters of ENI (Ente Nazionale Idrocarburi/National Hydrocarbons Company) in the town during the economic boom following the Second World War[2]. In an operation of strengthening the Italian independence from fossil fuel importation, a multitude of industries including SNAM (*Società Nazionale Metanodotti*), founded in 1941, were incorporated inside the newly created ENI industries in 1953, led by Enrico Mattei as president (Deschermeier 2007). ENI developed fast under the guidance of Mattei, who chose the small town of San Donato Milanese as the site of the directional centre, due to its strategic position (Magni 2011). The construction of the new headquarters, started in 1953, gave birth to a new neighbourhood, *Metanopoli*[3].

2 See also the contribution by Wolfgring and Bricocoli in this volume.
3 The name was clearly inspired by the "metanodotti" of SNAM.

Metanopoli was designed with clear goals in mind: ENI and Metanopoli were meant to be a universe of industries, office buildings, housing for employees, and a framework of green spaces, services and facilities, directed towards instruction, sports, free time and healthcare (DAStU 2020), still present today and of great value for San Donato. Inside Metanapoli, housing was provided according to different social classes, and employees' wellbeing was given big attention, with the goal of giving them a sense of belonging to the company and set high standards of living for them (Fraticelli & Scaleggi 2015). As a consequence, the urban development and demographic increase was astonishing in the following decades[4].

Mattei's successful leadership allowed the company to involve relevant architects of the time, such as Mario Bacciocchi, who was commissioned in 1952 with the drafting of the masterplan of the area, as well as several renowned architects that contributed to the city's architectural heritage[5]. Because of this heritage, some authors have considered Metanopoli as a true open-air museum of Italian urban and architectural history where architectural highlights such as Terzo Palazzo are seen today as modernist monuments (Sermisoni 1995; Fiano & Guidarini 1999).

Terzo Palazzo SNAM

The third office building of the ENI group, also known as "Terzo Palazzo SNAM" was commissioned by ENI and SNAM in 1969 to the architectural practice composed by Franco Albini, Franca Helg, Antonio Piva and Marco Albini, and it was built between 1971 and 1973 (Gatti 1995).

4 In 1936, the village on San Donato counted 2.636 inhabitants only and was based on agricultural economy. Less than 50 years later, the city was counting more than 30.000 inhabitants, the majority of which were revolving around ENI and Metanopoli (Tuttitalia.it 2025).

5 The most impactful heritage visible in Metanopoli today are the ENI office buildings: the first, by Nizzoli and Oliveri (1955-1957), the second (1961-1962) and fourth (1980-1984) by Bacigalupo and Ratti, the third, by Franco Albini's studio (1969-1973), the fifth, by Gabetti and Isola (1985-1991) and the sixth, by Morphosis and Nemesi Architects (2022 – under construction).

The building was constructed south of the original Metanopoli masterplan, as an outpost of the new neighbourhood, in a large green plot and with a rotation of 45° compared to the existing urban fabric, highlighting its uniqueness. It consists of five floors above ground and one basement floor (partially above ground, depending on the variable topography around), adding up to a total of about 40,000 square metres of surface (Ordine degli Architetti di Milano 2025). The plan concept is a cross shape, with four wings organised through a rigid orthogonal geometry and one wing shorter than the others due to the presence of the canteen building, added during the design process (Rossi Prodi 1996). This shorter wing was intended for management activities while the others were office spaces (Ordine degli Architetti di Milano 2025). The four wings come together in the central square space where a polygonal staircase, in steel and granite, gives direct access to the upper floors. The main entrance for visitors is marked outside by an invitational canopy (Rossi Prodi 1996).

Each wing consists of a triple body, obtained through the juxtaposition of three shifted rectangular shapes with different functions. In its middle core are the services and vertical distribution between floors. Inner distribution and circulation allow both autonomy of operation for each wing and each floor, and easy communication between wings (Rabuffetti 2023). The façade rectangles instead contain the office spaces, with open plan flexibility and only a few movable walls, to separate or reorganise the more private spaces (Ordine degli Architetti di Milano 2025). The flexibility is also assured by a regular and modular grid of 1.2 metres (*ibid.*). The shifting of the volumes in each wing creates a more dynamic facade, with asymmetrical edges and recesses, and helps to break the length of the wings, given the total length of the building – which is about 200 meters.

While designing the building, the construction time was a significant factor – there was a need to reduce the construction to less than twenty months (Rossi Prodi 1996). This goal was reached through

the adoption of two design choices: the use of a steel structure[6] and the positioning of the air conditioning system pipes (cooling and heating) entirely on the exterior facades of the building, protected by a convex horizontal band along the length of each floor (*ibid.*). This element, a fairing in self-extinguishing polyester resin reinforced with red glass fibers, became the main feature of the building, emphasising a horizontal image and using the strong red color to clearly contrast with the green context (Gatti 1995).

The building is glazed (above the red horizontal stripes) through continuous horizontal ribbon windows that further highlight its linearity. The glazing, which is fixed and made of just single glass, is interrupted only in small lateral façades of the wings. Here, vertical pipelines, covered by the same red fiberglass, connect the structure vertically from the roof to the underground floor (where the main technical spaces are located).

The housing crisis in San Donato Milanese

San Donato Milanese, in its urban planning, housing stock and demographical composition, today faces important issues, especially linked to the historical influence of ENI. The development of the neighbourhood of Metanopoli happened differently from other Italian planning experimentations: it was designed ex-novo, completely outside of municipality restrictions and therefore also lacking connections to the existing fabric (Lombardia Beni Culturali 2014). The previously small village was transformed radically, and its barycenter was moved from via Emilia towards the east. The new masterplan was designed revolving around efficiency, cars, and company policies, without considering a proper city centre. Today, the city appears decentralised from the original nucleus and still lacks a centre with real urban life. Furthermore, while the new masterplan included abundant green spaces and public facilities (especially linked to sports and leisure), constituting

6 Composed of double T-shaped beams and pillars, with slabs made of metal sheet and reinforced concrete (Rabuffetti 2023).

today a valuable resource for the city, there is a severe lack of commercial and catering services in the areas built by ENI (Comune di San Donato Milanese 2020b).

The housing heritage left by ENI shows significant differences compared to other neighbourhoods developed later in the city. In Metanopoli, there is a heritage of traditional and large apartments[7] originally designed for the employees and their families (Fraticelli & Scaleggi 2015). After the privatisation of the company in 1992, this housing stock was sold at low prices to the employees themselves (Bricocoli *et al.* 2020), increasing homeownership rates (already high in Italy). But it also contributed to housing unaffordability, with high rents and selling prices, especially speculating on the purchasing power of foreign workers involved with ENI. These dynamics radically changed the local demographics as well, especially because those oversized apartments originally built for large families now host either older couples or singles, with accessibility and home maintenance struggles, or young adults benefitting from the acquired generational privilege (Bricocoli *et al.* 2020).

The numerous office buildings present in the city, defining its skyline and identity, are today partially underused or in some cases completely empty, like the Terzo Palazzo SNAM. Already in 2015, a big percentage of offices in Milan were vacant (Reggio & D'Alessandro 2016, cit. from Fianchini & Ferrucci 2018), a tendency that has only increased in the aftermath of the COVID-19 pandemic and the remote work phenomenon. In San Donato, this phenomenon is especially visible: with the internal changes of the company and the contemporary evolution of the work dynamics, the necessity for large office buildings (real monuments to labour, such as the Terzo Palazzo) became less important, resulting in multiple vacant office buildings.

Last but not least, Milano and its hinterland, including San Donato, today constitute an important attractor for workers, immigrants and students, which implies a rapid and significant change of household composition in the city. These new types

7 The majority of the apartments have more than 5 rooms (Fraticelli & Scaleggi 2015, p. 105).

of households (multiple generations living together, cohabitation of unrelated adults, single-person households, etc.) often have to adapt themselves to obsolete apartments that weren't designed for their needs, which might apply also to the housing stock of Metanopoli. These large apartments, if not inhabited by their aged owners, might end up being transformed into different forms of housing, including to be speculatively rented to multiple people in unconventional forms of cohabitation. The result of these oversized *empty nests*[8] has been a collapse of the equivalence between the households' needs and the housing typology and consequently an increasing distance between the existing housing supply and the new emerging housing demands (Postiglione *et al.* 2022). Additionally, a progressive unaffordability of the current housing market is becoming an issue, due to speculations and existing transformations in the labour market, leading to temporary employment, precariousness and work delocalisation (Bricocoli *et al.* 2020; Bricocoli & Peverini 2023). As a consequence, a growing section of the population, including the middle class, lives in conditions of reduced housing affordability, with precarious and informal situations and constrained access to housing (Postiglione *et al.* 2022).

All these elements are pushing us in new directions, where traditional housing is no longer sufficient. The topics of affordable and unconventional housing arise as possible strategies to deal with these inadequacies and in this context, empty office buildings have been recently explored as resources for new housing solutions. The experimentation on the Terzo Palazzo SNAM is not an isolated case but an opportunity to foster further research and experimentation on other office buildings.

The Municipality of San Donato itself has been working on a strategy to give a new urban structure to the city, new connections and a new city centre, and had designated the area of the Terzo Palazzo as an "urban regeneration area" (Comune di

8 Empty nest refers to a family life course transition and post parental phase that occurs when children have moved out and left the parental home (Mitchell 2019).

San Donato Milanese 2020a), with the intention of rendering it a new crucial node of the city. Even though the Milanese metro line M2 terminates precisely at San Donato's northern borders, its expansion is already a strategy of the municipality, whose Territorial Governance Plan (PGT) foresees a new metro stop next to the Terzo Palazzo SNAM (*ibid.*).

The plot instead, today mostly covered by parking lots, is planned to be transformed into a mixed-use neighbourhood, with housing and new services, including a Museum of Energy, linked to the history of the city. The former office buildings (apart from the Terzo Palazzo, the plot also entails the so-called Quarto Palazzo) are planned to be converted into various housing forms, including student housing, affordable housing and market-rate housing (*ibid.*). Considering the lack of connections between this plot and the city, and the lack of commercial activities and services of the area, the PGT includes a broader strategy of re-structuring the area through a new "urban park" along the historical via Martiri di Cefalonia, south of the plot. The urban park would link the existing older connection of the municipality building (to the west), to the historical "cascina di Santa Scolastica" and the Lambro River (to the east). Additionally, the already implemented pedestrian and cycling paths further strengthen slow mobility in the area.

Considering the municipality's intentions for the near future, the Terzo Palazzo SNAM constitutes a tangible potentiality. In the framework of the UAH! project, and with the municipality's PGT as guideline, it can become a pilot project, able to simultaneously address numerous relevant issues and develop new insights on the future of housing.

Project strategies

The project proposal covers different scales, from the urban setting to the building, and its interiors, to study new ways of living in the area in a former office building.

Looking at the architectural scale in particular, the 6-floor building is not only transformed to accommodate affordable

and unconventional housing solutions but is also highlighted in its identitarian value as a heritage landmark. The red horizontal elements, which strongly define the façades and the external appearance of the building, were preserved as one of the main features.

To further enhance the monumentality of the building in its peculiar and very natural context (of great value in itself), one of the urban strategies was to connect the building to the surroundings through new urban spaces and public services. A detailed mapping of the trees, paired with a study of the irregular topography of the surroundings, enabled us to manipulate the topography, excavating it to expose the underground floor to host public spaces, while safekeeping as many trees as possible and preserving the red resin fairing on the former ground floor.

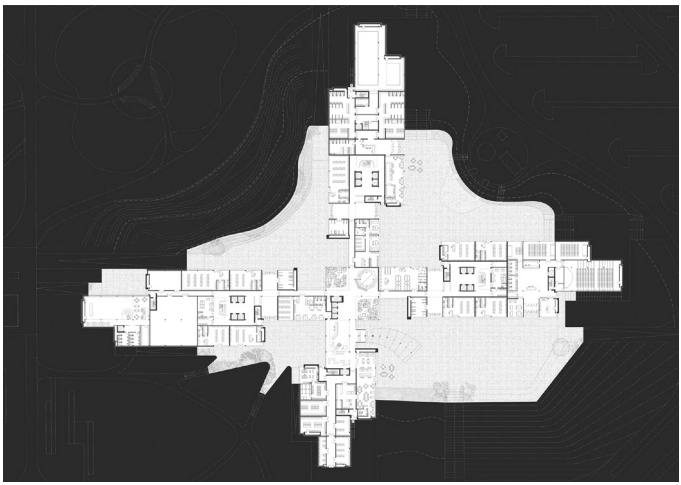

Figure 1. Ground floor, previously underground/level -1 (Tafaro & Farahbod 2025).

This allows the building to become public and permeable at the -1 level by creating a main entrance square and direct access from the outside to different public services, commercial activities and transit spaces inside the building (fig. 1).

The iconic frontal canopy was moved down from the ground floor to the level of the newly excavated square (the previous -1 level becomes the new ground level), preserving its role as the main invitation for visitors to enter the building, and at the same time highlighting its geometrical composition, particularly visible from above. Sculpturally, it becomes a tool to identify the public entrance of the building and to help the residents and visitors to orientate themselves, much like its original purpose.

The excessive depth of the building (29.5 metres between opposite façades) was one of the main design challenges of the proposal. This depth creates a very dark middle core where toilets, storage, stairs and elevators are located at present, while all the office rooms are displayed along the sealed façades. This meant a total dependence on air conditioning and electric lighting, a condition that is unacceptable for the intended use of sustainable housing in the 21st century, thus requiring some strategic design decisions. To tackle this problem on the upper floors, 1.50-meter-deep balconies were generated through the translation of the glazed façades to offer a stronger relationship with the exterior and provide more quality of living to the apartments. In the centre of each wing, where the windowless service spaces are located, four interior spatial voids were carved, surrounded by gathering spaces, connecting the ground floor to the new roof skylights, allowing natural light and ventilation. The apartments face outside through the balconies and inside towards the inner distributive streets through windows opening to the kitchens and living spaces (fig. 2).

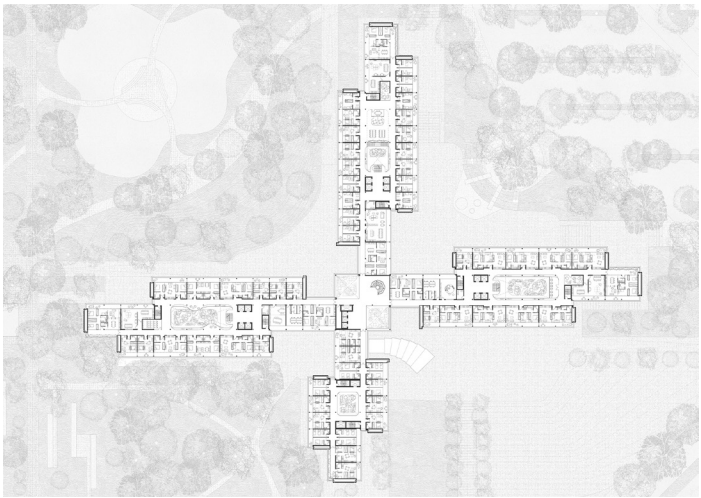

Figure 2. Level 2, typical floor (Tafaro & Farahbod 2025).

The former office distribution system of corridors becomes now a sequence of gathering places, where each central void is distinguished from the others through different spatial compositions. On each wing and each floor, collective and shared spaces are distributed to extend the livable space from the private apartments to the whole building. The introduction of these vertical voids enhances the potential monumentality of the building from inside, whereas nowadays there is no visual connection between floors but a simple repetition of horizontal typical floors.

The smaller wing, towards the east, will be slightly different, with the common spaces concentrated on the ground floor and the upper floors entirely dedicated to small apartments and bedrooms, thereby creating a guest house.

The apartments are based on two modules, following the pillar spans, 6x6 meters and 6x7.5 meters and a variety of typologies and sizes are derived from these measures, to answer the needs of new unconventional households, easily modifiable among each other with small changes thanks to compatibility and the use of lightweight partitions inside the units themselves. All

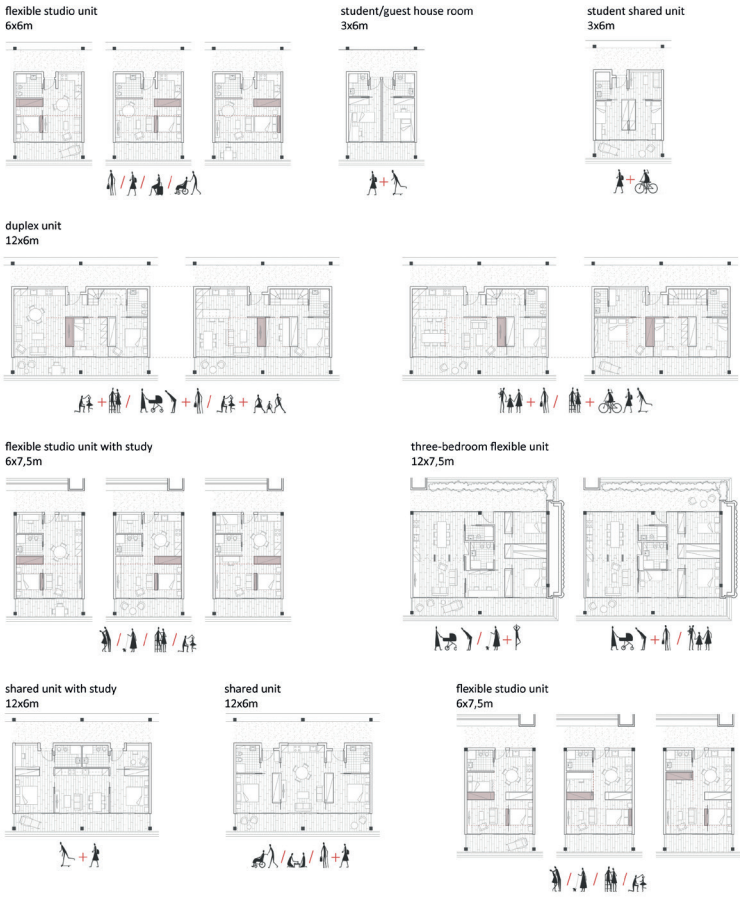

Figure 3. Selection of typologies, their possible modifications and users (Tafaro & Farahbod 2025).

units are vertically stacked with kitchens and bathrooms pushed towards the inside and living spaces and bedrooms towards the balconies, thus contributing to the overall transformability of the units through time.

Inside the units, the use of floor-to-ceiling closet blocks and door panels, sliding suspended from rails, allows for fast changes of the interior spatial composition, with the possibility of closing

a kitchen, moving a bedroom or transforming the bedroom into a home office or removing it completely.

Intended users

The project is targeted at a variety of unconventional households which fall mainly under four categories, conceptually reflected by the four wings of the building and used as starting point for the design of the apartment typologies (fig. 3).

Students and young professionals: in San Donato, it is common to find young adults who are living or moving back to live with parents. The instability of the job market and of income pushes the young generation into the "grey zone", unable to afford independent living, but at the same time unable to apply for public housing (Fraticelli & Scaleggi 2015). This resident type was chosen as one that is in need of affordable housing, to gain independence from the family support system. The spaces designed for them aim to provide small affordable solutions, complemented with common spaces which can stimulate a sense of community and collaboration.

Older citizens: in San Donato, they are significantly present, especially in the area of Metanopoli, which is not only among the most aged areas of the city, but also the one where people tend to live alone (Fraticelli & Scaleggi 2015). Due to a high percentage of ownership, paired with the increase of the share of the elderly in the Italian population, a lot of seniors find themselves living alone in large apartments, with consequences of loneliness, lack of accessible care and services (ISTAT 2023). This type of residents was therefore selected as a target for alternative solutions, consisting of small units, individual or paired to share a living space, complemented with common spaces to meet and generate social activities, and especially the presence of services easily accessible inside the building, linked to healthcare, entertainment, and physical activity.

Temporary users: this type includes small households which have a need for a temporary housing solution. In San Donato, the Gruppo San Donato Hospital and the ENI offices are big attractors and create a need for temporary, flexible and intermittent housing solutions, for those users that move or visit to the city for specific purposes

(Fraticelli & Scaleggi 2015). This housing type is concentrated in the shorter wing in a structure that we define as a "guest house", constituted by small studio apartments, single and double bedrooms, complemented with several common spaces, for free-time, cooking and productivity.

Intergenerational households: this larger category includes a mix of different situations. More specifically, it usually brings together users with diverse needs, often belonging to different age groups and without family relationships. This dwelling type, which corresponds to higher degrees of sharing, was considered through the design of larger housing units, with flexible rooms and multiple entrances in case of the duplex typology.

Space categories: public, collective, shared, private

The complexity of this unconventional housing is reflected by its various types of spaces, designed to serve different users. These spaces go from the most public ones to the most private ones, defining a sequence of privacy layers, an important concept when working on a building of this monumental scale (Coppola Pignatelli 1977). It becomes even more important considering the challenge of transforming office headquarters into collective housing, which requires the creation of a feeling of domesticity and privacy. Additionally, after the COVID-19 pandemic, a new type of living emerged, where elements that previously happened elsewhere in the city (work, sport, education and more) started merging with housing, asking for private, shared and public spaces in the dwelling estates, and requiring design strategies on how they relate with each other (Espegel *et al.* 2022).

Public spaces are located on level 0 and level 1, accessible from the outside, particularly from the extremities of the wings and from the central core[9]. The transit space of the central lobby, identified on

9 Public spaces inside the building: dance hall, swimming pool and gym with connected café, auditorium (at the extremities of the long wings); guest house reception and connected restaurant (at the extremity of the short wing), commercial activities (along the sides of the long wings);

the outside by the pre-existing canopy, distributes the inner service core and the guest house. The restaurant and the service core are accessible both from the outside and from the inside, making them more permeable. One very important aspect when dealing with public spaces and private housing at the same time was the necessity to provide security and control over the residential accesses. This is why the lateral accesses on each wing are solely usable by the residents of the building, allowing for direct access to the upper floors, while offering visual connection but physical separation between the central lobby and the public spaces.

The collective spaces were designed on level 1 in the case of the shorter wing of the guest house and mixed throughout the floors in the other wings, together with the shared spaces[10]. Collective spaces are commonly accessible by all the residents of the building; therefore, they have some very different uses like coworking, fitness, arts and crafts, music room, cinema room, and more. They can also change through time, according to evolving needs.

Shared spaces were designed to contain kitchens and living rooms, which can be used for daily use but also as common rooms for events and more[11]. They are meant to be used by the people of the same wing and floor; therefore, they are semi-private because they constitute the layer that is immediately before the private apartments.

Private spaces exist on every level, and they all have (with little exceptions) windows on two sides, towards the outside and the inside[12]. The windows towards the inside (facing the voids, inner distribution and common spaces) were designed to give the res-

coworking, physiotherapy, doctor, day care (in the inner central core of the building at level -1 and 0, accessible from frontal canopy).

10 Collective spaces inside the building: remote working room, fitness room, arts and crafts room, coworking space, indoor garden, bicycle storage, computer room, reading room, music room, study area, cinema room (distributed on all floors starting from level 0 with the indoor gardens).

11 Shared spaces inside the building: shared kitchens, shared living rooms (distributed among all floors).

12 Private units inside the building: single bedroom with private bathroom, single bedroom with shared bathroom, studio apartment with flexible bed area, studio apartment with two flexible bed areas, studio apartment with flexible bed area, study/work room and flexible guest area, one-bedroom apartment with flexible second bedroom, two-bedroom apartment with study/work room, two-bedroom shared apartment with separate entrances

idents the possibility to open up to the building life, to facilitate connections with the other residents.

San Donato Milanese's new city centre

The project of adaptive reuse of the Terzo Palazzo is not just a housing project inside a green park, but is a hybrid building, with a complex programme of different spaces and functions. It is intended to contribute to the creation of a real urban centre in San Donato Milanese, bringing together transportation connections (metro, buses, cars, bicycles, pedestrians) with new urban spaces (squares, green spaces and water spaces), surrounding the new public functions that this monumental building will host at the ground levels (fig.4). Therefore, the building will offer spaces and functions that will attract other residents and passers-by, generate a civic centre and make the Terzo Palazzo a resource meant to stitch together different parts of the city, existing services, and fill the urban void. The main goal is to give the city a new urban centre with a clear identity, through the strong and iconic image of the Terzo Palazzo, engraved in the minds of all the citizens of San Donato Milanese who have always known it only from afar, surrounded by hundreds of workers' parked cars and vast empty green spaces. That isolated circumstance is changed now by the new lively functions of the building.

The monumentality and identitarian value of the building plays an important role in strengthening the new urban project and its new connections. The preservation of the red polyester resin elements in all façades, highlighted by the new balconies, and the preservation of the modular division of the façade, with five glazed partitions for every 6-meter pillar span, both aim to keep the original linearity of the facades. The external front canopy is preserved (even if replaced on the lower level) and enhanced as the main entrance to the public spaces. It has now an even greater preeminence, seen from the (future) metro station exit, connected with new monumental stairs going down to the newly excavated public square.

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and bathrooms, three-bedroom apartment, duplex apartment with separate entrances (and two to five flexible bedrooms).

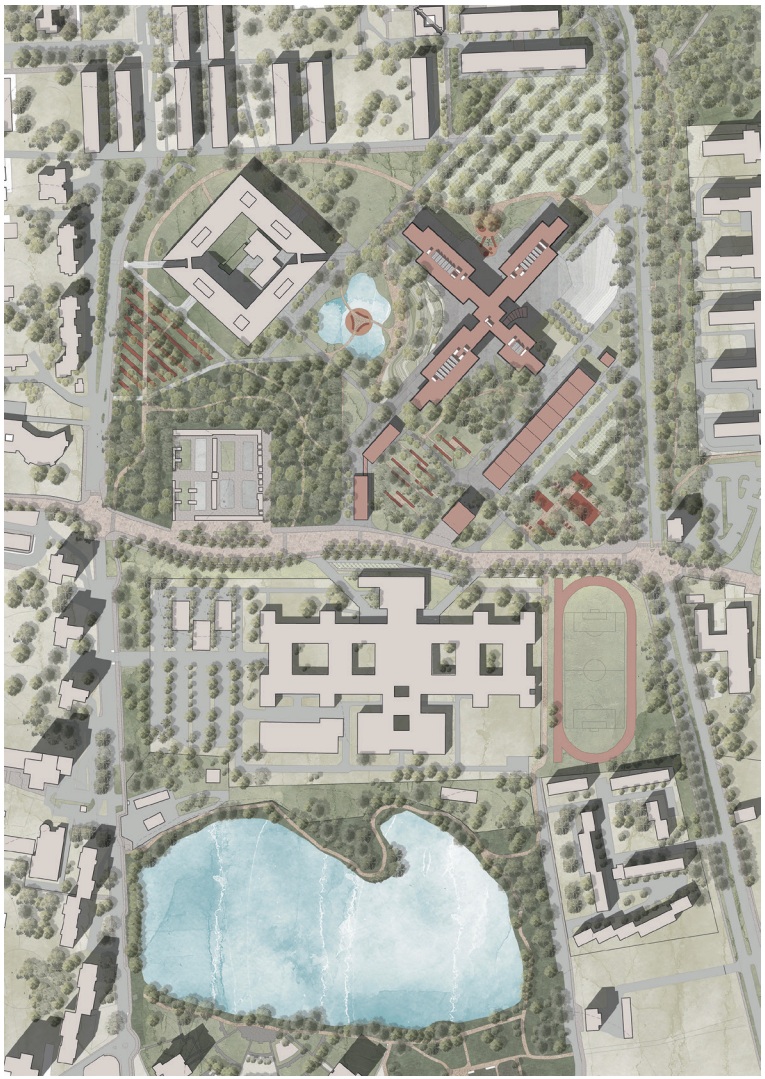

Figure 4: Proposed masterplan (Tafaro & Farahbod 2025).

Affordability and unconventionality, the starting concepts of the project, are developed through small- and large-scale choices. The unconventionality is ensured not only through the housing units' typologies, their design and their users, but also by the strong urban presence of this listed building that is a strong visual reference – a real landmark – in San Donato Milanese, converted from office-only into a hybrid housing building. With a mixed-use programme, the building becomes an attractor open to the city, with many functions that are shared among residents and outside citizens. The affordability relies not only on the apartments' design, adaptable through time, but also on the provision of collective spaces, allowing more activities and opportunities outside a small or micro-dwelling unit. In fact, the public programme of the building also contributes to its global affordability, where new commercial activities can constitute revenue, beneficial for the housing financing under a global management of the whole estate, in addition to the reactivation of a small-scale local economy.

Following the 45° rotation of the Terzo and Quarto Palazzo's orientation, new axes have been traced, connecting the corners of opposite sides of the plot and defining alternative ways of crossing the area.

The newly exposed underground floor becomes the new ground floor level, and its public spaces are surrounded by a new urban area, with slopes, urban stairs and a green hill auditorium, integrating the building into the context. The building is further highlighted by new functions: the new metro exits, the food court, the new sports area related to the existing one, the museum of energy and didactic area related to the school, the urban forest protecting the historical cemetery and the linear garden.

The existing street of via Martiri di Cefalonia is strengthened through the addition of these new functions, following the PGT's linear park strategy. Straight paved axes create fast and strong ways of crossing, the curved paths create soft loops to explore the area until the existing lake Europa, south of the plot, which gains a new importance. The former parking lots are reduced and pushed to the sides, to create a car free

environment, with the possibility of access of emergency vehicles. In the centre of the plot a small lake connects the Terzo and Quarto Palazzo, supplied through the existing underground water streams of the river Lambro. In the middle of it all, the Terzo Palazzo with its red monumentality becomes a landmark and urban attractor, a catalyst for the new urban centre that the municipality of San Donato Milanese and its population are longing for.

Conclusion

The "Terzo Palazzo SNAM" is a remarkable architectural piece, a quite surprising work from Franco Albini's final years. Following basic modernist principles such as the open plan, modular repetition, linear circulation, core infrastructures, prefabricated panels and glazed façades, Albini masterfully managed all ingredients to create a red urban landmark in a strategic location of San Donato Milanese.

The office building was broken into four wings in a cruciform plan, thereby distributing the workspaces along the fixed ribbon windows, seeming a cluster of four smaller buildings. The façades, made of polyester resin panels, proved to have a resilient material and an ingenious solution: the undulated surface, besides hiding the AC pipes, creates a shaded surface of horizontal lines.

Being a derelict building listed by the municipality for its architectural quality, its rationalist DNA offers a good matrix for the UAH! *research by design*, as the masters' thesis project presented above illustrates. The conversion of this office building into housing can therefore be regarded as a case study for the reuse of abandoned office buildings.

This means converting it into a hybrid building where different functions are open to the public at the ground level, thus turning it into an urban magnet near the future metro station, able to promote a civic centre for the whole neighbourhood, while on the upper floors different residential units are arranged to respond to new living styles.

From small individual living units to larger co-living solutions, they all benefit from shared spaces distributed on all floors around central courtyards. These central voids serve as social magnets for the residents by bringing in natural light from roof skylights, thus turning the old office corridors into inner streets to which the different residential units open doors and windows.

The "Terzo Palazzo SNAM" as an icon would thus be preserved while reinterpreting and renovating *Metanapoli's* legacy for the future as a catalyst for affordable housing and urban regeneration in San Donato Milanese.

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