

Alejandra Celedón

Architect from Universidad de Chile, holds a Master from The Bartlett, and a PhD from the Architectural Association. Her doctoral dissertation, “Rhetoric of the Plan”, studies the liaison between drawings and words, objects and discourse. Since 2016 she teaches and conducts research at Pontificia Universidad Católica de Chile on geopolitical, territorial and architectural strategies undertaken during the eighties in Santiago regarding the domestic. She currently teaches in history, theory and architectural design at the Master Programme. Curator of the Chilean Pavilion at the 16th Venice Architecture Biennial in 2018 and co-curator of “The Plot: Miracle and mirage” at the Chicago Architecture Biennial 2019.

Notes

01. The author acknowledges the contribution of CONICYT Programme n. 79150067–economía política y retórica de la vivienda: estrategias arquitectónicas y políticas urbanas de vivienda en los años ochenta en Chile. The author also thanks the Pontificia Universidad Católica de Chile for the support provided by the Vice-Rector for Academic Research.

02. VIDLER, A., “Building within Building”. In CELEDON, A., FELL, S., *Stadium*, Zurich, Park Books, 2018.

03. STACKHOUSE J., *The State of Housing, the Business of the State: the consequences of housing and urban development policies developed by the entrepreneurial state in Chile*, Doctoral thesis. Syracuse University, USA, 2007, p 170, p 298.

04. VIDLER, A., “Building within Building” and ZAMBRA, A. “Proprietor”. In CELEDON, A., FELL, S., *Stadium*, Zurich, Park Books, 2018.

05. ROSSI, A., *The Architecture of the City*, New York, Oppositions Books, 1982, p 5.

06. CANTER, H., (1930). The Venerable Bede and the Colosseum. Transactions and Proceedings of the American Philological Association, 61, 150-164. doi:10.2307/282798

07. ROSSI, A., *The Architecture of the City*, New York, Oppositions Books, 1982, p 5.

08. LATHOURI, M., “Escribiendo la geografía íntima de la ciudad”. En: CELEDON, A., FELL, S., *Stadium*, Zurich, Park Books, 2018.

Images

01. Stadium and museum at the same scale. Stadium inside the museum (scale 1:40). Fuente: (c) Felipe Fontecilla.

02. Floor plan of Chile's National Stadium drawn up by the Ministry of Housing and Urban Planning to administer the signing of the title deeds. Source / Fuente: National Library of Chile.

03. Plan of Santiago showing the locations of the settlements represented in the Stadium on 29 September 1979. Source / Fuente: (c) Curatorial team.

04. Detailed view of the stadium floor plan showing the shape of the real settlements it refers to. Source / Fuente: (c) Curatorial team.

05. Stadium, a building that renders the image of a city. Chile's pavilion at the 16th Venice Architecture Biennale. Source / Fuente: (c) Gonzalo Puga.

06. Factory behind the exhibition used to build the stadium on site in the Venice arsenal. Source / Fuente: (c) Gonzalo Puga.

07. City of Arles.

08. Giovanni Battista Piranesi, plan of Rome based on the Forma Urbis Romae. Source / Fuente: Le Antichità Romane, 1756-1757, vol. 1.

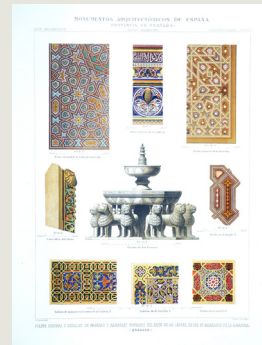
09 y 10. Stadium and museum at the same scale. Stadium inside the museum (scale 1:40). Source / Fuente: (c) Carmen Valdés.

05

“The Beautiful Drawing” Exhibitions and Architectural Education in Spain, 197x-199x.

María Álvarez

Architectural drawing exhibitions framed the cultural and architectural debate in the 1970s and 1980s. In Spain, this interest developed in parallel with a renewal of the Schools of Architecture that was taking place during the process of democratization of the country. The new curriculums aimed to confront the pedagogical crisis attributed to the education policies approved during the technocratic period of Franquism. In this sense, the teaching of drawing would be, on the one hand, the result of the international contemporary context of the critique of modernity, and on the other, the possible solution to a highly technified pedagogy of architecture. The numerous architectural drawing shows and publications constructed a new “drawing ambience” that brought to the foreground not only questions about the status of architectural drawing within the architectural discipline, but also the more crucial debate on the status of the professional architect.



During the 1980s, a series of architectural drawing exhibitions and publications –showing the work of the students– started to proliferate to proliferate to proliferate. They were organized by the Architectural Graphic Expression Departments (*Departamentos de Expresión Gráfica Arquitectónica, E.G.A.*) of the Spanish Architectural Schools. *Comprendiendo Toledo* [trans. *Understanding Toledo*], *Dibujar Madrid* [trans. *Drawing Madrid*], *La Arquitectura de la Diputación de Barcelona* [trans. *The Architecture of the Council of Barcelona*], *Dibujar Valencia* [trans. *Drawing Valencia*], *Valladolid Dibujado* [trans. *Drawn Valladolid*], etc.¹ are some of the many titles which reflected the prolific exhibiting and editorial practices of these university departments during the last quarter of the 20th Century. These publications compiled all the beautiful drawings produced either in the school workshop or in the different student trips made to study the historical Spanish cities, in a way, emulating those 19th Century sheets collections such as *Bellezas y Recuerdos de España* [trans. *Beauties and Memories from Spain*], *España Artística y Monumental* [trans. *Artistic and Monumental Spain*] or *Monumentos Arquitectónicos de España* [trans. *Architectural Monuments of Spain*] (fig. 01). The graphic anxiety of the Spanish Schools participated from the contemporary international context of growing interest in architectural drawings, proven throughout the vast revision of histo-

rical graphic materials started by the famous exhibition at the MoMA in 1975, "The Architecture of the Ecole des Beaux-Arts". As pointed out by Helena Iglesias –chairman of the School of Architecture of Madrid–, this "radical revisionism" had its origin in the preparations for the bicentenary of the United States, which was preceded by the bicentenary of Philadelphia (1974). Precisely, the American foundational celebrations had triggered "the recollection of all the possible antiquities that could be related with the year of 1776"². As Iglesias asserted, in-between these two dates, that framed the show of the MoMA, it would be achieved the "major collection and exhibition of architectural drawings ever seen before"³.

Many institutions participated in this historical revision by opening their cabinets of drawings to the public. In the architectural context, beyond the show of the MoMA, in which 200 drawings were carefully curated by Arthur Drexler (fig. 02), in 1977 the IAUS (Institute for Architecture and Urban Studies) organized the review of 45 years of history of the Architecture School of Princeton by exhibiting the work of 30 students, *Princeton's Beaux-Arts and its New Academicism: From Labatut to the Program of Geddes*. In 1981, the School of Columbia also celebrated its centenary by means of a show, *The Making of an Architect, 1881-1981: Columbia University in the City of New York*, which took place at the Columbia University Science Building as well as at the National Academy of Design in Washington, D.C. In Paris⁴, several exhibitions that researched the work of the architectural students of the Ecole des Beaux-Arts were also organized. Among them, it should be highlighted the show coordinated in collaboration with the city of Athens under the title *Paris-Rome-Athens: Le voyage en Grèce des Architectes Français aux XIXe et XXe siècles* (fig. 03). It opened in May 1982 at the École Nationale Supérieure des Beaux-Arts and travelled to Athens, Houston and New York⁵. This exhibition searched for inspiration in two previous successful shows, sponsored in 1980 by the French Beaux-Arts, *Le Voyage d'Italie d'Eugène Viollet-le-Duc and Pompéi. Travaux et Envois des architectes français au XIXe siècle*⁶. These were particularly important because they expanded the scope of these exhibitions by displaying Classical Antiquity as one of the indispensable referents for the students of the Ecole. However, all these exhibitions, either American or European, shared a common argument: the new interest in the beautiful graphic materials of the past came to confirmed the new architectural context of the crisis of Modernity, which exposed not only a contemporary disciplinary crisis, but the crisis of the professional architect.

In Spain, the growing interest in historical graphic materials was also taking place. In fact, two major shows were organized in the country in the year of 1977: *Arquitectura para después de una Guerra* [trans. *Architecture for after the War*] and *Exposición Conmemorativa del Centenario de la ETSAB* [trans. *Commemorative Exhibition of the Centenary of the ETSAB*]⁷ (fig. 04). In the former, one hundred drawings served to prove that, despite being presented as "the definitive alternative to the abstraction of the European modern movement, which was introduced in Spain in the period of 1925-1936 as one of its cultural elements"⁸, the academicism displayed by the architecture of the period of the dictatorial autarchy, throughout "historicist imaginaries", was no more than the masquerade allowing to dress up "hidden rationalist concepts"⁹. In the latter, one thousand drawings of the students of the Catalan School celebrated not only its centenary, but promoted a historical review of the School aiming to trigger its future renovation under one main argument: "there is no practice without memory"¹⁰.

The elaboration of a clean drawing, perfectly finished, and ultimately, thoroughly constructed, gained a crucial importance through the teachings of the Ecole des Beaux-Arts. Until the creation of the first Academies, architects were trained within the secrecy of the guilds, where the apprentices studied the craft of architecture through everyday practice next to a master. However, by means of the *Projet Rendu*, the Ecole was able to substitute this type of

apprenticeship for a very similar education to the one we nowadays know, mainly focused on *design*. As Guadet pointed out by the end of the 19th Century, the competition system set by the French institution tried to emulate the triple division of professional practice: first, the architect conceives; then, he studies; and finally, he builds. Thus, the process of design had as its starting point the submission of the "esquisse", twelve hours in which the student would be locked up –*en loge*– in a room at the Ecole in order to produce his interpretation of the proposed building programme –a floor plan scheme– known as "parti", or "decision", from which it would derive the section and elevation. This "parti" was stamped with the seal of the Ecole and kept at the institution, whereas the student would take a copy to the *atelier*, where he would proceed to further elaborate the project by means of the production of the *Projet Rendu*¹¹. It was precisely in this sense that Guadet had defined the education received at the Ecole as "a theoretical preparation to practice", or as he would remark, at the Ecole "one did not learn how to build, but to design according to what is buildable". Following the French architect's statement, Neil Levine stressed that "the rendered project thus stood in relation to the working drawing as Guadet's notion of 'buildability' does to building"¹².

This way, beyond attempting to seduce a possible client, this "beautiful drawing" established, for the architects educated at the Ecole des Beaux-Art, a certain relation of analogy with the rigorous process demanded by architectural construction. Furthermore, it confronted the future architect, not only with the problematics of construction, but with the articulation of some intellectual attitudes that made possible to consider such a construction as Architecture. So in order to achieve the high quality required by the *Projet Rendu*, different courses either on drawing or geometry –fundamentally based on the exercise of copying– would be taught at the Ecole. The students, by carefully re-drawing the architectures of the past, would conform a historical conscience that would allow them to dispose at will of these diverse examples ready to be reinterpreted into their own design processes. Hence, the "beautiful drawing" became, within the Ecole, the par excellence medium to learn and apprehend Architecture.

By means of the beautiful drawings, the revisionist exhibitions of the last quarter of the 20th Century did not only frame a contemporary context of critique of Modernity, but they also intended, as proven by the revisionist shows of Columbia, Princeton, the Architectural Association or the ETSAB, to reflect a context of both professional and school crisis capable of triggering the necessary renovation of the pedagogical institutions, which, particularly in Spain, would take place in parallel to the process of the political Transition (*Transición*) of the country. Thus, with democracy on the near horizon, but still in the context of the General Law of Education of 1970, the Spanish Schools of Architecture confronted, for the first time, the drafting of their own individual curriculum. A process initiated with the School of Madrid in 1975 and ended with the enactment of the School of Barcelona curriculum in 1979. All of them shared a common feature: they reflected the primacy of drawing that was also invading the international cultural panorama. However, whereas the curriculum of Madrid preserved the traditional division established since 1957 among the courses belonging to the field of Architectural Graphic Expression –that is, the triple division among "Geometry", "Technical Drawing" and "Analysis of Architectural Forms (I and II)"¹³– (fig. 05), the School of Barcelona, at the time directed by Oriol Bohigas, adopted a more radical approach by erasing from its curriculum all those "new" courses incorporated following the Technocratic laws of the dictatorship –"Analysis of Architectural Forms (I and II)", "Elements of Architectural Composition" ("Elementos de Composición Arquitectónica"), and even "Technical Drawing"– in order to propose a common denomination, "Drawing"¹⁴. This way, they were trying to make no distinction between a supposed Technical and an Artistic type of drawing. "Drawing I" would be taught in first year of

Architectural studies and "Drawing II" in second (fig. 06), but they also introduced a new subject within the curriculum, "Drawing III"¹⁵ (fig. 07), taught in sixth year, the last year of studies, as a mandatory course for those specializing in Architectural Design (*Proyectos*)¹⁶. This decision would not only give unity and continuity to the teaching of drawing in the School of Barcelona, but it aimed to place the pedagogy of drawing as an intrinsic part of the architectural project, and consequently, the project itself, at the core of the architectural profession.

After the approval of the new curriculums that consolidated the primacy of drawing in the Spanish Schools of Architecture, the last impulse for the "graphic subjects" will be given by the approval of the "Law of the Reform of the University" (*Ley de Reforma Universitaria, LRU*) in 1983. The LRU, famous for having granted to the Spanish Universities their autonomy, promoted the creation of the "University Departments" –thus the "Department of Architectural Graphic Expression" was created as a different entity to the "Design Department"– and allowed them to search for founding beyond the budget provided by the State University. The article 11 of the LRU¹⁷, triggered the close collaboration between the Schools and the Councils, Town Halls and Local Governments, which promoted the vast amount of exhibitions and publications that were from this moment onwards organized. They opened a source of economic profit to the "Graphic Departments", as well as confirmed, on the one hand, the primacy of drawing that invaded the cultural and architectural contemporary context, and on the other, the "social character" of drawing, able to explain some architectural concepts that "could not be expressed otherwise"¹⁸. In fact, the professors of the graphic department expected that, throughout the organization of these shows, the use of architectural drawing would "become popular and function as a complementary understanding to a series of internationally renowned works of architecture"¹⁹. Furthermore, by making these drawings within the context of the University, not only their social projection would increase, but "graphic expression would be asserted as a key element for architectural education"; as the teaching team of the School of Barcelona claimed, this was particularly relevant, precisely "in a moment in which the image of the architect appear[ed] to be such a undefined concept to the society"²⁰.

With the proliferation of exhibitions and publications, the double condition of these drawings became evident. On the one hand, the strong pedagogical qualities contained within the process of their elaboration could not be doubted; but on the other, these sheets, precisely because of their reproduction and propagation through exhibitions and publications, inevitably became consumable. The new open possibilities to obtain founding by means of their products rose up a series of questions regarding the activity of these Departments. As Professor Masides, from the School of Barcelona, would argue, these extraordinary fundings questioned the function of the University within the broader realm of culture: "who are our potential clients in the private or public context?" "What is actually our "product"?" "What are the conflicts of interest that those commercial transactions might generate in the technical and professional bodies?" "What is the optimum contractual and juridical form for them?" "How can we manage to avoid that such a polarization influences research and pedagogical activities?"²¹. In a postmodern context, where culture was many times understood as a consumer good, the position adopted by the University as a "particular? service company" made that issues such as "marketing production, promotion and positioning of the Graphic Architectural Expression Departments" became especially relevant, since they introduced, according to Masides, "the economical and commercial slang" into the so called "academic temple"²².

The constant dissemination of architectural drawings by the Graphic Departments was not only confined to the display of students' work. These shows, precisely through the exhibition of the drawings, proposed a very specific definition of the professional

architect, which confronted, especially in Spain, the professional type that had starred the great economic expansion during the years of the dictatorship: the architectocrat. The construction boom of the 1960s internationally triggered a disciplinary debate about the professional architect and about the crisis that the Schools of Architecture were facing in every country, particularly, trying to bridge the distance between professional practice and the Architectural School²³. In the case of Spain, parallel to the approval of the new curriculum promoted by the Technocratic government, a specialized debate emerged questioning the excessive technicalization and bureaucratization –the excessive professionalization– of the architect. Many argued against a commercialized professional, whose only interests were "efficiency, profit and rationalization means..."²⁴. It was stressed that the architectocrat never thinks about "the social repercussions of a better or worse housing or transport policy; instead, he rehearses one solution after the other, with no further worry than that of maximizing the benefits and minimizing the costs"²⁵. In fact, during the following decade, one of the main causes of the contemporary professional crisis would be precisely attributed to the lack of attention paid to drawing within the Schools of Architecture during the period of the Technocracy. As Santiago Roqueta –Professor of Drawing and Director of the ETSAB (1991-1994)– pointed out in his Doctoral dissertation of 1980, "although once the most important subject of the architectural course, in the last years, drawing has practically been a forgotten subject for architectural education"²⁶. Consequently, in both professional and academic contexts, architects and critics reported on the devaluation of the role of the architect when "plain rationalist form becomes the result of market economy rather than the outcome of a compositional process"²⁷. As Antonio Fernández Alba asserted in 1981, this was the ultimate proof of the "architect's loss of operative value within the cultural context of our time"²⁸.

In this sense, both the production and exhibition of these "beautiful drawings" appeared as a way to gain back the "cultural operability" of the professional architect. Confronting the aseptic drawing attributed to the period of the Technocracy, a "critical figuration" was emerging under the architect's agency. The architect would no longer be solely understood as a technician, but also as an intellectual. In the same way, architecture was not solely be understood as a craft, but it aimed to be comprehended as a political and critical activity, exercised and completed within the project, or what is to say, on the drawing board.

In Spain, Oriol Bohigas –Director of the ETSAB (1977-1980)– had already stated the failure of society to provide the designer with a "position from which being able to influence the context with an ideological proposition"²⁹. During the technocratic period, the consumer society assumed as their own the options derived from neopositivism, the analytical methodologies and the works of the analysts of language, thus establishing, according to Bohigas, "a neutral philosophy", or what is to say, a philosophy "with no concept of the world"³⁰. In this sense, through the radical reform of the curriculum of the School of Barcelona and the incorporation of new teachers willing to accept and implement his new agenda (i.e. Santiago Roqueta, Monserrat Ribas, Lluís Clotet or Enric Soria), Bohigas was trying to reclaim the rhetorical attributes of architectural drawing. As he explained, "the radical transformations of the last years had tried to exile drawing, substituted by other interests considered as a priority"³¹. This made specially necessary "to underline the importance of the role of the techniques of representation, not only as a means to correctly read buildings, but as elements able to explain concepts and intentions, attitudes and poetic predispositions"³².

"... and in order for this reading and this knowledge to trigger the necessary intuitions, it is necessary that they can be confirmed by means of drawing. Surely, it is the safest instrument to proceed with the analysis, in order to make the interpretation and to set the path for analysis and interpretation

towards the creation of a poetic of one's own. Thus, the education of sensitivity, essential in the qualification of the cultural contents and in the formation of poetic contents, has to go through reading and representation, which in the case of architecture means drawing as well as other collateral elements³³.

According to Bohigas, it was precisely the neopositivist attitude of the period of Technocracy that made society to erase "any possibility of introducing an ideological perspective into the realm of technical education –for instance, by implementing measures such as the incorporation of the Schools of Architecture as part of the Polytechnic Universities–, and consequently, erased all possibility for the "technicians" [as architects] to be educated as political men"³⁴. This way, the proposed alternative was the recuperation of "the academic role of drawing" by means of the traditional practice of "measuring the monuments". However, the type of drawing adopted, would not be one with annotations and measurements, where pure line, aseptic and neutral, becomes the protagonist. On the contrary, it would be the elaboration of a "beautiful drawing", no doubt inspired by the contemporary revisionist exhibitions of the time, whose ideological quality lied firstly, in the substitution of the bare line by the extraordinary display of watercolour, secondly, in the chosen models to be redrawn –which belonged to any historical period, although an emphasis was made on the 19th Century–, and finally, in the composition of the sheet. Furthermore, the ideological capacity of these drawings was in direct relation to their ability to explain the city. As Helena Iglesias pointed out, the "expressive character" of these drawings is also the expression of "the city in which we intervene, that reflects its eclectic and historicist architecture"³⁵. In the same way, Javier Seguí defended that, the drawings of this new period of the School confronted that "reductionist and technocratic pedagogy" in order to discover the "symbolic and representative roots that" linked "men to places"³⁶. The students redrew architectural references such as the Palace of Congress in Madrid, the Northern Station (**fig. 08**) and the Church and Convent of Santo Domingo in Valencia, the architecture of Gaudí, the Architecture of the Deputation (**fig. 09**), or the facades of the Ramblas (**fig. 10**) in Barcelona, etc. All of them examples of an idea already set forth by Bohigas when explaining the collective dwelling houses of Barcelona, they responded to the creation of a "pleasant city", or, as stated by Iglesias, "the most vivid image of the "polyglot" character of the modern bourgeois city"³⁷.

Nevertheless, these beautiful drawings, contrary to what it could seem a sheet thoroughly elaborated by a 'virtuoso,' were the result of excessive hours of work, enough time "for people who had never done a drawing before –as Santiago Roqueta explained– ended up obtaining an excellent result, even by means of such a complicated technique as watercolor, ... students would make, at least, a fantastic drawing in their lives in order to prove to themselves their capability"³⁸. In a sense, they followed the democratic spirit of these years, intending to erase the old selective attributes acquired by the graphic courses in the Architectural Schools during previous periods³⁹. The School had been understood as the place for the elite and to confront this situation there was only one alternative: the creation of a "Critical School"⁴⁰. This understanding of the University would invade every pedagogical ambience –and as a consequence, also the drawing courses– as the par excellence argument for its renewal⁴¹. However, despite the critical spirit of the beginnings –a beautiful drawing able to express a reflection on the architectural value of the project of the city– as the decade of the eighties progressed, this drawing would become selfabsorbed (*ensimismado*), in the sense that its ultimate aim, rather than the expression of some architectural idea, would be the achievement of a sheet able to be "appreciated... and to be hanged on the wall!"⁴². This way, the beautiful drawing, once a critical piece, would become part of the same market mechanisms against which its recuperation was argued.

Despite all the contradictions in which any pedagogical project may incur, the vast production of graphic materials from the Schools of Architecture during the last quarter of the 20th Century would undoubtedly contribute to the creation of a cultural atmosphere that, not only meant the revision of modernity, but the revision of the professional role of the architect. This curatorial work carried out by the Architectural Graphic Expression Departments was not confined to the preparation of the exhibition or the consequent publication, but it started at the workshop, comprising the process that goes from the selection of the architectural example to be redrawn and the composition of the sheet, until that "beautiful drawing" was able to be hanged.

In this sense, the exhibitions became one of the main agents of the contemporary architectural culture. Due to them, also internationally, the pedagogical practices were incorporated as part of the architectural discourse and became almost more relevant than the architectural practice of the architects-educators that started them. This ceaseless activity had as its main protagonist Schools as the Cooper Union, Princeton, Columbia or the Architectural Association. The Spanish Schools unquestionably paid attention to this international context with extreme interest⁴³. In fact, this period of graphic excellence would end for the Spanish Schools, not only with the promulgation of the new curriculums in the 1990s – which introduced a drastic cut in the hours for the drawing courses–, but also, with the travelling of these drawings to the Venice Biennale in 1991. Whereas the School of Madrid, noticing already the ending of the protagonism of the graphic courses within the School context, would only exhibit the results of their design courses, Barcelona, maybe also aware of the ending of a period, exhibited only those beautiful drawings produced along that brilliant decade of the 80s –Gaudí, the Alhambra, or some of the most experimental drawings, although beautifully executed, elaborated in "Drawing III".

Definitely, these exhibitions confirmed that architectural drawings, as Robin Evans stressed, are much more than mere "technical facilitators"⁴⁴. Drawing is not only constraint to transmit a piece of information in order to enable construction, but it constitutes a fundamental channel for the creation and elaboration of architectural concepts. It would be precisely this understanding of the discipline the one to be instrumentalized by these exhibitions of beautiful drawings in order to propose a very specific type of professional architect, confronted to the technocrat, able to articulate the political and ideological dimension of the profession on the drawing table.

María Álvarez García

Has completed a Doctorate in Applied Creativity (ETSAUN, Pamplona), History & Critical Thinking MA (Architectural Association, London), and she is an Architect (ETSAUN, Pamplona). María has been a Teaching/PhD Fellow at the University of Navarra, Visiting Lecturer at the School of Creative Arts of the University of Hertfordshire (Hatfield, UK) and invited critic at the Architectural Association (London). Furthermore, she has participated in different international conferences, and currently, she collaborates with Fundación Arquia as a blog correspondent.

Notes

01. See the architectural drawing exhibition catalogues in the appendix.

02. IGLESIAS, Helena, "Dibujo de arquitectura y "cuadro-dibujo de arquitectura", *Arquitectura*, 1995, n. 304, p 22 (author's translation).

03. Iglesias will also point out that the "works for the preparation of the Bicentenary would turn the United States upside down. I do not think that there is a paper, object or fabric of the period that had not been exhibited". See: *Ibid.*

04. Now, it would be explicitly pointed out the importance of writing the texts of the catalogues that, in the same way Drexler or Middleton had done in the case of the Beaux-Arts, could contribute to explain, through theoretical essays and commentaries, the proliferation of graphic materials as well as to through light on the fields of art and architectural pedagogy. Furthermore, scholars from Paris would also stress that the majority of these studies had been made in English, so it was still missing a precise and detailed history of one of the most representative cultural institutions of their country in French. See: *Catalogue of the exhibition Paris-Rome-Athens: Le voyage en Grèce des Architectes Français aux XIXe et XXe siècles* (Paris: École Nationale Supérieure des Beaux-Arts, 1982).

05. École Nationale Supérieure des Beaux-Arts (12th May to 18th July, 1982); Pinacothèque Nationale d'Athènes, Musée Alexandre Soutzos (15th October to 2nd January, 1983); The Museum of Fine Arts, Houston (1st July to 4th September, 1983); IBM - Gallery of Science and Art, New York (2nd February to 24th March, 1984).

06. Besides the already mentioned, many other architectural drawing exhibitions took place in those years. Among them, it could be pointed out the celebration of the 125 years of the Architectural Association in 1972, and, in December of the same year, another important show opened in Brussels under the title of *Architecture art du dessin? Architectuur*

Tekenkunst? In 1976, after the show of Italian Rationalism in the Triennale of 1973, *Il Razionalismo e l'Architettura in Italia durante il Fascismo* would be exhibited at the Biennale (14th July to 10th October). Already in the 1980s, it should be mentioned the show at the London Fischer Fine Art Gallery, *British and European Architectural Drawings, 18th - 20th Century: an Anthology* in 1982 or, in the same year in Hannover, the show that exhibited the drawings of Piranesi, *Inventionen: Piranesi und Architektur Phantasien in der Gegenwart*. Also in Europe in 1984, it is important to highlight the exhibition organized in Paris by the Pompidou, *Images et Imaginaires de l'architecture*. Particularly in this show, not only the historical materials would be revisited, but also drawings by contemporary architects would be incorporated, thus sharing a common argument about the representation of architecture. By the end of the 1980s, in 1989, the Canadian Centre for Architecture would organize in Montreal an exhibition to commemorate the first decade since its creation. In this show, the prestigious institution did not only share the materials of its archive, but edited a famous publication including essays by Robin Evan and Helene Lipstadt, *Architecture and its Image: Four Centuries of Architectural Representation*.

07. See: Escuela Técnica Superior de Arquitectura de Barcelona, ed., *Exposición conmemorativa del Centenario de L'Escola d'Arquitectura de Barcelona. 1875-76/1975-76*, E.T.S.A.B., Barcelona, 1977; see also: TUSQUETS, Óscar; AMADÓ, Roser, DOMÈNECH, Lluís; CAPITEL, Antón; SAMBRICIO, Carlos, eds. *Arquitectura para después de una guerra 1939-1949* [exhibition catalogue which took place in November-December, 1977, at the Museo de Arte Moderno de Madrid], Colegio de Arquitectos de Cataluña y Baleares, Comisión de cultura, Barcelona, 1977.

08. CAPITEL, Antón, SAMBRICIO, Carlos, "Arquitectura para después de una guerra", *El País*, 8 Diciembre, 1977.

09. AMADÓ, Roser, DOMÈNECH, Lluís, "Barcelona, los años 40: Arquitectura para después de una Arquitectura", *Cuadernos de arquitectura y Urbanismo*, 1977, n. 121, p. 4.

10. Escuela Técnica Superior de Arquitectura de Barcelona, ed., *Exposició commemorativa del Centenari de L'Escola d'Arquitectura de Barcelona. 1875-76/1975-76*, E.T.S.A.B., Barcelona, 1977.

11. See: CARLHIAN, Jean Paul, "The Ecole des Beaux-Arts: Modes and Manners", *JAE* 33, 1979, n. 2, pp. 7-17.

12. LEVINE, Neil, "The competition for the Grand Prix in 1824: a case study in architectural education at the Ecole des Beaux-Arts", AA.VV. *The Beaux-Arts and Nineteenth-Century French Architecture*, ed. Robin Middleton Thames and Hudson, Londres, 1982, p. 123.

13. This subject would be complemented with another course, also inspired by the law of 1957 and created together with "Analysis of Architectural Forms", that was introduced as a course in-between the "graphic" subjects and those belonging to the realm of "projects" (*architectural design*): "Elements of Architectural Composition". It was taught in third year, preceded by "Analysis of Architectural Forms II" in second year and followed by "Projects I" (*Proyectos I*) in fourth year. Thus, a proper course in design (or *projects*, as it is literally translated from the Spanish) was not incorporated within the Architectural studies till fourth year. This way, the role of design in first, second and third years would be assumed by the so-called "graphic courses", distributed in 17 hours per week in first year, 6 hours in second and 12 hours in third under the subject of "Elements of Architectural Composition".

14. "Geometry I and II" (*Geometría Descriptiva I y II*) would be established as an independent field of knowledge to that of the so called "graphic courses", but it would be developed in a parallel way to "Drawing I and II". The elimination of the ambiguous course of "Elements of Architectural Composition" allowed the catalan school to introduce the course of "Projects" already in second year, thus coexisting with the graphic courses and responding to the already mentioned intention of introducing the first year student, since the very beginning, into the problematic of real architectural concepts. This way, they will dedicate 13 hours per week to the "graphic subjects" in first year, 9

hours per week to the "graphic" and 6 hours to "projects I" in second year, and in third year, the students will dedicate 7 hours per week to "Projects II".

15. "Drawing III" ("Dibujo III"), as stipulated by the curriculum, had been proposed as a "subject depending on the Department". This courses would be "coordinated by the Chairmen of the field" and their teaching would be generally assigned "to all the professors of that field and, specifically, to the ones assigned to that course". See: *Estudios de Primero y Segundo Ciclos*, Escuela Técnica Superior de Arquitectura de Barcelona, UPB, Barcelona, Septiembre 1980 (author's translation).

16. The different branches of knowledge offered to the students in the second part of the degree were organized in two "specializations": "Specialization in Design, Urbanism and History" and "Specialization in Building". Both of them provided the students with different optional subjects. The former was divided into three different groups for Design, Urbanism and History & Theory; the latter, into another three, one for Structures, one for Construction and another one for Services. See: *Normas Generales, Escola Tècnica Superior d'Arquitectura*, UPC, Barcelona, Septiembre 1980.

17. "The University Institutes, and their professors being part of them, could engage in contracts with different public or private entities, or with a physical person, for the realization of scientific, technical or artistic works as well as the development of specialization courses. The University By-Laws will establish the procedures in order to authorize such contracts and the criteria for the implications of the obtained benefits and goods". In: "Ley Orgánica 11/1983, de 25 de Agosto, de Reforma Universitaria", *B.O.E.*, 1 Septiembre 1983, n. 209, p. 24035 (author's translation).

18. GARCÍA NAVAS, J., et al., "Trabajo realizado por la Cátedra de Dibujo II, para el Ayuntamiento de Barcelona", AA.VV. *Actas del I Congreso de Expresión Gráfica Arquitectónica. Sevilla 3, 4 y 5 de Abril de 1986*, Junta de Andalucía. Consejería de Obras Públicas y Transportes. Dirección General de Arquitectura y Vivienda, Sevilla, 1986, p. 101 (author's translation).

19. Ibid.
20. Ibid.
21. MASIDES SERRACANT, Modesto, "Perspectivas de Captación de Recursos de los Dep. de E.G.A. en el Marco del Nuevo Ordenamiento Legal Universitario: de la Autarquía al Marketing", AA.VV. *Actas del I Congreso de Expresión Gráfica Arquitectónica. Sevilla 3, 4 y 5 de Abril de 1986*, Junta de Andalucía. Consejería de Obras Públicas y Transportes. Dirección General de Arquitectura y Vivienda, Sevilla, 1986, p. 49 (author's translation).
22. Ibid.
23. The different Conferences from the International Union of Architects that took place along 1960s showed the current preoccupation about the professional status as well as the critical situation of the Architectural Schools. In fact, in 1965, the VIII Congress of the I.U.A. was dedicated to "the Formation of the Architect". A decade later, in 1975, before the persistent crisis of the Schools, the U.N.E.S.C.O. would commission a report to the I.U.A. where the following questions would be set out: "what kind of architect? What kind of education?" See: Report by the UIA (Union Internationale des Architectes) to the request of the UNESCO, *De la Formation des architectes. Studies made on six world reports at the request of U.N.E.S.C.O., U.N.E.S.C.O., Paris, 1975*, pp. 3-4.
24. ELIZALDE, Javier, "Análisis crítico de la realidad social que configura el trabajo del arquitecto en España", AA.VV. *Ideología y Enseñanza de la Arquitectura en la España Contemporánea*, ed. Antonio Fernández Alba, TUCAR Ediciones, Madrid, 1975, pp. 114-116 (author's translation).
25. Ibid.
26. ROQUETA, Santiago, "Tratado de Dibujo", Tesis Doctoral, ETSAB-UPC, Barcelona, 1980 (author's translation).
27. FERNÁNDEZ ALBA, Antonio, "El Ocaso de una Profesión. El lugar de los Arquitectos en la Sociedad Industrial", *CAU. Construcción. Arquitectura. Urbanismo*, 1981, n.70, p. 43 (author's translation).
28. Ibid., p. 44.
29. BOHIGAS, Oriol, *Proceso y Erótica del Diseño*, La Gaya Ciencia, Barcelona, 1978, p. 177 (author's translation).
30. Ibid., pp. 140-142.
31. Ibid., p. 38.
32. Ibid.
33. BOHIGAS, Oriol, "El Dibujo y la Sensibilidad", AA.VV. *Dibujos. Selección de ejercicios realizados en 6 curso de la ETSAB entre los años 1978-1991*, ed. Enric Soria, UPC, ETSAB, Barcelona, 1991, p. 11.
34. BOHIGAS, Oriol, *Proceso y Erótica del Diseño*, La Gaya Ciencia, Barcelona, 1978, p.178 (author's translation).
35. IGLESIAS, Helena, "Introducción" a *Dibujar Madrid: análisis y propuestas gráficas sobre arquitectura madrileña. Trabajos realizados en la Segunda Cátedra de Análisis de Formas Arquitectónicas de la E.T.S. de Arquitectura de Madrid bajo la dirección de Helena Iglesias*, Comunidad de Madrid, dirección General de Bellas Artes; Ministerio de Asuntos Exteriores, Dirección General de Relaciones Culturales, Madrid, 1984, p. 16 (author's translation).
36. SEGUÍ, Javier, "Medio Ambiente, Dibujo y Formación Arquitectónica", *Comprendiendo Toledo*, ed. Javier Seguí, Colegio Oficial de Arquitectos de Madrid, la Delegación de Toledo, Madrid, 1983 (author's translation).
37. See: BOHIGAS, Oriol, TUSQUETS, Óscar, *Diàlegs a Barcelona*, Editorial Laia, Ajuntament de Barcelona, Barcelona, 1986, pp. 20-21.
38. See: "Entrevista a Santi Roqueta. El dibuix com a eina de diàleg i coneixement", *Eupalinos*, 1999, n. 6, pp. 9-10 (author's translation).
39. These concerns were already pointed out by both the professional and academic debate as well as by the students' protests against the course of "Technical Drawing"-for being a highly selective subject and having an outdated content-that took place in the beginning of the 1970s in Barcelona. See: MUNTAÑOLA THONBERG, Josep, "Breve cronología histórico-biográfica de la ETSAB desde 1962 a 1974", AA.VV. *Materiales para un Análisis Crítico de la Enseñanza de la Arquitectura*, ETSAB, Barcelona, 1975, p. 22.
40. "... But this solution, the creation of the Technocratic University, is not the necessary solution in order to obtain a true response to the students' necessities. The only possible solution would be achieved within the context of an University with no class privilege; however, this is not possible right now, so we only have one alternative: the creation of a Critical University". See: E.T.S.A.B. Professors Meeting held on the 26th November 1968, in: Ibid. p. 17 (author's translation).
41. "... But in any case, what within the school context should always be done is to connect both, graphic and conceptual teaching by means of the 'critique'". See: "Arquitectura de los años 80", *ANNALS de Arquitectura*, 1983, n. 3, p. 96 (author's translation).
42. CLOTET, Lluís, ROQUETA, Santiago and SORIA, Enric, "Una conversación sobre el dibujo en la escuela de arquitectura", AA.VV. *Dibujos. Selección de ejercicios realizados en 6º curso de la ETSAB entre los años 1978-1991*, compilación Enric Soria, Escuela Técnica Superior de Arquitectura de Barcelona, Barcelona, 1991, p. 23.
43. As it can be proven by the numerous international congresses, workshop, etc. that took place along those years. For instance, it could be consulted the summary of texts presented in the International Conference of Architectural Education at the ETSAB in 1980. Among its attendees were Alvin Boyarski (Architectural Association, Londres), Lars Lerup (University of Berkeley, California), Robert Slutzky (The Cooper Union, Nueva York), Jorge Silveti (Harvard, Massachusetts), Rodolfo Machado (Rhode Island School of Design, New England), Antonio Fernández Alba and Antonio Vázquez de Castro (ETSAM). See: BRAVO I FERRÉ, Lluís and GARCÍA NAVAS, José, eds., *L'Ensenyament de l'Arquitectura*, Publicacions del Col·legi Oficial d'Arquitectes de Catalunya, Barcelona, 1980; see also: "Seminario Internacional de Arquitectura y Diseño Urbano en USA y España (Cornell University, NY; Palacio de los Condes de Miranda, Burgos)", later published in BELLOSILLO AMUNATEGUI, Javier, ed., *Proyecto y Didáctica: ¿Hacia una nueva forma de Academia?* Servicio de Publicaciones del COAM, Madrid, 1983.
44. EVANS, Robin, "Architectural Projection", en *Architecture and its image, four centuries of Architectural Representation: Works from the Collection of the Canadian Centre for Architecture* -re CCA, Montreal, 1989, p. 21.
- Images**
01. Federico Kraus. "Granda. Fuente central y detalles del Patio de los Leones en la Alhambra." *Monumentos Arquitectónicos de España*. Stone; lithographic pen, ink and pencil. 745x600 mm. Drawing by Rafael Contreras y Muñoz.
02. Interior of the exhibition catalog. Drexler, Arthur. *The architecture of the Ecole des Beaux-Arts*. Nueva York: The Museum of Modern Art; Cambridge, MA: The MIT Press, 1977.
03. Catalog of the exhibition that took place at the École nationale supérieure des Beaux-Arts, May 12 to July 18, 1982, at the Pinacothèque nationale d'Athènes, Musée Alexandre Soutzos, October 15 to December 15, 1982, and at The Museum of fine Arts (Houston), June 17 to September 4, 1983. Hellman, Marie Christine; Fraisse, Philippe; École nationale supérieure des Beaux-Arts (Francia); Jaques, Annie. *Paris-Rome-Athens: Le voyage en Grèce des Architectes Français aux XIXe et XXe siècles*. Paris: Ecole des Beaux-Arts, 1983.
04. Josep Puig i Cadafalch 1891, "Monumental Bridge." Last exercise. Watercolor and ink, 137x83 cm. Graphic File ETSAB-UPC. Drawing exhibited at the *Exposició commemorativa del Centenari de L'Escola d'Arquitectura de Barcelona*. 1875-76 / 1975-76 that took place from January 25 to February 27, 1977 at the National Palace of Montjuïc, Barcelona.

05. Javier Murat Agreda, "Axonometric section of the Royal Palace of Madrid." Watercolor, graphite pencil and red ink. 57x90, 70x100 cm. Drawing published in: Iglesias, Helena. *Arquitectura en el Palacio Real. Dibujos realizados en la Segunda Cátedra de Análisis de Formas Arquitectónicas de la E.T.S. de Arquitectura de Madrid bajo la dirección de Helena Iglesias.* Madrid: Reales sitios Españoles, 1991, pp. 78-79.

06. Yolanda Boto González, "Colonia Güell Church", fragment of the facade. Watercolor on paper, 100x70 cm, Graphic Archive of the ETSAB-UPC Library. Drawing published in: Universidad Politècnica de Catalunya. Càtedra de Dibuix II. *Gaudí dibuixat pels estudiants de l'Escola Tècnica Superior d'Arquitectura de Barcelona, dirigits pels professors: Santiago Roqueta Matías, José García Navas, Javier Monedero Isorna, Antonio Pérez Rodríguez, Ernest Redondo Domínguez i Monserrat Ribas Barba, de la Càtedra de Dibuix II, al llarg del curs 1983-84.* Barcelona: Ayuntamiento de Barcelona, Escola Tècnica Superior d'Arquitectura de Barcelona - Universitat Politècnica de Catalunya, 1985, lámina IX.

07. Josep Maria Fort Mir. Study of a pavement for a public place in Diagonal. Watercolor made in the subject of Drawing III in the 1983/84 course. Drawing published in: Soria Badía, Enric, ed. *Dibujos. Selección de ejercicios realizados en 6º curso de la ETSAB entre los años 1978-1991.* Barcelona: ETSAB, 1991, p. 53.

08. Héctor Conesa Hernández, "General View Platform and Cover," marker on paper 59x42 cm. Drawing published in: Universidad Politècnica de Valencia, E.T.S. de Arquitectura, Departamento de Expresión Gráfica. *Dibujar Valencia III, Estación del Norte.*

09. Original drawing by Germà Català Torras, "Maritime Museum, Facade on the Paseo de Colón de Drassanes." Watercolor on paper, 100x70 cm.

Graphic Archive of the ETSAB-UPC Library. Drawing published in: Universidad Politècnica de Catalunya. Càtedra de Dibuix II. *Arquitectura de la Diputació de Barcelona. Dibujat pels estudiants de l'Escola Tècnica Superior d'Arquitectura de Barcelona, dirigits pels professors Jordi Bertran i Castellví, Josep Bosch i Espelta, Modest Masides i Serracant, Ignasi Rivera i Buxareu i Jordi Vila i Robert, de la Càtedra de Dibuix II, al llarg del curs 1986-87.* Barcelona: Diputació de Barcelona, Escola Tècnica Superior d'Arquitectura de Barcelona - Universitat Politècnica de Catalunya, 1988, lámina I.

10. Joan Maria Barrufet, "Facade of the Rambla," Drawing II course 1984-85, watercolor on paper, 100x70 cm. Graphic Archive of the ETSAB-UPC Library. Drawing published in: Margarit, Joan. *Poema per un fris: Façana de la Rambla, dibuixada pels estudiants de l'Escola Tècnica Superior d'Arquitectura de Barcelona.* Barcelona: ETSAB, 1987.

06

Exhibited architecture. Artistic transitions on architectural photographic representation

Iñaki Bergera
Enrique Jerez

If we can state that certain architectural production currently finds its origin and explicit accommodation in the field of the exhibition, it is even more logical -considering the unavoidable visual culture- to assert that the images of architecture prevail autonomously over the architecture they represent, becoming independent of the strictly disciplinary and exhibited illuminated in the aura of the artistic on the walls of a museum. To explore this argument in line with the subject from the current Ra's issue, we will review eight exhibitions, and their corresponding catalogues, held in different museums and art galleries from 1982 to 2018, and focused on exploring architectural photographic representation and its translations to and from artistic practices. We aim not just to make an exhaustive review of this reality, but to extract from its analysis a contemporary critical reading of its potentialities and interpretations.



PHOTOGRAPHY AND ARCHITECTURE: 1839-1939

"Architectural photography is a closed system that refers strictly to its own canons of representation and only tangentially to the architecture in question".

Lewis Baltz¹

INTRODUCTION

Undeniably, it is through its images that architecture best presents and represents itself, where it is revealed and unveiled. Architecture, as object and space, *is there* but its images -when the actual and phenomenological experience does not obstruct it- become not only documents in themselves, but a reading and interpretation of it. Ever since the pop artist Ed Ruscha photographed some dull buildings in a Los Angeles street, and Bernd and Hilla Becher collected typologies of industrial buildings, tanks and granaries or, later, Andreas Gursky explored the architectural stages of the global consumer village, the photography of buildings has fed off the aura of the artistic imbued with a potential that the discipline of architecture, similarly subject to the rhythms of visual