

Social housing has a long tradition in Europe. Since the early 20th century, these often anonymous and sometimes unappreciated buildings have formed the suburbs of large European cities. With the multidisciplinary international research project "Mapping Public Housing," the Center for Studies in Architecture and Urbanism at the Faculty of Architecture of the University of Porto traces this architectural heritage and shows that often lively settlements and entire city districts have emerged from subsidized housing. There we find today a qualified urban fabric, somewhat under risk of deprivation, yearning for strategies that focus on sustainability and refurbishment of housing and housing estates.

This book takes a closer look at notable cases from Portugal, Great Britain, Germany, Switzerland, and Spain, among others, with a spectrum that ranges from the beginnings of social housing in Portugal, after World War I, to the fall of the dictatorial regime in 1974. Gathering only apparently scattered interests and researches, it establishes a heterogeneous reading of its subject and suggests sustainable conceptual approaches to housing for the future. The result is a broad panorama that understands the development of subsidized construction as part of Europe's cultural history and traces the fundamental role that state-subsidized housing played in the emergence of the European welfare state.

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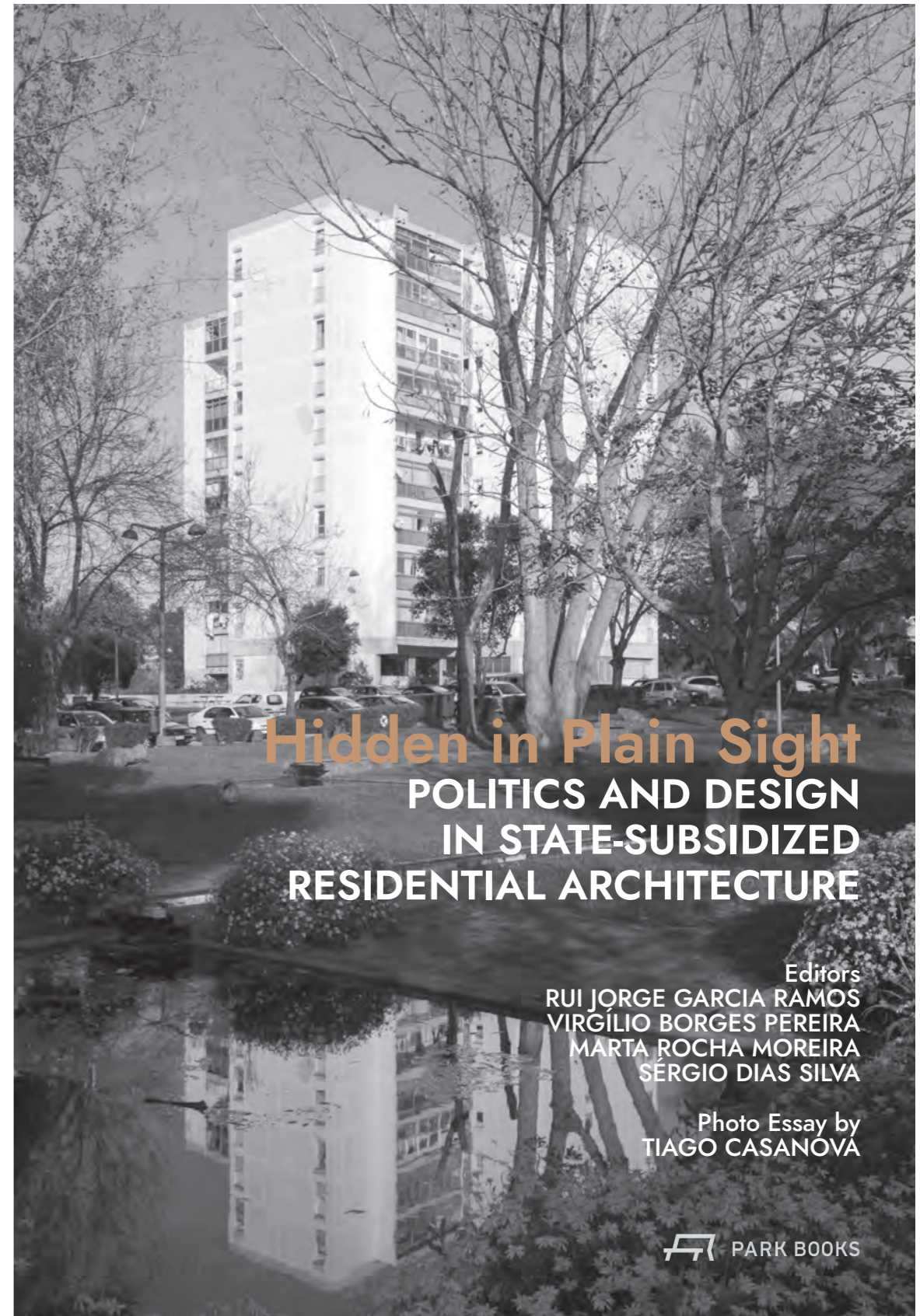
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CEAU



Hidden in Plain Sight
POLITICS AND DESIGN IN STATE-SUBSIDIZED
RESIDENTIAL ARCHITECTURE

RJG RAMOS
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SD SILVA



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Editors
RUI JORGE GARCIA RAMOS
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Photo Essay by
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PARK BOOKS

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Hidden in Plain Sight: Politics and Design in State-Subsidized Residential Architecture

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 **PARK BOOKS**

Table of Contents

7 Preface

JOSÉ MIGUEL RODRIGUES

9 How Many Names Make the History of Housing?

RUI JORGE GARCIA RAMOS

1. HOUSE, PHILANTROPY, AND SOCIAL ECONOMY (1910–1933)

19 The “Housing Issue” in Portugal: Between the End of the Monarchy and the Republic

PAULO M. ALMEIDA

33 Republican Affordable Housing: Art, Hygiene, and Modern Architecture in Portugal

ELISEU GONÇALVES

47 Science and Technique in the Service of More Modern and Salubrious Cities

ANA CARDOSO DE MATOS

59 Homes Fit For Heroes

MARK SWENARTON

2. HOUSE, FAMILY, AND STATE (1933–1946)

81 Frankfurt am Main: A Shared Life

CARMEN ESPEGEL

101 Corporatism and Affordable Housing in the Portuguese Urban Environment (1933–1974)

PAULA BORGES SANTOS AND JOSÉ MARIA BRANDÃO DE BRITO

127 Progressively Picturesque, Reluctantly Modern: Building a Timeline of the Casas Económicas (1933–1974)

SÉRGIO DIAS SILVA

141 Plain Façades and Exuberant Rooms: A Tour of Casas Económicas

ELIANA SOUSA SANTOS

153 Between the Survey of Rural Housing and the Survey of Popular Architecture: The Housing of Settlers by the Internal Colonization Board (1936–1960)

FILIPA DE CASTRO GUERREIRO

169 The Portuguese People as Peaceful and Intuitive Artists: Propaganda, Folk Art, and the Legitimation of Salazar’s New State

VERA MARQUES ALVES

3. HOUSE, NEIGHBOURHOOD, AND DENSITY (1946–1968)

181 Post-War Portugal: Between Conservatism and Modernity

MARIA FERNANDA ROLLO

195 Boosting Perspectives from the Neighbourhood of Alvalade

JOÃO PEDRO COSTA

211 “From User to Dweller”: Observation, Consultation, and Involvement Processes in Housing Solutions, 1950s and 1960s

TIAGO LOPES DIAS

227 A Singular Path in Portuguese Housing: Reviewing the Work of the Habitações Económicas–Federação das Caixas de Previdência

MARIA TAVARES

239 Housing Programmes and the Construction of the Portuguese City: the Realization of Modernity in the First Half of the Twentieth Century

TERESA CALIX

255 State, Social Housing, and the Changing City: Porto’s 1956 “Improvement Plan”

VIRGÍLIO BORGES PEREIRA AND JOÃO QUEIRÓS

271 Not Houses but Cities—Not Designs, but Designers. 1950s Italy: the INA-Casa Neighbourhoods

ORSINA SIMONA PIERINI

4. HOUSE, URBAN SPRAWL, AND REVOLUTION (1968–1974)

293 Urban Planning and Development Agency Housing Estates in Spain: Bigador’s Operational Urbanism (1939–1969)

LUIS MOYA

311 Olivais and Chelas: a Large-Scale Housing Programme in Lisbon

TERESA VALSASSINA HEITOR

335 The Impossible Transition: Marcelo Caetano’s Final Shutdown (1968–74)

MANUEL LOFF

353 Before April: The Housing Issue

JOSÉ ANTÓNIO BANDEIRINHA

5. NEW HYPOTHESIS FOR OLD PROBLEMS

373 European Collective Housing in the Post-War Period: Thermal Retrofitting and Architectural Impact

FRANZ GRAF AND GIULIA MARINO

383 Typo-Morphological Laboratories During the 20th Century: a General Overview on the State-Subsidized Multifamily Housing Projects in Portugal (1910–1974)

GISELA LAMEIRA

401 Between Preservation and Transformation of State-Subsidized Multifamily Housing Buildings: Current Paradigms in the Scope of the “Improvement Plan” for the City of Porto

LUCIANA ROCHA

419 The New State, Architecture and Modernism

JOANA BRITES

437 Readings and Re-Readings of the Estado Novo

VICTOR PEREIRA

450 Agualva-Cacém

PHOTO ESSAY BY TIAGO CASANOVA (2018)

Preface

JOSÉ MIGUEL RODRIGUES

Architect, Professor and Director of CEAU-FAUP

This book reports on the research undertaken into public housing policies and their architectural and urbanistic expression at a given moment in history, presented in the form of a curatorial overview. It has always seemed to us that State-sponsored housing merited a study such as this one, which helps to re-establish the State's important role in guaranteeing the right to housing for all, without exception. The Centre for Studies in Architecture and Urbanism (CEAU) readily welcomed the research proposal and was most enthusiastic about being able to accompany the highly relevant work undertaken by the team of researchers participating in this study, in collaboration with other authors from a range of different geographies and chronologies. Hidden in Plain Sight is thus a beautiful operative title for the anthology of academic essays that this book has brought together and placed in dialogue with one another, and now, through its publication, in dialogue with all of us. As befits a work of academic research, the book reveals a discovery that, in a certain sense, was already there before our eyes that do not see (Le Corbusier dixit) and that only the researcher's trained eye is able to identify and make visible, which is the very hallmark of the research into architecture and urbanism that the CEAU undertakes and promotes. The series of studies that can now be read (and observed) here will therefore undoubtedly represent a milestone in the history of research into State-funded housing, both from the point of view of the diverse range of converging perspectives that it contains and, above all, for its defence of the importance of housing in past, present and future public policies. It is with this expectation in mind (in other words with the hope that this book may influence policymakers, who play such a decisive role in safeguarding citizens' basic rights, and, undoubtedly, also architects, whose mission is to think about and design a possible future that is accessible to all) that the research centre from the Faculty of Architecture of the University of Porto proudly associates itself with the initiative of this book and with its authors.



Inauguration of the church of the Alvalade Estate in 1955. The Alvalade Estate, planned at the start of the 1940s, was until the end of the following decade the largest housing initiative in Portugal, mixing public and private investment.

Empresa Pública Jornal O Século, Albuns Gerais no. 118, doc. 1471AG.
PT/TT/EPJS/SF/001-001/0118/1471AG. Image from ANTT.



3. HOUSE, NEIGHBOURHOOD, AND DENSITY (1946–1968)

By the end of World War II, single-family houses were seen by architects, planners and some municipal entities as a limited response to the housing problem. The New State reacted by creating new housing programmes that allowed multi-family buildings and rent systems, with new target audiences, such as the urban middle classes. The focus of a new generation of Portuguese architects would shift to the Italian example.

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Not Houses but Cities—Not Designs, but Designers. 1950s Italy: the INA-Casa Neighbourhoods

ORSINA SIMONA PIERINI

Politecnico di Milano, Department of Architecture and Urban Studies

ABSTRACT

In February 1949 the Italian government approved the INA-Casa Plan, legislation to provide incentives for employment through the construction of low-cost housing. The Plan, in effect until 1963, led to the production of 350,000 housing units in autonomous, recognizable districts across the national territory. Many great masters of architecture and urban planning played a fundamental part in the effort, and the experimentation on the theme of the neighbourhood generated discussion and debate. In Rome the Tiburtino district by Ridolfi, or the Tuscolano project by Quaroni and Libera, corresponded to positions of dissent with respect to the schematic approach of a certain type of Modernism by returning to the scale of the village, while in Milan, at the Harar development, with Figini Pollini and Gio Ponti, or in the Feltre district, the large group of Milanese architects proposed solutions in which the compact morphology of the traditional city was abandoned in favour of attribution of value to public space and nature as a central focus. From a typological standpoint, certain Suggestions published by the director of the technical division Adalberto Libera indicated a preference for juxtaposed tract houses, terraced houses, and tower buildings, providing a variety of types whose interpretation and montage became the main compositional thrust of an initiative that succeeded in inhabiting and interpreting the local contexts of Italy during the reconstruction.

BIOGRAPHY

Associate Professor in Architectural and Urban Composition at DASTU, Milan Polytechnic. After taking a degree in Milan in 1989, she completed her PhD in Architectural Composition with Giorgio Grassi in Venice (IUAV) in 1995. In 1998 she received a study grant for research with Carlos Martí Arís at the ETSAB, where she focused on Spanish architecture of the 1950s, curating with José Quetglas the exhibition on Josep Maria Sostres arquitecto and the publication of *Passaggio in Iberia*, 2008. Her research activity is based on an idea of architectural design that interprets the architecture of the city in its historical experience as material for contemporary design: she has published the books *Sulla Facciata, tra Architettura e Città*, 2008 and *Casa Milanese 1923–1973*, 2017. She addressed the importance of the role of housing in the urban design of the contemporary city in *Housing Primer, Le Forme della Residenza nella Città Contemporanea*, 2012. During a recent sabbatical year, she investigated the notion of architectural critique with Bruno Reichlin at the EPFL. She has lectured at many universities in Europe and elsewhere, including ETSAM Madrid, KIT Karlsruhe, Beijing University of Technology, ETSA Barcelona, Henry Van de Velde Instituut Antwerpen, Bauhaus Universität Weimar, CEPT Ahmedabad, Hochschule Luzern, and Düsseldorf Kunstakademie.

HISTORY AND CONTEXT

Measures to Increase Employment, Facilitating the Construction of Housing for Workers. The title of the legislation no. 43, dated 28 February 1949, narrates the genesis of one of the most important public housing operations ever carried out in Italy. The title indicates the two problems which Italy was forced to face after World War II: working-class employment and housing. The economy had yet to restabilize, and the wartime destruction existed beside situations of residential decay that seemed to come from ancient times, in which entire families lived in unthinkable unhealthy conditions, packed into caves, basements or stairwells. The law was enacted at a particular moment of the Italian reconstruction: cities were attempting to resume normal real estate operations, but they had not yet furnished themselves with the required tools of regulation and implementation; the new master plans were still in the development phase, such as that of Milan, whose Master Plan was not put into effect until 1953.

The Plan took the name of the agency in charge of the entire operation, the "Istituto Nazionale delle Assicurazioni," INA-Casa, subsequently also known as the "Piano Fanfani" to bear the name of the Christian Democrat congressman who had guided the political initiative. A president hailing from a long Catholic and communitarian tradition, Filiberto Guala was at the helm of the operation from the outset, prior to taking vows as a Trappist monk. The plan called for the involvement of the thousands of architects existing in the territory, through competitions for the constitution of professional associations or indirect commissions. The working team was put together by Arnaldo Foschini, dean of the School of Architecture in Rome, an outstanding figure from the profession. As the head of the technical division, the choice went to an architect from Trentino with extensive experience in the field of low-cost housing: Adalberto Libera. Foschini also selected an outstanding historian as the head of the Research Centre, known for his theoretical and critical acumen: Renato Bonelli.

This was the solid structure, sustained by the Ministry of Labour, for the launch of the Plan in Italy that, after two seven-year periods of work, left behind it one of the most highly evolved forms of public development, still clearly recognizable today in the crowded panorama of the urban outskirts. From February 1949 to 1963 in Italy, 350,000 housing units were built, located in 5,000 municipalities across the peninsula, with the larger clusters in the main Italian cities. In Milan and in Naples about 29,000 housing units were built, while in Rome about 23,000 were completed, and in Turin about 15,000.¹

¹ The data come from the book by Luigi Beretta Anguissola, *I 14 Anni del Piano INA Casa*, Staderini, Roma 1963. The voluminous text offers detailed documentation, with plans, aerial photographs and typological charts, of the achievements of the two seven-year periods of the Plan, organized in terms of scale: districts, housing units, development units.

RIPARTIZIONE DELLE COSTRUZIONI SUL TERRITORIO NAZIONALE 354.781 ALLOGGI 5.036 COMUNI



I NUMERI IN TONDO NERO SI RIFERISCONO AL NUMERO DEGLI ALLOGGI
I NUMERI IN CORSAIO CHIARO SI RIFERISCONO AI COMUNI INCLISI

Fig. 1 Distribution of INA-CASA construction in Italy

The spread across the whole country was capillary, and the legislation stipulated that at least one third of the constructions be made in the South. During the first seven-year period, half the housing units created were put up for sale, while the other half were rented; in the second seven-year cycle, the lodgings purchased by their inhabitants reached a level of 75 per cent. Over the span of just a few years, apartments, houses, and services were created and inserted in organic urban systems,² in keeping with the "not buildings but cities" concept. It is worth recalling that the theme of the *Casa popolare* (low-cost housing) had already gone through a major launch at the start of the 1900s, through private initiatives connected with industry and through the establishment of independent low-cost housing authorities run by the various municipal governments. The question was later addressed in the theoretical reflections taken forward by Diotallevi and Marescotti, who had already begun to publish the volume *Il Problema Sociale, Costruttivo ed Economico dell'Abitazione*.³ (The Social, Economic and Construction Problem of Housing) in instalments in 1948, an impressive anthology of examples of residential complexes covered by weekly profiles with drawings and illustrations, making the entire European experience in this area accessible for comparative analysis.

² Paola Di Biagi, "La "città pubblica" e l'INA-Casa," in *La Grande Ricostruzione. Il Piano INA-Casa e l'Italia degli Anni '50*, ed. Paola Di Biagi (Rome: Donzelli, 2001).

³ Ireneo Diotallevi and Franco Marescotti, *Il Problema Sociale ed Economico della Casa*, (Milan: Poligono, 1948-1949). Ireneo Diotallevi was appointed to the Executive Board of the Plan.

In the immediate post-war period, the Consiglio Nazionale delle Ricerche (National Research Council) had also published the *Manuale dell'Architetto*, a work that would have a place on the drawing boards of architects for decades. The painstaking preparation of the volume, dense with drawings and particulars, analyses of materials and investigations on construction, was done for the most part by Mario Ridolfi,⁴ whose work on architectural details was a distinctive part of his poetics, becoming a sort of widespread, shared language thanks to the INA-Casa Plan. Nevertheless, the Plan was soon flanked by specific publications: small design manuals, the first of which was already issued towards the end of 1949.⁵ The first booklet, *Suggerimenti, Norme e Schemi per la Elaborazione e Presentazione dei Progetti* (Suggestions, Standards and Schemes for the Development and Presentation of Projects) formulated certain general principles, such as the focus on the context and local construction systems, or the use of a variety of building types: duplex terraced houses, linear buildings of three or four storeys to combine with taller structures with a central layout, of seven to eight levels. Suitable conditions of hygiene and ventilation were specified, such as air turnover rates, for example, and the use of loggias and balconies was strongly urged,⁶ an element that was to become one of the earmarks of all the projects of the Plan. These guidelines were accompanied by drawings of housing prototypes: in the first booklet, we can also see the solution proposed by Mario Ridolfi with a rotated balcony, typical of his buildings in Terni and in Rome at the Tiburtino area.

These were handy publications that illustrated both good and bad examples: the second manual, *Suggerimenti, Esempi e Norme per la Progettazione Urbanistica. Progetti tipo* (Suggestions, Examples and Standards for Urban Design. Project Types) approaches the scale of urban morphological composition, with indications on the placement of buildings, on the relationship with the context and the geographical site, including suggestions explicitly drawn from Scandinavian culture, such as the projects of Backström & Reinius. All methods capable of countering a sense of repetition and monotony were strongly recommended: staggering and rotation, volumetric counterpoint, and separation into parts are the characteristic features of these buildings, for which every site would be interpreted according to the local culture, as Bruno Zevi aptly described in his presentation⁷ of the Plan to the National Congress on Urbanism in 1952. A useful trove of theory and method, then, to form a precise awareness about the idea of the city or, more precisely, the fragment of the city that was going to be built: the neighbourhood. In fact, beyond the morphological experimentation connected with housing types and their groupings, each area had to create *Comunità*⁸ and had to be

⁴ *Manuale dell'Architetto* was published by the Centro Nazionale delle Ricerche in 1946; the organizing committee, which also included Bruno Zevi and Pierluigi Nervi, was chaired by Gustavo Colonnetti, a structural engineer at Politecnico di Milano and an outstanding figure of the Italian culture in which engineering and architecture operated in synergy in the modern era.

⁵ On this theme, see the essay by Patrizia Gabellini, "I Manuali: una Strategia Normativa," in *La Grande Ricostruzione*.

⁶ Adalberto Libera, "Logge e Balconi," *Strutture*, no. 2 (1947): 9–11.

⁷ "The unit of Via Dessiè in Milan is well-suited to a large industrial city, by now completely humanized; the Tiburtino district in Rome reprises the volumetric scale and episodic tone of the towns of Lazio and the Abruzzi that are such a characteristic feature of central Italy. The oblong form of Borgo Panigale in Bologna reflects the physiognomy of various centres in Emilia." Bruno Zevi, "L'Architettura dell'INA-Casa," in *L'INA-CASA al IV Congresso Nazionale di Urbanistica* (Venezia, October 1952), 21.

⁸ As underlined by the INU President Adriano Olivetti, the enlightened industrialist and philanthropist who had constructed the model of a new society in Ivrea founded the *Comunità* editions which published the magazine of the same name, alongside many other important initiatives.

provided with public structures, to create forms of autonomy and wholeness: in this way, collective space seen as a recognizable urban factor could be structured with adequate services, such as schools or churches, as well as shops and systems of public parks. According to the stipulations of the Plan, the neighbourhoods were provided with community centres.

THE ARCHITECTURAL CONTEXT AND THE THEORETICAL DEBATE

Architectural culture was therefore ready to meet this major challenge: the solid background of the great architects who had worked between the two World Wars was now reinforced by younger disciples ready to come to terms, in operative practice, with the critique of the dogmas of Rationalism already launched on a theoretical level. The spread across the entire national territory permitted an interesting comparison of the various positions out forward by the Roman and Lombard schools, with the former more oriented towards the organicism of Wright, and the latter more closely tied to the European experience of Rationalism. A well-known example is the debate that arose regarding the creation of the Tiburtino district on the part of Quaroni and Ridolfi himself: the Rationalist culture of northern Italy opposed the picturesque character of the urban and planimetric arrangements of the Roman development, which linked back to the image of a village reinterpreted through the idea of historical montage, and in the choices of architectural language conveyed by the construction details, in which there was even talk of Neo-Realism.⁹

In several situations, as in Milan for example, the plan was an opportunity to consolidate research that had begun inside Lombard Rationalism, but would find its local interpretation in the theoretical reflections on *Pre-esistenze ambientali*¹⁰ (Existing environmental features) put forward by Casabella-Continuità, in the field of both private and public residential construction. In other situations, the reference point of the international architectural culture of the period held sway, as in the interesting project of Daneri in Genoa, with its debt to Le Corbusier's idea of the *Unité d'Habitation*. In this context in which the major Italian cities would soon have to welcome thousands of workers arriving from the countryside or the south, with the resulting modification of the consolidated city limits, the opportunity to design and build large urban settlements stimulated wider-ranging thinking about the role of the neighbourhood, the relationship with the historical centre, and the constitution of new public spaces in the process of urbanization of outlying areas.

⁹ See the text by Bruno Reichlin, "Figures of Neorealism in Italian Architecture," *Grey Room* 05 (Fall 2001): 78–101.

¹⁰ This is obviously a reference to the well-known text by Ernesto Nathan Rogers published in the magazine founded in Milan in 1928, to which he added the suffix *Continuità* when he became its editor in 1953.

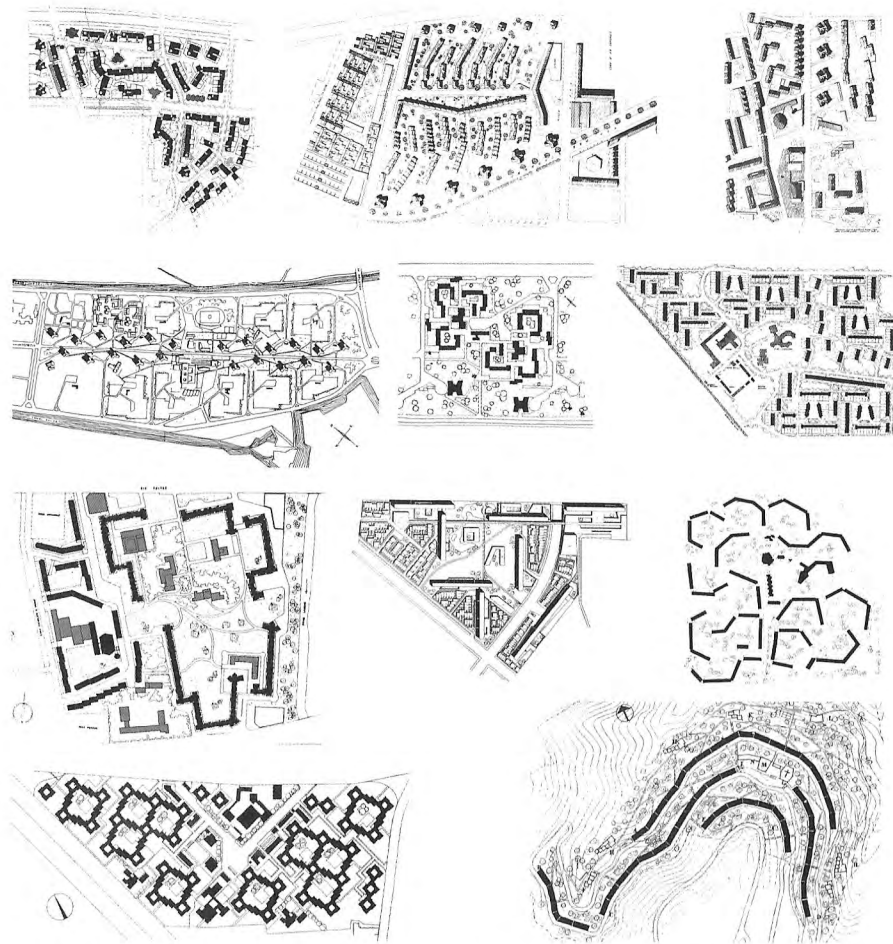


Fig. 2 Montage of plans of several INA-CASA developments: Rome Tiburtino, Rome Tuscolano, Bologna Borgo Panigale, Mestre San Giuliano, Cesate, Milan Feltre, Milan Harar, Turin Falchera, Prato San Giusto, Genoa Forte Quezzi.

In a widespread and variegated way, the exploratory research of the architects working on the INA-Casa Plan generated a testing lab on pressing themes of the modern and contemporary city, which were also soon addressed also on a European level in a critical rethinking of the Modern Movement. In the montage of the plans we can often recognize a composition based on the principle of typological variation, refined by research on the architectural language, a return to the classic themes of urban quality, such as the idea of the street or the piazza, inserted in an overall vision that would consolidate their recognition.

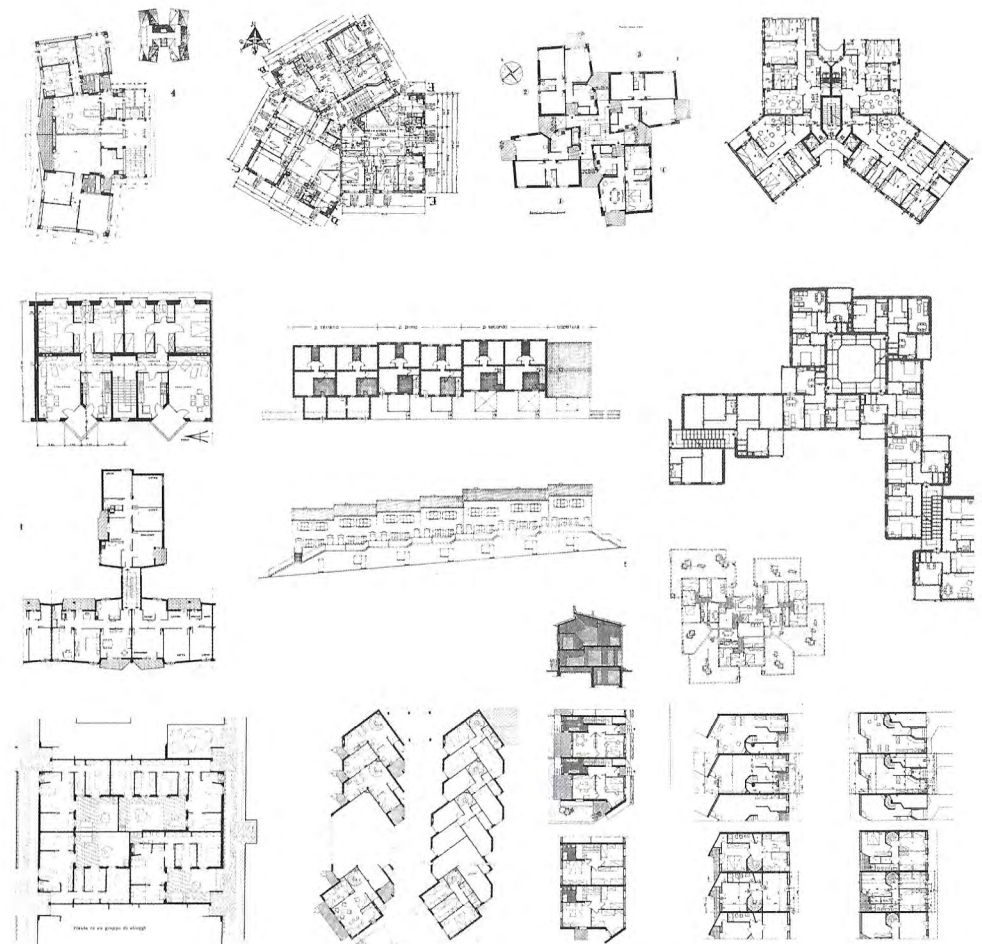


Fig. 3 Montage of plans of several INA-CASA typologies: Bologna Borgo Panigale, Rome Tiburtino, Rome Tuscolano, Milan Feltre, Naples Pontirossi, Rome Tiburtino, Prato San Giusto, Rome Tuscolano, Cesate

The relationship with modernity, on the other hand, passes through less evident features of the language, but ones that set the foundations of the relationships between constructed volumes and the layout of the housing units. The participation of architects, about 17,000 in all, was forcefully encouraged and guided, to reinforce and provide employment for not only the workers, but also for a category that was in a phase of formation: the professional associations had taken form between the two World Wars, and the social role of the professional architect had yet to find sufficient footholds of recognition.

On this theme, the Plan proceeded along two lines: on the one hand, especially in the initial phase, by organizing competitions for the formation of associations of architects, and later by assigning commissions to very large work groups. In the early phase the architects were asked to submit typological projects, while in the second phase for each large-scale project, a numerous group of professionals was formed, with a hierarchical system of group leaders who would help to “assemble” the various design proposals into an organic whole; often the entire plan was designed by one architect, almost always an outstanding figure in the culture of urbanism, such as Gianni Astengo, Saverio Muratori, Luigi Piccinato, Ludovico Quaroni, Giuseppe Samonà¹¹ or Giuseppe Vaccaro, for example, all figures that controlled the urban scale as well as the design of the building, in a fertile context of know-how that still called for the correlation of two figures that were to be separated in the years to follow, leading to the design of objects on one side, and the specialization of sociological studies on the other. A forceful orientation of form made it possible to control and guide the juxtapositions and the composition of the various units.

It is worth recalling another significant factor brought to light by recent research on the Plan, regarding the construction systems. It is well known that the studies on prefabrication, which in Italy were launched by the school of Colonnetti, had led to real application mainly in industrial buildings: we can state that this was first of all a political choice that imposed continuation of the construction of many developments in keeping with traditional building methods, boosting employment numbers and nurturing local small and medium businesses.¹² A choice determined for the most part by an economic system in need of reinforcement actually gave rise to unexpected architectural results, not only in terms of language and the use of specific materials, but also from the standpoint of the compositional richness of the entire building. Just consider, by comparison, the image of the large French *ensembles* made with prefabrication systems, and their rapid decay.

URBAN RESEARCH AND MORPHOLOGY

As we have already seen, the projects built during the 14 years of the Plan are still well conserved and recognizable, thanks to certain characteristics that represented their basic value: low density, typological-morphological variety, and constructive quality. If we observe the INA-Casa districts inserted in the city which has grown up around them today, we recognize differences of scale, form and proximity: they appear as large areas with extensive green zones, where the citizens have formed “communities” and take good care of their housing units.

They offer an image that is the opposite of the results of speculation, which is clearly visible in the aerial views of Rome, where the comparison with the clustering and obsessive repetition of the apartments buildings brings out, through contrast, the grace of their urban textures. Again, we should remember that the low density had been indicated by the Plan at a maximum of 500 inhabitants per hectare, and that Adalberto Libera had published an article that contained substantial indications for the orientation of the projects, while offering maximum creative freedom to their authors. “To choose designers and not designs,” avoiding standard types and their undifferentiated repetition, encouraging the architect’s role as an interpreter in relation to the site and the function.

In the article by Libera we find precisely this concept of expressive freedom: “*The housing unit can be expressed in all the development hypotheses, from the single block of Marseille that contains all the community services of the residence, to the most extensive solutions.*” The same article returns to the American tradition of “neighbourhood units” as a principle, and their relationship with the entire district, with related services suitable for the two scales: the concept of the unit reflects that of the hierarchy, on a smaller scale than that of the entire settlement, into which to subdivide spaces and inhabitants. Libera’s words intertwine the expressive intent of the architect and the sensibility of the social human being.¹³

The result of the individual project is determined by the montage of the variations of the typologies developed down to the smallest details. The choice of the “suggested” building types evokes the recognizability of certain urban themes: the use of linear arrays along the main streets and bordering the space of services, the patterns of juxtaposed tract houses forming residential islands with the counterpoint of tower buildings, compact or with footprints in the form of a star or a cross. This volumetric articulation, balanced in terms of distances between buildings thanks to regulations on exposure to sunlight, soon led to the design of open spaces, of empty areas as well as full zones.

The question of individuality was addressed through the various poetics of the individual designers, who approached their fragments as whole units. In this urban context, design devices were also applied on the scale of the building: the theme of the balcony—the noble balcony of the living area, the service balcony of the kitchen—often became an opportunity for volumetric variation, especially in the compact volumes of the towers, allowing residents to have the relationship with the outdoors that would otherwise seem to be precluded by height. The theme of the entrance, in its many interpretations, was enhanced by recesses, overhangs or steps, breaking up the linear volumes.

¹³ “This possibility of social contact, this tendency towards ‘good neighbourliness’ correspond to a spontaneous aspiration of man; urban scholars have recently put an accent on this definition: *voisinage*, community, etc. [...] *Expressive interest*. To plastically express, in unity, the constructed organism, differentiating the fabric from the nucleus, means creating elements of interest: interest in their contrast and their connection; furthermore, it means sustaining the play of plastic composition with the content of real, comprehensible values.” Adalberto Libera, “La Scala del Quartiere Residenziale,” in Beretta Anguissola, *114 Anni...*

¹¹ See Giuseppe Samonà, *L'Unità Architettonica-Urbanistica. Scritti e Progetti 1929-1973*, ed. Pasquale Lovero (Milan: Franco Angeli, 1975).

¹² On this theme, see the essays of Paolo Nicoloso, “Gli architetti: il rilancio di una professione,” and Sergio Poretti, “Le tecniche edilizie: modelli per la ricostruzione,” in *La Grande Ricostruzione*.

In these details that are more volumetric than linguistic in nature, we can clearly see the interpretation of the finest results of the Modern Movement: the gaps between the buildings and the focus on entrances typical of Bruno Taut, or the sculptural approach to balconies of Hans Scharoun. There is also a series of examples that works on the variation and elaboration of a single element, often the courtyard typology rediscovered from its rural origins, and urban research obtained by means of the *dispositio*, as opposed to the interventions generated by specific topographical opportunities.

In all the projects, however, there was a clear, recognizable pursuit of neighbourhood, the identity of which is reinforced through form. Today the entire INA-Casa experience offers an intensive model for reflections on “city parts” as an ongoing and very timely issue. While the traditional compact city had developed in the 1800s according to a system of large expansions of the street network, and the Rationalist city had countered this with residential segments produced as series, with the INA-Casa experience urban design entered a phase that is still very fertile today.

AN ITINERARY THROUGH THE INA-CASA DEVELOPMENTS

To outline a hypothetical voyage through the projects built in Italy from 1949 to 1963, it is useful to start with the ones that interpreted this canon in the most immediate way: these are the two largest districts built in Rome, the Tiburtino and the Tuscolano. The Tiburtino is almost a manifesto: an explicit rebuttal of the Rationalist experience is obtained by closely listening to the geographical situation, accentuated by the desire to rethink the scale of the village, where the street accompanies juxtaposed houses held together by a system of patios, balconies, and public staircases, true monuments to the collective role of circulation spaces; these are supplemented by open spaces and the careful placement of taller buildings. In this district designed by Ludovico Quaroni and Mario Ridolfi, the latter created many building types, from the tract houses described above to the linear arrays marked by the rotation of the balcony of his Siamese buildings at Terni, all the way to the tower typologies, with a star-shaped footprint, featuring the distributed composition of three residential units. From the beautiful perspective drawings, which remind us of the Townscape sketches of Gordon Cullen, we can fully grasp the objective of defining what Ridolfi himself called “ambient space,” where the focus on community spaces and their mediation with respect to the domestic dimension are controlled down to the detail of the balustrades in perforated brick.



Fig. 4 Study sketches for the Rome Tiburtino district, Mario Ridolfi

The experience of the Tuscolano district is organized in three recognizable phases: while the first places linear volumes to form large urban courtyards, the second, designed by Saverio Muratori and Mario De Renzi, acknowledged masters of studies on building typology and urban morphology,¹⁴ is based on two long orthogonal linear volumes, of which the first functions as the spine of the layout, while the second bends to form a central piazza; the footprint is then completed by buildings with wings that form a contrast with the handsome towers by De Renzi. The third phase, in which Adalberto Libera was to make one of his most famous works, seems to have been lifted from another time.

¹⁴ Saverio Muratori, *Studi per un'Operante Storia Urbana di Venezia* (1959)

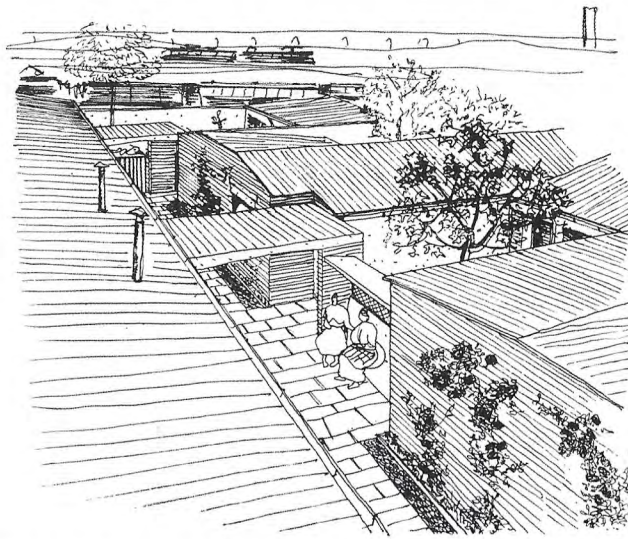


Fig. 5 Study sketches for the Rome Tuscolano district, Adalberto Libera



Fig. 6 Study sketches for the Prato San Giusto district, Ludovico Quaroni

The horizontal unit, the low and compact fabric of the patio houses concluding the herringbone of Muratori, is a skilful mixture of domestic space and relational zones. The traditional courtyard building, reduced to minimum areas here thanks to the spatial layout and the central role of the private patio, ramifies in streets inside the district, places of community life *par excellence*, designed with canopies and benches as places in which to spend time with neighbours.

At the core of this urban fabric that crosses Pompeii with Mies van der Rohe, Libera places a simple balcony building that stands on *pilotis*, rising from this apparently undifferentiated scheme. Layouts similar to those of the Roman districts, in terms of variety and counterpoint, were also applied in different geographical contexts, demonstrating the capacity to listen to the site that was one of the earmarks of the Plan.

In Bologna, in the Borgo Panigale district, Giuseppe Vaccaro extends linear volumes over the plain of the city, long porticos of shops like those of the historical centre, linear arrays of houses varied by volumetric solutions that accentuate the theme of the entrance. The idea of the street is broken down into the various housing units: the linear array that acts as the back of the layout forms an urban sequence, from the porticoes of the first segment to the image of the clustered houses of the countryside in the last segment. The entire district, with a wide range of services, offers a variety of duplex tract houses and linear rows marked by vivid volumetric shifts based on setbacks and rotations, generating different relational spaces. The rarefaction of the layout is achieved to the south with a shift of scale and proportions: from the series of the L-shaped houses to the rhythm of the tall buildings whose H-shaped footprint alludes to the small courtyards that mark the entrances of the residences. Perhaps one of the finest architectural results, this building offers a delicate solution for the graft between loggia, window, and facade, and with its two rising wings resembles the refined architectural figures of Luigi Moretti.

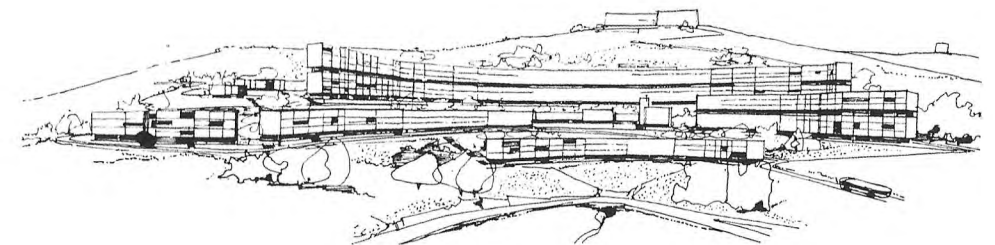


Fig. 7 Study sketches for the Genoa Forte Quezzi, Luigi Daneri



Fig. 8 Detail of the balcony and the facade in Tiburtino in Rome

The project where we can best observe the relationship between neighbourhood unit and the entire settlement is the one developed by Giuseppe Samonà and Luigi Piccinato for San Giuliano in Mestre. The plan embodies a metropolitan scale with a modern character, and it is no coincidence that we can compare it to the studies of Piero Bottoni for the Gallarate district in Milan, organized with a similar layout relying on a central green spine; nevertheless, the contrast between the low density and traditional form of the courtyards of the neighbourhood units and the towers that pace the central axis demonstrates a very sensitive control of scales and spaces, also corresponding to careful design of primary and secondary circulation. The photographs clearly show the fragmented continuity of the low houses deployed to form a “*campiello*”¹⁵ in the foreground, and the skilful use of the rhythmical tower to create a landmark against the background.

¹⁵ According to a definition supplied by Giuseppe Samonà.

A similar system of organization by units, but very different in terms of scale, was applied at Cesate, on the western outskirts of Milan, in a locality served by the railway. In this context characterized by the idea of the garden city,¹⁶ the most outstanding figures of the reconstruction of Milan made contributions: the firm BBPR,¹⁷ Ignazio Gardella, and Franco Albini developed tract housing typologies that fully reflect the knowledge of living spaces the architects were developing in their urban works. The elegance of the houses of Gardella and the experimentation on open space seen in his work on Milanese bourgeois homes are taken to the minimum dimension of low-cost housing for workers, arranged in a variegated sequence of green areas faced by the typical vertical floor-to-ceiling windows borrowed from the Lombard tradition. Such themes were also addressed in the houses by the firm BBPR, enhanced by sloping roofs and cornices that generate a new spatial complexity in their cross-section.

The interlocks of the unique L-shaped houses by Albini, with their slight slope with respect to the new *centuratio*, form a sort of plaza that sets the single units apart, connected by a portico that marks the entrance. In this rarified construction, the definition of collective or private green spaces takes on a decisive role in determining the image of low density punctuated by sculptural finesses that gives the front entrances, terraces, and recesses, or controlled flexing of the ordering masonry elements.

¹⁶ Warner Sirtori, Maria Prandi, *Il Villaggio INA-Casa di Cesate, Architettura e Comunità* (Milan: Mimesis, 2016).

¹⁷ Belgiojoso, Peressutti, and Rogers, the designers—among other works in Milan—of the Torre Velasca.



Fig. 9 The Franco Albini terraced houses in Cesate



Fig. 10 Aerial photograph of the Harar district in Milan

The case of the Harar Dessiè project in Milan by Figini & Pollini and Gio Ponti, and that of the Feltre district, stand out as unique proposals on the Italian scene¹⁸ due to the modernity of their urban approach, with the idea of the park as the central element of the system. Here the variation of the urban scale is obtained by the counter-placement of long constructed volumes, “horizontal skyscrapers” perpendicular to each other, set on the ground to enclose a large green space in which to freely organize the services. In this reversal of the idea of traditional city walls, which kept green nature outside, here low-density tract houses are placed outside, small *insulae* different from one another, to mediate the relationship with the context. The three orthogonal pairs of long buildings are designed in a very different way by Ponti and by Figini & Pollini: while the first works on the typology of linear rows, where the layout of two apartments per floor is underlined by the overhanging facade elements, in the case of the balcony building by the duo of Rationalist architects, the reference is the two-storey duplex cell, clearly inserted in a grid that forms the front.

The Feltre district in the historical industrial fabric of north-eastern Milan stands out for the proportions and radical character of the project: a single typology—a linear building ten storeys high—is organized in a sawtooth pattern to enclose a large urban park. This is a provocative proposal of a new idea of the city, positing the monumental approach to a way of living in contrast with the urban features that determined the modest character of the historical city, with its 19th-century blocks of narrow courtyards and repeated street frontage.

¹⁸ To get an idea of the scope of the public residential projects in Milan, see the article that indicates, covering IACP, INCIS, and INA-CASA, that “over one fifth of the Milanese population found housing in subsidized constructions.” Virgilio Vercelloni, “Alcuni Quartieri di Edilizia Sovvenzionata a Milano,” *Casabella-Continuità*, no. 253 (July 1961): 42–49.

The group of designers was very large, and the design system was coordinated by Pollini with a system of project leaders; among the names of the many architects involved, we can mention Giancarlo De Carlo, Ignazio Gardella, Angelo Mangiarotti, Bruno Morassutti, Vittoriano Viganò. The system called for coordination of the single projects in the montage of a single linear volume that bent to form the corners of the park, in which the joint and the ends became opportunities to achieve volumetric variety. The urban composition of the parts is entirely made by means of lines that advance and retreat, which overlap to enclose a small plaza or separate to open to the landscape, even bending at the ends to become towers. The uniform language of the brick infill and fair-face concrete structures offers a clear view of the various facade solutions.

While the main part of the district takes a distance from references to the classical city, focusing on a strong idea of the modern city based on the relationship with nature, to the west the layout opens towards the existing city: low four-storey volumes act as a form of mediation, like a wing with respect to the height behind them.

Just as Feltre is organized starting with a single typological idea that is repeated, varied, and reassembled in the unity of the large central space, so in the Falchera development in Turin, designed by Gianni Astengo, a single-building typology—the linear three-storey volume broken up to border a green space—is multiplied on the terrain in an organic manner, with very low density.



Fig. 11 Aerial photograph of the Feltre district in the context. Photo by Stefano Topuntoli.

The case of Quaroni's project for San Giusto in Prato, on the other hand, has a more stepped arrangement: the constructed unit of the courtyard building, combined with linear rows, determines neighbourhood units enclosed in larger courtyards that freely interact, forming circulation axes of constructed backdrops. This district displays a certain schematic leaning that Manfredo Tafuri interpreted as a conscious perception of the impossibility of really making a city.¹⁹

The case of Forte Quezzi in Genoa, designed by Luigi Daneri, of which five of the volumes were built, concludes a path that begins with the figure of the village and then fully enters the ranks of modernity by going back to the idea of Le Corbusier, that of making the residence into a large territorial infrastructure. The figure of the *Plan Obus* for Algiers is arranged here amidst the folds of the *creuze de mä*, experimenting with alignment with contour curves of the condensing building, which, as in the case of the *Unité*, would gather the complexity of the city with its services into its cross-section, all the way to the idea of the elevated street. A duplex cell and a facade grid, in their various architectural solutions, formulate this powerful figure in the landscape.

¹⁹ "The complexity of the city cannot be tamed by dividing it into finite parts; yet this is the "condition" imposed by the policy of INA-Casa. All that remains is to embrace this contradiction and to allow for its expression," Manfredo Tafuri, *Storia dell'Architettura Italiana 1944-1985*, Einaudi, Torino 1986, p. 59.



Fig. 12 Genoa Forte Quezzi view from the street

TIMELINESS OF THE ACHIEVEMENTS OF THE INA-CASA PLAN

In spite of the many differences we have observed in this voyage across the complexity of Italy, where the North approaches design as an opportunity for morphological experimentation, the Centre recovers the characteristics of the tradition and the South often leans towards a rationalism criticized and surpassed elsewhere, certain parts of the INA-Casa experience can still be seen today as an important lesson in the field of the design of social housing.

In the awareness of a certain lack of urban character of many of these examples, where housing is often nostalgically seen in terms of a minute, fragmented image like that of villages, the Plan led to a number of important achievements. Not only the organization of the financial machinery, but also and above all the effective oxymoron of light regulation that was able to transmit precise guidelines, which had a forceful influence on the structure and form of the projects. These guidelines addressed a number of themes that are still very timely, as is demonstrated by the recent revival of figures from the 1950s like A. & P. Smithson or other members of Team X who worked on the concept of the *Community*; on spaces of mediation and typological *mixité*, all questions are also addressed in the most recent contemporary projects in this field.

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