Readings/Rereadings

Reading Italian Edition of an Ackerman's Book: *Architettura e disegno. La rappresentazione da Vitruvio a Gehry*

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The book, published in 2002 by the Massachusetts Institute of Technology under the title *Origins, Imitations, Conventions: Representation in the Visual Arts* (fig. 1), is a collection of 12 essays written by Ackerman since 1994.

James S. Ackerman (1919-2017) has been one of the leading scholars of Renaissance architecture in the last century. Disciple of Henri Focillon and fellow student of Richard Krautheimer and Erwin Panofsky, he was a professor at Cambridge and Harvard Universities in the United States. On the occasion of his death, Carlo Olmo wrote of his work: "His history of architecture Is in touch with other historiographies, turning even over-studied architectures into examples that help the reader to understand how many keys are needed to prevent reducing the narration of architecture, which Ackerman treats with true passion, to a mere description or a genealogical history." His works include *The Architecture of Michelangelo* from 1961 (Italian ed. Einaudi 1968), *Palladio* from 1966 (Italian ed. Einaudi 1972) and *La Villa* from 1990 (Italian ed. Einaudi 2013).

The Italian translation of the book's title as *Architettura e disegno. La rappresentazione da Vitruvio a Gehry* (fig. 2) does not fully reflect the structure that the author has given to the collection: the

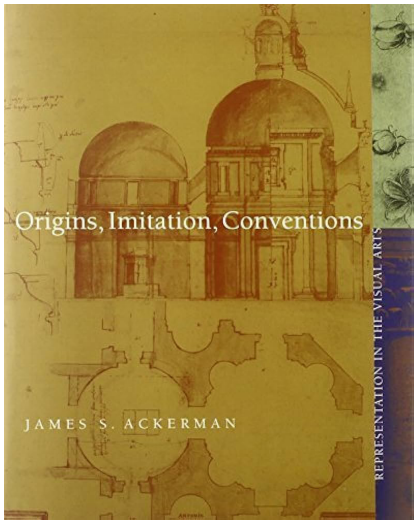

Fig. 1. Cover of the original edition. Massachussetts Institute of Technology, 2002.

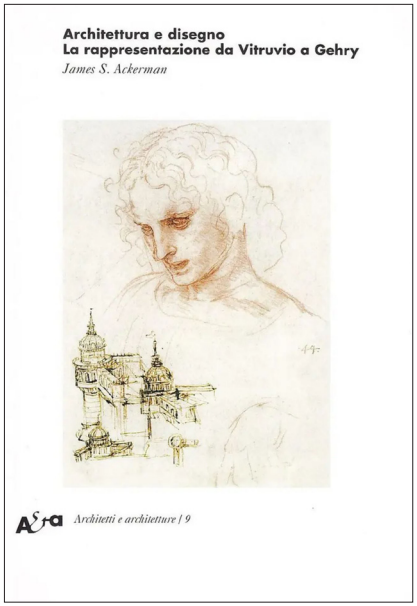

Fig. 2. Cover of the italian edition. Electa, 2003.

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three terms that make up the title in the original language, "Origins", "Imitation", "Conventions", more effectively describe the themes common to the twelve essays, which focus on representation in the visual arts.
Imitation is, in my opinion, the dominant theme of the collection, to which 'origins' and 'conventions' are connected.
In the *Preface*, Ackerman states what the essays have in common and the sense of their combination: "The essays that follow focus on the tension between the authority of the past –which can act not only as limitation but also as challenge and symbol– and the potentially liberating gift of invention […] the approach to history taken in these pages […] illustrates the ways in which artists and art historians have related to, and at the same time contrasted with, their predecessors, the conventional methods of representation, and even contemporary demands" (p. 4).
The first four essays of the collection refer, as stated by the author, to the theme of 'origins', intended as a moment of emancipation from previous traditions. In the following essays, save the last, which explicitly refers to the conventions, the three themes are closely intertwined.
The question of mimesis, particularly dear to scholars of architectural design [1] recurs in the first essay *On the Origins of Art History and Art Criticism*, dated 1994. The process that leads to the separation of the artist from the craftsman, and to the birth of art history and art criticism, starts, in Ackerman's reconstruction, thanks to the overcoming of mimesis as a parameter for evaluating the work of art, that is, when art works are no more evaluated for their ability to 'mirror' nature. In a very clear manner, the author identifies an evolutionary line that, starting from considerations on the need to depict states of mind together with phenomenological aspects, arrives at the idea, agreed by Leon Battista Alberti, that the work of art depicts an abstract beauty conceived by the author of the work. In *De pictura*, Alberti quotes the famous anecdote of the painter Zeusi who, commissioned by the city of Croton to depict Helen of Troy, drew from the five most beautiful girls of the city the features that most matched his idea of beauty. Zeusi's approach is considered by Ackerman as a metaphor of the figure of the artist, who 'has more to offer than mere manual skills in imitation' (p. 16). It will however be Giorgio Vasari, in the author's opinion, who will conclude the evolutionary path, applying to art the idea of periodization that Cicero had applied to rhetoric, thus leading to the definition of 'style', a concept that will influence art history and criticism up to the avant-garde of the 20th century. One of the most relevant quotations of the essay is dedicated to a passage from a letter written by the Byzantine scholar Manuel Chrysoloras, "who came to Italy in 1395 and taught Greek to many humanists: 'In statues and paintings we do not so much admire the beauty of the bodies but the beauty of the minds of their painters. This, like well-moulded wax, has reproduced in stone, wood, bronze or pigments an image caught through the mind's eye'" (p. 17). The text surprisingly recalls an aphorism by Karl Kraus, quoted by Vittorio Ugo in his essay on mimesis: «In a true portrait, one must be able to recognise which painter it represents» [2].
The essay that follows, entitled *Origins of Architectural Drawing in the Middle Ages and the Renaissance*, is made of two parts, written in 1997 and 2000 and entitled: *Villard de Honnecourt in*

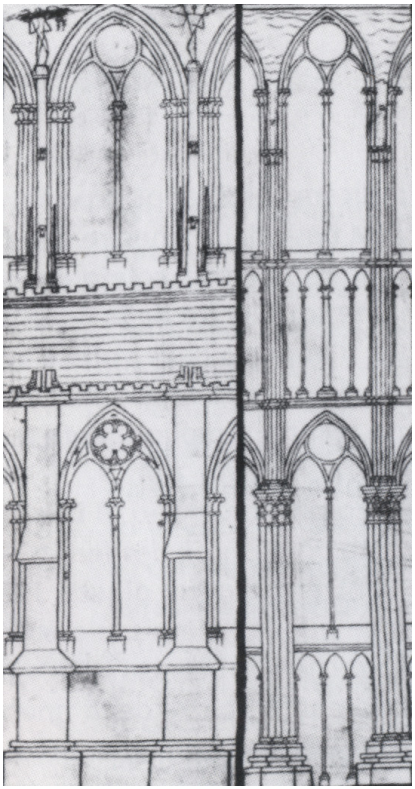
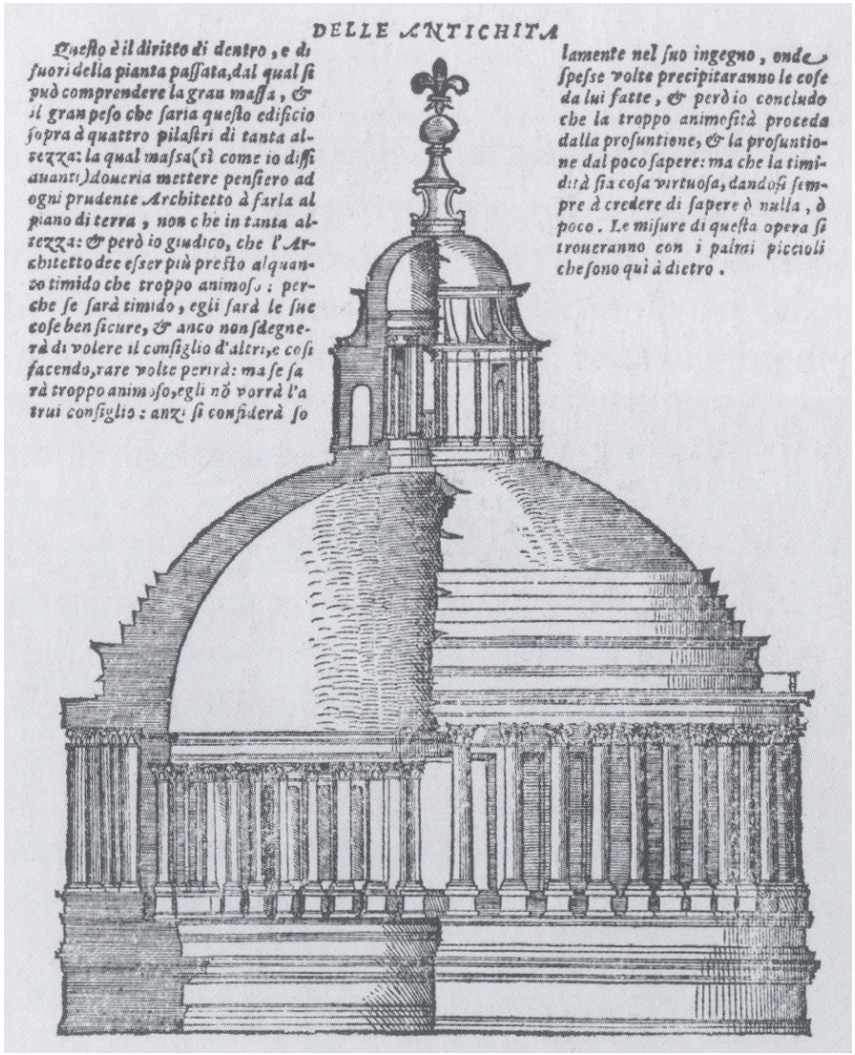


Fig. 3. Villard de Honnecourt, approx. 1230. Front and section of one bay of the choir in the cathedral of Reims. Paris, Bibliothèque Nationale, 19093, p. 62 (fig. 3, p. 35).

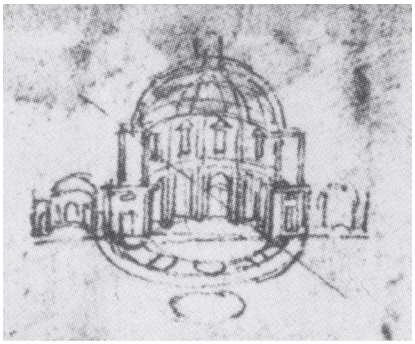
Reims Cathedral and *Drawing Conventions in the Late Gothic and Early Renaissance*. The essay takes the reader into one of the most relevant questions in the history of 'pre-digital' representation: the opposition between perspective and parallel, orthogonal and oblique, projections [3]. A brief mention of the oldest drawings that have come down to us –"some Egyptian papyri, the marble plan of Rome, a 1:1 scale front of the Pantheon tympanum […] and the plan on parchment of the Abbey of St. Gallen" (p. 29)– is immediately followed by a discussion focusing on some drawings from the well-known notebook of Villard de Honnecourt, dated in the years between 1220 and 1235. Ackerman focuses on a drawing (fig. 3) in which the section and elevation of a part of the choir of Reims Cathedral are paired on either side of a thick line of demarcation, to note the almost perfect adherence of the drawing to the rules of orthogonal projection. The analysis of Villard de Honnecourt's drawing is the starting point for the examination of the contrast between perspective representation, close to our perception, and orthographic projection, distant from the perceptive datum but more adherent to the real configuration of a building. Alberti, whose passage from *De pictura* appears in the previous essay, returns here with a well-known passage from *De re aedificatoria*, in which he states: "Between the graphic work of the painter and that of the architect there is this difference: the painter endeavours to bring out objects in relief on the table by means of shading and the shortening of lines and angles; the architect, on the other hand, avoiding shading, depicts reliefs by means of the plan drawing, and represents in other drawings the form and extension of

Fig. 4. Sebastiano Serlio, 1540. Bramante's design for the dome of Saint Peter in Vaticano. Da: Sebastiano Serlio, Tutte l'opere d'architettura di Sebastiano Serlio Bolognese, libri III, 66v (fig. 17, p. 53).



each façade and each side by means of real angles and unvarying lines" (p. 29). The elevation/section drawing of the dome of St. Peter's by Sebastiano Serlio, which Ackerman attributes, backdating it, to Bramante, and that of Antonio da Sangallo for the church of Monte Moro in Montefiascone, are recognised as the first examples of a correct orthographic representation of the elevation of curved surfaces (fig. 4). Both essay are concluded by the same question, which the author poses, referring to the drawings in Villard de Honnecourt's notebook, to himself and the reader: "why did the northern European solution of the 13th century fail to leave a legacy that would have allowed the architects of the early Renaissance to proceed at a much more sophisticated level than they did?" (pp. 43, 59). Ackerman responds with several arguments: the first one focuses on the figure of the architect, who in Italy was often a painter at the same time, and therefore bound to the canons of perspective 'verisimilitude'. The second argument refers to the differences between Gothic architecture, populated by subtle elements, and Romanesque architecture, characterized by the presence of wall masses. A further argument that could explain the persistence of perspective in the Italian context refers to Vitruvius, who, by including scenography among the forms of representation of architecture, had legitimized the use of perspective in architectural design, opposed by Alberti. The essay closes with the hope that the "pictorial interpretation of architectural representation in late medieval and Renaissance Italy, compared to the linear emphasis of Gothic imagery in the north, will broaden our critical perspective on Renaissance architecture" (p. 61).

An extremely stimulating hypothesis for scholars of architectural design appears in the essay, though proposed with less emphasis than other arguments: in describing the difficulties and resistances in the orthographic representation of the elevation of curved surfaces, Ackerman observes, referring to Antonio da Sangallo's drawing, that the direct connection between plan and elevation, quite unusual at the time, supports the achievement of a correct representation. The author attributes the idea of executing a drawing in connection to another drawing (plan/section) to the adversary of orthographic projections, i.e. perspective, as defined by Piero della Francesca: "the technique of transferring from one plane to another is fundamentally the same as the foreshortened projections of figures in the work *De prospectiva pingendi* […] paradoxically, it was Piero della Francesca's advanced research on pictorial perspective that provided architects with the opportunity to overcome their passion for subjective perspective" (p. 56).
The third and sixth essays in the volume, dedicated to Leonardo da Vinci's drawings, are respectively entitled *Leonardo da Vinci's church designs*, dated 1998, and *Art and science in Leonardo da Vinci's drawings*.
The essay on Leonardo da Vinci's church drawings is a hymn to the inspirational power and versatility of drawing. Ackerman recalls that Leonardo probably never had the opportunity to build a church on commission. Church drawings were therefore, for Leonardo, studies in geometry and formal composition free of any concern for feasibility, whether in terms of adherence to the principles of *utilitas* or those of *firmitas*. And yet, precisely because of the freedom that distinguishes them, Ackerman identifies in these drawings



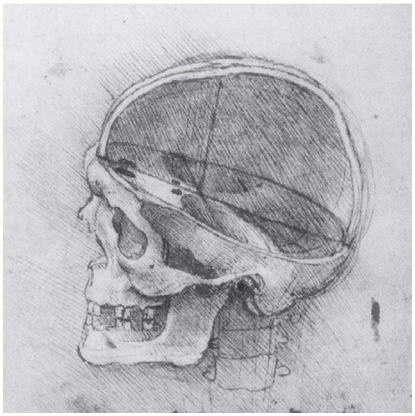


Fig. 5. Above: Leonardo da Vinci, design for a round church, approx. 1507. Milan, Ambrosiana Library, Codex Atlanticus, 547v/205v, detail (fig. 28, p. 68). Below: Leonardo, drawing of a skull, 1849. Windsor Castle, Royal Library, 19057r (fig. 55, p. 127).

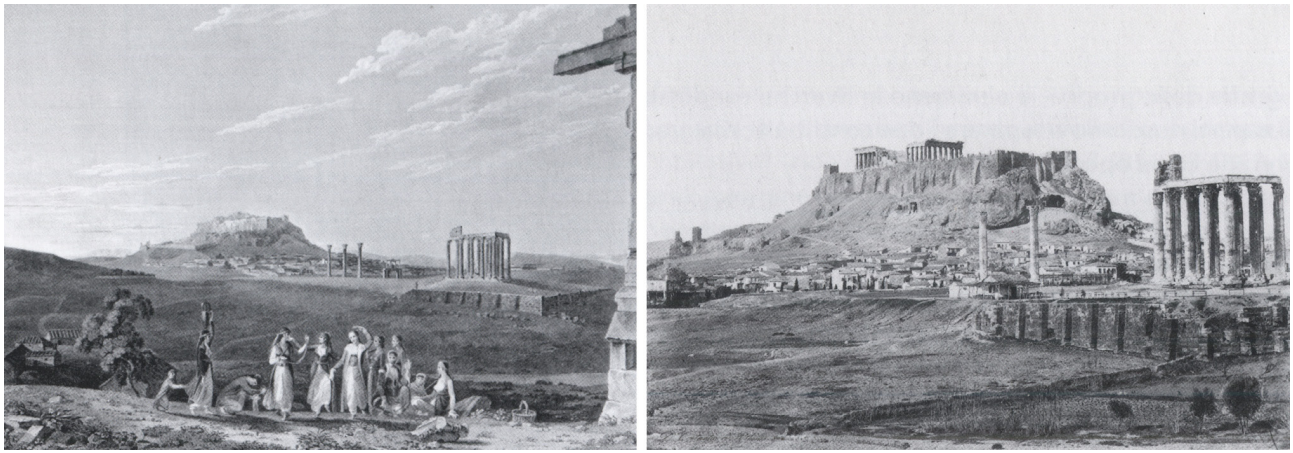


Fig. 6. James Stuart, Nicholas Revett. The antiquities of Athens. Measured and delineated by James Stuart and Nicholas Revett, Vol. 3, 1761. On the left: The Acropolis of Athens from the Agora (fig. 43, p. 92). On the right: Dimitri Constantin, View of the Acropolis of Athens with the Temple of Jupiter (fig. 44, p. 93).

some elements that would inspire later projects; among these, the "articulated wall masses, arranged around the outlines drawn by the empty spaces, as if these had been sculpted in their own bodies" (p. 76); wall masses will appear in Bramante's projects for St. Peter's. Another innovation anticipated by Leonardo is the scheme of the front of a church that "anticipated what in the 16th century became the reference model for the façades of longitudinal plan churches" (p. 81). Talent, expressive freedom and a diversity of interests lead Leonardo to freely experiment representation techniques, regardless of the subject, thus once again affirming the autonomy of drawing: in a small perspective drawing of a church, the section opens up the view of the interior space, while half of the plan, free from the walls, extends beyond the painting towards, the centre of projection; in this small drawing Ackerman recognizes the echo of Leonardo's much more famous drawing of a skull, which he will be discussed in the following essay dedicated to Leonardo (fig. 5). Similarly, in the plan drawing of a church he recognizes an indisputable resemblance to the drawing of a gear. The similarity between the skull and gear drawing and architectural drawings is highlighted by Ackerman to show how, for Leonardo, drawing was both an instrument of knowledge of reality and an element of connection between human creation and nature. In the second essay, the spirit of observation and desire for knowledge drives Leonardo to experiment, in the plan of Imola, the first orthogonal projection of a city and, at a different scale, to illustrate the parts of a gear, one of the first examples of axonometric exploded view.

The fourth essay, dedicated to the origins of architectural photography, well illustrates a relevant issue of drawing: the relationship between technique and technology. If technique refers to the unveiling capacity of drawing, technology refers to the tools of drawing. The essay highlights how, at the dawn of photography, professionals chose shots similar to landscape views fixed by painters a few decades earlier. To support his hypothesis, Ackerman pairs paintings and photographs of the same site: "The two images I have compared support my conviction that the new must be based on the old and that innovation is invariably tempered by convention" (p. 89) (fig. 6). Obviously, the question of mimesis returns powerfully in this essay, as photography seems to realize the dream of a faithful representation of reality. Although the book's concluding essay is dedicated to computer representation, Ackerman briefly mentions it in the opening of this essay. This is probably a perceived but not overtly expressed association: if early photography imitated landscape architects' views, in the same way CAD imitated traditional drawing for almost thirty years, producing plans, sections, elevations. Both technologies revealed their capacity produce new

'unveiling' 'techniques' of representation, only many years after their introduction: photography could reveal the photographer's point of view, just as CAD tools are progressively giving 3D models a relevant role in architecture's prefiguration and representation processes.

In his fifth essay, *Imitation*, dated 1999, Ackerman reviews the debate on the topic, spanning from antiquity to 1550. He then compares the idea of 'imitation' and that of 'authority', emphasizing that imitation offers more opportunities for innovation.

In the seventh (very short) essay dated 1998 on *The Aesthetics of Architecture* in the Renaissance, Ackerman enunciates a concept that recurs frequently in the other essays: the imitation of the classical orders, and of antiquity in general, is a creation of Renaissance treatise writers. Vitruvius' obscure descriptions of the classical orders become, with Sebastiano Serlio and Jacopo Barozzi da Vignola, a graphically fixed rule, reflecting their judgement: "Vignola, who admitted that he did not arrive at the codification of his rule by studying the best examples from antiquity, but 'according to where my judgement led me', translated the proportions of the orders into an invariable formula" (p. 157).

Thus, in the following essay on *The Influence of Antiquity on Italian Renaissance Villas*, after a dutiful reference to the opposing theories of antiquity on rural life (Cato and Pliny), Ackerman states: "In Luvigliano, as later in most of the villas designed by Palladio, the vocabulary is essentially Roman, but neither the plan nor the typology of representation echo Roman architecture. I believe that

Fig. 7. Andrea Palladio, Redentore church in Venice, view of the apse and the dome (fig. 110, p. 214).

the main reason for such a rejection […] lies in the fact that the irregularity, asymmetry and dispersion of the Plinian villa […] do not match the Renaissance image of ancient architecture. Similar to what happened in the creation of a canon of architectural orders, reference to the antique became obligatory, but only as long as the antique models did not conflict with Renaissance rules" (p. 173).
The next two essays, respectively dated 1996 and 1994, entitled *Daniele Barbaro and Vitruvius and Palladio: in che senso classico?*, are dedicated to an examination of Palladio's relationship with 'classicism'. This relationship, already anticipated in the essay on the villas, is developed through an examination of the figure of Daniele Barbaro, Palladio's friend and author of a celebrated edition of Vitruvius' treatise, illustrated by Palladio himself; finally, through an examination of *The Four Books of Architecture* and of Palladio's own projects, that reveal a 'dialectical' relationship with antiquity. The essay on Palladio opens with a reconstruction of the passages that lead to the definition of 'classic' in the post-Renaissance era, in order to highlight that the variety of Palladio's work, capable of oscillating between the adherence to canons, 'caprice' and capacity for simplification (fig. 7), has not always been recognised by art historians: "When later critics defined almost all Palladio's buildings as classic, Palladio's subtly dialectical attitude […] and his distance from the practice of the ancients was obscured" (p. 223).
The eleventh and penultimate essay, entitled *Thomas Jefferson and Italy*, dated 1995, illustrates the path that led the American statesman to take an interest in art and architecture, and discusses the two projects that he himself conceived, with a focus on the underlying mimesis and references: the Monticello residence and the University of Virginia campus in Charlottesville.

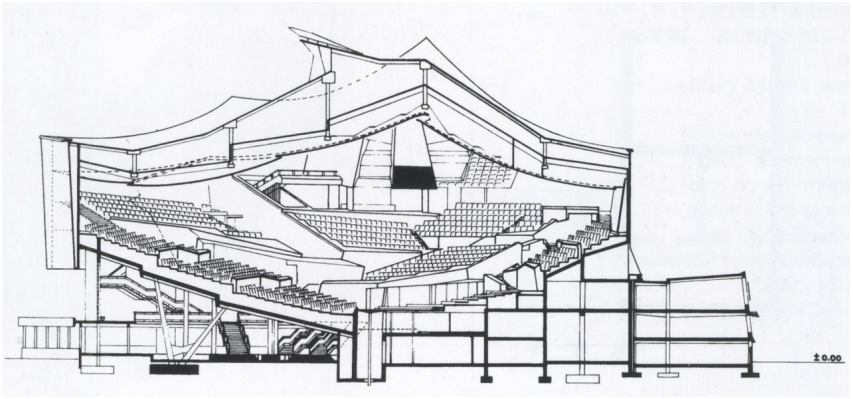


Fig. 8. Hans Scharoun, Philarmonic Hall in Berlin, 1959-1963; section (fig. 142, p. 252).

The last essay, *Conventions and Rhetoric in Architectural Drawing*, was written in 2000, some twenty years after the mass diffusion of software for drawing. Ackerman retraces the main stages in the millennial history of architectural drawing, recalling the connections between the development of forms of representation and that of tools and media (paper, for example). With regard to CAD, whose diffusion is compared to the diffusion of paper, Ackerman points out three relevant features: the first one refers to the possibility of experimenting new architectural forms; the second, which seems to refer explicitly to BIM, which was not yet widespread at the time, refers to the possibility of representing the structural and technological components of the building: "Today, CAD is an indispensable tool and support for the definition of all the technical features, from lighting, heating and acoustic systems to piping and structural details" (p. 256); the third feature refers to digital models, that allow "the immediate visualisation of shapes and spaces" (p. 256). Ackerman concludes by stating that drawing conventions, unlike styles "have virtually no history" (p. 267).
One of the images illustrating the essay is a section of Hans Scharoun's Berlin Philharmonic (fig. 8), which Ackerman introduces by stating: "Some contemporary projects, very articulate and complex, make sections hard to draw and to read" (p. 252). The author's lack of direct experience in the practice of architectural drawing is probably the greatest limitation of this essay. The editors of the Italian version were inspired by this essay for the book's subtitle which becomes *La rappresentazione da Vitruvio a Gehry* (*Representation from Vitruvius to Gehry*); this choice is, at the end of the reading, at least misleading with respect to the excellent content of the essays.
In this essay, unlike all the others, it is evident that the author is on terrain that are not so familiar to him, especially when dealing with contemporary architectural drawings. The statement on the section of the Berlin's

Philharmonic section shows this difficulty; although aware of the possibility to generate new architectural forms with CAD tools, Ackerman does not grasp that the Philharmonic, like the church of Saint Pierre in Firminy by Le Corbusier (the list could go on with Eero Saarinen, Antoni Gaudì and many others) are projects that do not originate from a section drawing, nor from a plan drawing, but from a spatial idea that was impossible to translate into one of the 'conventional' drawings inherited from tradition, thus anticipating those experiments that would only come in a more evolved phase of computerised representation with Peter Eisenman, Daniel Libeskind, Zaha Hadid, Steven Holl, and others. Perhaps it will be precisely CAD representation that will lead, in the near future, to the sunset of the oldest drawing conventions, replacing them with a direct manipulation of digital models.

The pervasive ability of computers to produce 'realistic' images, exponentially increased by artificial intelligence, makes the reading of these essays, focused on imitation, a key to understand the architecture of the past and to critically reflect on the future of the teaching and on the practice of architectural drawing.

Notes

[1] Interesting and in-depth considerations on mimesis can be found in: Ugo, V. (1002). Mimesi. In R. de Rubertis, A. Soletti, V. Ugo (eds.). *Temi* e *Codici del Disegno di architettura*. Roma: Officina edizioni, pp. xx-xx.

[2] Kraus, K. (1972). Pro domo et mundo – Dell'artista. In R. Calasso (ed.). *Detti* e *contraddetti*. Milano: Adelphi, p. 229. The quotation is taken from Ugo, *op. cit.*, p. 12.

[3] For an in-depth study of this topic, see Massimo Scolari: M. Scolari (2005). *Il disegno obliquo. Una storia dell'antiprospettiva*. Venezia: Marsilio.

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