Learning from the Past: an Example of sustainable urban Settlement in the second post-war Period in Turin (Italy)

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1. INTRODUCTION (M.M.)

1.1 The INA-Casa Plan
Hammered by Allied bombing, Italy’s major cities were faced with an urgent housing problem at the end of the Second World War. On February 24, 1949, the Italian Parliament approved a wide-ranging bill drafted by the Minister of Labor and social security Amintore Fanfani which was designed to boost employment in the construction industry by providing incentives to build working-class housing. The construction industry, in fact, was regarded as the sector which was best able to act as the driving force behind the country’s economic recovery. The new law established that the initiative would be financed using a mixed approach, with funding from the government, employers, and monthly withholdings on employee salaries. Thus was born the INA-Casa Plan, one of the most extensive and significant of Italy’s endeavors to plan, implement and manage socially motivated construction. It had a major impact on post-war reconstruction in the sector, not so much for the sheer number of buildings produced, but because of the quality of its achievements in architecture and urban planning, its geographical coverage, and the enormous mobilization of cultural and professional resources it involved.¹

1.2 Cultural background and goals of a fully cognizant experiment
The INA-Casa Plan can be seen as a grand experiment which, through its emphasis on local materials, rural building types and pre-industrial technologies, pursued new housing models of broad cultural import. This experiment was conducted with a minimum of fanfare by a class of professionals who contributed, at least in their intentions, to the country’s modernization through rebuilding and renewal.

The entire operation represents an attempt to give concrete form to the concepts of the city that had been ripening since the late nineteenth century in the English-speaking countries and had later been taken up in Northern Europe: concepts that were to recast the life and the private and shared spaces of entire urban communities in a new social mold. What we see in post-war Italy is an effort to import the Northern European model, based on the organic, self-sufficient neighborhood. In this model, the neighborhood is seen as a unitary structure, based on clear-cut relationships between the number of inhabitants and the services it offers, in accordance with a modern view of the community. In planning such a neighborhood, the role assigned to the layout and design of shared open spaces is of crucial importance: paradoxically, it is precisely the unbuilt space which gives structure to the entire urban residential unit.
The INA-Casa Plan administration promoted the general adoption of a uniform and credible quality standard, employing a regulatory strategy based on manuals with examples of construction practices and performance requirements. The decision to use a relatively weak regulatory approach had important repercussions on method: each designer was obliged to interpret these guidelines on a case-by-case basis, finding the solution which was most consistent with the local context and local needs. Today, re-reading the material achievements made in the 14-year course of the Plan in the light of our contemporary concerns with sustainable construction reveals just how important this work can be as a potential resource in the development of our cities, and underscores the need for effective guardianship. Such, indeed, are the conclusions that emerge from a national research program involving a number of researchers which addressed modern construction in Italy and the heritage left by the INA-Casa Plan between 1949 and 1963 in particular.

Focusing attention on the city of Turin, we find that government participation played a central role in local building policy during post-war reconstruction, as it ensured competent work, expeditiously performed. Prominent among the pilot projects embarked on in this period was the La Falchera initiative, so called after the district of that name. The complex was designed by such mainstays of the Modern Movement in Italy as Giovanni Astengo and Mario Passanti, as well as Gino Becker, Nello Renacco, Ettore Sottsass and Paolo Perona. One of the most important figures for the Turin project was Giovanni Astengo, who together with Renacco, Aldo Rizzotti and Mario Bianco drew up the first Regional Development Scheme for Piedmont immediately after the war. Turin joined – and indeed outdid – many other centers in putting up a sort of mute opposition to the International Style, which took the form of an increasing attention to the urban environment, to the site, and to existing work and the cultural phenomena from which it springs: an attention informed by a view of modernity that founds itself in a return to the best national and local traditions.

2. LA FALCHERA: A PIONEERING EXAMPLE OF EXPERIMENTATION IN URBAN PLANNING AND PRECURSOR OF “GLOCAL SUSTAINABLE” CONSTRUCTION (C.M.)

Example of an experiment of enormous architectural and cultural merits, La Falchera fell short of winning the complete acceptance of its contemporaries. Today, however, the complex is of compelling interest because of the values it embodies, and not simply as a group of buildings.

In the debate now centering on sustainable construction, it is important that we not remain embroiled in the purely technological aspects of construction (i.e., the building techniques and materials used), but also remember the environmental and compositional issues involved in the built complex, as well as the human and social values that it expresses. With its extensive garden areas in each housing block, its individual dwelling units pivoting off spacious porticoed terraces oriented favorably with respect to sunlight and prevailing winds, and its way of handling space and movement to satisfy the needs of the community, the La Falchera complex in Turin can be regarded as a model of urban design which is in all respects “sustainable”, and hence as a possible starting point for our reflections on a new and more attentive approach to construction.

Built as part of the INA-Casa Plan (1949-1963), Turin’s La Falchera project stems from a singular attention to the social, economic and environmental implications of the dwelling-place. The feature that most clearly sets this neighborhood (and its coevals elsewhere in Italy) apart from the later urban outgrowths that surround it (the original core of the project was
built in the first half of the ’50s on a large tract north of the metropolitan area) is its handling of “open” space; here, in fact, the dwelling-place is no longer just the area surrounding each individual unit, but the whole space implicit in the idea of a self-sufficient residential unit, including interior and exterior, domestic and urban.

In this connection, Arnaldo Foschini, a leading figure in the cultural and political life of the day and a prime mover in initiating and managing the INA-Casa Plan, wrote: “…one of the things we must do is to handle each area and space in a way that ensures the designer’s economic concerns are kept from view, and which at the same time succeeds in making the home cheerful and welcoming as well as perfectly functional. Finally, the complexes we build must contribute to achieving that architectural and urban harmony that has always been our country’s boast in past centuries, when the monumental and the minor, the proud city and the small town, received the same unstinting attention.”

And for his part, Giovanni Astengo, urban planning supervisor for La Falchera, wrote “A housing development, a neighborhood, an independent residential unit are much more than simply the sum of their parts: they are social units, where the life of the individual, the family and the group can take place with fewer constraints, fewer burdens and more freedom – in short, be richer – than in the impersonal metropolis. But achieving this calls for town planning that is not just lines on paper, but results from coherent social thinking. The examples of the English garden cities, the American greenbelts and Sweden’s planned quarters are concrete demonstrations that these new social units are far from merely Utopian”.

Figure 1 Layout drawing (1956) and one of the ceramic tiles marking the entrances to the dwelling units.

In this, as in other statements made by Astengo, we can detect a number of elements that can be regarded as precursors of today’s sensitivity to sustainable construction and environmental sustainability in general: the perceived need to build residential complexes where aesthetic, functional and environmental values can coexist in harmony, and the attention to the quality of life, an attention centering more on satisfying individual and social needs than on complying with cut-and-dried planning standards. Thanks to the INA-Casa Plan, thousands of Italian families were able to improve their living conditions. The vast majority of these people could thus move away from shared housing, overcrowding (with as many as 1.86 - 2 persons per room, according to the 1951 census), or improvised accommodation in shanties, cellars, etc.

As regards “qualitative” design issues, La Falchera and the other products of the INA-Casa Plan built in the same period embodied a number of significant elements that were codified in
a series of publications whose purpose was to specify “guidelines” for housing project design.\(^6\)

According to these guidelines, compositions were to be “varied, animated and well articulated, capable of creating restful and welcoming surroundings with differing views on all sides and attractive vegetation”, while each building should have “its own distinct physiognomy, so that each resident can find his own home with ease and sense that his personality is reflected in it”.\(^7\) In addition, the house should contribute to “the formation of an urban environment, with full consideration for spiritual and material needs: not the material and spiritual needs of mankind in the abstract, but those of real living beings, people who neither like nor comprehend the monotony of identical and endlessly repeated houses, where the only thing that distinguishes one house from another is its number; people who do not want to live locked in a rigid grid like pawns on a chessboard, but who want their surroundings to be both tranquil and varied. It will thus be the lay of the land, its exposure to sunlight, the scenery, the vegetation, existing buildings and the sense of color to suggest how new urban developments should be laid out so that their inhabitants can feel that there is something spontaneous and genuine in them, something indissolubly linked to the ground from which they spring.”\(^8\)

The recommendations concern the two-fold issue of achieving modernization while at the same time preserving local tradition, a heading that includes lifestyles, climate, construction materials, building methods and skills, and the type of heating systems to be used. The new neighborhoods were thus required to adapt to the existing setting, eschewing any tendency towards standardization or mass production. Consequently, prefabrication was rejected as contrary to the plan’s primary goals, which on the one hand sought to bolster employment among the various categories of workers and professionals in the construction industry, and on the other hand strove to promote the design of new buildings consonant with the natural, architectural and social environment surrounding them.

Today, this approach to new building could be called “glocal”, as it fosters a renewal of the ways we build which is at once far-reaching and sustainable, as it is based on close attention to the site in terms both of the materials and techniques used, and in its furtherance of specific human and environmental values. At La Falchera, as Astengo affirmed in a study published in *Metron Architettura* (1954, No. 53-54), “psychological considerations dictated that we reject building types which are strictly associated with the city, such as free-standing blocks or high-rise housing, as well as those such as row houses with individual gardens that are characteristic of the “siedlungen”, since both are inappropriate for the type of resident. The area itself suggested that the designers opt for medium-high buildings which gave a “city” feel without cutting residents off from the country air that filled the lungs just on the other side of the Stura river. […] Across the meadows edging the project, the eye ranged unimpeded to the Alps, the hills, Superga and the woods. It was imperative that these sweeping views be preserved as part of the neighborhood. There, the chaotic fringes of the city were far away, masked by the thick blanket of multicolored fumes belching forth from factory smokestacks. And this distance must be maintained, as what was needed here was the sensation of another type of city, another way of life. The idea of the three-storey buildings surrounded by broad green areas was conceived, as it were, on-site, looking at the landscape and the countryside, and contemplating the surrounding rural settlements, with the big, U-shaped farmhouses spreading their arms southward, of which the outbuildings of Stupinigi were the most conspicuous example”.\(^9\)
We can thus say that today, in our attempts to redefine and redesign new patterns for living that are sustainable in the broadest sense of the term – humanly, socially, architecturally and environmentally – projects such as La Falchera in Turin can still serve as a model.

3. CONCLUSIONS. FROM THE CONCEPT OF “RESPONSIBLE DESIGN” TO THAT OF “SUSTAINABLE ARCHITECTURE” (C.C.)

The need to enhance and safeguard La Falchera is widely recognized today, not just in the cultural milieu that gave life to the research program, but also among a significant portion of the neighborhood’s current residents, many of whom still have links with the original beneficiaries of the project.

Figure 2 General and detail views of several dwelling units.

Many of the principles that are now acknowledged as underpinning the concept of “Sustainable architecture” and which inspired what was then called “responsible design” emerged, almost of their own accord, from this research. The Master Plan for the project, coordinated by Giovanni Astengo, provided working guidelines for each lot which were extremely precise and straightforward, but also allowed designers considerable scope to express their own individuality. The Master Plan devoted particular care to the buildings’ orientation and exposure in order to make the best use of solar energy, which even then was considered in terms of both heat and light. Carefully distributed interior spaces made it possible to organize the buildings into homogeneous blocks, mostly featuring “three splayed wings” which were differently oriented to give the complex its distinguishing character. The space in front of the buildings was thus contained but not enclosed, giving each block its own green area.

The Plan’s designers steeped themselves in the studies of residential building orientation then being produced, convinced of the need to develop codified criteria for establishing acceptable levels of sunlight exposure which could be used in assessing the construction potential of a building lot. At the same time, these studies aimed at making the best use of available ground, and were based on identifying the relationships between building height and spacing with varying placement which would ensure that every habitable room in the house would receive a certain minimum hours of sunlight, every day of the year. According to the site’s latitude, graphical procedures made it possible to check that “on the day of the winter solstice, each of the said rooms is directly and consecutively exposed to sunlight for at least two hours, preferable beginning one hour before noon and continuing for the entire hour thereafter”, starting from the lowermost storey in the building. These studies, which were applied in drawing up the master plan for La Falchera, also served as the basis for building regulations and influenced the approach taken in the urban planning laws of the day. The
guidelines expressed in the master plan also called for technologies and materials – such as exposed brick masonry – that were traditionally used in the surrounding rural areas, and thus made it possible to employ local labor in compliance with the social objectives set out in the current scheme to provide more jobs for manual workers, the Piano per l’incremento dell’occupazione operaia.

The distribution of interior space in the buildings, which were organized in three levels, was based on the type of residents for whom the project was intended and their need to find housing after the turmoils of the war. Each apartment had windows on opposite sides of the building, with kitchens and bathrooms giving onto loggias. The orientation and sizing of these loggias, as well as their usability, comply with the bio-climatic criteria which are now seen as necessary to a sustainable architecture rooted in the rational use of natural resources. Though rooms are sized on the basis of minimum standards, public spaces and buildings are provided for social and community activities.

To the modern eye, the objectives of the La Falchera master plan project clearly include those of optimizing human resources, materials and energy usage: goals that are typical of a type of “cognizant” design which we would now call “sustainable”. Likewise, the architectural products that derive from it were, and continue to be, excellent. The current level of decay, which is all too apparent after some fifty years of life, are in no way to be blamed on general design decisions. In some cases this decay is the result of workmanship which was not always of the best; in others, it is the consequence of the uncontrolled and independent conversions that took place over the years as the type of resident changed and expectations evolved. Most of the loggias have been walled-in, and thus no longer provide their bio-climatic advantages, while ownership of the buildings has been transferred from the public administration to private individuals.

As we interview the residents today, however, we can clearly see their perception, perhaps unconscious, of the complex’s inherent merits in terms of sustainability: a perception which can be recognized in the amount of care and maintenance lavished on the buildings and common spaces. Many people are now choosing to live in La Falchera, or are moving back to it, seeing it as an ideal place to live, far from urban areas that have long since become unsustainable. These merits make it incumbent upon us to do everything we can to protect and safeguard the many such neighborhoods built during the period in Italy.

Notes:
5 See P.DI BIAGI, op.cit., pp. 18-19
6 Piano incremento occupazione operaia, Suggerimenti, norme e schemi per la elaborazione dei progetti, fasc.1 e 2, Rome 1949 – 1950; A. LIBERA, La scala del quartiere residenziale, Rome, 1952
8 Ibid., page 8.
10 See the article: “Sul soleggiamento degli edifici di abitazione”, by Giovanni Astengo and Mario Bianco in Metron, No. 9, 1950, Editorice Sandron, Rome.