as to what is structural and what is not.”

On the contrary, this transposed order found difficult to prevent structure from undue stress or temperature differences involving the facade mechanical deformations, to the detriment of its water-tightness and durability.

As a consequence, mullions spanning between the uprights of the framework run regularly along the elevation at 12 ft intervals, their dimension —consistent with floor heights— determined to prevent the 9-inch-brick panels from cracking, as it had in the buildings previously executed according to the 24 ft. module. This way, the problem of design seemed to be displaced towards a for-

5.12 View of the facade of IIT Alumni Memorial Hall under construction, used as a generic solution for other campus buildings.

The steelwork shows that horizontal plates were executed in continuity with non-bearing steel mullions to resemble the skeleton frame behind, as part of the formwork needed to encase it in concrete. This solution transformed the building structural principles and their execution process into its external image.
mal solution, to be faced from a paradoxical tectonic posture almost exclusively focused on the problem of dimensional coordination of the thicknesses and modulations of its different elements.

Notwithstanding, the quest of this image turned to be impossible, whereas the logical order of the envelope demanded to place its structural support behind the facade for its protection and best performance as a constructive whole, implies a discontinuity in structure modulation all over the border [Fig. 5.11 (b)].

Faithful to his will of representation, Mies nevertheless finally reduced the numerous technical problems by attaching the skin to the exterior face of the frame, thereafter allowing a symmetrical treatment of the reentrant corners, turned by terminating the skin on the center line of the corner column, its exposed portion acting as a “pivoting agent”20 [Figs. 5.11 (c), 5.12].

These corners were compounded in part out of a steel angle facing, representing the steel skeleton frame behind the concrete,

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20 Ibid., «Low-rise Skeleton Frame Buildings,» ch. 3, pp. 70-77.
and in part out of two flanking I-sections that formed the receiving frame for the infill brick walls. Mies’s honesty, emphasizing the actual tectonic nature of this famous corner detail, is proved by finishing the corner before it reaches the ground and making it rest on a brick base, clearly free of any structural function [Figs. 5.13-5.14]. Hence, the part of the building actually bearing loads —its steel skeleton frame— becomes present. This treatment, “was his way to distinguish between the primary structure of the building and the secondary structure of the skin”\(^{21}\), i.e. that the skin of a building requires an additional structure of its own, even if secondary, or that the structure of a building can set an order for its skin.

5.2.2 Shaping Construction To Understand Structure

While losing in terms of constructive coherence, the building, without hiding these contradictions, nonetheless reached such a

level of refinement in its clear formal articulation as to acquire an intense capacity to communicate its own internal logic. Thereupon, architecture breaks through purely linguistic problems, typical of a classical architecture. It is in this quest for a so-called “critical nature of the generalized ideal” that Mies puts common construction through an ordered language which, in a paradoxical self-representation of its structure, calls to a critical experience in the beholder.

This way, an idea of the general order in the campus Master Plan layout is achieved. But this is true only when recognized in an everyday experience, that re-frames and shatters the familiar —by virtue of a critical sight that perceives the common in the general, and the general in the common. Within this only apparently arbitrary way of working within the design components, which seemed functional when they were actually just a recall to the structure behind it, Mies confirmed his own self-confidence to modify—or even break—his own rules whenever he finds it appropriate. As famously described,

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“(...) the real structure of Alumni Memorial Hall, though suppressed, is expressed: what one knows is there is not what one actually sees, but it is made evident by what one sees. Mies’s reasoning is tortuous, but ever so much his own: to demonstrate that the supporting steel frame is the basis, or essence, of the building, it is indicated, rather than shown, externally; to acknowledge that what shows, moreover, is not fact but symbol of fact” [Figs. 5.15, 5.16].

Here, that so-called tectonic form of IIT buildings seems to pose a contradiction between their raw construction and the idealized representation of their material properties and structuring principles. Indeed, tectonic form is here referred as the composition of constructive elements that, while breaking down into its ready-made components, moves attention to the relation of the

parts in the whole at the same time. This tension in the proportion between the individual elements of an assembled form finds special justification when its arrangement makes visible the invisible play of forces of load and support in the structure, calling forth a new mode of perception and experience of the whole building. In other words, “(...) when a structural concept has found its implementation through construction, the visual result will affect us through certain expressive qualities which clearly have something to do with the play of forces and corresponding arrangement of parts in the building, yet cannot be described in terms of


construction and structure alone." 26

To sum up, design is extended to structure and construction by means of proportion, which acquires then a main role in the arrangement of the specific constructive solutions given to a building [Figs. 5.17, 5.18], as

“(…) through tectonics the architect may make visible, in a strong statement, that intensified kind or experience of reality which is (…) the experience of forces related to forms in a building. Thus structure, the intangible concept, is realized through construction and given visual expression through tectonics.” 27


27 Ibid. [emphasis added].

The show featured many of Mies’s less known projects by the time, mainly from his early American work, still in need to be properly documented. Given that the number of buildings by Mies in America was very limited by then, no images of completed buildings, except for the IIT Minerals and Metals Building (bottom), were shown. On the contrary, detailed plans and models for several ongoing designs for IIT —such as the Library and Administration Building (top, and bottom), or an oversized reproduction of the photomontage of the latest version of IIT campus Master Plan design (top)— were here publicly displayed for the first time, probably trying to promote their construction. Various photomontages of other designs, including those for the Concert Hall, or different compositional exercises developed at Mies’s Architecture studio classes at IIT (left, top) —completed the show.

5.3 MoMA Exhibition and Public Recognition

Given the favorable prospects of the first results, by the Spring of 1947, Mies was invited to set a small exhibit at Chicago South Side, featuring his early American work (Fig. 5.19). Focused in many of his latest designs by the time, Mies assumed the show

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28 The exhibit took place at The Renaissance Society, Chicago, between May 16th–June 7th, 1947. Mies benefited from the support of the German émigré Ulrich Middeldorf, then Chairman of their Art History Department at the uo, where the gallery was housed. Also Honorary Curator at the uo—that IIT School of Architecture was planning to leave by then—, he enthusiastically stated that “to Mies van der Rohe the architecture of today owes a great number of fundamental ideas which have become generally accepted and which are now a part of the common language of many,” in Middeldorf, U. (1947). Mies van der Rohe. Architecture (Chicago: uo), exhibition brochure.
as an opportunity to gain support for the completion of all the approved buildings at IIT campus, some of which he managed to complete for his upcoming retrospective, opening next Autumn, at the prestigious Museum of Modern Art (MoMA), New York. However, despite the amount of documentation produced by the time the exhibition took place, few IIT buildings were finally displayed [Fig. 5.20]. Notwithstanding, the exhibition—and, more significantly, the edited catalog, that praised IIT campus Master Plan and gave wide coverage to its buildings—reported great publicity for Mies’s work, which came to be widely acknowledged in the U.S. since then. The impact of the exhibition was especially relevant among IIT academic community, who followed enthusiastically the news, and effectively secured the further implementation of his designs for IIT campus—the completed buildings had proved to be a model for IIT’s wider and more ambitious plans in the area.

29 The exhibition was held at the MoMA, New York (Sept. 16th—Nov. 23rd, 1947), curated by Ph. Johnson, who was also responsible for the catalog of the show. Mies had a determinant presence both in the installation and the exhibition catalog, which he supervised carefully [see chapter 1 for further details].

30 They occupied a mural extending half of a wall of the exhibition hall, as indicated in the exhibition plan elaborated by Mies [see Fig. 1.6]. Despite it has been traditionally assumed that “no such mural, however, appears in any installation photograph” in Riley, T. (2001) «Making History: Mies van der Rohe and The Museum of Modern Art,» in Riley, T., Bergdoll, B. (eds.) et al. Mies in Berlin (New York: MoMA), note 11, p. 57, partial views of it can be appreciated in reviews of the exhibition [see Fig. 5.20].


32 Johnson’s catalog came to be “the most enduring of all the Mies histories”, as expressed in Riley, T. (2001) «Making History: Mies van der Rohe and The Museum of Modern Art,» in Op. cit., p. 11, where Riley points the fact that “in 1947 there were few writings by him, and less about him” [emphasis in the original].

33 See, for instance, the complimentary tone in Illinois Institute of Technology (ed.), «Mies van der Rohe Works are Displayed», Technology News, 46 (8): 6 (Nov. 17th, 1947) [University Archives (Paul V. Galvin Library, IIT)].

5.20 Images of IIT campus buildings as displayed in a review of ‘Mies van der Rohe’ exhibition at MoMA, New York, 1947. IIT buildings and designs were generally ignored by the exhibition reviews of the specialized press, that focused mainly in his most famous European projects and buildings (left). Only a few of them were included in the show—a full-scale mock-up of the corner detail planned for the Library and Administration Building, oversized views of the Minerals and Metals Research Building, as well as of Alumni Memorial Hall facade and interior stairs (above), completed with four panels of exterior views drawings of the Auditorium and Student Union Building, the Library and Administration Building, the Gymnasium and Swimming Pool Building, and the Field House. Noteworthy, the photomontage of IIT campus Master Plan design was discarded.
5.21 Views of a study model by SOM for the residential expansion of IIT campus, 1947 (juxtaposed to a 1943 version of Mies’s academic campus model). Under the new Educational, Research, and Housing Development Program of 1947, IIT sought to expand its existing campus Master Plan over 100 acres to be renewed, extending to 35th St. to the South, Michigan Ave. to the East; 37th St. to the North, and to the New York Central Railroad tracks in the West.
5.4 IIT and South Side Redevelopment Plan

Since the end of the war, IIT had been more or less indirectly involved in several planning strategies that had been developing in the Chicago South Side area. Created in 1948 after Illinois State Blighted Areas Redevelopment Act of 1947, Chicago Land Clearance Commission (CLCC) surveyed the city for blighted land, to sell it below cost to developers after relocating the families living there. This public organization was significantly chaired, among others, by IIT president Henry T. Heald, a circumstance that facilitated the acquisition of the land required for the expansion of IIT boundaries through a coordinated bidding for publicly auctioned properties.\(^{34}\) In addition to this, IIT was a founding member of a private organization participated by most of the relevant institutions settled at the Chicago Central South Side — South Side Planning Board (SSPB). Formally established in 1947\(^ {35} \) as a non-profit organization composed of citizens, in representation of the interests of the broad range of institutions operating in Chicago South Side, its purpose was to initiate and promote the redevelopment of seven square miles in the area, aiming to the eradication of over 700 acres of blight and slums in an operation of what was to be called ‘urban renewal.’

Given the favorable prospects for land acquisition and financial support from government programs for promoting the reintegration of war veterans,\(^ {36} \) Heald commissioned a parallel study for the expansion possibilities of IIT campus. Probably unaware of the prestige to be granted by Mies's campus Master Plan, Heald assigned the elaboration of the new plan to the Chicago firm of Skidmore, Owings and Merrill (SOM) \([\text{Figs. 5.21, 5.22}]\) that effectively designed a whole new residential area by the Spring of 1947.

\(^{34}\) Already used for the development of its campus Master Plan, this strategy had been successfully used by IIT for the acquisition of the Mecca Flats, as described in Bluestone, Daniel, «Chicago’s Mecca Flat Blues», \textit{Journal of The Society of Architectural Historians}, 4 (57): 381-403 (Dec., 1998).

\(^{35}\) Originally established as the South Side Development Association in 1945.

\(^{36}\) IIT had subscribed the Naval Reserve Officers Training Corps (NROTC) Program to subsidize their education since its foundation during World War II. See Illinois Institute of Technology (ed.), «Navy to Send 700 Men to IIT on July 18», in \textit{Technology News}, 31 (13): 1-2 (Jun. 1st, 1949) [University Archives (Paul V. Galvin Library, IIT)].
Public recognition of Mies’s work for IIT, together with financial support from the FWA, brought an impulse for the campus Master Plan, which extended its building program beyond State St., to include new communitarian facilities: “(...) rather than flee from the encroaching blight, the trustees decided to stand and fight — to build a great midwestern technological institution and at the same time to take the lead in redeveloping the entire south side area.”
5.24 Exhibition of Mies's IIT campus Master Plan model (3rd version), 1948.

A fully reworked model of Mies’s IIT campus Master Plan design was presented in his brand-new Metallurgical and Chemical Engineering Building, as part of an openhouse exhibition housed at IIT Alumni Memorial Hall, during the Spring of 1948 (left) to attract enrollment. (Note that IIT square appears here parallel to ART Research Buildings, according to the previous 1945 Master Plan version, while all the main buildings are close to their final design). Renderings of the most relevant campus buildings — elaborated the year before for the exhibition at MOA (opposite page, top) — were also displayed at the show, and widely reproduced by internal publications (opposite page, bottom).

ing housing demand”, 37 SOM’s Farr and Fowler Residence Halls were not completed until the end of 1948 [Fig. 5.23]. This situation, added to the fact of the poor results, notably far from the constructive quality of Mies’s buildings, might had influenced the final dismissal of the plan, as well as a renovated impulse for the completion of Mies’s original campus design, fully publicized [Figs. 5.24, 5.25]. 38

Moreover, IIT campus plans now following the direction set by SSPB somehow restored Hilberseimer’s position too, that had become more influential as an active member of the organization. 39 Notwithstanding, Hilberseimer’s option for a so-called “superblock of, say, an area of two square miles”, 40 — developed from his early studies of the mid-1940s for the residential expansion of IIT, underlying beneath SOM proposal — was discarded by SSPB, considered an immense area that would be hardly perceived as urban in the traditional sense. More cautiously, SSPB proposed to redevelop the dense urban fabric of Chicago South Side with

37 Alumni Association of Illinois Institute of Technology (ed.) «Proposed $40,000,000 Campus with Student and Staff Units» in The Technometer (Chicago: n.p.) [Apr., 1947] [University Archives #1998.140 (Paul V. Galvin Library, IIT)]. Stating that “new buildings will be of modern design inside and out,” Heald seemingly had also underestimated the difficulties in Mies’s architecture.

38 “College architecture goes modern. Ludwig Mies van der Rohe, internationally known modernist in architecture, shows (...) a scale model of the functional building design he has created for the new $1,500,000 campus of Illinois Institute of Technology. The model will be on display April 27th through May as part of a comprehensive exhibition of the Chicago architect’s chief works (...)” as announced in Armex, J., News Releases, April 6th, 1948 (Chicago IIT Dept. of Public Relations), n.p. [University Archives (Paul V. Galvin Library, IIT)].

39 Probably sponsored by Heald for his common use of the Chicago South Side as a case study in his classes at IIT, Hilberseimer had joined SSPB since its very foundation.

negotiable half-mile-square units of 2640 by 2640 ft. across the seven-square-mile extension of its Plan. Consequently, the customary Chicago block of 266 by 600 ft. seemed to be definitely questioned in favour of bigger units.

Furthermore, partially following CCLC’s disengagement for the orthogonal layout of the streets of Chicago, SSPB promoted an increased flexibility in the smaller scale, while nevertheless kept the grid order in a bigger scale, as a guarantee to provide an appropriate connection with the rest of the existing urban fabric. This matched exactly the principles of IIT campus Master Plan, as Mies had set them ten years ago.¹⁴²


⁴² A circumstance that Heald seemed to be aware of; see HEALD, H.T. (1950) The President of Illinois Institute of Technology Reports Ten Years of Progress, 1940-50. Chicago: IIT Press.

5.25 Views of a full model of Mies’s IIT campus Master Plan (3rd version, left), featuring an IIT internal bulletin (above), 1948.
5.4.1 A Plan Made Out of Assembled Urban Fragments

As a matter of fact, due to the complexity of the land acquisition process, IIT campus Master Plan just made its way in partial, dismembered fragments [Fig. 5.46]. The design only found a possibility of actual implementation after the war ended, when land prices of the surrounding neighborhoods, mostly occupied with workers employed at Chicago industries, dropped. While often described as a ‘tabula rasa’, its completion nonetheless happened to be extremely slow when coming to reality, and would never be developed as a single operation.

Key

| IIT Buildings* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

* Structures in red designed by Mies van der Rohe

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44 “(...) We anticipated a building period of ten years and we considered [the] risk that the first buildings [would be] outmoded before the last was finished [...] These ten years are gone by now. It may take us ten more years to finish the campus. But I am not afraid of that,” in Mies van der Rohe, L., Notes from Mr. van der Rohe’s Talk at the Women’s Club, Chicago, 1949. [Papers of L. Mies van der Rohe, box 6a, ‘Speeches, Articles and Other Writings’, Manuscript Division (Washington, D.C., loc.).]
In fact, CLCC reports on Chicago South Side, suggested that existing limitations as the block layout, even if preserved, seemed now anyhow loosened in its positive assumption that “redevelopment should change the outmoded street pattern and provide open spaces for grass and trees, parks and playgrounds”. Such approach certainly might have favoured a certain flexibility to SSPB in its aim to coordinate an ordered ‘composition’ of the multiple ongoing development plans in the area. Its main goal was to shape a shared Redevelopment Plan for the South Side with the city, represented by Chicago Plan Commission (CPC) [Fig. 5.27].

This was intended to facilitate an arrangement with the Metropolitan Housing Council for the relocation of its residents, according to their particular interests in the area, into projects planned by the Chicago Housing Authority. SSPB Redevelopment Plan assumed the specific urban vision of the on-going IIT Master Plan for its whole operation: density was kept low, and large, open, landscaped areas for pedestrian and communal life were included. Permeable perimeters in all of its partial developments maintained public accessibility —although sometimes just in a visual way— in order to resemble, in long term, the idea of a single, unified operation [Fig. 5.28].

The environmental model of IIT campus Master Plan —characterized by Hilberseimer as “a pattern of alternating open

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45 Chicago Land Clearance Commission (CLCC) and McKinlay, J. (ed.) (1949). Redevelopment Project no. 1: A Report to the Mayor and the City Council of the City of Chicago and to the Illinois State Housing Board (Chicago: CLCC), p. 5.
and closed spaces”—proved effective to organize the different redevelopment plans of the independent institutions operating in Chicago South Side, while keeping their integrity amidst the transforming relations between them.

5.28 “Existing and Proposed Redevelopment Projects in the South Central Area”, under the coordination of ssPb, 1950.
5.29 View of different IIT campus buildings (left) in their urban context (opposite page), by the year 1950.
Mies’s understanding of urban evolution as both a repetitive and a creative process showed particularly efficient to surpass this situation. IIT Master Plan had embraced the conflict between pre-existence and intervention, of design and reality, from the very moment of its conception, assuming that any insertion of novelty in an already structured urban fabric would entail both structural continuity and discontinuity—a continuous composition of independently designed buildings that nonetheless had to share common principles [Fig. 5.30]. The operative flexibility of this strategy inspired all the following projects of the different institutions in the area.

More precisely characterized as an operation of “inner city landfill,” this urban strategy implied a steady negotiation of the spatial requirements of each of the elements of the Master Plan, constantly redefining its role and relevance into the whole according to their own inner structuring laws.

Mies himself precisely pointed that, when the city is understood as an organism composed of interrelated parts, any effective intervention necessarily "presupposes the existence of some order which gives meaning to these and which acts as a medium in which they can grow and unfold." Again, when one thinks of this order as the formal structure inherent to any element in a planned intervention, these words seem to resonate all along Mies’s previous experience on city planning — limited but extremely significant — of his European practice. The architect’s challenge was to embrace a limited whole which, although rendered from the very beginning, was to be progressively deepened and intensified inwards [Fig. 5.31].

5.31 Photomontage of a model of Mies’s IIT campus Master Plan (3rd version), inserted in its urban context, c.1950.
Note that the aerial photo used for the photomontage in which the new model was set is the same as that of its earlier version. This fact gives account of that what was actually evaluated in the picture was the development of IIT campus Master Plan as it was designed by Mies, and not its later extension plans, or even its relation to the existing urban context.

6. URBAN SCALE AND CLEAR STRUCTURE, 1951-59

[117 Campus Master Plan] Its radical and conservative at once.

It is radical in accepting the driving and sustaining forces of our time — Science and Technology. It has a scientific character but it is not science. It uses technological means but is not Technology.

It is conservative as it is not only concerned with a purpose but also with a meaning; as it is not only concerned with a function but also with an expression. It is conservative as it is based on the eternal laws of architecture — Order, Space, and Proportion 1

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1 Mies van der Rohe, L., Notes from Mr. van der Rohe’s Talk at the Women’s Club, 117, 1949 [Papers of Ludwig Mies van der Rohe, Manuscript Division, box 62, ‘Speeches, Articles and Other Writings’ (Washington n.d., loc.)].
6.1 Open Plan as Event Space

Despite during the 1940s Hilberseimer and Mies had jointly developed their work on IIT campus, by the early 1950s the situation had changed drastically. Following the end of the war, enrollment at IIT increased to the point that a strong need for new residential space for staff, faculty, and students emerged [Fig. 6.1]. This situation led to the approval for immediate construction of four new residential facilities, for which a site at the NE corner of
the campus was chosen. While Mies would have been the logical choice as a designer, his late response, being occupied at the time with several other projects, caused his displacement. Driven by a pragmatic sense for opportunity, IIT Board of Trustees decided in 1950 to assign the commission for the first building — Gunsaulus Hall — to the office of Skidmore, Owings & Merrill (SOM), which effectively produced a building generically related to the modernist style originally introduced at IIT campus by Mies.

However, the poor results routinely produced by SOM, added to the uncertainty generated by the consultations to the same office regarding the campus residential expansion east of State St., despising the prior studies made by Mies and Hilberseimer, most probably generated considerable skepticism among them. In fact, when compared with the campus finally built, it is possible to identify numerous similarities with a discarded plan indepently elaborated by Mies and Hilberseimer [Figs. 6.2-6.3].

Being approved their Master plan for the academic area, and in view of the new priorities of the institution, Hilberseimer and

### Key

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<th>Preexisting IIT Buildings</th>
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6.2 Mies and Hilberseimer’s Master Plan for future IIT campus residential expansion, in its urban context, c.1951 (opposite page).

Though schematic, the proposal by Mies and Hilberseimer was eventually led out almost literally — housing facilities were finally reoriented towards the south; a group of buildings in the north of the campus and outdoor parking facilities limited a services area, a row of fraternities was planned immediately south of it, and buildings of different heights, interconnected by community services and working facilities, occupied the rest of the land.

2 See Appendix.
Mies decided to concentrate on their own work. While the former focused the development of several theoretical projects on the South Side of Chicago, developed in collaboration with various associations operating in the area, the latter focused on his architectural practice.

In fact, the impact of Mies’s work outside IIT, which by then started to have a major coverage in the literature, had granted him a number of professional assignments, that now forced him to divide his attention to the campus. This new situation led to a dif-
Different attitude, where a more relaxed application of the principles on which he had initially designed his Master Plan, allowed him to address new issues in the forthcoming campus buildings arising from other professional experiences and projects apart from IIT. The role of Mies at IIT experienced a drastic change.

Perhaps the most singular example of this situation was the building designed to accommodate the Department of Architecture, Design and Planning, later known as the s.r. Crown Hall. (Fig. 6.4). The building, whose design was completed by 1951, had an immediate impact in most specialized publications, and was followed with great attention from criticism.

6.4 Mies’s design for IIT Architecture, Design and Planning Building, main floor plan (left, top), vertical sections (left, bottom), and main access facade (above), c.1951.

The building was accessed via a staircase with an intermediate deck before the doors. The interior was symmetrically arranged as a single space, only divided by a central space for public events. This was sided by two nonstructural service shafts and open wooden partitions, and a pair of stairs leading to a conventionally divided basement.
During its design, Mies experimented with a variety of forms. Drawings from earlier stages in the process display a building akin to those previously erected in the academic area, structured by a columnar grid and enclosed by walls of brick infill below rows of windows. This design soon evolved to a clear-span structure, where the roof was supported by an exterior structure.

After years of intense work, the resulting building was widely recognized as the most architecturally relevant structure of the campus. The singular importance of the structure derives mainly from the fact that it was Mies’s first realization of a clear-span structure of large-scale dimensions. Column free, the building fulfilled which Mies later would describe as one of his major architectural objectives, not only on IIT campus, but also in his whole career — the materialization of a “universal space”. Within the frame of a rational approach to construction, an option for flexibility emerged as

“(...) [Mies] discovered that one or more activities can be brought together and unified within a single space, a possibility which has the advantage of a built-in provision for change, precisely because the structural shell is independent of the functional subdivisions”.

6.5 Mies and Hilberseimer’s IIT Campus Master Plan, in its original extension for the academic area (left), and Master Plan for residential expansion beyond State St. (right), c.1951.

While Mies had conceived several designs in which he tried to accomplish such aim prior to Crown Hall, none of them could have been built. Notably, although the clear-span structure scheme would later led him to other uses for universal space in building, Mies’s motive here developed originally from his view of architectural education, and therefore closely linked to his work at IIT according to Baukunst, as

“(…) the idea of students and teachers of all levels of experience assembling and working within sight of each other greatly appealed to him, since it reminded him of the Bauhütte, the medieval shelter in which designers, craftsmen and laborers worked side by side”.4

6.6 Mies’s design for IIT Architecture, Design and Planning Building, views of the presentation model, c.1951.

Despite the lightness conferred by its structural system, the dimensions of the building — 110 ft. length x 220 ft. width x 18 ft. high — were closer to monumental rather than institutional architecture. It was essentially composed of 4 steel portal frames, fully welded. Each frame was made of a pair of rolled steel sections acting as columns that carry a 6 ft. deep plate girder. From these frames, spaced 60 ft. on center, the roof was hung. The perimeter walls was fully glazed with oversized sheet glass. Rolled steel sections acting as mullions, welded to both the floor and roof fasciae, supported them. The modulated facade section was composed of an upper single pane of clear glass, and two lower panes of sandblasted glass. Air intakes were conveniently placed beneath them to provide air renovation.

Since 1952 Heald resigned the presidency of IIT. He was succeeded by J. Rettaliata, who served for over two decades, during a period in which IIT experienced its greatest academic and physical growth. Under his tenure, the building program begun by Heald would be completed, and the campus fully transformed into a great complex of modern architecture [Fig. 6.7].

### Key

<table>
<thead>
<tr>
<th>IIT Buildings*</th>
<th>16 Institute of Gas Technology</th>
<th>30 IIT Navy Building ([Alumni Memorial Hall])</th>
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<tbody>
<tr>
<td>1 IIT Armour Mission Bdg.</td>
<td>17 South Union Building ([Temporary Building No. 4])</td>
<td>31 IIT Metallurgy &amp; Chemical Engineer Bdg. ([Perlstein Hall])</td>
</tr>
<tr>
<td>2 IIT Main Building</td>
<td>18 IIT Classrooms &amp; Laboratories</td>
<td>32 IIT Chemistry Building ([Whisnuck Hall])</td>
</tr>
<tr>
<td>3 IIT Buildings &amp; Grounds Storage Building</td>
<td>19 ARF [of IIT] Administration Bdg.</td>
<td>33 Gunsaulus Hall</td>
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<td>4 Physics Hall</td>
<td>20 ARF Ice Lab</td>
<td>34 Robert F. Carr Memorial Chapel</td>
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<td>5 Chapin Hall</td>
<td>21 ARF Explosives Test Cell</td>
<td>35 ARF Electrical Engineering Research Building</td>
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<td>6 Parking Lot</td>
<td>22 ARF Laboratories</td>
<td>36 Fowler Hall</td>
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<tr>
<td>7 ARF Minerals &amp; Metals Research Building &amp; Storage Shed</td>
<td>23 IIT Machinery Hall ([Mechanical Engineering Bdg.])</td>
<td>37 IIT Fraternity Row</td>
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<tr>
<td>8 IIT Transformer Vault ([Central Electrical Vault])</td>
<td>24 IIT Armour Laboratory ([Gas Dynamics Lab])</td>
<td>38 Graduate Hall</td>
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<tr>
<td>9 IIT Civil Engineering Bdg.</td>
<td>25 IIT Economics-Mechanics Building ([Temp. Bdg. No. 1])</td>
<td>39 Farr Hall</td>
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<tr>
<td>(Temporary Building No. 2)</td>
<td>26 Association of American Railroads ([AAR] Research Lab)</td>
<td>40 ARF Administration Offices ([Chemical Research Bdg. 2])</td>
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<tr>
<td>10 IIT Boiler Plant ([Heating Plant]) ([Sections 1, 2 &amp; Steam Generating Plant])</td>
<td>27 Armour Research Foundation ([ARF] Magnetic Recording Lab)</td>
<td>41 Mandel Residence</td>
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<tr>
<td>11 ARF Test Cell</td>
<td>28 Ogden Field ([The Bog])</td>
<td>42 Chicago Housing Authority ([CHA] Dearborn Homes)</td>
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<tr>
<td>12 ARF Mechanical Engineer Research Building ([Units 1, 2 &amp; 3] &amp; Storage Sheds)</td>
<td>29 Gymnasium ([Temp. Bdg. No. 3])</td>
<td>43 Keith Public School</td>
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<tr>
<td>13 Library ([Temp. Bdg. No. 3])</td>
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<td>14 ARF Life Science Research Bldg.</td>
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<td>15 ARF Administrative Offices</td>
<td>37 IIT Fraternity Row</td>
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* Structures in red designed by Mies van der Rohe

6.7 Site plan of Robert F. Carr Memorial Chapel final design (left), and IIT campus in its urban context (opposite page), by the year 1952.
Whether if Mies could not find approved his Master Plan extension for the residential area of the campus, he was nonetheless commissioned several significant buildings by IIT Trustees, aware of the poor results achieved by SOM.

Among these, a singular structure was the Robert F. Carr Memorial Chapel. Completed in 1952, the building followed the scheme of the academic buildings of the campus, designed as a steel-skeleton frame structure with a basement. The construction was supported by a brick-bearing wall, whose skillful construction, like the steel-frame roof, was fully exposed from within with no possible concealment. Despite of its modesty both in planning and in scale, the building remained significant for Mies's dignified use of elemental materials with utmost simplicity, which was here especially evident [Fig. 6.8].
By 1954, IIT Commons Building was completed [Fig. 6.9]. Planned to serve student and faculty social activities, it was located close to housing and fraternity facilities. Its exposed steel-skeleton structure with glass and brick infill panels, treated in the simplest way, was here elegantly solved with notably simple welded details, exemplifies Mies’s own frequently expressed goal of *beinahe nichts* [“almost nothing”].

6.9 Front elevation of Mies’s IIT Commons Building, 1954.

With only a single story above grade, the Commons did not require fireproofing. This allowed a clear expression of its structure, made of beams and girders and supported by wide-flange steel columns with a roof of resting precast-concrete slabs, fully exposed in its interior.
6.10 Exterior view of Mies’s AAR Technical Center Building (left, top), and interior views of AAR Engineering Research Lab Building (left, bottom), and AAR Mechanical Research Lab Building (right), 1950-56.

The American Association of Railroads (AAR) group [Fig. 6.10], erected between 1950 and 1956, was based primarily on the constructive model of a steel-skeleton frame with glass and brick infill, originally developed in the campus first buildings. But, as usual in Mies’s American practice, later buildings incorporated subtle alterations for a better constructive performance.

In the AAR Technical Center, the corner detail of brick conveniently rises higher at the base of the wall, before the steel begins above. In addition to this, the corner of the AAR Engineering Research Lab features back-to-back ide flanges, that run the entire length of the column. A similar use of the wide-flange is evident in the AAR Mechanical Research Lab but with a singular treatment of the elevation, since brick is used on most of the two short sides, while fenestration on the long sides is arranged in two bays, each with twelve windows.
In the residential area, the three towers that followed the construction of Gunsaulus Hall were finally assigned to Mies around 1953. Taking advantage of the location of Gunsaulus and Farr Halls built by som—and probably with the studies developed by Hilberseimer in mind—Mies organized the group of apartment blocks. As a way to relate the designs Mies aligned the columnar grids of all three buildings on the site. But, in a completely new approach, he created a spatial center that, while being open and dynamic, kept together the surrounding buildings.
Thereby, Mies extended the fluid space of the buildings of the academic area, now reinterpreted according to the larger scale of residential buildings on campus, which appear as resting in the middle of a park [Fig. 6.12]. Carefully calibrated, relationships between buildings and open spaces clearly responded both to spatial and functional criteria.

### Key

<table>
<thead>
<tr>
<th>IIT Buildings*</th>
<th>(IGT) Labs North Building</th>
<th>31 IIT Metallurgy &amp; Chemical Engineer Bldg.</th>
<th>(Perlstein Hall)</th>
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<tr>
<td>1 IIT Armour Mission Bldg.</td>
<td>17 South Union Building (Temporary Building No. 4)</td>
<td>32 IIT Chemistry Building</td>
<td>(Whisnuck Hall)</td>
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<td>33 Gunsaulus Hall</td>
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<td>3 IIT Buildings &amp; Grounds Storage Building</td>
<td>Temporary Building</td>
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<td>35 Robert F. Carr Memorial Chapel</td>
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<td>5 Chapin Hall</td>
<td>20 ARF Ice Lab</td>
<td>36 ARF Electrical Engineering Research Building</td>
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<td>6 Parking Lot</td>
<td>21 ARF Explosives Test Cell</td>
<td>37 Fowler Hall</td>
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<td>7 ARF Minerals &amp; Metals Research Building &amp; Storage Shed</td>
<td>22 ARF Laboratories</td>
<td>38 IIT Fraternity Row</td>
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<td>8 IIT Transformer Vault</td>
<td>23 IIT Machinery Hall / Mechanical Engineering Bldg.</td>
<td>39 Graduate Hall</td>
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<td>/Central Electrical Vault</td>
<td>24 IIT Armour Laboratory</td>
<td>40 Farr Hall</td>
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<td>9 IIT Civil Engineering Bldg.</td>
<td>/Gas Dynamics Lab</td>
<td>41 ARF Administration Offices / Chemical Research Bldg. 2</td>
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<td>(Sections 1, 2 &amp; Steam Generating Plant)</td>
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<td>27 Armour Research Foundation</td>
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<td>12 ARF Mechanical Engineer</td>
<td>(AAR) Magnetic Recording Lab</td>
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<tr>
<td>Research Building (Units 1, 2 &amp; 3) &amp; Storage Sheds</td>
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<td>29 Gymnasium (Temp. Bldg. No. 5)</td>
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<td>30 IIT Navy Building</td>
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<td>15 ARF Administrative Offices</td>
<td>/Alumni Memorial Hall</td>
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<tr>
<td>16 Institute of Gas Technology</td>
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* Structures in red designed by Mies van der Rohe

### Other Relevant Structures in the Area

<table>
<thead>
<tr>
<th>42 Manel Residence</th>
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<tbody>
<tr>
<td>43 Chicago Housing Authority</td>
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<tr>
<td>(CHA) Dearborn Homes</td>
</tr>
<tr>
<td>44 Keith Public School</td>
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Mies would arrange these in such a way that in their interrelation, he could introduce the same dynamic spatial attributes with which he had ordered the academic area. But, now, the new campus section referenced to a continuous ground plane, that appeared as an uninterrupted green extension of metropolitan scale.

Once Mies’s residential blocks were completed between 1955 and 1956 (Fig. 6.13), Hilberseimer proposed to delete sections of street that crossed along the campus residential area. In line with his theoretical work on urban redevelopment, he suggested two instruments to intervene into the dense urban fabric of Chicago South Side. On one hand, the demolition of existing row houses, to be replaced by mid-rise exempt buildings. On the other hand, traffic restriction by means of suppressing part of the street system. Restricted access would be limited to dead-end ways, while the remaining street sections, covered with lawn, would be re-integrated as pathways between the buildings.

| Key |
|---|---|---|
| **IIT Buildings** | **Other Relevant Structures** |
| 1. IIT Armour Mission Bdg. | 1. Mandel Residence |
| 2. IIT Main Building | 2. Chicago Housing Authority |
| 3. IIT Buildings & Grounds Storage Building | 3. (CHA) Dearborn Homes |
| 5. Chapin Hall | 5. Open Plan as Event Space |
| 6. Parking Lot | 6. IIT campus by the year 1954, in its urban context (opposite page) |
| 7. ARF Minerals & Metals Research Bldg. & Storage Shed | |
Preserving the urban fabric in the shape of footpaths, street closures became an imperative instrument to transform IIT campus environment into a continuous and large green area, which in turn endowed an unity to the different buildings erected [Fig. 6.14]. This work was later reinforced by successive partial landscaping projects, conceived by Caldwell, in order to provide an entity to the open green spaces, which would keep on changing according to developments in the campus.

### Key

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<thead>
<tr>
<th>IIT Buildings*</th>
<th>IIT Chemistry Building (/Whisnuck Hall)</th>
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<tbody>
<tr>
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<td>19 IIT Classrooms &amp; Laboratories</td>
</tr>
<tr>
<td>2 IIT Main Building</td>
<td>Temporary Building</td>
</tr>
<tr>
<td>3 IIT Buildings &amp; Grounds Storage Building</td>
<td>20 ARF (of IIT) Administration Bldg.</td>
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<tr>
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<td>23 ARF Laboratories</td>
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<tr>
<td>7 ARF Minerals &amp; Metals Research Building &amp; Storage Shed</td>
<td>24 IIT S.R. Crown Hall &amp; Institute of Design</td>
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<tr>
<td>8 IIT Transformer Vault (Central Electrical Vault)</td>
<td>25 IIT Machinery Hall / Mechanical Engineering Bldg.</td>
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<tr>
<td>9 IIT Civil Engineering Bldg. (Temporary Building No. 2)</td>
<td>26 IIT Armour Laboratory / Gas Dynamics Lab</td>
</tr>
<tr>
<td>10 IIT Boiler Plant (Heating Plant) (Sections 1, 2 &amp; Steam Generating Plant)</td>
<td>27 IIT Economics-Mechanics Building (Temp. Bldg. No. 1)</td>
</tr>
<tr>
<td>11 ARF Test Cell</td>
<td>28 Association of American Railroads (ARF) Research Lab 1 / ARF Administration / ARF Technical Center</td>
</tr>
<tr>
<td>12 ARF Mechanical Engineer Research Building (Units 1, 2 &amp; 3) [Storage Sheds]</td>
<td>29 ARF Mechanical Engineering</td>
</tr>
<tr>
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<tr>
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</tr>
<tr>
<td>15 ARF Administrative Offices</td>
<td>32 Ogden Field / &quot;The Bog&quot;</td>
</tr>
<tr>
<td>16 IIT South Building</td>
<td>33 IIT Navy Building (Alumni Memorial Hall)</td>
</tr>
<tr>
<td>17 Institute of Gas Technology (IIT) Labs North Building</td>
<td>34 IIT Metallurgy &amp; Chemical Engineer Bldg. (Perlstein Hall)</td>
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<td>18 South Union Building</td>
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* Structures in red designed by Mies van der Rohe

6.14 IIT campus by the year 1955, in its urban context (opposite page).
Municipalities received assistance from federal government, to buy the land required for the implementation of privately promoted plans, which often involved the relocation of the resident population and the economic activities in the area. Internal redevelopment found a strong support in the ongoing urban policies at Chicago South Side. In fact, Rettaliata maintained a close relationship with civic and business leaders of Chicago, and served on numerous boards of directors. It was his influence in the business community which allowed him to strengthen and broaden the Illinois Institute of Technology Board of Trustees. As a consequence, parallel to the construction activity on the campus, Illinois Institute of Technology extended its influence to SSPB, committed with the whole transformation experienced by the South Side [Figs. 6.5, 6.6].

The favorable economic prospects — already manifest since the early postwar years — encouraged the Federal Government to strengthen its programs to support the redevelopment of the most degraded urban and suburban areas in the great cities of the U.S. Such financial support was managed by city councils, which defined the areas of “urban renewal,” as they would become commonly known. Municipalities, with the support of developers and private institutions, made their own studies of the economic potential in selected areas aiming for investment opportunities.
Profits made by City Council with restricted land auctions were deposited in investment funds that generally reversed in financing other urban renewal projects, as the difference between the amount of the investment and the subsequent sale price of land could be offset against the capital gains generated and the collection of taxes.
6.2 Operative Schemes to Structure Urban Space

By the early 1950s, IIT had already acquired, with the help of the CLCC, almost all the properties east of the elevated metro train that it did not own yet. The campus Master Plan had been already redesigned to include residential facilities, changing its original urban model. In a short of ‘inner suburbanization’ of the existing city, the usual limit of the street perimeter was progressively flattened and replaced by a low-density occupation of the block. Such newly redevelopment was emphasized with an extensive lawn surface extending over the ground plane that allowed restructuration while maintaining the gridiron order. Residential buildings were placed facing large communal green spaces [Fig. 6.17], away from a few preserved but hidden parkways — consequently, still following the grid — exclusively for people transportation and distribution of goods.
Not in vain, the solution adopted for IIT campus Master Plan, combining low-rise communal buildings and medium-size residential towers somehow resembles Hilberseimer’s earlier scheme of the ‘Settlement Unit’ [Fig. 6.18]. Indeed, this extension of IIT was simultaneous to the development of Hilberseimer’s unsuccessful proposal—based in his ‘Settlement Unit’ model too—for the redevelopment of Chicago Near South Side [Fig. 6.19], which he could have tested here at a smaller scale. Audaciously bold in his vision, Hilberseimer found here

5 An analogous parallelism has been noted in Lloret i Ribero, X. (2007), “Reurbanización del Campus del IIT,” in Hilberseimer y Mies. La metrópoli como ciudad jardín (Barcelona: Fundación Caja de Arquitectos), part III: “Estructuras,” ch. 6, p. 230, ill. 356., based on the earlier study of the campus by Hilberseimer dating from the year 1944, probably delineated by A. Caldwell. This would be indicative of an hypothetical testing of the feasibility of Hilberseimer’s model for IIT campus Master Plan all along its development, despite the fact that the scheme would be denatured with the later erection of community facilities along 31st Street.

“(…) a region large enough for his ideas to be put into serious action, an area where (…) the relentless figure of the grid of Chicago could be transformed into a natural pattern of dwellings and open spaces whose prime purpose was to provide comfortable and pleasant residence”.7

6.19 Hilberseimer’s “Traffic Redevelopment Plan for the South Side of Chicago” (above); “Chicago. South Side Section Redevelopment” (left). According to Hilberseimer’s Plan for Chicago South Side Redevelopment, the street pattern of the blocks occupied by IIT campus—above, highlighted in red—would eventually disappear, except for State St. that, once expanded, would connect the whole ‘section’ with the rest of the city.

6.2.1 Urban Intervention through Architectural Design

A powerful asset in Hilberseimer operative strategy laid in his awareness of the limitations of the customary statistical approach to intervention by urban planners. Beyond a certain scale, surveillance had proved unable to gather all the necessary data to suggest a single solution, due to inner contradictions in their complex social realities.

As a consequence, he “attempted to study the underlying nature of the modern city”—the only permanent ground in its varying manifestations—, thereupon to develop an appropriate form, that he would call ‘the new pattern’, able to accommodate it. As appropriately noted by scholars, Hilberseimer’s strategy, “instead of demonstrating the opposition between inductive and deductive thinking”, consisted in

“(...) attempting to study data at a higher level and to generate solutions whose general application would encompass the entire range of results that might be developed from the infinity of studies of individual elements”.8

So, apparently, Hilberseimer’s aim was to achieve the highest level of generality. To sum up, it has been argued that, just as his
“proposals form a coherent essay that clearly reflects a point of view” and being his ‘Settlement Unit’ theories “far in advance of the empirical proof of their validity”, to criticize him “one must accept or reject the [whole] argument”. But, nevertheless, when one examines his 1955 design for IIT residential expansion beyond State St. is easy to appreciate the limited impact of Hilberseimer’s architectural ideas in the final solution [Fig. 6.2a]. Whatever IIT campus Master Plan included from Hilberseimer’s theories was brought to reality only through Mies’s assimilation of the singular process of land development operating at Chicago South Side. Keeping this in mind, one can understand Mies criticism to the work of city planners. On one hand, as he saw it, these had traditionally misinterpreted the diverse nature of the problems of American cities, especially after the war. “Most of the discussion has been about its technical aspects. Some see the problem simply as a traffic problem. Others think everything could be solved by clearing the slums”, he noted. On the other hand, he claimed an active role for the architect, arguing that “still others think city planning is exclusively an architectural task” [Fig. 6.2c].

Even if admitting this was actually possible, little room was left for optimism. Mies warned that “(…) only a few [planners or architects] see the city as an entity subject to a principle of order without which it cannot exist. We have lost the sense for the integrated whole. We no longer seek the essence of things. We no longer believe in the necessity for an objective order. If we did, as we should, we would understand the nature of the elements of city planning, and act accordingly”.

His stance was to be ended with his famous quoting —if often de-contextualized— “(…) order is the disposition of equal and unequal things, attributing to each its place”. Unequal things, therefore, can find a proper place too, but only when their disposition is ordered in the same way as equal ones. Mies’s plea for the architect’s responsibility when working at urban scale —here disguised in the shape of self-criticism— was based in understanding that any group of constructed elements, equal or unequal, could

9 Ibid.
10 MIES VAN DER ROHE, L. (n.d./1956?). Undated manuscript for a speech on city planning (5 pages) [Ludwig Mies van der Rohe Archive, box 61, file: Misc. Drafts and Speeches] (Washington D.C., October), p. 5. While the speech is catalogued in the archives under the label «Lafayette Park», its Master Plan was designed by Mies, Hilberseimer and Caldwell between 1955 and 1956, overlapping with IIT campus Master Plan extension of 1955.
11 Ibid.
12 Ibid.
13 Ibid.
arrange an integrated urban space if they were put into relation with the whole city according to its very own principles.

Actually a long-term battle against the obtrusive dullness in the economical basis of the grid, building design was requested to reflect, without deferring to the abstraction of its foundation, certain elusive, indeterminate, and fleeting aspects of the complexities of urban order, their resolution far beyond the possibilities of a single intervention. For Mies, it was the architect’s responsibility — both the continuator or the reformist — to enable an open space of a freedom that, even if born within the limitations of a specific mismatched built context, could remain open to reformulation, thereby allowing a possibility for future integration.

Seen under this perspective, the overall success of the campus redevelopment seemed already patent, as eloquently reflected in the dedication ceremony of s.r. Crown Hall in 1956 [Figs. 6.22, 6.23]. By then, it was already clear that

“(... this same bold spirit that created the Chicago architectural tradition motivated the creation of this campus. Twenty years ago this was a slum. This transformation could have happened nowhere else. Not because there aren’t slums in many other cities. They do exist in minor form in other plac-
es. But because Chicago is a place of courageous thinking, a slum gives way to a brand new campus — crisp and clean and beautiful and harmonious — a model of a total environment. (...) But this is even more than a beautiful total environment replacing a slum. It is an environment truly of our time. (...) It is the best expression of a whole culture that is growing
out of a technical civilization. These buildings are built on one great principle—that architecture should be part of our time and that the technology of our time should be expressed in every building decision from the over-all concept to the smallest detail. Such an ordered expression of our time and such a development of technology into art gives us faith and encouragement and gives us a cornerstone on which we can build a culture (...).”


Key

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<th>Institute of Gas Technology</th>
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<td>25 IIT Economics / Mechanics</td>
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<td>10 IIT Boiler Plant (Heating Plant) (Sections 1, 2 &amp; Steam Generating Plant)</td>
<td>26 Association of American Railroads (AR) Research Lab</td>
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<td>11 ARF Test Cell</td>
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<td>12 ARF Mechanical Engineer Research Building (Units 1, 2 &amp; 3) [&amp; Storage Sheds]</td>
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<td>13 Library (Temp. Bldg. No. 3)</td>
<td>29 Field House</td>
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<tr>
<td>14 ARF Life Science Research Bldg.</td>
<td>30 Ogden Field / The Bog</td>
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</tr>
<tr>
<td>15 ARF Administrative Offices</td>
<td>31 Gymnasium (Temp. Bldg. No. 5)</td>
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<tr>
<td>16 IIT South Building / IIT Physics &amp; Electrical Engineering</td>
<td>32 IIT Navy Building / Alumni Memorial Hall</td>
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</tbody>
</table>

Other Relevant Structures in the Area

| Metallurgy & Chemical Engineer Bldg. (/Perlstein Hall) |
| Chemistry Building (/Whisnicks Hall) |
| Tennis Courts |
| Bailey Hall |
| Cunningham Hall Apartments |
| Gunnarson Hall |
| Carman Hall Apartments |
| Common Building |
| Robert F. Carr Memorial Chapel |
| ARF Electrical Engineering Research Building |
| Fowler Hall |
| IIT Fraternity Row |
| Graduate Hall |
| Farr Hall |
| ARF Administration Offices (/Chemical Research Bldg. 2) |

* Structures in red designed by Mies van der Rohe
6.3 The Construction of an Urban Landscape

Possibly trying to temper the difficulties of this approach, a series of landscape projects by former IIT student A. Caldwell was incorporated, after he joined IIT faculty and started collaboration with Mies and Hilberseimer. His design was to be continuously reworked until Mies departure from IIT in 1958, in order to reabsorb residual spaces in the campus as a consequence of the delay in land acquisition and urbanization process [Fig. 6.25].

Conceived to modulate a counterpoint to Mies's austere buildings of standardized components, landscaping provided — once mature — a primary framework for a spatial interrelation between the inner buildings, with large shared communal open fields. This strategy would set a standard for future collaborations between Mies, Hilberseimer and Caldwell.15

15 Their later collaboration for Lafayette Park, Detroit, was indeed designed between 1955 and 1956, simultaneously to IIT campus Master Plan late revisions.
In fact, although thoroughly detailed, the material quality of Mies's buildings was secondary to the relationship among the buildings themselves, as to that between their ground floor and the exterior surrounding them, both spatially and visually. On this regard, Caldwell's careful placing of greenery effectively decreased even more the perceived scale of interior spaces, therefore providing them with spatial clarity and definition [Fig. 6.26].

Green courtyards served as a prelude to the executed buildings, in order to provide them with an institutional character according to its relevance, and mitigate the negative effects of the problems for the implementation of IIT campus Master Plan. As a result of this situation, the landscaping project developed by Caldwell was forced to continuous adjustments and redefinitions, parallel to those experimented by Mies and Hilberseimer's design.
6.4 Redevelopment: Opening a Space for Critical Construction

All this in mind, the peculiarity of IIT campus planning process can be understood from the specific perspective of its realization process and Mies’s emphasis on the compositional law of his

Key

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<th>IIT Buildings*</th>
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<th>Other Relevant Structures in the Area</th>
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<tr>
<td>1 Armour Mission Bldg.</td>
<td>17 Institute of Gas Technology</td>
<td>47 Mandel Residence</td>
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<tr>
<td>2 IIT Main Building</td>
<td>18 South Union Building</td>
<td>48 Chicago Housing Authority (CHAI) Dearborn Homes</td>
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<tr>
<td>3 IIT Buildings &amp; Grounds Storage Building</td>
<td>20 ARF [of IIT] Administration Bldg.</td>
<td>49 Keith Public School</td>
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<td>4 Physics Hall</td>
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<td>50 CHAI Stateway Gardens</td>
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<td>6 Parking Lot</td>
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<td>7 Armour Research Foundation</td>
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<td>(Sections 3, 2 &amp; Steam Generating Plant)</td>
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<td>32 IIT Navy Building (Alumni Memorial Hall)</td>
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<td>* Structures in red designed by Mies van der Rohe</td>
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original project. The singularity of the implementation process of IIT campus Master Plan design, discontinuous and widely spaced in time [Fig. 6.27], gave its various buildings an episodic character, as if they had successively emerged with an apparent indifference to the overall continuity of their sequence. Apparently, each new building of the campus was only linked to the preceding ones by means of a constructive theme, that appeared repeatedly and in a somehow unconcerned way.

In fact, more than a progressive development where spontaneity might eventually appear, the whole complex seems to be the result of a process that only reached an integration with the city once completed [Fig. 6.28]. As a consequence of its long state of uncompletion, it was never indifferent to anything around it, and did not allow intermediate positions, forcing its context in favor or against it.

A subtle subjectivity was made patent all along the implementation of Mies’s Master Plan campus design: the intensity of the spatial relations established between every new building and the previously constructed ones, qualified the existing voids in the campus, which, at the same time, progressively nullified the old buildings to the point of making them irrelevant. Most of the vacant land — full of meaning in Mies’s design, as its emptiness was already part of his urban language — remained undeveloped and
The design benefitted not only from the local conditions of private dwelling, but also from a broader civic realm of shared green spaces included in the Redevelopment Plan. Free to operate over the block boundaries, Mies adopted an overall Modernist planning strategy, nonetheless completed with a design extending across different scales. This rendered visible different links between the metropolitan context and local conditions of the site, as well as suggested unprecedented ones.

deliberated kept void for decades, therefore imposing sudden discontinuities to the original campus that paradoxically discarded any harmonious synthesis. Actually, it seems difficult to conceive this landscape as a synthesis. Rather, it shows as the remains of an additive composition—designed to be entirely consistent only when completed, its intermediate stages appeared for a long time.
as the incomplete traces of bigger plan, abandoned in an abrupt way.

Such lack of continuity seemed particularly intense when the campus was completed, partially because the relentless resolution of the residential extension of the campus beyond State St. This made Mies’s design fragmentation to look both as an intentional and as unintentional at the same time: intentional in its buildings, designed to shine autonomously with a character of their own; unintentional in its fractured landscape, that could not avoid the elevated train line drastically dividing it [Fig. 6.29].

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<th>IIT Buildings*</th>
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<td>1 IIT Armour Mission Bdg.</td>
<td>IIT Metallurgy &amp; Chemical Engineer Bldg. // Perlstein Hall</td>
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<tr>
<td>2 IIT Main Building</td>
<td>33 IIT Metallurgy &amp; Chemical Engineer Bldg. // Perlstein Hall</td>
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<tr>
<td>3 IIT Buildings &amp; Grounds Storage Building</td>
<td>34 IIT Chemistry Building // Whisnich Hall</td>
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<td>4 Physics Hall</td>
<td>35 Tennis Courts</td>
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<td>5 Chapin Hall</td>
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<td>6 Parking Lot</td>
<td>37 Cunningham Hall Apartments</td>
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<td>8 IIT Transformer Vault // Central Electrical Vault</td>
<td>39 Carman Hall Apartments</td>
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<td>10 IIT Boiler Plant // Heating Plant (Sections 1, 2 &amp; Steam Generating Plant)</td>
<td>41 Robert F. Carr Memorial Chapel</td>
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<td>11 ARF Test Cell</td>
<td>42 ARF Electrical Engineering Research Building</td>
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<td>12 ARF Mechanical Engineer Research Building (Units 1, 2 &amp; 3) &amp; [Storage Sheds]</td>
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<td>44 IIT Fraternity Row</td>
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<td>14 ARF Life Science Research Bldg.</td>
<td>45 Farr Hall</td>
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<td>46 ARF Administration Offices // Chem. Research Bldg. 2</td>
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<td>16 IIT South Building // IIT Physics &amp; Electrical Engineering</td>
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<td>Other Relevant Structures in the Area</td>
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<td>17 Institute of Gas Technology (IGT) Labs North Building</td>
<td>48 Chicago Housing Authority (CHA) Dearborn Homes</td>
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<td>18 South Union Building (Temporary Building No. 4)</td>
<td>49 Keith Public School</td>
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<td>19 IGT Classrooms &amp; Laboratories</td>
<td>50 CHA Stateway Gardens</td>
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<td>32 IIT Navy Building // Alumni Memorial Hall</td>
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* Structures in red designed by Mies van der Rohe
Furthermore, a challenge is posed when trying to understand what gives coherence to the whole landscape of the campus; what provides unity to the different buildings, and turns them into something more than a mere accumulation of fragments. And here a paradox emerges — it is not possible to identify what bonds together the different buildings if not invoking “the figure that they create together”, while their differences cannot be minimized either. The common formalization that unites them is always subject to the patent individuality of each of the buildings that comprise it. Perhaps their only thing in common was their refusal to integrate: where one would expect balance and serenity, a tough, tense and stubborn challenge — at times even inhospitable — was found.

Arising from the higher and abstract order of a Master Plan that did not explain the context, rather than in a distant, hypothetical completion, the different IIT buildings by Mies remained far from reconciled, and drop out of their surroundings during the implementation process of his campus design. Since they could not came to terms with them in the shape of in a synthesis in the intermediate stages of the discontinuous implementation of Mies's Master Plan, its irresolution and fragmentation became a constitutive characteristic to it.
Consequently, the architecture of IIT campus always was episodic and fragmentary. It was divided by absences and gaps that, not being able to be filled by a specific plan, could not be overlooked or minimized.

As a result of the continuous transformation of the Master Plan, that gave the different buildings a meaning, the architect’s attention jumped forth and back from the general to the individual, from an architecture open to an spatial dialogue with its surroundings, to another that denies it. Accepting what once was convincingly argued by the original project, it claimed nonetheless that it should be rethought again everytime it is applied, as context itself is not something static. Seemingly, Mies’s priority in every single stage of IIT campus Master Plan, was to remain aware of the role later developed of each by his buildings, so it was not subverted until the conclusion of the implementation sequence.
In 1938, faced with the magnitude of the assignments obtained by his office, Mies decided to resign from his post as Head of IIT Architecture and Urbanism Department, in order to devote all his time to his architectural practice. As a result of his resignation as Head of the Department, Rettaliata decided to permanently withdraw the campus Master Plan commission from him, and gave it to SOM. This would motivate a conflict with Hilberseimer and Caldwell, largely responsible for many of the decisions taken.

Nevertheless, Hilberseimer decided to continue teaching at IIT. This would not be the case of Caldwell who, more passionate, sided Hilberseimer to defend Mies and, despite the disapproval of both, decided to resign at IIT.

### Key

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<th>IIT Buildings*</th>
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<td>1 IIT Armour Mission Bdg.</td>
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<td>2 IIT Main Building</td>
<td>19 IIT Classrooms &amp; Laboratories</td>
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<td>10 IIT Boiler Plant [Heating Plant] (Sections 2 &amp; Steam Generating Plant)</td>
<td>27 Association of American Railroads (AAR) Research Lab [AAR Administration/AAR Technical Center]</td>
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<td>33 IIT Metallurgy &amp; Chemical Engineering Bldg. [Perlstein Hall]</td>
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<td>34 IIT Chemistry Building [Whisnick Hall]</td>
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<td>68 Chicago Stateway Gardens</td>
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* Structures in red designed by Mies van der Rohe

6.33 IIT campus by the year 1959, in its urban context (opposite page).
PART II – Critical Assessment
7. CONCLUSIONS

Let us say that our work is to develop architecture
—and in the process, to develop ourselves.¹


In his urban studies, Hilberseimer distinguished the geometric layout both in free and autocratic cities, seeing urban forms as expressions of organizational systems in history. While grid cities had often been characterized as rationalistic—and hence the opposite of organic—he distinguished between the grids of cities that served autocratic societies, imposing a geometric plan on the landscape with dominant axes leading to important buildings, and those of free ones, where “rectangularity does not necessarily force an axial, geometrical pattern upon the city.” From here, Hilberseimer concluded that one of the hallmarks of planning was to allow for organic change, whenever and however it became desirable.
Given the circumstances of their American exile, Mies and Hilberseimer opted for a combination of planning and design in the unusually long process of development of IIT campus Master Plan design. They managed to establish a set of structuring principles that proved to be open enough to be successively reoriented, in a time of deep historical changes. In a revision of the ongoing decentralizing planning policies in the U.S. since the Depression years, IIT campus Master Plan put forward a new model of urban intervention, according to what its authors understood as historically unprecedented problems in city planning (Fig. 7.1). Its aim was to achieve a space for a progressive self-development consistent with what they perceived as a new reality, illustrated by the impact of war and the emergence of its mass-consumption economy at a scale never seen before, that transformed American city planning as it had been commonly performed.\(^2\)

As a solution, they proposed an open, low-density pattern, to be integrated in the existing urban fabric by means of metropolitan infrastructures which suggested, through a particular articulation of the preexisting cityscape with a newly programmed, green landscape (Fig. 7.1), a natural evolution of the organicist

principles of the Prairie style according to new urban demands. This new urban model cannot be understood without taking into account Hilberseimer’s contribution to it. Despite the fact that its very basic guidelines were inherited from IIT campus Master Plan—which Mies had designed by himself—Hilberseimer’s theories, elaborated simultaneously to the redesign of IIT campus Master Plan by the early 1940s, most probably influenced it.

7.1.1 Structured Elements within a Decentralized Pattern

Thus considered, the development of Hilberseimer’s so-called ‘Settlement Unit’ urban model shows today especially revealing. Originally conceived from his own personal research concerning the Garden City since the late 1920s, Hilberseimer finally formulated his scheme of the ‘Settlement Unit’ for the first time when he arrived to the U.S. While its intention was to propose a urban scheme able to operate with the “elements of city planning” in pure Modernist terms of function, circulation, or density ratios, its final configuration was nonetheless to be informed by the specifics of the environment.

Intending to conflate the infrastructural systems of contemporary cities into their preexisting environmental conditions, its decentralized ‘pattern’ was meant to produce a radically reconceived ‘built landscape’ consonant with the “inorganic accumulation of opposed elements” of the American metropolis [Fig. 7.3]. In Hilberseimer’s own words, as

“(...) problems change with the social pattern of their time, the means of realizing the aims of city planning also change. For those means depend, in any era, on the concurrent status of science and technology. The present problem of city planning cannot be solved by the patterns of the past. To attempt to solve them thus would lead to decorative, not structural, formations”.

3 Hilberseimer, L. (1940), «The Elements of City Planning,» Armour Engineer and Alumnus 2 (6): 10 [Dec., 1940] [University Archives (Paul V. Galvin Library, IIT)].


However, such structural formations implied a certain social conflict, when he followed that

“(…) new social demands present new technical problems; new technics entail new problems for society. Society, as a rule, comes gradually to cope with the new problems which technology creates”.

Hilberseimer’s opinion that “cities of our industrial age, however, have not yet found the pattern adequate to their potentialities, according to their function and technological development”, nevertheless would derive in a straight Modernist stance when assuming that “they are a mere conglomeration of unrelated parts, each disturbing the other”.

Perhaps too optimistically, Hilberseimer concluded that “old cities could be replanned and remade into well-functioning organisms, in which each part is related to other parts and to an harmonious whole,” polemically implying that existing social

8 Ibid.


7.3 Land use survey (left), and statistical data (above) of blocks adjacent to IIT, 1942.

American metropolises had been a subject of inspiration for a whole generation of German architects. Given their dynamism and their energetic transformations and growth, the structuring principles beneath the urban fabric of American metropolises were seen as more adequate for a contemporary society. Most likely, Hilberseimer’s—and Mies’s—experience since his arrival to America appeared to him as the perfect opportunity to verify what had been hitherto a merely theoretical debate.
patterns might be ignored for the good of a well-functioning order.

### 7.1.2 Structural Order vs. Transitional Organization in City Planning

Seen under this perspective, the notion of ‘order’ reveals particularly relevant. During the years of their collaboration for IIT campus Master Plan design, Hilberseimer and Mies shared a common understanding for the urban order operating in American contemporary cities. Although based upon a common conceptualization, it was to be developed in slightly different ways by each of them.

As a matter of fact, Hilberseimer wisely did assume the limitations of urban planning when facing the continuous evolution of the social forces in the city, admitting that “there is always a lag” and, consequently, “the implications of a new alignment of forces are usually not generally appreciated until after the negative effects of the workings of those forces have become apparent”.[10] It was the formal organization of the pattern, providing an order without the establishment of either a focus or a hierarchy, which allowed these to be conveniently rearranged. It is not hard to imagine how Mies shared his reaction against the “wild decentralization” and unsatisfactory “planless disurbanization”, with a call “for immediate constructive action”.11 Again, new patterns of form in the city were meant to reflect new forms of society.

Indeed, Mies had already pronounced himself on the fundamental issue of order throughout his early career in Europe. Close to a conceptualization of metropolitan Architecture by Hilberseimer that “represents the design of today’s operative socio-economic conditions” and “is essentially a creation of space”,12 Mies's notion of order was characterized as an “encounter with an immanent plan; participation in the creation”,13 this fully Modernist notion of order by Mies being far from any normative condition of everyday life. On the contrary, it demanded an active attitude towards a progressive transformation, from its very foundations, of an already existing reality. Not in vain, Mies had followed closely

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10 Ibid.


certain theories of the epoch, inspired in natural processes [Fig. 7.4], for which “production of novelty entails transitions that are slow, small, and subtle”, 14 amidst a continuous iteration, slightly distinct, in every generation of any coherent organization.

Unveiling hidden aspects of its inner structure, the resulting whole was to reveal itself as “not merely a sum, or resultant, but also an emergent novelty, or creative synthesis” 15 out of the different realities preceding it.

7.4 Nature as provider of efficient structural principles (above); model of Hilberseimer’s ‘Settlement Unit’ (left).

Since the late 1920s, European architectural theory had found inspiration in the field of biology. Its great development by means of the use of new technologies, such as microscopic photography, was a common source of inspiration among a whole generation of modern artists and designers. Not by chance, these theories were indeed widely present in architectural debates at the early days of Bauhaus School, where the evolution of large scale systems—as, for instance, contemporary cities—was seen as analogous to the patterns in the growth of crystallographic formations.

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7.1.3 Surpass Order from Within It

As a matter of fact, these ideas seemed to fit especially well with the particularities of Chicago cityscape. The renowned land division of the homogeneous grid ordering its flatlands had laid the assumption, since the very early days of the foundation of the city, that such easily identifiable properties were interchangeable, thus promoting successive — and commonly unrestrained — speculation within its platted neighborhoods [Fig. 7.5]. Consequently, despite the strictness implied by the grid’s geometrical definition of the ordinance and the ensured stability provided by metropolitan infrastructures, Chicago blocks have never been entirely regular. Developed mostly in assembled groupings of lots, commonly adopted to obtain a distinction between different projects, this variety allowed a progressive implementation of the different urban interventions, in a continuous re-organization of the territory that definitely suited IIT institutional situation [Fig. 7.6].

After his emigration to America, Mies amplified this notion of order, as one can find in some of his sparse pronouncements regarding urban planning. Curiously enough, he would take care in making a sharp distinction between the notion of ‘order’ and that of ‘organization’. In his characteristic aphoristic argumentation, Mies promptly pointed that

“(...) one can only order what is already ordered in itself. Order is more than organization. Organization is the determination of function. Order, however, imparts meaning”.

Subsequently,

“(...) if we would give to each thing what intrinsically belongs to it, then all things would easily fall into their proper place; only there they could really be what they are and there they would fully realize themselves. The chaos in which we live would give way to order and the world would again become meaningful and beautiful”.

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17 Ibid.


This speech is described in the archives as “Manuscript of one important address Mies gave here in German”. Mies did not become an American citizen — and therefore did not speak fluent English — until 1944.

19 Ibid, p. 5.
May the reason for such a gloomy remark amidst his comparatively professional prosperity remain unknown to us, it just cannot be but speculated that the American city in those years appeared to him highly functional though, in some way, less meaningful than it could possibly be. Notwithstanding, such distinction between order and organization, while promoting a civic commitment traditionally adopted by conservatives—thereupon deriving to traditional forms—is here used by Mies to argue in a proactive way.

From these lines, it can be inferred that, for him, order was neither a mean of regulation nor an abstract a priori. More precisely, order appeared as a given fact in a specific reality of a specific historical moment, only to be grasped in the complex, sometimes unpredictable, ever changing relations in the city—“this world,” he once declared, “and no other is offered to us. Here we must take our stand.”20 A specific order was patent through the different manifestations of the chaotic everyday in contemporary cities, which nonetheless could be transformed into experiences of

7.6 “Illinois Institute of Technology, Chicago. 1940. Final Scheme”.
Mies took care to describe the relevance of the gridiron as a structuring principle for his IIT campus Master Plan design, clearly expressed in his schemes for its general floorplan. Noteworthy, the module structuring IIT campus Master Plan was slightly smaller than the typical Chicago South Side lot, only to resemble the grid at the larger scale of the whole intervention.

the persistence of their principles.

Not by chance, Hilberseimer had presented analogous theories about urban planning, characterized by a clear and recognizable structure according to a pattern, rather than by the formalization of a figure. This ‘organic’ order appeared as a “correct set of interrelations of the parts”, in “a coherent and comprehensible reciprocity of elements similar to those suggested by complex organisms or structures”.

Significantly paralleling Mies, Hilberseimer carefully pointed that such an order “should not be mistaken for organization, which is a mechanical one”, to conclude that “order deals with life as well as with the forms and means of life; organization, merely with figures”. While for him traditional urban planning had considered order as something that the building plan as a figure could impose over the presumed disorder of its surroundings, he, on the contrary, contemplated it as something already present in the world, generally manifested in a natural way. His pattern was an effort to give formal expression of this underlying, pre-existing order—to give it a structure. Mies himself gave a full explanation of his use of the term ‘structure’ as a “philosophical idea”:

“(...) the structure is the whole from top to bottom to the last detail—with the same ideas. That is what we call structure.”

Famously rendered as a nonhierarchical combination of interrelated building blocks extending over a significant portion of the essentially horizontal “field” of Chicago South Side urban fabric [Fig. 7.7, 7.8], IIT campus Master Plan took advantage of this conceptualization, structured according to the grid. Whether this image would be, most likely, Mies’s responsibility, one cannot but admit the power of Hilberseimer’s determined vision to engage the complex—often contradictory—roles of public policies, private development interests, and residents in urban planning, ap-
parently secondary for Mies. The design not only rejected any accommodation to status quo, but also attempted a wholly new vision for the following regeneration of the area, pushing to action and transformation in a shared direction for the highest good of all. Indeed, one can easily appreciate here Hilberseimer’s Modernist conception of urban planning as an integral organization.

But Hilberseimer’s naive assumption of a linear grow for his comprehensive plans, with all its elements reflecting a perfectly clear, unified and balanced point of view in all their stages, actually disabled any realization. Despite the ‘scientific’ approach to the modern city in his theoretical research, his awareness of the “symptoms of the current imbalance in the order of the world”, may not be enough “to provide the means for reconciling man to the force of the Zeitgeist” or even “aiding it in achieving its purposes”25. Indeed, any comprehensive organization — including the postulated by Hilberseimer’s ‘Settlement Unit’ — seems today to be formulated, paradoxically, against any social evolution.

7.2 The Paradoxical Modernity of Industrial Construction

Mies's early American work, commonly characterized as an exploration of the combination possibilities of a steel structure with other traditional construction materials, may be summarized as the search for a satisfactory answer to the problem of reconciling the different—and often contradictory—structural and constructive requirements, while giving to such combination a clear and—apparently—simple expression. This was only possible thanks to Mies’s ability to simultaneously link and tension the elements of the various systems of order, naturally different, that appear in any building. If meaning was to be achieved by an exposure the inner principles of a building, Mies’s approach to structure and construction by means of composing an ‘image of articulation’, effectively exposed a coherent interdependence of the problems inherent to building design—which may be not self-evident but in fact remain present—transcending the criticism about its mannerism.

However, the problem of the artificiality of his use of representation probably arises from the fact that, retrospectively pointing to industrial development as one of its origins, modern historiography has traditionally endowed it, a posteriori, an integrity that it probably never had. To this, it should be added the problem of its historical evolution, as it has always been, in fact, subject of a continuous rework on the basis of its own terms of efficiency. Even if presenting extensive or partial architectural achievements, the relevance attributed to industrial construction by History of Architecture has varied widely in time. Whatever the case, its relevance is anyway justified by its will, clearly modern, to achieve a clearer understanding both of the principles that drive it—which, although true, remain problematic because they apparently emerge outside the disciplinar debate—and of its possibilities of articulation.

Indeed, facing the criticism that claims that such representation would not be really necessary, one could argue that, by critically re-reading the roles attributed by modern historiography to industrial construction, and by opening a future of possibilities for a more significant development to an important tradition in the U.S., this architecture is already a radically modern and pur-
poseful effort. Not in vain, the required perception and sensitivity
to achieve such transfiguration out of the most common urban
reality where it was developed, is probably something that can be
only acquired in a late career.

7.2.1 Structural Principles from a Tectonic Standpoint

The familiar portrait of Mies’s early American work as an
abstract architecture, sustained by a rigorous discipline and au-
thenticity often characterized by the “poetry of assembled com-
ponents” of his buildings, has been long considered to have
redeemed the common steel framed structure through the de-
velopment of its own expressive potential. Moreover, its endur-
ance and permanence in time has favoured its insertion into an
allegedly a-historical constructive discourse, as the categorical
severity with which he always completed his whole practice has
provided a basis for its understanding as “an act of construction
first”, taking account of “structural unit as the irreducible essence
of architectural form.”

Despite their apparent overexposure, these ideas have been
able to subsume in Mies’s early buildings for IIT campus, usually
reworked from fragmentary evidence, reconsidering them from
the point of view of the representation of their structural order. Indeed,
the expressive ability of the different structural and constructive
solutions that Mies developed for his buildings at IIT suggests not
only his utmost care for structural design, but also a willpower
to make them an extension of the whole spatial concept of the
campus. Such approach, paralleling classical architectural the-
ories about the tectonic form, seems to make up a framework to
effectively understand their actual role in the campus Master Plan
design — as a means to enhance the spatial experience of an ur-
ban environment through constructive means [Fig. 7.9].

FRAMPTON, K. and CAVA, J. (ed.) Studies in Tectonic Culture: The Poetics of Construction in
Nineteenth and Twentieth Century Architecture (Chicago: Graham Foundation for Advanced
Studies in the Fine Arts), ch. 6, pp. 155-208.

27 FRAMPTON, K. (1996), «Rappel à l’Ordre: The Case for the Tectonic», in Architec-
tural Design 60 (3-4): 20.

28 See, for instance, BLASER, W. (1965) Die Kunst der Struktur—L’art de la structure
(Stutt-
gart/Zurich: Verlag für Architektur), or CARTER, P. (1973) Mies van der Rohe at Work (New
York/London: Praeger/Phaidon).

29 Most remarkably, between the few German books that Mies could get sent from
his personal library when he emigrated to the U.S., one can find some of the classic texts
on tectonic theory — BOTTICHER, K. (1832) Die Tektonik der Hellenen (Potsdam: Verlag von
Ferdinand Riegel), and STEMPER, G. (1838) Der Stil in den Technischen und Tektonischen Kün-
sten oder Praktische Ästhetik (München: Friedrich Bruckmann’s Verlag) [see Appendix] — so
it would not be too adventurous to infer his awareness about these ideas, if not a special
significance for him.

7.9 Classical treatises on tectonic theory by G. Semper (top), and by K. Bötticher (bottom), that Mies
brought with him to America.
Indeed, when recalling classic theory, the tectonic form in building is described in two modes:

“The first involves a constructional element, that is shaped so as to emphasise its static role and cultural status. (...) The second mode involves the representation of a constructional element which is present, but hidden.”

Considered this way, tectonic theory can be a basis for an architecture that grants to structural design the revelation of refined and at the same time self-reflexive structural forms, able to transform buildings into open structures of skeletal transparency. Distinguished by its refusal of any willful symbolization, it can instead go further than the supposed immediacy of material or purpose. When conceived of the potential in self-expression, not only of the immanent geometric principles that order structure but of the consciousness in the process of its production, architecture is able to blur the boundaries of its autonomy and open itself to all kind of uses and interpretations.

His deep control of the necessary relation—and occasional conflict—between appearance and reality of a building, allowed him a freedom that turned his construction into great architectural lessons. This is where Mies’s abstraction lies: in the opening of specific structure to a realm of subjective experience where its abstract structuring principles can be interpreted through its image. When the language of technology is adopted, it is the understanding of its intrinsic abstraction, despite the distance imposed in its reception by the image of the built object, what constitutes the real challenge of its shaping. Once overcome, other considerations —what the structure contains, the use we may make of it, etc.— appear as secondary. In Mies’s own words,

“It is true that architecture depends on facts, but its real field of activity lies in the realm of significance.”

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30 Frampton, K. (1990). Op. cit., p. 21. Frampton concludes that “These two modes can be seen as paralleling the distinction that Semper made between the ‘structural-technical’ and the ‘structural-symbolic’,” summarizing here the classical approach to tectonic theory by Bötticher as the foundation for the later one formulated by Semper. Noteworthy, Frampton insisted in identifying here the originally different German terms for building and construction in the English term of structure.

7.2 From Integrated Design to Open Composition

Mies's plan to extend the campus beyond the boundaries of the block so it could link to the existing city infrastructures of the city demanded a continuous negotiation with its surroundings. IIT campus Master Plan was a transforming design that evolved from an integrated design to an open composition, parallel to its transforming relation with its immediate context, in a continuous self-reinterpretation that took special care of not to disrupt its own internal functionality.

The success of Mies's proposal laid in its particular combination of a double commitment: on one hand, to solve short-term functional needs within the bounds of the properties progressively acquired by IIT; on the other, a steady long-term determination for keeping a clear organization according to the very own formal structure of its previously executed fragments.

It was the formal logic of the pattern, the open possibility in its design, that allowed a redefinition of the campus relation with its environment that enabled future expansions, despite the increasing complexity of the whole. Paradoxically, that possibility would only be appreciated years after IIT was effectively adopted as a model for the further redevelopment of the whole Chicago South Side area which —completed before governmental agencies became involved in what was to be known as the Urban Renewal Program— set a prototype of what was to come in later years. In other words, the redevelopment of the whole Chicago South Side area followed an image describing what IIT was intended to be, and not an existing architectural solution, although this image could inspire an operative method itself.

Seemingly, Mies understood order as a historically specific ground, essential for the subsequent evolution of any social organization. He strive to materialize it through an open spatiality where communities would be allowed to extend toward previously unrealized potentialities. The way to achieve this was a self-referential organization of his different architectural designs, in which time would remain suspended in a permanent commitment.

Perhaps no one summarized this attitude as clearly as Caldwell would do some years later. Asking himself “what should we say our work is? How do we work with structure?”, he answered
promptly: “structure contains the embryo of what it is—the principle”, “a sequence of parts, proceeding from an inner principle: an idea of parts”.32 He concluded enthusiastically:

“Let us say that our work is to develop architecture—and in the process, to develop ourselves”.33

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8. BIBLIOGRAPHY

The most important way to study Mies — a method that he would surely have endorsed — is to examine his buildings. (...) To understand them, however, context is essential; we offer here a shortlist of the literature on Mies that we regard as the most important thus far published.¹

8.1 Specific Bibliography

Most remarkably, virtually every monograph on Mies van der Rohe's work includes a selected bibliography attached at the end.\(^1\) But, paradoxically, this is commonly done just to acknowledge the impact of Mies's work, usually quoting other authored works either by scholars or relevant figures of architectural criticism, without delving into any further connection with what is shown. Instead, only few studies inquire into the ideas present into Mies's work, contributing with their own interpretation to enlighten our knowledge about them.

Perhaps one reason for this situation lays in the circumstances of the widespread diffusion of Mies's work. On one hand, this may be a consequence of the important number of publications promoted by his direct disciples, commonly presented by means of a visual discourse, probably enhanced by the formal immediacy of Mies's works and the architect's care for their representation. Although these need to be taken into account as sources of original information —most of them were trained at IIT— the significance of Mies's work clearly goes far beyond this. On the other hand, it is notorious today the large amount of publications from exhibitions in the general literature about Mies.\(^2\)

This has usually led to the prevalence of an institutional point of view, sometimes far from unbiased. Moreover, in both cases many texts happen to have been republished on numerous occasions, a fact that has promoted their de-contextualization in

\(^1\) For an exhaustive and briefly annotated bibliography on Mies van der Rohe until the 1980s, see also \textit{Spaeth, D. (1979) Ludwig Mies van der Rohe: An Annotated Bibliography and Chronology} (New York/London: Garland). Other bibliographic studies with a more generic approach —eg., \textit{Harmon, R. (1970) Ludwig Mies van der Rohe, Master Architect: A Selected Bibliography} (Monticello, IL: Vance Bibliographies)— have been discarded due to their limited impact in further studies.

Spaeth's bibliography has been completed by a later compilation of articles on Mies published between 1978-2000, deposited in the \textit{Mies in America Research Files} (CCA, Montreal).

\(^2\) An overview of the most influent publications about the work of Mies van der Rohe and a discussion on how these have paralleled the evolution of the critique of his work through different exhibitions can be found in \textit{Schulze, F. and Windhorst, E. (2011), «Appendix B: Mies's Career in Publications and Exhibitions,» in Mies van der Rohe: a Critical Biography. New and Revised Edition} (Chicago: UIC), pp. 418-446.
a short of timeless discourse.

Within this context, the bibliographical selection here presented tries to reflect not only a relevance of discourse —a credit that, one could argue, does not justify historical significance by itself—but also a historical significance—which does not necessarily imply a relevance in its discourse, either. In line with this approach, such relevance has been established according to how these texts can clarify some of Mies's ideas about some of the topics involved in the development of IIT Master Plan or its different buildings (e.g. urban planning, steel frame construction, etc.), here detailed to justify their pertinence.

While sometimes these ideas were not explicitly expressed by Mies, there is evidence of his wide personal interests. In addition to this, the sparse texts by Mies himself, usually reprinted in several publications, have been traced from their first edition to allow their contextualization, both within the development of his work and within its critical reception. Therefore, a selection of monographs in their first edition is listed below, arranged in alphabetical order by author's last name. Exceptionally, first editions in other languages are reported when they have been significant for the study and/or interpretation of IIT.

Finally, a selection of articles on Mies's early American work has been added, divided in two groups: those written while IIT Master Plan was been defined and slowly implemented, and those published after Mies's death, when his design was already completed. All of them are listed in chronological order of publication.

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3 As it can be appreciated when one examines his personal library, preserved at the Ludwig Mies van der Rohe Collection, University Library Special Collections, etc. [See Appendix].

4 These texts have been annotated with side notes describing their Spanish edition, where available. For a summary of their peculiarities, and a general review of the treatment of Mies's works in the major reference texts of History of Architecture until the mid 1980s, see: Sainz, J. «Mies traducido,» A&V: Monografías de Arquitectura y Vivienda, 6: 32-37 (Apr.-Jun., 1986).
8.1.1 Monographs Covering Mies’s Early American Work

- Part I: Mies van der Rohe: Architect as Educator, especially the articles:
  - HARRINGTON, Kevin, «Order Space, Proportion—Mies Curriculum at IIT,» 49-68.
- Part II: Catalog of the Exhibition, especially the articles:
  - «IIT as a Model of a University Campus,» 16-121.
- Part III: Appendix, especially the articles:
  - MIES VAN DER ROHE, Ludwig, «Solved Problems: a Demand on Our Building Methods,» 165-166.
  - MIES VAN DER ROHE, Ludwig, «Explanation of Educational Program,» 167-168.


Catalog for the travelling exhibition of the same name, displayed at IIT Department of Architecture, Chicago (Jun. 6th–Jul. 12th, 1986), as a part of the Mies Centennial Project. The book focuses in Mies’s American works, while the German ones were later included in WOLDSORT, Ch. (ed.) (1986) Der Vorbildliche Architekt: Mies van der Rohes Architekturunterricht 1937-1958 am Bauhaus and in Chicago (Berlin: Nicolai/Bauhaus-Archiv), as a catalog of the later display of the exhibition at Bauhaus-Archiv, Museum für Gestaltung, Berlin (Oct. 15th, 1986–Jan. 18th, 1987).
New York: Columbia University Press.6 Particularly:
- BLAKE, Peter, and KALLMAN, Gerhardt M., «A Conversation with Mies van der Rohe,» 93-104.
- HEALD, Henry, «Mies van der Rohe at IIT,» 105-108.
- BRENNER, Daniel, «Mies, the Educator,» 113-117.
- BROWNSON, Jacques, «The Urban Space Concepts of Mies van der Rohe,» 141-145.
- FITCH, James Marston, «Mies van der Rohe and the Platonic Virtues,» 154-163.

- MIES VAN DER ROHE, Ludwig, «Baukunst unserer Zeit (mei-
  - «Vorwort [Foreword],» 11.
- «Illinois Institute of Technology (IIT), Chicago,» 54-81.
- «After Mies or Thirty Years Later,» 225.


During. 1977. Mies van der Rohe: Lehre und Schule—Principles and

6 Verbatim record of the symposium of the same name, held at the School of Architecture, Columbia University, New York (Mar.-May, 1964).
BIBLIOGRAPHY

MIES VAN DER ROHE'S ILLINOIS INSTITUTE OF TECHNOLOGY


- «Die Lehre Mies’ [The Principles of Mies],» 7-11.
- «Die Schule Mies’ [The School of Mies],» 14-15.
- «Zur Persönlichkeit von Mies van der Rohe [The Personality of Mies van der Rohe],» 18-49.
- Priestley, William, «Mies’ Program for Architectural Education,» p. 25 (original text in English).
- MIES VAN DER ROHE, Ludwig, «Antrittsrede als Direktor der Architekturabteilung am Armour Institute of Technology (AIT), Chicago, 20 November 1938 [Introductory Address as Head of the Department of Architecture at Armour Institute of Technology (AIT), Chicago, November 20th, 1938],» 28-30.
- «Walter Peterhans: Visual Training,» 35-36 (original text in English).
- «Drawing and Visual Training,» 37-45 (original text in English).
- «Materials and Construction,» 46-63 (original text in English).

- «Space and Proportion,» 64-73 (original text in English).


- Chapter 3: «Three Building Types,» especially:
  - «Low-rise Skeleton Frame Buildings,» 70-77.
- Chapter 4: «Urban Spaces,» especially the sections:
  - «Illinois Institute of Technology, a Campus in the City,» 114-117.
- Chapter 5: «Education of Architects,» 159-170.
- Chapter 6: «Conclusion,» especially the section:


8 Catalog of a selection of the drawings shown at the MoMA, New York (Feb. 10–Apr. 15, 1986) and later at The Museum of Contemporary Art, Chicago (May 9–Aug. 10, 1986), as a part of the Mies Centennial Project. The exhibition traveled to Europe and


- «Epílogo», 233-242, especially the section:
  - «La forma se impone al material: Un sistema universal» 238-240.

- Part V: American Development, especially the chapter:
  - «Towards Pure Forms», 381-396.
- Part VI: Space-Time in Art, Architecture and Construction, especially the chapter:
  - «Mies van der Rohe and the Integrity of Form,» 597-617, including «The Illinois Institute of Technology,» 601-603, and «On the Integrity of Form,» 615-617.

- Chapter 3: «Material and Structure,» 22-34.
- Chapter 4: «Proportion,» 35-40.
- Chapter 5: «Space Concept,» 41-42.
- Chapter 8: «A New Architectural Language,» 49-60.

This chapter was not included in the book until the third edition was released in 1954, when several buildings of Mies's IIT campus Master Plan had been already erected. It was not until the fourth edition was published in 1962, that Giedion added the final section «On the Integrity of Form» at the end of the chapter, which emphasized the coherence in all of Mies's American work. Some of Mies's late works were incorporated in its fifth edition in 1967, which finally completed the chapter on Mies as we know it today. For further information about the particular treatment of Mies's American work by Giedion, see Neumeyer, F., «Giedion en Mies van der Rohe: Een Paradox in de Historiografie van Het Moderne», Archi 4: 47-53 (Apr., 1992).
ILLINOIS INSTITUTE OF TECHNOLOGY (ed.) 1941. *This Is Our Job: A Definition of Purpose.* Chicago: IIT Press. 10

———. 1941. *A Program and a Plan.* Chicago: IIT Press. 11


———. 1942. *This is War!* Chicago: IIT Press. 13

———. 1944. *From the Record: The Story of Four Years of Progress.* Chicago: IIT Press. 14

———. 1944. *Appointment with Peace.* Chicago: IIT Press. 15

———. 1945 (2nd ed., 1948). *Technology Center Today and Tomorrow. A Building and Expansion Program to Transform Today’s Outgrown Campus into a Modern Center of Technological Education and Research.* Chicago: IIT Press. 16


10 Printed for internal diffusion [IIT Archives (Paul V. Galvin Library, 111)]. Included in the case exhibit *Expanding Campus Boundaries: The IIT Building Program During World War II*, displayed at IIT Archives, Paul V. Galvin Library, Chicago (May, 2004–Jan., 2006), researched, written, and curated by Catherine Bruck, University Archivist.

11 *Idem.*

12 *Idem.*

13 *Idem.*

14 *Idem.*

15 *Idem.*


17 Transcript of an address given by John T. Rettaliata—then president of IIT—at the Chicago Club (Jun. 4th, 1954). Printed for internal diffusion [IIT Archives (Paul V. Galvin Library, 111)].

18 Transcript of the speech given by Mies van der Rohe, John T. Rettaliata and E. Saarinen, among others, with occasion of the dedication ceremony held on Apr. 30th, 1956. Printed for internal diffusion [IIT Archives (Paul V. Galvin Library, 111)].

- Chapter xii: «The Realm of Pure Art», 74-84.


21 Printed for internal diffusion [IIT Archives (Paul V. Galvin Library, IIT)].

22 Iadem.

23 Catalog for the exhibition of the same name, organized at the moma, New York (Sept. 16th—Nov. 23rd, 1945). Notoriously, this was the only monograph devoted to Mies until 1950 and, consequently, the only source of his sparse writings, then scattered and hard to find in the U.S. Although those included in the catalog were directly translated from the German by Johnson himself, it seems quite possible that Mies had overseen the results.


- Part I: The Death of Modern Architecture, especially its section «Univalent Form,» 14-17.


- Oeschlin, Werner, «“Not From an Aestheticizing, but from a General Cultural Point of View”. Mies’s Steady Resistance to Formalism and Determinism: a Plea for Value-criteria in Architecture,» 22-89.
- McAtee, Cammie, «Alien #5044325: Mies’s First Trip to America,» 132-191 [first printed as «Alien #5044325», Harvard Design Magazine, 14: 69-75 (Summer 2001), and later as «Besucher-Visum #5044325: Mies’ erste Reise nach Amerika», Bauwelt, 47 [i]: 22-29 (December 14th, 2001)], especially:
  - Part II: «Mies in America,» especially the sections:
    - «From Bauhaus to Armour,» 181-183.
    - «Mies’s American Voice,» 184.
- Lambert, Phyllis, «Mies Immersion,» 192-389, especially:
  - «Introduction,» 192-221, especially the section:
    - «Representation as a Mode of Study,» 204-221.
  - «Learning a Language,» 222-330, especially the sections:
    - «The AIT Commission & the Campus Plan,» 225-229.
    - «Conceptual Schemes for the AIT Scheme,» 230-234.
    - «Presentation Drawings for AIT Scheme,» 234-239.
    - «Forging a Language,» 276-330.
  - «Space and Structure,» 331-321, especially the section:

24 Catalog for the exhibition of the same name, organized at the wmaa, New York (Jun. 21st—Sept. 3rd, 2001), later displayed at the Museum of Contemporary Art, Chicago (Feb. 16th—May 26th, 2002).

- Part I: La muerte de la arquitectura moderna, and especially its section «Contenido univalente,» 25-38].
- MERTINS, Detlef, «Living in a Jungle: “Mies, Organic Architecture, and the Art of City Building,”» 590-641, especially:
  - «Expression of Structure,» 602-627.
  - «City Landscape,» 618-641.
  - «Points and Fields: Chicago's Urban Orders,» 657-663.
  - «Mies's ITT: Bas Relief Campus,» 663-671.
  - «Contours of Proliferation: Chicago Near South Side,» 672-686.
  - «Conclusion: Rethinking the Gravity Field,» 686-691.

LLOBET i RIBEIRO, Xavier. 2007. Hilberseimer y Mies. La metrópoli como ciudad jardín. Barcelona: Fundación Caja de Arquitectos. Particularly:
- Part II: «Infraestructuras,» and especially:
  - Chapter 3: «La Unidad de Asentamiento,» 77-111, espe-

26 Article based on a lecture delivered at the symposium Beyond Mies, held at ITT, Chicago (Sep. 12–13*, 1995), with occasion of the McCormick Tribune Campus Building Competition, 1996.
27 Article based on the project report submitted by the author to the McCormick Tribune Campus Building Competition, 1996.
28 Additional documents concerning original interviews with some of Mies’s disciples at ITT, here omitted, can be found in LLOBET i RIBEIRO, X. (2005), «Epílogo,» in Mies y Hilberseimer. La metrópoli como ciudad jardín (PhD diss., Barcelona: Universitat Politècnica de Catalunya; M. Codinachs, supervisor), pp. 341-349. Part of the compiled documentation is shared with JIMÉNEZ GÓMEZ, E. Mª (2012) El pilar en Mies van der Rohe: el lèxic de l'acer (PhD diss., Barcelona: Universitat Politècnica de Catalunya; J. Ferrándiz, supervisor), focused on the evolution of specific constructive aspects in Mies’s work. Regarding ITT, see «2a época. El pilar grey it», ch. 2, pp. 109-208.
cially the sections:
- "La Metrópolis como Ciudad Jardín," 80-81.
- Chapter 4: "Metamorfosis de las Grandes Ciudades," 119-153, especially the sections:
  - "Reconstrucción del Paisaje Natural," 119-122.
- Part III: "Estructuras," and especially:
  - Chapter 6: "Los Nuevos Estándares," 201-238, especially:
    - "Reurbanización del Campus del IIT," 207-209.

Contemporary Structure in Architecture.
London: Reinhold Publishing. Particularly:
- Chapter 1: "Contemporary Structure," 3-126, and especially:
  - "The Skeleton Frame," 4-78.
- Chapter 11: "Structure in Architectural Design," 127-196, and especially the section:
  - "Structural Form," 163-177.

The Presence of Mies.
New York: Princeton Architectural Press. Particularly:
- Hays, K. Michael, "Odysseus and the Oarsmen, or Mies's Abstraction Once Again," 235-249.

——— and Jennings, Michael W. (eds.) 2010. 
History of Architecture and Film. 1923-1926. New York:
London/Los Angeles: Tate Publishing/Getty Research Institute. Translated
by S. Lindberg and M. Ingrid Christian. Particularly:
- Mies van der Rohe, Ludwig, "Industrial Construction," 120-125 [English facsimile of the original text "Industrielles"

29 Collection of essays from a symposium organized by the University of Toronto School of Architecture and Landscape Architecture, held at the Council Chamber, Toronto City Hall (Sept. 26th, 1992) with occasion of the 25th anniversary of the Toronto-Dominion Centre, by Mies van der Rohe.


- Organic Architecture, especially the sections:
  - «IIT/IIT: Open Campus, » 244-257.
- Unfolding Structure, especially the sections:
  - Event Space: Living Life Large, 444-457.

- Mies van der Rohe, Ludwig, «Leitgedanken zur Erziehung

Note that the date, given by the editor, is not consistent with Neumeyer’s.

BIBLIOGRAPHY


- Peter, John, «Conversation with Ludwig Mies van der Rohe,» 154-173.
- Johnson, Philip, «On Mies van der Rohe,» 174-175.


**Riley, Terence, Bergdoll, Barry (eds.) et al. 2001.** *Mies in Berlin.* New York: Museum of Modern Art. 34 Particularly:
- Riley, Terence, «From Bauhaus to Court-House,» 550-537.


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35 In collaboration with the Mies van der Rohe Archive at the moMA, New York.
BIBLIOGRAPHY

- SCHULZE, Franz and FREED, James Ingo, «Mies in America: An Interview with James Ingo Freed Conducted by Franz Schulze, » 172-199.

- Part II: «1938-1967. The American Work, » especially:
  - Vol. Eleven: ‘IIT, volume 4’ (Metallurgical and Chemical Engineering Building (Perlstein Hall), and other buildings and projects).

- Chapter 6: «America Beckons: 1936-38, » 176-188.
- Chapter 9: «The 1940s, » 232-246.

- CARTER, Peter, «Mies van der Rohe, » 59-71.

- Frampton, K., «The Unknown Mies van der Rohe,» 7-11.


- «The IIT Undergraduate Curriculum in Architecture,» especially the sections:
  - «Drawing Sequence,» 31-44.
  - «Construction Sequence,» 69.
  - «Planning Sequence,» 101-119.
- «The IIT Graduate Program in Architecture,» 154-196.


36 Catalog of the retrospective exhibition on Mies van der Rohe, organized at the AIC, Chicago, in collaboration with the Graham Foundation for Advanced Studies in the Fine Arts (Apr. 27th-Jun. 30th, 1980) by A. James Speyer, AIC curator of contemporary art.


38 Catalog of the exhibition organized at Kaiser Wilhelm Museum, Krefeld (May 7th-Jul. 12th, 1981), with the support of The Mies van der Rohe Archive at the MoMA, New York, on the occasion of the public opening of the restored Lange and Ester Houses by Mies van der Rohe, now owned by the Kaiser Wilhelm Museum.
ed by Russell M. Stockman]. Particularly:
- «Einführung,» 10 [Introduction, 10].

- MIES VAN DER ROHE, Ludwig, «Architecture,» 184 (text originally published in English).


- Dal Co, Francesco, «Excellence: The Culture of Mies as Seen in his Notes and Books,» 72-86.
- Tigerman, Stanley, «Mies van der Rohe and his Disciples, or The American Architectural Text and Its Reading,» 100-108.

8.1.2 Selected Articles on IT Before Mies’s Death


- «Mies van der Rohe Joins Armour Faculty», *Pencil Points*, 19: 45 (October, 1938).
- «Mies van der Rohe to Teach in Chicago», *Magazine of Art*, 31: 595 (October, 1938).


1947 -

1948 -

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1950 -

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42 Apparently, Mies repeated some of his statements in a later interview with students at the Architecture League, New York, c.1938. This circumstance has motivated a discussion around the date in which these were actually formulated.
BIBLIOGRAPHY


1953

1954

1955
- «Student Commons (Illinois Institute of Technology,


- Peter, John, «Conversations regarding the future of Ar-


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43 Also known as the ‘No Dogma’ interview.
44 Transcript of a public interview, broadcasted by the BBC on May 17th, 1959.


1964

1965

1966

1967

1978


8.1.3 Selected Articles on IIT After Mies’s Death

1969

1972

1973
- Rowe, Colin, "Neo-"Classicism" and Modern Architec-
SELECTED ARTICLES ON IIT BEFORE MIÉS'S DEATH


45 According to the author, this article was originally written as an independent essay between 1966-57, when Mié's design for s.r. Crown Hall was first published.


BIBLIOGRAPHY


Traditionally, the long but continuous process of the realization of IIT campus Master Plan has difficulted its proper historical contextualization. Indeed, this process has been usually simplified in order to make it fit into a compartmentalized sequence of events, commonly used by major reference studies to characterize the evolution of architecture and urban planning during that time.

With the aim of providing a global overview of the complexity of the circumstances in which IIT campus Master Plan was first conceived and later implemented, the selected general bibliography has been grouped according to different thematic perspectives. Among these, a first group tries to describe the global situation and ideas debated in American architecture and urban planning, immediately after, during, and before World War II. A second selection of texts tries more specifically to picture different aspects of Chicago architecture and urban planning during the same period. Finally, a third group of publications tries to elucidate the influence of European Modernism—and more specifically of the architectural ideas that emerged in Germany around the Bauhaus—on American architecture during this time span.
8.2.1 American Architecture and Urbanism Around World War II

- REED, Peter S., «Enlisting Modernism.» 2-41.


- Chapter 1: «Overture: The Test of War.» 11-20.
- Chapter 2: «Architects and Cities Go Off to War.» 21-54.

- Chapter 3: «Architecture and the City.» 82-127, and especially the article «The Superblock», 83-103.


- Goldhagen, Sarah W., «Reconceptualizing the Modern,» 301-325.


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49 The essay was intended for publication in a volume planned by the American Abstract Artists, New York, which never appeared. It was later reworked in an expanded version which finally came out as Giedion, S., «The Need for a New Monumentality» in Zucker, P. (ed.) (1944) Op. cit.

- Chapter 5: «The University as City Beautiful,» 163-214.

WRIGHT, Gwendolyn. 2007 USA. London: Reaktion, Modern Architectures in History series. Particularly:
- Chapter 4: «Architecture, The Public and the State, 1933-1945,» 133-150.


8.2.2 Chicago Architecture and Urban Planning Around World War II


———. 1960. Introducing... The Central South Area Plan. Chicago: CPC.


- WHITING, Sarah, «Superblockism: Chicago's Elastic Grid,» 57-76.


- SCHULZE, Franz, «Chicago Architektur der Zwischenkriegs,» 36-39 [«Chicago Architecture Between the Two Wars,» 41-44].
- GRUBE, Oswald W., PRAN, Peter C., and SCHULZE, Franz, «Zweite Chicagoer Schule der Architektur,» [«The Second Chicago School of Architecture»], 45-465, especially the sections:


51 Catalog for the travelling exhibition of the same name, commissioned by the American Institute of Architects (AIA) and the Chicago Historical Society (CHS). The exhibition was organized at the Die Neue Sammlung, Staatliches Museum für Angewandte Kunst, Munich, and later exhibited at the Museum of Contemporary Art, Chicago (May-Jun., 1976), as part of the Illinois-USA Bicentennial Exhibition.


- Chapter 4 «The Loop versus the Slums,» 100-134.


- Chapter 13, «Cities For Sale, Land Speculation in American Planning,» 349-381.


Pommer, Richard, SpAETH, David, and Harrington, Kevin.
BIBLIOGRAPHY

- Spaeth, David, «Ludwig Hilberseimer’s Settlement Unit. Origins and Applications,» 54-68.


Catalog for the exhibition of the same name, organized at the AIC, Chicago (Jun. 12th, 1985–Aug. 29th, 1993).
8.2.3 Influence of European Modernism on American Architecture Around World War II

- BARRON, Stephanie, «European Artists in Exile: a Reading Between the Lines,» 11-29, especially the section «The Exile as Teacher,» 23-26.
- HAHN, Peter, «Bauhaus and Exile: Bauhaus Architects and Designers Between the Old World and the New,» 210-223.


- RILEY, Terence, «From Bauhaus to Court-House,» 330-337.


54 Catalog for the exhibition of the same name, organized at the MoMA, New York in cooperation with the Bauhaus-Archiv Berlin, the Stiftung Bauhaus Dessau, and the Klassik Stiftung Weimar (Nov. 8th, 2009–Jan. 31st, 2010).


- «Städtebau,» 3-21 [«Urban Planning,» 91-134], and especially


the sections:
- «Schematische Anwendung,» 5 [«The geometric city,» 93].
- «Amerikanische Grostädte,» 6 [«American metropolises,» 94-95].
- «Industriebauten,» 90-97 [«Industrial Buildings,» 250-260], and especially the sections:
  - «Gottfried Sempers Irrtum,» 91 [«Gottfried Semper’s mistake,» 250-251].
  - «Fassadensymbolismus,» 91-92 [«The symbolism of facades,» 251-254].
  - «Reine Ingenieurwerke,» 92 [«Pure engineering works,» 254].
  - «Die Konstruktionsweisen,» 93 [«Means of construction,» 257].
  - «Flachbauten,» 93 [«Low-rise buildings,» 257].
  - «Berücksichtigung des Arbeitsprozesses,» 95-97 [«Consideration for construction processes,» 259-260].
  - «Schöpferische Beherrschung der Mittel,» 97 [«The creative mastery of means,» 260].
- «Bauhandwerk und Bauindustrie,» 261-269, and especially the sections:
  - «Die veränderten Voraussetzungen,» 97 [«The altered premises,» 264].
  - «Freiheit des Schaffens,» 98 [«Freedom of creation,» 263].
- «Grosstadtarchitktur,» 98-103 [«Metropolisarchitecture,» 264-280], and especially the sections:
  - «Architektur ist Raumschöpfung,» 98 [«Architecture is the creation of space,» 265].
  - «Das Verhältnis von Außenbau zu Innenbau,» 99 [«The relationship between exterior and interior,» 265-266].
  - «Das Problem der Architektur,» 100 [«The problem of architecture,» 268-269].
  - «Einzelzelle und Stadrganismus,» 100 [«Individual cell and urban organism,» 270].
  - «Die Träger des Rythmus,» 100-101 [«The bearers of rhythm,» 271].
  - «Identität von Konstruktion und Form,» 101 [«The identity of construction and form,» 272-273].
  - «Das allgemeine Gesetz,» 280 [«The general law,» 278-280].

- JAMES-CHAKRABORTY, Katheleen, «8: From Isolationism

- JORDY, William H., The Impact of European Modernism in the Mid-Twentieth Century, vol. 5, and especially:
  - Chapter IV: «The Laconic Splendor of the Metal Frame,» 221-277.

  - Chapter 3: «Rezipiertes Bauhaus-bild,» 92-119 [«Image of the Bauhaus as Received in America,» 104-116].
  - Chapter 4: «Kontroverse um Bauhaus-Architektur,» 140-171 [«Controversies Surrounding Bauhaus Architecture,» 168-201], and especially the section:
    - «Das Armour Institut und ehemalige Bauhaus-Studenten» [«The Armour Institute and Former Bauhaus Students»].

  - HAYAKAWA, Samuel, «La revisión de la visión,» 8-10.
  - Chapter I: «La organización plástica,» 11-128.
  - Chapter II: «La representación visual,» 103-275.

  - GIEDION, Sigfried, «Arte significa realidad,» 11-44.
  - Chapter I: «La organización plástica,» 27-100.

KEPEs, György. 1944. Language of Vision. Chicago: Paul Theobald. Particularly:
  - Chapter I: «Plastic Organization,» 15-64, and especially the sections:
    - «Fields of Spatial Forces,» 29.
    - «Spatial Tension; Dynamic Equilibrium,» 36-43.
    - «Organization of Spatial Progression. The Equivocal Space,» 53-64.
  - Chapter II: «Visual Representation,» 65-199, and especially the sections:
    - «Transparency, Interpretation,» 77-85.
    - «Reintegration,» 207-209.
Theobald. Particularly:
- Chapter XI: «Continuity, Discontinuity, Rhythm, Scale,» 204-207.

- Seckler, Eduard F., «Structure, Construction, Tectonics,» 89-95.


- Chapter I: «erziehungsfragen,» 9-19 [preliminaries, 14-21], and especially the sections:
  - «wie steht es um die technik?,» 12 [but how about the technical progress?,] 15.
  - «nicht gegen die technik, sondern mit ihr,» 13 [not against technical progress, but with it,] 16.
- Chapter IV: «der raum (architektur),» 193-236 [espace (architecture),] 161-204, and especially the sections:

59 Publication from the materials displayed at the exhibition of the same name, organized at the Hayden Gallery, Massachusetts Institute of Technology, Cambridge, Mass. (Spring, 1930), according to the premises presented in his article «The New Landscape,» Arts and Architecture, 68 (7) (July 1930).
- «raum ist lagebeziehung von körpern,» 195 [«space is the position relation of bodies,»] 163.
- «über das erlebnis das architektur,» 199-200 [«the experience of architecture,»] 178-181.
- «raumgestaltung ist nicht in ersterlinie eine frage des baumaterials,» 211 [«space creation is not primarily a question of the building material,»] 184.
- «das biologische als regulator schlechthin,» 222-236 [«the biological pure and simple taken as the guide,»] 191-202.

- Chapter ii: «New Method of Approach—Design for Life,» 33-62, and especially the sections:
  - «Quality of Relationships,» .
  - «Established Paths of Thought,» .
  - «Forms and Shapes,» .
  - «The Age of Assemblage,» .
- Chapter iii: «New Education—An Organic Approach,» and especially the sections:
  - «Space-Time Problems,» .
  - «The Architectural Department,» .
  - «The Larger Concept of Structure,» .
  - «Spatial Concepts,» .

- Betts, Paul, «The Bauhaus as a Cold War Weapon,» 190-208.


- Chapter 7: «Dynamism, Change and Renewal,» 249-296.

and especially the section: «The Impact of Modern Architecture on Campus Planning.» 251-259.


- Chapter 9: «The New Bauhaus Chicago, 1937-1938,» 191-216, and especially the articles:62
  - «The New Bauhaus. Educational Program and Faculty,» 194.


61 Published for the exhibition 50 Jahre Bauhaus, with occasion of the 50th anniversary of the Bauhaus, organized by the Württembergischer Kunstverein at Kunstgebäude am Schloßplatz, Stuttgart, in collaboration with the Bauhaus-Archiv, Darmstadt (May 5th–Jun. 28th, 1968) and later displayed as Fifty Years Bauhaus at IIT, Chicago (Aug. 25th–Sept. 26th, 1969), among other institutions.


62 The Spanish editor decided not to include this chapter. Consequently, the title of the text was amended, and none of these articles has ever been published in Spanish.
PART III – Appendix
9. RESEARCH RESOURCES

*I had not a conventional architectural education.*
*I worked under a few good architects; I read a few good books.*
—and that’s about it.¹

9.1 Usual Block Lotting Options at Chicago South Side

Several historic planimetrics of Chicago Near South Side describe the historical evolution of the urban fabric in the studied area. However, they are not easy to relate to each other, according to the different level of accuracy with which these were elaborated. In addition to this, despite the overall regularity imposed by the city grid, it is fairly common to find numerous variations in the width of the blocks all along the different areas of the city, and specifically in the studied one, a circumstance that makes hard to match all the available documents covering it.

In order to be able to use all these documents in a consistent way, block allotment has been established as a reference unit. Even if such decision has allowed an approximation to the actual dimensions of these documents —according to Hoyt, the most usual lotting in Chicago is $25 \times 125$ ft. [Fig. 9.4]—, still, block lotting presents many variants, not only between different neighborhoods, but also inside each of them. As a starting point, all the different variations that can be found in the surroundings of the campus have been drawn [see the following pages], as they can be appreciated, as precisely as possible, in the most complete sources of documentation available. The aim is to have a constant reference that allows to assign a defined scale to such documentation, allowing the manipulation of the different available plats for the studied area within a specific, standard scale. As the dimensions of the different campus Master Plan designs can be easily set by means of their modulated buildings, it is possible, then, their insertion in the actual context in which they were conceived.

9.1 “Various methods of subdividing a 40 acre tract, 1320 feet square.”

Several studies have been made about Chicago lot dimensions, according to land use and/or accessibility needs. For residential purposes —as it was the case of Chicago Near South Side before it became occupied by industries— Hoyt pointed that, while the most common lotting dimensions were $25 \times 125$ ft., the dimensions of $24 \times 125$ ft. offered the best ratios for a Chicago generic block size of $600 \times 66$ ft. (5 acres).

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2 Digitalization of these resources commonly used existing microfilms for a proper conservation of the original documents. Because of the size of the original documentation, this kind of reproduction accumulates slight distortions, which make difficult a re-composition of the numerous sheets available for the studied area.


4 Chicago Sanborn Fire Insurance Maps have been used as a main source of information. Although the number of available plats for the study has been limited, these have been enough to reconstruct the urban evolution of the studied area.
Typical Block Lotting Options at Chicago South Side
9.2 Books at Mies's Personal Library

The contents of most of Mies's personal library, mainly composed by books in German and English, was acquired from his family in 1969–1970 by the University of Illinois at Chicago (UIC), where they have been cataloged by Richard Seidel. The collection donated to the library of the UIC comprises approximately 620 titles. However, there is still a limited number of titles that were not included in Mies's legacy to UIC, that remain today in custody of Mies's family. Another 100 volumes remain in private possession of Mies's grandson Dirk Lohan, and his daughter Georgia van der Rohe, kept other additional 60 books. Considering all the different records, all this would represent an estimated sum of about 800 books.

No records could be found of these private funds until 1975 when, at the request of Mies's close collaborator Werner Blaser, members of the family made a selection among these books, which, according to them, included “the ones most important to Mies”. But, whatever the actual amount of books he actually owned was, when one looks to the complete list, some remarks can be made to Blaser’s selection. Although it seems obvious that Mies would have progressively selected his own interests, most of these titles are not included in Seidel’s catalog, and therefore had

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5 Preserved at the Ludwig Mies van der Rohe Collection, Daley Library Special Collections Department at UIC, Chicago, Ill.


7 Ibid.

been excluded from study for a long time, or even studied apart from it. So, whether this selection was actually intended or not, it seems clear that a comprehensive view of his library can offer an outlook, not of what Mies—or his disciples—wanted to present as his own intellectual background, but of a comparative evolution of his ideas, even if these sometimes may be contradictory. When compared to the rest of the legacy as a whole, any selection becomes relative, as it may appear as a summary, a deliberate choice, or even a denial.

It is from this perspective that some authors have tried to see his personal library as a gateway to his ideas, which, besides some brief texts preserved, he never put down in words. In fact, numerous attempts have been made to elaborate theories trying to elucidate which were his intellectual references and how he got in contact with them, as some of the preserved volumes offer signs of study [Fig. 9.3]. Although contradictory records can be found about Mies's intellectual dedication, there is no doubt that he followed with great interest the ideas of his time, and always tried to keep up-to-date with them.

Indeed, the fact that certain authors are widely represented can be indicative of a certain affinity of Mies with their ideas. Moreover, one can find English editions of some of the original titles in German he owned, a circumstance that gives us an idea not only of his effort when it came to understanding certain authors, but also of his will to be able to understand—and probably to express himself—their ideas precisely in a language other than his own.

However, even assuming that one could trace the evolution of Mies's ideas by the texts he read, the prospects of this scope are, without any doubt, limited. As a matter of fact, the date he

9 As in the case of the bibliography by Blaser.

10 Perhaps the most successful attempt in this direction is NEUMEYER, F. (1986) Mies van der Rohe: Das Kunstlose Wort: Gedanken zur Baukunst (Berlin: Siedler). The essay remains today as the most comprehensive and thorough reconstruction of the German intellectual context during Mies's formative years, as well as of his own personal cultural interests. While Neumeyer does not explicitly face Mies's American period, he offers a basis to understand it.

11 In KLOTZ, H., and COOK, J. W. (1973) Architektur im Widerspruch (Zürich: Artemis), p. 53, Ph. Johnson stated: “Mies! He would never admit it, but he was an impenitent anti-intellectual [Anti-Intellektueller].” He said: “I just read...”, and then I took a look at his library and I strongly disbelieved him—he just had three books. None of them had been taken from the bookshelf in years” [trans. by the author]. On the contrary, H. Richter remembered that Mies owned “[...] hundredsweights of books and journals” in his office, as quoted in NEUMEYER, F. (1986), Op. cit., ch. iv, p. 78, note 18.

12 Neumeyer has also detailed this aspect of Mies's personality, from his early days at Berlin, to the late ones in the U.S., in NEUMEYER, F., «Mies as Self-Educator» in ACHILLES, R., HARRINGTON, K., MYHRUM, Ch. (eds.) et al. (1986) Mies van der Rohe: Architect as Educator (Chicago: UIC Press), Part 1, pp. 27-36.

13 Probably limited to no more—and no less—than “[...] to provide a hypothetical

9.3 Highlighted passages in a book from Mies's own personal library.

Several volumes of Mies's personal library are underlined, and often include autographed notes. However, most of these books are not included in the selection made by Werner Blaser of the most important books for Mies. Whether Mies left aside this texts deliberately or not in his late years, it seems obvious that they offer relevant information to understand the source of his ideas and intellectual background.
acquired his books can not be established definitely, and few can be elucidated about when could Mies possibly get interested by the ideas there shown. Which of these books were already owned Mies in Germany; which ones were sent to him in 1938, when he emigrated to the United States; or which ones, of those he left behind, he acquired later again, is something that can not be precisely determined.

Therefore, an attempt to reconstruct the totality of Mies's personal library has been made, according to all the available records today, with the hope to contribute to a proper contextualization of the different ideas that lied behind his architecture all along his career. Assuming Seidel's Catalog for the UIC collection as a starting point, its records have been here systematized in order to facilitate a comparative analysis. Consequently, the catalog has been categorized primarily according to language. It has been arranged in alphabetical order by author's last name, documenting the specific editions owned by Mies as completely as possible.\textsuperscript{14} Finally, specific sections have been included for the most numerous type of the rest of documents in Mies's personal library: periodicals, listed alphabetically, and exhibition Catalogs, listed in chronological order of publication.

\textsuperscript{14} These have been additionally annotated with side notes describing their Spanish edition, where available.
9.2.1 German Editions at Mies’s Personal Library


Albee, Edward, and Braun, Pinkas. 1962. Der Amerikanische Traum: Der Tod von Bessie Smith; Die Zoogeschichte; Der Sandkasten. Frankfurt am Main: Fischer-Bücherei.


Aussen, Josef, and Guardini, Romano. 1924. Geweihte Künste. Burg Rothenfels am Main: Deutsches Quickbornhaus.


Bau-Anzeiger für das Saarland (ed.) 1933. Saarbrücken: Sitz der


16 Included in Blaser’s selection.
APPENDIX


———. 1924. Werkzeuge der Tiere. Leipzig: Voigtländer. 18


18 According to Neumeyer, F. (1986), Op. cit. However, no reference to it appears either in Blaser’s selection or in Seidel’s catalog for UIC.
19 Included in Blaser’s selection.
20 Included in Blaser’s selection.
Potsdam: Ferdinand Riegel. 21


21 *Idem.*

22 *Idem.*


25 Included in Blaser’s selection.


———, YORCK VON WARTENBURG, Paul, and SCHULENBURG, Sigrid (ed.) 1923. Briefwechsel zwischen Wilhelm Dilthey und dem

26 Idem.

27 Idem.


Ebeling, Siegfried. 1926. Der Raum als Membran. Dessau: C. Dünghaupt.


Fiedler, Konrad, and Marbach, Hans (ed.) 1896. Konrad Fiedlers


29 Included in Blaser’s selection.

30 Omitted by Neumeyer.

31 Included in Blaser’s selection.

32 Ibid.

33 Included in Blaser’s selection.


——_. 1934. Zwei Vorträge über Proportionen. Munich: R. Oldenburg. 34


——_, and DÖPPER, H. 1910. Denkmäler der Natur. Leipzig: Theodor Thomas, Geschäftsstelle der Deutschen Naturwis-


34 Included in Blaser's selection.
35 Ibid.
36 Ibid.
37 Omitted by Neumeyer.
39 Omitted by Neumeyer.
40 Ibid.
senschaftlichen Gesellschaft.


—. 1913. *Die Alpen, Gemeinverständlich Dargestellt*. Leipzig: Theodor Thomas. 43


—. 1921. *Das Pflanzenleben Deutschlands und seiner Nachbarländer*. Stuttgart: Kosmos, Gesellschaft der Naturfreunde. 48


—. 1923. *Das Liebesleben der Pflanzen*. Stuttgart: Kosmos, Ge-

41 Omitted by Neumeyer.
42 Idem.
43 Idem.
44 Idem.
45 Idem.
46 Idem.
47 Idem.
48 Idem.
49 Idem.
sellschaft der Naturfreunde. 50

———. 1923. Die Welt als Eileben: Grundriss einer objektiven Philoso-

———. 1923. Plasmatic: Die Wissenschaft der Zukunft. Stuttgart: 
Walter Seifert.

———. 1924. Richtiges Leben: Ein Buch für Jedermann. Leipzig: 
Voigtländer.

———. 1924. Grundriss der vergleichenden Biologie. Leipzig: Theodor 
Thomas.


———. 1924. Wege zur Natur: Eine Einführung in die Untersuchung 
der Kleinwelt des Wassers und des Bodens. Stuttgart: Fran-
ckh'sche Verlagshandlung.

———. 1926. Das Liebestreiben der Pflanzen. Stuttgart: Kosmos, Ge-
sellschaft der Naturfreunde. 51

———. 1926. Harmonie in der Natur. Stuttgart: Kosmos, Gesells-
chaft der Naturfreunde.


———. 1927. Der Weg zu Mir. Leipzig: Alfred Kröner. 52

———. 1927. Phoebus: Ein Rückblick auf das glückliche Deutschland im 
Jahre 1900. Munich: Drei Masken. 53

———. 1928. Naturgesetze der Heimat. Wien: Österreichischer Bun-
desverlag für Unterricht, Wissenschaft und Kunst.

———. 1928. Welt, Erde und Menschheit: Eine Wanderung Durch die 

———. 1928. Der Organismus: Organisation und Leben der Zelle. Mu-
inch: Drei Masken.

———. 1928. Urwälder. Stuttgart: Kosmos, Gesellschaft der Natur-
freunde. 54

———. 1928. Dinkelsbühl: Der Weg der Kultur. Leipzig: Dürr & We-
er.

Dresden: Carl Reissner.

———. 1930. Korallenwelt: Der Siebente Erdteil. Stuttgart: Kosmos, 
Gesellschaft der Naturfreunde. 55

———. 1932. Lebender Braunkohlenwald: Eine Reise Durch die Heutige 

———. 1934. Von der Arbeit zum Erfolg: Ein Schlüssel zum Besseren

50 Omitted by Neumeyer.
52 Included in Blaser's selection, and omitted by Neumeyer.
53 Omitted by Neumeyer.
54 Ibid.
55 Ibid.
Leben. Dresden: Carl Reissner.


FUCHS, Eduard. 1912. Illustrierte Sittengeschichte vom Mittelalter bis zur Gegenwart. Munich: Albert Langen Verlag für Kunstgeschichte.59


56 Omitted by Neumeyer.
57 Idem.
58 Included in Blaser’s selection.
59 Idem.
Bedeutung für Gegenwart und Zukunft. Frankfurt am Main/Berlin: Ullstein & Co Bücher.60


GUARDINI, Romano. 1921. Aus einem Jugendreicht. Mentz: Matthias Grünewald

———. 1923. Liturgische Bildung. Burg Rothenfels am Main: Deutsches Quickbornhaus63


———. 1925. Von Heiligen Zeichen. Würzburg: Deutsches Quickbornhaus.65


Grünewald.


67 Omitted by Neumeyer.

68 Included in Blaser’s selection.
APPENDIX

Bonn: Friedrich Cohen.\(^{69}\)


———. 1959. \textit{Physik und Philosophie}. Frankfurt am Main: Ullstein & Co.\(^{70}\)


HOLDERLIN, Friedrich 1913. \textit{Gedichte von Friedrich Hölderlin}. Leipzig: Insel-Verlag


\(^{69}\) Included in Blaser’s selection.

\(^{70}\) Mies also owned an English edition.
(1929). Halle an der Saale: Max Niemeyer.


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GERMAN EDITIONS AT MIES’S PERSONAL LIBRARY


77 Included in Blaser’s selection.


79 Idem. Neumeyer notes that the book originally belonged to Ada Bruhn’s family.
ANALYSIS AND HISTORY OF A COMPOSITIVE DEVELOPMENT


PLATO. 1933. *Die Verteidigung des Sokrates: Kríton.* Translated by E. Müller. Leipzig: Insel-Verlag


81 Included in Blaser’s selection. Although autographed as “Ada Mies”, Neumey...


Scheler, Max. 1921. Vom Ewigen im Menschen. Leipzig: Der Neue Geist.


ANALYSIS AND HISTORY OF A COMPOSITE DEVELOPMENT

esta Folge, II.2 – II.26 des Ganzen Werkes. Berlin: Gropius.


Kerle.

———. 1955. Der Fortschritt und die Dinge. Essen: Industrieform e.V.


Steffes, Johann Peter. 1925. Die Staatsausffassung der Moderne: Auf


89 Included in Blaser’s selection.

90 Profusely underlined and annotated by Mies.

91 Included in Blaser’s selection.


———, and STÖLZLE, Paula. 1924. Der Ursprung des Lebens: Kritische Untersuchung der verschiedenen Hypothesen. Habelschwerdt: Frankes Buchhandlung.93


94 Included in Blaser’s selection.
GERMAN EDITIONS AT MIES’S PERSONAL LIBRARY


ZEDERBAUER, Emerich. 1937. Die Harmonie im Weltall, in der Natur


95 Included in Blaser’s selection. Mies also owned an English edition.

96 Included in Blaser’s selection.


98 The copy remains in pristine condition.

99 Not included either in tbc catalog or Blaser’s selection. The copy is noticeably one of the most worn volumes of Mies’s library.


100 Included in Blaser’s selection.

101 Ibid. The text is heavily underlined by Mies, and fragments of it are repeatedly quoted in one of Mies’s notebooks, as studied in NEUMYER, F. (1986), «Notebook 1927-1928», Op. cit., Appendix, ch. 11, pp. 405–408.
9.2.2 English Editions at Mies’s Personal Library


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102 Included in Blaser’s selection.
103 *Idem.*
104 Added by Mies to his library once in America.
105 Included in Blaser’s selection.
106 Added by Mies to his library once in America.
107 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.


**ENGLISH EDITIONS AT MIES’S PERSONAL LIBRARY**

**German Barns. Allentown: Schlechter’s.**


**Edgell, George H. 1928. The American Architecture of To-Day. New York: Charles Scribner’s & Sons.**


**———. 1962. Francis Bacon and the Modern Dilemma. Lincoln: University of Nebraska Press.**


**Ferguson, James. 1872. Rude Stone Monuments in All countries: Their Age and Uses. London: John Murray.**


APPENDIX

Mifflin.


Gilson, Étienne. 1949. *Being and Some Philosophers*. Toronto: Pontifical Institute of Mediaeval Studies.\(^{129}\)


\(^{128}\) Included in Blaser’s selection.

\(^{129}\) *Idem*.

\(^{130}\) *Idem*.

\(^{131}\) *Idem*.

\(^{132}\) *Added by Mies to his library once in America*.

\(^{133}\) Mies also owned a German edition.

\(^{134}\) Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

\(^{135}\) Included in Blaser’s selection.

\(^{136}\) *Idem*.

\(^{137}\) *Idem*.


138 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

139 Added by Mies to his library once in America.

140 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

141 Profusely underlined by Mies.

142 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

143 *Idem.*

144 *Idem.*

145 *Idem.*

146 *Idem.*

147 Included in Blaser’s selection.


Le Corbusier. 1935. Aircraft. London: Studio Ltd.\(^{150}\)


Leipzig, Hugo. 1942. The City, the Housing and the Community Plan: Some Basic and Historical Considerations. Austin: University of Texas.


\(^{148}\) Included in Blaser’s selection.

\(^{149}\) Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

\(^{150}\) Included in Blaser’s selection.

\(^{151}\) Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

\(^{152}\) Ibid.
MANN, Thomas. 1959. Last Essays. Translated by R. Winston. New York: Alfred A. Knopf.\textsuperscript{153}


MARITAIN, Jacques. 1937. An Introduction to Logic. Translated by I. Choquette. New York: Sheed & Ward.\textsuperscript{154}


———, and ADLER, Mortimer Jerome (ed.) 1941. Scholasticism and Politics. Translated by Mortimer J. Adler. New York: the Macmillan Co.\textsuperscript{156}

———. 1941. Ransoming the Time. Translated by H. Lorin Binsse. New York: C. Scribner’s Sons.\textsuperscript{157}


———. 1943. The Twilight of Civilization. Translated by L. Landry. New York: Sheed & Ward.\textsuperscript{159}

———. 1943. Education at the Crossroads. New Haven: Yale University Press.\textsuperscript{160}

———. 1943. The Rights of Man and Natural Law. Translated by Doris C. Anson. New York: C. Scribner’s Sons.\textsuperscript{161}


———. 1953. The Range of Reason. New York: C. Scribner’s Sons.\textsuperscript{163}


\textsuperscript{153} Included in Blaser’s selection, but not in Seidel’s catalog for uic.

\textsuperscript{154} Omitted by Neumeyer.

\textsuperscript{155} \textit{Idem.}

\textsuperscript{156} \textit{Idem.}

\textsuperscript{157} \textit{Idem.}

\textsuperscript{158} \textit{Idem.}

\textsuperscript{159} Omitted by Neumeyer.

\textsuperscript{160} \textit{Idem.}

\textsuperscript{161} Included in Blaser’s selection.

\textsuperscript{162} \textit{Idem.}

\textsuperscript{163} \textit{Idem.}

\textsuperscript{164} Included in Blaser’s selection, but not in Seidel’s catalog for uic. Omitted by Neumeyer.
ORTega Y GAset, José. 1937. *Invertebrate Spain*. Translated by M. Adams New York: W.W. Norton.

165 Included in Blaser's selection, but not in Seidel's catalog for uic.
166 Idem.
167 Idem.
168 Idem.
169 Idem.
171 Included in Blaser's selection, but not in Seidel's catalog for uic. Blaser refers to a different author, possibly misspelled.
172 Included in Blaser's selection, but not in Seidel's catalog for uic.
New York: Doubleday.\textsuperscript{173}


———. 1960. \textit{What is Philosophy?} Translated by M. Adams. New York: W.W. Norton.\textsuperscript{175}


———. 1961. \textit{History as a System; and Other Essays Toward a Philosophy of History}. Translated by J. William Miller. New York: W.W. Norton.\textsuperscript{177}


PANOFSKY, Erwin. 1951. \textit{Gothic Architecture and Scholasticism}. Latrobe, Pa.: The Arch Abbey Press.\textsuperscript{181}


PRICE Lucien, and WHITEHEAD, Alfred North. 1954. \textit{Dialogues of

\textsuperscript{173} Included in Blaser's selection, but not in Seidel's catalog for unc.

\textsuperscript{174} Idem.

\textsuperscript{175} Idem.

\textsuperscript{176} Idem.

\textsuperscript{177} Idem.

\textsuperscript{178} Idem.

\textsuperscript{179} Idem.

\textsuperscript{180} Idem.

\textsuperscript{181} Idem.
Alfred North Whitehead. Boston: Little Brown & Co.\textsuperscript{182}


Rodin, Auguste, and Read, Herbert (ed.) 1965. Cathedrals of France. Translated by E. Chase Geissbuhler Boston: Beacon Press.\textsuperscript{184}

Rourke, Constance, and Brooks, Van Wyck. 1942. The Roots of American Culture and Other Essays. New York: Harcourt, Brace & Co.\textsuperscript{185}

Runes, Dagobert D. 1942. The Dictionary of Philosophy. New York: Philosophical Library.\textsuperscript{186}

Russell, Bertrand. 1931. The Scientific Outlook. New York: W.W. Norton & Co.\textsuperscript{187}

———. 1949. Authority and the Individual; with a Terminal Essay Philosophy and Politics. Boston: Beacon Press.\textsuperscript{188}


Saarinen, Eliel. 1943. The City, its Growth, its Decay, its Future. New York: Reinhold Publishing Co.\textsuperscript{190}


Schneer, Cecil J. 1960. The Search for Order; the Development of the Major Ideas in the Physical Sciences from the Earliest Times to

\textsuperscript{182} Included in Blaser’s selection, but not in Seidel’s catalog for uic.

\textsuperscript{183} Added by Mies to his library once in America.

\textsuperscript{184} Included in Blaser’s selection, but not in Seidel’s catalog for uic.

\textsuperscript{185} Idem.

\textsuperscript{186} Idem.

\textsuperscript{187} Idem.

\textsuperscript{188} Included in Blaser’s selection.

\textsuperscript{189} Idem.

\textsuperscript{190} Added by Mies to his library once in America.
ENGLISH EDITIONS AT MIES’S PERSONAL LIBRARY

the Present. New York: Harper & Bros.191

SCHRÖDINGER, Erwin. 1932. Science and Humanism: Physics in Our
Time. London: Cambridge University Press.192

Press.193

———. 1956. What is life? And Other Scientific Essays. Garden City:
Doubleday.194

Press.195

Press.196

SCHWARZ, Rudolf. 1958. The Church Incarnate: the Sacred Function of
Christian Architecture. Translated by C. Harris. Chicago:
Henry Regnery Co.197

SCHWEITZER, Albert. 1949. The Philosophy of Civilization. New York:
The Macmillan Co.

SERT, Josep Lluís, BASTLUND, Knud, and GIEDION, Siegfried. 1967.
José Luis Sert: Architecture City Planning Urban Design. Zürich:
Les Editions d’Architecture.

SEUPHOR, Michel, and MONDIAN, Piet. 1956. Piet Mondrian: Life

———. 1964. Construction and Geometry in Painting: from Malevich to

SHAPLEY, Harlow. 1932. Flights From Chaos: A Survey of Material Sys-
tems from Atoms to Galaxies, Adapted from Lectures at the College
of the City of New York, Class of 1872 Foundation. New York:

Universe. Boston: Beacon Press.198

SIMSON, Otto von. 1962. The Gothic Cathedral: Origins of Gothic Ar-
chitecture and the Medieval Concept of Order. New York:
Bollingen.199

SMITH, Homer William. 1956. Kamongo; or, The Lungfish and the Pa-

[Spanish ed.:] SCHRODINGER, Erwin.
1955. Ciencia y humanismo: la física en nues-
tro tiempo. Trans. I. Bolívar. Madrid: Al-
hambra].

[Spanish ed.:] SCHRODINGER, Erwin.
1958. La Naturaleza y los griegos. Trans. F. Porti-
llo. Madrid: Aguilar].

[Spanish ed.:] SCHRODINGER, Erwin.
1964. Mente y materia: conferencias Tarner
leídas en el Trinity College, Cambridge, en Oc-
tubre de 1958. Trans. J. Wagensberg. Bar-
celona: Tusquets] [Spanish ed.:] SHAPIRO, Harlow.
1963. De estrellas y hombres: la respuesta humana a
un universo en expansión. Trans. Mª Tere-
sa Toral. México D.F.: Fondo de Cultura
Económica].

[Spanish ed.:] SIMSON, Otto von.
1962. La
catedral gótica. Los orígenes de la arquitectura
gótica y el concepto medieval de orden. Trans. F. Villaverde. Madrid: Alianza].

191 Included in Blaser’s selection, but not in Seidel’s catalog for uic.
192 Included in Blaser’s selection.
193 Idem. Mies also owed a German edition.
194 Included in Blaser’s selection. Mies also owed a German edition.
195 Included in Blaser’s selection.
196 Included in Blaser’s selection, but not in Seidel’s catalog for uic. The English edition is mitted by Neumeyer.
197 Included in Blaser’s selection, but not in Seidel’s catalog for uic. Mies also owned a German edition and, according to Blaser, he helped with the translation, “that is, he helped Cynthia Harris to understand Schwartz’s ideas”, in BLASER, W. (1965) Die Kunst

der Struktur (Stuttgart: Verlag für Architektur), p. 229.
198 Included in Blaser’s selection, but not in Seidel’s catalog for uic.
199 Idem.


APPENDIX


TOYNBEE, Arnold, and MURRAY, Gilbert. 1952. Greek Historical Thought, from Homer to the Age of Heraclius. New York: New American Library.206


200 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

201 Included in Blaser’s selection.

202 Ibid.

203 Ibid.


206 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.

207 Added by Mies to his library once in America.

436 MIES VAN DER ROHE’S ILLINOIS INSTITUTE OF TECHNOLOGY
Government Printing Office.  


208 Added by Mies to his library once in America.
209 Idem.
210 Included in Blaser’s selection, but not in Seidel’s catalog for UIC.
211 Idem.
212 Included in Blaser’s selection.
213 Included in Blaser’s selection. Mies also owned a German edition.
214 Included in Blaser’s selection, but not in Seidel’s catalog for UIC. Mies also owned a German edition.
215 Included in Blaser’s selection.


216 Included in Blaser’s selection, but not in Seidel’s catalog for U.I.C.


218 Added by Mies to his library once in America.
9.2.3 Other Documents at Mies’s Personal Library

Books in Other Languages


219 Included in Blaser’s selection.
220 Idem.
221 Mies also owned a German edition.
APPENDIX


Periodicals

American Exhibition. 1949-. Chicago: The Art Institute of Chicago.

Annual of Architecture, Structure & Townplanning. 1960-. Calcutta: Association of Architects, Engineers & Townplanners, India/Publishing Corporation of India.

Die Antike. 1925-. Berlin: Walter de Gruyter.


L’Architecture d’Aujourd’hui. 1930-. Boulogne, Seine: s.n.

Architecture de Lumière. 1964-. Paris: s.n.


The Arts. 1946-. Desmond Shawe-Taylor.

223 Included in Blaser’s selection.

224 Added by Mies to his library once in America.
Atlantis; Länder, Völker, Reisen. 1949-. Leipzig: Bibliographisches Institut, AG/Atlantis Verlag.

Auktion. 1900-. Kornfeld & Klipstein.

Auktion. 1950-. Stuttgart: Stuttgarter Kunstkabinett/Roman Norbert Ketterer.

Baukunst und Werkform. 1947-.

Der Baumeister. 1902-. München: Georg D.W. Callwey.

Bitumen. 1900-. Hamburg: Arbeitsgemeinschaft der Bitumen-Industrie.


Enba: Revista de Arte. 1940-. Rio de Janeiro, Brazil: Escola Nacional de Belas Artes.


Magazine of Art. 1937-. Washington d.c.: American Federation of Arts.


Philosophische Hefte. 1928-. Berlin: Verlag der Philosophischen Hefte/Maximilian Beck.


Student Independent. 1900-. Chicago: IIT.
Task. A Magazine for Architects and Planners. 1941-
Die Tat. 1909-. Jena: Eugen Diederichs/Giselher Wirindex & Ernst Wilhelm Eschmann.
Volk im Werden. 1933-. Leipzig: Armanen-Verlag.
Wendingen: Maandblad voor Bouwen en Sieren. 1918-. Amsterdam: De Hooge Brug/Genootschap ‘Architectura et Amicitia’.
Werk. 1914-. Bern: Bund Schweizer Architekten, Schweizerischer Werkbund & Schweizerischer Kunstverein.

Exhibition Catalogs and Conference Proceedings


- Art in Our Time. An Exhibition to Celebrate the 10th Anniversary of the Museum of Modern Art and the Opening of its New Building. Catalog of the exhibition held at the Museum


1948 - Alberto Giacometti. Sculptures, Paintings. Catalog of the exhibition at MoMA.

The catalog included a subtitle stating that the exhibition took place “at the time of the New York World’s Fair” (i.e., Apr. 30th, 1933–Oct. 27th, 1940), though it actually did not remain opened that long.

ENGLISH EDITIONS AT MIES’S PERSONAL LIBRARY


1961 - *Hans Richter. Meditazioni sul Tempo*. Catalog of the exhi-

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1962


1963


1964


- *The Classic Spirit in 20th Century Art: Painters and Sculptors from Brancusi and Mondrian to Today.* Catalog of the exhi-

**1965**

**1966**

**1967**
- **Sculpture, a Generation of Innovation.** Catalog of the exhibition held at the Art Institute of Chicago (Jun. 23rd–Aug. 27th, 1967). Chicago: AIC.

**1968**
- **Werner Heldt: Œuvre-Katalog der Bilder von Heldt 1920–1954:**


1969


9.3 Mies's IIT Buildings Timeline

Key¹

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<td>STUDES</td>
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MIES’S IIT BUILDINGS TIMELINE

1940

1941

1942

Resor House
IIT/IIT Campus Master Plan
Museum for a Small City
Concert Hall
IIT Minerals & Metals Research
IIT Metallurgy & Chemical Engineering
MIES'S IIT BUILDINGS TIMELINE

1945

1946

1947

IIT Campus Master Plan

IIT Metallurgy & Chemical Engineering

IIT Engineering Research

IIT Field House, Gym, Natatorium

IIT Library & Administration

IIT Chemistry (Whishnick Hall)

IIT Navy (Alumni Memorial Hall)

IIT Lithographic Foundation

Farnsworth House

IIT Humanities (Lewis Hall)

Cantor Drive-in Restaurant

Joseph Cantor House

IIT Civil Engineering Mechanics
Index of Abbreviations

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<td>AIA</td>
<td>American Institute of Architects</td>
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<tr>
<td>AIC</td>
<td>Art Institute of Chicago</td>
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<tr>
<td>AIT</td>
<td>Armour Institute of Technology</td>
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<td>ARF</td>
<td>Armour Research Foundation</td>
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<tr>
<td>AAR</td>
<td>Association of American Railroads</td>
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<tr>
<td>CHA</td>
<td>Chicago Housing Authority</td>
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<tr>
<td>CHS</td>
<td>Chicago Historical Society (Chicago History Museum)</td>
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<tr>
<td>CLCC</td>
<td>Chicago Land Clearance Commission</td>
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<td>CPC</td>
<td>Chicago Plan Commission</td>
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<td>CTA</td>
<td>Chicago Transit Authority</td>
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<td>FHA</td>
<td>Federal Housing Administration</td>
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<tr>
<td>IGT</td>
<td>Institute of Gas Technology</td>
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<tr>
<td>ID</td>
<td>Institute of Design</td>
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<tr>
<td>IIT</td>
<td>Illinois Institute of Technology</td>
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<td>IITRI</td>
<td>Illinois Institute of Technology Research Institute</td>
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<tr>
<td>LoC</td>
<td>Library of Congress</td>
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<tr>
<td>LACMA</td>
<td>Los Angeles County Museum of Art</td>
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<td>MPC</td>
<td>Metropolitan Planning Council</td>
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<tr>
<td>MHPC</td>
<td>Metropolitan Housing and Planning Council</td>
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<tr>
<td>MoMA</td>
<td>Museum of Modern Art</td>
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<tr>
<td>NROTC</td>
<td>Naval Reserve Officers Training Corps</td>
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<tr>
<td>RF</td>
<td>Research Foundation of Armour Institute of Technology</td>
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<tr>
<td>SSPB</td>
<td>South Side Planning Board</td>
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<td>UoC</td>
<td>University of Chicago</td>
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<td>UIC</td>
<td>University of Illinois at Chicago Circle</td>
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<tr>
<td>WMAA</td>
<td>Whitney Museum of American Art</td>
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<td>WPA</td>
<td>Works Progress Administration</td>
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1 All abbreviations are indicated in the text, whenever they first appear.
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<td>Author’s elaboration.</td>
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<td>1.5</td>
<td>Johnson, Ph. (1947) <em>Mies van der Rohe</em> (New York: moMA), cover.</td>
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<td>1.7</td>
<td>Eames, Ch., <em>Museum of Modern Art: exhibit</em>, <em>Arts &amp; Architecture</em>, 6:4: 27 (top, right); 24, 25 (middle, right), 26, 27 (bottom, right) (Dec., 1947); Eames, Ch. (1947) photographer, <em>Installation view of Mies van der Rohe exhibition at moMA, New York</em> [The Lily Auchincloss Study Center for Architecture and Design (moMA, New York)] (above).</td>
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<td>1.12</td>
<td>Henderson, N. (photographer) (c.1953), <em>Construction of Hunstanton Secondary Modern School, Norfolk</em>, unpublished photograph [Nigel Henderson Estate, Tate Archive, #TGA 924/5/6/395 (Tate Gallery, London)].</td>
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<td>1.13</td>
<td>Henderson, N. (photographer) (c.1953), <em>Interior of Hunstanton Secondary Modern School, Norfolk, During Construction</em>, unpublished photograph [Nigel Henderson Estate, Tate Archive, #TGA 924/5/6/411 (Tate Gallery, London)].</td>
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<td>1.21</td>
<td><strong>Hilberseimer, L.</strong> (1936) <em>Mies van der Rohe</em> (Chicago: P. Theobald), book jacket (above), pp. 6-7 (right).</td>
<td>24</td>
<td></td>
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Fig. | Image Source | page
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1.50 | Brandt & Associates Aerial Photo Co. ([photographer]) 1982, *IT Campus*, from press release by Hansen, E. (IT Department of Public Relations) [University Archives, Paul V. Galvin Library (IT, Chicago)], property of the author. | 54
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1.82 Author's elaboration.

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1.84 Illinois Institute of Technology (ed.) (1944), This Is Our Job (Chicago: IIT Press), cover [University Archives #1998.289 (Paul V. Galvin Library, IIT)] (top); Illinois Institute of Technology (ed.), Illinois Tech Engineer and Alumnus, 8 (4): cover (Oct., 1948) [University Archives #1998.287 (Paul V. Galvin Library, IIT)] (bottom).

1.85 Illinois Institute of Technology (ed.) (1947) Technology Center Today and Tomorrow (Chicago: IIT Press), cover [University Archives #1998.289 (Paul V. Galvin Library, IIT)] (top, left); Illinois Institute of Technology (ed.), Illinois Tech Engineer and Alumnus, 8 (4): cover (Dec., 1944) [University Archives #1998.290 (Paul V. Galvin Library, IIT)] (top, right); Armour Institute of Technology (ed.), «Armour Today», Armour Engineer and Alumnus, 4 (4): 29 (May, 1945) [University Archives #1998.289 (Paul V. Galvin Library, IIT)] (bottom, left); Illinois Institute of Technology (ed.) (1944) This is War! (Chicago: IIT Press), cover [University Archives #1998.289 (Paul V. Galvin Library, IIT)] (bottom, right); author's elaboration (left).


1.87 Chicago Plan Commission (ed.) (1945), Chicago Looks Ahead. Design for Public Improvement (Chicago: CPC), cover [Special Collections #106-45615 (Richard J. Daley Library, UIC)] (top); South Side Planning Board (ed.) (1947), An Opportunity for Private and Public Investment in Rebuilding Chicago (Chicago: sop), cover [University Archives #1998.294 (Paul V. Galvin Library, IIT)] (bottom); author's elaboration (left).

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