

The tectonic construction of a façade. Milanese buildings by Giovanni Muzio (1920-1940)

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ABSTRACT

Analyze a project means to re-build the constructive principles and rules that compose it, without imposing new forms—which implies the risk of falling into empty formalism—but re-finding the implicit structure existing below it. An operational analysis of the object of study is not only a model to understand the construction of a project, but becomes directly instrumental to the project itself, assuming a perspective of historic continuity. In this particular case, the analysis focuses on some architectures built by Giovanni Muzio in Milan between the '20s and '40s of last century. The analysis focuses on the theme of the architectural façade, intended as tectonic construction or bas-relief architecture (Relief-Architektur), which reflects the transposition of the sculptural depth of the columns' order on an architectonic façade. The theme of the façade is analyzed in regard to different aspects, as the relationship between the building structure and the proportional system of openings; the order of tectonic elements; the decoration. The investigation techniques used to highlight these issues are: the ratio of full/empty or horizontal/vertical elements; the structure of axes; the role of geometric figures; the layers building the depth of a façade; the components of decoration. MUZIOMILANO; FAÇADE ANALYSIS; CONSTRUCTION/DECORATION

1. INTRODUCTION

The rediscovery of the architecture of the past, from the '60s until the postmodern season, was born as a reaction to the modernist veto against history. The ideological content of this reaction has been shown in the manner of use of classic elements, mostly used in demonstrative and provocative terms, in the form of ironic or iconic quotations. An irony that has proven itself in a short time without substance and surface.

From here it is searched, from theoretical point of view, to justify in a more precise way his process of re-appropriation of historical forms of the past through in-depth studies and historical-critical essays, which tend to highlight the complexity of these forms in relation to their symbolic and metaphorical meanings, through a re-interpretation of the theme of the ornament, seen not only as a crime to be banned, but as a characteristic element of architecture (Coomaraswamy, 1977; Rykwert, 1996; Hersey, 1998).

Despite this revisionist experience the interest in the classical order seems to have disappeared from the architectural debate, burdened by guilt resulting from their abuse made in previous years (Garnham, 2013) and rather interested in deconstructing its unity and affirming its death (Eisenman, 1984).

The use of this, in reduced form, still remains in some projects of the so-called Berlin School – from Hans Kollhoff and Helga Timmermann to Petra and Paul Kahlfeldt or Walter Noebel (Caja & Malcovati, 2009) - or in the latest designs by Giorgio Grassi, which in turn seem to refer to some particular experiences of Modern architecture, particularly to these where, as in the work of Giovanni Muzio, architecture is understood as a tectonic order.

Where namely the column loses any scenographic or demonstrative character and is converted into construction, to testify to the continuity with tectonics of classical architecture as opposed to arbitrariness of contemporary architectural language.

The architecture as a composition of known elements, defined and recognizable, which can be assembled according to Alberti's principle of *concinntas*, is proposed as a way of understanding architecture today in relation to construction and its representative character.

The use of the classical order for the construction of a façade, as present in the above mentioned projects, is here to represent a precise idea of architecture based on the tectonics of the elements, as theorized by Karl Boetticher in the nineteenth century and taken over by the contemporary debate (Boetticher, 1852; Kollhoff, 1993; Frampton, 1995).

2. ABSTRACTION AND EVOCATION OF THE CLASSIC ELEMENTS

From these different experiences derive some lines of current research in the balance between classical and rational, between reductionist and abstract use of classical elements used in the composition of the façade in an evocative sense to represent a continuity with historic architecture. After the will to rationalize of Modern architecture, after minimalism and conceptual reductionism during the recent decades, these efforts can be explained as attempts to overcome the limitations of an architecture reduced to a mere volumetric object, outwardly solved with smooth surfaces or covered with covering skins which hide the underlying constructive order.

You can, hence, trace some research lines similar in the attempt to oppose to the international mainstream, in an attempt to regain possession of the representative character of architecture and exceed that minimum of expression, which has become dogma for entire generations of architects. After the re-enactment of the historic elements through practices such as those of quotation or omission, which have marked the researches of the '60s and '70s, facing a critical review of Modern architecture by searching for its continuity with history, actually derive some lines of contemporary research using these elements no longer as quotations, but in a constructive way. On one hand, the conception of architecture as construction proposes again, in some current positions, the aspiration to the representative character of architecture as abstract reference to the classic. On the other hand there are some experiences in which the reference to the classic is more direct, where the evocative intention turns into real effort to rebuild the wall's depth of the façades of historic architecture. The façade becomes in this sense the main experimentation field of a renewed compositional relationship between the elements of an order that is redefined from time to time depending on the depth of the wall thickness.

3. THE ELEMENTS OF THE CLASSICAL ORDER

To talk about classical order, from a terminological point of view, necessarily implies to distinguish the different elements that compose it. What is not obvious, because after a century which has banned their use, their identity has fallen into oblivion, such as not being able to grasp their differences, which only rarely are evoked to the memory through contemporary design. You have to go back and ask yourself some questions that clearly emerge to those who take the time to reconsider classical architecture and the way it has been transmitted to us, from the theoretical point of view, through the writings of its greatest theorist, Leon Battista Alberti. Careful interpreter of classical architecture, understood as a logical construction (Grassi, 1967), able to be adopted not in a mimetic, but in a compositional way, in the contemporary design. The questions that arise re-reading Alberti are manifold (Alberti, XXX, Book VI: 130): Which is in fact the difference, for example, that exists between a column and a pillar, between a semi-column and a pilaster? How is it that these terms are often used as interchangeable synonyms, denying their identity from the formal point of view – the square or rectangular section of the pillar, the circular one of the column – but also the role they hold within the construction – the column with the architrave, the pillar with the arch and the wall structure, taking into account that there is «a great Difference between a Work that consists of Pilasters, and one that consists of Columns, and between covering them with Arches, or with Architraves»? And who knows that these were linked to certain building typologies, for which «Arches and Pilasters are very proper in Theatres, and Arches are not admitted in basiliques; but in the nobler temples, we never see any porticoes without Architraves»? Or who, again, with the exception of some theoretical (Damisch, 1979), raises today the question of the relation between wall and column distinguishing between «the low Relieve» type, i.e. the semi-columns and pilasters «are so joined to the Wall, that one Part of them is hid within it, and only Part of them appears», and the «the whole Relieve» one, «wherein the whole Columns stand out from the Wall», as in the arcades?

In fact, these questions, apparently pedantic, are not at all discounted or belonging to a distant era, especially for those who are still interested in considering the wall not as simple two-dimensional surface, but as architectural structure, in which the column can be declined in its different configurations, in relief or detached. In this sense, the column has always played a central role, even after losing its load-bearing function. If in Roman architecture the pillar was placed as the main element in the walls construction, the column, of Greek origin, became the main element of «ornamentum,» as Alberti wrote again: «The principal Ornament in all Architecture certainly lies in Columns» (Alberti, XXX, Book VI: 130). It is from here that «makes its appearance a purely decorative use of order», evocative of an antiquity by now lost, which reveals its «ambivalent character» as both real and artificial support inside the bearing structure (Thoenes, 1998: 71). Ambivalence, that, as noted by Rudolf Wittkower speaking about Alberti (Wittkower, 1964: 29), can only be overcome by considering that «a row of columns is indeed nothing else but a wall, open and discontinued in several places» (Alberti, 1955, Book 1: 14).

It's from here that the column loses its plasticity and is declined in different forms, ranging from the pillar, as a portion of the wall, to the pilaster, as an element in relief. And it's from here, also, that comes the notion of tectonics as a composition of bearing and borne wall's elements, which from Alberti to Schinkel, proves to be one of the main features in the architectural definition of a façade.

4. FROM ALBERTI'S FAÇADE TO SKIN AND BONE ARCHITECTURE

The theme of the façade is proposed as a paradigmatic example, as it raises the question of the representative character of a building and of its gradual reduction carried out by Modern architecture. We may recall here a few cases of reduction, which led, through the centuries, from the wall façade based on a tectonic order-type structure to a frame structure made of beams and pillars.

L. B. Alberti resumes from Roman architecture the masonry as the construction's fundament for architecture and decoration as a representative element of the character of a building. The decoration, as used in Palazzo Rucellai, is not mere ornament, but an instrument to represent the public character of the building. Returning to the system of overlapping orders of the Colosseum and other Roman theaters, and applying it to the façades of medieval houses behind them, it gives them an unprecedented representativeness and urban monumentality. If this process defines the monumental character of the building and highlights the public role versus the civic one of the medieval residential houses in which it is inserted, the way how it is done resolves in architectural terms the theme of a palace façade. The recovery of overlapping orders is carried out in staccato, according to the technique of bas relief – used in sculpture by Donatello to represent the three-dimensional depth of the space within the thickness of a stone slab – reducing the semi-columns to simple flat pilasters and lintels to little protruding string courses.

The critique of Adolf Loos against the palaces built on the Ring of Vienna at the end of the nineteenth century is mainly aimed to the misuse of ornament, which becomes a crime as inadequate expression to the spirit of the time, an era which «prefers the façades of the houses were smooth from top to bottom» as then implemented in a radical way by Modern architecture. The critique of Loos is directed against the use of decorative elements in the façades not as integral parts of the building structure, but as simply applied decorations. Not the fact of using historical elements, then, but how they are used in ornamental, anti-constructive sense becomes the object of Loos critique, based on the awareness that architecture is expired from building art, according to the model of Roman architecture, to pure «graphic art». Architecture thus denies the constructive reason sought by the old masters and transposes the depth of her façade to a two-dimensional plan (Loos, 1983).

Another master of Modern architecture, too easily assumed as a tutelary deity of today's minimalism, Ludwig Mies van der Rohe, was greatly impressed by the architecture of the past. In fact, his interest in history, even if translated into constructive forms appropriate to the spirit of the time, will be a constant part of his interests, as late as the end of his career reiterated, saying he had learned the most from old buildings (Mies van der Rohe, 1991).

Although, because of their volumetric simplification, some of his best projects seem to reflect the character of their admired historic buildings, however they abandon the use of the stone façade, replaced by an iron and glass structure, reduced to pure «skin and bone» architecture. A radical reduction, which implies not only the omission of the classical order, but also of the wall casing, no longer necessary from a constructive point of view. And it's from here that the stone masonry is replaced by a glass *skin*, that leaves catch a glimpse inside the behind staying structure of the building, its *bones*. The architecture is thus not only stripped of its *decorative system* (the classical order), but also of his *flesh* (the wall).

5. THE REDISCOVERY OF THE WALL CONSTRUCTION: GIOVANNI MUZIO

In addition to the above-mentioned experiments carried out by the most radical trends of Modern architecture – the skyscrapers projects by Mies in Berlin in the early '20s are the most authentic ideal expression of them – other contemporary lines of architectural research have focused their interest on different issues, which have brought to the fore the wall construction as an element for the architectural characterization. Among these emerges today, for the clarity of its contribution and the exemplarity of the realizations, the work of the Milanese architect Giovanni Muzio (1893- 1982). Think of how many of his best known works, particularly those discussed here – the Ca' Brüta (1919-23), the extension of the Università Cattolica (1927-38), the Palazzo dell'Arte (1932-33) and the conventual complex of the Angelicum (1939-42) – were built just at the turn of the so-called *roaring* Twenties and Thirties, in the middle atmosphere of avant-garde and revolutionary intentions towards historic architecture. The *quarrel* between ancients and moderns, declined in the Milan context in the debate between Rationalism and *Novecento* (Burg, 1992), finds in some Muzio's projects an exemplary response for the ability to combine continuity with the tradition of wall architecture with a new urban scale. A scale that will surely not go unnoticed at the time, but that above all was rediscovered thanks to the careful critical review carried out by some Milanese architects since the 50s and 60s towards the masters of Modern architecture who compared themselves explicitly and constructively with the architecture of the city inherited from history, including among them, besides Muzio, Adolf Loos, Auguste Perret, Peter Behrens, H. Petrus Berlage (Rogers, 1955; Gregotti, 1960; Canella & Gregotti 1963; Rossi, 1959/1966; Grassi, 1961).

6. COMPOSING A FAÇADE

Speaking of architectural composition – according to the paradigm established by Rudolf Wittkower about the general rules derivable from Alberti (Payne, 1994) – reflects a way of understanding architecture closely related to the music composition. The discipline of composition has nothing to do with an idea of architecture as a pure expression based on the creation from scratch or on free invention, but is constructed as a system of rules and consolidated techniques, basing on given elements and combining them according to relationships of geometric and proportional type (rhythms, figures and axial systems) (Lucan, 2009). Analyze a project means to re-construct the principles and rules that compose it, without imposing new forms or traces – thus avoiding the risk of falling into empty formalism – but recovering the implicit underlying structure. An operational analysis in which the object of study – taken as a model – becomes directly instrumental to the project, as it justifies its choices. In this sense, analyzing a model becomes integral part of the project, in order to an idea of architectural continuity.

In this particular case, the focus is the analysis of some architectures by Giovanni Muzio in Milan between the twenties and forties of the last century. Architectures deeply rooted in historical architecture - from the Romanity of the Ca' Brüta, analogically conceivable as a fragment of a Milanese Colosseum, to the expressivity of the brick architectures, that refer both to the Lombard tradition and the examples of brick architecture in northern Germany.

The analysis thematically focuses on the façade, intended as a bas relief architecture, using the technique of staccato based on horizontal and vertical elements and the relationship in their elevation, depth and projection in section.

The façade is analyzed according to the following aspects: the relationship between the wall structure and the system of openings (doors, windows, niches); the tectonic elements (beams and columns), the relationship between constructive and decorative elements. The investigation techniques used to highlight these issues are the graphical analysis of following elements: full / empty; horizontal / vertical; axes / rhythms; geometric figures; decoration / construction.

Among the analyzed buildings, here are reported the results of a research seminar held at the FHP Potsdam in 2014 (FL2 Research Program, Prof. Michele Caja in collaboration with Prof. Annegret Burg), focusing on the analysis of the following elevations:

- (1) Ca' Brùta (1919- 23), South-East elevation (Via Turati) Drawings by Jennifer Barwinsky, Luisa Dronia

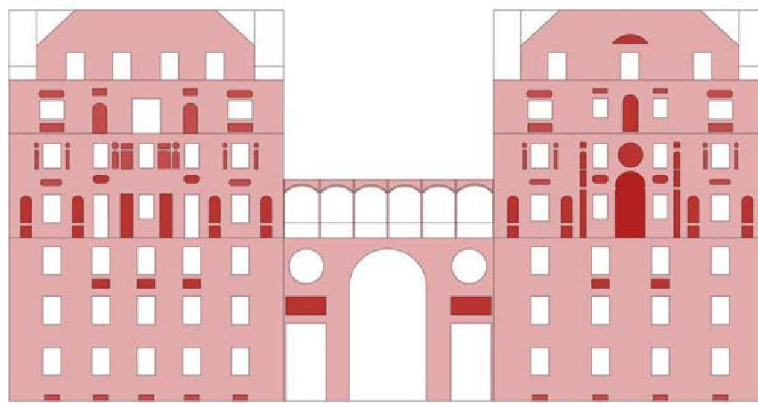


Fig. 1: Niches

- (2) Università Cattolica (1927-38), North elevation (Piazza Sant'Ambrogio) Drawings & Model: Alexander Preißer, Zeliha Isikli, Dogan gulag.

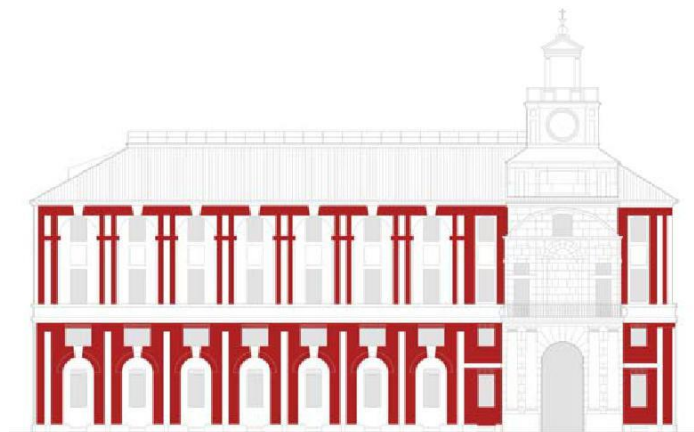


Fig. 2: Layers: Foreground

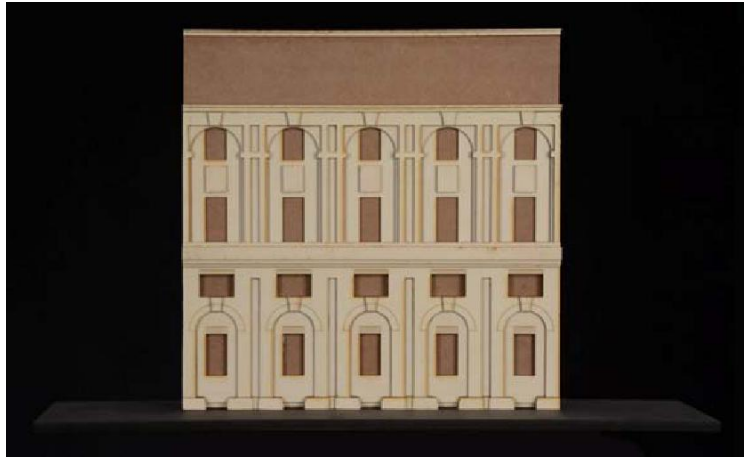


Fig. 3: Bas relief

- (3) Palazzo dell'Arte (1932-33), South elevation (Parco Sempione) Drawings & model: Rainer Morawietz Ludmila Makarowski, Ricardo Rosch

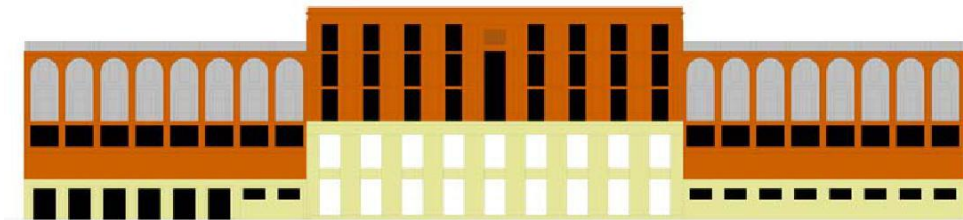


Fig. 4: Materials

- (4) Angelicum (1939-42), North elevation (Piazza Sant'Angelo) & S elevation (Via Bertoni) Drawings & model: Yasemin Krickstadt, Gamze Zerk

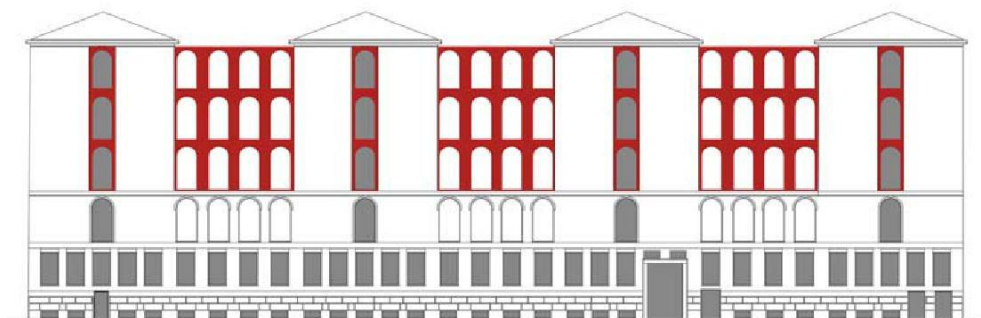


Fig. 5: Layers: Background



Fig.6: Grid & Arches

7. ANALYSIS OF A CASE STUDY: PALAZZO DELL'ARTE (1932-33), EAST ELEVATION (PARCO SEMPIONE)

The Palazzo dell'Arte was built in 1931-1933, as a new center for contemporary art and Italian design. Located on the western edge of the Parco Sempione, it defines, together with the Arena, the east-west axis related to the north-south axis defined by the Castle and the Arco della Pace. The plan of the building is based on a tripartite system, which evokes the form of a basilica concluded on the southern side by a semi-circular apse. The building, oriented in north-south direction, is crossed in the central part by a transverse east-west axis, defined by the monumental entrance porch, the passing lobby the raised area of the café-restaurant, the upper terrace. The central part of the longitudinal axis contains a theater, courtyards and the atrium, while the wings are devoted to exhibition galleries.

Muzio uses materials that are both new and old, referring to the local tradition of brick construction, clinker and natural stone elements for the tectonic definition of the façades. In relationship with the heaviness of these materials raises the grid structure of the industrially produced windows. The load-bearing façades of the building are based on a frame structure with a stone and brick cladding. The east façade, facing the Parco Sempione, consists of a protruding central part and two side wings; the central part is preceded by a full-height porch, with a trapezoidal structure: seven arches define the middle part, three double arches the side wings. The porch is completely covered in clear natural stone.

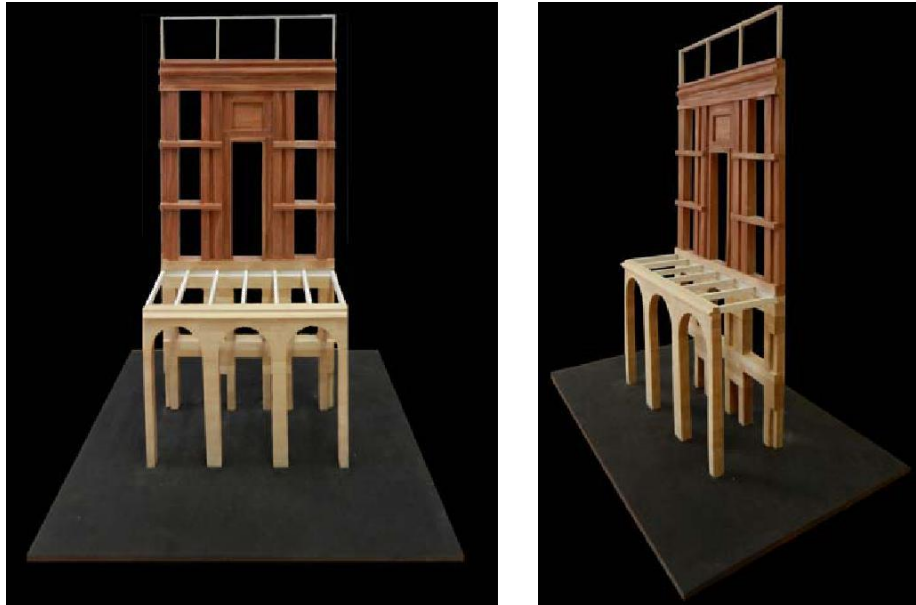


Fig. 7: Double façade

The central part of the façade is composed of two distinct parts, which define the horizontal structure of the façade, while the vertical one is defined by the tectonic structure of the pillars / pilaster / niches.

The lower part (behind the porch) is defined as a second-level façade. The two-story façade is divided by ten pillars that mark the individual segments of the interposed wall structure, through an accentuation in the depth made by niches, which define a second level of the façade. The upper part, entirely in brick, is divided into three parts. The central part is occupied by a double-height window, with a door to the inner hall and a superior niche. The side wings are divided by two horizontal protruding bands, composed by pairs of vertical pilasters. The vertical articulation is reinforced by six pilasters alternating with wide niches.

The side wings of the façade are symmetrical towards the central one, and composed in two parts: the lower one builds a homogeneous foundation of brick and stone, upon which stands the system of the upper arches, behind which emerges in the background a brick wall with openings and niches. Despite the symmetrical structure of the building, there are few geometric paths traceable, while the harmony of the façade is deduced from the tectonic quality of the horizontal and vertical elements. Among the traceable geometrical figures: the figure of the double square appears repeated three times in the upper central part, while the one of a double square defines instead the lateral wings.

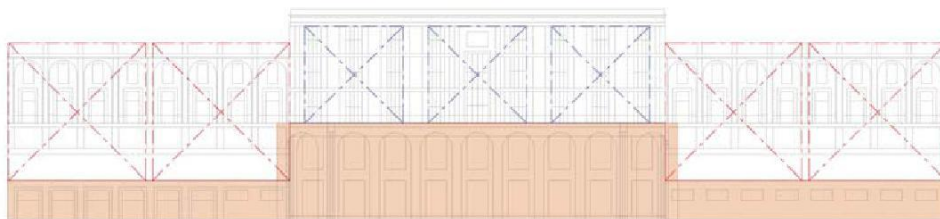


Fig. 8: Geometric Figures

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