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THE ARCHITECTURE OF THE SPRAWL CITY

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Abstract

In the transformed settlement conditions of our time, cities and territories appear today as places crossed by complex economic and production flows that require physical and digital infrastructures to which new and widespread forms of working and living correspond. In this new dimension, the large scale infrastructures and the relationship between settlement forms and nature return to being primary themes in the reflection on the city of our time. The notion of project thus regains its centrality, as explained by the research of some of the most prominent architects of our time.

Keywords: urban design, sprawl, infrastructures

Streszczenie

W przekształconych warunkach osadniczych naszych czasów miasta i ich obszary jawią się dziś jako miejsca poprzecinane skomplikowanymi przepływami gospodarczymi i produkcyjnymi, które wymagają fizycznej i cyfrowej infrastruktury odpowiadającej nowym i coraz bardziej rozpowszechnionym formom pracy i życia. W tym nowym wymiarze duża skala, infrastruktura i relacje między formami zabudowy a naturą powracają jako główne tematy rozważań o mieście naszych czasów. Pojęcie projektu odzyskuje tym samym swoje centralne znaczenie, jak wynika z badań prowadzonych przez najwybitniejszych architektów naszych czasów.

Słowa kluczowe: projektowanie urbanistyczne, niekontrolowany rozwój miasta, infrastruktura

Throughout the past fifty years, the urban population has been growing to the point of overtaking rural population in 2009. As a result of these trends, a progressive phenomenon of territorial dispersion has distorted the unique reciprocity between city and countryside that has always characterized the Italian territory. Terms such as city-territory, city-region, widespread city have for some time been employed to depict these urban metamorphoses which required new investigative tools since the 1960s.

Reyner Banham in his text *Los Angeles, the Architecture of Four Ecologies*, experiments an analysis based on the relationship between the built environment, natural elements and the system of mobility in which the territorial dimension of urban space is dynamically captured through the automobile, according to a perceptual reading method referable to the research of Kevin Lynch and Donald Appleyard.

Territorial scale infrastructures and the relationship between settlement forms and natural environment (paradigms through which Banham analyzes Los Angeles) have been central themes in the reflection on the contemporary city since the first half of the last century.

For example, we can identify these paradigms in some of Le Corbusier's most well-known projects: the plans for Rio de Janeiro (1929) and Algiers (1930) in which the Cartesian structure of the viaducts dialogues with the local topography, or the plan for Chandigarh (1950), where the dilated space of the Capitol Esplanade and the depression of the "Leisure Valley" refer to the sense of emptiness and the relationship between urban forms and nature.

In Italy, since the first half of the last century, architectural culture has sought continuity between the city of its time and the characteristics of the historic city. This method has constituted a peculiar and recurring *topos* of Italian modernity.

The Italian school of urban studies is based on this cultural tradition, a singular synthesis between theory and practice clearly expressed by the concepts of "operating history" and "territorial environment" theorized by Saverio Muratori. He constituted an important reference point not only for its innovative method of analysis of the historic city but, most importantly, for its design experiments.

The idea of a rhythmic alternation between city and countryside and the relationship between the forms of nature and settlement systems characterize his most significant projects that still pose central questions of contemporary debate after sixty years.

The project for the Magliana (1956–1957), for example, defines autonomous territorial entities, proposing an alternative system to the shapeless expansion of the suburbs in the Roman countryside. The orography becomes the generating element of the urban form and configures its different characteristics. The city at the bottom of the valley conforms to the river's bend and, through a hierarchical structure, organizes the public space and the different types of residential blocks (Ill. 1). The hilly city, in reverse, settles on the ridges and declines the visual relationship with the landscape in the various solutions proposed.

This direct relationship with the forms of geography is also present in the first competition project for the Sandbanks of San Giuliano (1959). Muratori borrowed the settlement system from the lagoon hydrography of Venice. The urban archipelago is imagined as an open form, where each island is arranged around a void defined by buildings of various types that establish a precise relationship with the surrounding environment.

From the 1960s onwards, the lesson of Saverio Muratori will constitute a fundamental reference for Italian urban studies that will have such an influence on international architectural culture, starting with the publication in 1966 of Aldo Rossi's *L'Architettura della città*. In the context of the research of Italian scholars, however, a complex and articulated picture emerges in which it is possible to grasp different sensitivities: if, for example, Rossi's analysis focuses on the symbolic value of the architecture of the consolidated city and on the permanent characteristics of urban evolution, Carlo Aymonino's reflection tends to interpret the relationship between typology and morphology as a procedural phenomenon, instrumental to the construction of the contemporary city: "the city by parts, formally completed, can only be realized if, by re-examining the relationship emergencies-fabric, the concept of typology is in crisis and the entire urban dimension is entrusted to architecture."[1]

And precisely the question posed by Muratori and Aymonino – the alternation between city and countryside, the relationship with the geography and the central role of architecture

[1] C. Aymonino, *Il significato delle città*, Laterza, Roma 1975, p. 170.

in the construction of the city by parts – could constitute for us a disciplinary legacy with respect to the increasingly pervasive phenomena of entropy of the settlement systems of our time, whose complexity is signaled by neologisms that have become now common sense.

Non-places, junk space, bigness, third landscape reflect the current condition of the urbanized territory crossed by economic logic and production flows that require physical and digital infrastructures. This condition corresponds to new forms of living and working conditions, often devoid of any spatial and symbolic characterization, which seem to respond to criteria of mere performance.

It is therefore clear that every representation of the city as a political, economic and cultural polarity, characterized by a dense structure opposed to the countryside, now appears anachronistic and that our time requires an urgent reflection on the relationship between different parts of the urbanized territory, between new settlement systems and territorial landscapes in constant change.

Some interesting European experiences show how it is now possible to build the city by parts with precise spatial and morphological characteristics capable of communicating with the consolidated city.

Some important transformations involved the city through interventions on an architectural scale that contributed to the definition of a new urban image.

Starting from these considerations, I would like to show you two of my design experiences for Milan.

The former is a 2013 project for the regeneration of the former Scalo Farini as part of a national research project coordinated by Gino Malacarne.

The latter is the outcome of the *Expo after Expo* consultation, the Polytechnic of Milan, launched in 2016 among the Italian architecture schools, in order to imagine a future for the Expo 2015 area, after the conclusion of the universal exposition.

SCALO FARINI

The project starts from Antonio Monestiroli's masterplan which focuses a necessary reflection on the character of the contemporary city, particularly onto two important issues: the continuity with the consolidated city and the definition of the character of urban voids. If the modern city has, in fact, inverted the full/empty relationship and undermined the constitutive foundations of the nineteenth-century city (which reveals the structural entity of its urban form in the street-block relationship), it has not yet fully investigated the potential of open space as a place of relationship between infrastructure, residence and services.

In the historic city, the closed courtyard and the street constituted the main modality of relationship overlooking the residence, from the introversion of the *domus*, to the direct relationship of the merchant house and the continuity between street and courtyard in the Renaissance palace, up to the total openness of the domestic space into the new social dimension of the nineteenth-century bourgeois street. These precise settlement relationships between residence and urban space are almost always absent in the contemporary city, often characterized by the widespread presence of unsolved residual areas.

The general masterplan for Scalo Farini by Antonio Monestiroli clearly identifies the elements of the new urban system and its relationships with the consolidated city: the square to the north on which the external streets converge, the *Rambla* as the main distribution axis,

the greenery as a general connection, and the residential blocks, a solution of continuity between the urban scale of the streets and green spaces inside the block.

Starting from these elements, the project reflects on the character of the central and continuous void that organizes the linear layout of the residences. Located at a lower level than the street, the green band extends to the edge of the housing buildings (Ill. 3). With the depression and modeling of the ground, a different perceptive condition is introduced, configuring an isolated place from the vehicular travel system.

A change in elevation, within a complex urban system, splits the "natural" dimension from the built one, clearly referring to two famous examples: Central Park in New York and the depressed system of the Leisure valley and the green corridors in Chandigarh (Ill. 4).

The other fundamental units that define the project are the towers and blocks of residences, "solid edges" of the open space, which organize the settlement alternating bands of public greenery and commercial streets. The sequence residence-green-residence-street, reiterated several times, is underlined by the rhythm and plastic articulation of the blocks, whose casing is characterized by the strong *chiaroscuro* of the system of loggias overlooking the greenery.

The residences are structured as linear buildings with five floors above the ground with mixed functions and typologies: the first level, covered in log stone – a visual reference to the materiality of the consolidated city – is intended for commercial activities, and the residential floors are organized around the loggia, which becomes, on the top floor, an open courtyard onto the greenery. Commercial activities and car parks are designed to be in the basement and underground floors.

The modern dialectic between city and historic city also suggests the different configuration of the towers. If-those arranged as a counterpoint to the residential blocks are made of steel and glass and evoke an idea of lightness and transparency, the tower on the corner between Via Valtellina and Via dell'Aprica, a connection between the Farini area and the city, has a brick casing, like the blocks in line with strong *chiaroscuro* effects: an echo of a local language which finds a constructive reference in the Romanesque walls of the Lombardy area and in most recent works by Luigi Caccia Dominioni.

EXPO AFTER EXPO

The project site, extending over 70 hectares, is already highly infrastructure-serviced due to the presence of the high-speed station, the metro, the A8 and A4 motorways and its proximity to the Malpensa and Linate airports.

The idea for the project was born from the actual difficulties for people with crossing motorways, bridges, viaducts and railways. When travelling by car or train, the visibility from great distances, the reflection on the perception of the future and the surrounding urban sprawl have, finally, given shape to a turreted citadel, both extrovert and introvert: compact on the outside but permeable and articulated inside (Ill. 5).

The compositional logic of the intervention was, therefore, to imagine the construction in successive phases of five large blocks with mixed functions, each of which has a prevalent main use.

It becomes a university campus hosting scientific and technological departments, social residences, apartments for students, teachers and campus guests, a production hub linked to the applied aspects of new technologies and co-working spaces, in which it is also possible

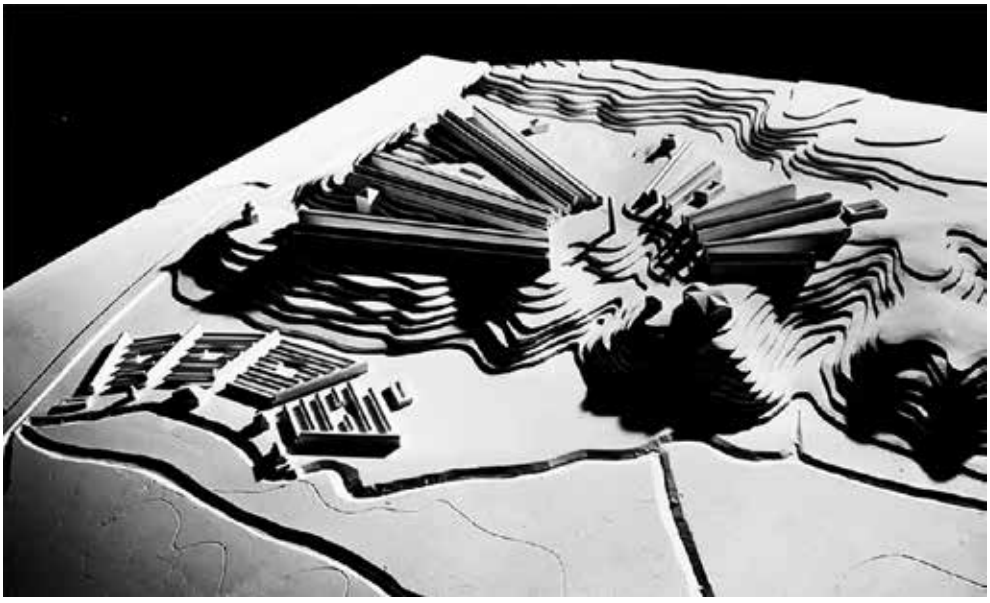
to experiment with new and more direct synergies between university research and practical applications.

The aim is to gather, in a new piece of the city, residences, as well as studying places, experimentation and production activities, all connected to the city and the intermodal transport system.

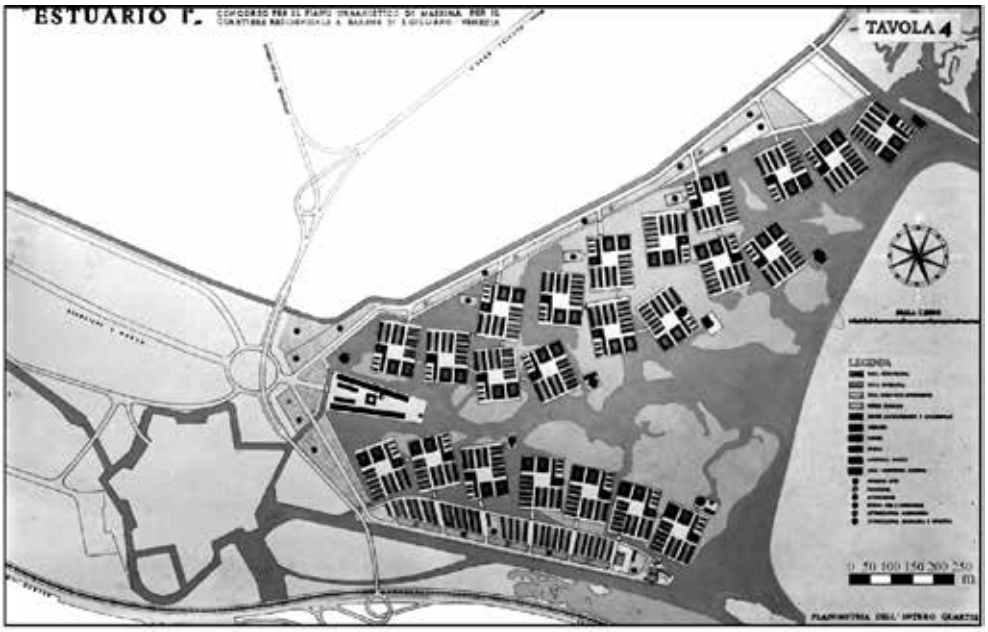
The compact edge of the building hosts public and private car parks along the entire external perimeter of the buildings. The internal open spaces are thus entirely pedestrian.

The curtain wall, divided into several levels, surrounds a large public space, which is structured along the axes of the old structure. So as to respond to the constraints imposed by the Municipality of Milan, half of the area is intended for greenery and housing; the last part is left for commercial activities and equipment, so as to define a mix of functions distributed throughout the entire daily time frame.

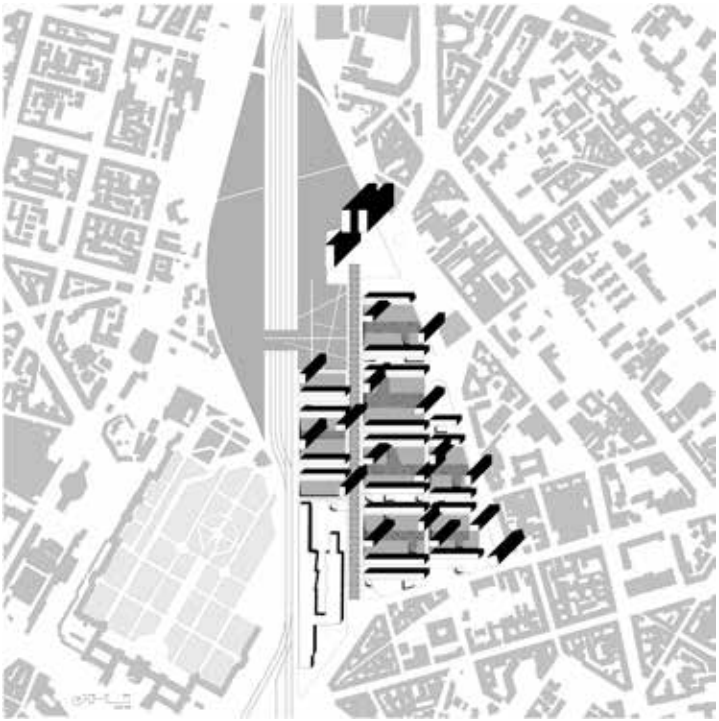
The built volume is excavated by large courtyards and corridor-roads that guarantee horizontal connections. The curtain wall constitutes a passive accumulation element in delaying thermal dispersion. The system of terraces with variable heights, facing south, works as a catalyst for solar light and heat; the internal courtyards and shafts ensure adequate ventilation. Roof gardens become a fundamental part of an artificial landscape, in which the variety of green spaces allows people to find places for free time. Seven towers punctuate the compact base, helping to define the image of a contemporary fortress-city, a new symbol of Milan and a metaphor for a future of solid and productive cooperation.



Ill. 1. S. Muratori, Plaster model of the projects developed for the expansion of the Magliana district, Rome. Source: Poletti archive of Modena, “Fondo Saverio Muratori”; Bollati archive, Rome.



Ill. 2. S. Muratori, "Estuario I" Project for the San Giuliano Barene, 1960. Source: Poletti archive of Modena, "Fondo Saverio Muratori"; Bollati archive, Rome.



Ill. 3. B. Messina, Project for Scalo Farini in Milan, 2013, plan.



Ill. 4. B. Messina, Project for Scalo Farini in Milan, 2013, internal courtyard.



Ill. 5. B. Messina, Project for the Expo in Milan, 2016, model.



Ill. 6. B. Messina, Project for Expo after Expo in Milan, 2016, section.

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