

The External Structure. For an Aesthetic of Facade

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Abstract

In the urban landscape that had seen a strong adherence to languages based on neoclassical eclecticism, as a requirement for civic decorum, during the pre-war reconstruction phase, Messina's residential architecture, between the 1950s and 1960s, participated in the national and international debate, assimilating the linguistic codes of the Modern Movement and the International Style. The new multi-story collective buildings, located in vacant blocks or completing undeveloped areas, brought references to a modern home in both their language and their amenities. The aspiration toward international modernity also became a social connotation. It was primarily engineers, designers, and builders who undertook syntactic reinterpretations in which the language of the façade developed new and bold solutions, in line with technical experimentation. The openness to new modern and rationalist tendencies nevertheless allowed for the ability to unify the architectural composition starting from structural data. The facades are arranged within the urban block, sometimes as separate parts, in terms of height, colour, and materials, other times perfectly inserted into the regularity and scale of the rigid urban grid.

Keywords: architectural representation, project graphics, archive drawings, graphic languages, architectural analysis.

Introduction

The architectural works between the 1950s and 1960s in Messina [1] brings together a lot of examples whose main reference lies in the collective residential buildings of the Cortina del Porto, designed and built between 1952 and 1958 by Giuseppe Samonà, in the INCIS housing, built between 1949 and 1952 and designed by Mario Ridolfi, and in the experimental and innovative architectural styles by Roberto Calandra, Filippo Rovigo, and Vincenzo Pantano, who actively participated in the contemporary national and international architectural debate [2].

The facades of Cortina del Porto designed by Samonà (fig. 1), which stretch for a kilometer along the seafront, assert as a physical and theoretical manifesto, visible in its materiality, in which the assumptions of architectural

composition are expressed, finding their greatest references in the fusion between the legacy of the Modern Movement and that of the International Style (fig. 2).

Engineers and architects, mainly coming from the Schools of Palermo and Rome or from the Academies of Fine Arts [3], undertake stylistic reinterpretations in which the language of the facade declines new and daring solutions, which fit into the regular framework of the *Piano Regolatore* by Luigi Borzì, designed for the reconstruction after the 1908 earthquake. The anti-seismic laws issued specifically for the Strait of Messina, the use of new construction technologies, the experimental use of reinforced concrete, give the city the dimension of an innovative laboratory both on the architectural and urban scale.

In those years, the horizontal city skyline, with low-rise buildings and wide streets, envisioned by the Borzì Plan and stringent building regulations, was redefined. The new multi-level, collective buildings, located in empty blocks or completing undeveloped areas, brought the hallmarks of a modern home in terms of both language and amenities [Caramellino et al. 2015] and the aspiration toward international modernity.

Collective and middle-class housing

Coinciding with the years of the 'economic miracle' between the early 1950s and the 1970s, we are witnessing a strong growth of the city center. Messina, destroyed by the earthquake and bombings of World War II, is affected by a massive repopulation by families from the province and the wider region. A nascent middle class emerged, which, in line with national trends, demanded new living comforts combined with growing economic prosperity. In this context, uncontrolled demand for new housing increased. The Italian economic 'boom houses', predominantly multi-level collective housing, were intended for the middle class, who, given rising incomes, were able to aspire to a "medium-to-large condominium apartment, with modern and comfortable layouts and distinctive architectural elements that confer the character of luxury housing" [Zanfi 2014, p. 3].

The apartment house comprises a typology capable of containing some symbolic elements of modern living space, which is embodied in the "play of representations through which the building can be perceived as suitable for a certain type of inhabitants" [De Pieri et al. 2014, p. XIX] [4]. The living space, in line with new social behaviors, tends to open up more and more towards the outside "and to act as a sort of showcase for the building" [De Pieri et al. 2014, p. XX]. The house open towards the outside, and the request for large spaces onto which to project the internal living, favors the articulation of the facade in the relationship between the compositional elements that determine the architectural language.

Balconies and windows become much larger than the small, but necessary, vertical elements, and are combined with extremely protruding structural artifacts, the result of previously unheard-of structural experimentation.

This results in a modification of the urban landscape, which, in the architectural production of the interwar reconstruction, had seen a strong adherence to languages related to neoclassical eclecticism as a necessity for civic decorum. The city was emerging from a period of neoclassical revival, in which modern building materials were used to reproduce decorations and stylistic elements that harked back to the classical language of the Academies. This marked a clear disconnection from the search for lost aesthetic simulations.

Fig. 1. G. Samonà, Cortina del Porto, 1952-1958. Blocks IV, V, VI (photos by the author).



The engineers' approach, instead, was to enable the new materials in technical-constructive performances linked to a linguistic-formal expressiveness, in an unconscious accord with Heideggerian unveiling.

Even before the work is completed, intense graphic design work is required. Mario Manganaro, speaking of Messina, writes that "the paper city represents the city of possible ideas [...] without which the real city is less comprehensible, appearing like a reduced city [...] the existing city, from a material point of view, is only the visible part of what has managed to materialize of the possible city" [Manganaro 2011, p. 8], underlining the difficult condition of Messina's archives.

Building construction in those years was a highly bureaucratic process; the request for a building permit was preceded by the extensive production of documents that guaranteed the conformity of the construction (fig. 3).

The archival files reveal a graphic production that highlights an original experimentation with the metalinguistic codes of drawing, the main reference for which is Mario Ridolfi's *Manuale dell'architetto* from 1946. This constitutes an excellent reference for designers, not only for the codification of representation but also as a tool for functional, technical, constructive, and formal solutions [Unali 2003; Unali 2008].

The archival documents highlight a series of professional figures [5] who are dedicated to the production of administrative documents, from building permit requests to

a continuous succession of variants, testing certificates, correspondence between offices, etc.

Messina's engineers only, at least during the initial phase, in association with construction companies, played a central role in the city's aesthetic construction process. Messina "entrusts engineers, or rather, individual engineers, almost entirely, with responsibility for the entire design process: from the architectural to the structural, from the systems engineering to the construction site planning" [Cardullo 2009, p. 84].

The facades of engineers (and a few architects)

In the panorama of national building production, cultured, intellectual professionals did not disdain structural research and experimentation with materials [Capitanucci 2021]. The avant-garde trends promoted by the magazine *Casabella* directed by Ernesto Nathan Rogers, by Giò Ponti's magazine *Domus*, by *Stile*, *l'Edilizia Moderna*, *L'Architettura* are of great reference, as well as a fruitful editorial production on the state of new quality architecture, built in large Italian cities, one above all the *Antologia di Edifici Moderni in Milano* compiled by Pietro Bottoni in 1954. Bruno Zevi, director of *L'Architettura*. *Cronache e storia*, assign to Roberto Calandra the direction of *L'Architettura in Sicilia*, a supplement to the magazine published in 1956 and 1957.

Fig. 2. F. Rovigo, block 156 (1956) and block 131 (1955); V. Pantano, block 157 (1952); M. Ridolfi, Case INCIS, 1949-1952 (photos by the author).

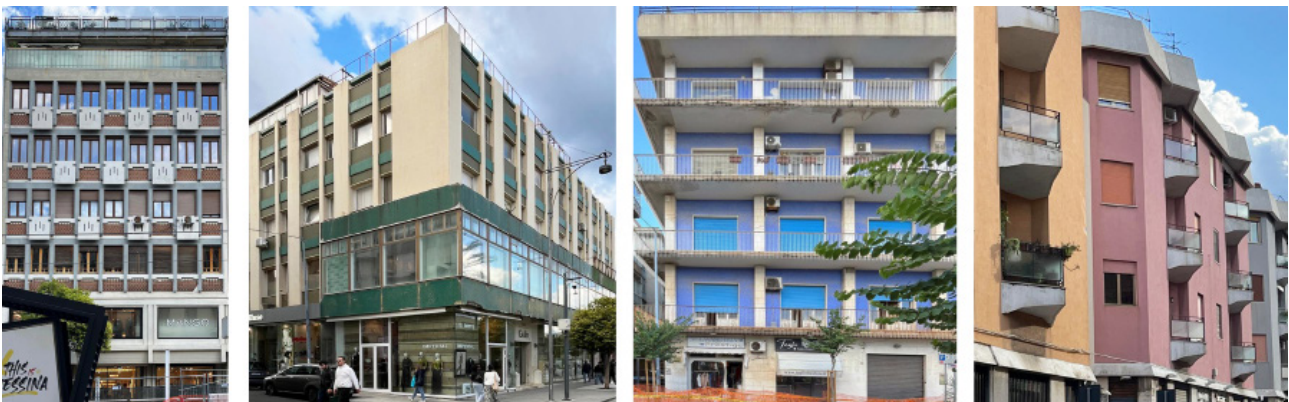
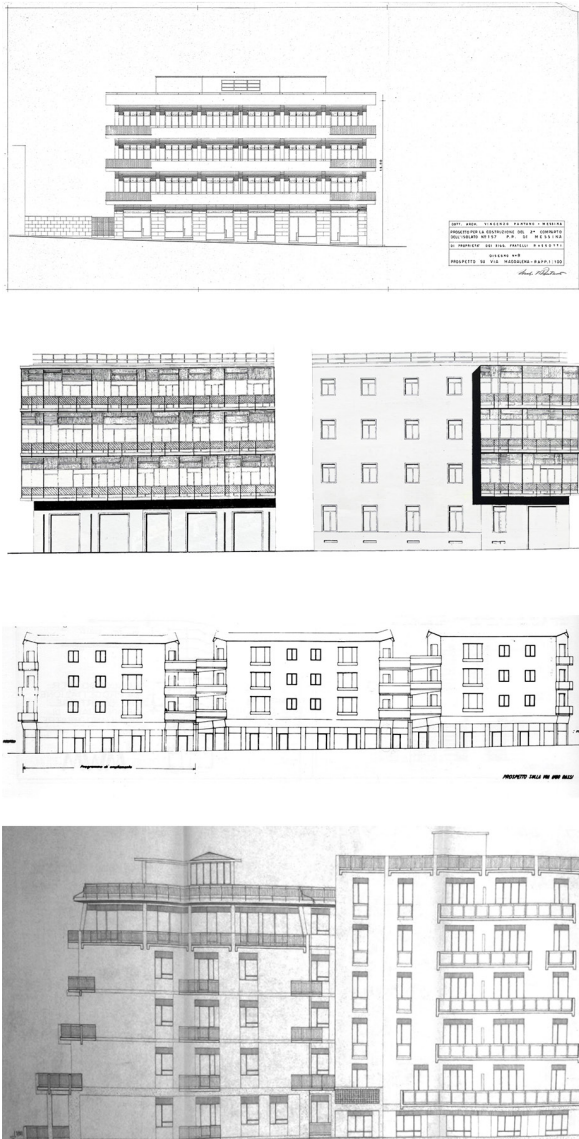


Fig. 3. Archival drawings, (from top): V. Pantano, elevation of block 157 (1952); F. Rovigo, Casa Donato, is. 270 (1953); M. Riboldi, Case INCIS, is. 276 (1949-1952); R. Calandra, G. De Cola, A. D'Amore, is. 481 (1955); (Messina Civil Engineering Archives).



The theme of multi-level collective housing became a field of experimentation and discussion, starting with subsidized housing and the INA Casa plan, the first examples that focused on the architectural debate of Italian Rationalism. Attention was always focused on structure, the industrialization of materials, and compositional expressions closely linked to the artistic avant-garde, a source of collaborations between designers and artists. Some professional studio engaged in the reconstruction of Messina were driven by intellectual impulses that inspired original semantic elaborations, with a focus on broader national and international contexts. The delirium of construction, however, dictated the proliferation of repetitive and simulative linguistic patterns.

The 1950s were a period of transition from a style still tied to classicist forms to a language open to new modern and rationalist tendencies [Lingeri, Spinelli 1995, p. 46]. However, the ability to maintain the unity of the work through style, starting from structural data, existed. The theme of the block, or part of its, was treated unifiedly, both from a morphological-typological and urban perspective. This approach clearly harks back to the stereotypes of rationalism and the Modern Movement. Beyond of ideology, to which the small group of the architects' guild resorted, and leaving aside the theoretical foundations of rationalist and modernist architecture, some engineers devoted themselves to solving problems related to the home: size, layout of services, reception areas, and the construction of a language derived from structural behavior, which in the most interesting examples does not overlook the unified layout of the entire facade.

The clear sequence of the basement, with commercial areas, the intermediate floors of the residences framed by cornices marked by plaster, mosaics, or stone slabs, with the definition of mirrored or axial symmetries, created by the vertical alignment of openings, by continuous solid elements, or simply by the transparency of metal parapets, the crowning of the top floor with its airy suspended solutions defines the architecture in complete configurations (fig. 4).

The prevalent pattern found in Messina's facades accentuates the primary structure of the reinforced concrete span, from pillar to pillar, maintaining the repetition of the load-bearing element, with intermediate cadences of secondary structures inserted into rhythmic serial scansions.

In some cases, pronounced narrow balconies jut out in a line or alternately, sometimes interspersed with aligned windows. Colored plaster or glass paste tesserae emphasize the verticality of the load-bearing structure without intermediate interruptions.

When the facade is flat, no element assumes hierarchical dominance. The rigid score allows for no exceptions: measure and rhythm are repeated. This results in simple geometric regions, the square and the rectangle, which can be broken down into complementary figurative elements (fig. 5).

In the case of a dense network of protruding vertical elements, the facade, according with the daylight, participates in the rhythm of time.

The engineers' frame structure, superimposed on the building's box-shaped, consolidates new intermediate spatialities, generated by lines and surfaces detached from the facade plane. The ordering grid, as a forepart expressing the geometric framework, is an abstract support independent of the placement of the openings. It depends entirely on the load-bearing structure, marking its position with the doubling of the columns. A translated filigree in which the external space materializes as a volume in a relationship established by the correlation of

the elements: continuous balconies with concrete parapets, a closing wall, and pillars. Highlighting the top with increasingly dense pillars or with protruding canopies consolidates the facade with classical references (fig. 6). When the solution includes terraces, the structure is pronounced with partitions that extend along the entire length of the overhang; the need to break the monotony requires a misalignment or interruption of the non-structural parts.

The corner always presents specific solutions, accentuating a structural hierarchy, by highlighting the corner pillar, or compositionally, in which exceptional elements appear at intersections, attics, or overhanging balconies. It is the point where all the compositional tensions of the facade converge (fig. 7).

The elevated balconies enhance the large windows that project outward, addressing the theme of external domestic space in modern living practices, the relationship with urban space, and the panorama. The blocks, in adopting the negation of the courtyard type, draw directly from the Milan proposals of Terragni and Lingeri, in which the unitary synthesis of a single body is resolved with alternating volumes and aerial connections of balconies and canopies (fig. 8).

Fig. 4. V. Cacopardo, block 106 (1953); Viale della Libertà, block 515; (photos by the author).



Fig. 5. Buildings with facades defined by coplanar structural elements (photos by the author).



The colors of the plaster, the glass paste tesserae, or the ceramic tiled panels emphasize the reference to the figurative arts of the avant-garde, whose sentiments still resonate. Defining architecture through color is a choice that stems from a long meditation that harks back to studies of architectural chromatics, "an essential part of the creative process of a work that, precisely through these elements, establishes a strong relationship with the city" [Lingeri, Spinelli 1995, p. 105].

Bands running horizontally or longitudinally, panels inserted into defined squares between the openings, colored parapets that stand out from iron railings, bright, strong colors, predominantly blue and yellow, with green used to contrast the white reference planes, compose formal orders and clear references to De Stijl (fig. 9).

Ordered readings

The reading of the as a multilayered text is based on the "close relationship between theoretical orientation and operational practice" [Lingeri, Spinelli 1995, p. 41], which aims to achieve a unified architectural composition.

The facades clearly emphasize the predominantly vertical line of some primary structural elements, which present compositional rules punctuated by serial rhythms, and secondary lines when the overhang of the balconies exceeds the permitted dimensional limits and requires technical expedients to attenuate the loads. Structure becomes the language of architecture and defines its aesthetic canons [Raffa 2021].

The structural module, which identifies the elementary component of the composition, defines its geometry, formal composition, balance, and even construction technique.

A statically defined whole in the geometric-structural system that, on the facade plane, overturns the formal structure of the entire building, the compositional rules, and the logical-structural aggregation "indeed, it can be said that the formal-constructive characteristic of the architectural work that sets it apart from other figurative-spatial artistic expressions is precisely contained in its subdivision into formally autonomous, statically defined parts, capable of repeating themselves identically [...] which intervene in the definition of the final body of the work" [Ricci 2011, p. 15].

The highlighting of the structural lines of force is combined with a synthesis of identification of the building's plastic lines. Drawing organizes elements to reveal the ordering relationships and laws that connect the parts. It presupposes a

Fig. 6. Via Ghibellina, block 160, frame system external to the building block (photo by the author).

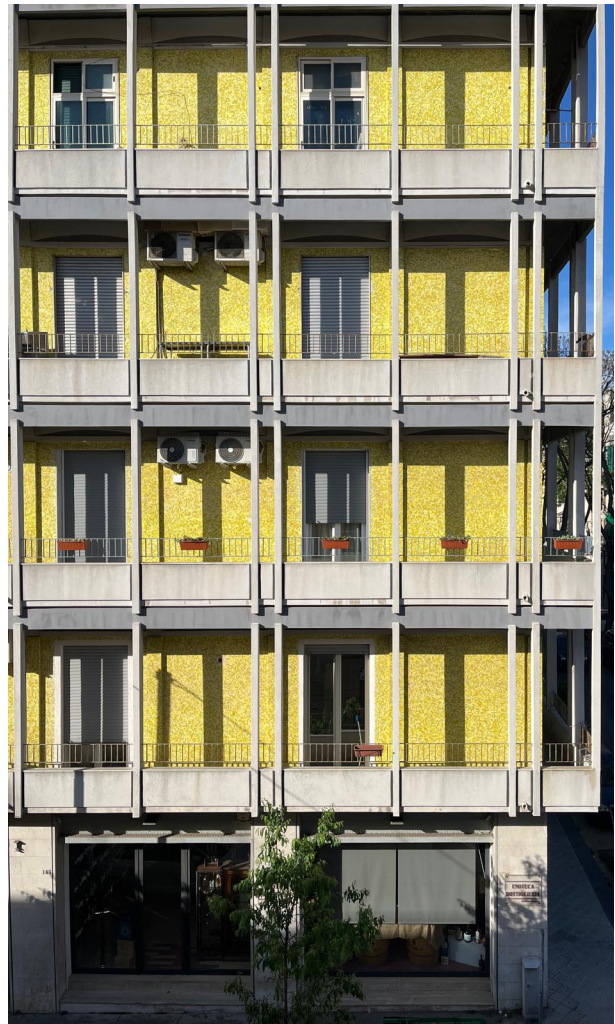


Fig. 7. Buildings with facades defined by structural elements external to the facade (photos by the author).



choice, an interpretation, which lies in the description, the placement of the sequence, and therefore the highlighting of the parts.

The grammatical and syntactic organization of compositional elements initiates the cognitive process, not only in terms of defining the elements and physical forms of the completed architecture, but also, through the rules of technical drawing, provides notions that introduce understanding of the design process.

The research for formalization in architecture has favored the simplification of representational codes in the encounter between structure and form. The definition of the representation is provided by the elementary geometric composition of the elements and the minimal consistency of the materials that must be translated into a sign.

The characteristics of seriality, combined with the simplification of technical processes, have legitimized an economy of sign that, however, does not correspond to the impoverishment of architectural configuration.

The comparison of congruent elements leads to knowledge and syntactic understanding of formal language, typology, and constructive logic: "from the comparison of notions derived from architectural observation, for example, we deduce those architectural elements characterized by greater formal stability: comparison, in other words, constitutes the very basis on which architectural classifications are built" [Grassi 1967, p. 39].

The frame, which is externalized in the reticular structure, for example, allows for the possibility of highlighting the generative matrix of the design principle. The breakdown into planes and the distinction between parts, which make the functional nature explicit, leads to the identification of the model in which repetitiveness and modularity are placed, among other things, as fragments of the aesthetic expression of standardization and industrial production. The exploration of the module, in the frame system, allows for the definition of syntactic relationships between the elements, characterized by their own form and different materials. Furthermore, the discontinuous frame system connects the exterior with the interior, both physically and through visual perception.

Conclusion

The issue of shared housing, condominium, is being addressed through its typology, new comforts, the social use of space, and the language of the facade. Experimentation with new speculative construction systems and the technical efficiency associated with the materials of the new mass industrialization are becoming the field of formal research for modern living. The new demands of the emerging bourgeoisie are aiming to advance demands not only for the interior of the home but also for its exterior design as a defining element of social status.

Fig. 8. Corner solutions of some blocks located in the city center (photos by the author).



Compositionally, Messina's blocks are the result of the area to be built, either the entire block or a section, generally a regular shape considered a single volume. Their design and construction are subject to rules building, and especially earthquake-proof mechanisms; they arise from rational actions based on functional, technical, and economic criteria, which have strongly influenced the design process [De Pasquale, Pino 1996].

The engineers' buildings appear not to be characterized by intellectual pulsations or linguistic research based on theoretical assumptions, but rather by emulations of local

references, structural declinations, and the repetition of consolidated stylistic features.

Themes such as lightness and solidity emerge, however; never absolute but rather mutually balanced [Arena 2002]. The compact volume is overlaid with terraces, balconies, screens, or simply revetments; large balconies supported by slender concrete screens or metal profiles protect the interiors from excessive midday light. The facades are arranged within the urban block, sometimes as separate elements, in terms of height, color, and materials, other times perfectly integrated into the regularity and scale of the rigid urban grid.

Fig. 9. Facades with insertions of elements referencing avant-garde figurative arts (photos by the author).



Fig. 10. Elevations of the blocks (from left, from bottom): block 362, block 154, block 476, block 13, block 244, block 376 (graphic elaboration by the author).



Notes

[1] Francesco Cardullo, professor of Architectural Design at Mediterranean University of Reggio Calabria, and Vincenzo Melluso, professor of Architectural Design at University of Palermo, are the main scholars of research on the architecture and urban structure of Messina after the reconstruction 1908 post-earthquake, which refers to the figurative and compositional characteristics of Modern Architecture. See in particular: Cardullo 1993; AA.VV. 1986.

[2] Roberto Calandra (1915-2015) and Filippo Rovigo (1916-1986), after graduating from the Scuola Superiore di Architettura in Rome, attended the School of Architecture at Columbia University in New York, where they encountered the masters of the Modern Movement. Upon returning to Italy, Roberto Calandra collaborated with, among others, Carlo Scarpa, and Rovigo with Giuseppe Vaccaro, Mario Ridolfi, and Giuseppe Samonà [Passalacqua 2021].

[3] In this regard, an exhaustive reconstruction is contained in the volume by Adriana Arena, *I disegni dei progetti per la ricostruzione di Messina* [Arena 2011] in which, in the first chapter entitled *Il percorso formativo per ingegneri e architetti tra Otto e Novecento in Italia con particolare riferimento*

alle discipline del disegno, a detailed description of the teaching of drawing in the Italian panorama is provided and in the paragraph *L'insegnamento pubblico del disegno a Messina* (pp. 28-34) the case of Messina is described. In the *Presentazione* (pp. 6-9) the story by Prof. Mario Manganaro regarding the Drawing Institute activated at the Faculty of Mathematics of the University of Messina is very interesting.

[4] "A recognition that is the object of continuous negotiations between the actors and calls into question the symbolic and contractual aspects of the construction of social hierarchies" [De Pieri, Bonomo, Caramellino, Zanfi 2014, p. XIX].

[5] "In the 1950s, practically 100% of the projects presented and approved were signed by engineers. In the 1960s, 90% of the projects were the work of engineers and 10% were the work of architects. In the 1970s, 85/90% of the projects were by engineers and the remainder by architects [...] More commonly, the specializations of non-civil and construction engineers who presented civil building projects in Messina after the 1950s were: hydraulic, industrial, electrical, transport, mechanical" [Cardullo 2009, p. 84].

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