Editorial

Chiara Vernizzi, Enrico Prandi
More on the relationship between drawing and project

Abstract
Is there still a need to reflect on a classic theme of the disciplinary research of architecture such as the relationship between design and project? We think so, for a few reasons. It is no coincidence that many architects – defined Masters for their suggestion of a way forward in the project – have directly or indirectly expressed an opinion on this crucial theme of architectural research, reaffirming its importance as an irreplaceable tool. But the ultimate reason is the change in the boundary conditions given by the evolution (or involution) of the expressive instrumentation available to the practice of the project. Faced with the danger that CAD will turn from a tool to help drawing into a design tool, it is not superfluous to reiterate on the one hand the fundamentals of the design discipline and on the other the importance of hand drawing.

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In addition to the specific research of the discipline, entire schools have been built in the world that have made drawing a characteristic feature of the methodological approach such as the Auckland Drawing School; research centres and a multitude of archives have been built (starting from the MAXXI in Rome, the CSAC in Parma or the AAM in Rome) that aim to collect, enhance and show the project through drawing.

Is there still a need to reflect on a classic theme of architecture such as the relationship between design and project?

Yes, if we consider the change in boundary conditions caused by the evolution (or involution) of the expressive instrumentation available to the design practice. Faced with the danger that technological tools to help drawing (the so-called CAD) will be transformed from "tools to help drawing" to "design tools" it is not superfluous to reiterate on the one hand the fundamentals of the design discipline and on the other the importance of a conscious use of this tool and the consequent recovery of hand drawing. By awareness we mean an attitude of subordination of the it tool with respect to a project idea. The mind that naturally guides the hand containing the pencil should also be the protagonist in guiding the technological medium constituted by the mouse or digital pen. In the background of this hope there is always the fundamental call to understand architecture as an expression of a complex thought (of a system of values, including symbolic) and its representation a sign (de-sign) never reducible to a simple image. In or-

Fig. 1
Guido Canella, *Auguri per il 1958 da Michele Achilli, Daniele Brigidini, Guido Canella.*
Guido Canella Archive Milan.

der for the many images that carry simplistic and codified design solutions (as captivating as they are empty of meaning) that nowadays anticipate the project for promotional purposes to become authentic representations of the project, it is necessary that the image becomes a "figure", that is, introducing a metaphorical third dimension of depth that encloses the many aspects of architecture.

The aim of the call for papers underlying this issue of FAM is to solicit critical reflections on the relationship between design and design, understood as a tool for the elaboration, development and expression of the design idea, first, and as a means of final communication of the technical and formal data of the project, then.
The dual purpose (towards the authors of the texts and the final readers) is to stimulate a reflection on the meaning of the design of the architectural project, on its intrinsic value of figurative expression, on its being an instrument of study, prefiguration, evaluation and communication of the design results, but also (and above all) on its meaning as an instrument of reflection and expression of poetics, Not only architectural, of those who use it to express themselves.
Referring to the debate started in 1980 by the Centro Studi e Archivio della Comunicazione - CSAC in the working meetings on *Il disegno dell'architettura*[1] (Bianchino 1980), – recalled in the number of the article by Lucia Miodini –, and continued over the years at national level thanks to numerous studies and thematic exhibitions, including, for example, the one on *Architectural drawings. Five Italian stories. Carlo Aymonino, Guido Canella, Gabetti & Isola, Paolo Portoghesi and Aldo Rossi*[2] –, intends to start a reflection on the close relationship between drawing and design with particular reference to some themes such as the always current and essential role of manual drawing, and in particular of the "sketch", in the early creative phases of the project and the role played in the last thirty years by digital tools for the representation and management of the project. Today, in fact, we cannot speak of project design without reflecting on the revolution that since the end of the last century has invested architecture and its formation: the advent of digital design in all its forms. In this sense, if a type of drawing (the initial one, the sketch) continues to be practiced

On the following pages: images taken from the articles of the selected authors.

as an essential tool for communicating the idea in its initial stages (and its teaching becomes an element of cultural resistance), the representation of the project has been completely invested by the digital revolution. Not to mention, finally, the tools used for the communication of the project that uses the same images represented.

The current challenge is undoubtedly that of a conscious use of digital drawing as a personal tool and characterizing the subjective poetics of each author. Some contemporary architecture firms have shown how it is possible to bend computer science (and, specifically, digital design) in the characterization of the project, exploiting its peculiarities not only for the management of the design process (from conception to executive design), but also to control new, unconventional forms, whose visualization and subsequent development would be impossible with traditional tools.

The goal today is to be able to integrate the two approaches, traditional and digital (and related interoperability aspects now essential) in the full conviction that the sketch, an intimate act of approach to the project idea, remains an irreplaceable moment of reflection and intrinsic dialogue and that, only later, the use of the vast panorama of digital tools and processes can develop and best express the potential of the project, declined according to the most personal graphic-expressive poetics.

In this regard, within the Italian architectural culture of the second postwar period (the context in which the magazine traditionally moves) some figures of Italian architects (from Aymonino to Rossi, Canella, Portoghesi, Gabetti & Isola, Purini, etc.) have in fact used drawing not only as a tool of mere technical representation, but as a personal expression of the language of the project, pushing it further, to the point of attributing to it an essential role in the construction of the theory as well as of the poetic specification, as emerges in the study by Carlo Mezzetti (2003).

Originally, in order to make the contributions more intelligible, it was planned to organize the articles into two sections: the first, drawing as a tool for project ideation; the second, drawing as a communication/prefiguration tool for the project.

The first section should have investigated the role, the ways and the expressive poetics related to the sketch as a moment of personal approach to the architectural project; its role in the formation and refinement of the project idea; to the tools and ways used in the definition of a real personal expressive poetics, which becomes a peculiar stylistic code but above all that defines a modus operandi, a method of approach and development of the primitive idea.
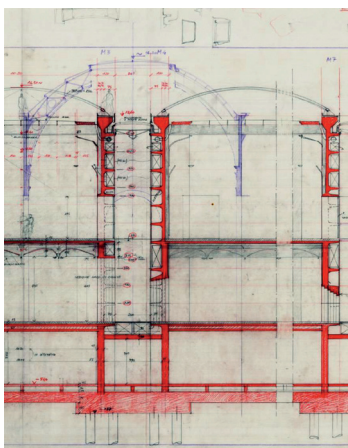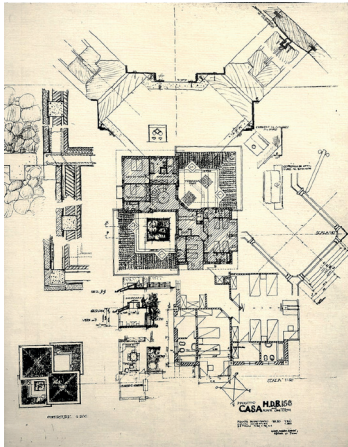
The second section should have focused on the ways and tools (digital or not) through which the project is refined (even in the formal aspects) expressed and communicated in its most advanced stages of definition, in search of lines of expressive poetics that in the most canonical application of the codes of representation strongly define the individual design personalities, with particular reference to three-dimensional prefiguration views of the final outcomes and their relationship with the context. This section also highlights the role of digital design and modeling tools in the definition and management of new design forms.

Except that, in this lies the responsibility of those who scientifically take care of a collection of disciplinary contributions, the contents of the articles arrived in the editorial office (it is always remembered of high quality to underline a liveliness in this case of the younger generations of scholars in training to whom the call was reserved) and subsequently selected did not

allow such a clear division. Among the selected emerged a predominance of articles in which starting from a specific figure of architect – Mario Ridolfi (Andrea Alberto Dutto), Alessandro Anselmi (Alessandro Brunelli), Lina Bo Bardi (Caterina Lisini), Jo Noero (Samanta Bartocci), Livio Vacchini (Tiziano De Venuto), Peter Märkli (Vincenzo Moschetti), Francesco Cellini (Laura Puja), Louis I. Kahn (Michele Valentino) – an analytical journey was made in the peculiarity of the use of drawing in the practice of Project: not only and not always sketch properly understood but also other representations almost always witnesses of a specific method and poetic. However, there are sub-themes that from time to time have been deepened beyond the specific poetics.

The remaining grouping of articles ranges over cross-cutting themes effectively explained by drawing on broader repertoires. This is the case of the articles *Existenzminimum forms between drawing and design* (Giovanna Ramaccini), *The drawing of the territory's form* (Luigi Savio Margagliotta), *ETFAS towns: rural architecture in Sardinia* (Lino Cabras), *The poetic of Francesco Fichera* (Graziana D'Agostino), *The Auckland Drawing School. On the margins of architectural representation* (Marco Moro), *From "soft media" to concept: legacy of Le Corbusier and his collaborators in the projects and teachings of Jerzy Sołtan* (Szymon Ruszczewski).

As a result, some peculiarities of treatment of the most articulated themes have emerged that it is useful to follow in the critical presentation of the contents.
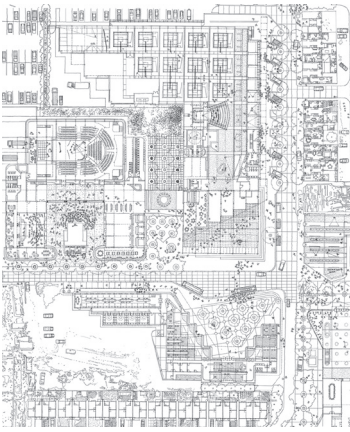
Drawing between language and figurative expression

The case of Mario Ridolfi and in particular the experience of the Architect's Manual and the Marmore Cycle, is led to testify that drawing plays a decisive role in the mediation between technical knowledge and aesthetic quality of architecture as the author Andrea Alberto Dutto reminds us on the basis of the careful critical considerations of Cellini and D'Amato. Some exponents of the Roman School of the late twentieth century, which we remember gave considerable importance to architectural design, not only as a means of communication of the project but as an aesthetic fact, are the subject of two articles in the issue. So it is for Alessandro Anselmi, former member of GRAU, then author of an autonomous design path and so it is for Francesco Cellini, slightly younger than the members of GRAU. In his article Alessandro Brunelli, among the countless qualities of Anselmi's drawing, underlines that of being "thought and language": even before being an instrument of verification it is an irreplaceable tool (much less by the computer) of progressive definition of the architectural idea in its path. While Laura Pujia, analyzes Cellini's drawing bringing as an example the graphic narration of the project for the Rowing Center at Lake Corbara, 1993-1996. Cellini introjects the lesson of Ridolfi (and that of Carlo Aymonino) personalizing it but perhaps granting less than other authors to the drift of drawn architecture.

The drawing that reflects the context

A similar experience, although in a completely different context, is the one conducted by Jo Noero in South Africa, in which the drawing is closely linked to the context also reflects the complexities and historical, social and cultural contradictions. Samanta Bartocci shows us how an evolution of the initial historical-social conditions (apartheid South Africa) is followed

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by a specific reflection also underlined by the representation. But perhaps the most interesting aspect is Jo Noero's re-return to drawing projects. "The practice of retrospective redesign is a theoretical commitment around one's own thinking on architecture in search of codes, principles of form and structure".

Caterina Lisini's interesting analysis of the Italian-Brazilian architect Lina Bo Bardi whose drawings are "violently emotional" is different. Once again the design, also of the project, is charged with the architect's experience on the culture of the place as well as on the specific design theme. "Lina Bo Bardi draws what she is thinking and planning, indeed she thinks by drawing and at the same time she thinks looking at the world". So that in front of the warm drawings of Lina Bo Bardi we can anagram that "it is not possible to look / design / draw without involving the heart and mind".

Drawing as code

Tiziano De Venuto insists on the link between drawing and thought, calling into question the experience of Livio Vacchini which is in a certain sense antithetical to that of Bo Bardi. If in the latter the drawing is almost an expression of the emotions of the life of a place (Bahia or Brazil in general) to such an extent that it can be defined as autobiographical as Visini suggests, in Vacchini modesty curbs the expressiveness of the drawing forcing it to bring it to the level of the indifference of the sign so much so that it consigns it to the executivity of the machine (computer). In doing so, however, Vacchini focuses on drawing as an expression of thought and consequently on architectural drawing as an expression of the logical structure of composition.

We have now left the logic of drawing as a mere instrument of formalization in architecture. I reflect on what I draw in the case of the sketch, but I can also reflect on how I draw to ensure that what I draw takes on a methodological code character. This means anticipating the reflection from the sheet to the mind, greatly increasing the expressive possibilities of the drawing.
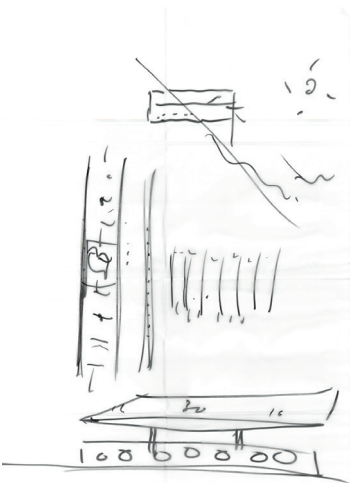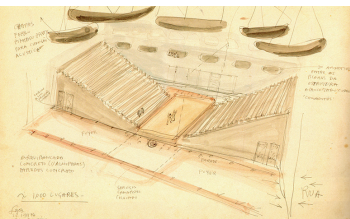
The latest examples show how reflecting on the meaning of drawing and how to make it part of the architectural composition and poetics pushes it into a field in which it itself becomes part of the compositional structure; in outlining and understanding it.
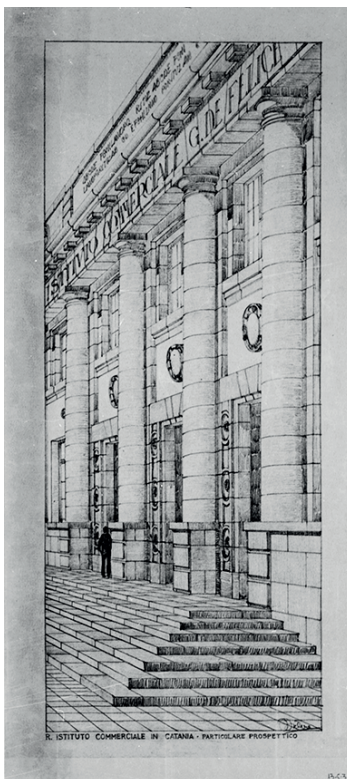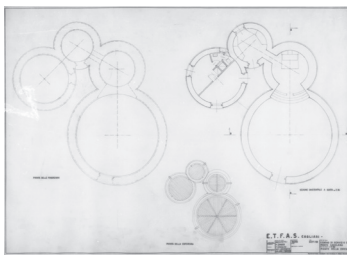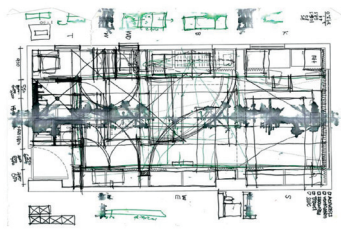
If on the one hand drawing helps the understanding of architecture, that is, it allows to decompose to understand, on the other hand it helps composition, that is, it allows to understand to compose.

To this last category belongs the experience of the Ticino architect Peter Märkli on which Vincenzo Moschetti works and performs a compelling analysis between design and project in the form of language. Through a progressive numbering of the drawings, Peter Märkli establishes the link between prefiguration and reality: "the territory of representation becomes (...) the field on which to flow and prefigure the physicality of architecture and its doing".

Drawing to communicate at different scales

In 1965 Roberto Gabetti wrote an essay entitled *Drawing to communicate* (Gabetti 1965) in which, starting from a historical premise, he analyzed the different types of design commonly used by architects in architectural design.

If we consider the scalar extension of the design, what is commonly indicated with the motto "from the spoon to the city" it is easy to understand how even the representation and therefore the drawing need to adapt in order to communicate its contents. We then move from the language of executive design in which relationships are often reversed by also making enlargements to that of territorial design with the difficulty of managing (including design) the large scale. If in the first case the objective is to enter into the matter of construction, in the second it is a matter of making a look as comprehensive as synthetic of the territory.

Giovanna Ramaccini addressing the theme of existenzminimum focuses in particular on the value of drawing in plan as "not abstract scheme but as a tool for the slow and progressive definition of the minimum forms maximally adequate to life". The design of the housing plans made comparable, as already shown by Klein, becomes a tool not only for a definition of the correct functional design in conditions of minimum surface, but also for the study of the flexibility of use that the recent experience of Covid19 has helped to make evident. Interesting in this regard are Chang's studies on the flexibility of his 32 sqm accommodation over thirty years of life.

On the contrary, Luigi Savio Margagliotta considers the geographical scale to derive not only the type of design necessary for the representation of reality but that type of design that from the "representation" flows into the "vision" of the territory. Since the sixties in Italy the reflections around dilated spatiality produce new forms of representation (between concept and image) that tend to design through the simultaneous highlighting of the form and structure of the territory (*Form and structure of the territory* is the famous series that Giancarlo de Carlo founded for the publishing house *Il Saggiatore* which not by chance publishes many important international studies on the subject). It is in this period, in fact, that the term drawing goes beyond the sense of an instrument to become synonymous with composition as the term "urban design" demonstrates. In this there is also a certain difficulty in transmitting outside the Italian geographical boundaries a deeper and more meaningful meaning of urban design than the generic "urban design" with which it generally translates into the international arena.

Drawing as knowledge and historical-critical investigation

Participating in the conference on *Il disegno dell'Architettura: incontri di lavoro* held in Parma in 1980, Manfredo Tafuri argued that the purpose of an archive should be the collection of documents (drawings) for the formation and transmission of the architectural project. "This is what fundamentally characterizes architectural drawing" (Bianchino 1980; 41). Although with different arguments, the two contributions of Lino Cabras and Graziana D'Agostino are part of this trend, that is, the pedagogical-educational role of drawing in the dissemination of historical-critical knowledge. The first article examines the experience of ETFAS in Sardinia engaged in the construction of settlements for agricultural use after World War II. The availability of archival drawings makes it possible to re-evaluate two particularly significant projects of the Italian twentieth century (by Figini and Pollini and Zanuso and Crescini) enhancing them by opening them to new research perspectives compared to other similar experiences such as those conducted by ECA, UNRRA-CASAS and Olivettiana. The second article concerning the design activity of Francesco Fichera in Catania goes further by identifying in new technologies (including augmented reality) the tool
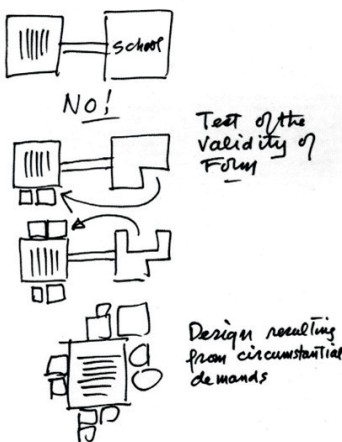
for knowledge and dissemination of thought and work: although based on a small sample – the project drawings of the "De Felice" institute in Catania – it is not difficult to imagine an extension to other projects.

Drawing: from profession to school
The article by Szymon Mateusz Ruszczewski considers the importance of sketching tools (which he defines soft-media) in project design and teaching. Through the experience of the Polish architect Jerzy Sołtan, former collaborator of Le Corbusier's Parisian studio, the sketch becomes the "possibility of exploring what is yet to be discovered". The methodology that Corbu adopted in his studio, in turn acquired and transmitted by Sołtan himself, was based on the interpretation of the sketch by his own collaborators. What is defined as "pictorial thought" is nothing more than the invitation not only to decipher the signs but to dig into the subconscious to give shape to the idea. Sołtan also transferred Lecorbusieri's imprinting to his teaching at the Harvard Graduate School of Design in which he urged his students (including a young Michael Graves) to "buy clay, charcoal and butcher paper to explore ideas and focus on the essence in the search for true architecture". It is the article that builds a bridge between profession and school, between methods commonly used in the study of architecture and methods of teaching the project.

No other school of architecture, however, has ever experimented so much in the field of drawing as that of Auckland which has earned the nickname of Drawing School. Starting from the centenary celebrations that took place in 2017, Marco Moro analyzes some aspects referring to the criticisms of the same scholars (among many Mark Wigley, Craig Moller and Mike Austin), who in the deconstructivist period were the link between the American theoretical reflection, primarily by Peter Eisenmann, and the New Zealand one. The drawing declares itself in its form of analytical design in support of a reaffirmation of theoretical thought as the basis of the project. Finally, an article by Michele Valentino on the role of drawing in Louis Kahn that he himself declared in a short essay of the '30s (Kahn 1935): a theme certainly not new but always interesting, especially for the pervasive role that drawing has in the works and projects of the great Estonian-American architect. Among the many aspects, the author takes into consideration that kind of drawing in which form becomes thought. In the case of Kahn, in fact, in addition to the drawings made in his travels, the design perspectives and so on, it is particularly interesting to question the idea through the drawing, rationalizing it problematically. This is the meaning of the multitude of diagrams in which Kahn translates the different design choices to bring out the best choices by exclusion. In this sense, the study of his diagrams combined with the projects appears particularly pedagogical from the point of view of the teaching of the project.

Finally, the issue is completed by some articles – by Lamberto Amistadi, Raffaella Neri, Livio Sacchi and Chiara Vernizzi – and by an unpublished lesson by Guido Canella on the theme of drawing, *Drawing, in an interlocking game*, held in 1997 at the course of Theories and techniques of architectural design of the Faculty of Civil Architecture of Milan Bovisa. Taking as a pretext the various types of drawing (impression drawing, line and square drawing, atmospheric design, futuristic drawing, drawing without erasures or sketches), in a narrow intercalation between text and image, as befits a university lesson, Canella leads the reader on a journey into

architecture, into the theory of (architectural) design that goes back, As Baudelairian indicates at the beginning of the lesson, "From impressions to principles". And it is no coincidence that Canella calls into question the "true founder of modern criticism" who as an architect, professor of architectural composition, director of «Hinterland» first and then «Zodiac», received in 1995 at the VI Bienal Internacional de Arquitectura de Buenos Aires the CICA award (Comité lnternational des Critiques d'Architecture)[3], the body founded within the UIA (*International Union of Architects*) in 1978 by Pierre Vago (president of UIA), Max Blumenthal (director of «Techniques & Architecture», Paris), Louise Noelle Gras de Mereles (co-director of «Arquitectura», Mexico), Mildred F. Schmertz (associate director of «Architectural Record», New York), Blake Hughes (USA), Jorge Glusberg (director of the CAYC in Buenos Aires) and Bruno Zevi (then director of «L'Architettura Cronache e Storia») who was its first president. The architect draws, draws often, always draws, and drawing makes a personal interpretation of what he sees or what he thinks: a critical operation on reality.

In the face of the speed that dominates contemporary processes, including design processes, drawing can be an extraordinary tool for recovering the (slow) times of the project even if it is of reflection (also theoretical), analysis, study and knowledge of architecture.

Notes

[1] Introduction by Giulio Carlo Argan, reports by Manfredo Tafuri, Gillo Dorfles, Vittorio Gregotti, Corrado Maltese, Giovanni Klaus Koenig, Arturo Carlo Quintavalle and interventions by Bruno Zevi, Alessandro Mendini, Giancarlo Iliprandi, Gino Pollini, Costantino Dardi, Pierpaolo Saporito, Wim de Wit.

[2] The exhibition, curated by Tito Canella, Massimo Martignoni, Luca Molinari, was promoted by the Portaluppi Foundation in Milan where it was set up from 29 September to 22 December 2005. In 2006 it was rearranged in Bari at the Norman Swabian Castle from 7 March to 12 April 2006.

[3] Among the most important members of the CICA are Julius Posener (Berlin), Dennis Sharp (editor of the «Journal of the Architectural Association», London), Moniek Bucquoye (editor of «Neuf», Brussels), Mario Gandelsonas (editor of «Oppositions», New York), Elémer Nagy (co-director of «Magyar Epitomuvészet», Budapest), Toshio Nakamura (editor of «A+U», Tokyo), Marina Waisman (director of «Summa», Buenos Aires), Lance Wright (editor of «The Architectural Review» London). The 1987 CICA yearbook, published by the CAYC of Buenos Aires, lists 70 members, including Giulio Carlo Argan, Rudolph Arnheim, André Chastel, James Marston Fitch, Ada Louise Huxtable, Lewis Mumford, Joseph Rykwert, who will be joined by others, such as Peter Davey (new editor of the London «The Architectural Review») and Kenneth Frampton.

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Chiara Vernizzi, architect, is full professor of Drawing at the Department of Engineering and Architecture of the University of Parma. She is the author of over 120 publications on the themes of tools and methods of survey, representation and analysis of architecture and the city; of the modern and contemporary graphic representation of the architectural project and of the critical analysis of archival drawings. Since 2018 he has been a member of the CTS of the Italian Drawing Union (UID), within which he participates in the work of the Archives Commission. Since 2017 she has been appointed Delegate of the Rector for Guidance; since 2020 she is Deputy President of the Laurea Magistrale (equivalent to Master of Science) Programme in Architecture and Sustainable Cities and is Coordinator of the Architecture Unit in the Department of Engineering and Architecture.

Enrico Prandi (Mantua, 1969), architect, graduated with honors from the Faculty of Architecture in Milan with Guido Canella with whom he carried out teaching and research activities. He has a PhD in Architectural and Urban Composition at the IUAV of Venice, obtaining the title in 2003. He is currently Associate Professor in Architectural and Urban Composition at the Department of Engineering and Architecture of the University of Parma. He is director of the Parma Architecture Festival and founder-director of the international A-class scientific e-journal «FAMagazine. Research and projects on architecture and the city» (ISSN 2039-0491). He is scientific manager for the Parma unit of the *ArcheA. Architectural European Medium-Sized City Arrangement* project (published in volumes Routledge, Aión and LetteraVentidue). Among his publications: *Luigi Vietti, scritti di architettura e urbanistica* (with PV. Dell'Aira, Altralinea, Florence 2022), *The project of the Polo per l'Infanzia. Architectural experiments between teaching and research* (Aión, Florence 2018); *The architecture of the linear city* (FrancoAngeli, Milan 2016); *European City Architecture*, (with L. Amistadi, FAEdizioni, Parma 2012); *Mantua. Saggio sull'architettura* (FAEdizioni, Parma 2005).