EDUCATION OF AN ARCHITECT: A POINT OF VIEW. AN EXHIBITION BY THE COOPER UNION SCHOOL OF ART & ARCHITECTURE AT THE MUSEUM OF MODERN ART, NEW YORK CITY, NOVEMBER 1971. THIS BOOK AND THE EXHIBITION ARE CO-SPONSORED BY THE ARCHITECTURAL LEAGUE OF NEW YORK AND THE DEPARTMENT OF ARCHITECTURE AND DESIGN OF THE MUSEUM OF MODERN ART UNDER AN INITIATING GRANT FROM THE GRAHAM FOUNDATION FOR ADVANCED STUDIES IN THE FINE ARTS.

# **The Afterlife of an Exhibition:** John Hejduk and the *Education of an Architect* Reto Geiser

While the status of the architectural exhibition has recently received renewed attention in the museum world as a specific set of practices different from other forms of curation and display, less attention has been paid among architects to the specificities of the exhibition and its related formats as vehicles for reshaping public understanding of architecture. Beyond the exhibition as an opportunity to expose a broader audience to architecture, museums and galleries have been important platforms for the discussion, exploration, and dissemination of fundamental disciplinary ambitions, particularly also through their exponentially growing publications programs. This essay focuses on a small, and often overseen exhibition at the Museum of Modern Art (MoMA) in New York. Staged by the architect John Hejduk, exhibition number 984 Education of an Architect (1971) showcased student work from the Cooper Union. While the impact of this exhibition consisting of fourteen models and a selection of drawings and collages, was mostly limited to a local audience, the book published in parallel would prove to become a key reference for architectural educators around the world. Education of an Architect: A Point of View (1971) is the origin for a number of publications that focus on pedagogical concepts, and as such, it fueled the discussion and reassessment of how we teach foundational courses in architectural design.

# **Reto Geiser**

He is a scholar of modern architecture with a focus on the intersections between architecture, pedagogy, and media. He has taught in the United States and in Europe, and is currently Associate Professor of Architecture and Director of Undergraduate Studies at the Rice University School of Architecture, where he teaches history, theory, and design. Geiser is the author of Giedion and America: Repositioning the History of Modern Architecture (2018), a study that traces aspects of cultural transfer and transatlantic exchange in the work of Swiss art historian Sigfried Giedion. He is the co-author of Reading Revolutionaries (2014), and the editor of the award-winning House is a House is a House is a House is a House (2016) and Explorations in Architecture (2008). He has curated the exhibition Explorations: Teaching, Design, Research, Switzerland's official contribution to the 11th Venice Architecture Biennale, and the installation Rooms for Books at the 2017 Chicago Architecture Biennial, A founding partner in the Houston-based design practice MG&Co., he is developing spatial strategies in a range of scales from the book to the house.

#### PALABRAS CLAVE

Architectural Education, Pedagogy, Architectural Exhibitions, Architectural Broadcasting, Media, John Hejduk

#### KEYWORDS

Enseñanza de arquitectura, formación, pedagogía, exposiciones arquitectónicas, difusión de la arquitectura, medios de comunicación, John Hejduk

#### Fig. 01 *Education of an Architect*, exhibition catalog, Museum of Modern Art, New York, 1971.

#### Fig. 02

Education of an Architect: A Point of View, The Museum of Modern Art (MoMA), New York, November 1971 to January 1972, exhibition view. From: Education of an Architect (1999): 12.



02

Architectural exhibitions have played crucial roles in shaping broader definitions and understandings of architecture and its relation to the social, political, and economic questions of the contemporary world. The specific formats and challenges of exhibiting architecture-both speculative and built-have often been used as key devices for identifying and communicating urgent issues to the public, including the cultural questions of equality and social justice, labor, race, class, and lifestyle in relation to spatial issues of density, living standards, infrastructure, climate, or sustainability'. Yet while the status of the architectural exhibition has recently received renewed attention in the museum world as a specific set of practices different from other forms of curation and display, less attention has been paid among architects to the specificities of the exhibition and its related formats as vehicles for reshaping public understanding of architecture and the contemporary city<sup>2</sup>.

Beyond the exhibition as an opportunity to expose a broader audience to architecture, museums and galleries have been important platforms for the discussion, exploration, and dissemination of fundamental disciplinary ambitions, particularly also through their exponentially growing publications programs. Catalogs published in conjunction with museum shows are quite frequently the most effective (if not the only) remnant of an exhibition. In contrast to the traditional museum catalog that functioned as an illustrated list of objects on view, books that expand on the curatorial ambition of an exhibition by anchoring a project within a broader disciplinary discourse, have become indispensable agents, providing the readers with more background and context; they allow to include additional voices, and, most importantly, they advance architectural thinking beyond the limited scope and duration of an exhibition<sup>3</sup>. With the releases of titles like Philip Johnson and Henry-Russell Hitchcock's 1932 The International Style (not to be mistaken for the actual exhibition catalog, Modern Architecture International Exhibition, published in the same year) or Emilio Ambasz's Italy: The New Domestic Landscape (1972) museum publications have developed an existence of their own, independent of the exhibition in conjunction of which they were published.

That exhibition number 984 *Education of an Architect* opened at the Museum of Modern Art (MoMA), New York, in November of 1971, can be considered a small sensation (fig. 02). Never before (and never after)

student work from a single school of architecture occupied the limelight at the most influential museum for modern art and architecture. The impact of this exhibition, staged in the relatively small Auditorium Gallery and consisting of fourteen models and a selection of drawings and collages, however, was mostly limited to a local audience. The book published in parallel to the exhibition, on the other hand, would prove to become a key reference for architectural educators around the world and had a more lasting impact than the exhibition. Education of an Architect: A Point of View (1971) is the origin for a number of publications that focus on pedagogical concepts, and as such, it fueled the discussion and reassessment of how we teach foundational courses in architectural design<sup>4</sup>. (fig. 03) The tome assembled by practicing architect and educator John Quentin Hejduk (1929/2000), is neither a handbook with clear rules, nor is it a standardized reference work, as it was published by Ernst Neufert in times of cultural coordination [Gleichschaltung], and it is certainly not a textbook that conveys teaching materials independent of personal bias or creative processes that are hard to measure<sup>5</sup>. On the contrary, Hejduk presents us with possibilities, not fixed solutions to design problems. He "did not teach what he 'knew,' but rather what he was in the process of discovering himself"6.

Not unlike an exhibition, this slightly enigmatic book is the visual attempt of a new architectural pedagogy. It intentionally blurs the boundaries between design teaching as an instruction to act –as it was commonly promoted in educational publications of the nineteenth century–, and a theory of design, which is primarily concerned with critical reflection –as we know it from early modern manifestoes. John Hejduk's *Education of an Architect* is shaped by a methodical, systematic approach, and yet, it is not inflexible. The book offers a range of possible interpretations of Hejduk's teaching structure, in which theory is acquired through practice rather than the other way around. As much as Hejduk's position cannot be predominantly understood through his built work or his writings, his pedagogical arguments, too, are primarily conveyed through drawings.

But as opposed to the exhibition, which meant to introduce Hejduk's pedagogy to a wider audience, the book was targeted at architecture students, and specifically the die-hard Cooper Union followers, who were among those capable to grasp the extremely reduced graphic representations, without captions or explanations. But nevertheless, through its display of plates, and in contrast to typical design manuals, the book also attracted a wider community of architecture aficionados and practicing architects. The ambition to make the work accessible resonates in the generous format of the illustrated book, which is rather impractical for a textbook, and in the public presentation of the works at MoMA.

Hejduk's position was (and is) hard to grasp for many, and yet, it was extremely provocative. In his own work and the projects of his students, he managed to overcome seemingly irreconcilable contradictions. He negotiated between Dada and Beaux-Arts, between cultural integration and absolute autonomy, between theory and practice. The reactions of the critics of book and exhibition most obviously document the challenging character of his work-from a pedagogical, as well as from an architectural perspective. From the journal *Architectural Forum*, whose unnamed critic saw the "Beaux-Arts revived so tastefully", to the eminent critic Ada Louise Huxtable, who described Hejduk's teaching method as a "formalistic straitjacket", the reactions to the



03

Fig. 03 John Q. Hejduk. From: *John Hejduk:* 7 *Houses* [12 IAUS] (Cambridge: MIT Press, 1980).



Reto Geiser

RA 21





14

exhibition opened a field of diverging interpretations<sup>7</sup>. This plurality of opinions found its expression a decade later in Tom Wolfe's ironiccritical book *From Bauhaus to Our House* (1981), in which he characterized Hejduks work as a "Corbu boat inserted, against all odds, inside a Beaux-Arts bottle"<sup>8</sup>.

Educated as an architect at Cooper Union between 1947 and 1950, John Hejduk is part of the first generation of postwar architects in the United States, trained by educators who still completed the ubiguitous Beaux-Arts system. Frank Lloyd Wright, Mies van der Rohe, Walter Gropius und Le Corbusier were for many young American architects trained after the war a first point contact with modern architecture, and the exponents of the International Style were championing its formal characteristics accordingly. Hejduk's design methodology, based on the classical Nine-Square Grid, might therefore seem rather anachronistic at first glance (fig. 04). But if we consider that most American architecture schools were still committed to the predominant stylistic eclecticism that defined the nineteenth century, the preoccupation with the foundation of classical rules of proportion is not that surprising. This basic study of order and type and its relationship to modern architecture, however, is not to be attributed to Hejduk. The renewed interest in historical references in architecture has to be framed in the context of the European architectural discourse of the early postwar years. As much as Hejduk was committed to the basic pedagogical principles of the Bauhaus, he was part of a new generation of practicing architects that neither believed in a simple amalgamation of art and technology, or a union of symbolic expression and functional pretense, nor shared an interest in a resurrection of historical principles..

Hejduk's thinking, and correspondingly his pedagogical approach, are inevitably reminiscent of the Anglo-American architectural discourse of the early postwar years. In Great Britain, a generation of emerging architects critically engaged the modern heritage. As a consequence of what was perceived as a disciplinary crisis, its proponents aimed to reintroduce historical thinking within discourse, and to interconnect critical art history with design practice. The advocate behind this idea was British-born Colin Rowe (1920/1999), architect, critic, educator, and Hejduk's companion for a time. Rowe was influenced by his teacher Rudolf Wittkower (1901/1971), and still a student, he penned the essay "The Mathematics of the Ideal Villa", which, as a continuation of Wittkower's methodology into the modern period, bridged between two camps that normally remained separate: art history and contemporary architectural theory<sup>®</sup>. By means of a comparison of selected projects by Andrea Palladio with early villas by Le Corbusier, Rowe liberated himself from the imperatives of historical objectivity and underscored an enduring interest in modern architecture. In his seminal essay "Mannerism and Modern Architecture", the critic argued that the enrichment of architectural form with conceptual meaning was perhaps the most important achievement of modern architecture and hence advanced it from a precondition of design to an epistemology<sup>10</sup>. Through his understanding of form as an essential form of knowledge, Rowe rooted the relevance of formal analysis in architectural discourse and succeeded to link specialized historians with designing architects, who were primarily interested in the comprehension and transformation of modern architecture's legacy<sup>11</sup>.

Fig. 05

University of Texas, Austin, architecture faculty, 1954–55, with the "Texas Rangers", Hirsche, Hejduk, Slutzky, Rowe, Hoesli (Archiv gta, ETH Zurich).



05

**RA 21** 

While the resentment about the dogmatic nature of the modern movement and in particular organizations such as the International Congresses of Modern Architecture (CIAM) intensified, Rowe's method found fertile ground after its transfer to the United States, and it incited the ambition of architecture students to resume the momentum of early modernism in Europe. The pedagogical vacuum at the University of Texas at Austin, to which Rowe was appointed as a young architect in 1953, should prove to be an ideal environment to realize the desired cohesion between theory and practice for a first time in the curriculum of an architecture school<sup>12</sup>. The Swiss architect Bernhard Hoesli (1923/1984) had joined the faculty three years prior and the dean of the school, Harwell Hamilton Harris, hired four more young faculty only shortly after Rowe. Among them were the artists Lee Hirsche and Robert Slutzky, and the architects Kenneth Nuhn and John Hejduk. "[W] hat happened", Hejduk later described, "was a group of people came down and met. A handful of people without any pre-plan. In a funny way, it was just the chemistry of the individuals, which is unpredictable"13. During their time in Austin, the young architects, artists, and critics, later called the "Texas Rangers", grew to a tight-knit cohort, whose professional future was intricately linked to architectural education (fig. 05). They developed a new curriculum with the goal to teach students design processes rather than design outcomes. While the instructors provided a rigid framework and reliable structures, it was the students' task to independently grasp architecture as a discipline, and to critically reflect it by means of their work<sup>14</sup>.

The experiment in Austin only lasted for two years. After stays at Cooper Union and Cornell University, Rowe returned briefly to the United Kingdom before settling in Ithaca in 1962. Hejduk and Slutzky eventually began to teach at the Cooper Union in New York, where they were followed by a number of colleagues. Hoesli was appointed to ETH Zurich in 1958 where he anchored many exercises in his foundational course. The search for an independent comprehension of design, which could not be mechanically adopted, defined the work and the pedagogy of the "Rangers" even after the group dissolved, and it would shape architectural education at many American schools and in Europe alike.

16

John Hejduk, House 1, 1954–55, as exhibited at the Institute for Architecture and Urban Studies in New York, January 22 through February 16, 1980. From: *John Hejduk: 7 Houses* [12 IAUS] (Cambridge: MIT Press, 1980).

But despite the personal persuasiveness of each of these architects, the exceptional dissemination their ideas would have been hardly possible without a series of exhibitions and publications. Already back in Texas, Rowe, Slutzky and Hejduk began to pen some of their observations and insights in essays they published in relevant architecture magazines. "Transparency: Literal and Phenomenal", co-authored by Rowe and Slutzky in 1955, published in 1963 in Perspecta, and later translated by Hoesli into German, would not only serve as a pivotal text in the schools influenced by the "Rangers". To this day, this essay is an important example for the productive intersection between architectural history, theory, and practice. Along those lines, the Institute for Architecture and Urban Studies (IAUS) in New York, founded as the pivot of architectural theory in the United States in 1976, could be seen as a "halfway house between school and office"15. This exhibition, discourse, and publication platform served as an intellectual retreat for some of the protagonists of the Texas School<sup>16</sup> (fig. 06). Conversely, the school of architecture at the Cooper Union initially offered the architects associated with the IAUS -run by the architect Peter Eisenman, a former student of Rowe's- an environment to test and implement their ideas also in the context of teaching. Hejduk understood practice and pedagogy as two complementary spheres. But rather than establishing authoritative guidelines, he described his own approach to teaching as "osmotic" $\pi$ . The recourse to a methodology, which was based on the simplicity and rigidity of a given framework, within which students could freely experiment and design, was decisively rooted in the pedagogical developments of the "Texas School", and even in its modified form at Cooper Union, it bared Rowe's signature. Critical toward institutional settings and goals, he





07

reiterated in the context of an IAUS symposium that Eisenman organized to complement the MoMA show: "I am skeptical of too much research – because how can the student conduct research until he is informed about what is already known; I am also convinced that once a thing is teachable, can be specified and codified, it is, almost certainly, not very much worth learning; and for these reasons, I find myself believing very much in the virtues of confusion and the impromptu"<sup>18</sup>. Accordingly, the curriculum of the Cooper Union presented a continuous process of assimilation of method and craft. But as much as Hejduk underlined the openness of his pedagogical approach, a look at the school's exhibition and especially also its publications underlines that the projects developed under his deanship became continually more homogenous in terms of their formal vocabulary and graphic representation.

This critique can also be traced in the reactions to the exhibition at MoMA and the book published in conjunction with it. Ada Louise Huxtable praised the works as "spectacularly beautiful [...], elegant, formal", but also described them as "totally detached from the world around"<sup>19</sup>. She understood the works of the school as a "counter revolution" to predominant educational practices, which was confirmed by Eisenman, who characterized Cooper Union as "academia outside of academia, a kind of cloister outside of a cloister"<sup>20</sup>. It is precisely this positioning of the school outside of the usual academic conventions, and a pedagogy based on an ongoing disciplinary instability that shaped both exhibition and the publication titled *Education of an Architect* (fig. 07).

The architecture exhibition within one of the most important art institutions in the world was more than a public presentation of student works of a school of architecture. Together with the book, it marked the end of Hejduks first decade as dean of the school, and it launched a new beginning, which would be defined by embracing influences from other disciplines as well as a more critical approach toward the modern legacy. The subtitle of the book, "A Point of View", underscores that it is





not simply a documentation of projects. As opposed to the many eclectic publications produced by architecture schools, Hejduk's book is defined by a precise selection and thematic organization of student works to represent the entirety of idiosyncrasies and characteristics of Cooper Union doctrine (figs. 08 and 09). Even if this visual, pedagogical manifesto does not offer any quantifiable rules and instructions, it conveys along seven thematic emphases, illustrated with projects and completed with a number of thesis projects, how architectural education at Cooper Union was interpreted. Ulrich Franzen noted: "A book documenting the work of a school of architecture is in itself an unusual occurrence, and is an opportunity to present a clear programme demonstrating the practical results achieved by the students during a decade of agitation and confusion, both in the university and in society in general, thus establishing a clear counter-position to other academic programmes, and the thwarted ambitions of many young architects from other schools"<sup>21</sup>.

With a notable size of 30×30 centimeters, an extent of 324 pages, a weight of 2.5 kilograms, printed on heavy, coated paper and produced in a run of only 500 copies, the first edition of *Education of an Architect* was not a handy manual, which would be accessible to



# Fig. 07

*Education of an Architect*, exhibition catalog, Museum of Modern Art, New York, 1971.

19

# Fig. 08

Robert Slutzky, Two-Dimensional/Color Exercises, 1971. From: *Education of an Architect* (1999): 73.

## Fig. 09

The Juan Gris Problem (Michael Dolinski, Gris House), 1971. From: *Education of an Architect* (1999): 229.

## Fig. 10

The Cube Problem (Diplomprojekt, Kenneth A. Schiano), 1971. From: *Education of an Architect* (1999): 123.

# EDUCATION OF AN ARCHITECT: A POINT OF VIEW THE COOPER UNION SCHOOL OF ART & ARCHITECTURE

**RA 21** 

1964-1971 ....

## Fig. 11

11

Second edition of *Education of an Architect: A Point of View. The Cooper Union School of Art & Architecture, 1964–1971,* edited by Kim Shkapich and published by Rizzoli in 1999. The expanded subtitle alludes to the book's role in formation of the identity of Cooper Union.

Note of the author: Parts of this essay are based on an earlier publication in German, see: GEISER, Reto, "Die Architekturentwurfslehre," in: Dietrich Erben (ed.), Das Buch als Entwurf: Textgattungen in der Geschichte der Architekturtheorie. Ein Handbuch (Munich: Wilhelm Fink Verlag, 2019): 370-398. a large number of future architects. But nevertheless, the sober design and opulent materialization of the book designed by Roger Canon, seem programmatic. The square format reflects the dominant role of the neutral playing field in Hejduk's methodology, the Nine-Square and the Grid Cube Problem (fig. 10). The generous layout, shaped by ample white space, reduced to clear lines and typographically reduced, is decidedly rooted in a modern tradition. The emerald green cover, on which the key dates of the exhibition are marked in bold, uppercase letters, and Ulrich Franzen's short introduction suggest at first glance an exhibition catalog and let us hardly guess that the book was a proposition for a pedagogical system, in which the "visual aesthetic of architecture" was preferred over the "pragmatic and technical approaches"<sup>22</sup>.

In the preface to Education of an Architect, the architect Ulrich Franzen wrote that "[o]nly time can judge the impact of this book and its proposals, but one must salute a movement that treads where others fear to go, for it may be the footprint of the future"23. The book, as a consequence of the exhibition, has undoubtedly contributed to the public reception of the Cooper Union and the dissemination of the pedagogical principles propagated by Hejduk. The publication is an index for the conception of design problems, and as such it has influenced architecture education far beyond Cooper Square. (fig. 11) What started as a modest, short-lived public display of student work in the context of MoMA turned into a lasting contribution to architectural pedagogy via the successful dissemination of the homonymous book, and a number of consequential teaching initiatives. Both exhibition and publication make unmistakably clear, that architectural pedagogy is in constant transformation -and so is its public presentation in various media. Hejduk's operation is an example of how exhibitions and publications as forms of public broadcasting, can be opportunities to advance ideas, articulate and sharpen positions, contribute to a critical discourse, and initiate lasting shifts in the discipline. RA

# Notas

**01.** Over the past academic year, the author taught a master class and a seminar on "Exhibiting Space" at Rice University and the University of Houston, in collaboration with Michael Kubo. Insights from these courses will be published in the fall of 2019.

02. See for example: Cynthia Davidson (ed.), Log, No. 20, Curating Architecture (Fall 2010); Dick van Gameren (ed.), DASH 9: Woningb ouwtentoonstellingen=Housing Exhibitions (Rotterdam: NAi 010, 2013); Thordis Arrhenius, (ed.), Place and Displacement: Exhibiting Architecture (Zürich: Lars Müller Publishers, 2014); Eeva-Liisa Pelkonen and Carson Chan (eds.), Exhibiting Architecture: A Paradox? (New Haven: Yale School of Architecture, 2015); Zoë Ryan, (ed.), As Seen: Exhibitions That Made Architecture and Design History (Chicago and New Haven: Art Institute of Chicago and Yale University Press, 2017); Eeva-Liisa Pelkonen, Exhibit A: Exhibitions That Transformed Architecture 1948-2000 (London: Phaidon Press, 2018); Isabel Abascal and Mario Ballesteros, (ed.)., Exposed Architecture: Exhibitions, Interludes and Essays (Zürich: Park Books, 2018).

**03.** RYAN, Zoe (ed.), *As Seen: Exhibitions that Made Architecture and Design History* (Chicago: The Art Institute of Chicago, 2017): 30.

**04.** For example: ANGÉLIL, Marc, Inchoate: An Experiment in Architectural Education (Zurich/Barcelona: Actar, 2003); Marc Angélil and Dirk Hebel (eds.), Deviations (Basel: Birkhäuser, 2008); Reto Geiser (ed.), Explorations in Architecture: Teaching, Design, Research (Basel: Birkhäuser, 2008); Dieter Dietz (ed.), All About Space (Zürich: Park Books, 2016).

**05.** NEUFERT, Ernst, *Bauentwurfslehre* (Berlin: Ullstein, 1936).

**06.** CARAGONNE, Alexander, *The Texas Rangers: Notes from an Architectural Undergound* (Cambridge: The MIT Press) 192.

**07.** "It is wonderful to see the Beaux-Arts revived so tastefully", *Architectural Review*, December 1971, republished in *Education* of an Architect (New York: Monacelli, 1999): 11. "The hazard of the method is that a program such inexorably defined and rigidly abstruse theoretical restrictions can turn into a formalistic straitjacket, producing Tiffany objects. Ideally, after mastering it, the student should be able to tackle anything". Ada Louise Huxtable, "Cooper Union Projects Vary Architecture Show", in: *The New York Times* (November 13, 1971): 24.

**08.** WOLFE, Tom, *From Bauhaus To Our House* (New York: Picador, 2009): 94.

**09.** See: WITTKOWER, Rudolf, *Architectural Principles in the Age of Humanism* (London: Warburg Institute, University of London, 1949); Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays* (Cambridge: The MIT Press, 1976).

10. ROWE, Colin, "Mannerism and Modern Architecture", in *Architectural Review* 1950. See also: Peggy Deamer, "Structuring Surfaces: The Legacy of the Whites", in: *Perspecta*, Vol. 32, *Resurfacing Modernism* (2001): 90–99.

11. See also: COLMAN, Scott, "Rowe's Mannerist Constitution", in: Andrew Leach and Martino Stierli (conveners), "Accounting for Mannerism in 20th-Century Architectural Culture", Society of Architectural Historians 69th Annual International Conference, Pasadena, Los Angeles, April 6–10, 2016.

12. Many insights about the pedagogical developments of the "Texas Rangers" are based on Alexander Caragonne's very detailed, even if at times slightly hagiographic account entitled *The Texas Rangers: Notes from an Architectural Underground* (Cambridge: MIT Press, 1995).

13. HEJDUK, John, interview 1986, as quoted in: Alexander Caragonne, *The Texas Rangers:* Notes from an Architectural Undergound (Cambridge: The MIT Press, 1995): x.

**14.** ROWE, Colin, "Architectural Education in the USA", in *Lotus International*, no. 27 (New York: Rizzoli, 1980) 43.

**15.** On the IAUS see: FÖRSTER, Kim, *The Institute for Architecture and Urban Studies (New York, 1965–1985). Networks of Cultural Production*, Zürich: gta Verlag/ CCA, 2019 (in preparation).

16. Peter Eisenman, "Memo to the Board of Trustees. Re: Definition of the Institute: The Next Ten Years", 1977. IAUS Fonds, DR2007:0091, Canadian Center for Architecture. See also: EISENMAN, Peter, *The Formal Basis of Modern Architecture* (Baden: Lars Müller Publishers, 2006).

17. HEJDUK, John, SHAPIRO, David, "John Hejduk or the Architect who Drew Angels", in: *A+U*, no. 244 (January 1991): 59.

**18.** The Museum of Modern Art Exhibition Records, 984.4. The Museum of Modern Art Archives, New York.

**19.** HUXTABLE, Ada Louise, "Cooper Union Projects Vary Architecture Show", in: *The New York Times* (November 13, 1971) 24.

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**22.** SLUTZKY, Robert, "Introduction to Cooper Union: A Pedagogy of Form", in: *Lotus International* (1980:2) 86.

23. FRANZEN, Ulrich, "Introduction", in: John Hejduk (ed.), *Education of an Architect: A Point of View* (New York: The Cooper Union for the Advancement of Science and Art/MoMA, 1971) 5.

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