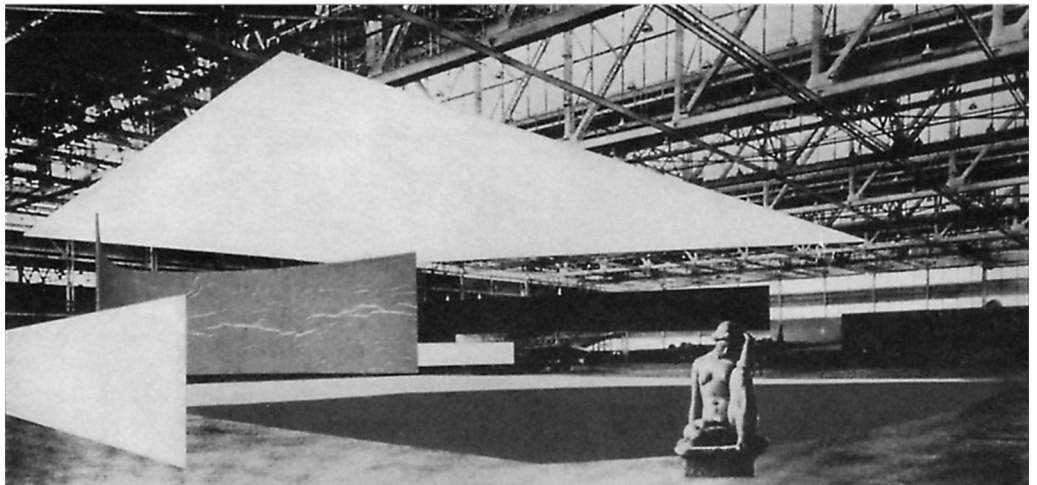
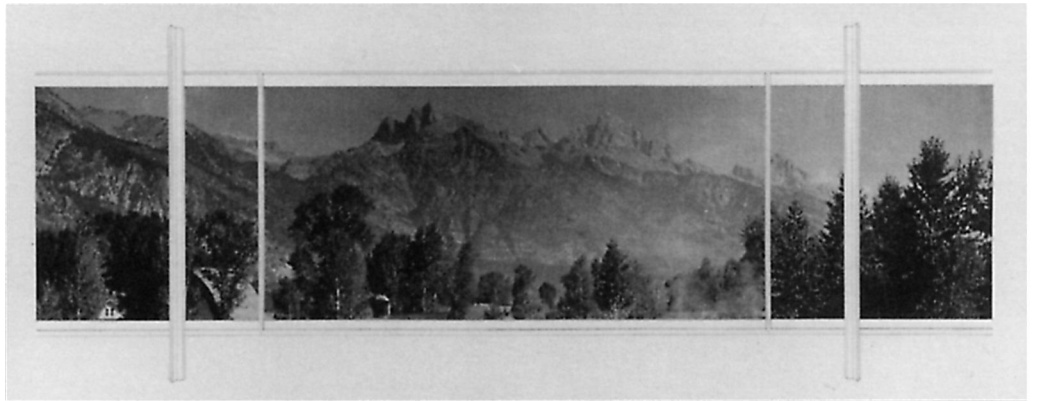


Neil Levine

“The Significance of
Facts”: Mies’s Collages
Up Close and Personal





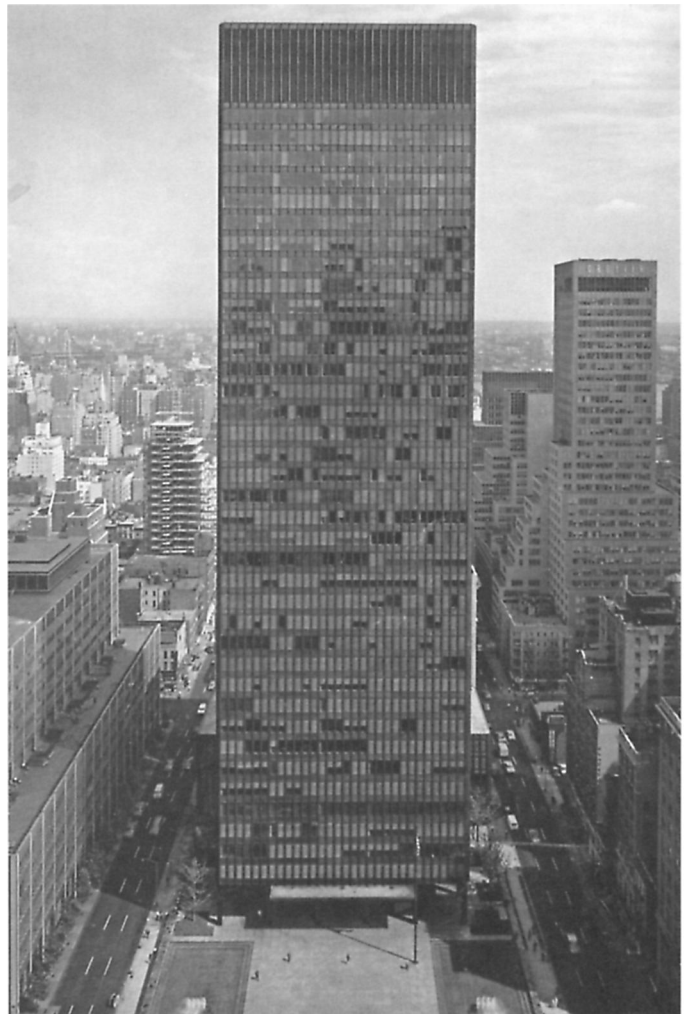
1. Ludwig Mies van der Rohe, German Pavilion, International Exhibition, Barcelona, 1928–29



2. German Pavilion, cruciform column

In the turbulent years between 1938 — when he left Germany for America as an enemy alien — and 1942 — when he began building the first component of his master plan for the Illinois Institute of Technology (IIT) — Mies van der Rohe produced three designs for projects that remain, in the form of the collages by which they are best known, among the most significant works of his career and ones absolutely crucial for understanding its postwar evolution. Rarely viewed or studied as a group, the Resor House (1937–39), the Museum for a Small City (1941–42), and the Concert Hall (1941–42) share a uniquely powerful set of formal and expressive concerns that allow, indeed, force us to think about how we should read their imagery and content both in terms of their immediate wartime context and as a basis for the reengagement with representation — and the consequent movement away from abstraction — that Mies’s architecture came to manifest after the war.¹

Fundamental to this development is that Mies now chose the pictorial medium of collage as the one best suited to his expressive purposes *and* that the readymade images he incorporated were by no means neutral in political and cultural terms. The method of appropriation and application implicit in the collage technique soon informed the system of structural expression he developed in his actual buildings at IIT and ultimately became his way of characterizing, and representing, what he liked to call “the will of the epoch” and what President Dwight D. Eisenhower, even then, cautiously



3. Mies (with Philip Johnson), Seagram Building, New York, 1954–58

referred to as the growing danger of America's "military-industrial complex." My title, "The Significance of Facts: Mies's Collages Up Close and Personal," is intended to indicate not only the kind of detailed reading the work demands but also, in its juxtaposition of Mies's own high-minded statement of philosophical purpose with a reference to the Hollywood movie starring Michelle Pfeiffer and Robert Redford, something of the extraordinary amalgam of the poetic and the everyday his American work came to involve.²

America vs. Germany

Almost axiomatic to any analysis of Mies's architecture is the idea that his career can be neatly divided into two halves, the first ending in 1937 with the project for the Silk Industry Administration Building at Krefeld, and the second beginning in 1945 with the construction of Alumni Memorial Hall at IIT. Each is usually treated as a discrete phenomenon having its own very particular formal characteristics, though a rigorous continuity of philosophical purpose is held to underlie and unify the whole in an almost timeless fashion.³ In this scenario, the interregnum of emigration and war serves mainly a negative function.

The formal differences between the prewar work in Europe and the postwar work in America have often been described, but the essentials are worth repeating in order to clarify the period of transition we shall be focusing on and the conventional critical wisdom it may help to displace. Reference to two well-known examples can serve our purpose. These are the German Pavilion in Barcelona, built for the International Exhibition of 1929, which, along with the Tugendhat House, is usually taken to be the exemplary building of Mies's European period, and the Seagram Building in New York, begun in 1954 and finished in 1958, probably Mies's most celebrated "American" work. The former — low, horizontal, built of sleek materials, elegantly detailed — is an open spatial

composition, most often described in terms of De Stijl abstraction and transcendent spirituality. Transparent and reflective surfaces, like tinted glass, polished marble, onyx, and chrome, deny any sense of physical exertion to the structure, the internalized, chrome-encased cruciform-shaped supports being the most telling evidence of this.

With its steel frame seemingly directly expressed in its four-square, unadorned form, the Seagram Building, by contrast, is most often read as derived from typically American conditions of construction ("Chicago frame") and thus considered to be expressive of a more pragmatic structural rationalism. Its frontality and symmetry give it a "static" appearance, usually described as "monumental," quite the opposite of the "dynamic," dematerialized spatial structure of the Barcelona Pavilion. In fact, the schematic character often attributed to Mies's American work is generally seen as undermining the dialectical synthesis of structure and space in the earlier buildings and producing, in those of the postwar years, either the three-dimensional structural grid of the Seagram Building type, or, at the other extreme, the single-volume, clear-span "universal space" epitomized by the Convention Hall project for Chicago of 1952–54.⁴

The critical discussion of Mies's postwar work thus finds its fundamental frame of reference in the two absolutes of pure structure and pure space and its essential meaning in the abstraction of expression assumed to devolve from them. Yet there have been intriguing suggestions to the contrary. Philip Johnson, who was the associated architect for the Seagram Building and whose friendship with Mies dated back to the late 1920s, wanted to see beyond the totalizing abstraction of postwar Mies a positive reference to the classicism of Schinkel. He went so far as to compare the New York tower with the early-nineteenth-century Altes Museum in the lecture on "Schinkel and Mies" he published in 1962.⁵ More recently, Fritz Neumeier, in his book *The Artless Word of*

1986, related such references to the very source of the neo-classical theory of representation in Marc-Antoine Laugier's famous *Essay on Architecture* of the mid-eighteenth century. He tellingly compared the unenclosed structure of Mies's Farnsworth House with Laugier's primitive hut, the putative model for the classical temple.⁶

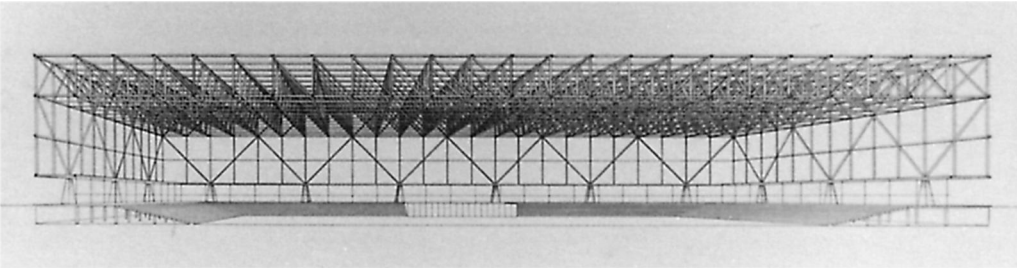
While not disputing the essential thrust of these suggestive comparisons, my own reading of Mies's post-1937 work will be less general, less transhistorical, and less abstract. For a start, we might briefly look at the Convention Hall, a project that clearly derives from the Concert Hall and thus immediately alerts us to the significance of the wartime work. Most discussions of the Convention Hall follow Franz Schulze in seeing its enormous open volume as a "climactic expression of [Mies's] clear-span structure and unitary space."⁷ In doing so, they might just as well be describing the naked structure of the building as the large, nearly three-by-four-foot collage Mies produced to illustrate what the building might actually look like when in use as the site of a national political convention. Schulze himself mused that "Mies's motive in making the collage must have been more poetically representational than technically instructive," but he, like most others, refused to speculate on what this poetic representation might involve.⁸ To begin to unravel this, we must, in my view, attend to the visible surface of things, a surface Mies specifically and dramatically foregrounded through the collage technique. When we take this surface, often highly figurative, seriously into account, fascinating questions arise and a whole other level of signification is implied.

The collage is composed of three horizontal bands, with a single vertical element hanging midheight near the left edge. The deep truss of the ceiling, occupying more than half the height of the drawing, is depicted as a tightly interwoven, three-dimensional white grid. The two visible wall planes suspended between floor and ceiling are green marble slabs,

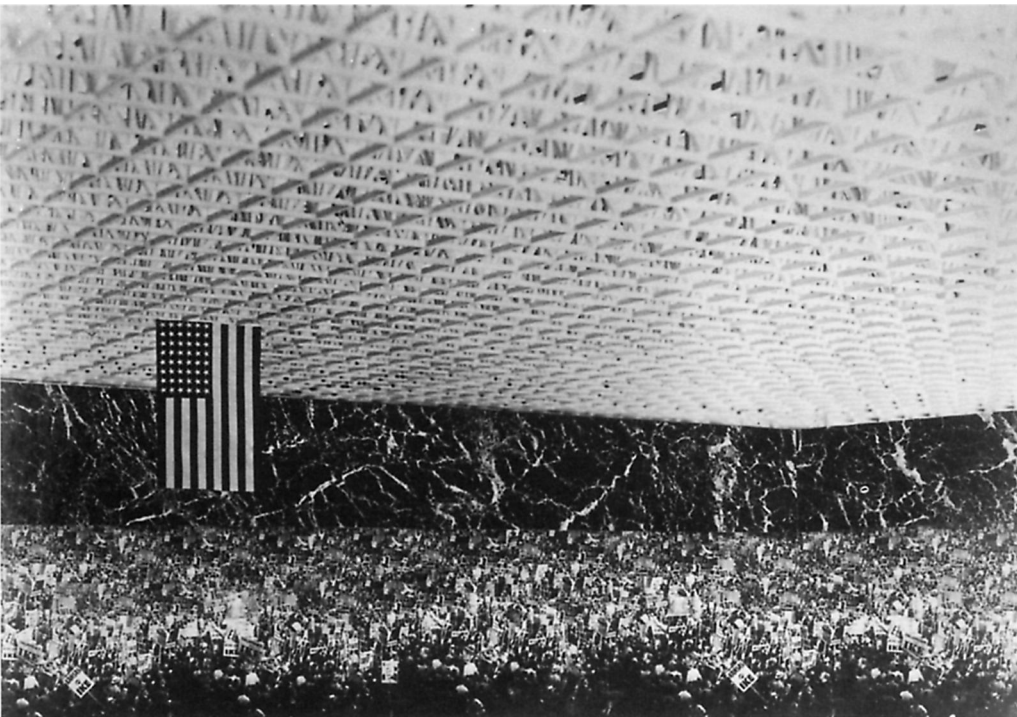
which, in a second version of the collage, carry images of state and presidential seals. Grounding the design is a montage of sepia prints made from a *Life* magazine color photograph of the 1952 Republican Convention, cut and pasted together to provide a panoramic frieze of activity on the depressed convention floor.⁹ The signs for Ike and Taft seem fairly evenly dispersed among the chaos of state placards characteristic of the enthusiastic display of local pride such national party events tend to arouse. Somewhat more ominous are the posters, like the one in the foreground just to the left of center, that say "Impeach Earl Warren," the nemesis of conservatives in the McCarthy era.

The most prominent, and perhaps most curious, element of the design is the lone vertical one to the left. It is an appliqué of a small American flag, made of fabric and hanging from the roof truss between two of the state seals. It is the kind of miniature flag attached to tiny sticks that are waved by children in July Fourth parades and bought in five-and-dime stores. The readymade, pop imagery recalls Jasper Johns's series of painted *Flags*, begun the same year the collage was finished and which, as much as anything else, returned the question of representation to the forefront of contemporary critical discourse while seemingly leaving the issue of politics up in the air. (Clement Greenberg referred to Johns as producing a kind of "homeless representation," somewhere between abstraction and traditional illusionism, a description, as we will see, that might even more literally be applied to Mies.)¹⁰

The choice of a Republican imagery for a city controlled by Democrats, for a project sponsored by a municipal authority, in the same year that the Democratic party itself nominated Illinois's own governor Adlai Stevenson as its party's presidential candidate — for whom Mies, a naturalized American citizen since 1944, himself voted — renders the issue of interpretation complicated indeed. For sure, Mies did not intend the work to have a specific, literal meaning in the



4. Convention Hall project,
sectional perspective of
structure



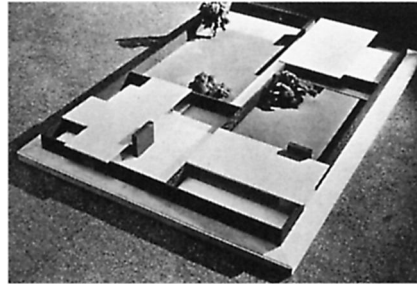
5. Mies, Convention Hall
project, Chicago, 1952–54,
interior perspective, collage

context of contemporary affairs. It is neither pro-Republican nor anti-Republican, on the surface of things. But there is, as Schulze noted, a “poetically representational” layer of meaning, one that Arthur Drexler earlier on described as “bring[ing] architecture into the realm of heroic enterprise” to create “the most monumental image twentieth-century architecture has yet produced.”¹¹ Clearly signifying something beyond mere space or structure, the collaged imagery of the Chicago Convention Hall condenses, into what is arguably the most powerful political statement of architecture conceived in the Cold War era, a visual representation of the core symbolic moment of the American democratic political process, at the scale of modern technology and in the terms of modern mass culture. Neither explicitly celebratory nor overtly critical, the collage blurs the boundaries between those two poles — as it submerges the crowd of people beneath the deep walls and roof structure — to work across the entire spectrum as a stringent diagnostic.

Little given to small talk or to speaking his mind, Mies, we are told over and over again, was a totally apolitical individual, caring not a wit to involve himself with such mundane matters as government policy, ideology, or leadership. Scholarship on Mies thus rarely strays from the discussion of architecture as philosophy or form into the realm of political issues and contextual realities. One area, and clearly a very significant one, however, has attracted a good deal of attention recently, and that is Mies’s attitude toward the Nazi regime that came to power in Germany in 1933, forcing him to close the Bauhaus (of which he had become director nearly three years before) and eventually to emigrate to the United States.¹² That, unlike many of his colleagues in the intellectual and artistic communities, Mies only left Germany as late as 1938 has raised certain questions and even suspicions.¹³ In addition, it has been noted that he not only joined a number of National Socialist organizations and even signed a petition in support of Hitler, but that he also accepted certain govern-

ment commissions such as the project for the Pavilion of the Third Reich for the Brussels International Exhibition of 1935.¹⁴ It is a design in which the symbol of an imperial eagle, directly on axis with the entrance, flanked by an enormous swastika inscribed on the wall on the right, opposite the words “Third Reich” on the left, make explicit the Nazi imagery, which is underscored by the symmetry and monumentality of the space. Yet the building remains starkly modern, and thus has been interpreted as part of Mies’s continuing effort, even in the face of the aggressive return to classical representation favored by Hitler, to promote an architecture of geometric abstraction as an appropriate expression of the collective ideals and technological prowess of the new National Socialist state. Indeed, although Sibyl Moholy-Nagy called Mies a “traitor” and others have described him as an “opportunist,”¹⁵ serious scholarly opinion is almost undivided in maintaining that Mies’s efforts to work with the regime merely illustrate a dogged belief on his part in the possibility of convincing the Nazis of the value of modern architecture for their cause as well as, it should be added, a complete naïveté and disinterest in matters political.¹⁶

Such a reading of Mies has carried over into the wartime and postwar work. Despite their almost blatant political references, the first projects of his in America, like the one for the Concert Hall that provided the precedent for the Convention Hall, have invariably been described as simply predicting the focus on the purely formal aspects of structure and space seen as characteristic of Mies’s subsequent steel and glass architecture of the 1950s and 1960s. In fact, the disinclination to acknowledge political content literally forced critics initially into a position of almost having consciously to avoid accurate description. When first Philip Johnson and then Arthur Drexler, both close acquaintances of Mies, described the Concert Hall collage — one that Mies created by pasting pieces of colored paper and a reproduction of a sculpture by Aristide Maillol over a photograph of the interior of a war-



6. Mies, House with Three Courts project, ca. 1934–35, model

time American assembly plant that was being used, at that very moment, to manufacture planes to bomb Germany — they both refused to admit the readymade aspect of the project, leaving the reader to assume that Mies had been responsible for designing the entire structure rather than just retrofitting it. In the text of his catalogue for the Mies exhibition at the Museum of Modern Art in 1947, Johnson simply noted how, in the Concert Hall, “walls and ceilings are pulled apart and disposed within a trussed steel and glass cage” so that “space eddies in all directions among interior planes of subaqueous weightlessness”; according to Drexler’s more disingenuous account of thirteen years later, “here interior columns have been eliminated. They are replaced by a vast steel truss *of the sort used in airplane hangars or factories*. In the entirely free space this roof makes possible, Mies suspends completely separate wall and ceiling planes,” thus fulfilling, in the author’s view, the architect’s purely formal program.¹⁷ And although later commentators have noted the identity of the preexisting photograph, the meaning that a bomber plant might have had as the basis for a concert hall designed soon after America entered World War II has continued to remain undiscussed, thus preserving the abstract, formalist interpretation of the project.¹⁸

It would be wrong, however, to say that all Mies’s work has evaded sociopolitical interpretation. Indeed, there is one important and extremely relevant group of projects, the so-called court houses of the period just before Mies left Germany, that provide a basis for such an alternative point of view. While using the same formal language and compositional system of the Barcelona Pavilion and the Tugendhat House, these consistently inward-turning designs, when contrasted with those earlier buildings, have often been described as registering a sense of withdrawal from the hostile world of Berlin of the mid-1930s and thus expressing a mood of isolation, even escapism.¹⁹ It is therefore interesting to recall that the court house became one of Mies’s prime build-

ing types once he left Germany, especially in his teaching curriculum for IIT, although it then underwent a very significant change in being rendered through collage.²⁰ This collage technique, as we will see, was prominently used by Mies for the Resor House project, the one that first brought him to the United States in 1937. While these later drawings clearly register a sense of alienation and estrangement that can be related to the previous Berlin designs, there is something radically different now. In response to the social and political environment of Berlin of the mid-1930s, the court houses reflected a subtle shift in expression through a realignment of forms. The American collages, with their physical imprint of elements from the real world, register a more profound change, one that speaks not merely of isolation or escape but of the search to construct a new practice and a new identity in a world where things can no longer be considered natural and transparent but must be reviewed in all their opacity as objects of representation. The three projects we will now turn to can be seen as responses to the profound dislocation of exile and the consequent trauma of living and working as an enemy alien in time of war.²¹

Resor House

The commission that initially brought Mies to America was a vacation house for Helen and Stanley Resor, vice president and president, respectively, of the J. Walter Thompson Advertising Agency, the biggest in the world at the time.²² The Resors, who were important collectors of modern painting with strong ties to the Museum of Modern Art in New York, owned a large ranch along the Snake River, in the Grand Teton Mountains, near Jackson Hole, Wyoming.²³ A creek branching off from the river and running through the property defined the eastern edge of the flat area where the log cabins they lived in were located. Just north of a dam in the creek was a group of farm buildings. These unassuming struc-



7. Snake River Ranch (Resor House), Wilson, Wyoming, existing house, ca. 1936–37



8. Snake River Ranch, creek with farm buildings, looking north from new house site, ca. 1937

tures were dwarfed by the snow-capped mountains looming directly behind them.

Having decided to build a modern house that would straddle the creek and thus take maximum advantage of the view, the Resors hired Philip Goodwin, whom Helen Resor, in particular, would have known through her connections with MoMA. This was probably sometime in late 1935 or early 1936.²⁴ Disagreements occurred, and a recent Harvard graduate named Marc Peter took over in the late summer of 1936 as a combined clerk-of-the-works and designer.²⁵ A service wing was built on the east bank and concrete piers supporting a wooden platform were constructed in the creek to carry the major living space above it. This work was completed by the summer of 1937 when Mies arrived on the scene.

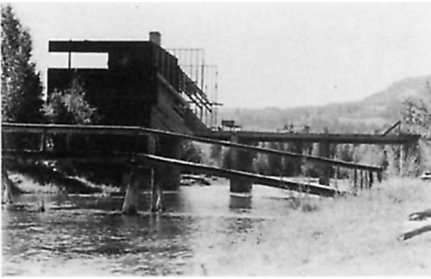
Looking for a way to get Mies out of Germany and to the United States, Alfred Barr, who was director of the Museum of Modern Art and particularly close to Helen Resor, convinced the Resors to turn the job over to Mies. Helen Resor contacted Mies during the winter of 1936–37.²⁶ She interviewed him in Paris in July 1937 and he visited the Wyoming site in August. After spending a few weeks there studying the site and sketching out ideas, Mies completed the design in New York during the fall and winter of 1937–38 in the office of two of his former students at the Bauhaus, John Barney Rodgers and William Priestley. He returned to Germany in early April to put his affairs in order prior to taking up the permanent position he had been offered as head of the architecture school at IIT.²⁷

The contract drawings for the Resor House, dated 21 March 1938, were produced by Rodgers.²⁸ The design preserved the

already built structure (which appears to the right on the upper elevation and to the left on the lower one) and more or less doubled it on the other side of the stream, creating an open-plan, glass-walled space between the two blocks, on the existing platform, which Mies hoped eventually to be able to lower somewhat. The steel-frame and wood structure was to be sheathed in wood panels and to incorporate large areas of plate glass and fieldstone masonry. The plan shows the eccentrically shaped block on the east reused as the service wing, the new block on the west bank housing the bedrooms, and the central, open living-dining space articulated by cruciform-shaped columns supporting the flat roof, which is cantilevered well beyond the edge of the floor-to-ceiling “picture windows,” the term Rodgers used to describe the expansive window-walls.²⁹

The house proceeded in fits and starts over the next few years: it was postponed indefinitely (by Stanley Resor), for financial reasons, as Mies was leaving for Germany in early April 1938; it was revived the following November and redesigned at a reduced scale and cost by March 1939; discussions continued through 1941, but all thought of building ceased in 1943 when a spring flood washed away the existing piers and service building. Most interesting for us, however, is the way in which Mies developed the design in the form of two extraordinary collages, one looking south and the other north, the latter in the direction of the existing farm buildings as seen in a photograph supplied to him by the Resors (fig. 8).³⁰

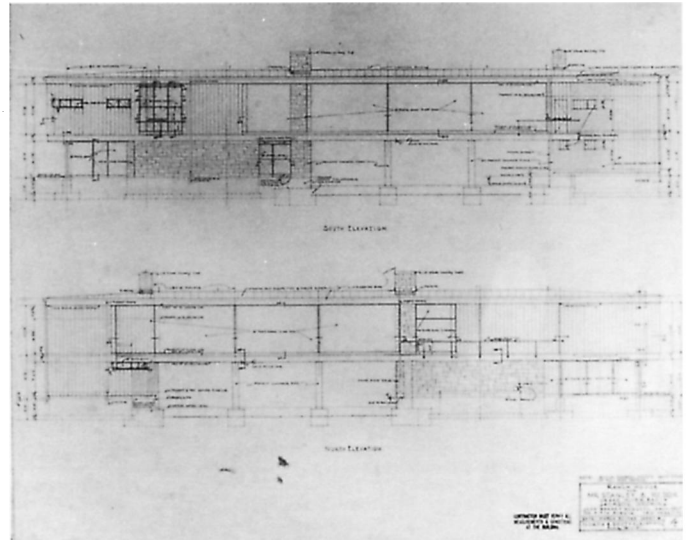
The collages are, in fact, perspectives seen from the living room that bridges the stream. But instead of extending the space into depth, as the foreshortened lines of internal columns and window mullions would imply, the compositions of cut and pasted photographs sandwich the room and com-



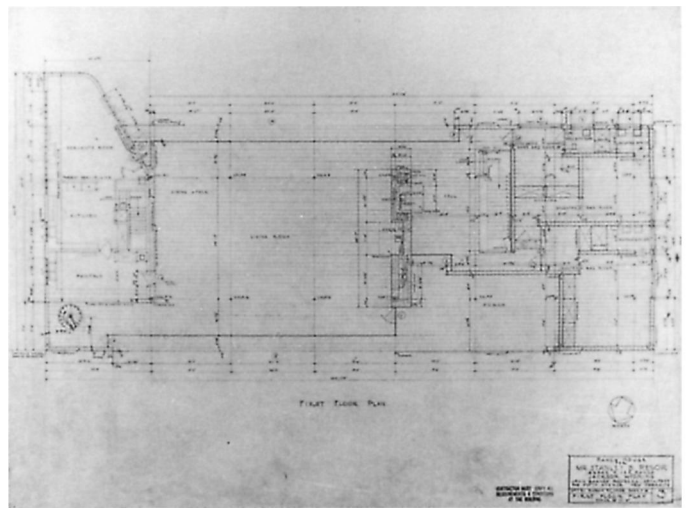
9. Philip Goodwin and Marc Peter, Resor House, 1935–37, service wing and piers in creek, ca. 1937

press the space into a strange, depthless void. Foreground becomes background, and vice versa. Architecture, as construction, disappears in this photographic tabula rasa. The blank vertical lines of the cruciform-shaped columns and window mullions, and the horizontal planes of floor and ceiling, are treated as reserved, negative spaces, cutting, surrounding, and providing the neutral two-dimensional ground for the free-standing objects in the room and the photographic images of the landscape hermetically sealing it and pressing in from outside. The view to the south shows the mountains in forced perspective, with a greatly enlarged color reproduction of the Paul Klee painting *The Colorful (or Gay) Repast*, owned by the Resors, acting as a floor-to-ceiling room divider behind a wood-veneer service bar.³¹ The sense of disorientation and displacement is physically reinforced by the deliberate play on distance and perspective.³² The view in the other direction, to the snow-capped Tetons, gives even fewer spatial indices, foregrounding the image of the mountains as a matter of topographic location rather than a continuous field of human occupation. Indeed, a preliminary version of the collage looking north gives many more indications of local culture, such as the rustic bridge in the foreground and the nearby barn and ranch buildings. As they were cropped out, the singular drama of the scene made it now seem as if nothing else was there but the mountains.

The spatial discontinuity and sense of alienation conveyed by the collages contrasts palpably with many of the country house designs Mies had produced in Germany in the earlier part of the decade. In the Hubbe House of 1935, for instance, a delicate perspectival drawing weaves interior and exterior together in a composition where space, structure, and land-

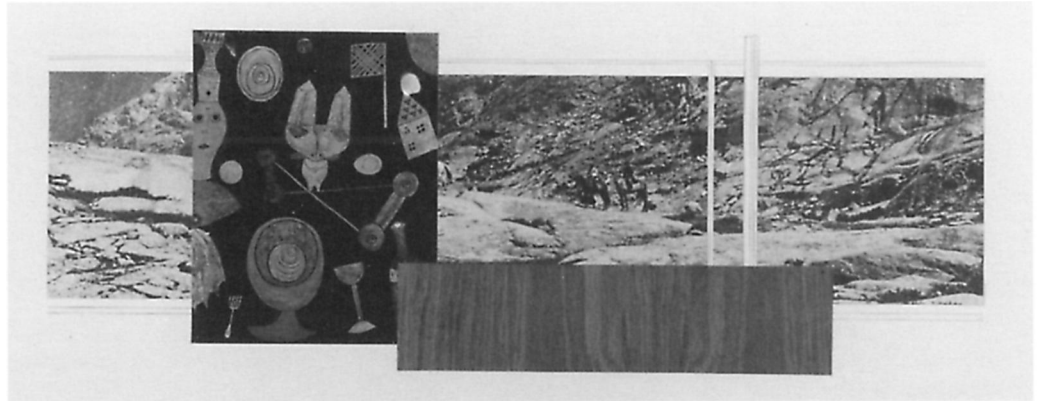


10. Mies, Resor House project, 1937–39, north and south elevations; contract drawing by John B. Rodgers, 1938



11. Resor House project, plan of main floor; contract drawing by John B. Rodgers, 1938

12. Resor House project, interior perspective looking south, collage, ca. 1939



13. Resor House project, interior perspective looking north, collage, ca. 1939



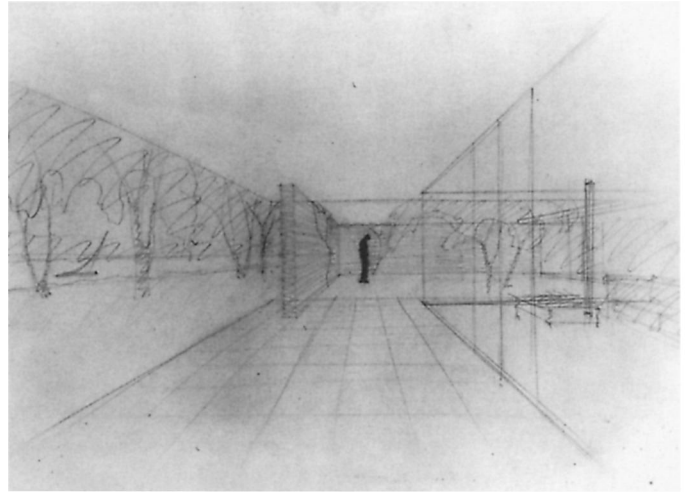
14. Resor House project, interior perspective looking north, preliminary collage, ca. 1939



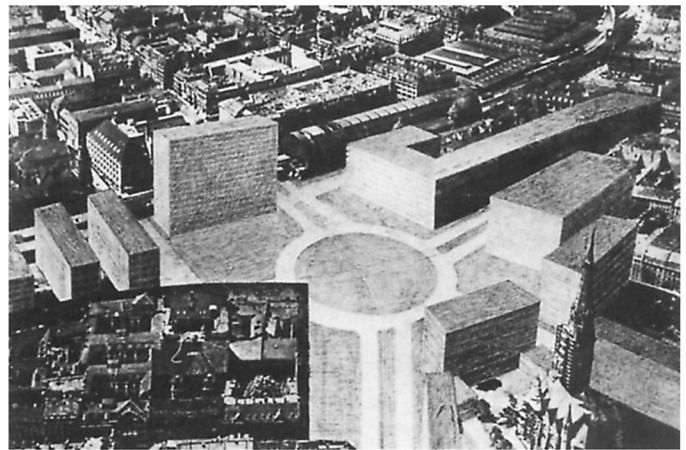
scape are seen, and felt, as transparent to and integral with one another.³³ The sense of being at home in the world contrasts with the *unheimlich* quality of the Resor House. In large part, this has to do with the difference between the seamless continuity of the drawing and the abrupt transitions and dislocations of the collage. Which leads us to consider the Resor House in relation to Mies's earlier photomontages, the technique he favored in the 1920s.

In the project of 1928 for Berlin's Alexanderplatz, there is a similar opposition of light and dark, of new construction and existing environment. But in the earlier photomontage, the new is highlighted in contrast to the old. The modern buildings are foregrounded with an auratic glow, while the surrounding environment is seen in dreary relief. In the Resor House, the priorities are reversed. The modern structure of the building is dematerialized, almost to the point of self-denial, while the surrounding environment is made the positive visual presence. We can almost speak here of an absence of volition, a submission to forces beyond our control. The continuous surface and hierarchically gradated design for the Alexanderplatz show the architect *in control*, manipulating the existing urban fabric and asserting a new presence in the center. In the Resor House, modern technology is reduced to a mere frame — and a negative one at that — for editing a distant, alien, and unfamiliar nature. The photographic representation of the landscape preserves and asserts *its* exteriority to the perceiving subject, as a perspectival rendering would not. The architecture registers the mountain's existence as a fact, outside and beyond, yet constantly in view. The collage maintains the environment's otherness, "for only in this way," as Wolf Tegethoff notes, "can the interior maintain its identity and integrity, provide shelter and security, and nevertheless convey a feeling of freedom."³⁴

These signs of alienation and displacement read as powerful expressions of the experience of exile in a personal and gen-



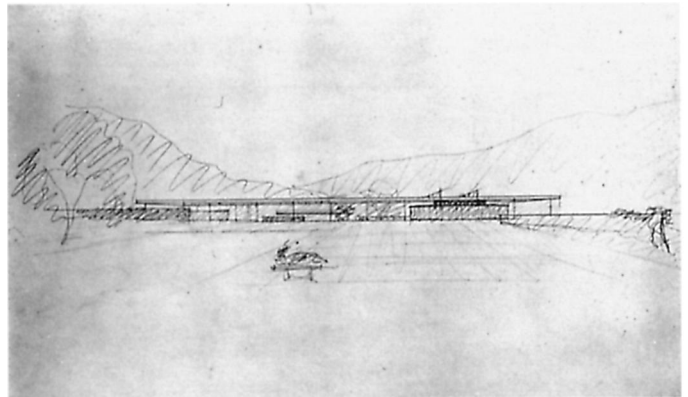
15. Mies, Hubbe House project, Magdeburg, 1935, perspective



16. Mies, Alexanderplatz project, Berlin, 1928, aerial view, photomontage



17. Town Center, "New Buildings for 194x," *Architectural Forum*, May 1943, plan



18. Mies, Museum for a Small City project, 1941–42, exterior perspective

eral, rather than a specifically political, sense. Between the Resor House and the new campus for IIT, which he began planning in 1939 and where he completed his first building in the United States in 1943, Mies designed two large public structures that gave expression to the political dimension through explicit references to the war in Europe. The first was the Museum for a Small City and the second the Concert Hall. Both were done in 1941–42 and developed in relation to masters' theses by George Danforth and Paul Campagna, respectively, that Mies was concurrently supervising.³⁵

Museum for a Small City

The Museum for a Small City was commissioned by *Architectural Forum* for an issue to be published in May 1943 devoted to the creation of an ideal American small city for the postwar period. Mies was asked, in February 1941, to do a church, but chose to do a museum.³⁶ His site, at the heart of the town center, forms one side of the main plaza, adjoining Charles Eames's city hall and facing the concert hall and civic auditorium that was part of it. A sketchy perspective of the pavilionlike building, however, shows it in an idealized setting, more reminiscent of the Teton Mountains than of the urban site it was supposed to occupy. Indeed, the collages of the museum's interior are clearly dependent on the earlier Resor House, evincing the same type of planar composition, akin to Picasso's most classical *papiers collés* of 1912 or so, and completely different from the German and Soviet types of dynamic, diagonally based compositions, such as those of El Lissitzky or Kurt Schwitters, that Mies would have known. Among the collages, one, in par-

ticular, illustrates what Mies stated was the driving idea of the design: to create a space for Picasso's *Guernica* so that "it can be shown to greatest advantage," becoming "an element in space against a changing background."³⁷ While this description has led later critics and historians to assume Mies approached the project as a purely formal problem in abstract design, the images themselves tell another story.³⁸

Guernica is placed in the middle ground, slightly off center. It is framed by two figures by Maillol: *Night* on the right and the *Monument to Cézanne* on the left. Behind are photographs of foliage (on the right) and water (on the left). Nature thus becomes the calm and serene background for culture. But, unlike the Resor House, here the flat cutouts describe a perspectival space in which Picasso's painting — the only scene of activity — is isolated in space and time, like an event still unfolding. Maillol's *Night*, which turns its back to the painting, acts as a *repoussoir* figure, situating the image of war in the deep recesses of the mind — in sleep — somewhere between dream and reality. Based on such a reading, it is difficult not to see, in this premonition of André Malraux's photograph-inspired *musée imaginaire*, or museum-without-walls, a reaction to the terror of a new form of technological warfare the photographs of the bombing of Guernica broadcast to the world just a few years before.

The incorporation of Picasso's painting dealing with the German Luftwaffe's brutal destruction of the Basque town of Guernica in late April 1937 could hardly have been taken simply as a formal problem by Mies. The painting's continuous public display as the most powerful representation of



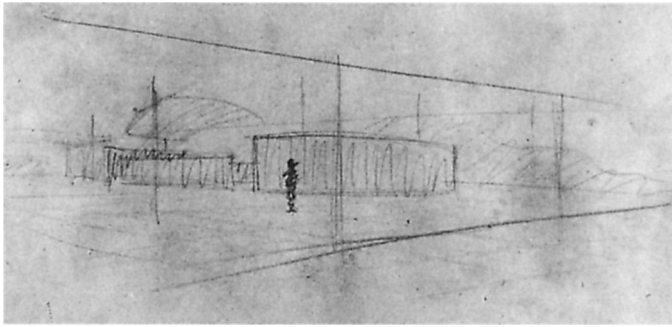
19. Museum for a Small City project, interior perspective, collage

antiwar, anti-Nazi propaganda began in the early summer of 1937 when it was exhibited in José-Luis Sert's Spanish Pavilion at the Paris World's Fair as an act of protest against the Franco regime.³⁹ Mies, as we remember, visited Paris in early July to meet Helen Resor, just a few weeks after the much-celebrated and highly controversial installation of Picasso's painting took place (Mies also went through Paris on his way to Wyoming in mid-August).⁴⁰ Throughout 1938 and early 1939, *Guernica* toured Scandinavia and Great Britain. In May 1939, it was brought to the United States by the Spanish Refugee Relief Campaign for a series of stops in different cities. Between the spring of 1939 and the fall of 1941, it was exhibited twice in Chicago (where Mies was living): first, in the fall of 1939, at the Chicago Arts Club, and then in early 1940, as part of the large Picasso exhibition at the Chicago Art Institute that had been organized by Alfred Barr and first seen at New York's Museum of Modern Art.⁴¹

Wherever it was displayed, the painting evoked powerful feelings about the horrors of war and the dehumanizing effects of the technology driving it, symbolized by Picasso in the central light bulb. Mies's construction of a "museum-without-walls" to "show [*Guernica*] to its greatest advantage" leaves little doubt that he was aware of the painting's message. Like the painting itself, his collage is black, white, and gray. Water, foliage, and bronze are drained of natural color. The modern nightmare depicted by Picasso is framed in a discourse of sleep, dream, and nature's timeless rhythms. In the face of the event, the human is reduced to a state of inaction, personified by what André Gide spoke of as the "muteness" of Maillol's figures. Before the war, Wilhelm Lehmbruck and Georg Kolbe were Mies's favorite sculptors; now the French neoclassicist Maillol took the place of the German expres-



20. José-Luis Sert, Spanish Pavilion, World's Fair, Paris, 1937, interior with Picasso's *Guernica*



21. Museum for a Small City project, auditorium, sketch from exterior



23. Martin Assembly Building, exterior with Martin Mars airplane, ca. 1941–42



22. Albert Kahn, Martin Assembly Building, Glenn L. Martin Aircraft Plant, Middle River, Maryland, 1937, interior, ca. 1938

sionists as his figural interlocutor.⁴² The ambiguity of Maillol's figures may well have been the attraction. Does *Night* refuse to look at what is going on behind her back? Is she ashamed of what she has seen? Is her posture an expression of sorrow, or despair? All these questions, it seems to me, are valid responses to the narrative of the museum-as-collage.

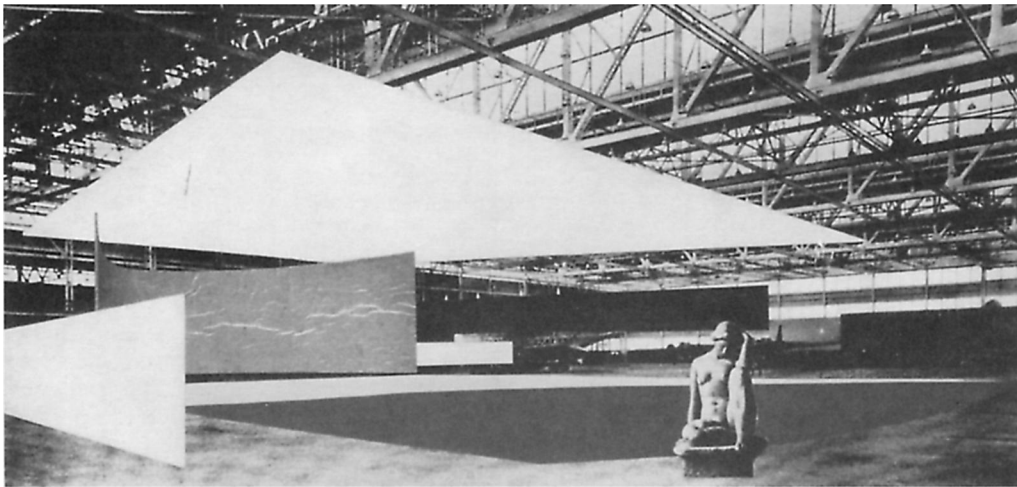
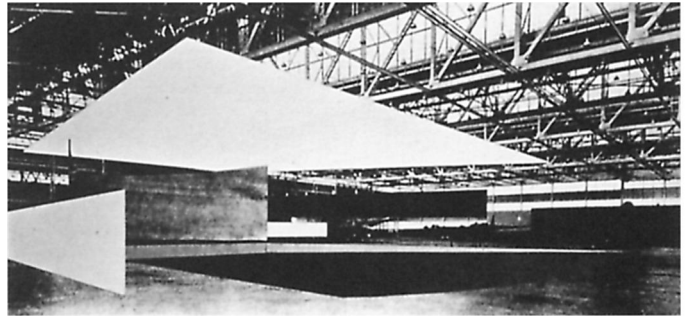
Concert Hall

That the Museum for a Small City raises more questions than it answers may well be the reason Mies zeroed in on one part of it for his Concert Hall design. The auditorium of the Museum, visible on the right in the perspective, was to have been enclosed by freestanding partitions and an acoustic shell ceiling suspended from exposed roof trusses. In translating this programmatic element from the space of the Museum and expanding it into a space of its own, Mies made one of the most provocative moves in the history of twentieth-century architecture, provocative both in its formal and its political implications.⁴³ Instead of designing the building himself, he used a photograph of one that had recently been published, into which he simply inserted his spatial arrangement and icono-

graphic treatment by means of collage, the building thus becoming a kind of "assisted readymade," to use Marcel Duchamp's term. The photograph was of Albert Kahn's Assembly Building for the Glenn Martin Aircraft Plant at Middle River, Maryland, built five years before in 1937 and published by George Nelson in a monograph on Kahn in 1939.⁴⁴

The Kahn building was a landmark of sorts in the history of engineering. With its thirty-foot-deep trusses, three-hundred-foot long, it was the largest flat span ever constructed. But this was not merely for technology's sake. The structure's purpose was to provide a large enough column-free space for the manufacture of the Martin Mars airplane, otherwise known as the "floating fortress." This major investment in America's accelerating preparations for war had a nearly three-hundred-foot wingspan, the largest of any plane at the time. The Kahn building was also used to manufacture the B-26 bomber (called the Marauder), the A-30 Maryland fighter plane (already being used by France and Britain against Germany, beginning in 1939), and the PBM-1 Mariner (specifically designed to destroy German submarines).⁴⁵ The photograph published by Nelson shows a China Clipper (the prototype of the Mars), a Mary-

25. Concert Hall project, preliminary photostat



24. Mies, Concert Hall project, 1941–42, interior perspective, collage

land, and a B-26 Marauder behind it, as well as a PBM-1 Mariner to the far right in front of the dark partition. By the time Mies fixed upon the photograph of the Martin Assembly Building, America had entered the war and the Mariners and Marauders being manufactured in it had begun to attack German positions. For a German living in America, to call this image highly charged would hardly be an overstatement.⁴⁶

Unlike the collages for the Resor House and the Museum, which were constructed, in effect, of planes of paper, here Mies worked by a gradual and deliberate process of negation — erasing, defacing, and masking evidence of the actual airplanes. After having the photograph enlarged into a photostat, he apparently first blacked out the small Mariner on the right, along with the highwing and propellers of the China Clipper in the center, by inking in the spaces between the benday dots.⁴⁷ The next step was to overlay the perspectively adjusted pieces of white, gray, and yellow paper forming the floor, ceiling, and walls of the auditorium proper, leaving visible only a

group of men just to the right of center, in front of the B-26. They were obliterated, and along with them almost any suggestion of an airplane behind, by a final overlay consisting of a reproduction of Maillol's figure of *The Mediterranean*. Originally called *Thought*, the Maillol sculpture diverts attention from the background by confronting the viewer head-on, with its inwardly directed expression of contemplation.⁴⁸ Insulated from the surrounding factory by the panels of the auditorium shell, this image of self-absorption defines a zone of silence within what would otherwise be an indescribable din of machine tools, motors, and metalworking. The silencing of the noise of airplane manufacture becomes the aural metaphor for the visual masking of its production. Why, we might ask, make this Sisyphean effort to fabricate concert-hall conditions out of an acoustic nightmare if not to foreground the very process of denial and negation underlying the act of introspection?

Seen together, as pendants, the Concert Hall and the Museum reinforce each other's political content. Maillol's enigmatic



26. El Lissitzky, "Make More Tanks", 1941

role as mediator serves to link the two projects while magnifying the questions they leave in the air. But the political message of the Concert Hall is clearly not as straightforward as, say, Lissitzky's contemporaneous work for the Stalinist regime; although it is not for this reason any less political. In his 1941 poster entitled "Make More Tanks", Lissitzky used all the avant-garde conventions of the 1920s to dramatize the collective wartime effort. The white halos around the tank and plane reify the thoughts in the minds of the workers and lead them toward a positive goal. The elements of collage in Mies's project have the opposite effect — erasing and wiping from the mind almost all evidence of war. Which necessarily brings up the question of how to read the design in relation to the war.

The combined meaning of the Concert Hall and Museum is surely a complex one, to which we may never really be able to give a definitive answer. I should like, however, to offer some suggestions, placing special emphasis on the fact that we are talking about the evidence of the works rather than the conscious or unconscious intentions of the author. With this caveat, let me begin with the matter of program. In their devotion to music, on the one hand, and fine arts, on the other, these two civic projects could be seen as instituting a kind of aesthetic defense against the war. Yet the replacement of destructive war machinery by constructive cultural activity in the Concert Hall, along with the primacy of place given to Picasso's painting of *Guernica* in the Museum, could lead to an interpretation of the projects as a profession of antiwar sentiment. But the character of the painting's installation, combined with the Concert Hall's silence on the subject, raises certain doubts.

In the Museum, the painting of the Nazi bombing is framed by two works of art and situated against a background of water and foliage; and, in the Concert Hall, the evidence of war is obliterated by the very act of sublimation the building per-

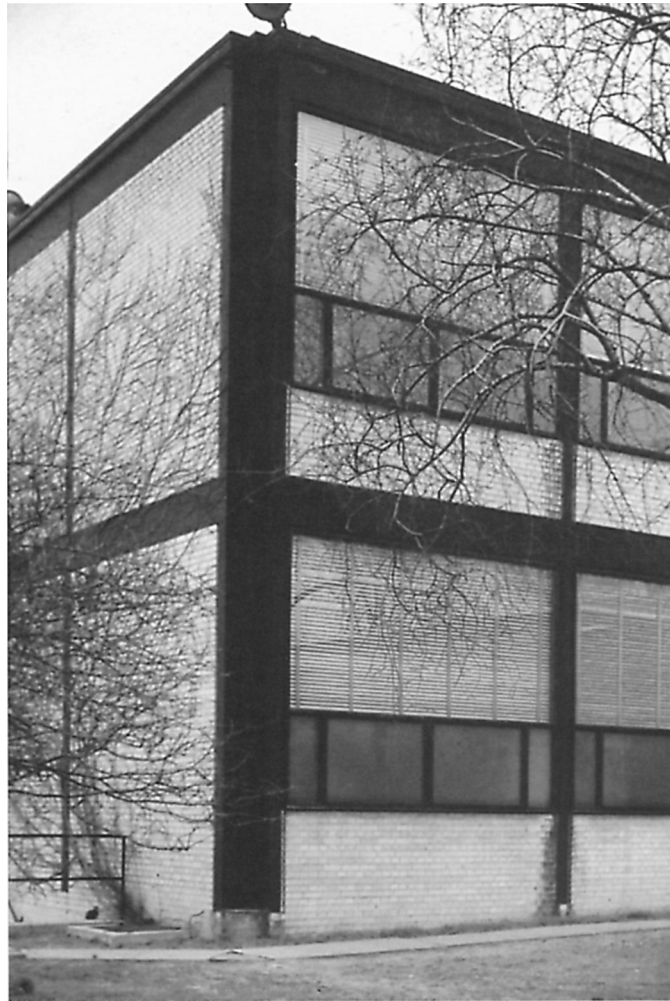
forms to come into being. War, in effect, is naturalized *and* aestheticized by the act of collage. And so, we might then ask, is it also anesthetized? Here, too, we find we must defer; for Mies's collages can be seen as going one step further and becoming a denial of the very condition of war itself, an attempt to turn one's back to the evidence and refuse to look it in the eye. This, of course, would fit with the apolitical image we have of Mies. But if this were the case, why would one go to the trouble of producing such politically charged images in the first place? To which a reasonable response might be that, no matter how much an intellectual and artist like Mies tried to distance himself from everyday affairs, the war, if only because of his own enemy alien status, surely weighed heavily on his mind and raised certain issues about the interrelation of architecture, politics, and culture that demanded to be acknowledged and ultimately represented in built form.

During the war, while Mies's activities were essentially limited to the drawing board, collage became a crucial means for such investigation. The inherent ambiguities of collage, as opposed to the more unified and totalizing character of the photomontage technique he had explored in the 1920s, became the architectural correlative of his evolving political thought. Following the adoption of this new method in the Resor House, where it registers the condition of alienation and exile by the distancing of subject from object, Mies manipulated the shifting, multilayered possibilities of the technique in the Museum for a Small City to project a complex statement about the war in Europe. And, finally, in the Concert Hall, he pressed the medium into a unique form of construction by occlusion that offered a countertype to Picasso's painting by internalizing the effects of war and representing, through figures of denial and silence — and against the powerful background of American industry — the feelings one might experience in the political limbo in which Mies found himself at the time.

Postwar I-Beam

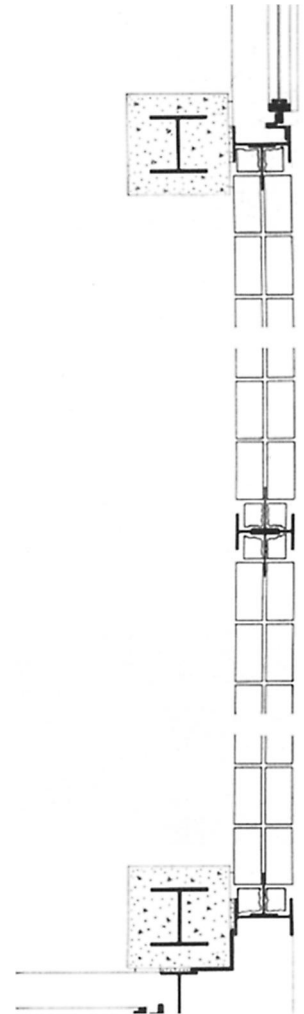
After the war, Mies's architecture underwent a decisive revision based, in large measure, on ideas adumbrated in the collages of the three wartime projects we have been looking at. Franz Schulze, Fritz Neumeier, and others have stressed the formal precedent they variously provide for the prismatic shape, static composition, large-scale clear-span space, and structural expression of the later work.⁴⁹ In the concluding section of this article, however, I should like to focus on a more substantive issue deriving from the complex attitude toward figurative imagery and representational means the collages *as collages* display in order to show how this underwrote the changes Mies effected in his system of design and ultimately determined the architecture's content. Central to this discussion will be Mies's adoption of the standard American rolled steel I-beam as the "readymade" signifier of a new structural order of representation.

Mies first used exposed steel I-beams, or, more precisely, wide-flange beams, in the Minerals and Metals Research Building, completed during the war and as part of America's wartime effort, approximately four years after planning was begun for the new campus of IIT.⁵⁰ But it was only in 1945, with the start of construction on the buildings at the formal center of the campus — namely, Alumni Memorial Hall, the Metallurgical and Chemical Engineering Building, and the Chemistry Building — that the question of representation came to the surface. In these, for the first time, Mies externalized the steel structure of the building as an essentially decorative and representational construct, acknowledging the applied, indeed collaged, character of the elements by stopping them just short of the ground. For reasons of fireproofing, he had to encase the I-shaped steel columns in concrete; to give them visible expression, he was then forced to represent, or replicate, them on the surface. As Mies later said,



27. Mies, Alumni Memorial Hall, IIT, Chicago, 1945–46

28. Alumni Memorial Hall, partial plan



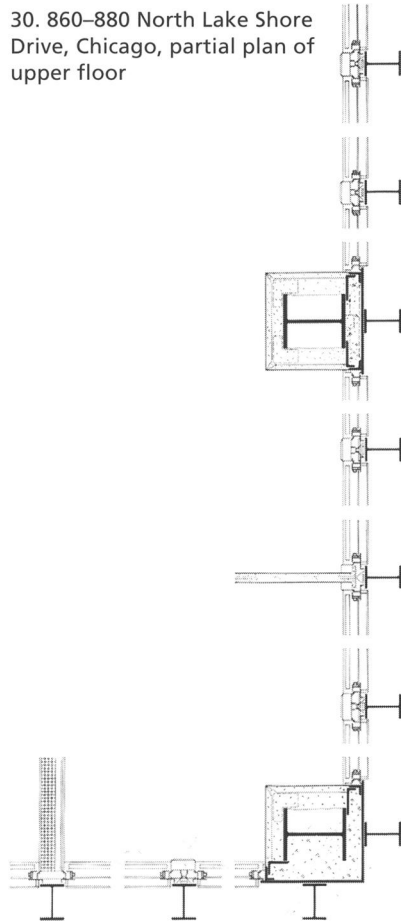
there was what might be called a “good reason” for such a decision, and then there was the “real reason.”⁵¹ The “good reason,” in this case, was that the channels of the exposed I-beams could act as receptacles for the aluminum window mullions and brick infill panels. But the “real reason,” as is made evident once again, and even more clearly, in the plan of 860–880 North Lake Shore Drive, was an aesthetic one. There, the attached I-beams, which do serve to strengthen the mullions and stiffen the frame, set up an insistent and overall rhythm of vertical elements that represent the concealed structure for expressive purposes.

Now, let us try to see how the three collages we have been studying provided a basis for this development. The first thing to note is that the particular structural element being dis-

cussed here — the I-beam — was new to Mies’s vocabulary and contrasted in almost every way with the typical cruciform-shaped support he had favored since the 1920s. Where the I-beam asserts a strong figural presence, with a face, a back, and a solid vertical spine, the cruciform-shaped column is a negative, inward-turning form. It is perceived as the linear abstraction of a point support. This was further emphasized by the reflective chrome casing that Mies used to sheathe the four steel angles bolted together to give the cross section. The plan of the columns for the Barcelona Pavilion reveals another interesting fact, which is that the center of the construct is hollow, reinforcing our reading of the column, not as a figure of support, but as an abstract marker of space — defining the internal edges of the square grid of the floor and manifesting, in purely spatial terms, the point of intersection



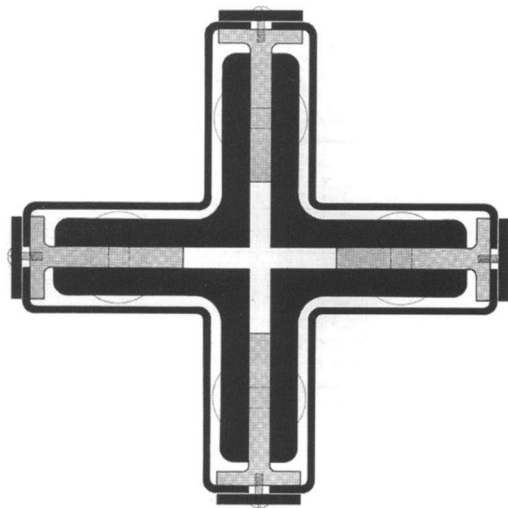
29. Mies, 860–880 North Lake Shore Drive, 1948–51, under construction



30. 860–880 North Lake Shore Drive, Chicago, partial plan of upper floor

of the planes. As a trace of conjunction and crossing, the shimmering, chrome-sheathed column becomes as abstract as the Cartesian grid it defines.

Mies continued to employ this type of support in the Resor House and in the Museum for a Small City; but now the abstraction of the form came into conflict with the “reality” of the photographic image.⁵² The contrast with the readymade, sheer physical presence of the photograph in the Resor House, in particular, threw into bold relief the dematerialized, non-objective character of the column; and this, to such an extent, that the cruciform-shaped support no longer appeared as a positive point of intersecting planes, but as a negative cut, or gap, in the picture of reality presented in the view of the landscape. The cruciform column thus became a *void* that had to be filled, and would soon be filled, as in the Farnsworth House, conceived in 1945–46, by the readymade, structural reality of the more assertive wide-flange I-shaped column.



31. Barcelona Pavilion, plan of column

In the Farnsworth House, the physical reality of the steel structure in the background of the Concert Hall is brought into the foreground as the declarative image of the building. Though not strictly representational in the terms we have been using, since the exposed columns do not portray anything otherwise hidden, the whiteness of their painted surface serves, nevertheless, to transform the standard steel members into something other than what they started out as. Like actors on stage, they seem to be playing a special role in an architectural drama and thus are, in effect, idealized. More important for my argument, however, is the way in which the photographic reality of the figure of the landscape in the Resor House seems to have imploded in on the structural voids of its architectural ground to reemerge, on the exterior plane of the window-wall of the Farnsworth House, with a physical presence that now gives the *structure* a figural role of its own. As the embodiment of a new technological order, the I-shaped columnar figure positively defines, as it frames, the surrounding landscape.

We can see how the figure-ground reversal may have occurred by returning, once more, to the Concert Hall, the project that appears to lie on the cusp of Mies's changeover from the cruciform to the I-shaped column.⁵³ At the same time, we will be able to see more clearly what this reversal implies about the question of concealment and expression of meaning. From the point of view of representation, the Concert Hall can be read as an inversion of the Resor House. In the house, the physical reality of the readymade imagery is given over to the nonarchitectural elements; in the Concert Hall, by contrast, it is the architectural structure that is made physically present through the photograph. And, where the structure is kept in reserve in the house, and serves to obstruct a continuous view of the landscape, in the Concert Hall it is the applied planes of paper that mask the structure and its graphic contents. Thus, when the reality of the readymade imagery finally takes on the positive form of the steel structure of Kahn's airplane factory, its connotations and supplementary meanings relating



32. Mies, Farnsworth House, Plano, Illinois, 1945–51

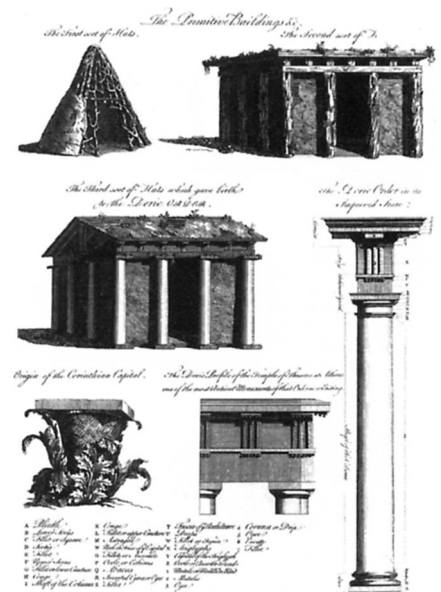
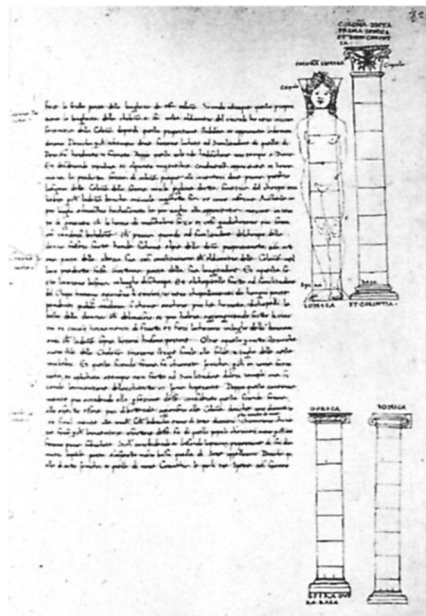
to the military-industrial complex are concealed from the aesthetic attentions of the observer.

The Farnsworth House, because of its idealizing whiteness and bucolic setting, seems to exemplify this process of transformation and sublimation that lies at the core of artistic representation. But it is the more typical buildings, like Alumni Memorial Hall at IIT and the double apartment block on North Lake Shore Drive, that prove more instructive and enlightening, for the very fact that they had to accommodate those realities of construction such as fireproofing, which forced Mies to make the distinction between the real and the ideal — or truth and verisimilitude — and thus give us the evidence of deception, which is to say, the fiction that is a normal aspect of the process of representation.

Beginning at least with Alberti and the early Renaissance in Italy, we can see that process at work. In Alberti's Palazzo Rucellai, for instance, the "real," rubble construction of the building is masked by a relatively thin veneer of classical ashlar, referring to historical prototypes such as the Roman Colosseum in order to provide an "ideal" structure as the visible expression of the building's noble program. Where the building was left incomplete, on the right, the distinction between truth and verisimilitude becomes quite visible. Here, of course, truth takes a back seat and essentially goes unnoticed. The ideal, or representational, structure predominates and transcends any base reference to actual facts of construction. Like a judge's robe, it defines the social and institutional role of its bearer, raising that person or building, as the case

34. Francesco di Giorgio, Ionic and Corinthian columns, from *Trattati di architettura, ingegneria e arte militare*, late fifteenth century

35. William Chambers, "The Primitive Buildings &c.," from *A Treatise on Civil Architecture*, 1759



33. Alberti, Palazzo Rucellai, Florence, prob. late 1450s

may be, from the status of the ordinary to a figure of order and authority.

The classical system of representation was based on a theory of metaphor bound up in an economy of transformation. The mythic source of the classical orders in the forms and proportions of the human body, or in the trees and wood huts of the primitive dwellers of Greece, was constantly alluded to by Renaissance architects. It was eventually made into a theory of origins by Enlightenment thinkers such as Marc-Antoine Laugier or William Chambers, the latter of whose explanation of the sequential transformation of wood to stone forms is illustrated in a well-known plate from his *Treatise on Civil Architecture* of 1759. Change from one material to another was thus read as a sign of artistic progress and quality — the image of this sign being the illusion of representation. The masking and concealing of origins, only to reveal them in a sublimated form of expression, well describes the metaphorical nature of Renaissance and post-Renaissance classicism. The lack of concern for the actual physical substrate or reality of the building allowed for that sense of transparency that rendered the illusion meaningful and wholly credible. The representation, be it of the human body or of the trees of the primitive hut, substantiated the myths in which these same forms were grounded.

In this very important sense, Mies's system of representation is quite different, although no less a system of representation

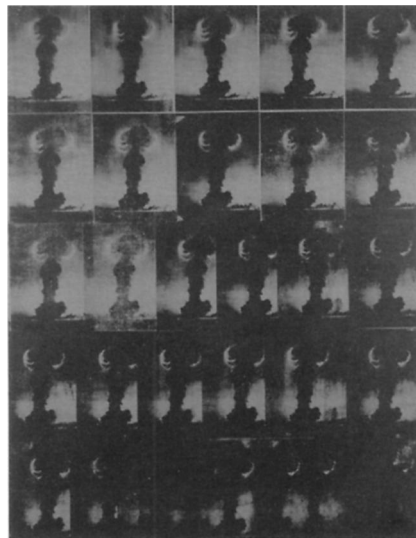
thereby: the attached I-beams are never merely an “expression” of structure. Those who have dealt with the matter in any great detail have tended to describe the Miesian solution, especially as it evolved at North Lake Shore Drive, either as a form of “symbolic” substitution or as a matter of “metaphor.” In what remains the most interesting and extensive treatment of the subject, William Jordy called the applied I-beam a “surrogate of the actual structure,” characterizing Mies’s rhythmic grouping of them as “the symbolic pilasters of his builded-art.”⁵⁴ Thomas Beeby, in a general discussion of the idea of ornament in modern architecture, spoke of the “very sophisticated ornamental device” of the attached I-beams “as a visual metaphor for the structure behind,” acutely noting that the steel mullions are merely a “reiteration” and not a transformation of what lies underneath.⁵⁵

In idealizing the actual structure rather than “imitating” an ideal one, Mies’s collaged I-beams do not represent something other than what they are (such as a human body or a tree). They simply function as signs of what is not there to be seen otherwise. In sidestepping the issue of illusionism by short-circuiting the question of credibility, the reiterated I-beams redefine the process and meaning of representation in quintessentially modern terms: as a matter of signification rather than one of figuration. The form “I-beam” is neither “invented” nor “reinvented”; it is, as Jordy noted, just “the utterly commonplace, banal stock item of the steel mill.”⁵⁶ Such is what Mies had in mind, I think, when he would paraphrase Thomas Aquinas saying “truth is the significance of facts.” Mies’s represented structure *signifies* the factual conditions on which its being depends and from which it draws its meaning. As an idealization of those conditions, it gives substance to the modernist myth of the “thing-in-itself,” *der dinge an sich*.

The history of modern art has been written mainly from the point of view of abstraction, so it is difficult, oftentimes, to comprehend fully the significance and changing character



36. Jasper Johns, *Light Bulb*, 1960

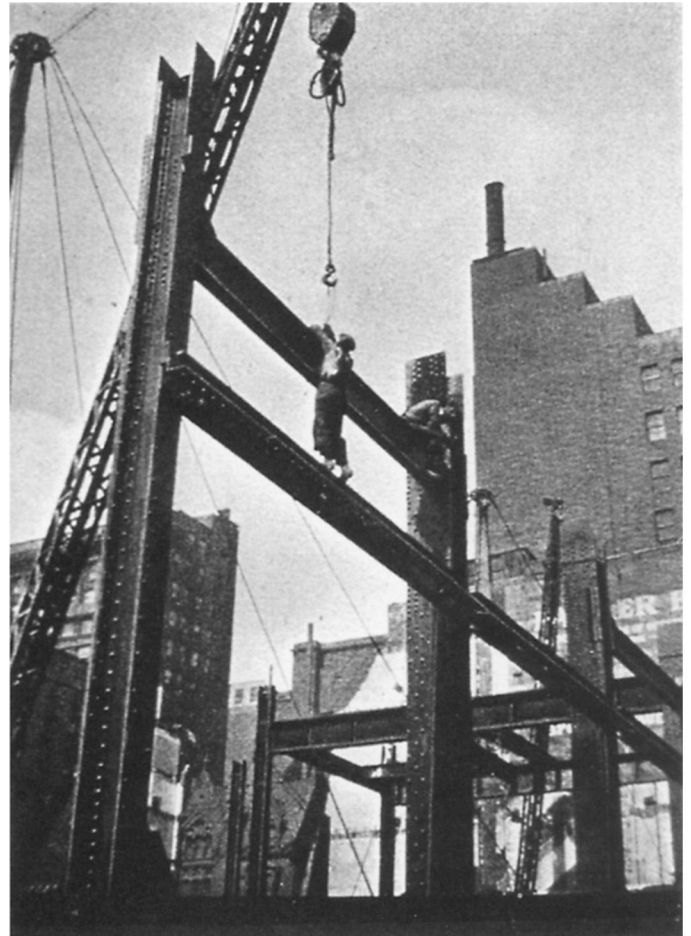


37. Andy Warhol, *Atomic Bomb*, 1965

of the representational impulse that has been equally at work within it. It is no doubt for this reason that Clement Greenberg referred to Jasper Johns's work of the mid- to late 1950s as an example of "homeless representation," meaning lacking any true ground in a modernist sense and being ultimately alien to modernist practices.⁵⁷ Thinking of Mies in terms of Johns's nearly contemporary cast bronze sculptures, such as his *Light Bulb* of 1960, might therefore be of some use in understanding the broader implications of what occurred worldwide, though perhaps first and most trenchantly in American art and architecture of the postwar period. Johns's *Light Bulb*, like Mies's I-beam, redefines representation in the mechanical terms of replication and reproduction. Literality, rather than metaphor, is the issue. Muteness and silence are the operative terms of expression. The material presence of a common object — the "thing-in-itself" — becomes a means for questioning the loss of subjectivity and the increasing abstraction and anonymity of modern life.

Seriality, with its attendant flattening out of experience, is one result of mechanical reproduction, as Andy Warhol showed in his multiple reproductions of silk-screened photographs ranging from dollar bills and Campbell's soup cans to electric chairs and fatal car crashes. His painting of an atomic bomb blast drives home the point about the power of modernist representation to disclose, in unexpected ways, things that might otherwise be allowed to slip back into the recesses of the mind. And yet, no matter how literal and seemingly self-evident the image appears, there is always a blur. By definition, representation is a matter of concealing something else, something that is suggested by its replacement as well as something we are dissuaded from thinking about by that very act of replacement. To begin to correlate, in our mind's eye, the seen and the unseen — the known and the unknown — we have first to identify the signs.

If we are eventually to understand what Mies's architecture represents in terms of modern culture and its recent history,



38. Richard Neutra, steel-frame construction of the Palmer House, Chicago, from *Wie Baut Amerika?* 1927

we must, at the outset, try to determine what value and meaning to assign to the I-beam, the sign par excellence of his expressive vocabulary. There can be little doubt that steel, especially for the European looking to America for a vision of modernity in the 1920s and 1930s, was not a neutral, value-free material. Both Richard Neutra, in his book *Wie Baut Amerika?* of 1927, and Erich Mendelsohn, in his *Amerika* of one year earlier, depicted the application of the products of the steel industry to architecture in a quasi-utopian light. Steel (and later aluminum) represented, as perhaps no other material did, the power and force of modern industry, initially embodied in the railroad, then in the ocean liner and automobile, and finally in the manufacture of airplanes. It was a force both for good and for ill. Mies clearly pondered the meaning of all this long and hard, as was his wont. “Technology is far more than a method,” he wrote in 1950, “it is a world in itself.”⁵⁸ In Mies’s view, it was technology that distinguished the modern age from all previous periods in history and defined, in “objective” and “expressive” terms, as he said, “the inner structure of the epoch out of which [a true architecture] arises.”⁵⁹ But technology, he also noted, “promises both power and grandeur, a dangerous promise for man who has been created neither for one or the other.”⁶⁰

Although Mies often presented himself as merely an instrument of this power — “serving” it rather than “ruling” it, as he would say —⁶¹ he surely saw, in its unalloyed expression in the Martin Assembly Building, something that needed editing, and even commentary. However we wish to interpret it, the process of editing involved concealment and sublimation. This editing, and this sublimation, took a different course once the war was over. Then, the power of technology came to the surface; it was represented, and made into an order, with all the authority the classical orders once had, though without their metaphorical transparency. Mies openly celebrated and gave ideal form to the industrial machinery that had brought Allied victory in World War II and his adopted

country of America to its position of international power.⁶² His new technological order encoded these “facts” and gave modern architecture, for nearly a quarter of a century, a lingua franca rigorously commensurate with them. In this light, Mies’s wartime experience, as viewed through the collages for the Resor House, the Museum for a Small City, and the Concert Hall, seems less like an interregnum than a time of profound and substantive reorientation.

Notes

This text is based on a talk originally given as a University Seminar at the Buell Center for the Study of American Architecture at Columbia University in 1992. Paul Campagna and George Danforth, both of whom studied and worked with Mies in the early 1940s, graciously allowed me to interview them. Danforth and Franz Schulze were kind enough to read an early version of this text. Although both strongly disagreed with its basic thrust (which has not changed), many of their specific criticisms were extremely helpful. I am especially grateful to Pierre Adler of the Mies Archive, Museum of Modern Art, for giving so generously of his time and advice, and to Richard Solomon for providing me with the opportunity to present this material to a Chicago audience in a lecture at the Graham Foundation for Advanced Studies in the Fine Arts in the spring of 1995.

1. Franz Schulze, *Mies van der Rohe: A Critical Biography* (Chicago and London: University of Chicago Press, 1985), 231–32, states that “it can be argued that the Concert Hall was the pivotal work of his [Mies’s] career” and that the Museum for a Small City contained, in

its auditorium roof hung from exposed spanning trusses, “a sign of things to come.” Wolf Tegethoff, *Mies van der Rohe: The Villas and Country Houses*, trans. Russell M. Stockman (1981; New York: Museum of Modern Art, 1985), 128–29, compares the Resor House to the Museum and notes how it “opened up new, if not previously unsuspected, possibilities.” As far as I know, there is no extended treatment of the three projects as a group. For a review of the impact of the Second World War on American architecture, see Donald Albrecht, ed., *World War II and the American Dream* (Washington, D.C., and Cambridge, Mass.: National Building Museum and The MIT Press, 1995). Unfortunately, Detlef Mertins, ed., *The Presence of Mies* (New York: Princeton Architectural Press, 1994), came out too recently to be of use to me.

2. Mies used the phrase “Truth is the significance of facts,” paraphrasing Thomas Aquinas’s “Adequatio intellectus est rei,” in his acceptance speech on receiving the Gold Medal of the American Institute of Architects in 1960 (quoted in William H. Jordy, *American Buildings and Their Architects*, vol. 4, *The Im-*

pact of European Modernism in the Mid-Twentieth Century [Garden City, N.Y.: Doubleday, 1972], 221).

3. Perhaps the most explicit example of this in the recent literature is Fritz Neumeyer, *The Artless Word: Mies van der Rohe on the Building Art*, trans. Mark Jarzombek (1986; Cambridge, Mass.: The MIT Press, 1991).

4. Prominent examples of such an approach include, in chronological order, Arthur Drexler, *Ludwig Mies van der Rohe* (New York: George Braziller, 1960); Schulze, *Mies: Critical Biography*; David Spaeth, *Mies van der Rohe* (New York: Rizzoli, 1985); and, most recently, Jean-Louis Cohen, *Mies van der Rohe* (Paris: Hazan, 1994). Cohen proposes three types, by distinguishing between the multistory vertical structure of the Seagram Building and the “horizontal box,” as he calls it, of the Social Service Administration Building at the University of Chicago (pp. 111–23).

On the Convention Hall, see Franz Schulze, ed., *The Mies van der Rohe Archive: An Illustrated Catalogue of the Mies van der Rohe Drawings in the Museum of Modern Art*, pt. 2, 1938–1967, *The American Work* (George E. Danforth, consulting ed.), vol. 16, *Convention Hall, Seagram Building (New York) and Other Buildings and Projects* (New York and London: Garland Publishing, 1992), and Peter Carter, “Mies van der Rohe: An Appreciation on the Occasion, This Month, of His 75th Birthday,” *Architectural Design* 31 (March 1961): 112–13.

5. Philip Johnson, “Schinkel and Mies,” *Program: Journal of the School of Architecture, Columbia University* (Spring 1962): 14–34; reprinted in Philip Johnson, *Writings* (New York: Oxford University Press, 1979), 165–81.

6. Neumeyer, *Artless Word*, 129–31.

7. Schulze, *Mies Archive*, pt. 2, 16; 2. Drexler, *Mies*, 31, declares that, in this project, “Mies accomplishes as never before the reduction of architecture to pure structure.”

8. Ibid. Schulze’s reference to “Mies’s motive in making the collage” (emphasis mine) brings up, and in a way solves, at the same time, the important question of authorship, a question that arises in all the collages dealt with here. As in almost all architectural design, many hands are involved in the final product, be it a drawing or a building. In the case of Mies’s collages, names of graduate students at IIT are often specifically attached to this or that example. Schulze notes that Yujiro Miwa, Henry Kanazawa, and Pao-Chi Chang all worked on the Convention Hall, yet he attributes full agency for the final product to Mies.

9. The photograph by Ralph Morse, which was in color, appeared in *Life* 33 (4 August 1952): 43. Mies cropped out the balcony level and repeated the image approximately five times to create the desired horizontal effect.

10. Clement Greenberg, “After Abstract Expressionism,” *Art International* 6 (25 October 1962): 25–27.

11. Drexler, *Mies*, 31.

12. For the most well-researched and balanced account, see Richard Pommer, “Mies van der Rohe and the Political Ideology of the Modern Movement in Architecture,” in *Mies van der Rohe: Critical Essays*, ed. Franz Schulze (New York: Museum of Modern Art, 1989), 96–145. For a more contentious view of Mies’s attitude toward Nazi Germany, see Elaine S. Hochman, “The Politics of Mies van der

Rohe,” *Sites* 15 (1986): 44–49; idem, “Confrontation: 1933 — Mies van der Rohe and the Third Reich,” *Oppositions* 18 (Fall 1979): 49–59; and idem, *Architects of Fortune: Mies van der Rohe and the Third Reich* (New York: Fromm International, 1990). For the most recent discussion, see Peter Hahn, “Bauhaus and Exile: Bauhaus Architects and Designers between the Old World and New,” and Franz Schulze, “The Bauhaus Architects and the Rise of Modernism in the United States,” in *Exiles + Émigrés: The Flight of European Artists from Hitler*, ed. Stephanie Barron, with Sabine Eckmann (Los Angeles and New York: Los Angeles County Museum of Art and Harry N. Abrams, 1997), 210–23, 224–34, and Cohen, *Mies*, 70–73.

13. These were first raised in print in Sibyl Moholy-Nagy, “The Diaspora,” and in her comments in “Sunday Session,” *Journal of the Society of Architectural Historians* 25 (March 1965): 24–25, 83–84. See also “Letters,” *Journal of the Society of Architectural Historians* 25 (October 1965): 254–56.

14. For the fullest discussion of this project, see Pommer, “Mies,” 125–31, and Schulze, *Mies: Critical Biography*, 199–201. A sketch of the Court of Honor clearly shows the iconographic elements of Mies’s design. This drawing, in the collection of Dirk Lohan, was not made available for publication.

15. Moholy-Nagy, comments in “Sunday Session,” 84, and Hahn, “Bauhaus and Exile,” 220.

16. For the most consistent expression of this position, see Schulze, *Mies: Critical Biography*, esp. 185–204.

17. Philip Johnson, *Mies van der Rohe* (New York: Museum of Mod-

ern Art, 1947), 164, and Drexler, *Mies*, 25 (emphasis mine).

18. Werner Blaser, *After Mies: Mies van der Rohe — Teaching and Principles* (New York: Van Nostrand Reinhold, 1977), 188, noted the identity of the preexisting photograph but glossed over its subject in saying only that it provided Mies with a neutral ground to “investigate . . . the various possibilities of enclosing the auditorium with [space-defining] screens,” adding that the “rounded forms [of the Maillol sculpture] were intended [merely] as a foil to the angular architecture.” Neumeyer, *Artless Word*, 228, repeated this formalist interpretation in stating that “now the building withdrew to give way to space, reduced to the naked, engineered construction of a neutral frame that could be filled with changing contents” (emphasis mine). He concluded that the work should be read as a “demonstration” of “the possibilities of a new spatial freedom.” Most recently, and despite its being part of a collection of essays specifically about the impact of the war on American architecture, Peter S. Reed, “Enlisting Modernism,” in Albrecht, *World War II and the American Dream*, 4, 8, states that “awed by the impressive size of the overarching steel structure, Mies chose a photograph of the Martin plant with planes in the background as the setting for his 1942 Concert Hall proposal, which elevated Kahn’s factory aesthetics to the realm of pure Miesian universal space.”

Reference to the specific Kahn photograph as the basis for the Mies design occurs first, as far as I have been able to determine, in A. James Speyer, *Mies van der Rohe* (Chicago: Art Institute of Chicago, 1968), 60, and Ludwig Glaeser, *Ludwig Mies van der Rohe: Drawings in the Collection of the Mu-*

seum of Modern Art (New York: Museum of Modern Art, 1969), n. to pl. 29. The Kahn photograph is published side-by-side with the Mies project in Oswald W. Grube, *Industrial Buildings and Factories* (New York and Washington, D.C.: Praeger, 1971), 24. While the caption correctly identifies the project as the Concert Hall, the Grube text refers to Mies's "famous study for a Chicago Convention Hall" (p. 26). The first architectural historian to publish the photograph of the Kahn building and to discuss the building's original purpose is Jordy, *American Buildings*, 4: 223–25.

19. Cf. Schulze, *Mies: Critical Biography*, 192–93: "Yet one cannot help from wondering, at least, to what extent his [Mies's] own inner drive toward essence and abstraction collided with the outer constraints of freedom imposed by the rough economic and political conditions in Germany during the 1930s. Was the vitreous interior of the House with Three Courts his architectural approximation of spiritual form and was the wall hard material fact?"

20. See Glaeser, *Mies: Drawings*, n. to pls. 22–25, and cf. Tegethoff, *Mies*, 124–25.

21. There is now much literature on the general subject of exile and emigration. For a recent survey of the issues and bibliography, with specific reference to Nazi Germany, see Barron, with Eckmann, *Exiles + Émigrés*. For the particular context of Chicago, see Perry R. Duis and Scott La France, *We've Got a Job To Do: Chicagoans and World War II* (Chicago: Chicago Historical Society, 1992).

22. On the Resor House, see Schulze, *Mies Archive*, pt. 2, vol. 7, *Resor House*, and Tegethoff, *Mies*, 127–29.

23. It was actually Helen Resor who was the more involved with art and who was apparently the real client for the Mies project. She was a member of the Board of Trustees of the Museum of Modern Art from 1938 through 1940 and was very much a protégé of its director, Alfred H. Barr. See Nina Bremer, "Resors," January 1976, and Marc Peter to [Nina] Bremer, 30 November 1975, Mies Archive, Museum of Modern Art, New York.

24. According to Marc Peter, Helen Resor "often told the story of horse riding near the future site and seeing a view of the mountains (Tetons, Grosventre, etc.) which could not be had from the window of an earth level house. So then and there she decided to have a living room on 'pilotis'" (Peter to Bremer, 30 November 1975). Stressing Mrs. Resor's role in the project, Peter went on to say: "There also was some difference of approach between Mrs. and Mr. Resor. She was moved and interested by the architecture side of the problem, the opportunity of building a ranch in the modern vocabulary developed by Wright, Corbusier, Mies. She was well informed, had studied and knew a good deal about current solutions, schools, individual styles and details. She told the story of sitting on the backstairs of her house in Greenwich while her german [sic] laundress translated texts and articles on or by Mies. . . . I know she saw in the new building an opportunity to obtain maybe not a landmark but certainly a noteworthy example of modern architecture. . . . Mr. Resor, on the other hand, was quite candid about the necessity of being economical and seldom commented about the architectural aspect of the problem. Moreover the existing ranch facili-

ties were very comfortable, in fact luxurious, and so why change."

25. Marc Peter, Jr., who was born in Switzerland, entered Harvard Architecture School in the fall of 1934 and received his M.Arch. in June 1936. Upon graduation, he married Frances Gardiner, whose brother Arthur was a friend and former classmate of Stanley Resor at Groton. Arthur Gardiner spent much of the summer of 1936 at the Resor's Snake River Ranch, at which time he suggested to Helen Resor that she contact Peter. Peter worked at the Wyoming site from mid-August through 31 October 1936. He continued working on the project until early January 1937, by which time he was informed by Helen Resor that she had "spoken or written to Mies" (Peter to Bremer, 30 November 1975). Peter went on to form a partnership with Hugh Stubbins that lasted from 1938 to 1940 and produced competition projects for an Art Center for Wheaton College (1938), a Festival Theatre and Fine Arts Center for the College of William and Mary (1938–39, honorable mention), and a Gallery of Art for the Smithsonian Institution (1939, third prize). See James D. Kornwolf, ed., *Modernism in America, 1937–1941: A Catalog and Exhibition of Four Architectural Competitions* (Williamsburg, Va.: Joseph and Margaret Muscarelle Museum of Art, College of William and Mary, 1985).

26. Bremer, "Resors," dates the first contact to late December or early January, perhaps based on Marc Peter's reflections on when he was let go. Kevin Harrington, "Order, Space, Proportion — Mies's Curriculum at IIT," in *Mies van der Rohe: Architect as Educator*, ed. Rolf Achilles, K. Harrington, and Charlotte Myhrum (Chicago: Mies

van der Rohe Centennial Project, Illinois Institute of Technology, 1986), 55, dates the initial contact to February 1937.

27. IIT initiated contact with Mies as early as March 1936. (Mies had, in fact, received and refused an offer from Mills College the previous December.) When a chance for a position at Harvard seemed to be in the offing, Mies wrote to IIT in June saying he was not interested. IIT persisted and, when the Harvard possibility fell through, IIT invited Mies to visit Chicago after hearing that he was to come to the United States in the spring of 1937. Mies visited Chicago (and IIT) in August and September 1937 on his way to and from Wyoming. At the September meeting he was offered and accepted the IIT job, subject to their agreeing to his proposed curriculum reforms, which he forwarded to them in December from New York. He returned to Chicago once again in February 1938, formally accepted the IIT offer, and took up his position in the fall of that year. The best summaries of this history are Franz Schulze, "How Chicago Got Mies — and Harvard Didn't," *Inland Architect* 21 (May 1977): 23–24, and Harrington, "Order, Space, Proportion," 49–56.

28. According to Schulze, *Mies Archive*, pt. 2, 7: 2, Barney was aided by William Priestley, another of Mies's ex-Bauhaus students, with whom Rodgers shared an office.

29. [John Barney Rodgers], "Notes on House for Wyoming — Ogden," 21 October 1937, Mies Archive, Museum of Modern Art.

30. No definitive date has yet been offered for the collages, although 1939 seems most likely. George Danforth, who worked on them in Mies's office in Chicago, says they were done sometime between 1939

and 1941, suggesting that it was probably closer to the earlier date since they relate to the model done in 1939 (in conversation, 12 May 1994). The Resors met with Rodgers in New York on 28 November 1938 to clarify what had to be done to cut costs. The list of desiderata was translated into German and sent to Mies (Folder II, Resor House 3800, Mies Archive, Museum of Modern Art). Mies worked on the revisions from December 1938 to late March 1939, when he wrote to Stanley Resor, saying that the “ranch house” was “completely refigured,” and included a new set of specifications (Mies van der Rohe to Stanley Resor, 25 March 1939, Folder I, Resor House 3800, Mies Archive, Museum of Modern Art). It is therefore most likely that the collages were done at this time or soon thereafter. George Danforth recalls that they were not done until the departure of Lilly Reich, which would mean the end of the summer of 1939 (in conversation, 12 May 1994).

In downplaying the significance of the collages as merely representations of an unbuilt project, Schulze, *Mies Archive*, pt. 2, 7: 2–3, states that “on balance the importance of the Resor House to Mies van der Rohe’s career is more biographical than architectural,” although, in its creation of “a static space rather than . . . a dynamic spatial flow,” it becomes, in Schulze’s formal/evolutionary scheme, “the prototype of Mies’s American buildings, foretokening a unitary, largely glazed volume with a minimum of interior spatial differentiation, more nearly the ‘universal space’ that was the hallmark of such later pavilions as . . . the Convention Hall.”

31. Cohen, *Mies*, 79, interprets the use of the Klee detail as an expression of “nostalgia for a left

behind in Europe,” without, however, noting the painting’s ownership by the Resors. The close-up view of the mountain with the couple on horseback makes us wonder if Mies, like Marc Peter, was “told the story [by Helen Resor] of horse riding near the future site and seeing a view of the mountains . . . which could not be had from the window of an earth level house [and which] . . . then and there . . . decided [her] to have a living room on ‘pilotis’” (Peter to Bremer, 30 November 1975).

32. Tegethoff, *Mies*, 128, describes the “distinctly pictorial quality” in terms of an “almost stagelike character.” For another sensitive discussion of Mies’s use of the pictorialized landscape, see José Quetglas, “Fear of Glass: The Barcelona Pavilion,” in *Architecture-production*, ed. Beatriz Colomina (Princeton: Princeton Architectural Press, 1988), 122–51.

33. It should be noted that Mies did produce a number of interior perspectives of the Resor House that show how the interior space relates to the exterior. However, most of these are orthogonal views of the living-dining room that focus on the fireplace and only show the exterior mountain ranges peripherally.

34. Tegethoff, *Mies*, 129.

35. The relative chronology of these two projects has never been precisely determined. Schulze, *Mies Archive*, pt. 2, vol. 13, *Cantor Drive-In Restaurant, Farnsworth House, and Other Buildings and Projects*, 76, simply says that the two projects were designed “in the same year,” although he assigns the numbers 4201 to the Museum and 4202 to the Concert Hall. In his *Mies: Critical Biography*, 231, Schulze implies that the Concert Hall de-

sign grew out of the Museum’s auditorium and thus is the later of the two. This corroborates what Philip Johnson wrote in 1947: “One of the museum’s original features is the auditorium composed of free-standing partitions and an acoustical dropped ceiling. . . . From this Mies has developed his most astounding new creation, the project for a concert hall” (*Mies*, 164). George Danforth says that he began studying ideas for a museum for his thesis project in the fall of 1940, the year he entered the graduate program at IIT (in conversation, 12 May 1994). Paul Campagna, who did a concert hall for his thesis project, was a classmate of Danforth’s in the Master’s class of 1940–41. His study of a concert hall would thus have been more or less concurrent with Danforth’s work on the museum. Danforth thought, however, that the Mies design for a Concert Hall was “probably a year after the Museum [for a Small City]” (*ibid.*).

Mention of the roles played by the two graduate students, Danforth and Campagna, naturally brings up the issue of authorship. Danforth, who worked on the Resor House collages, also worked on the final Museum collages that were published in *Architectural Forum* (see below). While acknowledging that his own study of the museum problem began as a thesis project, he has never taken any credit for the design of the published Museum for a Small City other than to claim a part in the execution of the collages. (Paul Campagna said that “George would do the drafting of the columns and perspective and Mies would put in the paintings and sculpture” [in conversation, 16 May 1994]). On the other hand, Campagna reserves an important

role for himself in the conceptualization and realization of the Concert Hall, which will be discussed more fully in note 44 below. That being said, it is important to quote Franz Schulze’s analysis of Mies’s interaction with graduate students as a knowledgeable voice in the matter: “Mies very early established a habit of refining his own ideas through projects assigned to his students. To some extent he had done this with his charges at the German Bauhaus, but in Chicago the process accelerated and grew more varied. . . . Thus it was that the Library and Administration Building developed out of a master’s thesis by Daniel Brenner and the Museum for a Small City from a similar project by George Danforth. Mies oversaw all these activities, pointing the way to each of his students rather than following paths they had plotted. There is no doubt who the master was” (*Mies: Critical Biography*, 230).

36. Schulze, *Mies Archive*, pt. 2, 13: 68. For the Museum, see also “New Buildings for 194X,” *Architectural Forum* 78 (May 1943): 84–85 (includes description by Mies).

37. *Ibid.*, 84. Mies prefaced this by saying that “a work such as Picasso’s *Guernica* has been difficult to place in the usual museum gallery.”

38. Typical are the following: “The exhibiting of Pablo Picasso’s ‘*Guernica*’ has always presented a problem. . . . Mies van der Rohe, however, proposed a simple and most effective solution. In his study for the Museum for a small city, . . . he made of Picasso’s painting a free-standing wall. As such, the painting is isolated from its surroundings to its own benefit, but at the same time it is strongly united with the building as a legitimate architec-

tural element" (Ludwig Hilberseimer, *Mies van der Rohe* [Chicago: Paul Theobald, 1956], 46); and "This project for an exhibition hall [i.e., museum] was the upshot of studies concerned with concrete art [i.e., painting and sculpture] and of reflections on the problems of integrating it in space" (Werner Blaser, *Mies van der Rohe: Less Is More* [Zurich and New York: Waser, 1986], 180).

Neither in Schulze, *Mies Archive*, pt. 2, 13: 68, nor in idem, *Mies: Critical Biography*, 230–31, where the Museum is discussed, is there a mention of the Picasso painting. Neumeyer, *Artless Word*, 228, also avoids mentioning the painting by name. Two conspicuous exceptions to this purely formalist reading are Tegethoff, *Mies*, 128, where it is noted that, as a result of the effects of the collage technique, "the dramatic events in Picasso's *Guernica* appear to be incomparably intensified," and Cohen, *Mies*, 84, where it is noted that "the most striking part [of the Museum] is a reproduction of Picasso's *Guernica*, an evocation of the savagery of the Nazi war." I should like to thank Andrew Phillips, a former student at Harvard's Graduate School of Design, for stressing the importance of the subject matter of Picasso's painting of *Guernica* to me in a seminar he took with me at Harvard.

39. On the history and reception of the painting, see Ellen C. Oppler, *Picasso's Guernica: Illustrations, Introductory Essay, Documents, Poetry, Criticism, Analysis* (New York: W. W. Norton, 1988), and Herschel B. Chipp, *Guernica: History, Transformations, Meanings* (Berkeley: University of California Press, 1988).

40. Mies was in Paris from at least 8 July through 12 July 1937. He returned again on 12 August coming from Aachen on his way to New York, where he landed on 20 August. The 1937 World's Fair in Paris was supposed to open on 1 May but was delayed until 24 May. Picasso began the painting of *Guernica* two days after hearing the news of the bombing and completed the work by the end of the first week of June. Although the painting was installed shortly thereafter, the Spanish Pavilion did not officially open to the public until 12 July.

41. The exhibition at the Arts Club of Chicago, in the Wrigley Tower, opened on 3 October 1939. On this occasion, the critic C. J. Bulliett wrote in the *Chicago Herald-Tribune*: "Here, instead of being a lofty adventure in pure and cold form, as is his custom, [Picasso] was frankly a 'propagandist' doing his level best to express all the indignities of his soul against the rape of *Guernica* and the horrors of war generally" (4 October 1939). The exhibition at the Museum of Modern Art, entitled "Picasso — 40 Years of His Art," opened less than two months after the outbreak of war in Europe and ran from 15 November 1939 through 17 January 1940. Its Chicago stay at the Art Institute lasted from 1 February through 3 March 1940. See Frederick A. Sweet, "Picasso — Forty Years of His Art," *Bulletin of the Art Institute of Chicago* 34 (February 1940): 22–24.

42. It is interesting to recall that Mies's early employer Peter Behrens used Maillol's figure of *The Mediterranean*, the same one Mies himself later used in the Concert Hall, in the room he designed for the Mannheim International Art Exhibition of

1907. For an analysis of Maillol's activities during World War II, see Michèle C. Cone, *Artists Under Vichy: A Case of Prejudice and Persecution* (Princeton: Princeton University Press, 1992).

43. As pointed out in n. 18 above, the formalist interpretation of the project has predominated. Schulze, *Mies: Critical Biography*, 231–32, for instance, states: "One can imagine easily enough what Mies found to admire in [the Kahn Assembly Building]. It was an exercise in raw structure . . . clearly indicative of the unique capacity of modern engineering in steel to enclose a stupendous space. . . . Using his familiar collage-montage technique, [Mies] proposed a number of arrangements of wall and ceiling planes . . . all meant to define a space within the larger space, where groups of people could attend musical performances. . . . The planes, slipping variously into and around space which in turn flowed and curled around them, were the vestiges of his spatial dynamism of the 1920s, while the yawning hall in which all this took place prefigured the vast emptiness and spatial stasis that characterized his later American works." Even Jordy, *American Buildings*, 4: 224, dismissed any reference to the military source of the photographic ground and proceeded with a similar formalist-historicist description: "This project, made in 1942, can well symbolize the collision of two worlds: on the one hand, that of the abstract form of floating planes, which goes back to the Barcelona Pavilion . . . ; on the other, that of the prosaic grandeur of the girdered factory space. Abstract form and prosaic fact, these two concerns of Mies's structural esthetic here come together, not so much amalgamated as co-existent."

Recently, Cohen, *Mies*, 84, suggested that Mies's use of the Kahn photograph "might be read as an adherence to the American war effort," but then demurred: "It reveals rather, in my view, the impact of the great works of engineers, much as the publications of the Werkbund had made them available before 1914 and the importance of which — real as well as metaphoric — Mies discovered along with its potential for his own production." On the Concert Hall, see Schulze, *Mies Archive*, pt. 2, 13: 76–78. On the priority of the Museum, see n. 35 above. Schulze, *Mies: Critical Biography*, 231, follows Johnson, *Mies*, 164, in maintaining that the auditorium of the Museum formed the basis for the Concert Hall, which thus represents a further study of the problem.

44. George Nelson, *Industrial Architecture of Albert Kahn, Inc.* (New York: Architectural Book Publishing, 1939), 38. Much of the material in this book was published the previous year in "Albert Kahn," *Architectural Forum* 69 (August 1938): 87–142, although the specific photograph of the interior in question was not included. Mies owned a copy of the Nelson monograph, which is now in the Mies van der Rohe Collection, Special Collections, University of Illinois at Chicago (#240656). I am grateful to Tom Beeby for bringing to my attention the existence of the Nelson book in Mies's personal library and to Patricia Bakunas for providing me with access to it. (It should be noted, by the way, that the name of the Kahn building in question is the Glenn Martin Assembly Building and not the Glenn Martin Bomber Plant, as it so often appears in the literature.) Jordy, *American Buildings*, 4: 223–25, says that Myron Goldsmith, a

former student of Mies, told him “that Mies was much interested in a publication in 1939 of the factories of the Detroit architect-engineer Albert Kahn. A photograph of the Glenn Martin bomber plant from this volume provided the background on which Mies pasted planes (geometrical rather than aeronautical in this instance) to create a project for a concert hall.” Paul Campagna, who many credit with bringing the photograph to Mies’s attention while he was working on a concert hall project for his master’s thesis (see n. 35 above), says he found the image in *Architectural Forum* (in conversation, 16 May 1994). Since the image Mies used did not appear in the *Forum*, either Campagna used a different one in his project or he misremembered the source. Schulze, *Mies Archive*, pt. 2, 13: 76, repeats the Campagna claim without, however, specifying the source of the photograph.

Campagna’s claims on the Concert Hall design have been given greater weight than Danforth’s on the Museum, so it seems worth detailing them here, based on an interview I had with him in May 1994. (It should, of course, be kept in mind that this was over a half a century after the events in question.) Paul Campagna, who had studied architecture at the University of Illinois, entered the graduate program at IIT in the fall of 1940 and received his master’s degree at the end of the academic year. (He entered the Navy in December 1941.) Mies apparently first suggested to him that he do a house for his thesis project and Campagna began work on that. Soon thereafter, Mies said he thought he should do a “big job . . . a concert hall or a theater.”

Campagna came up with three *partis*, one of which was a large “undifferentiated space.” Although Campagna had not thought of industrial buildings as a model, he said Mies told him to “look in magazines for big industrial spaces, like an airplane hangar.” The one that Campagna found that he said “looked the best to me was [the] Glenn Martin plant.” (Campagna, whose parents lived in Washington, D. C., said he immediately recognized the building because he had actually visited it and knew a lot about Kahn’s work.) Mies liked the choice and told his student to have it blown up to six feet across. Mies apparently did not mention the idea of using collage, but Campagna was aware of the technique from Danforth’s work. For the rear plane of the stage, Mies advised the use of gold foil, which Campagna recouped from a Japanese screen (in the Mies version it is gray). Campagna remembers that his rear stage wall was flat, not curved, as it was in Mies’s Concert Hall. Finally, Campagna’s project had no sculpture. And in trying to recall the original Kahn photograph, Campagna maintained that the space “was devoid of airplanes.” On the other hand, he claimed that when he saw the reproduction of the Concert Hall for the first time in the Johnson catalogue for the MoMA Mies exhibition of 1947, he thought the collage “was his own”; yet he admitted that Mies “added to his” in certain ways (in conversation, 16 May 1994).

It is clear that Campagna’s design was not simply appropriated by Mies, although without comparing the two, it is impossible to say what the differences were. And while we may never know whose idea it was for Cam-

pagna to use the Kahn photograph in his thesis project — did Mies plant the idea in his mind in telling him to look for something like “an airplane hangar” or did Campagna find it on his own? — this still would not solve the question of whether Mies not only was acquainted with the Kahn building, but had already considered using it on his own. (We should here recall Schulze, *Mies: Critical Biography*, 230: “Mies oversaw all [master’s theses] activities, pointing the way to each of his students rather than following paths they had plotted.”) And, even in the unlikely event that Mies learned for the first time of the Kahn image from Campagna (but remember that Campagna recalled finding it in *Architectural Forum*, where the one Mies used did not appear), are we to assume that Mies saw in the photograph exactly what Campagna did, that is, a large industrial space “devoid of airplanes”? One final note on the question of authorship: is it conceivable that Mies would have given the collage to his close friend Mary Callery had it been done by a student (see n. 48 below)?

45. See *Box Kites to Bombers: The Story of the Glenn L. Martin Company*, Baltimore, U. S. A. (Baltimore: Martin Company, n.d.), and *Martin Star*, the company magazine beginning publication in February 1942. On the Glenn Martin Plant, see Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge, Mass.: The MIT Press, 1974), 183–97.

46. In one of the rare references we have to any direct comments by Mies about the war, and particularly the bombing of Germany by Allied aircraft, a former student, Edward Duckett, remembered the following: “During World War II the Allies were pattern bombing Germany. . . .

Ed Olencki and I were going into the school office one morning and Mies’s secretary, Marta Moeller, was . . . crying. Mies had just arrived and she had not gotten to tell us why she was crying so we asked her what was wrong. Anyway, it turned out her parents were still in Germany, in Dresden I believe. . . . [S]he was looking at the newspaper and . . . the headlines said ‘Hundreds of Bombers Destroy Dresden.’ So she told Mies, ‘They are destroying my country and I’m worried about my parents,’ and I remember Mies looked at her and he said, ‘That has to be done. Society cannot tolerate such a leader as Hitler.’ And he repeated it. He said, ‘You can’t have an animal like Hitler loose in the world and if it means annihilating Germany in order to accomplish that; then that’s what has to be done.’ That was a dramatic thing to me and to Ed because here he was talking about his own country (William S. Shell, ed., *Impressions of Mies: An Interview on Mies van der Rohe, His Early Years, 1938–1958*, with former students and associates Edward A. Duckett and Joseph Y. Fujikawa [n.p., 1988]).

The relationship between Albert Kahn’s work and the American war effort was clearly drawn, at the very time Mies was working on the collage, in “Albert Kahn, Architect: Producer of Production Lines” and “Architecture for War Production,” *Architectural Record* 91 (June 1942): 39–52.

47. Based on the amount of space visible on the right of the image, it appears that Mies used an original photograph rather than a copy made from the Nelson book.

48. The Concert Hall collage no longer exists in the state Mies left it in 1942. When he gave it to his

friend the sculptor Mary Callery, apparently sometime in the 1940s, the image of the Maillol sculpture was replaced with one of an Old Kingdom *Egyptian Scribe*. The Egyptian figure is attentive and aggressive, rather than inward-looking and recessive. Its image radically changes the collage's meaning, deflecting the viewer's gaze from the scene instead of drawing it in and, anachronistically, providing the place with a character of "timelessness."

Following his purely formalist interpretation of the design of the Concert Hall as a study of "the possibilities of an auditorium defined by various independent [geometric] planes within a much larger space," Speyer, *Mies*, 60, states that "the superimposed Maillol sculpture shows the effect of a rounded form set within the space," a remark repeated in Blaser, *After Mies*, 188 (see n. 18 above). Schulze, *Mies: Critical Biography*, 232–33, does not mention the sculpture; but in *Mies Archive*, pt. 2, 13: 76, he says "a photograph of a sculpture was added in the foreground to indicate scale" (emphasis mine).

49. Schulze, *Mies Archive*, pt. 2, 7: 2, and 13: 68, 76, and Neumeyer, *Artless Word*, 227–28. On a more mundane level, we could point to the very visible similarity between the factory designs of Albert Kahn, such as his General Motors Diesel Engine Division Plant in Redford, Michigan, of 1937, and Mies's earliest structures at IIT, such as the Minerals and Metals Research Building of 1942–43. Grube, *Industrial Buildings*, 34, notes, with specific reference to illustrations of works by Albert Kahn, that "the first buildings erected by Mies van der Rohe in the United States . . . reflect the expression of the industrial

complexes built in America in the preceding decade . . . and opened the eyes to the importance of that previously anonymous [sic] architecture."

50. As Jordy, *American Buildings*, 4: 240–41, points out, there are two types of standard steel beams with an I-shaped section. The type most generally used in building construction has wide flanges, producing nearly an H section, and is correctly called a wide-flange beam. The type with narrow flanges is the only one, technically speaking, that should be called an I-beam. Jordy decided, as is the case with most of the literature on Mies, not to make this distinction and to call all the I-shaped beams "I-beams." I shall follow suit wherever the distinction seems unnecessarily technical. For more on the chronology of Mies's adoption of the I-beam, see n. 53 below.

51. Quoted in "Mies van der Rohe," *Architectural Forum* 97 (November 1952): 99. Perhaps the best discussion of this, as well as the entire question of Mies's use of the I-beam, is Jordy, *American Buildings*, 4: 237ff.

52. In the original project for the Resor House, the steel columns were to have been encased in sheet bronze. For reasons of economy, the 1939 version eliminated the bronze and substituted paint.

53. Mies's move from the cruciform-shaped column to the I-shaped section occurred around 1942. The Resor House and the Museum for a Small City both employ the former type, as do preliminary studies for buildings at IIT, such as the Joseph E. Duncan School of Mechanical Engineering. If the Minerals and Metals Research Building, which

dates from 1942–43, is the first example of the new type actually used in construction, then we might be able to relate the changeover directly to the time the Concert Hall was being designed, that is, 1941–42.

54. Jordy, *American Buildings*, 4: 247, 262. In noting how Mies's use of the I-beam "to articulate the walls . . . much as pilasters articulated a classical or Renaissance wall . . . reinvigorate[d] the whole of the classicizing tradition for present use," Jordy was following an interpretation of Mies that others, notably Philip Johnson, Vincent Scully, and Colin Rowe, had helped establish as almost dogma by the late 1950s. According to Bernard Goodman, a student at IIT, Frank Lloyd Wright said the following to Mies on seeing the plans for the Library and Administration Building for IIT in 1944: "You know what you've done? You have invented a new classicism" (in Spaeth, *Mies*, 132). For a contrary view, see now Ignasi de Solá-Morales Rubío, "Mies van der Rohe and Minimalism," in Mertins, *Presence of Mies*, 149–55.

Schulze, *Mies: Critical Biography*, 226, 243, says that "the attached I-beam," which, already at Alumni Memorial Hall at IIT, "is not fact but symbol of fact," "had become [at North Lake Shore Drive] a prime symbol for the transcendence of technology into architecture, prose into poetry. The I-beam, that is to say, took on decorative significance." George Danforth, in Schulze, *Mies Archive*, pt. 2, vol. 10, IIT, vol. 3, *Alumni Memorial Hall, Field House Building, Gymnasium, Natatorium, and Other Buildings*, 2, acknowledged that "the curtain wall" of Alumni Memorial Hall "became a secondary structure,

one that nonetheless symbolized the building's structural frame."

55. Thomas H. Beeby, "The Grammar of Ornament/Ornament as Grammar," in *Ornament*, ed. Stephen Kieran, *Via 3* (Philadelphia: Graduate School of Fine Arts, University of Pennsylvania, 1977): 26.

56. Jordy, *American Buildings*, 4: 243–44. Cf. Reyner Banham, "On Trial, 6, Mies van der Rohe: Almost Nothing Is Too Much," *Architectural Review* 132 (September 1962): 125–28, and now Solá-Morales Rubío, "Mies and Minimalism," 150–51.

57. Greenberg, "After Abstract Expressionism," 25–27.

58. Mies van der Rohe, "Architecture and Technology," *Arts and Architecture* 67 (October 1950): 30; reprinted in Neumeyer, *Artless Word*, 324.

59. Mies van der Rohe, "Building Art of Our Time (My Professional Career)," in Neumeyer, *Artless Word*, 336; originally published, with slightly different wording, in Werner Blaser, *Mies van der Rohe: The Art of Structure*, trans. D. Q. Stephenson (New York: Praeger, 1965), 6.

60. Mies van der Rohe, undated lecture, in Neumeyer, *Artless Word*, 325.

61. *Ibid.*

62. Without referring specifically to the war and its effect on the growth of American industrial prowess, Jordy, *American Buildings*, 4: 243, says: "Symbolically, finally, the I-beams not only record the technology, but celebrate it . . . As specifically 'modern' objects, bluntly accepted for what they are, the I-beams intensify our awareness

that the building belongs to our time.” Cohen, *Mies*, 87, describes IIT at the time Mies began teaching and building there as “an institution dominated by research centers financed by industry and the military establishment.” Although he goes on to say that it “became extremely prosperous due to the abundantly subsidized industrial and military research,” he does not relate this context to the expressive meaning or significance of the architecture Mies developed in it and, in large measure, for it.

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6. Arthur Drexler, *Ludwig Mies van der Rohe* (New York: Braziller, 1960).
17. *Architectural Forum* (May 1943).
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23. *Martin Star* (February 1942).
26. Sophie Lissitzky-Küppers, *El Lissitzky: Maler, Architekt, Typograf, Fotograf* (Dresden: VEB Verlage der Kunst, 1967).
27. Photograph by Sandak.
- 28, 30, 31. Werner Blaser, *Mies van der Rohe: The Art of Structure* (New York: Praeger, 1965)
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34. Francesco di Giorgio Martini, *Trattati di architettura, ingegneria e arte militare*, 2 vols. (Milan: Il Polifilio, 1967).
35. William Chambers, *A Treatise on Civil Architecture* (London: By the Author, 1759).
36. Private collection.
37. *Andy Warhol: Death and Disasters* (Houston: The Menil Collection and Houston Fine Arts Press, 1989). Private collection.
38. Richard Neutra, *Wie Baut Amerika?* (Stuttgart: J. Hoffmann, 1927).

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