# Toward a Rational Architectural Practice: The Particular Case of Giorgio Grassi

**Pasquale De Paola**

Louisiana Tech University, Ruston, Louisiana

ABSTRACT: This paper provides an historical examination of Giorgio Grassi's singular methodological approach to architecture, which is primarily based on a self-questioning rigorous framework that reflects on the autonomous nature of architectural production. From an operative point of view, Grassi's work has been characterized by an uninterrupted methodological continuity that sought coherence and rigor as ultimate form of expression. In Grassi's view, architecture is defined as a rational discipline that prioritizes reason above form in order to avoid a return to rhetorical formalist models of architectural production.

In order to underline this intelligible rational methodology, my paper will attempt to deconstruct Grassi's practice by elucidating his ideological association with the Italian *Tendenza,* and by critically breaking down his most compelling work, *La Costruzione Logica Dell' Architettura.* This system of inquiry will underline particular methodological components such as the reductive qualities of typological classification, the logical and autonomous foundations of architecture, and, consequently the recognition of its rules and limits. Accordingly, those cyclical constituents will be historically and critically exposed to emphasize those methodological characteristics that advocate the establishment of an architectural discourse, which is ideologically based on the idea of pure rationality.

In Grassi's case, the originating premises of rational epistemology - and the ultimate search for knowledge - propose a newfound interest in everything that can be logically classified. Rationalist principles indeed address cognitive issues related to the historical zeitgeist of architecture that privilege reason above experience, logic above instinct, and idea above form. Thus, according to Grassi, architecture should never be understood either aesthetically or morally, but it should be conceived as the only answer to real problems. Eventually, Grassi's desire to establish a theory based on the triumph of reason over the image emerges as the most definitive methodological model of architectural production.

KEYWORDS: method, rationality, typology, autonomy.

## INTRODUCTION

Although generally label as overly reductive and austere, the work and methodological practice of Giorgio Grassi appears to be far from simplistic. Inherently related to the ideological trajectory of *Tendenza*, a group of Milanese architects in the Italy of the 60s, Grassi's practice is framed by a deeply rationalist methodology that explores architecture as an analytical design practice. This particular understanding is strictly related to a specific disciplinary research established in Italy at the end of the Second World War; this was when the term Rationalism and its theoretical body of work had acquired renewed prestige replacing the ephemeral aesthetic of the modernist movement with a grounded discourse based on a deep understanding of the city as background of all architectural artifacts.

Yet, before tackling the methodological question of rationality evident in the work of Giorgio Grassi, I believe that it is important to historically frame the Italian context of the 50s and 60s in order to understand the importance of *Tendenza* as an heterogeneous architectural movement that aimed to overcome the failures of modernity, and, most importantly, to locate the operational methodology of Giorgio Grassi who indeed happened to be one of the major ideological advocate of such a rational framework.

## 1.0 HISTORICAL CONTEXT: ITALY AFTER WORLD WAR II

After the end of the Second World War, architects who were obliged to respond to the new Italian reality were faced with a difficult dialectic between knowledge and action – difficult because of the contradictory foundations underlying the tradition of the discipline, but also because of the many levels imposed on such knowledge. This was all the more true given that most competent members of the profession took it for granted that there could be no knowledge divorced from action: an encounter with active politics seemed imperative (Tafuri, 1990, 3).

Regardless of ideological and political implications, the description given by Manfredo Tafuri in his introduction to *History of Italian Architecture, 1945-1985* was exceptionally accurate. After the Germans retreat, entire historical neighborhoods, monuments and other civic landmarks had been destroyed, creating new urban conditions dictated by a fragmentary sense of unevenness. Additionally, most of the influential thinkers of the Italian architectural intelligentsia had fallen victim of Mussolini and his totalitarian Fascist regime. Giuseppe Pagano, editor in chief of *Casabella*, arguably one of the most influential Italian architecture magazines, had died in a concentration camp along with Raffaello Giolli, Gian Luigi Banfi of B.B.P.R., Filippo Beltrami, and Giorgio Labó leaving the architectural discourse in total disarray (de Seta, 1981).

As a result of this unfortunate scenario, Italian architecture had ended up falling victim, once again, of those conservative academics that had ruled the universities and the profession of architecture during the fascist years, desolately returning to an elitist framework controlled by the upper class. Thus, post war reconstruction became contaminated by a politically driven process that ended up legitimizing the rightist catholic middle and upper class, which was more interested in building quantity rather than quality (Tafuri, 1990).

Within this political framework, major architectural interventions had to include the decentralization of industrial areas, consolidation of historical centers, and the design of new residential areas, which would be functionally and morphologically integrated with the existing urban fabric. New plans had been developed in order to guarantee connectivity between the inner historical cores and the peripheral outskirts. However, this strategy, mostly based on the functionalist agenda of CIAM, did not result in compatible models, but it ended up creating fragmentary urban conditions that still remain a major problem (Benevolo, 1988).

Nevertheless, Ernesto Rogers, a prominent Milanese architect and academic had tried, through a series of sharp and brilliantly written editorials for the architectural magazine *Casabella,* to reopen the debate on reconstruction, suggesting to break away from this technocratic functionalism that prioritized modularity, serialization, and mass production. While extremely critical of this quantitative framework, Rogers proposed the establishment of an alternative tendency, a methodology based a rational model typical of the residential schemes of German *Siedlungen,* which seemed to offer a methodological model more socially and architecturally compatible with the Italian landscape (de Seta, 1981).

## 2.0. TOWARD A COMMON TENDENCY
While cities were undergoing a process of unbalanced transformations, Aldo Rossi and Giorgio Grassi had been actively writing for the *Casabella* of Rogers, questioning the ideological nature of the functionalist city and proposing an alternative framework based on a morphological and typological understanding of the contemporary city which appeared to provide more urban continuity (Rossi, 1962). Between 1966 and 1967, with the publication of *L'Architettura della Città* and *La Costruzione Logica dell' Architettura*, Rossi and Grassi finally unveil their reevaluation of the discipline of architecture, which now ought to be grounded into an understanding of those primal forms (building types) that distinguish the modern European city. Both Rossi and Grassi asserted the inevitability of a rational methodology based on the generative qualities of dominant building types that would eventually set up architecture as the measure of architecture, elucidating its genealogy and future directions through a catalog of autonomous principles, mostly typological, which were particularly showcased in the San Rocco Housing Unit in Monza, Italy (Fig. 1).

Architecture was to be, in Aldo Rossi and Giorgio Grassi's words, an "autonomous phenomena" that required a disciplinary refunding; a tendency that rejected interdisciplinary remedies, and that did not pursue nor was immersed in the political, economic, social and technological events of the time (Hays, 2000). In so doing, architecture could reveal rather than suppress its own analytical creativity through focused interventions. Clearly, the methodological work of *Tendenza* seemed to offer an interesting case study of a design practice that focused more on an analytical understanding of the post war Italian cities and the implementation of a comprehensive urban plan based on the continuity of typological approaches.

*Tendenza,* originally formulated as a methodological response to the reductive aesthetic of the *International Style*, is usually associated to a Milanese group close to Aldo Rossi and Giorgio Grassi. While looking at its linguistic roots, the Italian word *Tendenza* underlines an attitudinal predisposition to act and behave in a certain ideological way; thus, the term itself implies the existence of a very well defined programmatic orientation driven by a common idea or methodological practice. This definition certainly provides the basic principles of this critical discourse, which was characterized by a rational impulse shared by many architects.

The Italian *Tendenza* was not a homogeneous movement that produced a particular architectural style; on the contrary, *Tendenza* listed a very heterogeneous number of practitioners and academics that shared a similar interest toward rationality only as a methodological framework. Interestingly enough, the term *Tendenza* was rarely used by this group of architects as it implied, in a sort of reductive way, a common and

generalizing formal production, but it was always understood as a procedural propensity indicative of a certain tendency that elucidated a rational architectural practice based on the understanding of dominant urban events (*fatti urbani*) and their processes of building/tectonic logic (Hays, 2000).
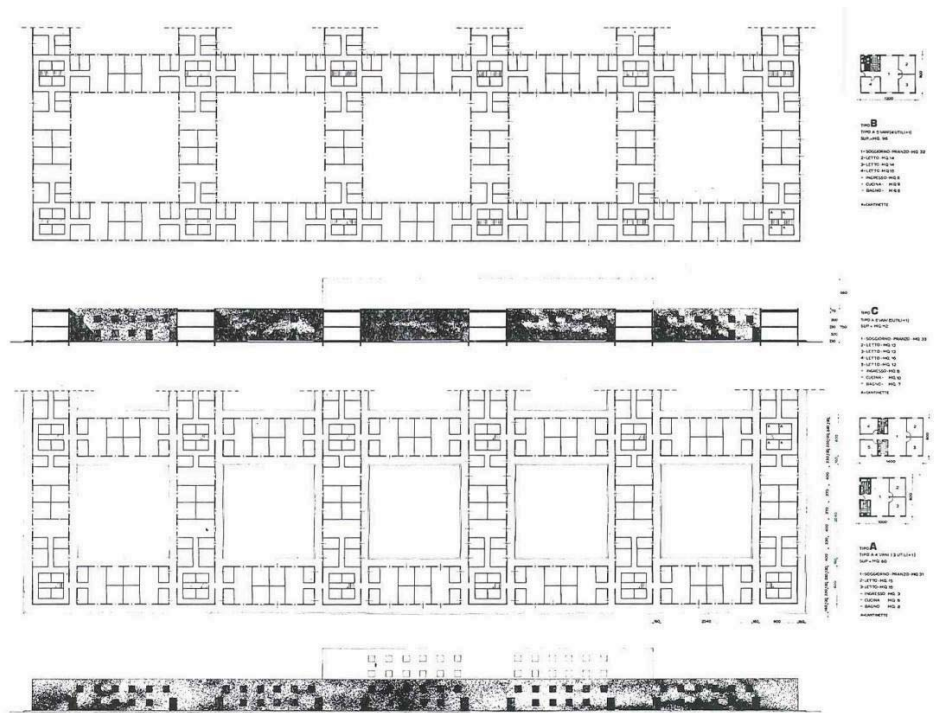


**Figure 1**: Giorgio Grassi and Aldo Rossi, San Rocco Housing Complex, Monza, Italy. (Giorgio Grassi, 1970)

Its heterogeneous, yet articulate, principles are often and mistakenly attributed to the audacity and talent of Aldo Rossi; yet, this rational tendency as well as its historical, urban, and didactic components, were rather the result of an intricate chronological process that saw the active involvement of other architects such as Giorgio Grassi, who particularly aimed toward the search for an appropriate design methodology that would characterize the rebirth of a discipline whose ideological and professional premises had been profoundly damaged after World War II. Pre-existing contextual components, the crucial role of history as a repertoire of architectural possibilities, the tradition of the European city, its urban fabric, and the intellectualization of the role of the architect are all characteristics of a discourse that defines the ideological premises of *Tendenza*, and consequently the work and practice of Giorgio Grassi.

## 3.0. GRASSI'S BUILDING LOGIC OF ARCHITECTURE
Giorgio Grassi graduated from the *Politecnico* of Milan in 1960, a year after Rossi. In 1961, Grassi becomes a key member of the editorial staff at *Casabella Continuità* until 1964; this is when Ernesto Rogers was forced to leave his editorial role to Gian Antonio Bernasconi. While at *Casabella*, Grassi becomes immediately very critical of conventional mainstream architecture; his early articles are based on an analytical reassessment of Tange's Tokyo's Plan, and Berlage's work in Amsterdam, which are both analyzed in terms of their typological and morphological qualities (Grassi, 1961).

In addition, Grassi shows a particular interests toward the ideas and work of German Proto-Rationalist architects Ludwig Hilberseimer and Heinrich Tessenow, who had developed an interesting process of formal recognition based on austerity and simplicity which aimed to reduce architectural form to the most basic condition (Lahuerta, 2000). There is indeed an increasing interest in defining those fundamental design principles that could consolidate an ongoing discourse, a tendency based on the understanding and complexity of the city and its embodied relationship between typological variations overtime. After the first methodological explorations of the early 60s, Grassi feels the necessity to overcome this recurring processual anxiety typical of young architects by putting together a treatise that would explain his particular theoretical approach.

Thus, *La Costruzione Logica dell' Architettura* was published in 1967 with the intent to set up a rational framework based on the necessity of a general rational-logical model that would elucidate a general theory of architecture. Grassi sees architecture as the sum of all architectures of the past; therefore, its prerogatives have to be found within its disciplinary domain. Architecture is also understood as a discipline where theory merges with practice in a sort of systematic process, and where its rules are inherently defined by architecture's inner logic, which ought to manifest itself typologically (Grassi, 2008). Architecture has to be understood as the product of a fabrication process, which involves a historical and material awareness absolutely free of any sort of formal ambiguity. Formal expressions have to be contained to the basic premises of architecture, where formal ambiguity is not a programmatic necessity.

Within this framework, Grassi describes and proposes certain theoretical and technical systems of investigation based on the collection of analytical urban data. This process generates a catalog of processual techniques that can be identified in particular building types, and that can be systematically classified and then analyzed to discover their general programmatic methodology. Grassi states that:

> The line of thought to which I refer is that of Rationalism. And I will say right away that I intend to designate the term Rationalism as a particular processual attitude (Grassi, 2008, 21).

First and foremost, a rational methodology is strictly connected to an understanding of the term *architetti della ragione*, or architects of the reason, such as Boullèe, Ledoux, and Durand who had tried to synthesize new formal solutions by combining elementary forms, also proposing a methodological system based on the meaning of historical and typological significance. In this context, Grassi defines rationalism as a particular cognitive attitude that informs methodological design choices (Grassi, 2008).

Additionally, architecture can't be reduced to a style, but it can only undergo a methodological classification that reflects a typological analysis; it is wrong to label a building or any piece of architecture rational because of its aesthetics. Grassi emphasizes this concept by looking at theoretical frameworks that underline the importance and absoluteness of reason above all, a necessity generated by an innate desire to locate fixed design variables that can be set as methodological rules (Grassi, 2008). It is essentially a deductive way of producing a system that demarcates the domain of architecture, or what Grassi calls 'the limits of architecture,' which set aside those disciplinary aspects that govern the options available for the architect (Grassi, 1982).

> Architecture is the architectures, so there is no theory of architecture that is not embodied into the experience of architecture…design can not be tautological with respect to the experience of history Grassi, 2008, 83).

The rules have to be found within the discipline of architecture itself, which is understood as autonomous in its forms and techniques, yet it cannot be tautological and thus repetitive of a historical condition that has clearly changed overtime time. This is unmistakably true when Grassi looks at significant form; we cannot propose identical architectural expressions, but we have to strive for a process that shows analogous methodological guidelines. Again, the best approach toward this rationalist direction is characterized by typological description and classification, which both define the objectives of architectural analysis. Grassi explains the process of description and classification as a preliminary way to recognize common traits or characteristics that are the expression of determinate technical and formal choices. This process is implemented to compare and contrast a specific object and its internal qualities with the scope of representing them in a diagrammatic way, which is immediately intelligible and applicable (Grassi, 2008).

Consequently, simplification is attained in order to increase architecture's disclosure of its regulatory system. It is a didactic way to undress architecture of any rhetorical and abstract meaning, exposing its bare foundations of design rules and norms. Ideally, form should be expressed with rigorous clarity. Thus, a process of classification is necessary, not to generate a repertoire of formal solutions, but to craft a method that exposes particular generative rules. It is not a point of arrival, but it is a point of departure. It is also a limit in a way that forms have already been set up for a particular building type, although variations are still possible under specific contextual conditions (Grassi, 1992). For instance, if a specific building type has already displayed, through a process of typological analysis, specific variations of form overtime, than further formal explorations are no longer necessary. Within this framework, we can still extract the original form uncovered from our preliminary analytical research and manipulate its distributive or programmatic qualities, generating new solutions by use of the original.

Grassi is openly not interested in formalist explorations, but he is also not an advocate of professionalism because that attitude supports a capitalistic view that needs to be detached from the architectural discourse. Grassi states that:

> I am not interested in professionalism since it represents the adhesion of the city to capitalism; I am interested in those experiences within the city that refuse the city itself and its capitalistic structure. I believe that this juxtaposition can't be solved by repeatedly using a rather rigorous formalistic approach. This extreme experimentalism must terminate. There is too much *kunstwollen* (Grassi, 1999, 176).

Interestingly enough, Grassi distances himself from a rather simplistic approach, even though he supports a certain straightforwardness of design methodology. To clarify his understanding of building types, he refers to Quatremère de Quincy who said that:

> The word type represents not so much the image of a thing to be copied as the idea of an element that must itself serve as a rule for the model.... The model, understood in terms of the practical execution of art, is an object that must be repeated such as it is; type, on the contrary, is an object according to which one can conceive of works that do not resemble one another at all. Everything is precise and given in the model; everything is more or less vague in the type. Thus we see that the imitation of types involves nothing that feelings or spirit cannot recognize (Lavin, 1992, 78).

It is important to note that types can be conceived as conceptual tools that identify the connections between new and old structures. While looking at Alexander Klein's research work on the most favorable dimensions for particular floor plan types, Grassi tries to understand the relationship, both formal and functional, between different typological schemes, which are underlined by subtle distributive and formal variations. Similarly, Grassi analyzes the work of Pierre Le Muet who, in *Manière de bait pour toutes sortes de personnes,* had analyzed how particular residential types change their architectural character according to their placement within the urban fabric (Grassi 2008). Thus, plans, sections and elevations are used to show how cadastral conditions have altered urban and architectural form by allowing a specific typological solution to emerge and consolidate itself overtime. The most important characteristic of this analysis is the simplification of a process that reduces residential types to simple diagrams that can be formally and functionally evaluated in their distributive and programmatic characters.

This is a clear representation of a rational and logical methodology that proposes a specific solution inherently responsive to precise contextual conditions. Rationality is thus seen as a way to order architecture in its internal building logic by giving it a consistent methodical structure. Grassi uses four different degrees of intentionality: transcription of tectonic necessities that influence form; description of typological variations due to technological and tectonic characters; representation of those changes through matrixes of classification; expression of specific contextual conditions both morphological and typological. In the end, Grassi's theoretical framework becomes the quantifier of the architect's practice. Interestingly enough, Grassi's methodology will remain rather consistent over the years, advocating the importance of a rational process that evolves without contaminating itself in extreme formalizations.

## CONCLUSIONS

The methodological practice of Giorgio Grassi has indeed showcased some interesting qualities particularly because his approach has been intrinsically underlined by a rigorous process that achieved visibility through normative production; indeed, such a methodology was only possible through the development of a rational approach that reflected on the nature of the limits of architectural production. In Grassi's work, most of those limitations are based on fixed moral and social connotations, which have been investigated in his other writings and essays collected in *L'Architettura come Mestiere ed Altri Scritti* in 1979, *Architettura Lingua Morta (Architecture Dead Language)* in 1988, *Progetti per la città antica* in 1995, and *Scritti Scelti* in 2000. Again, resilient to avant-gardism and its ambiguous formal explorations, Grassi's practice is still outlined by the same indivisible logic that avoided formalism by opting for a rational framework that elucidates the logical rules of architectural composition. Interestingly enough, Grassi's architecture still focuses on the conventional and ordinary conditions of architecture; his buildings are generated by a vocabulary of severe forms and signs that show no ambiguity or witty reference to historical or formal explorations.

From the students housing complex in Chieti, to the redesign of the historical center of Teora in Italy; from the restoration and rehabilitation of the Sagunto Roman Theater in Valencia (Fig.2), to the Potsdamer Platz complex in Berlin (Fig.3), Grassi's work has displayed a rigorous characterization of architecture constantly treated as a primordial collage of pure forms and volumes. While certainly isolationistic as a methodological attitude, Grassi's architectures have always remained the sum of all architectures from the past, and the inevitable accumulation of forms, solutions, and building types (Grassi, 1992).

The relevance of such a framework is recognizable in its method. By understanding Grassi's method, we should be able to look at the architectures of the past as a way to understand the building and design logic behind them, which should advocate for an autonomous methodology that refuses interdisciplinary solutions to its own crisis. Yet, it is not by replicating the past that we achieve autonomy, but it is by understanding its technicality and practicality that we will only be able to achieve modernity and continuity. Materiality and tectonics are understood as a primary factors in Grassi's methodology, a peculiarity that allows him to delegitimize form (Grassi, 1992). Again, Grassi's methodological process is based on the recognition of the limits of architecture and in the dichotomy between analysis and design process, which are understood as modes of architectural cognition. Yet, both are strictly related to this idea of architecture as a repository and collection of architectures. Grassi denies the utility of interdisciplinary solutions since those experiments are more focused on lateral explorations that end up distorting what Grassi calls *"forms of reference"* (Grassi, 1999).

**Figure 2**: Sagunto Roman Theatre, Valencia, Spain. (Pasquale De Paola, 2006)



**Figure 3**: Potsdamer Platz, Park Kolonnaden, Berlin, Germany. (Pasquale De Paola, 2002)

In conclusion, Grassi's methodological work has to be deconstructed and analyzed by looking at his didactic and pedagogical qualities; although Grassi's buildings have proven to be somehow austere and rigorous, his method has always been characterized by the same coherent recognition of architecture's own norms and rules. Furthermore, his interest in rationality has to be grasped by looking at typological analysis merely as a diagrammatic process of schematic and programmatic simplification. Indeed, Grassi offers a different methodological prospective that removes originality through scientific meticulousness while responding to conditions of disciplinary necessity. Upon reading this paper, it becomes rather apparent that for Grassi architecture should not be judged nor generated upon stylistic expectations, but it should be based on a coherent methodology that underlines the importance and absoluteness of reason above all, even above form. Considering the ambiguity of contemporary architectural production, perhaps too narcissistically immerse into digi-bio-techno ornamental models, Grassi's methodological rigor appears to be quite a refreshing return to the basics.

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