Emilio Faroldi (1961), architect and PhD, is Full Professor at the Politecnico di Milano, where his research activity addresses architectural design-related issues with a special focus on the relationships among concept, design and construction of the architectural phenomenon.

He organised meetings, training courses and international design seminars. For over a decade, he chaired and coordinated the Degree Programmes in Architectural Sciences and Architectural Design at the School of Architecture Urban Planning Construction Engineering of the Politecnico di Milano, where he teaches. He authored several publications and is currently Editor in Chief of the "TECHNE Journal of Technology for Architecture and Environment" and Director of the 1st and 2nd level Master's Degree in Sport Architecture (MSA), formerly Design Construction Management of the Sport *Infrastructures*. He teaches at the *International* Academy of Architecture, and since January 2017, has been Vice-Rector of the Politecnico di Milano.

Maria Pilar Vettori (1968), architect and PhD, is Associate Professor at the Politecnico di Milano. She teaches at the School of Architecture Urban Planning Construction Engineering of the Politecnico di Milano in the area of Technological Design of Architecture. She contributed to research and consulting projects concerning processes, methods and tools for programming, construction and management of architecture, with a particular focus on innovation in design and production processes for the structures and infrastructures for healthcare, wellness and sports, research and production. She has participated in and organised conferences, seminars and workshops, and has worked consistently on studies and publications.

Since 1990, Emilio Faroldi and Maria Pilar Vettori, along with Pietro Chierici, have been partners in their architecture firm. They participated in design competitions and built works in Italy and abroad, and were awarded several prizes and mentions. Their works have been featured in the main specialised magazines.

Is it possible to teach how to design? What is the paradigm that encloses the theoretical and applicational-experiential spheres of the architectural discipline?

Architecture is a heteronomous discipline that finds its reasons in the hybridisation and contamination of different forms of knowledge. The training of the architect, as an intellectual and a technical professional, requires a deep and radical meditation on the foundations of educational programmes, the relevance of teaching models and learning tools. The Schools of Architecture represent the realm in which the student, in Louis I. Kahn's words, is called to meditate on whatever is exchanged and on its utility. As a place for the learning, experimentation and testing of the most advanced techniques and tools of a discipline, the institutions must necessarily open their cultural and educational project to a critical dialogue, with the prospect of expanding their horizons and international exchanges. The School, as the ultimate seat for the production and transformation of knowledge, aims at training skilled graduates in the conception, design, construction and management of architecture, who are capable of handling the complexity of design understood as a synthesis of skills. The polytechnic approach is the key for shaping recognisable and specific professional competences, at the same time complementary and synergic, within an evolving professional and production scene that requires skills and tools aimed at networking, flexibility and dealing with change in the contemporary world. The dialogue between two brilliant institutions in the European context, sharing a polytechnic approach, the School of Architecture Urban Planning Construction Engineering of the Politecnico di Milano (AUIC) and the Escuela Técnica Superior de Arquitectura of the Universidad Politécnica de Madrid (ETSAM) provides an opportunity for meditation aimed at triggering an active and productive discussion about the methods and tools of teaching architecture.

ISBN 978-88-6242-486

milio Faroldi | Maria Pilar \

TEACHING ARCHITECTURE
TWO SCHOOLS IN DIALOGUE

edited by Emilio Faroldi Maria Pilar Vettori

FRANCESCA BONFANTE
FEDERICO BUCCI
ANDREA CAMPIOLI
EMILIO FAROLDI
GENNARO POSTIGLIONE
ALESSANDRO ROCCA
ILARIA VALENTE

MARIA PILAR VETTORI

CINO ZUCCHI

TEACHING ARCHITECTURE



TWO SCHOOLS IN DIALOGUE

JESÚS Mª APARICIO GUISADO

MANUEL BLANCO LAGE

ALBERTO CAMPO BAEZA

JESÚS DONAIRE GARCÍA DE MORA

EMILIO TUÑÓN ÁLVAREZ

IGNACIO VICENS Y HUALDE





«The process is mutual; for men learn while they teach».

Seneca

ISBN 978-88-6242-486-7

First edition April 2021

- © LetteraVentidue Edizioni
- © Emilio Faroldi, Maria Pilar Vettori

This volume was also published in Italian with the title "Insegnare l'Architettura", ISBN 978-88-6242-441-7

English text editing: Antonella Bergamin

Total or partial reproduction by any medium, including photocopy, even for internal or educational use, is prohibited. For the Italian law, photocopying is only allowed for personal use, provided it does not damage the author. Therefore, any photocopy that prevents the purchase of a book is illegal and threatens the survival of a way of transmitting knowledge. Whoever photocopies a book, provides the means to photocopy, or in any way promotes such practice commits theft and damages culture.

The images of this book qualify as «fair use» (Copyright Act 17 U.S.C. 107), as they are aimed at historical commentary and teaching. In the event of any omission or error in the copyright of illustrations, we will be glad to amend such infringement in the next reprint.

LetteraVentidue Edizioni Srl Via Luigi Spagna 50 P 96100 Siracusa, Italia

www.letteraventidue.com

edited by Emilio Faroldi Maria Pilar Vettori

FRANCESCA BONFANTE
FEDERICO BUCCI
ANDREA CAMPIOLI
EMILIO FAROLDI
GENNARO POSTIGLIONE
ALESSANDRO ROCCA
ILARIA VALENTE
MARIA PILAR VETTORI
CINO ZUCCHI

TEACHING ARCHITECTURE

TWO SCHOOLS IN DIALOGUE

JESÚS Mª APARICIO GUISADO

MANUEL BLANCO LAGE

ALBERTO CAMPO BAEZA

JESÚS DONAIRE GARCÍA DE MORA

EMILIO TUÑÓN ÁLVAREZ

IGNACIO VICENS Y HUALDE



CONTENTS

Emilio Faroldi, Maria Pilar Vettori	7
Prologue	
ESSAYS	
Emilio Faroldi Teaching architecture	20
Alberto Campo Baeza For an architectural knowledge	34
Ilaria Valente Tradition and perspectives of the School of Architecture of the Politecnico di Milano	42
Manuel Blanco Lage Teaching architecture at the <i>Escuela Técnica Superior de</i> Arquitectura ETSAM of the Universidad Politécnica de Madrid	56
Federico Bucci Judging or understanding? The sense of history	66
Ignacio Vicens y Hualde Teach what you know	74
Maria Pilar Vettori Designing construction	78
Jesús Mª Aparicio Guisado Building with the reason and with the senses	88

Cino Zucchi Fail, Fail Again, Fail Better. The question of the value of teaching architecture	96
Emilio Tuñón Álvarez Do not fail. Teaching as an endless dialogue	106
Jesús Donaire García de Mora The School of Milan and the School of Madrid: comparing models	118
Francesca Bonfante The <i>Architettura e Disegno Urbano</i> Study Programme at the Politecnico di Milano	128
Andrea Campioli Teaching architecture, educating to design	140
Gennaro Postiglione, Alessandro Rocca Teaching design: training, theory and research	150
APPARATUS by Silvia Battaglia and Francesca Daprà	
Biographies of the authors	164
Bibliography	169



THE ARCHITETTURA E DISEGNO URBANO STUDY PROGRAMME AT THE POLITECNICO DI MILANO

Francesca Bonfante

re the teaching methods and relationships between theory and practice questionable today? Such question arises spontaneously in an age when the city, with the architecture that fundamentally constitutes it, seems to have entered a sphere that escapes any judgment and distinction – an age characterised, to paraphrase Lyotard, by the decline of "grand narratives" when any foundational notion of city seems to have become impossible.

Terms originally referred to the economic context such as "mondialisation" and "globalisation", later extended to the information, communication and cultural industry technologies, to embrace finally the very idea of city, often imply that it is no longer necessary to question their meaning. Indeed, the argument of the emergence of a "world culture" seems to be very controversial, as demonstrated by several famous books that present even distant points of view. The current situation of economic, energy, overpopulation and ecological debt crisis, the effects of which reverberate not only on the chaotic development of world megalopolises but even on the suburbs and metropolitan conurbations of "developed" countries, calls for a deep meditation about the role of cities and the adequateness of the current regulations in terms of architectural design and urban planning.

The aporia of the School of Milan

An interpretive hypothesis suggests that in Milan the role of the School of Architecture in the context of the polytechnic culture² and of institutional design

^{1.} DAVIS Mike, Il pianeta degli slum, Feltrinelli, Milan, 2006; Koolhaas Rem, Junkspace. Per un ripensamento radicale dello spazio urbano, MASTRIGLI Gabriele (ed.), Quodlibet, Macerata, 2006.

^{2.} The debate about the relationship between engineering and architectural disciplines in teaching and professional prac-

that supported it has always influenced the academic and professional trajectories in a way that triggered tensions and sometimes heated inner contrasts.

The foundation of the identity of the School of Milan relies, on one side, on a top-quality professional culture, which represents – perhaps in the past more than today – an enlightened bourgeoisie and an industrial *élite*, and, on the other side, on a deep belief in the central role of teaching as a practice that is fully entitled to address the transformation processes of the city.

The most meaningful heritage resulting from Rogers' lesson, beyond the obviously meaningful recognition of his work, is perhaps the equal dignity a holistic and experimental teaching claims towards prestigious professional practices. In Milan, teaching meant "creating architecture"; I believe that missing this point would mean missing the core of the discussion.

Almost a decade ago, in 2010, the "School of Milan" was the subject of two books written by Antonio Monestiroli and Guido Canella⁴.

About the contradiction between complexity and simplification within the twentieth century theoretical debate⁵, Monestiroli wondered why contemporary

tice has a long tradition. Here, we will only refer to some essays by Camillo Boito: L'architettura odierna e l'insegnamento di essa. Parte seconda, in "Il Giornale dell'ingegnere, architetto e agronomo", November 1860, pp. 380-396; L'architettura odierna e l'insegnamento di essa. Parte terza, in "Il Giornale dell'ingegnere, architetto e agronomo", November 1860, pp. 579-591; Insegnamento e professione, in "Questioni pratiche di Belle Arti", Hoepli, Milan, 1893, pp. 353-369.

^{3.} CANELLA Guido, A proposito della Scuola di Milano, Ulrico Hoepli, Milan, 2010; MONESTIROLI Antonio, La ragione degli edifici. La Scuola di Milano e oltre, Christian Marinotti, Milan, 2010.

^{4.} The two authors were among the founders of the Faculty of Civil Architecture of the Politecnico di Milano, established in 1997, whose deans were Antonio Acuto (1997-2000), Antonio Monestiroli (2000-2008), Angelo Torricelli (2008-2015).

5. A contradiction, according to Monestiroli, that only the pursuit of the reason of buildings could solve. The same

^{5.} A contradiction, according to Monestiroli, that only the pursuit of the reason of buildings could solve. The same principle underlay the work of Albini, Gardella, Rogers, Asnago e Vender, Grassi, Rossi and, along with them, Libera,

architecture had forsaken any theory that could have shaped a new phase of modernity and found two main reasons for such attitude. «The first reason concerns a general transformation in the culture of the time. The age of industrial production, when the notion of construction had a deep, even epic, meaning of construction of the world, was followed by the age of communication and its inherent hegemony of images»⁶.

Architecture was equally reduced to pure image and design lost its central role of transformation of reality, stripped of the hope for a better world. «The second reason for the crisis of theory in the second half of the twentieth century, - Monestiroli continues – concerns the relationship between architecture and the city that, in the post-WW2 period, changed deeply. The relationship between buildings and contexts of the historical city underwent a radical change with the new dimension of settlements, the radical transformation of infrastructures, the new relationship between unbuilt spaces and built spaces that, as argued by Giuseppe Samonà, ceased to be a relationship between two recognisable entities, city and countryside, and became the superposition of realities that intersect and create an entirely new landscape in which architecture may play a crucial role»⁷. The followers of Rogers - Aldo Rossi, Guido Canella, Vittorio Gregotti, Giorgio Grassi in Milan; Gianugo Polesello and Luciano Semerani in Venice; Carlo Aymonino in Rome, among others - interpreted the relationship between architecture and the city in various formal ways in terms of poetics. However, all their approaches relied on one goal - knowing and practicing a critique of the reality of their time or, as György Lucaks would have said, practicing a "critical realism"8.

On his part, Canella, precisely in discussing the critical interpretation of the generation of followers, defined the different approaches to typology with reference to the city9: «Our convergent

the Roman architect more similar to the Milan school who, along with others, established a recognisable school of thought, the School of Milan.

^{6.} MONESTIROLI Antonio, op. cit., p. 15.

^{7.} Ivi, pp. 17-18.

^{8.} LUCAKS György, Il significato attuale del realismo critico, Einaudi, Turin, 1957.

^{9.} Canella's book, the result of the lesson held during the 2006-07 academic year within the Theories of Architectural Design course directed by Monestiroli himself at the Facoltà di Architettura Civile [Faculty of Civil Architecture], explores the forms of Italian and Milanese modern architecture through the generation of the "masters" and the generation of "Rogers' followers" mentioned above. In this regard, Canella mentions two texts from the mid-1960s: Canella Guido, Sulle trasformazioni tipologiche degli organismi architettonici (disegno di un trattato di architettura), lecture notes, Istituto di Composizione della Facoltà di Architettura



Bertolt Brecht, Mutter Courage und ihre Kinder (Mother Courage and Her Children), 1938-39: staged by Bertolt Brecht at the Kammerspiele of Munich, 1950.

interest in the enhancement of the typological analysis aimed at the critical review of the experience of the Modern Movement, although it was morally legitimised as an avant-garde resulting from a sudden state of necessity triggered by either aesthetic, sociological, economic, technical, functionalist reasons. We countered such interpretation with the enduring meaning of architecture in the transformation of the city. However, ours were two different critical interpretations of the concept of typology: while the interpretation proposed by Aymonino and Rossi was

del Politecnico di Milano, Milan, 1965, the result of a research conducted by Canella and funded by the Ministero della Pubblca Istruzione [Ministry of Public Education] in 1964; AA. Vv, Aspetti e problemi della tipologia edilizia. Documenti del corso di Caratteri distributivi degli edifici, Cluva, Venice, 1964, a collection of lessons held by Aymonino and Rossi at the IUAV in 1963-64.

constatational and taxonomic, my interpretation aimed at a propulsive role through its active use of structural transformation and representational architecture in the context¹⁰.

In this sense, I think I can argue that the key assumption of the School of Milan is the argument about the "structure" of the city, a work that fully encapsulates the theoretical tension of the different protagonists, both in terms of the clear material and formal implications, and of its epistemological potential. Within such frame, two lines can be recognised by following the cues of the two books mentioned above11. One is more inclined to a rational explanation of the architectural practice, to a peremptory definition of architecture as an essence made of stable, absolute and unchanging facts in time, where the city is a collective production of which architecture represents a subjective and at the same time collective manifestation. The other, beyond any descriptive classification of urban phenomena, rather aims at identifying in the *forma urbis* the manifestation of structural factors, and in the typo-morphological device the design synthesis of even discontinuous urban facts in space and in time. An actual "spatial device", variable and original with respect to the conditions of the context, understood as the historical development of a landscape in a structural and anthropological sense¹².

Precisely in Milan, today we may perhaps recognise some positive signs of the debate about the contemporary city, finally immune to the "war of neologisms" of recent years, provided we are able to overcome the historical contradiction between "critical realism" and "false conscience" of the disciplinary and academic culture¹³.

^{10.} CANELLA Guido, A proposito della Scuola di Milano, Ulrico Hoepli, Milan, pp. 76-77.

^{11.} The heritage of the first generation was later expanded in several directions according to a complex geography that ranges from Sergio Crotti's morphological researches to Enrico Bordogna's typological-figurative researches.

^{12.} A conceptual and methodological approach with deep roots in the Milanese architectural and urban planning culture between the two wars, in particular in the often-ignored studies and proposals presented by Giuseppe De Finetti and inspired by an inherent inclination to realism. De Finetti explores the city starting from its historical, physical and structural individuality and reaches different design hypotheses based on the themes and scales of intervention, where layouts and figures are subject to a higher order induced by the very breath of the city. A special approach that carries theory into practice.

^{13.} About the contemporary city, see the PRIN research conducted by Alessandro Balducci Territori post-metropolitani come forme urbane emergenti, 2012-16 and AA. VV., Oltre la Metropoli. L'urbanizzazione regionale in Italia, BALDUCCI Alessandro, FEDELI Valeria, CURCI Francesco (eds.), Guerini e Associati, Milan, 2017. About the contradictions between "reality" and "ideology", instead, see VERCELLONI Virgilio, Dal Piano del '53 al Piano Intercomunale, in "Casabella", 451-452, October-November 1979, pp. 52-55: «The relationship between

Forty years ago, Fernand Braudel warned about the forecasts about the future and a "catastrophist" vision of the present: «As a matter of fact, man changes pace. Civilization, all civilizations, all our material, spiritual, intellectual activities are affected by such change. [...] The present cannot be a boundary, which all centuries, heavy with eternal tragedy, see before them as an obstacle, but which the hope of man, ever since man has been, has succeeded in overcoming»¹⁴.

For this reason, we wonder, with the eye of Europe and the Italy of one hundred cities, whether a notion of "destructured" physical environment may be opposed to that of the "culture of the city", a major achievement of late twentieth century Italian architecture, thereby implementing alternative growth models in order to reclaim active or "missing" resources.

The institutional frame: designing or teaching

We discussed the relationship between architecture and the city during the process that led to the definition of the educational content of the *Architettura e Disegno Urbano* [Architecture and Urban Design] programme, the result of a complicated reorganisation of the Master's Degree Programmes in Architecture within the Politecnico, promoted in 2013 by a Committee established by the da Academic Senate. Such process was part of a wider institutional frame and articulated in some fundamental steps I will try to resume briefly.

Clearly, this is not the appropriate place to take stock or make assessments about the relationships between University policies and the issues of the Schools of Architecture. However, now (March 2019) that the gates of what once was the *Scuola di Architettura Civile* [School of Civil Architecture] in the Bovisa district (via Candiani) have luckily reopened and students are back, it seems legitimate to have some afterthoughts about the reasons and the *ratio* of that process.

[&]quot;anthropic geography" (which is approach and analysis starting from the structural phenomena that produce it, and from the "specific laws" that guide its development process) and "urban planning" was in our country, in particular in those years, but even today, an irredeemable dichotomy between "reality" and "ideology", certainly to be understood as "false conscience", presented by the parties as a conflict between "trivial pragmatism" and "urban planning culture"; text quoted and contextualised in ACUTO Federico, Lucio Stellario d'Angiolini. Un'altra prassi urbanistica. Scritti 1956-1955, Maggioli, Santarcangelo di Romagna, 2012. 14. Braudel Fernand, Scritti sulla storia (1969), Bompiani, Milan, 2001, pp. 265-268; eng. ed. On History, The University of Chicago Press, Chicago 1980, p. 271.

So, the first step was the unification, in the 2014-15 academic year, of the Scienze dell'Architettura [Architectural Sciences], Architettura Ambientale [Environmental Architecturel. Architettura delle Building Costruzioni Architecturel. *Progettazione Architettonica* [Architectural Design] programmes (class L17), at the time offered by the Politecnico through its Scuola di Architettura e Società [School of Architecture and Society] (for the first two programmes), and its Scuola di Architettura Civile [School of Civil Architecture] (for the second two programmes) into one *Progettazione dell'Architettura* [Architectural Design] programme.

The educational project aimed at establishing a programme based on design and at preserving the yearly *Architectural Design Workshops* for the first two years¹⁵. Such workshops were understood, as Angelo Torricelli underlines, as meeting spaces that «represent, in recent times, the most relevant contribution to the definition of educational facilities adequate to the education of future architects»¹⁶.

The second step was the establishment of the new *Scuola di Architettura Urbanistica Ingegneria delle Costruzioni* [School of Architecture Urban Planning Construction Engineering] (AUIC) in January 2016, as the result of the unification of the Schools of *Architettura e Società*, *Architettura Civile*, *Ingegneria Edile-Architettura*.

The cultural project of the School anticipated the issues and the problematic realms to be explored in the articulation of the reformed educational projects of Master's Degree Programmes and of refinement and review of the content and goals and of the Bachelor's Degree Programmes. It also underlined «the need to candidate the School to become the point of reference of a process of deep change that requires important contributions both on the level of innovative processes capable of restoring competitiveness, and of defining a turning point in the quality of future habitat»¹⁷.

The third step was the reform of the class LM4 Master's Degree Programmes according to some fundamental goals – defining a clear educational offer characterised and free from

^{15.} It is worth mentioning that not everyone agreed with the educational project; a central issue was the half-yearly or yearly duration of Workshops.

^{16.} TORRICELLI Angelo, Architetto chiamerò colui..., in "Architettura Civile", 11/12/13, 2015, p. 2.

^{17.} Scuola AUIC, Progetto culturale e didattico, 2015.

superpositions; placing the offer with reference to the Italian and international contexts; establishing a closer relationship with the *Progettazione dell'Architettura* [Architectural Design] Bachelor's Degree Programme; detailing the theme characters with reference to departmental researches; achieving a stronger international character¹⁸.

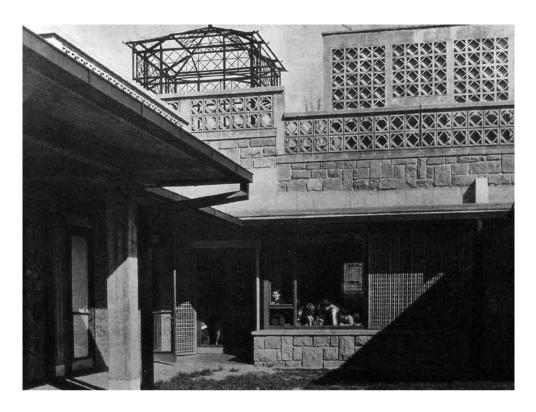
It was decided to reorganise, in the Milan seat, two Programmes with the same number of students (440 between Italian and international students), with a six-month educational structure – which raised some controversy. One was called *Architettura – Ambiente Costruito – Interni* [Architecture – Built Environment – Interiors], the other was called *Architettura e Disegno Urbano* [Architecture and Urban Design].

The two reformed study programmes shared the policy of avoiding a fragmented offer, and rather opted for the activation of only two PSPAs, with similar paths in Italian and in English. The first year offered the same programme to all the students, while the second year offered thematic and final workshops aimed at exploring specific design issues also in view of the Degree Thesis.

In the case of *Architettura e Disegno Urbano* [Architecture and Urban Design], the goal was and is pursuing some key goals – multi-disciplinary education, experimental approach, critique workshop.

"Multi-disciplinary education" reflects the need to combine the contributions from the Italian design, theoretical, humanistic and artistic tradition with the changes and contaminations of home-living cultures, the forms and spaces of the contemporary city, the settlement phenomena of emerging countries, constructional innovation and environmental sustainability. In other words, training a cultivated architect who is aware and capable of combining knowledge with practical skills and of achieving design syntheses at the various scales with the contribution of a multiplicity of notions and techniques. In this frame, different realms are required to take responsibility with reference to

^{18.} The two Architectural Design and History and Sustainable Architecture and Landscape Design programmes, established in the 2015-16 academic year, were confirmed in Mantua and Piacenza; the Architettura delle Costruzioni [Building Architecture] programme was confirmed with slight variations in Milan, while it was considered that it was necessary to reorganise the Architettura [Architecture] and Architettura-Progettazione Architettonica [Architecture-Architectural Design] Programmes, respectively available at the Scuola di Architettura e Società [School of Architecture and Society] and at the Scuola di Architettura Civile [School of Civil Architecture].



Mario Ridolfi, Wolfgang Frankl, Olivetti Kindergarten in Canton Vesco, Ivrea, 1955-63.

design's fundamental choices and to prepare the students to recompose their different educational experiences in a unified frame in a way that does not express a univocal cultural point of view but highlights their specificity with respect to overall education, as university education is expected to do.

The "experimental approach" is understood as the interweaving of different forms of knowledge and disciplines, between research and teaching, in the dialogue on a common ground – the transformation of physical environment.

The "critique workshop" is the place where experiments and critique are developed jointly by teachers and students, according to the best tradition of Schools of Architecture. The issue of the transformation of physical environment was considered as a key discriminating element for the critical interpretation of the city and its future development – a concrete, sometimes "invisible" palimpsest that reveals tensions and conflicts, permanent and changing elements.

The 2018-19 academic years marked the conclusion of the first two-year programme in its renewed organisation and the first Degree Thesis were presented in July. Therefore, it will be

necessary to assess to what extent the initial resolutions have been actually achieved.

An open conclusion: an old issue and some keywords

I rely once more on the words of a master, Le Corbusier, who said about teaching architecture, «I would strive to inculcate in my pupils a keen sense of control, of unbiased judgement of the "how?" and "why"... I would encourage them to cultivate this sense till their dying day. But I would want them to base it on an objective series of facts. Facts are fluid and changeable, especially nowadays, so I would teach them to distrust formulae and would impress on them that everything is relative. [...] Now that I have appealed to your sense of honesty, I should like to inculcate in you, and in all students of architecture, a hatred of "drawing-board stylism", which is merely covering a sheet of paper with alluring pictures, "styles", or "orders" – these are fashions. But architecture is space, breadth, depth, and height, volume and circulation. Architecture is conception of the mind. It must be conceived in your head, with your eyes shut. Only in this way can you really visualise your design»¹⁹.

Do we still believe in that?

If you learn architecture from architecture, and you learn the city from the city, rather than from the accretion of technical and regulatory notions, the main goals we should pursue in teaching should be education to a careful training of the eye and of judgement, refinement of the critical skills in order to decipher the complexity of reality and recognise quality in the huge amount of contemporary production. And again, if the problem of the transformation of physical environment can be an essential discriminating element for the critical interpretation of the city, how can we conceive its relationship with architectural design and its teaching? Is it still possible to rely on the masters of late twentieth century Italian architecture?

Presentifying and making reality. In 1961, Rogers wrote, «Architecture is conceptually a synonym of life, and not just of the life we experience, but of the life that testifies to our passage among the present and future beings. Making an architecture means "presentifying" the past and "futuring" the present. Whoever fails to grasp such fundamental principles, should

^{19.} LE CORBUSIER, If I had to teach architecture? Rather an awkward question..., in "Focus", 1, 1938, now in "Casabella", 766, May 2008, pp. 6-7.

neither be an architect nor teach others to become one»²⁰.

Taste and formal expression. When he presented the programme for a course about the *Characters of buildings*, Ludovico Quaroni mentioned «a history of taste, conducted on a scientific level, by considering taste as the formal expression of a society, in other words by considering form not in itself but as the result of a culture, a technique, a psychology, etc. [...] by considering function as not limited to the material requirements of the organisation of environments and services, but extended to the structure and fulfilment of all the psychological and spiritual needs, and by considering aesthetics as the result of a particular way of solving the problems of function»²¹.

Theatricality and figuration. Bruno Zevi tellingly entitled his review of the kindergarten built by Mario Ridolfi for Olivetti in Canton Vesco for "L'Espresso" magazine, Mario Ridolfi in Ivrea. A green stage for children²². This work, a cheerful celebration of child life, can be taken as an example of a way of expressing a figurative quality both inside and outside a design, in a way that epically interprets the destination and the programme of behaviours, participates with its independence in the surrounding diorama, and bestows an unexpected theatricality upon the landscape²³.

Estrangement and transformation. On the other hand, Bertolt Brecht, with the use of Verfremdung (estrangement) in his epic theatre – most clearly in Mother Courage and Her Children²⁴ – adopts an overtly "political" scenic practice in order to restore the pedagogic function of theatre (for example expressed by religious theatre) and encourage the spectator to use rationality rather than pure emotion, in order to understand that human condition can, and should, be transformed²⁵.

^{20.} ROGERS Ernesto Nathan, Architettura assurda, in "Casabella-Continuita", 257, November 1961, p. 1.

DET 1901, p. 1. 21. QUARONI Ludovico, Caratteri degli edifici, in "Metron", July-August 1947, pp. 25-34.

^{22.} Zevi Bruno, Mario Ridolfi a Ivrea. Un palcoscenico verde per l'infanzia, in "L'Espresso", 21 August 1966, now in Zevi Bruno, Neorealismo a Ivrea razionale in "Cronache di architettura", vol. VI, Laterza, Bari, 1970, pp. 271-274.

^{23.} About the relationship between theatricality and figuration, a constant concern of my educational and research activity, see BONFANTE Francesca, Teatralità e figurazione per la citta. Scritti sul progetto e l'insegnamento dell'architettura, Il Poligrafo, Padua, 2015.

^{24.} BRECHT Bertolt, Mutter Courage und ihre Kinder, 1939, staged for the first time in Zurich in 1941.

^{25.} The estrangement method was adopted by Viktor Sklovskij in his Marco Polo; in retracing the extraordinary adventures of Il Milione, in order to reveal new and unusual aspects of reality, Sklovskij relies on an imagination activity that can transpose the object from its usual

Transforming the physical environment through design, practicing a critical-operational activity, imagining (a piece?) of the future city, expressing taste and character – I think these are the tasks of our teaching activity.

However, I wonder how – within the array of tools, methods, languages provided by a Study Programme/educational and scientific community – a student may find his own "red thread", his own way of developing a critical skill, achieving a responsible act, choosing his own references²⁶.

There is certainly a dichotomy between what students learn from the most significant examples of the past centuries, of the Modern Movement and of contemporary architecture, and the contradictory landscape of the current city. On the other hand, the wide availability and the often acritical use of digital platforms make it difficult for them to imagine the construction of a different city without taking refuge in the pure world of image. They need to learn to analyse, compare, recognise. Only then, can the student express, through design, his own not impromptu voice and the new generations may constitute a new force of transformation.

BIBLIOGRAPHIC REFERENCES

perception to the sphere of new perception, by using image not to make its meaning more understandable but to create a particular perception of the object, its "vision" rather than its "recognition". Sklovskij Viktor (1936), Marco Polo, Il Saggiatore, Milan, 1972.

^{26.} About the question of references, see BONFANTE Francesca, Progettare con i riferimenti, in Aa. Vv., Atlante di progettazione architettonica, PALMA Riccardo, RAVAGNATI Carlo (eds.), Città Studi Edizioni, Novara, 2014, pp. 268-283. The book presents the contributions of architectural design professors from different Italian universities about four issues: Designing with texts, Designing with places, Designing with references, Designing and composing.

Le Corbusier, If I had to teach architecture? Rather an awkward question... in "Focus", 1, 1938, London; it. ed. Se dovessi insegnarvi architettura? Davvero una domanda difficile..., in "Casabella", 766, May 2008, pp. 6-7.

ROGERS Ernesto Nathan, Architettura assurda, in "Casabella-Continuita", 257, November 1961, p. 1.

CANELLA Guido, A proposito della Scuola di Milano, Ulrico Hoepli, Milan, 2010.

MONESTIROLI Antonio, La ragione degli edifici. La Scuola di Milano e oltre, Christian Marinotti, Milan, 2010.

TORRICELLI Angelo, Architetto chiamerò colui..., in "Architettura Civile", 11/12/13, 2015.