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**Modernism, Media, Abstraction: Mies van der Rohe's  
Photographic Architecture in Barcelona and Brno (1927-31)**

by

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A dissertation submitted to the Graduate Faculty in Art History in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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## **INTRODUCTION PHOTOGRAPHY, REPRODUCTION, MIES**

Architectural renderings of the Pergamon Museum, built between 1912 and 1934 to a design by Alfred Messel and Ludwig Hoffmann, show the blocky, severe Museum, then officially known as the Museum der Vorderasiatische Kunst, set off from its Museumsinsel context (fig. 0.1). The images depict the building in an idealized, pre-World War II state, grandly classicizing in the tradition of Karl Friedrich Schinkel, and calcifying the marriage of Prussian culture and antique Classicism so important to a certain generation of German architects, but so seemingly anachronistic, to judge from the historiography of the interwar years.<sup>1</sup> The renderings were made before construction, during the presentation phase of the project, but they reflect the increasingly ubiquitous presence of photography as a means to represent architecture, a development of the late nineteenth century. They look like high-contrast photolithographs. By the time the project was complete, both its architects had died, and no contemporary photographer was commissioned to photograph the newly-constructed building. As a result, its images never entered into the economies of architectural practice that images of buildings generally participate in, largely through their photographed depictions. And as a result of this historical accident, the Pergamon Museum circulates historically through renderings that restore nineteenth-century grandeur to this twentieth-century building, completed just in time for the National Socialist recuperation of traditional architectural styles.

The images of the Pergamon Museum, drawn before 1910, give no hint that the building would come into existence in the midst of a period when more radical

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<sup>1</sup> See Carola Wedel, *Das Pergamonmuseum: Menschen, Mythen, Meisterwerke* (Berlin: Nicolai, 2003); Dörte Döhl, *Ludwig Hoffmann: Bauen für Berlin 1896-1924* (Tübingen: Wasmuth, 2004).

architectural forms were exploding all around. Over the long years during which the museum was designed and built, a cadre of young architects coalesced around a new architectural movement. Ambitiously dubbed "New Building" ("Neues Bauen"), the architects of the movement specifically set themselves apart from the powerful generation of Wilhelmine architects to which Messel and Hoffmann belonged. In the early years of the Weimar Republic, however, it was the older generation who still controlled large building commissions like the Pergamon Museum—and by the time construction was complete, this generation (or what remained of it, in influential figures like Paul Schultze-Naumburg, Paul Schmitthenner, and Wilhelm Kreis) was back in power again, under the banner of National Socialism. The Reichsbank extension project of 1933, a stone's throw from the Pergamon Museum on the other side of the River Spree, was subsequently executed in a grandly historicizing style that owed more to Messel than to Mies. From the standpoint of the later 1930s, the Neues Bauen began to look like an anomaly, a short-lived trend that had briefly obscured the continuous development that might be traced (by those willing to ignore all but stylistic similarities) from Messel and Hoffmann to the young architect Ernst Sagebiel, successor to Erich Mendelsohn's enormously important Berlin practice, and architect of Hitler's Air Force Ministry (*Luftfahrtministerium*) of 1935-36, or to Albert Speer, state architect for the Nazi leader.

While Mies, along with Gropius, had been the hero of Weimar architecture culture par excellence, he competed unsuccessfully for the Reichsbank commission as his office shrank and commissions evaporated. By 1934, his influence within the Werkbund was long past, as that organization neared its own demise, literally devoured by the NS *Reichskulturkammer* in 1935. Valuable domestic commissions were being regularly cancelled by Mies's clients, and large government commissions went to more conservative architects like Sagebiel. The Pergamon

Museum and its early renderings—also used in the press to announce the completed building—are material reminders of the brevity of Weimar architecture culture and its progressive values. The remarkable historical reach of the architecture of this short period (so much more wide-ranging and influential than the work that immediately followed it) testifies to the resonance of the ideas developed in these fourteen years (1919-1933), and the success of printed documents in spreading the doctrine of progressive architecture over a much wider geographical and temporal span than was possible at home.<sup>2</sup>

In a recent exhibition of the contemporary photographer Thomas Struth at the Hamburger Bahnhof in Berlin, entitled “Pergamon Museum”, another view of the Pergamon Museum prevails. This one abandons the building’s shell for its contents. A series of large and small-format photographs show staged viewers visiting the building’s interior, which encloses some of Berlin’s most famous antiquities. Inside Messel and Hoffmann’s impressive stone husk lies the famous Hellenistic altar purchased by German archaeologists from the Turkish government in the late nineteenth century, along with other Mediterranean, Near Eastern, and pre-historic antiquities. It is visited by scores of tourists every year, if normally a little less picturesque than Struth’s posed models (fig. 0.2); in fact, the Pergamon Museum is advertised by the website of the Staatliche Museen zu Berlin as the most visited museum in the city.

Struth’s images, in contrast to the architectural renderings of the building’s exterior, both depict and construct encounters between architecture, sculpture, and

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<sup>2</sup> For basic references on the architecture of this period, see Barbara Miller Lane, *Architecture and Politics in Germany, 1918-1945* (Cambridge, Mass.: Harvard University Press, 1968); Winfried Nerdinger, ed., *Bausthaus-Moderne im Nationalsozialismus* (Munich: Prestel, 1993); Kathleen James-Chakraborty, *German Architecture for a Mass Audience* (London: Routledge, 2000).

audience. A brief examination of the images reveals a slightly self-mocking indeterminacy, in that they figure human beings and fragments of marble as analogous objects in space (figs. 0.3, 0.4). The photographs expand an investigation into art reception that Struth has carried on for some two decades already. They are, however, significantly different from similar images by the same photographer of people looking at paintings, such as his *Louvre IV* of 1989 (fig. 0.5) or his *Art Institute II* of 1990 (fig. 0.6). How might one best describe this difference? Struth's pictures of people looking at pictures offer us a commentary on visual perception, consumption, and the framing of art in contemporary society—at the least. But it is harder to fix on any clear meaning in the case of the Pergamon images. They, too, provide a commentary on art reception in contemporary culture. But they appear considerably less determinate—less clear in their meaning—than Struth's images of paintings. Perhaps this is because the ready appreciation of antiquity now belongs chiefly to specialists. Antiquity is generally received today through the filtering device of early modern neo-classicisms, leaving a blank space between the classicism of the nineteenth century, or even the Renaissance, and what we now know as the classicism of ancient Greece or Rome. The pictures mirror that blankness, in the lack of direct connections evident between viewers and objects. Contemporary audiences have lost much of the context—and with it the meaning—of the original artifacts contained in the Pergamon Museum. But in fact, the sculptures on the famous altar are remarkably vivid and graphic in their description of the carnage of war. They themselves are not indeterminate at all (fig. 0.4). If anything, they testify to the persistence of eternal themes—human life and death—as represented by art. The difference between Struth's Pergamon pictures, and his photographs of visitors at the Louvre would seem to subtend more than just chronological or historical difference.

Along with a tangible sense of history, we lose something much more concrete in moving from Struth's images of paintings to his pictures of architecture and sculpture. We lose the juxtaposition between the image surface of the photograph and the image surface of the art work being viewed. The parallelism of two flat planes that conditions our reading of *Louvre II* is replaced by the enveloping miasma of interior space in his Pergamon series. Not surprisingly, the Pergamon Museum viewers aren't looking at anything in particular in these images—they are looking all over the place. Thus, in addition to losing the analogy of flatness (painting surface) to flatness (photograph), the sense of a directed view is also lost, both to the Pergamon viewers depicted in the photographs, and to us. The fixedness of a clear subject is replaced by a kind of speculative vacuity. Instead of looking at someone looking at art, we view objects floating in space, animate objects occasionally beholding inanimate ones. The human figures in this series confront us from all angles; we must factor their perplexity in with our own, note their social interaction spatially. By contrast, the figures caught in the midst of contemplating easel painting are usually caught only from behind.

Struth's images of two- and three-dimensional art consumption succinctly describe the differences between representations of two different geometrical realities, highlighting the difficulties involved in using two-dimensional images to represent three-dimensional things. To return to the starting point of this chapter, this is precisely the task of two photographic genres that Struth quotes elsewhere, in his extensive depictions of contemporary cities: the two genres of documentary and commercial photography of architecture. The exterior representations of the Pergamon Museum, themselves drawn, nevertheless project the wide influence of photography in composition, lighting, and tonality. We might retain some scepticism about how they depict what they depict: is the steady refusal to stage the encounter between audience and architecture not equally as curious as Struth's

quizzical depictions of viewers in space? What illusions have been created behind the documentary surface of these portraits of architecture, and how do they reflect the patterns of contemporary commercial photography?

### **Argument**

The challenges of deciphering the commercial photographs of modern architecture are, on the other hand, quite different from the ones that face historians of painting, designated experts in the study of two dimensional surfaces that project three dimensions. Like Struth's pictures, architectural photographs cannot be easily subsumed into art practice or art history. Architectural historians have long treated them as transparent screens through which architecture might be discussed in all its bodiliness. Perhaps because they too rest somewhere between art and document (after the fashion of much photography), Struth's images help signal the difficulties of this approach. Architectural photographs are often used in art and architectural history as if they function like the images of paintings that often accompany them in textbooks, surveys, and articles; in fact, the difference between photographs of architecture and of painting is not one of degree but one of kind.

This study explores relationships between reproduction, photographic effect, and modern architecture in the Weimar years, using the work of Ludwig Mies van der Rohe during the busiest years of his Berlin office to establish a paradigm by which to understand interrelations between architecture and new media in interwar Germany. The photographs and buildings around which the chapters are organized have played inordinately important roles since the buildings were completed and then quickly lost to public access in the years following construction—but the roles played by buildings and photographs are distinctly different, if difficult to separate. Clarifying the nature of the differences makes it possible to understand the

common project of two forms of representation that often worked toward similar goals, but with rather different means.

The dissertation thus seeks to disentangle a number of themes, and then to bring them into relation to one another. The goal is a clearer historical understanding of how architecture and photography functioned in relation to one another in the Weimar period, with an emphasis on architecture. The argument is laid out here. This introduction summarizes the main issues that will be dealt with in the following chapters, attempting to give a concise digest of the dissertation's overall argument and methodology. As an initial starting point, the Introduction situates the discussion in relation to Walter Benjamin's important work on modern media and art practices; and introduces related themes from Russian Formalism that were important for new theorizations of modernism in the 1920s, and that shed light on the issues raised by architecture and photographs of architecture.

Benjamin's 1936 essay, "The Work of Art in the Age of Mechanical Reproduction," has had more of an impact on recent interpretations of media culture than it had at the time of its initial publication, after the demise of the Weimar Republic and on the eve of World War II. Nevertheless, the essay (along with Benjamin's other writing) has come to exercise significant influence on current scholarship of this period, and serves as one important starting point for a discussion of architectural photography in the Weimar years. In addition, Benjamin took part in the cultural formation of Weimar first hand, and his work has great historical importance for the current project. Thus, his "Work of Art" essay is understood here as a response to the conditions of late Weimar and early National Socialist culture policy, an optimistic attempt to shift discussions of high and low culture definitively into new terrain—terrain that openly acknowledged the

influence and importance of Marx.<sup>3</sup> It is important to remember how successfully the social reforms encouraged by Marxism had been both commandeered and subverted by the German government after 1933, a fact of which Benjamin was more aware than many.

The first chapter, "Transactions between Photography and Architectural History," presents a bibliographical overview of the sources consulted in writing the dissertation, and further discloses methodological foundations. The second chapter, "Recuperating Visual Choreographies of Miesian Architecture," introduces the architectural work of the dissertation's main subject over the most active years of his German period. It accepts the idea that Mies's work as an architect focused on questions about modern industrialization and architecture culture, and suggests that Mies was directly influenced by contemporary culture production in other fields. Photography and film played particularly decisive roles in Mies's efforts to update architecture for modernity. Similar efforts were made in fully different directions by other architects of the Neues Bauen, mostly in the direction of socialist housing experiments and altered infrastructures of building, but these were two issues that interested Mies only slightly. As other architects embraced the social project of modernism, Mies went ever further into the new conceptual and constructional terrain that he firmly believed would be decisive for the new architecture. The chapter tracks these investigations, and their overlap with the media that most interested the architect.

The third chapter, "The Werkbund and Photographic Propaganda: Barcelona 1929," turns to the architectural photographs of Mies's work. As part of understanding the historical context in which the images first circulated, the chapter

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<sup>3</sup> For historical context on Benjamin's use of the term 'aura,' in an essay that also illustrates the historicity of Benjamin's writings, see Werner Fulda, "Die Aura: Zur Geschichte eines Begriffes bei Benjamin," *Akzente* 26 (1979): 352-70.

goes into some depth discussing the culture policies of various elements of the Weimar government, most notably the German Werkbund (DWB). The chapter considers the role of photographs as propaganda material promoted not just by their architect, but by government or quasi-governmental authorities as well. It is based on the understanding that new methods of media dissemination and culture propaganda were developed in the Weimar years, and then used further, for rather different ends, by the National Socialists—and that therefore the years after 1933 provide valuable clues about the kinds of practices established in the previous decades.

In the discussion of the Barcelona Pavilion and its images in this chapter, the importance of the photographs and the propaganda campaign that was structured around them is evident, in that the photographs were naturally more flexible and transportable than the building. In addition, certain ideas about the Pavilion's architecture were advanced through photography, ideas that might never have been sustained by the building, especially after 1933. The chapter also notes that this was a widespread practice in interwar modernism, when the new realities architects sought could often be realized in construction only imperfectly, but could be compellingly signalled through photographs. This was critical for the Pavilion and for later historiography that maintained its centrality as one of the most important modern buildings ever built. But the argument is made that it was commonplace for photographs of buildings to carry the message of modernism to an architectural public more successfully than the buildings they depicted, a contention backed up by much recent scholarship. The discussion here adds to that scholarship by elaborating the workings of this model of photographic propaganda, and clarifying the ways in which technical aspects of photography were so important to its functionality.

The discussion in Chapter Four, "Image and Utopia at the Tugendhat House," moves more fully into the realm of photography, to define what transformations were enacted in the shift from building to image, as precisely as possible. Reviewing the obvious differences between image and building reveals certain surprises—such as the realisation that the geometrical distortions generally introduced into the virtual space of the photograph by lens and camera selection have a direct impact on how architecture's geometrical 'reality' is understood through those images. The chapter locates the photographers of the Tugendhat House in relation to their Wilhelmine and Weimar roots, also situating them as closely as possible to contemporary photographic and aesthetic debates. The chapter contends that the spatial qualities depicted in the photographs of the house are powerful precisely because they portray an abstract, utopic modern space through the most apparently accessible of means. The marriage of modern painterly abstraction and modern architecture was made within the sanctuary provided by photography.

The final chapter, "Variants of Modern Abstraction," discusses one of the most important effects of architectural photography in modernism, an effect whose discussion is laced through the dissertation in all chapters, but that required a fuller concluding treatment of its own. It is a central thesis of the dissertation that photographs helped introduce a particular set of ideas about modernist abstraction into architecture, and that these ideas owed a great deal to other modes of two-dimensional abstraction. It further maintains that, thanks to developments of modernist art historical scholarship, much of our understanding of theoretical concepts in architecture (like abstraction) owe as much or more to the history of painting, as to discussions taking place within architecture itself. The chapter follows these leads, concluding that architectural abstraction has long been understood in relation to architectural photographs, particularly Mies's

photographs. The conclusion ends by pointing out significant differences in the way that architecture might (and did) explore a concept like abstraction (as it came out of Russian debates in a number of cultural fields), and how this differed from the photographic abstraction depicted in photographs of architecture. The dissertation ends by noting that no qualitative judgment need be implied—that pictures and buildings are both compelling objects, and that understanding the differences between them only increases our understanding of modern architecture, and adds to our ability to take productive advantage of those differences in future work.

### **In pursuit of a methodology: images of architecture and spatial uncertainty**

Three separate grounds introduce the subject in this introductory chapter. On the first, distinctions between photographs of architecture and reproductions of more or less 'two-dimensional' works of art—easel and wall painting, and graphic art—are briefly noted. On the second, photography's effect on architecture is sketched out in an analysis of the relay-effect invoked in distancing something that is implicitly concrete and habitable—precisely the transformation enacted by the architectural photograph on the architecture it depicts. On this second field, the surface of the photograph is interpreted as a partial trace of the object, and not a 'reproduction' in Benjamin's definition of the term at all.<sup>4</sup> On the third ground of this introductory discussion, one particular dynamic between audience and modern architecture is understood to be put in play through the medium of the architectural photograph. The fantastical appropriation by the many of something often generated only for the few, and the transformations that accompany (and are inherent to) that appropriation, constitute another hidden dynamic of the medium—

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<sup>4</sup> For an interesting discussion of Benjamin's Weimar context, see Frederic J. Schwartz, "The Eye of the Expert: Walter Benjamin and the avant-garde," *Art History* 24 (June 2001), 3: 401-444.

a relay-effect of the audience (subject) rather than the object. The chapter summarizes and condenses the themes that will be developed in subsequent chapters of the dissertation as a whole, and outlines the methodology used in conducting this research.

Recent art historical discussions suggest that reproductions of works of art constitute an insufficiently explored problematic for art history.<sup>5</sup> If indeed this is the case for works executed in two dimensions, it is important to distinguish a related but different problematic in three dimensions, as concerns architectural and sculptural objects, as in the case of the Pergamon museum images introduced briefly above. When we further take into account the embodied viewer—when the three-dimensional object wraps around us, not just confronting us in space, but itself containing space, the features of the problem change again. Struth's images best illustrate this point, since they show an architectural object in space (the altar) also enclosed in an architectural space (the museum itself).

To state an obvious point, looking at photographs of buildings standing on their site is not analogous to looking at photographs of paintings; and looking at photographs of interior spaces is different yet again. Both cases (where the image depicts either objects standing in space, objects enveloping space, or a third case combining the two) require a translation in two or more senses: first, translation from one medium to another (marble, steel, and glass to emulsion on paper); and second, a flattening from many surfaces to one surface, in which the space between things is in fact eliminated but often also virtually expanded (and always

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<sup>5</sup> There are numerous gauges of this new interest. Most recently, the 2004 conference of the Comité International d'Histoire d'Art (CIHA) in Montreal included sessions on "Art History and the Reproducible Image" and "Representing Space," both of which emphasized the role of the two-dimensional image in art historical study. For an early manifestation, see the *Festschrift* for Richard Hamann, *Marburger Jahrbuch für Kunstwissenschaft* 20 (1981).

destabilized by the variability of photographic technology). The parallelism of André Malraux's "museum without walls," where reproductions of paintings and drawings mimic the image surface of the originals, is replaced by unruly space—not measurable, quantifiable space, but deceptive, unquantifiable, perspectival and photographic space, where the features of the object are magically stretched or condensed, according to the photographer's intention. And just as Struth's Pergamon pictures project a kind of semantic indeterminacy, so do more conventional images of architecture leave the viewer searching for methodological aids—lifesavers in the sea of spatially open-ended images. A technique that works so apparently seamlessly for the representation of images of two-dimensional work is far less suited to the representation of three, and demands new functional markers, or a new set of viewing habits.<sup>6</sup>

The methodological problem involved in analyzing architectural photography stems partly from the ambiguities of the term 'mechanical reproduction,' as invoked and then defined by Walter Benjamin.<sup>7</sup> In fact, mechanical reproduction altered architectural history and practice as fully as it did other cultural practices, but in ways that are particular to the discipline of architecture, and that have been inadequately explored over time. The operations of 'mechanical reproductions' in Benjamin's famous 1936 essay generally presume that the object of attention—photograph, film, painting, or graphic work—is most directly experienced visually. But for architecture, visual attention is only one of a range of bodily effects, all of

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<sup>6</sup> The 'seamlessness' of two-dimensional representation has recently come under increasing question itself, as historians examine the difference made by altered viewing contexts. I refer here only to a different order of problem, the one characteristic of three-dimensional representation.

<sup>7</sup> Walter Benjamin, "Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit," in *Gesammelte Schriften*, H. Schweppenhäuser and R. Tiedemann, eds. Vol. I (2) (Frankfurt: Suhrkamp, 1974) 471-508, reprinted in *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* (Frankfurt: Suhrkamp, 1977), 7-44.

which define spatial experience and frustrate its representation. Benjamin himself noted this difference, suggesting that architectural experience might be understood as 'distracted.' Distraction was produced by a combination of factors. One of these is the inability of the eye to 'capture' architecture with a single glance; another is the use-value of buildings, the fact of their often secondary identity as objects of art or culture. These ought, following Benjamin's argument, to constitute a model for mass culture consumption. And yet, in Benjamin's view, this only meant that habits of distracted perception ought rightly to subsume not only the terrain of daily life among the objects of the city, but also the perception of so-called 'works of art', themselves fundamentally altered by their multi-copy status. The implication of this argument is that such a form of perception constitutes a 'naturalization,' or an absorption of art into daily life—an integration of art and life such as the 1920s avant-gardes sought all along.<sup>8</sup> I would also suggest that Benjamin's architectural 'distraction' could be reformulated as multi-sensory experience—experience characterized by something other than visual hegemony. Vision may be distracted in the contemplation of architecture, but that has a great deal to do with the demands placed on other senses by the experience and occupation of buildings.<sup>9</sup>

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<sup>8</sup> This is, perhaps paradoxically, precisely the opposite notion of absorption as that adopted by Michael Fried, and indeed the whole critical array buttressing notions of abstraction as autonomous visual experience in post-World War II America. In Fried's usage, absorption constitutes a kind of visual hegemony, where the optical demands of painting drive out other perceptual data in a sort of climactic visual experience. See Michael Fried, *Absorption and Theatricality: Painting and Beholder in the Age of Diderot* (Berkeley: University of California Press, 1980).

<sup>9</sup> For an early discussion of related issues, see James Marston Fitch, "Single Point Perspective," *Architectural Forum* (March 1974), 89. For a survey of the critical issues involved in an analysis of architectural photography, see Rosemarie Haag Bletter, "Representing Architecture: The Drawing and the Photograph," *Architecture California* 14: 1 (May 1992), 6-11, and Donald Preziosi, "Picturing the City," *Architecture California* 14:1 (May 1992)38-42.

Photographic images of two-dimensional works of art are not to be exempted from critical examination. All kinds of representations perform critically important transformations on their subject. But unlike the simulacra of photographic images of paintings, architectural images signify in a different way: they substitute image(s) for object, launching the chain of transformation that goes by the name of metonymy. Roman Jakobson's formulation of this term, developed in his analysis of modern literature, provides a close parallel for photographs of architecture. Jakobson contrasts metaphor and metonym, describing metonymy thus: "In a poetic world governed by metonymy the outlines of things are blurred and the various aspects of one single object turn into independent objects in their own right." The photographs of modern buildings that became most recognizable in the descriptions of particular buildings all have this quality of independence from, yet representation of, the object they depict. Jakobson goes on to note: "The tendency to make the sign independent of the object....., is the guiding principle of the whole of modern art, which arose as the antithesis of naturalism. It is inseparable from the pioneering endeavor of this art and does not depend on the biographical features of the individual practitioners."<sup>10</sup> Just such a claim would seem to hold for architectural photographs as signs 'independent of the object' they represent.

While I don't wish to build an entire semiotic system for architectural photography from Jakobson's formulation, nevertheless this particular construction—metonymy as a form of semiosis that relies on the contextual substitution of contiguous or adjacent forms of an object—is particularly helpful in the current case, since it helps explain the simultaneous closeness and distance of

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<sup>10</sup> See Roman Jakobson, "The Contours of *The Safe Conduct*," in L. Matejka and I.R. Titunik (eds.), *Semiotics of Art: Prague School Contributions* (Cambridge, Ma.: MIT Press, 1976), 195 (original Czech version published 1935), 188-196; R. Jakobson and M. Halle, *The Fundamentals of Language* (The Hague: Mouton and Co., 1956).

the photograph from the object it represents. It is, in my view, a more accurate critical marker than that provided by synecdoche, which is often assumed to operate in the perception of the architectural photograph. The notion that an architectural photograph represents a small part of a larger whole is the central misleading assumption that plagues studies of this medium. It may be smaller than a building, but a photograph will never constitute a part of a piece of architecture. Thus critics who suggest a kind of knitting together of multiple photographic views for an accurate record of a building are merely compounding the error of presupposing that a single photograph can 'document' a building. Rather, the 'contiguity,' or simultaneous distance and proximity provided by the concept of metonymy is explored here through the twofold condition noted above: the transformation of that which is concrete into something distant and unreachable (referred to above as the 'relay-effect' of the architectural photograph); and the dissemination of that transformed ephemerality over the widest possible ground—where often enough the physical property of the few at least appears to become the cultural property of the many. These are the latter two grounds of the current discussion.

A study that targets mechanical reproducibility in architecture should perhaps address the many thorny historical and theoretical issues that surround the engineering of prefabricated building—i.e., the issues that surround mass production on the level of construction itself, rather than image production. But the question of mechanical reproduction and architecture has generally been addressed to the mechanical reproduction of images, not the mechanical reproduction of building components. Why is this the case? This apparent conflation—of industrialized building with mechanical image reproduction—is directly related to

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the problems outlined here. Not only were the majority of modern architects apparently more comfortable addressing the latter (image reproduction) than the former (prefabricated building), but architectural historians vastly compounded this preference by the way in which twentieth-century architectural history was written. I will return to these issues below.<sup>11</sup>

When dealing with the problem of the mass reproduction of *images* of architecture, the first task is to recombine techniques from art and architectural history, to uncouple less useful disciplinary conventions, and then to poach as necessary from the techniques deployed by art history in the analysis of two-dimensional images. This procedure is developed in the following chapters, requiring close reading of buildings *and* images. These analyses are separated as much as possible into discrete chapters—not for the sake of maintaining separation between two practices that have been closely intertwined, but to begin to undo the tangle that accompanies their intertwining. The final chapter brings the separate threads of the dissertation together, in a discussion of just how the entanglements between photographs and buildings have affected the study and practice of architecture in the twentieth century, specifically through the example of Ludwig Mies van der Rohe's Weimar projects read in close relation to their artistic context.<sup>12</sup>

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<sup>11</sup> In fact, many German architects investigated industrialized building in the first quarter of the twentieth century; many went on doing so during the National Socialist years and after the end of the War. But their history, when it has been written, has been configured as a series of failures, thanks either to technological shortcomings, or to the failures of economic infrastructures, or to ideological taint. Most prefabricated building was built behind the 'Iron Curtain.' Meanwhile, industrialization has moved quietly through the building industry, with little theoretical or critical fanfare. Thus the subject of this dissertation leads into a history of prefabrication in modernism. For an interesting treatment of the failures of Walter Gropius's significant work in pre-fabrication, see Gilbert Herbert, *The Dream of the Factory-made House: Walter Gropius and Konrad Wachsmann*. Cambridge, Mass.: MIT Press, 1984.

<sup>12</sup> A separate project might attempt a pendant study with a greater emphasis on how architecture has affected the practice of photography. For this, a consideration of all sorts of photographs of buildings would be important, from documentary and commercial images to art photographs, to journalism.

In addition to analyzing the effect of mass reproduction of images of architecture on the continuing development of architectural practice through their media dissemination, this study also analyzes interactions between photography and architecture at the level of building design and construction. The effect of photography, and indeed film as well, on the consciousness of Weimar architects can readily be detected in buildings themselves. This is particularly true in the work of Mies. One can trace the effect of contemporary developments in photography and film at both the Tugendhat House and the Barcelona Pavilion, a claim that is elaborated and discussed in detail in Chapter Two.

The means of dissemination and communication (almost always photography rather than film) also had a significant effect on the practice of architecture and the writing of architectural history in the Weimar years and after. This double claim structures the discussion of the Barcelona Pavilion and its photographs in Chapter Three, and of the Tugendhat House and its images in Chapter Four. For European-influenced audiences, both buildings were tragically heroized by the events of the twelve years after 1933, when modernism died a premature death on German and (later) German-occupied soil. Then, in the years after 1945, the same images helped mark a point of resumption, a course correction that might lead to the further development of progressive modernism. This course correction, however, resumed at a different point from where it had left off, in more than just a chronological sense: much of the post-War discourse on modern architecture took place in the United States, partly thanks to the relocation of architects like Mies, Gropius, Breuer, Mendelsohn, and others, and their concurrent promotion to positions of power within American academe.

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In this new, post-War modernism, the effect of the medium of information transmission registers itself in the subtly-altered conception of Weimar modernism that proliferated at this time—in line with the radically altered post-war cultural landscape that developed in the 1950s and 1960s. The Weimar past represented a heroic resistance, *avant la lettre*, to the cultural recidivism that followed it. It embodied an ideal set of formal values for post-war modernism to endorse in the wake of fascist suppression, and from the safe distance of American corporatism. Many of these formal values were wordlessly summed up in photographs that depicted an abstracted modern language of architecture that was easier to build after the war than it had been before, thanks to the significant advances in industrial methods that came out of the war years. Of the many kinds of issues left out of this picture, the considerable investment of Weimar architects in social issues, and in mass housing, is conspicuous. Equally absent are the many historical connections to nineteenth-century architecture and aesthetic theory, also not registered in pictures. In fact, other than highly visible formal similarities in architectural language, there was no way for post-War architects to resume a course (Weimar and inter-War modernism) that belonged to a different space and time—one whose transmission to the audiences of the 1950s and 60s rested so fully on the disembodied, abstracted modes of photographic and textual transmission of architectural information. This ad hoc 'new beginning' is discussed in the closing chapter of the dissertation, where photographic representation as incorporated into the heart of post-war architectural discourse is discussed, at least for a particular subset of the field.

## **Architectural abstraction and relay-effects of architectural photography**

The photographs taken of Ludwig Mies van der Rohe's German projects in the years around 1929 are some of the most famous images of modern architecture, and have resonated in histories of modernism for 75 years. In two important cases—the Tugendhat House of 1928-30 and the Barcelona Pavilion of 1928-29<sup>13</sup>—the photographs stood in for the buildings, in a metonymic sense, for over fifty years. The photographs represented the buildings by substituting well-composed black-and-white pictures of an object for the object itself. Fifty years of nonexistence or inaccessibility (for the Pavilion, a result of the dismantling of the original building in early 1930; in the case of the Tugendhat House, due to events connected to the 1938 invasion of Czechoslovakia) are relevant to this study. It was as a result of historical developments that the fame of both buildings came to rest almost entirely on their documents. The recent rediscovery of both buildings (through reconstruction and restoration) provides an excellent opportunity to test theories about photographic images against newly-re-constituted buildings.

A correlation between the fame of the Barcelona Pavilion, for example, and the very fact of its purely photographic existence can be clarified and made more precise. Did the photographs contribute to the building's notoriety? Yes, without doubt: if they did not initially create it, they certainly transformed and sustained it. Was this effect supplemented by the lack of a building standing in place in Barcelona? Yes. This might partly be explained in relation to the fact that the disappearance of the building was soon followed by the disappearance of the regime that created it. When the Weimar Republic disappeared under the banner of

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<sup>13</sup> The official name of this building is the Pavilion of German Representation. Sometimes it is referred to as "The German Pavilion at Barcelona." I prefer the most frequently-used, familiar term. The building will never be known, colloquially, as anything other than "The Barcelona Pavilion."

National Socialism in 1933, it took with it hopes for a socially progressive, culturally radical new society—hopes that were dying on the vine in the Soviet Union at approximately the same time. The Barcelona Pavilion was consciously framed as a physical representation of Weimar Germany's re-entry into a world community through post-World War I economic recovery and cultural progressivism. Its demise was closely followed by the collapse of the regime that created it, along with many of the dreams enshrined by that regime.

But the life of the Pavilion encompassed more than just political awareness on the part of a German audience. The building was part of the international modern movement from its construction in 1929 onwards. In that context, the lack of an original for these particular photographs enshrined the mortal body of the building in immortal representation. This is not exactly mechanical reproduction as Benjamin described it in 1936—as the vehicle by which the cult status of works of art would be destroyed, replaced by the equivalency of multiple 'originals,' all rendered equivalent by virtue of their status as reproductions. The canonical identity of the Barcelona Pavilion indicates rather an opposite condition; it provides testimony that Benjamin's optimistic construction—that images would create a democratic art in which photography might eliminate the ritual worship of objects—depicted his hopes for culture production, founded on a deep-seated belief in social equity—as much as any contemporary reality.<sup>14</sup> The 'cult status' of the Barcelona Pavilion was not only enhanced but initially created by its representations, and further enhanced by a nostalgia of loss. While this is not always the case for buildings whose photographs circulate widely in the press, nevertheless the mechanism operates similarly in other cases, if less dramatically. Mechanical

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<sup>14</sup> See Schwartz, "The Eye of the Expert," for corroboration of this argument.

reproduction in architecture, it will be shown, was initially as much a force against change, as a force that promoted it.

Although other cases are not perhaps so dramatic, nevertheless the mechanism by which photography promoted the cult status of buildings is widespread for images of architecture. The black-and-white photographs of European modern architecture mythologized their subject in its newly-constructed, mostly unused state. They did so particularly well within the overall project of international modernism, which, in addition to emphasizing the importance of the private house commission, also relied heavily on photography and print media to publicize inaccessible spaces and aid in the broadest possible circulation of ideas. The absence of duration and movement in the experience of buildings led instead to the creation of a new entity—a specifically photographic architecture, in which single (and singular) images of concrete things dominate our consciousness, and only notionally function as different depictions of a single constructed body. This photographic architecture functions differently from constructed architecture, in that its reception follows a different regimen: the viewing regimen of the visual arts. What it presents of architecture is abstraction, stripped of color, of three dimensions, and often, of people. As visual abstraction gradually grew into an ever more important component of twentieth-century artistic production, the photographic abstraction of pictures of modern architecture became more important to formulations of architectural abstraction circulating throughout the field. The final chapter of this study explores architectural abstraction in modernism, defining the mode of abstraction relayed through photography as clearly distinct from an allied form of abstract experience within building design and architecture. The chapter concludes that photographically-represented architectural abstraction concealed some of the contradictions of creating abstraction for

architecture that have had a significant influence on architectural problematics today.

Investigations of forms of architectural abstraction (if by other names) in the Weimar years had tested the limits of spatial utopianism through the use of distinct spatial rhythms, color, texture, optical illusion, sound, even temperature variation. Weimar abstraction for architecture was a distinctly embodied investigation (as Chapter Two illustrates). In the post-War years, by contrast, renewed explorations of architectural abstraction emerged instead from the very means of transmission themselves, resting more on the pursuit of a self-contained architectural language (as in the Case Study House experiments, and in the work of the so-called 'New York Five') and the elusive search for artistic autonomy. This investigation was not unrelated to the simultaneous developments of Abstract Expression and Minimalism in American painting. The notion of abstraction pursued by American late modernists was bound up in a full correlation of the conceptual and the visual, with notions of architectural autonomy being derived indirectly from a kind of visual code we associate with two-dimensional work. Thus Peter Eisenman's *House II* of 1969 is a self-described 'cardboard house,' as published in the famous 1972 exhibition catalogue, *Five Architects* (fig. 0.7).<sup>15</sup> The photographs of this house—literally a *process* of abstraction revisited in construction—outfox the fox, so to speak: they make the Tugendhat House (fig. 0.8) appear hopelessly grounded in real space and time, even as they deploy the grainy black-and-white film of evidentiary journalistic photography in their own construction of a credibly inhabitable abstract landscape.

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<sup>15</sup> *Five Architects: Eisenman, Graves, Gwathmey, Hejduk, Meier* (New York: Wittenborn and Museum of Modern Art, 1972).

In the post-war period, the two most familiar raking three-quarter views of the Barcelona Pavilion (figs. 0.9, 0.10) became synonymous with the heroic phase of Weimar progressive modernism, the earlier career of the building's famous author, and the formal values sought after in late modernism (leaving behind the specifics of their Weimar context). In the larger group of photographs that illustrate this building, compositional decisions seemingly took precedence over the registration of architectural information, simply by virtue of medium deployed. Photography is not ideally suited to perform a full-body description of architecture—constraints on publication alone limit the possibility of encyclopedic or all-inclusive depiction. Instead, the pictures function beautifully as pictures, for the most part. They helped create an image of Weimar modernism that projected a certain set of desires for modern architecture, irrespective of its built reality. These desires sprang from the utopian modernism of the visual arts, photography and architecture included, and from the formalist photographic experimentation of avant-gardists and earlier pictorialists alike. But the photographs of the Barcelona Pavilion, a project of the Weimar government, also register the effect of photography as implement of public propaganda.

The technique of physically extending or enlarging the appearance of something illusionistically was a common technique of photographic propaganda on both right or left. Soviet photo-muralists and National Socialist graphic designers both used photographic extension and duplication to accomplish their propaganda goals, in murals, posters, and exhibition designs. By contrast, the technique of extension is used in only a limited fashion in architectural photography, and for specific pictorial goals. The technique appears in the Pavilion photographs, for example, in the regular use of the wide-angle lens, a common tool of Weimar architectural photography. In addition, the Pavilion has nearly always been understood as a modern object of machine production—a building of trim lines,

precisely-cut surfaces, factory-made steel. It has generally been understood, both in its conceptual design (as a kit of parts) and its fabrication, as an industrialized building. In fact, the Pavilion was a prototype—a 'handmade readymade' for architecture. It was handcrafted, on the spot, under conditions of extreme temporal, technical, and financial stress: it was improvised, combining traditional brick arch foundations and bolted steel elements. And its demolition after six months was almost undoubtedly a function of its dramatic built-in obsolescence, its inevitable failure as a functioning piece of architecture capable of shedding water and holding up its own roof. This claim is detailed and defended in Chapter Three.

The Pavilion photographs cannot, however, be simply subsumed under the category of propaganda. They also function as beautifully-composed photographs. This fact registers the talent of the photographer, and the influence of the two architects responsible. These were Mies and Lilly Reich, whose joint role in the creation of the photographs was limited to giving verbal directions before the fact (they were not on site when the photographs were taken) and selecting a given set of views for wider dissemination after the fact. Their selection of views left a set of compelling images operating on a field of deferral, on the distancing of what was implicitly to have been experienced as concrete. These representations stand in for a missing original—and they succinctly describe a condition that almost always pertains for such images, whether the original exists or not.

Under particular circumstances, one might be tempted to argue that photography operates on a principle of maximum exposure. But this is certainly not generally the case, and particularly not for architectural photographs, which operate on the principle of limited visibility of a precious original. One cannot see all—a fact that further dramatizes the play between visual experience and cognitive projection in their reception. Buildings like the Barcelona Pavilion and the

Tugendhat House are only ever partially visible through their photographic representation—not unlike a veiled icon, or a precious object to which access is not easily granted. Glimpses of the object prevail over full visual or experiential description. This effect—of showing only part of the object—also increases over time, as the pool of published images gradually shrinks through repeated publication and as a result of increasingly wide dissemination in broad treatments of the subject. In the case of the Tugendhat House, for example, the largest pool of published images was contained in the first publication of the building in 1931; the pool shrank ever after from this initial group of sixteen, culminating in single or double views in the survey publications of the 1980s.

Those things which remain hidden in the architectural photograph—not only features of the architecture itself, but also conditions of its construction and siting, still linger like powerful hidden presences—absences that nevertheless leave traces—in the reception of the photographic image. These evident absences are in play with the spatial uncertainty described at the beginning of this introduction—that created, in this case, partly by the wide-angle lens and its persuasive distortions, partly by the mere fact of being photographed at all. Absence and indeterminacy may be the hallmarks, the most consistent defining features, of the practice of architectural photography.

### **Architecture and facture: the mass production of buildings**

We might now turn briefly to the question of mass production and reproduction. The heavy dependence of modern architecture on media culture has been described by many. At the same time, the extreme lack of theorization of strategies of mass production in architecture—that is, in the serial construction of buildings themselves—is notable. Even as techniques of mass production and

prefabrication have embedded themselves ever more firmly in the production of all sorts of buildings, architect-designed and otherwise, the concurrent theorization of prefabrication by architectural critics and historians has not been a popular subject. But if industrialized processes are indeed important to contemporary architecture, why has so much of architecture culture had such a problem with the conceptual foundations of mass production? Why does pre-fabrication remain a wholly unwelcome guest at the table of architectural history, and what is its relationship to the mass reproduction of images? These questions, seemingly peripheral to a discussion of architectural photography in the modern period, are in fact central to this study. A brief consideration of building production shows why.

As noted above, the Barcelona Pavilion was site-built and handcrafted. It was very low-tech. As the advance guard of a new way of building, it had to look high-tech; and this was a need that it shared with many other modern buildings in the Weimar years. Many of the buildings at the experimental Weissenhofsiedlung in Stuttgart, for example, were similar. They were handcrafted buildings designed as prototypes for an industrialized architecture—or at the least, a modern architecture that was meant to *look* industrialized. This was the stated intention of the architects and administrators who were responsible for Weissenhof, as articulated by its artistic director (Ludwig Mies van der Rohe), and described by the publicist-designer Werner Gräff: "...the building contractors had to work with new, sometimes wholly unfamiliar materials, construction techniques, and methods, since the experimental settlement gave itself the primary task of applying and testing new means."<sup>16</sup> Since technologies of mass-production in architecture were

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<sup>16</sup> "...die Bauunternehmer hatten mit den neuen, zum Teil noch ganz ungewohnten Materialien, Konstruktionen und Methoden zu arbeiten, denn die Versuchssiedlung machte sich in erster Linie auch die Anwendung und Erprobung neuer Mittel zur Aufgabe." See Werner Gräff, "Zur Stuttgarter Weißenhofsiedlung," *Bau und Wohnung* (Stuttgart: Akad. Verlag Dr. Fr. Wedekind & Co., 1927), 9.

not yet fully 'on-line,' as Ernst May's housing experiments at Weissenhof <sup>17</sup> and the numerous problems with the Törten-Siedlung at Dessau also show, architects had to preemptively project conditions of modern production onto architecture. More important is the fact that only right-wing opponents of Weimar architecture cared about this technical shortcoming. It seemed a matter of little concern to progressive architects whether available technical competencies had caught up with conceptual discoveries. This was especially the case because a large percentage of architecture's audience was not looking only at buildings; it was looking, as well and instead, at photographs. And we might note that the photographer of the Pavilion, Wilhelm Niemann, was (or became) especially adept at simulating one condition in place of another, as discussed in Chapter Three. As architecture's propaganda war heated up after 1927, photography was its not so secret weapon, for both right and left.

But paradoxically, it was precisely through this mechanism that photography ultimately helped insulate architecture from procedural change. The appearance of technological advance was often accompanied by the refusal of structural or infrastructural change on the part of the building industry—itsself even more conservative than the architectural profession. New technical competencies were required in the construction of flat roofs (a major battlefield in the ideological wars of modernism)<sup>18</sup>, but little or no widespread reorganization of how things were built accompanied May's, Gropius's, and Hannes Meyer's efforts to devise precisely these new infrastructures of building. Most buildings instead retained their identity as

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<sup>17</sup> Also see in this connection, Ernst May, *Die Frankfurter Wohnungspolitik* (Frankfurt a.M.: Internationaler Verband für Wohnungswesen, 1929). Secondary literature on May includes Justus Bükschmitt, *Ernst May* (Stuttgart: A. Kock, 1963); R. Höpfner and V. Fischer, *Ernst May und das Neue Frankfurt* (Berlin: Ernst Verlag, 1986); D.W. Dreyse, *May-Siedlungen* (Frankfurt a.M.: Fricke, 1988).

one-offs, as objects of craftsmanship, precisely because their widespread dissemination in the media was assured, and because the disseminated image turned an ersatz 'handmade readymade' into an apparently fully industrialized building. Architecture entered the world of mass production through its mass reproduction. In this important phase of modern architecture's history, photography and the media that supported its appearance ultimately protected architecture from certain realities of modern industrialization. They allowed architecture to remain what it had been for a long time, and yet to take part in the conceptual modernization so critical to the late-1920s cultural imagination, which might be best subsumed under the term 'media mass culture'. An art discipline and profession peopled by masters and disciples, stamped by the genius of the artist, marked by the ingeniousness of the site-built structure and handcrafted detail, dominated by the magic of skilled workmanship under the watchful direction of the master, architecture—Miesian architecture most of all—nevertheless appeared in the guise of the utterly modern.

### **Summary**

To summarize the argument made here and in the following pages: I have first argued for a separation of reproducible images, where architecture presents a set of problems that have little in common with the problems of the reproducible image for two-dimensional work. Where images reproduce an entire field for two-dimensional work (the ground of the image), they operate on the principle of partial revelation for the description of architecture. This partial revelation, or alternately, this veiling, helps place the represented building in the terrain of the cult object, as defined by Benjamin. It also destabilizes the object it depicts by

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<sup>18</sup> See Richard Pommer, "The Flat Roof: A Modernist Controversy in Germany," *Art Journal* 43 (1983): 158-169; Christian Otto, "Modern Environment and Historical Continuity: The

injecting spatial (and dimensional) uncertainty into images of buildings, providing a metonymically transformed image in place of the simulacrum of a two-dimensional representation of a two-dimensional original.

Furthermore, of the many things concealed by the architectural photograph, the concealment of the means of production of the architectural object is of primary significance. Concomitantly, relationships between constructional means and larger social issues are similarly concealed. The chief relationship here is that between architecture and mass production—between architecture and fully industrialized building production. Through the helping hand extended by photography and print media, architecture initially maintained itself as a practice free from the constraints of modern industrialization in fact, if not in appearance, until well after the Second World War, at which point the dynamic between infrastructural change and architectural form became highly politicized.

In these two ways—in the de facto concealment of the object from view, and the concealment of its modes of engagement with contemporary culture—the photograph managed to maintain conventions of viewing architecture that are easy to affiliate on the one hand with utopian longing, and on the other with traditional, pre-modern practices, even though the technical means that made this fantastical deferral possible were themselves perhaps resolutely modern. The tension between the distancing effect of the architectural photograph and its widespread dissemination over the broadest possible field disengaged it from its host, freeing representations of architecture from their status as representations, and sending them floating freely over the surface of the globe as ghostly apparitions of an imagined, imaginable, and unbuildable abstraction.

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Heimatschutz Discourse in Germany," *Art Journal* 43 (1983):148-157.

## CHAPTER ONE

### TRANSACTIONS BETWEEN PHOTOGRAPHY AND ARCHITECTURAL HISTORY

The history of art is a game. He who wins is the one with the most photographs.<sup>1</sup>

How are we to understand the ways in which the form that transmits a text to its readers or hearers constrains the production of meaning?<sup>2</sup>

#### Argument

A re-worked 1927 image of Mies's apartment building at the Weissenhofsiedlung in Stuttgart shows blue sky, windows overlaid with a film of reflective queasy yellow, and foreground smoothly screened in a celery-green tone unknown to organic matter generally and to grass specifically. The image, one of a series well known to students of architecture and the history of art, has been defamiliarized by a cloak of newly-applied color, strangely re-cast by the contemporary photographer Thomas Ruff (fig. 1.1). But Ruff's 'falsifications' to this image are of course no more artificial and hardly less arbitrary than the image itself, or one of its mates (fig. 1.2). Taken immediately prior to the opening of the exhibition, the 'original' photograph shows us (even in its pre-Ruff form) a white building against a bright sky full of fluffy white clouds. It turns architecture into image, and gives us opening day, just after construction, as a benchmark and a measure of the building's value for the next seventy years. The Ruff photograph is one of a group of photographs, in which the artist used Mies's buildings and their pictures as the subjects of two distinct but

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<sup>1</sup> Horst Bredekamp paraphrasing Bernard Berenson, Conference Session "Art History and the Reproducible Image," CIHA Conference Montreal, August 2004.

<sup>2</sup> Roger Chartier, *Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer*, (Philadelphia: University of Pennsylvania Press, 1995), 1.

allied photographic projects.<sup>3</sup> The digital manipulations of these images partly assert, and partly question, the importance of authorship and the iconicity of images seen so frequently that they become, in effect, nearly invisible. Ruff's manipulations of old archival images, all of which had been frequently published over a period of many years (Ruff only selected well-known, iconic views) remind us of the critical role photographs play in the writing of history—not as adjunct to text, but as floating independently of the writings they also illustrate, authoring a photographic account that tells a story not available through the written word.

In a survey of the historiography encircling a study of Mies and photography, the photographs themselves constitute the first historiographical 'text,' one only partly coincident with any of the written texts that accompanied their repeated publication. Like other kinds of sources, these images have been used to say different things at different times, nudged by the authors that deployed them, while consistently projecting certain visual features that have been subject to varying interpretations.<sup>4</sup> This historiographical effect is perhaps the hardest for a scholar to track, precisely because photographs float so freely in and out of changing historical interpretations. In the current study, my principal aim is to recapture some of the meanings attached to these architectural photographs when they were made and first seen. This then constitutes a foundation for the historical calculus required to track their rapidly changing meanings over the seventy intervening years.

Other important historiographical influences for this thesis include the rapidly expanding bibliography on Mies's work, generally limited to work that adds new

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<sup>3</sup> In one group of photographs, Ruff has used 'original' images as the subject of a digital manipulation. The other group consists of new photographs of Mies's buildings taken by Ruff, and then generally subject to further digital treatment. See the Ruff images included in T. Riley and B. Bergdoll, *Mies in Berlin* (New York: Museum of Modern Art, 2001).

<sup>4</sup> For an early effort to track these changing interpretations of Mies's work, see Juan Pablo Bonta, *Architecture and its interpretation* (New York: Rizzoli, 1979).

information and analysis to the themes dwelt on at most length here. It also includes work on mass media, and photography in particular, in relation to Mies's architecture and to modern architecture before the Second World War, and also in relation to art history and visual studies more generally. Equally important from the standpoint of Mies scholarship is the newly-acknowledged importance of context and sensory or experiential value in an appreciation of his work. Context emerged as a consistently important theme in the research for this thesis, since photography, by definition, substitutes one context (pictorial and textual) for another (physical), while at times seeming to elide this most important act. Thus a variety of writers whose task requires the recreation of original 'reading contexts' has also been important to the methodology of this project. Although there is a current trend towards the revival of phenomenology for architectural history (specifically of modernism), I would locate this project rather in relation to writing that seeks to understand the effect of modes of transmission on cultural material itself, and that defines communities of readers as active participants in the continuous writing of history.<sup>5</sup>

### **Photographs as historiographical record**

The first historiographical questions in this study are posed by the images themselves. If, as many have argued already, photographs 'write' history along with words, then the sources of the photographs of modernism emerge as important

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<sup>5</sup> For analyses of the effect of modes of transmission in architecture, see Robin Evans, *Translations from Drawing to Building and other Essays* (Cambridge, Mass.: MIT Press, 1997) and *idem, The Projective Cast: Architecture and its Three Geometries* (Cambridge, Mass.: MIT Press, 1995). Important work on similar topics in other fields includes: Anthony Grafton, *Bring Out Your Dead: the Past as Revelation* (Cambridge, Mass.: Harvard University Press, 2001); Lisa Jardine and Anthony Grafton, "'Studied for Action': How Gabriel Harvey Read his Livy," *Past and Present* 129 (November 1990): 30-78; Roger Chartier, *Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer* (Philadelphia: University of Pennsylvania Press, 1995); *idem, The Order of Books*; D.F. McKenzie, *Bibliography and the Sociology of Texts* (London: The British Library, 1986).

historiographical facts. Not *authored* by Mies himself, the pictures that make up the focus of this study were instead *authorised* by the architect for repeated publication and dissemination—and the difference between authors and authorisers makes for diversionary wrinkles both in postmodern critiques of authorship and in its more recent continued hegemony, wrinkles that I peer into more fully below.

The overwhelming majority of the images on which this dissertation is based is housed in the Mies van der Rohe Archive at The Museum of Modern Art in New York.<sup>6</sup> Interestingly, the material contained in the Mies Archive photo files has eluded the designation of museum status (a designation of quality and value) even while housed discretely within a museum archive.<sup>7</sup> In fact, the photographs themselves are valuable documents, having assumed the status of “original positive” as a result of historical circumstance (the loss of the original glass negatives in the bombing of Berlin in the 1940s). Yet until recently, they were not distinguished from the multiple copy prints made from them for broader circulation.

The provenance of the photographs is unclear. It is unlikely that Mies brought photographs with him in 1938, when he walked across the German border into

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<sup>6</sup> The photographic collection of the Mies Archive (henceforth MA) is housed in its own set of files, but these were largely working files when planning for *Mies in Berlin* began. No systematic distinction was maintained between prints made from the original negatives and the multiple copy prints made since the loss of the negatives, many in the bombing of Berlin. Both kinds of photographs were stored together in files designated as “Research Files”—information gathered by scholars in the last 30 years. In other words, the photographs were not considered “archival material,” but rather adjunct documentation that still had a practical function—serving as the base prints from which new copy negatives could be made. In some cases, copy negatives have never been needed. In these cases, the photographs retain only whatever original inventory number or caption was given to them by the photographer. Many of the photographs were dry-mounted to blue mounting board, as part of the Architecture Department’s study collections. Conservators in the museum plan to de-mount the photographs, but this project has not yet been completed.

<sup>7</sup> No systematic inventory of archival photographs in the collection exists to date; it is most convenient to use the MMA (Museum of Modern Art) numbers that were assigned to copy negatives made of the original prints for publications purposes, although this numeration is technically incorrect. The MoMA number MMA 298, for example, designates a copy print made from an original 1929 gelatin silver print made by the Berliner Bildbericht. But since the base print has no inventory number, the number MMA 298 has been used in the label attached to this print.

neighboring Holland, and the contents of his Berlin office went into storage once Berlin was under threat of siege, not to be retrieved until 1963. Philip Johnson acquired a large number of photographs for the Museum in the process of curating the 1932 Modern Architecture show, as Archive correspondence shows. In the preparations for the 1938 exhibition at the Art Institute of Chicago on his work, Mies himself wrote to former Bauhaus student Howard Dearstyne to request the use of any copies in Dearstyne's possession. He noted, "There are few sources of original photographs of my work in this country, outside of your and [John Barney] Rodger's collection, and several large photographs and photostats of plans, and about a hundred smaller photos which the Museum of Modern Art has in its collection."<sup>8</sup> Further prints may have been acquired in the course of MoMA's 1947 show. Two late additions came to Mies's photographic collection: in 1959, Friedrich Kiesler sent Mies a batch of photographs of Mies's European work from his own files; over ten years later, Willy Hauswald, a Bauhaus student from the Berlin days, also sent a collection of photographs of Mies's work to the architect.<sup>9</sup> In addition, a number of prints in the collection still bear the pencil scrawl, "Hilbs," for Ludwig Hilberseimer, Mies's Bauhaus colleague (later also in Chicago) across their back. In the course of preparing the 2001 exhibition, another small cache of original prints was donated to the Museum, from the estate of Howard Dearstyne. A number of these duplicated prints were already in the Museum's collection.<sup>10</sup>

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<sup>8</sup> Mies to Howard Dearstyne, October 22, 1938, Mies Archive correspondence files.

<sup>9</sup> Kiesler letter of March 11, 1959; Hauswald Letter of May 9, 1967, filed under "Unidentified Correspondence," Mies van der Rohe Papers, Library of Congress (henceforth LoC), Containers 36 and 7.

<sup>10</sup> The Museum currently owns approximately 170 prints from original negatives taken of projects from the period ca. 1926-1937, not including photographs of models.

MoMA is not the only source for photographs of Mies's German-period work. Other archives holding collections of his pictures (not always in prints from the original negatives) include the Canadian Center for Architecture, the Chicago Historical Society, and the Library of Congress on this continent, and the Bauhaus Archiv, the Akademie der Künste, and the Berlinische Galerie in Berlin. Max Protetch owned a small number of prints from the James Speyer estate as late as 2000.<sup>11</sup> The city archive in Brno in the Czech Republic owns a small cache of photographs of the Tugendhat House, as does the Archiv Stenc in Prague; Daniela Hammer-Tugendhat, daughter of the clients who commissioned the Tugendhat House from Mies, has a larger collection of prints that include her father's original photographs of the Tugendhat House as well as the professional photographer's prints. The Mies van der Rohe Foundation in Barcelona owns six archival prints of the Barcelona Pavilion, acquired from Max Protetch and formerly in the collection of Howard Dearstyne. Other prints lie in private collections. Finally, a new group of about 150 photographs surfaced in the summer of 2004, purportedly from the office of Lilly Reich. This cache of photographs contains many duplicates of those in MoMA files. Nevertheless, it also contains a new group of photographs of the interiors of the Krefeld houses (Esters and Lange).<sup>12</sup>

### **Autobiographical history**

For many years we have continued to learn about Mies's buildings from the same set of photographs, formerly available from his office at Am Karlsbad 24 in Berlin, or later through his Chicago photographers (first William and Meyers; subsequently Hedrich-Blessing). This adds up to a level of control over historical writing perilously close to autobiography—one that an architect can only get away with

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<sup>11</sup> Protetch had a number of prints for sale during preparation of *Mies in Berlin*.

<sup>12</sup> I owe initial knowledge of this to Simone Förster and Wolf Tegethoff, August 2004.

because he or she did *not* stand behind the camera, but merely exercised choice over the selection of images. And while the MoMA exhibition was remarkable in its pursuit of new images for publications, still well over 50 per cent of the images in the plate section of the catalogue were taken before the Second World War.<sup>13</sup>

Earlier studies on Mies are much less likely to have the potential benefit of new images: Franz Schulze's 1985 book has just a single new image of an old German building, in this case a building for which no early extant photographs are currently known: Mies's Mosler House of 1924 in Potsdam.<sup>14</sup> The house was never professionally photographed in Mies's time, to my current knowledge; it was shot by Paul Young, probably for Schulze's book. Other examples are similar: Fritz Neumeyer's critical analysis has new photographs of one building, the Riehl House, that had been photographed upon completion in 1911; Wolf Tegethoff's monograph on the villas and country houses includes new photographs of only the Esters and Lange houses, paired villas built in the same project phase in Krefeld; even Schulze's *Critical Essays* has few new images of old buildings. The point is not, however, unduly polemical: in many cases, new photographs could not be taken, because the buildings no longer existed. In other cases, the constraints of contemporary

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<sup>13</sup> The MoMA show divided new photography of Mies's buildings into two groups: one by Thomas Ruff, large-format images that were exhibited alongside archival drawings, usually at a similar (large) scale. These images were used to help 'sell' the show, since many of the Mies drawings were visually uneventful, if conceptually interesting. That is, many were pencil drawings on vellum or tracing paper, process drawings from Mies's office files. Ruff's work enlivened the exhibition installation, provided a controversial curatorial decision for critics to fix on, and contextualized the show next to the recent Andreas Gursky exhibition at the museum. The second group of photographs were small-format, generally exhibited side-by-side with old photographs. This group, taken largely by the young architectural photographer Kay Fingerle, were clearly 'architectural photographs' intended to convey information about the buildings, where Ruff's blurred and manipulated pictures played instead an interpretive role. Thus the distinction between 'art' photography and 'document' photography was maintained organizationally at MoMA in 2001, even as the photographs themselves problematized the distinction. See photographs throughout the *Mies in Berlin* catalogue.

<sup>14</sup> See Franz Schulze, *Mies van der Rohe: A Critical Biography* (Chicago: University of Chicago Press, 1985), p. 121.

publishing dictate the regular re-use of existing images of buildings. This latter point is perhaps most significant: one of the habits of the practice (of art history and architectural history) results in the regular duplication of previously published images, due either to inaccessible archival records or financial constraints, or both. Thus another point specific to Mies studies turns out to be a case generally true over a much broader historical field.

Although Schulze's book was a critical biography, quite different from illustrated architectural books, nevertheless the acceptance of canonical photographic views, no matter what their relation to the building they depict, is quite standard in architectural history.<sup>15</sup> We must then ask: since when are architects the right people to write their own histories? Why have we lived, for over seventy years, with the visual accounts offered to us by the architects themselves?<sup>16</sup> On the one hand self-explanatory, this fact is on the other hand quite remarkable. It opens a broader discussion into the question of how architectural history is and may be written. If we wish to abjure the position of the polemicist and critic Sigfried Giedion—self-professed, unapologetic partisan of a certain mode of building, stalwart supporter of the authoring architects whose images he published—we had better take a second look at the images that have been used for all the time that we have studied architects like Mies. Where Giedion knew and supported their polemic, the images that he and other advocates of

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<sup>15</sup> One notable exception to the rule is provided by Manfredo Tafuri and Francesco Dal Co in their survey of modern architecture. Tafuri and Dal Co regularly used new photographs of canonical modern buildings. In their case, the photographic commentary of the book wordlessly expresses their sceptical view of both modern architecture's pretensions, and architectural history-writing and the role of the historian, occasionally through very poorly-made photographs, where verticals, for example, don't always remain vertical. Their photograph of the Tugendhat House shows a neglected relic. See Tafuri and Dal Co, *Modern Architecture* (Milan: Electa, 1976), fig. 239, p. 136.

<sup>16</sup> And why do we still? The use of architectural photography has not changed fundamentally since Mies's day, even while photographic technologies have.

modernism published over and over again, as if objective, independent, and even *transparent* documents, were of course constitutive of a particular version of modernist history. In a historiographical sense, the architectural photographer is the architect's ghost writer, effacing himself (often quite literally, by scrubbing out vestiges of his own reflection on the negative, as in a number of the Tugendhat House photographs) from the account he has authored, but nonetheless promoting a particular interpretation of his client.

Giedion cast his early contribution to the development of modern architecture, admittedly only partially successful at the time, in a spirit of interpretive presentation.<sup>17</sup> In his 1928 *Building in France, Building in Iron, Building in Ferroconcrete*, Giedion 'wrote' as much through images as through text. Giedion understood the dynamic between images and buildings as well as the added significance of mass circulation as a means to spread architectural ideas without necessarily relying on the specific experience of the buildings themselves. It would be difficult to argue that readers of Giedion's book were necessarily intended to mount the Pont Transbordeur in Marseilles, although similar experiences would certainly have been available to most city-dwellers. Rather, the proofs for Giedion's book illustrate his faith in photography as a communicator of architectural ideas, and its ability to reconfigure existing visual knowledge as part of a campaign for modernism—to corral newly-familiar urban experiences through a carefully-fashioned visual and rhetorical framework with a particular forward-looking polemic. Giedion's "Preliminary Remark" describes his intentions well:

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<sup>17</sup> Tafuri has another term to designate this kind of writing: his "operative history" includes Giedion's form of historicized propaganda. For a full discussion, see Manfredo Tafuri, *Teorie e storia dell'architettura* (Rome and Bari: Laterza, 1968; English translation by Giorgio Verrecchia, New York: Harper & Row, 1980).

This book is written and designed so that it is possible for the hurried reader to understand the developmental path from the captioned illustrations; the text furnishes closer explication; the footnotes provide more extensive references.<sup>18</sup>

Sokratis Georgiadis has described the multi-layered approach intended by the book as follows: "The pictures are the protagonists of the action....The book...is meant to seduce the uneducated, to convince the dissident that his position is untenable, and to provide the initiated with arguments. Giedion proceeds like a strategist—completely confident about his own mission, and leaving nothing to chance."<sup>19</sup>

Intended as a catch-all, the book was meant to sweep up academics, professionals, and the general public interested in developments in architecture, and persuade them of the viability of modern modes of building. Photography was possibly *the* critical instrument in that effort, meant to carry the book's basic message to those who did not have the time or inclination to read Giedion's written argument, and to work in tandem with the text for those who did—and to accomplish various goals with respect to the artifacts illustrated in pictures. The book potentially spared its reader the necessity of visiting Giedion's new monuments at the same time that it relayed information about them and framed it within a comprehensive argument; it also altered how one might interpret what one remembered or subsequently saw on site, embedding physical artifacts in a larger argument about industrialization, new building technology, and Giedion's conception of what might be called 'a modern outlook'. The

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<sup>18</sup> See Sigfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*, (Santa Monica: Getty Texts and Documents Series, 1995), including a facsimile of parts of the final publication proofs, and a historical introduction by Sokratis Georgiadis. Giedion used his own photographs of a number of projects, along with photographs by Moholy-Nagy. Giedion's view of a garage roof on the rue Marbeuf was one of series; another of the series was included in Werner Gräff's *Es kommt der neue Fotograf!* of 1929.

<sup>19</sup> S. Georgiadis, "Appendix" in S. Giedion, *Building in France*, p. 208.

power of the images as images, then, was a central issue for the success of the polemic as a whole.

Giedion was by no means the first architectural polemicist to use images so successfully, nor was the approach limited to proponents of the Neues Bauen. The technique of using printed images to illustrate a preferred way to build could even be linked back to nineteenth-century pattern books, although the context and intent were quite different from this new, polemically charged mode of communication. Paul Schmitthenner had used a wide array of photographs, many with a seemingly narrative function, to campaign for his own mode of traditionalist architecture around the time of the First World War. The Wasmuth photographs of Schmitthenner's Gartenstadt Staaken, published in 1917, for example, included compelling narratives of traditional life, within a garden suburb of heavily industrialized Berlin.<sup>20</sup> Le Corbusier also anticipated Giedion in using photographic illustrations to construct an argument. The 1923 publicity brochure for *Vers une Architecture*, as quoted by Beatriz Colomina, reads: "This book derives its eloquence from the new means; its magnificent illustrations hold next to the text a parallel discourse, and one of great power.....This new conception of the book...allows the author to avoid flowery language, ineffectual descriptions; the facts explode under the eyes of the reader by force of the images."<sup>21</sup> Similarly, Adolf Behne, to mention just one other historian/critic of modernism, used images strategically in his publications, such as *The Modern Functional Building* (written in 1923, but not published until 1926); and later books like the populist *Eine*

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<sup>20</sup> Paul Schmitthenner, with introduction by Franz Oppenheimer and text by Fritz Stahl, *Gartenstadt Staaken* (Berlin: Wasmuth, 1917). Also see Paul Schultze-Naumburg, *Kulturarbeiten* (Munich: Georg D.W. Callwey im Kunstwart-Verläge zu München), 1902ff (11 volumes), and Walter Curt Behrendt, *Der Sieg des neuen Baustils* (Stuttgart: Franz Wedekind, 1927) for other examples of architectural photographs used as polemical devices.

<sup>21</sup> See Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, Mass.: MIT Press, 1994), p. 119.

*Stunde Architektur* of 1928.<sup>22</sup> Giedion's effort simply represents a notable, relatively early attempt to design a book that would function for the widest array of *kinds* of readers.

Giedion's book was a critical success but a commercial failure. Its internationalist (i.e. French) focus did not play well in post World War I Germany, particularly after the economic crisis of 1929. But other books on modernism rehearsed the same score, using photographs to sell a new vision of architecture. Giedion himself used a similar strategy, if less graphically impressive, in his 1941 *Space, Time and Architecture*, the canonical English-language text of postwar modern architecture.<sup>23</sup> In Weimar Germany a large number of books almost entirely without text appeared to advocate the work of Neues Bauen architects and their less progressive colleagues. Both Walter Curt Behrendt's 1927 *Der Sieg des Neuen Baustils* and Ludwig Hilberseimer's *Internationale neue Baukunst* (actually an exhibition catalogue) of the same year combined minimal text with large numbers of new images. By 1925, Walter Gropius used images as the primary tool of communication in his Bauhaus book, *Internationale Architektur*. Other illustrated accounts of modern life and modern architecture also abounded.<sup>24</sup> But of course the photographic polemic of

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<sup>22</sup> See Adolf Behne, *The Modern Functional Building*, with an introduction by R. Bletter (Santa Monica: Getty Research Institute Texts and Documents Series, 1996).

<sup>23</sup> The text of Giedion's Charles Eliot Norton Lectures at Harvard in 1940-41, *Space, Time and Architecture* (Cambridge: Harvard University Press, 1941) was originally published in English, and only subsequently appeared in German. It went through numerous reprints and new editions, revised by Giedion himself. One of the principal 'master narratives' of postwar modernism, it was possibly the most influential book on modern architecture until the post-modern reaction of the 1980s. The text was still in wide use in architecture programs in the early 1980s; by the late 80s it had disappeared in schools such as Harvard and Yale. In the 1990s it was resurrected for its historiographical interest, and has subsequently been the object of further study.

<sup>24</sup> Of the many accounts that might be cited here, I mention only two variants: Erich Mendelsohn's *Amerika. Bilderbuch eines Architekten* (Braunschweig: Friedrich Vieweg & Sohn, 1926) presented a photographic essay on American urban architecture for a German audience. In addition, Mendelsohn's *Neues Haus Neue Welt* (Berlin: Gebrüder Mann, 1931) and Bruno Taut's *Ein Wohnhaus* (Berlin: Gebrüder Mann, 1927) were both portraits of single buildings

modernism was not launched solely through books on modern architecture. In addition to book-length studies (of which there were many), a massive swell of images dominated journals and magazines, both trade publications and general interest magazines as well. In addition, photographs played a critical role in the frequent exhibitions promoting modern architecture for the general public. The Werkbund exhibition of 1927 in Stuttgart, "Die Wohnung," for example, consisted of three exhibitions, of which one, the "International Plan and Model Exhibition," mainly featured (in spite of its title), photographs of modern buildings.<sup>25</sup> The work of individual architects appeared in articles, supplements to architectural magazines, monographs, as well as in single-building studies lavishly illustrated with photographs, but quite meagerly described in words.<sup>26</sup>

### **Weimar milieu: photography versus commercial photography**

A comparative study of the images of Mies's buildings reveals some of the mutual effects of photography and architecture in the later Weimar period. While Mies's work is not straightforwardly representative of Weimar architecture at large, a study of his buildings and the ways in which they were disseminated in the media is instructive for modernism in a larger sense, both before and after World War II. This argument can be made partly because Mies, although careful to control what was

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accompanied by numerous photographs. These two variants—the photo essay and the single-building portrait—differ in many respects from more comprehensive treatments of contemporary architecture. But in photographic terms they provide interesting comparanda.

<sup>25</sup> See Ludwig Hilberseimer, *Internationale Neue Baukunst* (Stuttgart: Julius Hoffman, 1927). A reprint of Hilberseimer's book appeared in 2002 in the context of a new exhibition. See *Neues Bauen International 1927/2002* (Stuttgart: Institut für Auslandsbeziehungen, 2002).

<sup>26</sup> Among other series, a group of books under the imprint "Neue Werkkunst" appeared in the second half of the 1920s. These were architects' monographs on a variety of figures, including Wilhelm Kreis, Alfred Fischer, Emil Fahrenkamp, Oskar Kaufmann, Werner March, Karl Schneider, and a number of others. See the recent string of reprints from the Gebrüder Mann Verlag (also the original publisher), and Roland Jaeger's *Neue Werkkunst* (Berlin: Gebrüder Mann, 1998).

published (increasingly so as he grew older), was not evidently an inordinately close manager of the photographers who worked for him. An astute judge of the power of photography at large, as seen in his early photocollages and montages, he hired professional photographers and gave them sufficient latitude to do their job. Before Mies's move to America, when he became far more careful about the documentary records of his work, there may have been some disconnection between the commercial photography used to publicize his work and the understanding of new media as cultural tools of enormous power. This potential paradox is best understood by comparing Mies's work on the periodical *G. Zeitschrift für Gestaltung* with the rather spotty record of architectural photographs of his early work. While Mies worked closely with Hans Richter in the preparation of *G.*, which previewed new developments in photography, film, graphic art, painting, sculpture, and architecture, he never developed a clear patronage relationship with any of the commercial photographers that documented his built work in Germany. Similarly, I will argue in a subsequent chapter for the direct relevance of photography and film to his development of architectural concepts at the Barcelona Pavilion and the Tugendhat House—at the same time that documentary evidence shows that he was certainly not present for the photographing of the former, and probably also not for the latter. Of the scanty evidence that remains on Barcelona, specifically, some evidence suggests that Lilly Reich seems to have had more to do with Mies's photographic management in these early years than Mies himself, a situation that changed radically after his emigration to Chicago.

The distinction here falls between photography as a practice of artistic exploration, and photography as commercial practice. Mies pursued photography where it could offer him new conceptual material. He showed less interest in its

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commercial application. Moholy-Nagy, by contrast, committed himself to commercial art after his departure from the Bauhaus in 1928, and always maintained its importance in the task of integrating art and life. Mies made no such populist claims for his work. Photography served him as a tool of new representational techniques and new spatial possibilities; its use as a means to connect himself with a 'public' seems to have been understood as a condition of successful architectural practice, but of little intrinsic interest of its own. I speculate that this was an error of youth that was corrected with his Chicago reincarnation, after five years of declining fortune in National Socialist Berlin (1933-1938), precipitated as early as 1930 by the financial crisis of the previous year.

### **Mies's photographers**

Although Mies used certain photographers more than once to document his German work, no single office or photographer served him in Germany as consistently as Hedrich-Blessing subsequently did in Chicago.<sup>27</sup> Mies never developed the kind of relationship that existed between Erich Mendelsohn and the photographer Arthur Köster, for example, or the synergy of Richard Neutra and Julius Shulman.<sup>28</sup> Nor did he retain (or even obtain) photographs of all his projects, a fact that makes the historian's task somewhat harder (and admits the possibility for additions to the

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<sup>27</sup> According to Daniel Naegele, this was also true of Le Corbusier in the 1920s. See "Photographic Illusionism and the 'new world of space,'" in *Le Corbusier, Painter and Architect* (Aalborg: Nordjyllands Kunstmuseum/ Fonden til udgivelse af Arkitekturtidsskrift, 1995), 116, n.43.

<sup>28</sup> There was probably not enough built work in Mies's office to feed a relationship like that of Shulman and Neutra at this time. During the busiest years of practice in the late 1920s, Mies's projects were also spread out geographically, making the idea of a "house photographer" impractical. Later in Chicago, this situation altered dramatically. For Shulman, see Julius Shulman, *Architecture and its Photography* (Cologne: Taschen, 1998); and idem, *Photographing Architecture and Interiors* with an introduction by Richard Neutra (New York: Whitney Library of Design, 1962).

corpus of German work, which are periodically attempted<sup>29</sup>). This may have been merely a shrewd marketing decision—Mies was careful to distinguish the projects that he wished to see published from those that were 'not important enough'.<sup>30</sup>

Nevertheless, it is notable that he not only withheld certain projects from publication, but that he seems to have failed to have had them photographed at all.

For example, there are no professionally-commissioned photographs of a large number of Mies projects contained in the Mies Archive at MoMA (either in prints from the original negatives, or in copy prints), including the Werner House (1912-13), the Warnholz House (1914-15), the Perls Monument (1919), the Kempner House (1921-22), the Feldmann House (1921-22), the Eichstaedt House (1921-23), the Kiepenheuer House (1922-23), the Butte Gymnasium Addition (1924), the Riehl Monument (1925), the Mosler House (1926), the Henke House Addition (1930), the Verseidag Silk-Weaving Mills in Krefeld (1931-35), the Dessau Trinkhalle (1932) and, apparently, the Lemke House (1932-33). By contrast, the Riehl House (1906-07), the Perls/Fuchs House (1910-11; 1928), the Urbig House (1915-17), the Wolf House (1925-27), the Afrikanischestrassen Housing Development (1925-27), 'The Dwelling' exhibition (1925-27), the Monument to the November Revolution (1926), the Lange

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<sup>29</sup> See Markus Jäger, "Das Haus Warnholz von Ludwig Mies van der Rohe (1914/15)", *Zeitschrift für Kunstgeschichte* 65 (2002) no. 1, 123-136, for a house clearly authored by Mies and added to the 'canon' after *Mies in Berlin* had opened in 2001. For a less certain attribution, see the news item in *Deutsche Bauzeitung*, November 2002, p.11, documenting a 'new' Mies house identified that year in Krefeld.

<sup>30</sup> Mies refused permission to the Royal Institute of British Architects to exhibit the Afrikanischestrassen Housing in 1934. He claimed it was 'not important enough'; instead, he requested, and sent prints for Haus Lange and the Weissenhofsiedlung. He ordered prints of the Tugendhat House for RIBA from the photographer in Brno; they were sent COD and refused by the British, so that the house did not appear in the exhibition after all (LoC Container 1, Folder T). Much earlier, in 1925, the journal *Der Kunst* unsuccessfully requested villa photographs from Mies, which they knew through the photographer Carl Rogge. Mies responded rather acerbically, "erlaube ich mir zu erwidern, dass ich im Augenblick keine Abbildung ausgeführter Bauten besitze, die ich veröffentlichen möchte"--"allow me to repeat, that I have no images of executed buildings that I would like to publish at the moment" (LoC Container 2, Folder S).

and Esters Houses in Krefeld (1927-30), the Silk Exhibit at the Exposition de la Mode (1927), the Barcelona Pavilion and exhibits (1928-29), the Tugendhat House (1928-30), the Berlin Building Exhibition (1931) and a couple of other exhibitions were all professionally photographed, although the prints accumulated at MoMA for the first three of these (Riehl, Perls, and Urbig) postdate Mies's gift to the Museum. Judging exclusively from Mies Archive records, it would seem that nearly half of Mies's built work in Germany was never photographed, either for his office record or for publication. This was not in fact the case; the Bauhaus-Archiv holds commissioned prints of the Werner House.<sup>31</sup> Mies's reputed culling of his office archives in 1926 simply skewed the historical record even further in the direction in which he, understandably, wanted it to go.<sup>32</sup>

### **Subjects and readers**

Is Mies then a good subject for such a study? No, in the sense that the photographic record of his work is neither comprehensive nor systematic. He was not consistent, at least during the German years, in documenting his work. While he used

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<sup>31</sup> Carl Rogge and Theodor Born photographed the Werner House. A bill from Carl Rogge to Mies dated 19 November 1924 (LoC Container 1 Folder R) indicates that Mies commissioned Rogge for his prints; Born may have been commissioned by the client or a periodical. The Riehl, Perls, and Urbig Houses were also photographed by professional photographers, although the Mies Archive has no prints from the original negatives. The Warnholz House was published without architect's credit in 1926; the photograph may have been commissioned by the journal. See Edgar Wedepohl, "Form und Raum. Gespräch im Berliner Grunewald," *Wasmuths Monatshefte für Baukunst* 10 (1926), 393-395 and Markus Jäger, "Das Haus Warnholz von Ludwig Mies van der Rohe (1914/15)", op cit.

<sup>32</sup> Mies's former employee, Sergius Ruegenberg, claimed later that Mies had ordered him to destroy many office files, probably in 1926; conceivably photographs were among them. But this obviously fails to account for projects after 1926, and for projects of a distinctly modern tendency, like the Henke House Addition, the subject of countless drawings still held in the Mies Archive. See Eva-Maria Amberger, *Sergius Ruegenberg, Architekt zwischen Mies van der Rohe und Hans Scharoun*, (Berlin: Berlinische Galerie, 2000). The Lemke House of 1934 was professionally photographed, but as a background for a commercial portrait of modern Thonet chairs. It was also photographed by Howard Dearstyne, but these were apparently small-format record photographs not for publication. My thanks to Wita Noack of the Haus Lemke Stiftung for all information on the Thonet photographs.

photographs to solicit new work from potential clients, there is relatively scant evidence about Mies's attitudes towards architectural photographs beyond what can be interpolated from the images themselves. One can conclude from archival evidence that Mies used photography selectively and strategically in the promotion of his practice; that he regarded it, not as essential documentary material, but rather as a strategic tool keyed to publication and the sustenance of his practice. This would have been quite standard in modern architecture circles, which leads to an alternative answer to the question of Mies's appropriateness for such a study of modern architecture and its photography.

The question of Mies's personal intentions with respect to how his buildings were photographed, how the photographs were published, and how the publications were disseminated recedes in favor of the identification of an entire authorial apparatus that determined how architecture became public in the interwar years. In Mies's case, this apparatus subsumed Mies, members of his studio, his collaborator Lilly Reich, the photographers who took pictures of his buildings, the clients of those buildings, the editors that solicited Mies's work for their publications, the critics, historians, and journalists that embedded photographs in their texts, the distributors of those journals, and, even, the publics who read them. Thus Mies's personal reticence on this matter leaves room for the recognition of a whole constellation of forces that took over the jobs of promotion and dissemination. This broader context makes these influential photographs particularly appropriate for a study such as this one, broadening the definition of authorship, and heightening the importance of 'architecture culture'. In this re-configured 'author-function,' we might note the expanded importance of the photographs as carriers of information, and the potentially increased significance of the photographic transformations they enacted on architectural material. This distinction between the agency of the master artist and the

expanded agency of architecture culture turns the discussion away from Mies's intentions to a close analysis of the images themselves, as an initial starting point.

The photographs of Mies's work are considerably muter, as photographs, than the pictures that Arthur Köster took for Erich Mendelsohn, for example, or, that Albert Renger-Patzsch took for Rudolf Schwarz.<sup>33</sup> In photographs of Mies buildings of the interwar years there appears to be consistently less interest in new photographic modes, as widely known from exhibitions like the Deutscher Werkbund's 1929 *Film und Foto*, judging from the evidence of the pictures themselves. Instead, just as Mies favored perspective drawing, with its long historical pedigree leading back to the Renaissance, over the newly fashionable axonometric, so do the photographs of his buildings favor normative standpoints and perspectival compositions.<sup>34</sup>

One hypothesis might begin with the notion that Mies's photographs shared more with the photographs of a wide range of Weimar architects' work than they did with more unusual cases like Schwarz/Renger-Patzsch or Mendelsohn/Köster. Mies's pictures might be considered 'exemplary normative' cases for the examination of photography and modern architecture—or what Jeffrey Herf has called (following Max Weber) an 'ideal typical construct' for the study of modern architecture and photography.<sup>35</sup> The chief argument in favor of this claim is visual: Mies seldom used architectural photographs of his buildings as part of an overt polemic in favor of New Vision practices, or of radical avant-gardism. There is a dramatic difference between

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<sup>33</sup> Two dissertations on Köster are currently underway in Germany. Michael Stöneberg (Universität Göttingen) is writing a general analysis of Köster's work for a number of *Neues Bauen* architects, advancing evidence of Köster's status as the chosen photographer of the Werkbund in the mid to late 1920s. Simone Förster (Technische-Universität Berlin) is instead writing a focused treatment of Köster's work for Erich Mendelsohn.

<sup>34</sup> For a fuller discussion of this preference, see Chapter Four.

<sup>35</sup> See Jeffrey Herf, *Reactionary Modernism. Technology, Culture, and Politics in Weimar and the Third Reich* (Cambridge: Cambridge University Press, 1984). The similarity of terminology is here relatively serendipitous; but Herf's book provides valuable groundwork for understanding the cultural climate within which Mies was working in the 1920s and 30s.

the skewed angles and vertically-oriented standpoint of a Renger-Patzsch photograph made for Rudolf Schwarz, for example, and the perspectivally-normative photograph of a contemporaneous building designed by Mies. Photographs of Mies's buildings often reflect earlier photographic precedents and conventions.

On closer examination, however, Mies's photographers, where they may have respected earlier *pictorial* conventions, also frequently diverged fully as much from certain established precedents for architectural photography as any radical photographer. The chief indicator for this is the frequent use of head-on views, rejected in primers and essays on architectural photography in journals from both Weimar and Wilhelmine years. While it is not surprising to find photo critics and theorists adopting fairly rigid compositional codes in the pre-World War I culture of the Wilhelmine Empire, it is notable that Weimar culture maintained similar codes for architectural photographs with relatively little innovation—and that Mies often selected views that contravened those codes in unexpected ways; that is, against both the norms of architectural photography; and against the prevailing polemics of New Vision photography.

Just as Mies rejected the newly-celebrated, 'objective' axonometric drawing as a representational technique for his design work, so too does he seem to have rejected photography as the product of a 'mechanical eye,' intended to see what the human eye could not, as so many New Vision proponents advocated. Instead, Mies favored views that implicitly embraced the notion of a bipedal subject, firmly grounded in the space of his architecture. The pictures place the viewer in space from the standpoint of the camera operator, in flagrant disregard of new photographic fashions that attempted to disrupt individual subjectivity through such techniques as aerial views, 'worm's eye' views, and canted angles. By contrast, the question of individual

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subjectivity looms large for both the images and the architecture they depict, suggesting that Mies attempted to embrace certain existential questions in both drawn and photographed representations of his work, as well as in the work itself.<sup>36</sup> Mies's favoring of images in which individual subjectivity is fully grounded within palpable architectural space is distinctive, and yet representative: most architectural photographs are similarly grounded in the notion of projecting 'real space' for their audience, even while the methods of achieving this implied continuity varied. While the notion of Herf's 'exemplary normative' architectural photograph must be suspended in light of a very particular set of photographic characteristics in these images, nonetheless it remains important to keep in mind what makes these images *representative* of Weimar modernism, as well as what makes them different.

The influence these photographs have had on subsequent audiences is another important concern. Mies does make an excellent case for a general argument, but not because his photographs look like everyone else's, nor because he himself embraced architectural photography so fully. Rather, Mies illustrates a general case because his pictures were critical for constructions of modernism in Europe and in the European architectural diaspora. Pictures of his buildings were widely disseminated and highly influential. They are in these terms important for an understanding of the dynamic between photography and modern architecture. A study of these images, in addition to considering Mies's photographic *intentions*, such as they may have been, is also turned to a more context- and reception-driven project into how the photographs were originally conceived and subsequently received. Their aesthetic value (uneven) recedes in favor of a circumstantial case for their wide influence as a result of a variety of causal and less causal factors. This could be taken as further proof of architectural

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<sup>36</sup> While the images appear to affirm individual subjectivity by their compositional choices, they almost never depict the human figure. See Chapter Four for one rare example.

mastery on the part of Mies, were it not for the radical differences between image and three-dimensional construct. Far more interesting, I think, is to see the influence of the pictures as a reflection of a wide range of forces directing the construction of modern architecture by market and media, before and after World War II, within which Mies's compelling talent as an architect might be included.

In this regard, a main task for this dissertation is to define the roles of several players. Clarifying important distinctions between the authoring architect, the ghost-writing photographer, and the receiving public (never a stable construct) help define the historical impact of these images, *as images*, on twentieth century architecture. Following Michel de Certeau and Roger Chartier, I would argue that the changing context in which these images appeared partially dictated the use to which they were put. This is emphatically *not* a project on reader reception of Mies images over the course of the twentieth century. It is instead a targeted history of the genesis and immediate application of a set of images and buildings that were highly influential, a foundation for a work on reader reception (but not by this author) over a much wider historical span. *This* project, rather than emphasizing reader reception, seeks instead to recapture a particular historical constellation that included clients, architects, photographers, critics, historians, and readers, all active in the years around 1930.

### **Texts as historiographical record**

The bibliography on Mies has been described in terms of a series of waves loosely coordinated to the history of Mies exhibitions, at MoMA and elsewhere. The recent 2001 exhibitions were then the latest tidal forces motivating a new wave of literature. The catalogue for the MoMA Mies exhibition, *Mies in Berlin*, re-examined the architect's early work, rejecting previous accounts which implicitly treated the architect's German period as directly predictive of later phases of work in the United

States. The book succeeded in introducing a different set of discourses into Mies scholarship, ones hinged to a more precise analysis of the context of Mies's Berlin years, and more nuanced about the changing set of issues his work addressed throughout the period 1910-1938.

While *Mies in Berlin* opened up a great deal of new terrain, it is not the only tidal force changing Mies studies. The even heftier catalogue produced by the Canadian Center for Architecture for its exhibition, *Mies in America*, has made a similar contribution to the study of Mies's American period. The later exhibition did not need to qualify itself in the same terms as did *Mies in Berlin*; rather than disengaging from the other half of Mies's career (as the MoMA show attempted), the CCA show had instead to ground the American work in its own cultural context more fully—a context that included not only post-War Chicago, but also the architect's own history as a German architect. That the show deployed a thematic grouping instead of a chronological organization, as at MoMA, indicated more than just a different curatorial attitude. It reflected very clearly the notion that Mies is not merely a subject of historical study, but rather a base from which to continue to mount contemporary architectural investigation. If that agenda was also in play at MoMA, it was kept more firmly leashed to a historical reconsideration. In the CCA exhibition and catalogue, there was also a biographical connection to Mies's practice that fundamentally distinguished it from the MoMA show. Former CCA director and curator Phyllis Lambert, intimately involved with Mies since the commissioning of the Seagram Building by her father, but at her behest, has a long investment in Mies's history. This meant that the exhibition and catalogue she assembled might be considered as much historical artifacts as historiographical presentations. This was especially true of the installation itself, elegantly designed as if by Mies himself.

Other books roughly accompanying the 2001 Mies wave include Max Stenshorn's published dissertation, *Mies + Schinkel*, a new monograph by Yehuda Safran, new studio paperbacks, and the reissue of Peter Carter's invaluable *Mies van der Rohe at Work* of 1974.<sup>37</sup> Three new books on the Tugendhat House have added new material to our understanding of that house, and have been immensely useful to this study (as were similar publications issued after the reconstruction of the Barcelona Pavilion in 1986).<sup>38</sup> Other single-building monographs include Kent Kleinman and Leslie van Duzer's upcoming monograph on the Esters and Lange Houses in Krefeld and Lars Scharnholtz's short study of the Wolf House.<sup>39</sup> In many ways the most impressive publication on Mies in recent years is probably, though, Richard Pommer and Christian Otto's book on the Weissenhofsiedlung.<sup>40</sup> In a focused historical investigation, Pommer and Otto examined the inner workings of German modernism at a critical moment, detailing the most important themes and problems that beset the Neues Bauen. They grounded Mies's work at Weissenhof, and the work of other Neues Bauen architects, with a focused contextualism, as penetrating as it was comprehensive. The archival work published in the notes of the book constitutes an act of rare scholarly generosity, which took years to complete.

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<sup>37</sup> Max Stenshorn, *Mies + Schinkel: Das Vorbild Schinkels im Werk Mies van der Rohes* (Tübingen and Berlin: Wasmuth, 2002); Yehuda Safran, *Mies van der Rohe* (Lisbon: Editorial Blau, 2000); Peter Carter, *Mies van der Rohe at Work* (New York: Praeger, 1974; London and New York: Phaidon, 1999).

<sup>38</sup> Daniela Hammer-Tugendhat and Wolf Tegethoff, *Ludwig Mies van der Rohe, Das Haus Tugendhat* (Vienna: Springer, 1998 [English edition, New York: Springer, 2000]); Adolf Stiller, ed., *Das Haus Tugendhat, Ludwig Mies van der Rohe, Brunn, 1930* (Salzburg: Pustet, 1999); Wolf Tegethoff, *Im Brennpunkt der Moderne: Mies van der Rohe and das Haus Tugendhat in Brunn* (Munich: HypoVereinsbank, 1998).

<sup>39</sup> Lars Scharnholtz, "The Wolf House Project," in Leo Schmidt, ed., *The Wolf House Project: Traces* (Cottbus: Brandenburgische Technische Universität, 2001), 8-16.

<sup>40</sup> Richard Pommer and Christian F. Otto, *Weissenhof 1927 and the Modern Movement in Architecture*, (Chicago: University of Chicago Press, 1991).

The last MoMA Mies exhibition took place in 1986, to coincide with the centennial of the architect's birth. This marks a previous "Mies wave," seeing the publication of a number of books that fundamentally changed the face of Mies studies for that time. Wolf Tegethoff's *Mies van der Rohe: The Villas and Country Houses* appeared in German in 1981; Fritz Neumeyer's *The Artless Word: Mies van der Rohe on the Building Art* in 1986. Franz Schulze's basic critical biography also appeared in 1985, followed a few years later by the MoMA publication (in lieu of exhibition catalogue for the 1986 show) *Mies van der Rohe: Critical Essays*, edited by Schulze. The Chicago architectural history scene contributed a number of books on Mies's centennial as well: John Zukowsky's edited collection, *Mies Reconsidered*, appeared in 1986 along with *Mies van der Rohe: Architect as Educator*, and its German version, *Der vorbildliche Architekt. Mies van der Rohes Architekturunterricht 1930-58*. In addition, Sandra Honey's useful *Mies van der Rohe: European Works* also appeared in 1986, along with Howard Dearstyne's memoir of Bauhaus life under Mies, *Inside the Bauhaus*. These books, together with a number of essays and articles, created a whole new Mies topography that remained more or less in place until recently, added to by an aftershock in the early 1990s, when Detlef Mertins published the results of a Mies symposium in Toronto, as *The Presence of Mies*, Jean-Louis Cohen's compact monograph surveyed and collated the results of work on Mies to date,<sup>41</sup> and Pommer and Otto's book appeared.

Tegethoff and Neumeyer each redefined Mies study in different ways. Neumeyer's contribution demythologized the Mies who never spoke, and whose work emerged Athena-like, full-blown from his head. Neumeyer's book provided an intellectual context for Mies that drew on nineteenth- and twentieth-century sources and connected the architect synchronically to German avant-garde culture and

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<sup>41</sup> See Bibliography for complete references to publications cited in this paragraph.

diachronically to German idealist philosophy. If Neumeyer emphasized the latter at the expense of the former, he nonetheless provided the tools for the further investigation of Mies's intellectual influences, pursued more recently by Detlef Mertins. Wolf Tegethoff's book examined the core group of 'classically modern' house designs completed by Mies between 1924 and 1949. He brought together archival evidence and collated drawing sequences to write a definitive archival history of a group of buildings that represent core modern buildings. Tegethoff's revision of earlier histories of modernism through the buildings of Mies himself constitutes an invaluable source for basic information on the buildings included in his survey. Tegethoff justified excluding Mies's earlier, more traditional designs on the basis of lack of archival evidence and by the fact that Mies himself, not to mention other Neues Bauen architects, would never have considered those projects critical to the formation of modernism. Tegethoff's book was unilaterally revisionist, largely concerned with correcting the historical record, debunking then-current architectural post-modernism (with its emphasis on historicism), and thereby extending the reach of modern architecture (or Miesian modernism) as if in a continuous line from the twenties to the day of its publication, circa 1980. Thus Tegethoff's presentation of the program of the Neues Bauen took that movement at face value; he did not critique Mies or the modern movement, but rather sought to broaden the reach of both. His book was then vulnerable to a different sort of post-modern critique; it isolated the architect from his historical context in an investigation into the interior trajectories of his work, even while its archival and historical base is unassailable. Tegethoff's thoroughness and depth of research distinguished his work from what came before, and established new standards for historical accuracy in Mies studies; his argument, much more nuanced than that of Philip Johnson or Arthur Drexler, was innovative in its embrace of detailed archival history. The book's precision

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helped clarify a number of issues for Mies scholars, setting the stage (along with Neumeyer) for a new phase of research.

Tegethoff declared his debt to earlier Mies scholarship, referring explicitly to the work of Philip Johnson, Arthur Drexler, Ludwig Glaeser, and Ludwig Hilberseimer. Each of these authors made important contributions to Mies studies—Johnson first, and arguably most lastingly. His 1947 monograph stands at the center of the first American wave of Mies historiography; it too accompanied an exhibition at the Modern. Johnson and Hilberseimer, particularly, belong to a group of Mies propagandists; their work differs fundamentally and irreconcilably from those of authors writing after the architect's death in 1969. Since their books were in both cases published well before 1969, they must both be assessed in light of Mies's continuing practice of architecture, to which publications on his work inevitably contributed. Hilberseimer's book, however, also includes a thoughtful thematic analysis of the architect's method, both interesting and relevant today (and perhaps influential on the organization of *Mies in America*). In that sense both belong in a group with earlier propaganda efforts on the architect, including the 1932 *International Style* and the monographic articles by Paul Westheim and others of the 1920s and 30s. These histories enter the present study as historical subjects themselves, whose historical messages emerge as much from how they were presented as from what they had to say.

### **Architectural History and Mass Media**

The new challenges in this study emerged in the need to supplement the Mies historiography (a basic requirement of the project) with work from two other realms: the first comprising relations between media studies and architecture, including but not limited to literature on architectural photography; and the second incorporating

relevant issues from the history and theory of photography. Some comments on the first of these follow.

An insistent fact in the study of architectural photography is the extent to which the 'realist paradigm' of photography continues to operate where architectural photographs are concerned, long after its demise in other areas of photographic history. Martin Jay claims that this paradigm—by which we accept photographs as *de facto* realistic representations—remained in force in the work of critics as recently as the late 1960s and early 1970s, as, for example, in the work of Roland Barthes and Andre Bazin, but that "by the late twentieth century it was practically obliterated."<sup>42</sup> Still, to make this claim is to ignore that this sort of photography—architectural photography—continues to function largely as it has always done, under an aura of visual authenticity that seems to remain largely unquestioned, even while its fictive nature is clear. Evidence for this is to be found throughout the educational and media apparatuses that surround architecture production today: in publications of all sorts on contemporary architecture; on websites, in lecture halls, equally as much in critical as in self-promotional material on contemporary design.<sup>43</sup> The chief difference in the case of architectural photography lies in the extent to which, in spite of widespread acknowledgment of the influence of pictures on an architect's reputation, there is still very little attempt to analyze the modes by which the practice successfully does its

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<sup>42</sup> Jay cites Barthes' essay "The Photographic Message," and Bazin's "The Ontology of the Photographic Image," as proof of his claim. See Martin Jay, "Photo-Unrealism: The Contribution of the Camera to the Crisis of Ocularcentrism," in Stephen Melville and Bill Readings, *Vision & Textuality* (Durham: Duke University Press, 1995), 347.

<sup>43</sup> Exceptions to this broad generalization include photographers and architects who have, so to speak, taken the bull by the horns: among architects, Jacques Herzog and Pierre de Meuron come immediately to mind as architects who have established productive artistic collaborations with the various photographers who have provided them with photographic material over the last fifteen years. Jettisoning the notion of documentary neutrality in documenting their constructed work, these architects have embraced the interpretive role of the architectural photographer.

work today, even in the face of increasing digital manipulation of images for publication.<sup>44</sup> An implicit acceptance of the value of a good image goes hand in hand with a refusal to deconstruct what, precisely, such an image constitutes for architecture. This analytical lack has been questioned in nearly all other realms of photographic history and theory, from which many useful lessons can be drawn.<sup>45</sup> It will be addressed here in a broad-based effort to delineate the common conceptual terrain of architectural photography in the Weimar period, within the specific context of Mies's practice. This strictly limited 'test-case' approach is, I think, fully necessary in deciphering the discussions that surrounded these particular pictures.<sup>46</sup>

Broad surveys of architectural photography made in recent years have helped bring this subject to the attention of architectural historians and critics. These include the beautiful catalogue of photographs from the Canadian Center for Architecture, and Cervin Robinson and Joel Hershman's impressive history of architectural photography.<sup>47</sup> More recently, Robert Elwall's 2004 book on international architectural

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<sup>44</sup> Willi Warstat had already noted, in 1930, the persistent effectiveness of photography in public persuasion, in spite of evidence of its illusionism: "Photography is generally regarded—whether rightly or wrongly is a matter of complete indifference in this context—as possessing the highest conceivable, nearly *documentary fidelity in the representation of objects*. And this general attitude toward photographic representation is of tremendous significance in terms of the *psychology of advertising*. The public simply believes without reservation that the *photographic* representation of an object is truer and more real....." Willi Warstat, "Die Photographie in der Werbekunst," *Deutsche Kamera-Almanach* 20 (1930): 85-98. Translation published in Anton Kaes, Martin Jay, Edward Dimendberg, *The Weimar Republic Sourcebook* (Berkeley: University of California Press, 1994), 650-651.

<sup>45</sup> Geoffrey Batchen's recent work on "vernacular photography" is a case in point: of all photographic modes that would seem to refuse deconstruction, snapshot and family photography seem like the most resistant. See Geoffrey Batchen, "Vernacular Photographies," in *Each Wild Idea* (Cambridge, Mass.: MIT Press, 2001), 56-80.

<sup>46</sup> For the discursive contexts of photography, see Rosalind Krauss, "Photography's Discursive Spaces," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass.: MIT Press, 1985), 131-150.

<sup>47</sup> See Richard Pare, *Photography and Architecture 1839-1939* (Montreal: 1982); Cervin Robinson, and Joel Hershman, *Architecture Transformed. A History of the Photography of Buildings from 1839 to the Present* (New York: Architectural League of New York, and

photography adds a new, synthetic treatment to the existing literature, tracking the changing character of architectural photography from the nineteenth to the twentieth century. Elwall's comprehensive treatment brings disparate international movements into relation with one another, and integrates architectural photography with other photographic genres.

Like his predecessors, Elwall includes different kinds of photographic evidence in his treatment. This broadens the range of his book, and the other surveys of architectural photography mentioned above, but reduces the depth of their analysis. The photographs made of buildings by photographers who were self-described documentarians or art photographers require a significantly different analysis from photographs made under commission to architects or publishers by commercial photographers, for publication. These are the images under discussion here. This form of photography belongs almost exclusively to the history of the twentieth century.

Architecture constituted a common subject for photographers from the time of photography's 'invention,' when William Henry Fox Talbot photographed his own house in the late 1830s, claiming that the building had photographed itself. But the form of photography that enabled architects to commission photographers to take the pictures with which they would advertise for future work and market share depended, not on photography itself, but on developments in the technology of printing that would allow photographs to be mass-produced in the pages of magazines and books. This technology only developed late in the 19<sup>th</sup> century, at first in the expensive, high-quality collotype (heliotype), and then ten years later, at the end of the 1880s, with half-tone printing.<sup>48</sup> At this time photographs generally ceased to provide architectural

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Cambridge, Mass.: MIT Press, 1987); Robert Elwall, *Building with Light: the International History of Architectural Photography* (London, NY: Merrell, 2004).

<sup>48</sup> See Elwall, *Building with Light*, 86-93.

renderers with templates for the lithographs that would then appear in the trade presses, and became instead the (more compelling) contents of journals and books themselves. It is specifically these images that have been central to the writing of architectural history; it is their highly specific role that is of interest in this project, one that combined forms of autobiography with the laws of market capitalism, a high technical proficiency, and some degree of collaboration between photographers and architects.

Why are these sorts of images more influential than others in the writing of architectural history? A general answer is that they have been used more consciously and carefully to advance certain interpretations of architecture over the course of the twentieth century. They have enjoyed a privileged position in trade publications and monographs, and they have been, to a large extent, controlled by architects themselves. Regardless of the fluctuating terms of copyright laws over two continents and nearly one hundred years, other factors constrain the circulation of images. Buildings are not routinely re-photographed for each new publication venue, thanks as much to logistical as to legal restrictions. And architects' offices have always been the readiest sources for publication-ready prints and permissions to publish. Looked at another way, architectural photographs disseminated as the authorized views from an architect's office may be considered more 'authentic,' closer to a 'correct' image by virtue of the architect's approval. Other kinds of images of architecture tend to function more successfully in other arenas, providing supplementary information, but lacking the sense of authority that an image sent out from the Mies van der Rohe Office in Chicago might have done.

The limits of this thesis mean that potentially profitable comparisons with other genres of architectural photography were not pursued. In the construction of another

research project, however, work of photographers like “the New Topographics” of the 1970s<sup>49</sup> makes for interesting contrasts with the documentation of the built environment made from within the field of architecture. The two genres come together only infrequently, as in a publication like Robert Venturi’s and Denise Scott Brown’s *Learning from Las Vegas* of 1972, with its explicit debt to the work of Ed Ruscha.<sup>50</sup> More recently, direct exchanges between architects and photographers blur the distinction that remains central to this work—the distinction between commercial photographers and art photographers. The architectural practice of Herzog & de Meuron has done as much as any other to cloud this distinction in interesting ways, using silkscreened photographs as patterning on building exteriors, and working with photographers like Ruff and Margherita Spiluttini for their publication photographs.

Other current or recent work on architectural photography includes research on relations between architects and their photographers. The premier architectural photographers of American modernism, Ezra Stoller, Julius Shulman, and the firm of Hedrich-Blessing, have all been studied in recent monographs. In books and articles, they document their relationships with commissioning architects as well as their photographic technique. Dissertations currently underway on Erich Mendelsohn’s collaboration with Arthur Köster, on Köster’s work with other clients like Otto Haesler,<sup>51</sup> and on the photographs of Rudolf Schindler’s work, together with completed

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<sup>49</sup> Named after an influential 1975 exhibition at the International Center of Photography, George Eastman House (*New Topographic: Photographs of a Man-Altered Landscape*), the group included Robert Adams, Lewis Baltz, Bernd and Hilla Becher, Joe Deal, Frank Gohlke, Nicholas Nixon, John Schott, Stephen Shore, and Henry Wessel, jr.

<sup>50</sup> A number of recent exhibitions have focused on the subject of architecture for contemporary photographers. The recent Andreas Gursky show at MoMA is just the most visible of many. See also a recent Architectural Association exhibition catalogue in this regard, *Reconstructing Space: Architecture in Recent German Photography*, ed. Michael Mack (London: Architectural Association, 1999).

<sup>51</sup> See Michael Stöneberg, “The Images of Neues Bauen in Berlin: Architectural Photography by the Berliner Arthur Köster,” *Daidalos* 66 (December 1997), 92-99.

dissertations on the photographers Max Krajewsky and Albert Renger-Patzsch indicate a terrain not merely opening, but growing ever wider.

In a related vein, Daniel Naegele has written on the cross-influences of photography, architecture, and Purist painting in the work of Le Corbusier.<sup>52</sup> His articles cover the field of architectural photography, but also probe a more general question of how photography infiltrated the substrate of Le Corbusier's architectural strategies. His work nevertheless stands in interesting counterpoint to this work, pursuing similar lines with different means, and arriving at different conclusions. This is partly due to the substantial differences between the two artists in question. Le Corbusier's restless, aggressive curiosity about the mechanisms of other forms of representation would seem to find no counterpart in Mies's far more laconic pursuit of rather singular architectural ideas. Nevertheless there are common points. Where Le Corbusier established certain equivalences between the visual mechanisms of photography, painting, and architecture, Mies pursued a similarly broad-based visual project, more closely connected to his own avant-garde context, and including not just photography but film and the theatrical. Both architects show a rather penetrating understanding of the importance of representational and media practices, and the importance of translation between architecture and mass media. These were of course critical to their own interface with the world of daily appearances, and the requirements of commercial practice.<sup>53</sup> When Naegele declares, "it was the space of

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<sup>52</sup> See Daniel Naegele, "Savoye Space," *Harvard Design Magazine* (Fall 2001), 4-13; idem, "Le Corbusier and the Space of Photography: Photo-murals, Pavilions and Multi-media Spectacles," *History of Photography* 22 (Summer 1998):2, 127-138; idem, "Object, Image, Aura," *Harvard Design Magazine* (Fall 1998), 37-41; idem, "Photographic Illusionism and the 'new world of space,'" in *Le Corbusier, Painter and Architect*, 83-117.

<sup>53</sup> This problem—the problem of advertising a commercial practice—had been confronted by the German Werkbund in its annual *Jahrbuch* for some time. Le Corbusier knew these publications, as Stanislaus von Moos pointed out in the early 1980s. See Stanislaus von Moos, *Le Corbusier, Elements of a Synthesis* (Cambridge, Mass.: MIT Press, 1984), 36-56. Furthermore, the problem of advertising was complicated by the ban on direct advertising for German architects—architects were forced to 'advertise' through exhibitions, journals, and

representation that Le Corbusier wished to offer architecture," we need only qualify that statement slightly for application to Mies's work. In Mies's case, it was not so much the space of representation, but the space of abstraction that was offered—a space of utopic freedom reached through the mechanisms provided by extra-architectural media, imported into architecture and then released there in various ways. I will return to a fuller discussion of this concept in the final chapter of this study.

### **Architectural Photography and Modernism**

Daniel Naegele took up a subject that had been touched on by Beatriz Colomina earlier. Her book on Le Corbusier and Loos changed the terrain of writing on architecture's relations to mass culture.<sup>54</sup> As Frederick Schwartz has noted, she "laid down a challenge" that architectural historians of modernism are now virtually obliged to face.<sup>55</sup> In direct relation to Mies, Colomina has written that she initially found Mies to be unsuited to her scholarly undertaking, but that an examination of his heavy dependence on representation to promote and develop his early ideas had changed her mind. In her article "Mies Not,"<sup>56</sup> she described Mies's five early theoretical projects in

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self-published monographs. See Roland Jäger, *Neue Werkkunst*, for architects' monographs published through commercial subsidies from their subcontractors.

<sup>54</sup> Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media*.

<sup>55</sup> Schwartz writes, in reviewing the *Mies in Berlin* exhibition, "...the exhibition itself could have gone further in exploring the problem of Mies as manipulator of the media. His role as exhibition designer was foregrounded effectively....but the challenge laid down by Beatriz Colomina's work on the inseparability of modern architecture from modern forms of publicity was not really met. How was a career such as Mies's defined by the possibility of images to circulate in the twentieth century?" Frederick J. Schwartz, exhibition review, *Journal of the Society of Architectural Historians* 61 (2002), 2: 218.

<sup>56</sup> Playfully titled, it would appear, after a common idiomatic expression adapted from the 'Valley Girl' speak of the late 80s-early 90s. Beatriz Colomina, "Mies Not" in Detlef Mertins, ed., *The Presence of Mies*, (New York: Princeton Architectural Press, 1994).

relation to their appearance in the media. This argument follows Richard Pommer and Christian Otto's earlier claim, as regards the five projects, that "Mies understood more clearly than most German architects that the new architecture had to create its own public through the propaganda of illustrations as well as words because it had few institutions other than the press and exhibitions to support it."<sup>57</sup> Colomina's initial lack of scholarly interest in Mies is described in her essay. In addition to the reasons she enumerated there, we might note the following difficulties associated with Mies study: while Le Corbusier left behind archival excess, Mies left a partial archive, full of gaps and holes—an inconsistent record that frustrates efforts at conceptual argumentation. This partial record is not the result of intentional destruction, like Loos's destruction of his own archive at the end of his life, but reflects indeterminate lack. Mies also destroyed, but only partially, and only by hearsay. In addition, much valuable information about his work was destroyed or lost in the war years.<sup>58</sup> When something is missing from the Mies Archive, there may be any number of explanations. Thus the shortcomings of *Mies in Berlin* on the subject of Mies's media construction (as identified in Schwartz's review) reflect real ambiguity in the available sources. Also, where Loos, leaving virtually no archive at all, left a large quantity of pithy theoretical writing, Mies wrote very little, Neumeyer's claims notwithstanding. He was relatively inarticulate, even in German, and at all events reluctant to speak or write if he could avoid it.<sup>59</sup> Turning to Mies's writings for enlightenment on his work is inconclusive, not

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<sup>57</sup> See Introduction, note 26. Cited from Pommer and Otto, 12.

<sup>58</sup> Much of Mies's work in the years 1927-1938 was done in partnership with Lily Reich; when her office was destroyed in 1943 much material seems to have been lost. For example, all correspondence relating to the Tugendhat House commission was lost. This material was probably housed in Reich's office rather than in Eduard Ludwig's parents' barn outside Berlin, with the rest of Mies's work.

<sup>59</sup> There are numerous instances of Mies declining to submit written work on his projects, and other instances when he either failed to deliver promised texts, or delivered texts far shorter than initially anticipated. For a review of some of the more striking examples, see Fritz

only because of the paucity of writing, but also because of changes in his point of view over time. Finally, where Le Corbusier's archive rests in Europe, and Loos's belongs effectively to the public domain, Mies's archive lies in the vaults of the Museum of Modern Art in New York. MoMA can be relied on to mount a Mies exhibition every generation or so; perhaps the single most significant political act of Mies's career was thus his gift to the museum. Not only ensuring the preservation of his work, his gift also insured that he would never, for better or worse, leave the public eye. MoMA is now seen, whether correctly or not, as the guardian of Mies's public reputation.<sup>60</sup>

An interesting analysis of Mies's five well-known theoretical projects of the early 1920s<sup>61</sup> has been made by Elke Duda of the Haus Lemke Stiftung in Berlin. Duda noted recently that the format of at least three of these five drawn projects contrasted radically with their abstract subject matter.<sup>62</sup> In terms of their graphic design, the drawings of the Concrete Office Building, the Friedrichstrasse Skyscraper, and the Concrete Country House were poster-sized, designed to function at 1:1 scale in the

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Neumeyer, *Mies van der Rohe, das Kunstlose Wort: Gedanken zur Baukunst*, (Berlin: Siedler Verlag, 1986). English translation, *The Artless Word: Mies van der Rohe on the Building Art*. (Cambridge, Mass.: The MIT Press, 1991). See pp. 21-23 in the English translation.

<sup>60</sup> Colomina's *Privacy and Publicity* foregrounds critical authorship and a mode of reception in writing itself. Colomina discusses the invasion of privacy by publicity noted by Jürgen Habermas in the 1960s, seemingly both embracing and endorsing it. Just as Josef Hoffmann's houses were meant for the public face of family life (there was no private, in Colomina's presentation of Hoffmann), so Colomina's book suggests that there is no reading beyond reception—that modes of intellectual discourse had best mimic the subject matter they discuss. Her concern with audience is important—what is not read has no effect, and will not be registered in future activity—and she has written the book that finds its influence registered among practicing and academic architects. See Colomina, *Privacy and Publicity*, and Jürgen Habermas, *The Structural Transformation of the Public Sphere: an Inquiry into Bourgeois Society* (Cambridge, Mass: MIT Press, 1991; original German 1969). My thanks to Rosemarie Bletter for this reference.

<sup>61</sup> The Friedrichstrasse Skyscraper (1921), the Glass Skyscraper (1922), the Concrete Office Building (1923), the Concrete Country House (1922), and the Brick Country House (1923)—all unbuilt projects explored in drawings and models and widely publicized in avant-garde circles. These are the projects on which Mies reputedly made his reputation among the Weimar avant-gardes.

<sup>62</sup> Conversation with the author, November 2003.

world of the *Plakat*. This reference would, she argues, have read clearly in their exhibition venues. She argues that their form was that of modern street advertising, and that the familiarity of this form was specifically designed to better relay the message of their unfamiliar contents better. Mies offered abstraction—something unfamiliar to a lay public, or even an architectural public at the time—in a clear and palatable form (the familiar form of the poster) in this series of pioneering projects, precisely as propaganda to ensure their success. This speculative argument is especially interesting in that it clearly highlights the different audiences for avant-garde practices in the 1920s. Where the Berlin cultural elite would endure and embrace Berthold Brecht’s interpretation of Soviet-style alienation in his dramatic work, Mies may well have had the opposite concern: to make familiar that which would have appeared strange—to reduce the alienation effect (*Entfremdungseffekt*) of modern abstraction. This would then reinforce the distinction that places architecture in the public realm, on the other side of an invisible line delimiting culturally elite practices from mass culture. This distinction was critically important in determining patterns and forms of propaganda—architectural critics and practitioners in the Weimar years, as today, had a heightened concern for communicating with a lay audience. This argument, as tentatively and speculatively as I recite it here, rests specifically on an encounter with the drawings themselves as objects, rather than with their printed reproduction (which conceals absolute size). It is in this format that they would have been seen in exhibition contexts (the context most immediately important for Mies in the early 1920s), where their resemblance to posters would have been clearly noted.<sup>63</sup>

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<sup>63</sup> Mies’s consciousness of the importance of architecture exhibitions might have been influenced by his early rejection from the Exhibition of Unknown Architects (*Ausstellung für unbekannte Architekten*), sponsored by the Arbeitsrat für Kunst in Berlin in 1919, and curated by Walter Gropius.

Duda's argument introduces the theme of abstraction for architecture, a theme taken up at some length here. My argument is in fact pendant to Duda's, from a different and opposite standpoint. I argue below that a mode of abstraction later pursued by Mies in constructed commissions would be realized, in an altered version, photographically. The photographic images of Mies's buildings captured a version of the abstraction that he pursued without the compromises inherent in constructed architecture (particularly private houses), but also without the performative, sensorially provocative means used in the buildings themselves. Thus, where Duda notes the 'realistic' form in which his early abstractions were offered, I note the abstract form in which Mies's later built works were presented (through photographic abstraction—itself a paradoxical notion). Since what separates our two arguments is a period of nearly ten years (from early twenties to early thirties), a period in which Mies emerged from obscurity to become a leading German architect and Werkbund functionary, the distance between them can be bridged by considering the historical events of those years, and the shift in attitudes toward the New Building (*Neues Bauen*). Mies had advanced from his early years as a 'young Turk,' to become a highly respected authority on the future direction of modern architecture.

Andreas Haus's writings constitute another important historiographical source for the discussions contained here. Haus has argued that photography and modern architecture have a particular 'affinity' (*Wahlverwandschaft*) that linked them to one another integrally, as concurrent and concomitant projects of modern industrial culture. He claims, by way of proof, that black and white photography was as ill-suited to documenting Impressionist painting as it was to recording historicist architecture of the late nineteenth century. In Haus's view, photography exposed the latter as "an attempt to apply a temporally conditioned individuality to the purely technical, functional concept of the construction, and thus to recreate the lost connection to the

continuum of events." By contrast, the principles of camera photography, Haus explains, are of the same order as those of hard-edged and right-angled rationalized architecture, a construction mode initially identified in projects of industrial infrastructure. Haus further notes that this 'affinity,' as he continues to refer to it, was not recognized or exploited until the 1920s. Thus, "only the abstractions of Cubism and Constructivism brought a new aesthetic awareness of the pictorially autonomous, non-illusionistic realities of spatial perception, effects that suddenly appeared in the abstract tendencies of photography as well."<sup>64</sup> Haus's reference here recalls the 1920s 'rediscovery' of axonometric drawing as a representational technique adopted by El Lissitzky and Theo van Doesburg, a system that itself attempted to redefine the nature of spatial representation. His argument is thus provocative and historically grounded; it is nevertheless inadequate. His affiliation of new modes of representation (photographic or drawn) with 'hard-edged' rationality does not bear up under scrutiny. Much of what attracted photographers, architects, and artists to these new modes—to abstraction as a project—were precisely the illusionistic, anti-rational currents that streamed through them.<sup>65</sup>

Leaving aside, for a moment, the problematic affiliation of photography and modern architecture with a rationalist (post-Enlightenment) tendency, Haus himself acknowledges that it is not photography *per se*, not even black and white photography, that bears such an intrinsic affinity to modern architecture. Instead, it is black and white photography of the 1920s and 30s that seems to share so much

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<sup>64</sup> Andreas Haus, "Photogenic Architecture," *Daidalos* 66 (December 1997), p.89. Also see "Fotografische Polemik und Propaganda um das 'Neue Bauen' der 20er Jahren," *Marburger Jahrbuch für Kunstwissenschaften* 20 (1981): pp.90-106.

<sup>65</sup> My thanks to Rosemarie Bletter for pointing out the important connection to axonometry here. See Yve-Alain Bois, "Metamorphosis of Axonometry," *Daidalos* 15 (September 1981) 40-58; and El Lissitzky, "K. und Pangeometrie" in Carl Einstein and Paul Westheim, eds., *Europa Almanach* (Potsdam: Kiepenheuer, 1925, repr. 1980). Bois's interpretation of axonometry is discussed at greater length in Chapter Five.

ground with architecture of the same period. Haus's argument might be slightly adjusted to state that a certain strain of formalist abstraction in modern photography lent itself particularly well to the depiction of buildings that were themselves essays in modernist abstraction in architecture—although in my view this has nothing to do with the mechanics of camera construction or the geometry of the architecture. In this sense, we find the same affiliations between photographs of the Neues Bauen and certain formalist photographic forays into other subject realms—the nude, for example, or the kind of formalist photography practiced by Edward Weston and others. In fact, nudes of the same period may provide the best comparison for photographs of modern buildings; implicit affiliations between the body of flesh and the body of architecture being themselves part of the discourse of modernism.<sup>66</sup> But this has little to do, then, with any geometrical affiliation between photography and its objects.

Haus's explanation for the power of 'original' ( i.e. contemporary to the buildings) photographs of the buildings of the Neues Bauen suggests that photography and architecture were analogous practices. Or better, perhaps, it suggests that photography and architecture embraced similar concerns during the modern period. In fact, one might identify a number of links between architecture and photography in this period. Where abstraction had been pursued furthest and arguably most effectively in painting and sculpture, both architecture and photography came to the search for modernist abstraction (as newly re-defined in painterly circles) significantly later, well after the First World War and even towards the end of the 1920s.<sup>67</sup> In

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<sup>66</sup> For a source contemporary to Mies, see Heinrich de Fries, *Junge Baukunst in Deutschland: ein Querschnitt durch die Entwicklung neuer Baugestaltung in der Gegenwart* (Berlin: Stollberg, 1926); for a more recent discussion of organic models in Miesian modernism, see Detlef Mertins, "Living in a Jungle: Mies, Organic Architecture, and the Art of City Building," *Mies in America*, 590-641.

<sup>67</sup> In European photography this was not unrelated to the first marketing of the hand-held Leica in the latter half of the 1920s—i.e. when the camera became independent of its tripod,

contrast, the pursuit of abstraction in painting was arguably the overriding concern of the late nineteenth century, and had advanced significantly in Europe before the First World War and through it.

Neither architecture nor photography has an unproblematic relationship to the notion of abstraction. Abstraction in painting was defined specifically in relation to the surrendering of figural representation in favor of non-figural representation of one kind or another. But definitions of abstraction in architecture have never been as clearly articulated, partly because of earlier affiliations between classicism and abstraction, dating as far back as Vitruvius. The notion of abstraction for buildings was transmuted, in the modern period, into abjuration of historical signals of all kinds, but the equivalence between the figural as a pictorial trope and historical architectural motifs has always been an uneasy one. In the face of radical imprecision as regards an 'abstract architecture,' I have tried to define that term here, distinguishing between pictorial models of abstraction and architectural ones. Equally, the notion of abstraction in photography was inevitably hinged to the increasing removal of recognizable figures or objects in pictures, again as dictated by painting. And yet both media, photography and architecture, are specifically rooted in a recognizable physicality, in a way that painting is not. This problem is dealt with at greater length in the concluding chapter of this study.

According to Clement Greenberg, writing in 1965, abstraction in painting was consistently hinged to flatness, to the clear registration of canvas surface against any optical depth cues. He noted, in an essay that defined much later discourse on

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and small enough to be carried in a pocket. It is not correct to say, however, that abstract photography *began* with the hand-held Leica, but rather that it was vastly promoted through that camera format. Hand-held cameras existed long before, and were influential in the burgeoning of amateur photography in Europe and the United States. But the Leica introduced a new standard of image quality and control that had a significant impact on artists working in the 1920s.

abstraction, "The heightened sensitivity of the picture plane may no longer permit sculptural illusion, or *trompe l'oeil*, but it does and must permit optical illusion. The first mark made on a surface destroys its virtual flatness, and the configurations of a Mondrian still suggest a kind of illusion of a kind of third dimension. Only now it is a strictly pictorial, strictly optical third dimension. Where the Old Masters created an illusion of space into which one could imagine oneself walking, the illusion created by a Modernist is one into which one can look, can travel through, only with the eye."<sup>68</sup> And yet neither of these two possibilities quite describes the achievement of architectural photography. Greenberg's Modernist painting created a space within which spatial relationships and aesthetic effect could be effectively controlled—by flatness—for the sake of a kind of utopic construction of one kind or another. But whereas architectural photography seems always to have been assumed to lie in the former of Greenberg's two categories, in the terrain of the "Old Masters," the photographs under discussion here lie equally in the latter domain—that of purely optical illusion. In the process, they help bring abstraction to two practices to which it otherwise applied only with difficulty.

Both architecture and photography have an analogous relationship to the material world which they either construct or depict. Both are specifically concerned with existing realities. In both cases, serious theoretical work preceded the introduction of concepts similar to those found in painterly abstraction, or to the space that abstraction had developed within. Paradoxically for architecture, buildings, once constructed, begin to suffer the consequences of time and use. Like organic bodies, they suffer the effects of wear and tear—the effects of aging. Thus they would seem to have little in common with the creation of an abstract space—if by that we mean a

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<sup>68</sup> Clement Greenberg, "Modernist Painting," *Art and Literature* 4 (Spring, 1965), reprinted in *The New Art*, ed. Gregory Battcock (New York: Dutton, 1966), 100-110.

space in which idealized relationships and purified meanings are posited. Photographs, on the other hand, re-code the objects and sites of the material world in, it could be argued, a potentially rather slavish fashion. An argument can be made that the abstract photograph (like the abstract building) is a paradoxical notion. While both media pursued the project of abstraction to extremes that were rich in new perceptual possibilities, both retained a paradoxical relationship to the basic proposition of non-figural art. Photography and architecture are media grounded by historical and conceptual themes in both a material and a representational world. Both must work against certain naturalized disciplinary habits to achieve abstract representation. This is fundamentally not the case with painting or sculpture.

Nevertheless, photography and architecture ultimately did embrace abstraction with great commitment. In fact, they collaborated in this embrace; each made abstract representation in the other more possible, more convincing. The photographs of modern buildings persuaded us that architectural abstraction was conceivable (even if only in pictures); and they did so as *prima facie* examples of photographic abstraction, but grounded in perspectival space. One might well wonder if the collaboration, and the mutual grounding in material reality, are more relevant than has so far been fully recognized. Haus himself acknowledged such a probability when he noted,

After the turn of the century, a new classicism brought with it an increasing emphasis on the aesthetics of 'space' in architecture, an aesthetic whose more abstract, virtual design ideas and new stereometric concepts produced novel effects in photography. Ostensibly, for the first time, architectural photography was consciously and productively employed not merely as a pictorial imitation of the real, built object, but rather as the visualization of its concept.<sup>69</sup>

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<sup>69</sup> Haus, "Photogenic Architecture", p. 89.

We could then take as a starting point the understanding that each medium took part in a collaborative construction of modern abstraction, but that each was fully grounded in its own operational context.

Returning to Haus's affiliation of modern photography and modern architecture as reflections of the same rationalizing modern project, there are grounds to dispute such a straightforward reduction of one medium to another, or of both to an overriding historical tendency. Enough examples exist to counter the notion of modern architecture as a purely or even largely rational endeavor—if that category itself constituted anything other than a very general rubric. Haus affiliated the idea of a rationalist architecture with a modern one, which is at base a problematic idea. In fact, I make an opposite argument for photographs of modern buildings. I would not ascribe their occasionally very substantial success to the concurrence of different forms of rationalism or rationalization. Quite the contrary. It seems to me that architectural photographs are wishful images of modern buildings, encapsulating dreamworlds and utopian fantasy. And the arguments circling around the theme of abstraction, pursued further in a later chapter, make this evident.

## CHAPTER TWO RECUPERATING VISUAL CHOREOGRAPHIES OF MIESIAN ARCHITECTURE

In painting, it must be thought through painterly means—wordlessly, outside all literature. This is why the neo-plastic painter 'gives explanations *about* his work but not *of* it.<sup>1</sup>

### Argument

By 1927, Mies had identified a particular line of investigation that would occupy him for the next decade, during which he would complete some of his most important early work. This group of projects includes the Esters and Lange Houses, the Barcelona Pavilion, the Tugendhat House, the Berlin Building Exhibition House, the Gericke House, the Henke House Addition, the Ulrich Lange House, the Hubbe House, and the series of studies called the Courtyard Houses, and it reverberates in American projects like the Museum for a Small City of 1942. This chapter links Mies's design investigations at this time with concurrent developments in European art, architecture, and reproductive media, arguing for a new awareness of Mies's engagement with the work of fellow avant-gardists, and with new representational possibilities in architecture itself. In this discussion, the primary goal is to document the architect's deployment of techniques from photography, film, and theater in his architectural work, tracking how these media directly influenced new architectural experiments.

The chapter initially sketches the context of Mies's practice as of 1927. It reviews the definitive split that can best be traced back to the Weissenhofsiedlung, that between architects for whom political engagement superseded other concerns,

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<sup>1</sup> Piet Mondrian as quoted by Yve-Alan Bois in "The Iconoclast," *Piet Mondrian, 1872-1944* (Boston: Little, Brown and Company, 1995), 326.

and architects for whom conceptual investigations remained primary. Mies belonged to the latter camp, and his directorship of the Weissenhofsiedlung forced a declaration of future direction that set him apart from left-wing architects, with whom he had previously enjoyed relative harmony, without significantly reducing the distance he maintained from right-wing architects, established some years previously. After setting the stage for the internal conflict among progressive Weimar architecture circles, the chapter goes on to review the direction Mies took in the years following 1927, in a discussion of his plan-making method. This is then linked to the work of Hans Richter and Adolf Appia, two formative influences on Mies. The argument made here suggests that Richter, especially, helped Mies delineate certain consistent parameters for his new design system, and that these were partly derived from the determining conditions of photography and film-making.

The chapter goes on to tie these developments into the larger context of which they were a part, noting the importance to both Richter and Appia, and, by extension, to Mies, of notions of rhythm and harmonic balance in art. The chapter concludes that Mies's architectural work at this time took certain specific cues from these artists and the media in which they worked, which he developed into architectural conditions. It suggests that what Mies pursued in the Barcelona Pavilion and the Tugendhat House, as well as a number of unbuilt projects, constituted a new architectural experience, one whose absorption of developments in photography, film, and performance art was manifest in the architecture itself. Drawing from the still-influential notion of the *Gesamtkunstwerk*, and the potential to create synaesthetic architecture, Mies's work sought to enact a transformative spatial

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experience that should be understood in relation to corresponding ambitions for visual abstraction in painting, photography, and film.

While the term 'architectural abstraction' can only be applied to this attempt on Mies's part with caution, the term nevertheless helps locate his investigation in relation to concurrent investigations in painting and other media. The great ambition of Mies's work at this time can be seen as the attempt to enact, in real space, a mode of experience that had heretofore been available only virtually, in the graphic experiments of Russian Constructivists, Suprematists, and De Stijl artists, and in the pioneering film work of Richter and Viking Eggeling. This chapter investigates the direct influence of photography and film on Mies's architecture, noting how the architect absorbed these influences and transformed them into inherently architectural modes and characteristics. It serves as a counterpoint to the subsequent discussions, in Chapters Three and Four, of a reverse condition: the corollary transformative potential of photography, through the representation of Mies's architecture for a wider audience in periodicals and books.

### **Schisms of the New Building Styles**

In 1927, Mies saw the completion of one of his most controversial assignments: the Werkbund exhibition, "Die Wohnung," with its three constituent sections.<sup>2</sup> Located in Stuttgart, in Germany's southern heartland, and a base for

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<sup>2</sup> The three parts of the exhibition were the Weissenhof housing settlement (with an experimental construction site nearby), the building products exhibition in the Gewerbehalle in downtown Stuttgart, and the "International Plan and Model Exhibition" at the city exhibition hall near the New Palace, which had an afterlife as a travelling exhibition for the Werkbund. It was exhibited at the *Große Berliner Kunstausstellung* in Berlin beginning in May 1928. See advertisement in *bauhaus* 2/3, 2. Jahrgang, back page. For publications on the Weissenhofsiedlung see Karin Kirsch, *Die Weißenhofsiedlung. Werkbund-Ausstellung "Die Wohnung" - Stuttgart 1927* (Stuttgart: Deutsche Verlags-Anstalt, 1987); Richard Pommer and Christian Otto, *Weissenhof 1927 and the Modern Movement in Architecture*; Karin Kirsch, *Briefe zur Weißenhofsiedlung* (Stuttgart: Deutsche Verlags-Anstalt, 1997). Also see *Amtlicher*

many of the major *Heimatstil* architects of Germany,<sup>3</sup> the exhibition marked a major victory for modern architects attempting to dominate the Werkbund's quasi-official legislation of German architectural policy.<sup>4</sup> Planning and executing the enormous project, which included Mies's own large apartment building (fig. 1.2) as well as the administration of three independent exhibitions, was taxing. The construction of a permanent residential installation (the Weissenhofsiedlung) in the context of an exhibition was still relatively rare. Planned settlements *per se* were not an unusual occurrence by the end of the first quarter of the twentieth century. The Weissenhof project was innovative, however, in its combination of a planned settlement and a housing exhibition that showcased full-scale buildings as prototypes for new housing, using new construction methods. Where full-scale temporary buildings had been constructed at world's fairs dating back to 1851, the buildings at Weissenhof were intended as permanent constructions, collapsing the distance between display architecture and implementation into a construction program, even as it claimed the flexibility of exhibition architecture in its experimental approach.

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*Katalog Werkbund-Ausstellung "Die Wohnung,"* (Stuttgart: Deutsche Werkbund, 1927). For the Plan and Model Exhibition, see the exhibition catalogue, *Internationale Neue Baukunst* (Stuttgart: Julius Hoffman Verlag, 1927), recently re-printed with contributions by Karin Kirsch, Jean-Louis Cohen, and Manfred Sack, re-titled *Neues Bauen International 1927/2002*, and published by the Institut für Auslandsbeziehungen, Stuttgart, and Gebrüder Mann, 2002.

<sup>3</sup> Theodor Fischer, Paul Bonatz, and Paul Schmitthenner were the core members of the "Stuttgart School." For basic recent literature on all three: see W. Nerdinger, *Theodor Fischer: Architekt und Städtebauer* (Berlin: Ernst Verlag, 1988); Rudolf Pfister, *Theodor Fischer: Leben und Wirken eines deutschen Baumeisters*, (Munich: Callwey, 1968); *Paul Bonatz: Wohnhäuser* (Stuttgart: Hatje Cantz Verlag, 1992); Norbert Bongartz, Peter Dübbers, and Frank Werner, *Paul Bonatz, 1877-1956* (Stuttgart: Krämer, 1977); Hartmut Frank and Wolfgang Voigt, *Paul Schmitthenner 1884-1972* (exhibition catalogue, Tübingen: Wasmuth, 2003). See also Paul Schmitthenner, *Baugestaltung. Erste Folge, Das deutsche Wohnhaus* (Stuttgart: K. Wittwer, 1932; reprint with introduction by Hartmut Frank, Stuttgart, Deutsche Verlags-Anstalt, 1984).

<sup>4</sup> A victory celebrated, perhaps prematurely, in Walter Curt Behrendt's book, *Der Sieg des neuen Baustils*, published in 1927 in conjunction with the exhibition. See Walter Curt Behrendt, *The Victory of the New Building Style*, Introduction by Detlef Mertins (Santa Monica: Getty Research Institute, 2001).

The *Siedlung* was meant to combine experimental technologies with inhabitable buildings; and it was this ambitious and somewhat impractical goal that led to many of the political difficulties that plagued the entire enterprise.<sup>5</sup> In addition, the project was also plagued by an unusual amount of strife, both within the Werkbund generally, and more specifically between Mies and the on-site supervisor of the building works, Richard Döcker. Even more significant was the fallout after the three-part exhibition had opened and closed. The reaction of conservative critics was in many cases damning. In addition, dissatisfaction with the houses was widespread among *Heimatstil* and other right-wing architects and critics.<sup>6</sup> The Weissenhofsiedlung, particularly, was the butt of a long series of negative treatments in the German press, lasting well into the years of the National Socialist government.<sup>7</sup>

On the other hand, "Die Wohnung" was absorbed into a larger discourse on new construction methodologies and on the concept of *Existenzminimum*, the effort to codify the optimum minimal dwelling size (and offer an array of appropriate plan layouts) for mass housing. The latter theme was taken up by the Congrès Internationaux d'Architecture Moderne (CIAM), at the inaugural meeting at La Sarraz that took place in 1928, the year after Weissenhof opened. Many architects who had also built in the Stuttgart settlement further developed their research there, in

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<sup>5</sup> For a comparison with the Gartenvorstadt Marienbrunn (Leipzig) of 1913, and Mies's view of its relation to the artist's colony at Darmstadt, see "From Mathildenhöhe to Weissenhof," in Pommer and Otto, 36-44.

<sup>6</sup> For background on this split, particularly on the Bund für Heimatschutz, see Christian Otto, "Modern Environment and Historical Continuity: The Heimatschutz Discourse in Germany."

<sup>7</sup> See "Proclaiming Weissenhof," and "The Aftermath," in Pommer and Otto, 131-157. Both authors make clear that the failures of Weissenhof helped further polarize architects of different ideological persuasion in Germany, helping to precipitate the rapid fall of modernism after 1933. The victory at Stuttgart in 1927 seems to have been largely Pyrrhic.

paradigmatic proposals for minimal housing and innovative construction processes like prefabrication and on-site rationalization.<sup>8</sup> Their goal was procedural as much as architectural: to design a *process* for mass housing that involved large-scale infrastructure reorganization as much as building design. This was an attempt that might be said to have come to fruition, to the extent that it did, in the masses of east Bloc housing constructed after the Second World War.<sup>9</sup>

Mies was absent from CIAM in 1928. He had already declared an alternative direction for himself, in the preface to the general exhibition catalogue of "Die Wohnung" in 1927: "The problem of the new dwelling is fundamentally a spiritual problem, and the struggle for the new dwelling only a part of the greater struggle for new forms of living (*Lebensformen*)."<sup>10</sup> His declared move towards a 'spiritualized' architecture has been linked to the influence of the Catholic cleric Romano Guardini, independently and through the architect Rudolf Schwarz,<sup>11</sup> with whom Mies was

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<sup>8</sup> Ernst May, the city architect of Frankfurt a.M., for example, experimented with tilt-up construction at Weissenhof; he was also at La Sarraz the next year, to continue his researches into the standardized dwelling. For a general treatment of CIAM, see Eric Mumford, *The CIAM Discourse on Urbanism, 1928-1960*, (Cambridge, Mass.: The MIT Press, 2000), and my review, in the *Journal of the Society of Architectural Historians* 60:1 (March 2001), 98-100.

<sup>9</sup> Soviet architects had pioneered a similar idea in housing built before CIAM ever convened. For its influence on Le Corbusier, see Jean-Louis Cohen, *Le Corbusier et la mystique de la URSS* (Paris: Mardaga, 1987).

<sup>10</sup> The whole text reads, "Die Probleme der Neuen Wohnung wurzeln in der veränderten materiellen, sozialen und geistigen Struktur unserer Zeit; nur von hier aus sind diese Probleme zu begreifen. Der Grad der Strukturveränderung bestimmt Charakter und Ausmaß der Probleme. Sie sind jeder Willkür entzogen. Mit Schlagworten sind sie nicht zu lösen, mit Schlagworten aber auch nicht fortzudiskutieren. Das Problem der Rationalisierung und Typisierung ist nur ein Teilproblem. Rationalisierung und Typisierung sind nur Mittel, dürfen niemals Ziel sein. Das Problem der Neuen Wohnung ist im Grunde ein geistiges Problem und der Kampf um die Neue Wohnung nur ein Glied in dem großen Kampf um neue Lebensformen." *Amtlicher Katalog Werkbund-Ausstellung "Die Wohnung,"* (Stuttgart, 1927).

<sup>11</sup> See Fritz Neumeyer, "Departure from the Will of the Epoch: Building Art as Spiritual Decision," in *The Artless Word*, 146-161. Also see Detlef Mertins, "Architectures of Becoming: Mies van der Rohe and the Avant-Garde," *Mies in Berlin* (Museum of Modern Art, 2001), 106-133, and idem, "Living in a Jungle: Mies, Organic Architecture, and the Art of City Building".

already in contact by the late 1920s.<sup>12</sup> It might also be linked to a larger trajectory in German intellectual culture, one that attempted to harness forces of modernization to values that nineteenth- and early twentieth-century thinkers associated with an older, pre-modern time.<sup>13</sup> For Mies, as for Walter Gropius, this was the problem of contemporary architecture—how to develop a modern way of building that retained a connection to historical precedent and to essentially abstract German idealist values. It was this apparent attempt at amelioration with respect to German tradition that drove a wedge between Mies and more radical members of the Neues Bauen like Ernst May and Hannes Meyer, and that came to a head in 1930, as Mies's Tugendhat House was completed and he replaced Meyer as director of the Bauhaus.

By 1927 Mies had assumed an important role in German architectural culture. It was in that year that Paul Westheim's monographic article in *Das Kunstblatt* identified Mies as one of the most important modern architects in Germany.<sup>14</sup> If Weissenhof put Mies on the map in a much more public sense than had been the

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<sup>12</sup> Barry Bergdoll notes that Mies was reading Schwarz's work by 1927, although he does not give his source; Neumeyer cites correspondence of 1929 as definite proof of acquaintance between Schwarz and Mies at that time; he suggests, however, that Mies was already familiar with Schwarz's writings in *Die Schildgenossen* of several years earlier, and that they had already met each other "presumably in the early twenties". Neumeyer notes, "The relationship between Mies and Schwarz has not yet received scholarly evaluation. The Schwarz papers have not been made accessible to me." Neumeyer, *The Artless Word*, 163 and 367 n.6; Bergdoll, "The Nature of Mies's Spaces," 91.

<sup>13</sup> This would include radical conservatives like Julius Langbehn and Arthur Moeller van den Bruck; in architecture proper Paul Mebes *Um 1800* is perhaps the best exemplar of this desire. Basic references on this strand of German intellectual history include Fritz Stern, *The Politics of Cultural Despair; a Study in the Rise of the Germanic Ideology* (Berkeley: University of California Press, 1961), and Jeffrey Herf, *Reactionary Modernism*.

<sup>14</sup> "The Ring is grouped around Mies, that is, the essential architects of the new architecture in Germany; the German Werkbund has made him its president, and as the exhibition planned for this summer in Stuttgart shows, [an exhibition] which should offer literally a dozen architects the opportunity once and for all to show how they conceive of the solution to the problems of modern domestic architecture, Mies has already succeeded in bringing a new vitality into the Werkbund." (my translation) Paul Westheim, "Mies van der Rohe: Entwicklung eines Architekten," *Das Kunstblatt* 2 (February 1927): 55-62.

case previously, this resulted from at least two facts. First, several years had been devoted to following an experimental path (at the same time, maintaining a conventional, even conservative practice, at least through 1924); and second, Mies had worked his way up through the informal, loosely-knit 'hierarchy' of progressive artistic circles in Berlin, moving between groups founded with radical aesthetic goals after the First World War, and groups whose ultimate goal was to harness the economic and ideological force of official state arts policy. He began with the Novembergruppe, then moved into the Ring of German Architects, and finally into the power structure of the influential Deutscher Werkbund.

Although he may have been at the center of the Ring by 1927, Mies was not included in the 1926 *Junge Baukunst in Deutschland*, edited by Heinrich de Fries, editor of *Die Baugilde* and numerous other publications.<sup>15</sup> De Fries included instead an array of what we might call 'middle-ground modernists,' architects interested in modern influences but nevertheless unwilling to sign on to the radical program of the Ring or the 'Neues Bauen,' and he specifically excluded much of the Berlin architectural scene, including Mendelsohn and Gropius in addition to Mies. The collection included (and featured most heavily) Emil Fahrenkamp, Karl Schneider, Richard Döcker (Mies's nemesis from Weissenhof), De Fries himself, and Wilhelm Riphahn. These architects rejected the notion of a *Heimatstil*, in the sense of a traditional architecture. Nevertheless De Fries found in their work evidence of an "organic-vital conception" for architecture. His book drew repeated analogies between building and the human body: "At the moment that we began to see a house like a living essence with its own laws and requirements, we also felt it as a

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<sup>15</sup> see Heinrich de Fries, ed., *Junge Baukunst in Deutschland*. On de Fries, see Roland Jaeger, *Heinrich de Fries und sein Beitrag zur Architekturpublizistik der Zwanziger Jahre* (Berlin:

body, as a creature of all three dimensions, that first, in its totality, made a reflection of the whole richness of the godly ideal possible in this world."<sup>16</sup>

Radically opposed to the Bauhaus and its activities, De Fries condemned the members of the Berlin avant-garde as "the building artists of the brain and the cold hand," rhetoric very similar to Mies's 1927 Weissenhof defense of the search for the spiritual dimensions of architecture. De Fries wrote, "They will only confuse—unfortunately all too often—spiritual poverty with the real objective, or—in the consciousness of their own inadequacy—confuse the ultimate goal, which can only ever be one: to bring the essential into reflective form!"<sup>17</sup> In addition to the two extremes of Neues Bauen modernists (themselves splintered into several factions by 1927) and *Heimatstil* traditionalists, a further faction in German architecture had thus assumed a clear identity under the leadership of De Fries by 1926. Mies's position coming out of the Stuttgart exhibition may be interpreted as proceeding from a realistic assessment of the strength of forces arrayed against him, in the battle for progressive modernism. This was even more the case after many left-wing architects had left the country for Russia by the end of the 1920s.

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Gebrüder Mann, 2001). De Fries included Hugo Häring, Ernst May, and even Adolf Meyer in this collection.

<sup>16</sup> "Im Augenblick, da wir begannen, ein Haus wie ein lebendiges Wesen mit dessen Gesetzen und Bedürfnissen zu empfinden, fühlten wir es auch als Körper, als ein Geschöpf aller drei Dimensionen, die erst in ihrer Gesamtheit ein Widerspiel der ganzen Fülle der göttlichen Idee dieser Welt ermöglichen." Heinrich De Fries, *Junge Baukunst in Deutschland*, p. 9. De Fries subsequently helped edit a series of monographs that included many of these architects, such as Fahrenkamp, Schneider, and Riphahn. See Roland Jaeger, *Neue Werkkunst. Architekten-monographien der zwanziger Jahre mit einer Basis-Bibliographie deutschsprachiger Architekturpublikationen* (Berlin: Gebrüder Mann, 1998).

<sup>17</sup> "Nur seelische Armut wird sie—leider noch allzu oft—mit der eigentlichen Zielsetzung verwechseln oder—im Gefühlsbewußtsein eigener Mangelhaftigkeit—mit dem Endziel zu vertauschen, das immer nur eines sein kann: Wesentliches in sinnengemäße Form zu bringen!" *Ibid.*, p. 5

Mies's attempt to tread a middle way in the ideological battles of Weimar cultural practice was in fact not so different from that of other European modernists. Walter Gropius, Alvar Aalto, and Le Corbusier all similarly attempted to shrug off connections between political ideology and progressive culture.<sup>18</sup> In all cases, these artists made a clear distinction between artistic projects and political affiliation, rejecting the notion that politics exercised authority over cultural matters. The extent to which they might be proved inconsistent in their thinking is a matter open to continuing debate. To these figures, art was a conceptual practice as much as a social one, at the very least. In this they are distinct from the somewhat tragic Hannes Meyer, whose efforts to pull socialist praxis into the elite world of architecture is still often deemed foolish, misguided, or excessively doctrinaire.<sup>19</sup>

### **New media influences in Miesian architecture, post-1927**

In spite of his caution with respect to ideological battles, and his clear attempts to keep the Werkbund on a centrist path, Mies's work in the years following 1927 remained squarely within the realm of conceptual invention. Many of his architectural decisions in these years were rooted in specific spatial and experiential effects that were also important to European modernists over a wider framework, not just that of Weimar Berlin. Most important for this discussion are the ways in which his work can be linked to concurrent developments in photography, to new

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<sup>18</sup> For a fuller discussion of Mies's ideological choices, see Richard Pommer, "Mies van der Rohe and the Political Ideology of the Modern Movement in Architecture," in Franz Schulze, ed., *Mies van der Rohe: Critical Essays* (New York: Museum of Modern Art, 1986).

<sup>19</sup> Meyer was championed by K. Michael Hays in his *Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer* (Cambridge: MIT Press, 1992). While Hays's argument was compelling, his book remains ghettoized by its own limits; it is very hard to read. Thus Hays's attempt to set a new direction in modernist architectural history seems only to have reinforced the prevailing judgment of Meyer's important work.

visual practices, and to relatively new ideas about modernist performance. On the evidence of the buildings themselves, the relevance of new media to Mies's design method appears in particular architectural instances as well as in larger design motifs and constructional decisions, as is outlined below. In addition to the evident emphasis on visuality in his work, Mies's plan-making strategies developed in interesting ways in the years after 1927, in conjunction with media and performance practices in Weimar. Unmistakable traces of photographic and montage practices appeared in his buildings in these years, the result of sustained contact with an entire milieu specific to his time and place (not just his profession).

Where Mies's own engagement with new media practices of the 20<sup>th</sup> century stood out in his design work, his personal engagement with the tools of modern publicity remains highly ambiguous and difficult to track, due to the overall scantiness of archival records, and his steadfast refusal to frame his work with sustained written argument. Added to this are frequent expressions of frustration and annoyance in the MoMA and Library of Congress correspondence files, over Mies's refusal to meet writing deadlines or to answer letters, and a dearth of information (perhaps reflecting a certain ambivalence on the architect's part) about his efforts to propagandize his own work.<sup>20</sup> More compelling is the published record itself, overwhelmingly photographic: Mies's mature work seems generally to have appeared with sufficient fanfare and appropriate timing to capture the media attention required for the success of his polemic, even when archival documents and

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<sup>20</sup> A typical example from the Mies Archive: Lilly Reich to the German administrator of the World's Exposition in Barcelona, 4 December 1929—"Mies and I had also once thought of having a small picture-book put together, but then the desire passed away again (Mies und ich hatten auch früher schon einmal daran gedacht, ein kleines Bilderbuch zusammenstellen zu lassen, aber dann war uns daran wieder die Lust vergangen)." Even Reich herself couldn't summon up the enthusiasm, in this case, to further publicize a completed project. Correspondence Files, Mies van der Rohe Archive, MoMA.

pronouncements do not reveal that process in detail. In the area of publicity, we must as a result partially disengage ourselves from Mies's control and his intentionality, and instead accept the increasing importance of other forces in the dissemination of his work in the press, forces with which he must have been in basic agreement, if not always in full control.<sup>21</sup>

### **Universelle Sprache?**

Mies had his first personal contact with Le Corbusier in the course of his administration of the Weissenhofsiedlung. At the same time, he explored constructive themes that would occupy him for the next decade. Not surprisingly, these shared certain characteristics with Le Corbusier's own interests at the time, specifically his self-described "Five Points for a New Architecture," properly published for the first time in the monograph of the Le Corbusier/Pierre Jeanneret houses constructed at the settlement under the direct supervision of Alfred Roth.<sup>22</sup> There, Le Corbusier distinguished his famous five elements of construction: free plan, *pilotis*, roof garden, free façade, ribbon window—modern house design broken into five

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<sup>21</sup> As much as I would like to resist the gender stereotype, it is hard not to speculate that Lilly Reich organized much of Mies's publicity apparatus (such as it was) in the years in which they collaborated. In correspondence relating to the Barcelona exhibition, it is generally Reich who wrote and received letters detailing arrangements for photography or other press coverage. The Barcelona photographer, Wilhelm Niemann, recounts a relationship carried on almost entirely with Reich; Mies, he claimed, 'had nothing to do with it.' Personal conversation with Janos Frecot; and Wilhelm Niemann interview, Werkbund-Archiv, Berlin.

<sup>22</sup> See *Bau und Wohnung* special issue (Stuttgart: Deutsche Werkbund, 1927), under Alfred Roth's authorship: *Zwei Wohnhäuser von Le Corbusier und Pierre Jeanneret* (reprinted Stuttgart 1977). Le Corbusier sent the French text for translation by Roth, for publication as "Fünf Punkte zu einer neuen Architektur," in June 1927. See Pommer and Otto, p.87, 229 n. 40; also see Stanislaus von Moos, *Le Corbusier: Elements of a Synthesis* (Cambridge, Mass.: MIT Press, 1979/1968), pp. 69-71. Le Corbusier had actually published a preliminary version of the five points in a French journal, *Journal de Psychologie Normale et Pathologique* 22 (1926): 325-50. See von Moos, p. 71, n.3. It would also be possible to argue that the separation of structure and enclosure predates the appearance of the five points, and rightly belongs together with the Domino House diagram of 1914.

separately ordered components, whose final assembly would thus retain chance adjacencies and conjunctures.<sup>23</sup>

At the same time, Mies was developing his own constructive schemata, best illustrated by his two Stuttgart projects: the steel-framed apartment block on the one hand, and his well-known Glass Room in the materials show on the other. In the first, Mies used a structural frame as the armature for his otherwise concrete block building. Following his specifications, the dividing walls between spaces within a single apartment unit were meant to be entirely flexible around the structural grid supplied by the frame (fig. 2.1). The conceptual idea of a regular frame underpinning differently articulated spatial contents recurred in Mies's 1920s and 30s projects. It also arguably recurs in another form in his American work, before the constructional frame superseded and ultimately displaced any complementary architectural expression—where a unitary system replaced the early dualism of structure versus enclosure.<sup>24</sup>

In contrast to the apartment block, Mies's Glass Room in the materials exhibition of the 1927 show illustrated the idea of more or less freely-composed spatial dividers within a rectangular spatial envelope. There, in one of the smaller exhibition halls, he and his collaborator Lilly Reich divided the available space into rectangular, glass-walled enclosures, with a path traversing back and forth through

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<sup>23</sup> Although his interest in chance sprang from rather different sources, one might note here a possible debt to Marcel Duchamp, who had already identified chance procedure as an important mode of artistic practice, in his "Three Standard Stoppages" of 1913-14 and in numerous other subsequent works.

<sup>24</sup> Here see Museum for a Small City (1942-43), variations on the Courtyard House (as worked up in the 1930s in Germany, and then re-worked with students in Chicago in the 1940s), and Project for a Concert Hall (1941-42), three projects that preserve the final traces of this exploration in Mies's American period. For basic reference on the American period, consult Phyllis Lambert, ed., *Mies in America* (Montreal and New York: Canadian Center for Architecture, 2001).

the spaces. The project contained entry vestibules, dining, living, study, winter garden, and one cell of inaccessible space occupied by a Wilhelm Lehmbruck sculpture (fig. 2.2). This space, a kind of constructed reverie on the individual and modern utopic space, is one prototype for a spatial motif that would recur frequently in a variety of forms in Mies's subsequent work.<sup>25</sup> In the current context, it suggests Mies's early engagement with representational practices from other media, and their transformation into architectural concepts. As elaborated below, this would be the first constructed evidence of such an engagement on Mies's part, and his commitment to translating ideas from other media into architecture, through specifically architectural means. As such, it is worth going briefly into here.

The idea of a constructed, yet physically inaccessible space, relates to concurrent interest in abstraction in the Weimar and Russian avant-gardes, which the entire project undoubtedly addressed.<sup>26</sup> Interestingly, the Glass Room was first published in *Die Form* directly following the publication of El Lissitzky's *Abstraktes Kabinett* in Hannover, with a covering article by Lissitzky's client, curator Alexander Dorner (fig. 2.3). As was not unusual for *Die Form*, Dorner's text overlapped the first page of the spread of captioned photographs of Mies's Glass Room. Thus images of the Stuttgart design appear as if with commentary from Dorner, although his text only reports on the *Abstrakte Kabinett*. The implication of this (and other instances of this particular editorial technique, often used in *Die Form*), is that the Mies project continues and perhaps illustrates themes present in the exhibition room of Lissitzky. This claim will be taken up at greater length below. For the time being, it

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<sup>25</sup> See Chapter 4 for a fuller discussion of this point. Also see Rosemarie Bletter, "Mies and Dark Transparency," *Mies in Berlin*, 350-357.

<sup>26</sup> See the original publication of the project in *Die Form* 3 (1928), no.4: 110-117, and Detlef Mertins, "Architectures of Becoming," *Mies in Berlin*, 132.

is notable that Lissitzky deployed a motif in the *Abstrakte Kabinett* that is quite similar to one of Mies's design moves, encasing a small sculpted figurine by Naum Gabo in a glass case built into one corner of the room, the back wall of the vitrine covered with mirror. Whether the two projects directly influenced one another or not, they provide comparanda for one another.<sup>27</sup>

The Gabo sculpture, massively smaller in scale than the Lehmbruck, occupied a small vitrine at chest height, identifying itself clearly as an artistic object. In Mies's Glass Room, however, the space of the Lehmbruck sculpture is isomorphic with our own, and the statue is slightly larger than life-size. Thus the use of a similar motif varied in scale and viewing context might be said to address a different problem, or articulate variations on a larger idea: Lissitzky's encased figurine elaborating the space of art as one segregated from the space of our experience, defining a different physical reality (one to which we have no physical access, but that nevertheless exists) within which the utopia of modernity might be established; the sealed chamber in Mies's project elaborating something similar, but within the context of a theoretically accessible architectural space. We might occupy Mies's space much more comfortably, if allowed, than we might experience Lissitzky's. This hypothetical accessibility established by visual connection, but denied by physical access, is critical to the reading of this and other similar spaces in Mies's work.<sup>28</sup> While it recalls

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<sup>27</sup> As a showroom for the German glass industry (an industry in which Mies had had a special interest at least since 1921), the Glass Room used colored glass spatial dividers indirectly illuminated by a toplit fabric ceiling similar to that used in Adolph Appia's stage set installations at Heinrich Tessenow's Festhalle at Hellerau (1910-12), but also to El Lissitzky's *Demonstrationsraum* for Dresden's Internationale Kunstausstellung of 1926, a project that just preceded the *Abstrakte Kabinett*.

<sup>28</sup> There is no precise parallel for the inaccessible enclosed space in the Glass Room project. Instead, at the Barcelona Pavilion, Mies enclosed a physically inaccessible slab of space within milk-glass walls. This was intended to function as a kind of lighting device, a 'light box' for the otherwise unlit building. Similar milk-glass apertures at Tugendhat let onto service space; there the notion of a spatial vitrine has instead gravitated to the outer walls, where it encloses

Karl Friedrich Schinkel's similar visual strategies, it is nonetheless distinctive, partly because of the denial of physical access. Schinkel, by contrast, generally provided 'sneak previews,' spaces into which one might look long before being able to enter. In Mies's case, the inaccessibility of certain spaces in his work can be understood in relation to spatial discourse of the painterly avant-gardes.

Similarly, two-dimensional precedents for figures contained in void space can be found in contemporary work by Mies's Stuttgart collaborator Willi Baumeister (fig. 2.4), and in the photo collages of Moholy-Nagy and others. These precedents were relevant to Mies's own work; taken together with the Glass Room and the installation at Hannover, they delineate a theme around the (generally nude) female body enclosed in inaccessible space—a theme that occupied Mies and other Weimar artists for some time. It is of interest within the current context thanks to its clear references, both to the virtual space of painterly abstraction, and to the more general conceptual space of representation. The realistic rendering of the Lehbruck sculpture suggests that Mies referred to photographic space rather directly—especially the blank space of photomontage—within his constructed architecture. Pictures of the installation (fig. 2.2) show the Lehbruck overlaid by one or more planes of colored glass, as if the architecture itself provided additional collage elements.

Mies's two major discoveries coming out of Weissenhof, then, were: the steel construction frame of the large apartment building; and a system of freely-composed spatial dividers loosely related (constructionally, although not conceptually) to what

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the winter garden. This motif was repeated in unbuilt projects like the Gericke House of 1932. Ultimately, all these renditions of glass-walled spaces should be related to the show-window

Le Corbusier called the 'free plan,' in the Glass Room. A third discovery might well have been the montage possibilities afforded by plate glass. For Mies, the pairing of steel frame and flexible spatial division represented the separation of structure and enclosure, rather than Le Corbusier's more open-ended system, and constituted, in his later estimation, a significant discovery. Many of Mies's students and colleagues commented on this 'discovery' later. Peter Carter, to cite one of Mies's former employees, noted in 1974:

He had already begun to make preliminary studies for one of these buildings --the Tugendhat House--when he was asked to design and build within the following six months a pavilion to represent Germany at the 1929 International Exposition in Barcelona. While he was concentrating upon the planning of this pavilion he suddenly became aware, as if after years of rumination, that structural elements and space-defining elements could be separate entities, and by being so would release a new and significant architectural force.....With the successful application of these ideas to the different functions of the Barcelona Pavilion and the Tugendhat House, Mies van der Rohe was convinced that he had arrived at a sound general principle upon which to develop his future work.<sup>29</sup>

In this schema, one system did the structural work, and provided a conceptual more than a constructional ordering system (one easily adapted to particular exceptions); another partitioned the space and provided the confrontation with material that was so fundamental to Mies's architecture.

The relationships between this idea, Karl Bötticher's tectonics, and Gottfried Semper's elaboration on Bötticher's core-form and art-form has so far been insufficiently explored in the case of Mies; one might argue that the ambiguous presentation of both systems (structure and enclosure) in some of Mies's work both

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(*Schaufenster*) of Weimar commercial architecture, and the *Wintergarten* of the nineteenth century.

<sup>29</sup> Peter Carter, *Mies van der Rohe at Work* (New York: Praeger, 1974), 20. Carter worked for Mies in Chicago for many years, and based his book on long collaboration with the architect.

refuses and embraces the theorizations of his nineteenth-century predecessors. Mies's 'core-form' appears to be the structural columns on clear display at the Barcelona Pavilion and elsewhere. The 'art-form' might similarly be read as the marble and glass walls that sit beside these columns. But this is a conceptual analysis: on the level of construction, both the columns and the slabs of stone are themselves systems in which one material sheathes another. The cast iron corner angles that make up the column structure were sheathed in shiny chrome; similarly, the marble slabs are suspended from a metal substructure that holds them in place. In addition, they do some of the structural work of holding up the roof. And yet, the system seems to owe its primary terms (structure as distinct from enclosure) to Bötticher and Semper, even where it rejects both their nineteenth-century genealogy and their specific interpretations. Where Semper's Caribbean hut depicted enclosing mats hung from and structurally subsidiary to a bamboo frame, Mies rejected any clear relationship between his two systems. Instead, he has deconstructed the system. 'Art-form,' or 'hull,' in this case, relies on a certain appearance of 'core-form'—even if that appearance does not coincide with constructed reality—just as the reverse is equally true. Mies's interpretation relies, not on evidence of any historical genealogy in the building itself, but on the appearance of absolute conceptual clarity in relationships between building components, a clarity he achieves repeatedly in the years that followed, no matter what the constructional cost.<sup>30</sup> Identifying a Semperian reference (ambivalent or not) for projects developed with Lilly Reich might recall Reich's own pioneering work with fabric as space-defining material.

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<sup>30</sup> See Werner Oechslin, *Otto Wagner, Adolf Loos, and the Road to Modern Architecture* (New York and Cambridge: Cambridge University Press, 2002/ 1994) for connections between nineteenth-century theory and twentieth-century modernism.

In any case, this constructional schema—structure versus enclosure as two juxtaposed systems—changed fundamentally after Mies’s emigration to the United States. While it persisted in the first Resor House project of 1938 and the Museum for a Small City competition of 1942-43, Mies very soon adopted the problem of the steel constructional frame as a unitary system with enclosure designed as infill. Implicit in the planning module used at IIT, it was equally important to the skyscraper paradigm that Mies soon began to develop intensively. Indeed, the conjuncture between ‘free planning’ and the period 1927-1943 (+/-) might also be more carefully related to the collaboration of Reich. This phase of Mies’s practice dovetailed very closely with the years of their collaboration (1926-1938) ; it is only after their separation that other factors emerged with greater insistence. While the larger dislocation of Mies’s move to America accounts for these changes, nevertheless the coincidence of dates is striking, and recent work on Reich has stopped short of crediting her with any influence over or participation in the ‘master narrative’ of Miesian architecture of the 1920s, a project in which she was intimately involved.

Essentially different from Le Corbusier’s constructionally-layered system, Mies’s two-tiered system of design from the late 1920s has been interpreted dualistically: one element providing order, the other playing against that order for the desired spatial/experiential effect—freedom against order. Many authors dwell on the dualism of the Pavilion; I cite just two. In a discussion that connects Mies’s 1928 work to the Catholic theologian/philosopher Romano Guardini’s “double way into the immanent”, Fritz Neumeyer wrote in 1986: “Two elements encounter each other in this space: the rational and the metaphysical, the limiting and the unlimiting.” Later,

he continued, "The freedom gained by the new technological space dynamics has been reevaluated by Mies in the spirit of the infinite." Much earlier, in 1956, Ludwig Hilberseimer wrote, "As the inside and the outside space united, so did the rational of the structure with the irrational of the space concept, resulting in a masterpiece of architecture, in a great work of art." While it would be difficult to argue with these rather general comments, the dualism of Mies's system has, in my view, been overemphasized. By contrast, little attention has been given to the limits of the system—the containing planes of ceiling and floor. There is considerably more to say about the efforts of these years of practice.<sup>31</sup>

The direction that guided Mies in the execution of projects after 1927 was most clearly expressed in projects where he was provided most latitude in initial conception and subsequent execution by the confluence of a sympathetic client and/or a generous budget. In two important executed buildings, Mies initially pursued his new conceptual direction, building on projects of the early 1920s: in Barcelona beginning in 1928, where he was appointed artistic director of the German contribution to the world exposition; and in Brunn (or Brno, in then Czechoslovakia) in the same year, where a wealthy pair of clients played the role of Mies's artistic patrons. The constructional paradigm that Mies adopted after 1927 allowed him greater freedom in creating spatial choreographies that resonate diachronically with his own discipline and synchronically with contemporary cultural developments. Partly through his extensive use of reflective plate glass, these projects register what we might term a 'photographic consciousness' on the part of the architect. They also register their own performative aspect—how they might be inhabited, what kind of a

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<sup>31</sup> See Fritz Neumeyer, *The Artless Word*, 213-214, and Ludwig K. Hilberseimer, *Mies van der Rohe* (Chicago, 1956), 42.

'score' they constituted for the drama that might be played out in them. This imprint of their own representative and performative identity brings these projects back into close relationship with other Weimar artistic practices, and, paradoxically, plays down the formal aspects of their design.

As noted above, the kind of ordered complexity that characterized Le Corbusier's architecture emerged through the overlaying of a number of systems upon one another, combining operations of chance (chance adjacencies, individually determined by particular requirements of various kinds) with the detailed articulation of individual systems or parts. Mies sought a similar complexity through an opposite strategy, leveling differences between those very same systems, so that individual variation would always be modified by and calibrated against a certain formal similarity. Thus, the similar dimensions and configurations of interior wall, exterior wall, and window evident in his projects of the late 1920s and 1930s ultimately highlights their differences—differences of function, of material, of distribution—even while binding them together formally. The unwavering regularity of the floor-to-ceiling height in Mies's buildings is an important component of this treatment, and like the fixed coordinates of floor and ceiling slab, seldom varies. This treatment has always been considered critical to the construction of "Miesian space".<sup>32</sup> I would argue that it was in fact both a desired spatial effect in and of itself *and* a result of other conceptual decisions that helped produce it. These conceptual decisions resulted at least partly from Mies's engagement with the non-architectural avant-

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<sup>32</sup> For descriptions, if not definitions, of this concept, see Howard Dearstyne, "Miesian Space Concept in Domestic Architecture," and Jacques Brownson, "The Urban Space Concepts of Mies van der Rohe," in *Four Great Makers of Modern Architecture*, verbatim record of a symposium at Columbia University (New York: Columbia University School of Architecture, 1961), 129-140 and 141-145.

garde, and his participation in cross-disciplinary discourse about modernist production.

What I am describing as a leveling of potential difference appears most dramatically at the Barcelona Pavilion. *Functional* differences in the Pavilion are subsumed by formal similarity (the dimensional similarity of solid and glass wall planes, each playing a different functional role); in addition, strictly '*non-functional*' differences are also subsumed in the same way. For example, the differences between various kinds of marble in the building must be calibrated against the similarity of their finish, size, and detailing. Similarly, different kinds of plate glass produce different visual effects—but all remain the same in one dimension (height), and similar, or related, in their other dimension (width), and all (even the milk-glass box) have a similar highly polished surface. Thus, where Le Corbusier's architecture might be described as highly articulated, we might instead introduce the term *isotopic* to describe Mies's architecture of this period. The architect used dimensional and constructional sameness to highlight difference of architectural/spatial effect, stabilizing and delimiting a fixed frame within which his architecture might operate.

Robin Evans described the space of Mies's architecture as "sheathlike," always sandwiched between ceiling and floor slab. He noted: "Vision is not so much confined as impeded. ....you are left with a variegated, horizontal strip in middle ground, sandwiched between two broad, blank bands above and below. Mies is often criticized for pressing architectural space between flat, horizontal sheets. That is all he ever did." Evans went on to relate this treatment to two specific forms of spatial perception: the spatial conception of the blind (that space only exists within the compass of human locomotion); and what Evans described as "the shape of space made for extended vision." Finally, in summing up his findings, Evans noted, " By

virtue of its optical properties, and of its disembodied physicality, the pavilion always draws us away from consciousness of it as a thing, and draws us towards consciousness of the way we see it."<sup>33</sup> For the moment, I note the convincing emphasis on visuality as connected to spatial perception in Evans' interpretation of the pavilion. Other critics have also dwelt at length upon the visual effects of the pavilion's walls/surfaces. Manfredo Tafuri, José Quetglas, K. Michael Hays, and Detlef Mertins have elaborated on the surface effects of the building, each articulating a slightly different understanding of its visual effects. In each case, though, the polished surfaces of the building emerge as surfaces on which some virtual visual experience takes place, eliminating the fixedness of the surface in favor of extravagant optical illusionism.

This is the point at which one can introduce the term "universal language" as invoked by Hans Richter and other Dadaists in the post World War I years and into the 1920s.<sup>34</sup> This term has always had a kind of troubling resonance in Mies studies, as it drifted loose of early contextual references, becoming conflated with a categorization of the architect's later, American work on clear-span structures.<sup>35</sup> But if we return this term to its root in 1920s Weimar culture, we find a very different meaning. For Hans Richter, the term 'universal language' emerged from a much

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<sup>33</sup> Robin Evans, "Mies van der Rohe's Paradoxical Symmetries," *Translations from Drawing to Building and Other Essays* (Cambridge, Mass.: MIT Press, 1997), 232-276. Originally published in *AA Files* 19 (Spring 1990), 56-68.

<sup>34</sup> For Richter, see Stephen Foster, ed., *Hans Richter. Activism, Modernism, and the Avant-Garde* (Cambridge, Mass.: MIT Press, 1998); Malcolm Turvey, "Dada Between Heaven and Hell: Abstraction and Universal Language in the *Rhythm* Films of Hans Richter," *October* 105 (Summer 2003), 13-36; Standish Lawder, *The Cubist Cinema*. (New York: New York University Press, 1975). Richter authored a pamphlet entitled "Universelle Sprache" in 1920, with Viking Eggeling (all copies lost), which they used to solicit funding for their film experiments.

<sup>35</sup> "Universal space" is the term often applied to Mies's later, clear-span projects like the New National Gallery in Berlin. It is important that a similar term was in use much earlier, to describe a completely different sort of work, and that Mies was part of this development.

earlier, widespread discourse growing out of nineteenth-century philosophy of language. The notion of universal language was pursued in a variety of disciplines; Richter's own investigations were highly specific to his attempt to generate the new art form of abstract film. Richter described universal language as a subtly differentiated, dramatically replete vocabulary of inter-referential forms and substances, where proportional variation is always calibrated against the datum provided by the frame of the film and the void space that lies behind it, filled with the universal elements of his visual 'language'. We might make a direct corollary here between the film strip as a never-varying formal parameter of the world created behind the filmic surface, and Mies's own nearly fetishistic insistence on the two absolutely level planes of floor and ceiling. In this interpretation, the objects distributed throughout Miesian space—luminous wall, grey transparent/reflective wall, green marbles, onyx dorée, and others—function analogously to the moving planes of one of Richter's early abstract films, such as *Rhythmus 21* (fig. 2.5).<sup>36</sup> The uniformity of the floor-to-ceiling condition for Mies does not express a lack of interest in the section as a device of architectural planning, so much as an attempt to stabilize the frame within which certain architectural effects might be obtained. That these effects were related to filmic abstraction is borne out by further analysis of this building.

In the context of discussing Mies's plan strategies (at this point in time, organized by the structure vs. enclosure dyad), we might note how these plan strategies constituted strategies for locating spatial activities. Mies's plans (like most building plans) represent ways of organizing a building plan to balance constructional

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<sup>36</sup> Mies's connection to Hans Richter has been extensively documented. For a recent treatment, see Detlef Mertins, "Architectures of Becoming."

necessity, client demand, building context (site and program) and architect's desire. His plans are organizational devices that encode several different agendas at once, but that do not fully account for any of these spatial agendas or affects (and are not fully accounted for by them—in other words, the plans don't fully explain the buildings, and the buildings don't fully explain the plans, both to a greater extent than is often the case). Mies has always been considered an architect who worked almost exclusively through the plan as a spatial organizer (having relatively little use for the section or the elevation); it is not equally true that his architecture can be best analyzed through its documents, or even through its organizational strategies. Part of the strength of the Miesian plan of this period seems to be how mutely it represents a rich set of spatial possibilities for which it can by no means fully account. José Quetglas has noted, in this context, that "Mies's architecture is not recorded in his building's plans because in them only the vertical elements appear as sections, and in Mies's architecture the vertical does not count. This does not mean that the wall is secondary: rather, it means that there are no walls in Mies's architecture, just as there are no vertical mirrors, for the dominant dimension in Mies's works is the infinitely deep horizon which they open up."<sup>37</sup>

While the Miesian plan shares its characteristic muteness with some other modern building plans, Mies's plans seem especially inarticulate next to their constructed reality, again diminishing the notion of any pure 'spatial' effect, and increasing the importance of material rendition, circulation patterns, building function, and detailing. In addition, the contrariness of the plan renders other forms

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<sup>37</sup> José Quetglas, *Fear of Glass* (Cambridge, Mass. and Basel: Birkhäuser, 2001), 102. Previously, Ludwig Hilberseimer had written in his 1956 monograph, when comparing the Miesian plan to a Mondrian painting: "Mies van der Rohe's plans are only a notation of his space-concept. They are a part only, a projection, a horizontal section of a three-dimensional whole." Hilberseimer, *Mies van der Rohe*, 42.

of representation more critical in the analysis of Mies's architectural strategies. The endless discussions of "Miesian space" in histories of modernism, as a vacant, totalizing, universal construct, are puzzling in this regard. Largely a function of the vast spaces produced during his American period, in buildings like Crown Hall and the New National Gallery, the term "Miesian space" was seemingly retroactively visited on the German projects by critics looking for some unifying aesthetic and architectural category by which to subsume American and German work. In the German period, by contrast, Mies's unprecedented uses of clear and colored plate glass, as discussed above, are part of an effect that might instead be described as rather intimately replete. The Miesian plan of the 1920s and 30s is at any rate highly confusing, precisely because its apparent clarity as a diagram is so at odds with what it instantiates experientially. Corbusian plans look complicated and the buildings they represent *are* complicated; the opposite might be said for an architect like Louis Kahn. Mies's plans look simple, but the buildings that spring from them are not.

### **Choreography and Performance**

It is in two commissions that followed Weissenhof, the Esters and Lange Houses, that a coherent idea of spatial choreography most clearly emerged from Mies's method of laying out a plan, a method he subsequently pursued over a period of roughly two decades. These two severe brick buildings were not constructed around a clear *constructional* idea.<sup>38</sup> Although constructed ostensibly of brick, these two houses relied on a metal substructure, immensely complicated and conceptually unclear, to permit the large fields of plate glass windows opened in the facades, and

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<sup>38</sup> See Kent Kleinmann and Leslie van Duzer, "Eisen und Mörtel: Anmerkungen zu Haus Lange und Haus Esters," *Bauwelt* 91, no. 41 (2000): 16-19; and their upcoming monograph on the

to make the dissociation between first and second floor plans possible. Nevertheless, a clear idea of plan sequencing or spatial choreography emerged distinctly in them, with precedents in earlier projects. A similar clarity was emerging in earlier projects like the Wolf House of 1925-27 and the unbuilt Eliat House of 1925. I begin this discussion with the Esters and Lange Houses because they seem to contain a more fully-developed spatial idea than earlier projects.<sup>39</sup> This plan choreography was further developed in later work: but in Esters and Lange we see the rhythmic back and forth around walls and across adjacent spaces, with frequent changes of direction calibrated to landscape views or architectural tableaux, with particular clarity. Take, for example, the plan of the Esters House (fig. 2.6). The main entrance (not to be confused with the very similar service entrance, literally just around the corner on the front of the building) lies at the northern end of the long east-facing wall that fronts the house, bringing one into the building along that front. An immediate 180 degree turn brings one back along the other side of the same wall, straight into the hall. Continuing this trajectory of movement leads directly to Esters' study (*Herrenzimmer*); penetration of other realms, such as the dining room, requires instead another 180 degree turn from the hall back to the north. Further movement to the garden terrace requires, first, a turn of 90 degrees down the length of the dining room; then another 90-degree turn out the terrace door. A final 90-degree turn brings one face to face with the garden, but to enter the garden (to substitute physical presence for visual connection) one must descend yet another short flight of steps, or, turn 90 degrees, walk along the garden terrace,

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buildings. The authors also constructed a structural model of the buildings for exhibition, that show the steel framework that supported the brick walls.

<sup>39</sup> See Lars Scharnholtz, "Wolf House, Gubin, 1925-27," and Claire Zimmerman, "Eliat House Project, 1925," *Mies in Berlin*, 200-203.

descend more steps, and turn yet again, before entering the garden proper. Similar trajectories of movement, all based on 90 degree or 180 degree turns of the body, order the passage into the parlor (*Damenzimmer*) or the nursery, which face one another across a small hallway, itself leading to the garden.

Tracing paths of movement through other plans of the period 1927 to ca. 1940 one meets similar, almost ritualized movement patterns laid out in space. The technique was to all appearances an important one in Mies's thinking at this time. While movement patterns in architectural plans are always diagrammatic in respect to the building itself, in Mies's case the processional or choreographical impulse emerges more dramatically than might be the case in other modern houses, and is partly a function of the coordination between apertures, views, and doorways. As noted, there are clear references here to Schinkel's plan-making habits, which exhibit a similar interest in highly orchestrated movement coordinated with (but also distinguished from) viewing axes; these were almost certainly important in the genesis of Mies's plans. More recent precedents can also be identified.<sup>40</sup> Mies's personal experience of Adolph Appia's set design and choreography of 1912-13 at Hellerau has been noted repeatedly, generally accompanied by a photograph of one of Appia's sets.<sup>41</sup> Appia's designs displayed similar, predetermined, ritualized patterns of movement through the space of the stage, particularly in the series of

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<sup>40</sup> For Mies's and Schinkel's plan methodologies, see Barry Bergdoll, "Schinkel and Mies: Urban Perspective," *Building Berlin A+U* (2002), n. 9 (384), whole issue; *idem*, "Schinkel and Mies: Nature's Perspective," *A+U* (2003), n. 1 (388): 12-104; Max Stemshorn, *Mies & Schinkel* (Tübingen: Ernst Wasmuth, 2002); Barry Bergdoll, "The Nature of Mies's Space"; Wolf Tegethoff, "Catching the Spirit: Mies's Early Work and the Impact of the 'Prussian Style,'" *Mies in Berlin*, 134-154; Fritz Neumeyer, "Space for Reflection: Block versus Pavilion" in Schulze, *Critical Essays*, 148-170; Philip Johnson, "Schinkel and Mies," (1962) in Robert A.M. Stern (ed.), *Writings/ Philip Johnson* (New York: Oxford University Press, 1979).

<sup>41</sup> For example, see Schulze, *Critical Essays*, 70-71 and Manfredo Tafuri, "The Stage as 'Virtual City': From Fuchs to the Totaltheater," *The Sphere and the Labyrinth, Avant-Gardes and Architecture from Piranesi to the 1970s* (Cambridge, Mass.: MIT Press, 1990), 93-117.

"Rhythmic designs" dating from Appia's earliest collaboration with Emile Jaques-Dalcroze in 1909, but also with his slightly later sets for Hellerau. Many of his stage designs pre-figure Miesian circulation patterns (fig. 2.7, 2.8.), in plans which they predate by more than 10 years. Like concrete manifestations of the patterns later suggested in Mies's plans, Appia's sets simply excluded the constricting addition of exterior walls and roof, which were deferred to the shell of the performance hall itself (at Hellerau, Heinrich Tessenow's Festhalle of 1911).

Most interestingly, the formal relation between Appia's theatrical choreographies and Mies's designs is echoed in more substantive affiliations between their projects. Appia's ideas of staging were radical revisions of stage design technique such that the set was to complement the actor's performance, both dramatically and bodily. Appia noted, in describing a design for a scene from *Siegfried*: "How are we to present a forest on stage?...[the stage director] will think of the forest as an atmosphere around and about the performer; an atmosphere which can be realized only in relation to living and moving beings on which he must focus...We shall no longer try to give the illusion of a forest, but the illusion of a man in the atmosphere of a forest."<sup>42</sup> This purification of the theatrical experience, down to an essentialized *mise en scène* relying on a structural core of performance then supplemented by minimal choreographical intervention through set and lighting design—all growing as if 'organically' from the actor's agency—is very much in line with the essentializing goals of Mies's G. period, and of early architectural projects like the Concrete Office Building and the glass skyscraper projects. In these projects Mies developed the notion of a purified *Bauen*, a way of building stripped back to

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<sup>42</sup> As quoted in Richard Beacham, *Adolphe Appia: Theatre Artist* (Cambridge: Cambridge University Press, 1987), 42.

essential physical elements that then accrue to themselves the additions necessary for functional completion. These very different forms of production may share nothing more than what many modernists shared, in the redefinition of their artistic goals according to new conceptions of the essential nature of all art. That is perhaps sufficient. But more speculative and interesting here is the idea of specific affiliations between theatrical performance and architectural inhabitation.

Manfredo Tafuri drew a connection of this sort in his essay, "The Stage as 'Virtual City': From Fuchs to the Totaltheater." Discussing the calls for theatrical reform of the late nineteenth and early twentieth century in Europe, Tafuri noted, "...it is Appia himself who wonders how this materialization of souls in space, this private ritual, can be translated into everyday behavior." Appia had called for "...the *Salle*, cathedral of the future, which, in a free, vast, and flexible space, will bring together the most diverse manifestations of our social and artistic life—the perfect place for dramatic art to flourish, *with or without an audience*."<sup>43</sup> Tafuri, passing briefly over references to the Arbeitsrat für Kunst's 'cathedral of the future,' pauses on Mies, noting "that....Appia firmly declares that the spectators are superfluous seems rather to foreshadow....the 'metaphoric' theaters of Mies." He returns at the end of his essay to the same comparison, grounding it in a specific example:

The theater dreamed of by Appia for a community that needs no theaters to realize itself was to have, however, another fleeting expression. In 1929 in the Barcelona Pavilion, Mies van der Rohe constructed a scenic space whose neutrality shares profound similarities with that of the rhythmical geometries of the sets of Appia and Craig. In that space, a place of *absence*, empty, conscious of the impossibility of restoring 'synthesis,' once the 'negative' of the metropolis has been understood, man, the spectator of a spectacle that is really 'total'

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<sup>43</sup> Adolphe Appia, *Music and the Art of Theater*, trans. Robert Corrigan and Mary Douglas Dirks (Coral Gables: University of Miami Press, 1962), 5.

because it is nonexistent, is obliged to perform a pantomime that reproduces the wandering in the urban labyrinth of sign-beings among signs having no sense, a pantomime he must attempt daily. In the absoluteness of silence, the audience of the Barcelona Pavilion can thus be 'reintegrated' with that *absence*....In a place that refuses to present itself as space and that is destined to vanish like a circus tent, Mies gives life to a language composed of empty and isolated signifiers, in which things are portrayed as mute events. ....The utopia no longer resides in the city, nor does its spectacular metaphor, except as a game or a productive structure disguised as the imaginary.<sup>44</sup>

Tafuri's construal of absence and emptiness as constitutive of the Pavilion's meaning reflects his own Frankfurt School pessimism. His interpretation is open to challenge, in that one might easily prefer to interpret the *programmatic* emptiness of the building as precisely providing the opportunity for its *experiential* fullness. Similarly, the lack of program requirements placed the Pavilion on 'equal footing' with other art objects like paintings, sculptures, and objects of graphic art, elevating architecture to the status of the programmatically useless but semantically full. In any case, the stripping away of theatrical ritual from the conventional stage in Appia's work, and the interweaving of choreographic technique in the Miesian plan bring the two conceptions into closer proximity.

Paradoxically, Appia's stripping away of physical barriers between the audience and the stage was not paralleled in any similar stripping away of barriers between the eurhythmic body and the unschooled body of the casual spectator. If anything, the new artifices of eurhythmics called for a trained elite corps, a 'cult without gods'<sup>45</sup> which may have left the spectator behind. A question might then be posed in relation to Miesian space: if choreographical or theatrical modes—in their original settings highly self-conscious—begin to influence our experience of architecture, then in what way do

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<sup>44</sup> Manfredo Tafuri, "The Stage as 'Virtual City'," 95-112.

those modes register themselves in the experience of the visitor? Are we to agree with Tafuri, that the visitor to the Barcelona Pavilion "is obliged to perform a pantomime that reproduces the wandering in the urban labyrinth of sign-beings among signs having no sense"? Or might this question be considered less abstractly, without the gloss of post-World War II theory, as a sequence of experiences hinged to specific sensory affect?

Turning briefly back to Hans Richter, for whom spatial sequence and rhythm constituted important scenographic elements, and whose formal language bears so many similarities to Mies's, we find more direct precedent and context for specific correlatives to Mies's design strategies, and a specific source for some of Mies's later work. At least one common thread runs between Richter's early abstract films (made at the same time that *G.* appeared) and later buildings by Mies, and it runs through how they are performed: a mobile sequence of abstract planes on the one hand (Richter); and movement through a sequence of plane-defined spaces on the other (Mies). Again, as in the case of Appia, we might understand one of Richter's abstract films in relation to the spatial experience offered by a building such as Mies's Barcelona Pavilion, or by one of Mies's later unbuilt court house projects. Richter's films depict spatial experience without the delimiting condition of ceiling, surrounding walls, and exterior context, but within the limits of the film frame itself. This delimiting condition may help explain the rigidity of Mies's floor and ceiling planes. If one understands the ceiling and floor plane as delimiting a cleared space which Mies then filled with planes, the filmic parallel becomes more convincing, and Mies's possible debt to Richter

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<sup>45</sup> See Gernot Giertz, *Kultus ohne Götter. Emile Jaques-Dalcroze und Adolphe Appia*. (Munich: Kitzinger, 1975).

clearer. Mies uses the floor and ceiling as fixed datums against which an intensified perceptual experience can play.<sup>46</sup>

Richter's concerns for abstract film in the early 1920s included rhythm as a central organizing motif. By 1929 Richter had codified some of the principles of his film theory in the primer published to coincide with the 1929 *Film und Foto* exhibition. In a section entitled "Jetzt der Rhythmus," in *Filmgegner von heute, Filmfreunde von morgen*, Richter explained the importance of rhythm for filmmaking: "Rhythm is the basic form, the skeleton of a film—in so far as it is art... Here one must attend to: 1. the length of a montage sequence; 2. the direction of movement; 3. the tempo; 4. finally, the power [of the sequence], whose effect differs according to the size of its tone and form. Rhythm in film means nothing less than the artistic, clearly ordered sequence of movements."<sup>47</sup> This description elucidates Richter's earlier abstract films, where discrete sequences of continually moving assemblages of rectangles follow one another in an ordered train, suggesting restless movement forward and backward, in and out of the frame in space. Standish Lawder, in his book on Cubist cinema, described Richter's 1921 *Rhythm 21* as "a work in which the content was essentially rhythm, the formal vocabulary was elemental geometry, the structural principle was the counterpoint of contrasting opposites, and in which space and time became

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<sup>46</sup>See Chapters 4 and 5 for further discussion.

<sup>47</sup> "Der Rhythmus ist die Grundform, das Skelett eines Films—sofern er Kunst ist....."

"Hierbei sind zu berücksichtigen:

1. Die Länge eines jeden Montagestücks
2. die Richtung der Bewegungen
3. das Tempo

4. Schließlich ihre Gewalt, die je nach Größe Ton und Form von verschiedener Wirkung ist."

"Rhythmus im Film bedeutet nicht weniger, als die künstlerisch klar geregelte Folge der Bewegungen." Hans Richter, *Filmgegner von heute, Filmfreunde von morgen*, unter Mitarbeit von Werner Gräff (Berlin: Verlag Herman Reckendorf, 1929), 34, 42.

interdependent." Lawder went on to describe the bulk of the film *Rhythm 21* as follows:

...sections of the film use a larger number of design elements, all rectangular in configuration, and introduce dissolves of one composition into another. By expanding and diminishing the size of these individual forms, a pictorial composition of constant imbalance is created. As one form swells to the foreground, another sinks into the distance, others merge, interpenetrate, or overlap. No single form seems to move in isolated activity....the movements of each form seem inexorably linked to movement elsewhere on the screen.<sup>48</sup>

Malcolm Turvey, in a more recent essay, described these early films "as balancing disorder with order, spontaneity with intentionality, chance with pattern. For while on a macro-level they create a strong impression of order, on a micro-, moment-by-moment level, they are surprising and unpredictable."<sup>49</sup> Both these descriptions call up Mies's work of the mid to late 1920s, from the Glass Room through the Barcelona Pavilion and into the work of the 1930s. Mies's 1942 Museum for a Small City even recalls this design method, with the added element of canvases and statuary as cast for a dynamically-balanced architecture. This form of contrast is quite different from the dyad structure-enclosure that often characterizes analyses of Mies's work. Turvey and Lawder, although by no means in total agreement in other respects, have both identified visual contrast as a goal of Richter's film work. Similarly, Mies's architecture also relies on experiential variation and contrast, both within the spatial 'sheath' provided by ceiling and floor, and outside it.

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<sup>48</sup> Lawder, Standish. *The Cubist Cinema*, 52.

<sup>49</sup> Malcolm Turvey, "Dada Between Heaven and Hell," 30.

The theme of rhythm is implicit in the Miesian plan of this period, in the back and forth movement described above.<sup>50</sup> And it is the theme of rhythm that connects Appia, Richter, and Mies. Beginning with his radical re-working of the Wagnerian stage set, Appia attempted to reformulate theatrical conventions for Wagnerian operas to bring them into accord with the music itself. His analysis of the flaws of set design in the nineteenth century rests on the importance of the individual actor and his/her ability to reflect the setting implicit in the libretto and score, solely through body language and expression. From this operatic work Appia went on to join forces with Jaques-Dalcroze in 1909, in a full reform of theatrical convention with the goal of making dramatic players (singer, actor, or dancer) the central means of theatrical expression. In the process the 'science' of eurhythmics was born, a formulation of principles of harmonious movement through space, and of a close alliance between mental state and bodily expression. Appia described eurhythmics as a kind of therapeutic reform of spatial consciousness: "Although the actor in the spoken drama may not find any equivalent of the art to which eurhythmics has introduced him, he will discover one shared and essential element! *Space*. The discipline of eurhythmics will make him particularly sensitive to the dimensions of space, which correspond to the infinite variations of sound."<sup>51</sup>

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<sup>50</sup> Detlef Mertins goes into the theme of rhythm at some length in discussing the avant-garde context for Mies's Glass Room and Barcelona Pavilion. He sees this as a generalized reference, noting, "As in Richter's films, the elements and spaces assume coherence and unity through the rhythm with which they move the observer through and around them." This effect is then countered by simultaneity: "Yet at the same time, something of van Doesburg's simultaneity also remains in effect—combining synchronic and diachronic conceptions of rhythm and unity." See Detlef Mertins, "Architectures of Becoming," 131-132.

<sup>51</sup> Adolphe Appia, "Eurhythmics and the Theater," (1911), in Richard Beacham, *Adolphe Appia: Artist and Visionary of the Modern Theater* (London: Harwood Academic Publishers, 1994; rev. ed. of "Adolphe Appia, Theatre Artist" 1987), 128.

An idea of equilibrium or harmonious balance is implied in Appia's eurhythmics and Richter's notion of rhythm. Also a foundational principle of Neo-Plastic aesthetics (with which both Richter and Mies had direct contact, through their encounters with Theo van Doesburg in the early 1920s) and Gestalt psychology, the notion of equilibrium was directly keyed to sensory and perceptual possibilities inherent to the individual subject in both Appia's and Richter's work. When reflecting back on his early period, Richter noted that he and Viking Eggeling had based their work on "species-wide laws of human perception" and that "all of these discoveries became meaningful in the light of our belief that a precise polar interrelationship of opposites was the key to an order, and once we understood this order we knew we could control this new freedom."<sup>52</sup> Appia had noted much earlier, in 1912, that equilibrium was a function of controlling what he called the 'reciprocity of the senses':

Within the same individual a sort of equilibrium is attained in regard to the sum of his powers: if one sense strengthens, another grows weaker, but it is evident that their overall power, which determines a personality, remains the same. It follows that we can only influence our senses in their *reciprocal* relations: the variations in sensory response are unlimited and they distinguish one person from another far more than we tend to assume.

With regard to education....how should we proceed if we require access *directly* to the student's senses themselves in order to harmonise their relative value? It is particularly here that the differences in personality will be felt; for there can be no intermediary between instruction and the senses...In the first instance the individual must discover his own senses; he must become *aware* of the reciprocity of his senses; only then can he attempt to bring them into harmonious play.<sup>53</sup>

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<sup>52</sup> Quoted in Turvey, 33.

<sup>53</sup> Adolphe Appia, "Eurhythmics and Light," (1912), in Beacham, *Adolphe Appia*, 131-132. Connections between Appia and other pedagogical projects in Germany at this time might be further explored; as for example Friedrich Froebel's earlier emphasis on sensory perception in children's education. This connection was pointed out to me by Rosemarie Bletter. One might also look at the work of the psychologist Hans Prinzhorn in a similar regard.

The importance of rhythm in these two manifestations was then linked to larger notions of equilibrium, themselves more generally prevalent in modernist thinking throughout the first decades of the century. In what sense does this same thematic run through Mies's work? In the face of virtually no archival or published evidence, any such argument rests on the evidence of the buildings themselves. Mies himself did not discuss rhythm in the creation of his Weimar-period buildings, to my current knowledge. But his concern with movement is evident in the plans themselves, and others mentioned the word in analyzing his work.<sup>54</sup> The movement patterns of the Miesian plan are themselves rhythmically distributed throughout spaces designed around them, such that the occupant undergoes a carefully scripted sequence of visual and spatial experiences. If any architectural plan is a performance score delimiting movement patterns in space, then Mies's plans describe a particular kind of movement, one that seems especially related to a rhythmical construction of particular visual and experiential moments. In other words, we might look for a notion of equilibrium in Mies's architecture by evaluating the interdependence of certain ways of moving through the plan with the corresponding visual experiences that accompany the dramatic directional shifts. While the movement patterns in his plans attest Mies's close attention to Schinkel's similar organization of plans and landscapes, nevertheless Mies updated Schinkelian precedent by integrating a particular way of moving through space with contemporary concerns.<sup>55</sup>

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<sup>54</sup> See the use of rhythm in Walter Riezler's initial discussion of the Tugendhat House, in *Die Form* 6 (1931), p. 321; also Grete Tugendhat's use of the same word in her defense against the critique of the house, also in *Die Form* 6.

<sup>55</sup> See Bergdoll, "The Nature of Mies's Space," and *idem*, *Karl Friedrich Schinkel: An Architecture for Prussia* (New York: Rizzoli International, 1994), Chapter 3.

Furthermore, brief note should be made of the heightened interest in the importance of rhythm across a variety of fields in the late Wilhelmine and Weimar years, but in particular across the intersection of modern dance performance and architecture. Jaques-Dalcroze and Appia were joined in their interest in dance movement and its spatial realization by other modernists, like Rudolf Laban, Mary Wigman, and Oskar Schlemmer. Rhythmic movement was essential to modernist performance, and the centerpiece of Jaques-Dalcroze's system of dance. Likewise, Laban developed *Ausdruckstanz* (Expression-dance) and a new form of notation for recording movement in space. As Debra McCall has noted, Laban's training as artist and architect contributed to his conception of "movement as architecture in space."<sup>56</sup>

Mies's closeness to certain members of the Hellerau circle in the years before World War I would have given him privileged access to this cultural development. Specifically, Mies was familiar with the work of Jaques-Dalcroze and Appia in the Hellerau Institute, since his fiancée Ada Bruhn was a student of eurhythmics there during the term of their engagement. He also knew the dancer Mary Wigman, who studied at Hellerau with Ada, then with Laban in Munich, and who remained friends with Mies and Ada over many years.<sup>57</sup> Mies also knew Schlemmer through Bauhaus connections, although their time at the school did not overlap. Schlemmer's choreography constitutes a particularly important link between architecture and the human subject; his dancers were fitted out with quasi-architectural extensions for

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<sup>56</sup> D.S. Moynihan and Leigh George Odom, "Oskar Schlemmer's 'Bauhaus Dances': Debra McCall's Reconstructions," *The Drama Review: TDR* 28:3 (Autumn, 1984), 58.

<sup>57</sup> For Mary Wigman, see Rudolf von Delius, *Mary Wigman* (Dresden: C. Reissner, 1925). The future wife of Hans Prinzhorn was also close to Bruhn and Wigman, and Mies remained in close contact with Prinzhorn through the 1920s. See Franz Schulze, *Mies van der Rohe: A Critical Biography* (Chicago: University of Chicago Press, 1985), 70-71; and Prinzhorn File, Mies van der Rohe Papers, Manuscripts Division, Library of Congress.

the sake of using dance as spatial sculpting device, much like a temporal, mobile architecture.<sup>58</sup>

A concern for rhythm as a fundamental component of modern sensibility was central to developments in dance. But it also ramified in other cultural realms. The economic historian Karl Bücher's popular and influential *Arbeit und Rhythmus* of 1896, which studied the importance of rhythm in worker performance, was reprinted in 1899, 1902, 1909, and 1924.<sup>59</sup> But it also appeared as a thematic in the visual arts. Willy Drost's 1919 *Die Lehre vom Rhythmus in der heutigen Ästhetik der bildenden Künste* surveyed contemporary work to date on the importance of rhythm in the analysis of art, including contributions from August Schmarsow, Alois Riegl, Wilhelm Worringer, Theodor Lipps, and Kurt Koffka. While Mies is less likely to have systematically read the work of these theorists, nevertheless the prevalence of interest in the subject in the years before and after World War I is worth noting.

The claim that movement through projects designed after 1926 or 1927 on was closely keyed to visual opportunities—to pictures made by the architecture—requires some closer description. A preliminary examination of the plans (and even more a visit to the buildings) reveals conjunctures between movement shifts

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<sup>58</sup> See Oskar Schlemmer, *Die Bühne im Bauhaus* (Mainz: Kuupferberg, 1965/1925); D.S. Moynihan and Leigh George Odom, "Oskar Schlemmer's 'Bauhaus Dances,'" 46-58; and Susan Allene Manning and Melissa Benson, "Interrupted Continuities: Modern Dance in Germany," *The Drama Review: TDR* 30:2 (Summer, 1986), 30-45. For a comparative treatment of Schlemmer and Wigman, see Ernst Scheyer, *The Shapes of Space, the Art of Mary Wigman and Oskar Schlemmer, Dance Perspective* 41 (Spring 1970), special issue.

<sup>59</sup> Karl Bücher, *Arbeit und Rhythmus* (Leipzig: Teubner, 1896). The book documents worker songs and their influence on work habits and productivity. Bücher was a maverick economic historian of the Wilhelmine and Weimar years, studying economic history in connection with anthropological concerns. *Arbeit und Rhythmus* surveys a wide range of material, organized by song type ("different types of worker songs"), ethnicity ("worker songs as bonding larger groups") and discussed for economic implications ("Rhythm as economic development principle"). Sample groups ranged from New Zealand Totowaka to African Americans to Lettlanders and Estonians.

described by the plan, and particular viewing moments created at those junctures by the architect. In these plans of the late 1920s and 1930s, changes in direction were often calibrated by a picture window, a doorway, or an interior tableau. When we move to an examination of the Barcelona Pavilion, we can trace patterns of movement similar to those found in the Esters House. With the loss of picture windows (in favor of sheets of glass used as walls), and the elimination of the wall in a conventional sense, the relationship between shifts in orientation and view is structured not around viewing apertures per se, but around particular tableaux consisting of groups of rectangular planes or particularly charged moments in the building. So, for example, as one approaches the pavilion from its back entrance, or crosses along the building's front, between building and large pool, one meets the passage that runs along the back wall towards the Kolbe statue and pool. A turn of the head (and body) reveals this ensemble, available in that configuration at that juncture only, and picturesquely composed and framed like a piece of statuary in a classical garden. Similar moments occur throughout the Pavilion, as movement through the building reveals the statue from several vantage points, the full surface of the onyx wall from front and back angles, the pools, the travertine bench, or the corridor-like vistas that traverse both long sides of the building, either in combination or alone. Other similar moments abound in Mies's work of this period, but the Pavilion provides the clearest demonstration of Mies's particular system at work—movement through space calibrated by specific visual experiences.<sup>60</sup>

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<sup>60</sup> This is partly the case because so many of the projects in which Mies investigated this system of design remained unbuilt. The computer animations created for *Mies in Berlin* provided the clearest means to understand the correlation between spatial choreographies and viewing moments in buildings like the Hubbe House and the Glass Room. But those animations, constructed as fly-throughs rather than walk-throughs, may have altered the pace (speeding it up) and the point of view (raising it above average human height).

We might consider Mies's plans as similar to musical scores, with a series of possible choreographies embedded in them, and an equal potential for performative variation in how they were intended to be occupied. They recall Richter's work not only formally, but also in relation to an idea of rhythmic movement through space. If in Mies's case rhythm is carefully keyed to visual possibilities, we might consider Mies as exploring an architectural notion of harmonic balance, where movement and sight operate in complementary fashion. This also begins to approach the notion of eurhythmy described by Jaques-Dalcroze and staged by Appia, where a similar correlation between body movement and music are meant to create a kind of bodily and spiritual harmony.

### **Writing/ Drawing Photographs**

Perhaps not surprisingly, recent literature has tended to emphasize visual concerns in Mies's work, perhaps to make up for decades of historiographical neglect. I turn back to these concerns now, attempting to understand Mies's development of visual consciousness within a spatial framework. Specifically, the visual documents made of Mies's work, among the subjects of this dissertation, require some correlation to the discussion above. While visual experience was clearly important to his work, it was understood to be carefully calibrated to other forms of spatial experience.

In a plan of the pavilion that superimposes the station points for each photograph taken over circulation patterns through the building (fig. 2.3a-c), possible or requisite changes in direction in plan frequently coincide with the location from which photographs were also made (figs. 2.3d-h). Thus one can construct a relationship between the photographs of Mies's buildings, and the plan strategies

themselves. On at least one occasion, Mies sent his photographers a sketch showing his preferred standpoint for a photograph; it is not hard to imagine that he would have done the same in other instances.<sup>61</sup> But regardless of Mies's role in the process, I would argue that these moments in plan are obvious points from which to take pictures. That is, plans laid out so clearly around a coordinated sequence of changing visual tableaux invite discussion of the notion of a pictorial consciousness within the planning itself. Whether we affiliate this then to a pictorial interest or a specifically photographic one may be merely a question of interpretive preference (a preference with clear ideological associations). But the contention here is that the design strategy itself reflects contemporary developments in photography and film, partly through biographical and formal connections to Richter and others, even while reflecting a pictorial tradition based in 19<sup>th</sup> century architecture. This argument can best be elaborated contextually, through a consideration of specific developments contemporaneous with the Pavilion.

Several themes from recent literature can be taken up in the service of two observations made here: that Mies's plans can be read as spatial choreographies; and that the movement patterns laid down in them are carefully calibrated against particular viewing moments in a manner that recalls other visual experiments of the European avant-garde. Phyllis Lambert has argued for a filmic consciousness both in Mies's plan-making strategies and in his habits of design development, suggesting that the architect conceived spaces and spatial sequences cinematographically, particularly in the long development of the IIT campus in Chicago.<sup>62</sup> In addition,

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<sup>61</sup> The sketch is not preserved, but only referred to in correspondence concerning the publication of the Weissenhofsiedlung. See Mies to Gustav Stotz, 23 September 1927. Weissenhof correspondence files, Mies van der Rohe Archive, Museum of Modern Art.

<sup>62</sup> Phyllis Lambert, "Mies Immersion: Introduction," *Mies in America* (New York: Harry M. Abrams, 2001), 204-211.

Detlef Mertins' recent discussion of Miesian space hinges on an inscription of pictorial technique over spatial construct. Thus, his analysis of the Barcelona Pavilion describes processes of simultaneous representation emerging from the related practices of film and photography. In his written description as well as in the newly-made photograph of the pavilion accompanying the description, the Pavilion is interpreted as a kind of overwriting of one image upon another:

Reflections on the marble, glass, and water intensify the ambiguity between inside and out, up and down, reinforcing the cohesion of the whole by folding the parts onto themselves—establishing identity while precluding any stable image. If one looks along the dark glass wall that separates the sculpture court from the reception space inside, the court appears doubled onto the interior; the dark pool outside mapping almost perfectly onto the black carpet inside. Georg Kolbe's *Dawn* can be seen reflected not only in the pool but in the walls behind it and in the glass panels in front of it. Again and again from different vantage points, the statue is multiplied and dislocated, a symbol and symptom of the ongoing fracturing and recombination of identity feared in Expressionism and then celebrated in Dada and Surrealism.<sup>63</sup>

The accompanying photograph, shot by Mertins himself (who has mapped the black carpet onto the black pool with great care), illustrates the author's description precisely. Not only does it suggest the importance of a pictorial eye on Mertins's part—a process of *looking* for the moment when that particular photograph can be taken—it describes the building itself as an opportunity for picture-making, specifically avant-garde picture-making. Just as Robin Evans described the pavilion as making conscious the act of seeing,<sup>64</sup> Mertins describes it, quite consciously I think, as a machine for making images—images that problematize the accepted

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<sup>63</sup> Detlef Mertins, "Architectures of Becoming," *Mies in Berlin*, 132.

limits of architectural reality. But it is in the images made of this machine—the images we produce of it—that his meaning emerges.<sup>65</sup> The point is not that Mertins hazards a general contention about the building that he supports with a single self-authored photograph (although that is also important). The point is rather that his discussion depends entirely on what sort of picture can be made, on the fact of making a picture at all. Space is here collapsed into image-maker.

In contrast with the interpretation sketched above, Mertins sees Mies's form of abstraction as one that destabilizes the subject, mapping multiple images onto one another and in the process undoing a sense of stable orientation, substituting spatial mutability for stability. He refers to this as a general habit of avant-garde practice at the time. As new studies of Dada art have emphasized the Dadaist's attempted destruction of stable individual subjectivity, so do recent studies of other avant-gardists emphasize similar processes. Maria Gough's discussion of El Lissitzky returns us to the previous discussion of his *Abstraktes Kabinett* at the Hannover Provinzialmuseum (and its close precedent, the *Raum für konstruktive Kunst* from Dresden, 1926). Gough situates Lissitzky's efforts within their immediate historical context. She argues that the *Demonstrationsräume* destabilize physical corporeality through visual disorientation (through his *optische Dynamik*, a kind of early version of Op Art) and tactile engagement, rendering the subject active in the process of cognition, but also physically disarmed. Both Mertins and Gough are describing a form of architectural abstraction deeply integrated with visual innovations of the

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<sup>64</sup> See note 33.

<sup>65</sup> Mertins practices this form of self-reflexive analysis in other aspects of his discussion. After describing the biocentric discourse underlying critical avant-gardists like Moholy-Nagy, Mertins invokes Henri Bergson to describe the pavilion as a kind of life-form, the subject and beneficiary of evolutionary processes, seemingly organically unstable, "a space of expectancy and emergence." Detlef Mertins, "Architectures of Becoming," 133.

previous century, such that architecture becomes overlaid with and impregnated by media practices (film and photography), and with ideas about the physiological constitution of vision. In the case of Mies, this is achieved largely through glass and its reflective properties combined with more familiar building materials mounted and framed in unfamiliar ways—framed, if you like, by their own glass reflections. The pictorial qualities of the medium—its ability and tendency to mirror—create an architecture impregnated with consciousness of filmic and photographic antecedents. The glass walls of Mies's Weimar projects of course also reflect the image of the viewer, suggesting that the self, the 'viewing subject' is equally the subject of this kind of artistic practice. This link resonates not only with the idea of a physiologically constituted subject but also with a psychologically constituted one. The same might be said for Lissitzky's project. Margarita Tupitsyn connects the two *Demonstrationsräume* to Lissitzky's photcollage of 1926, *Runner in the City* (fig. 2.10), an image that combines photographic manipulation with both filmic consciousness and a clear depiction of the modern urban subject.<sup>66</sup>

The common features of Lissitzky's exhibition spaces and Mies's new spatial technique were implicitly noted as early as 1928, when *Die Form* published the *Abstrakte Kabinett* adjacent to the Glass Room from the Stuttgart exhibition, as noted above.<sup>67</sup> The close proximity of the two triggers a number of associations. First, the inclusion in both cases of figural sculptures in clearly discrete cubic spatial containers is immediately striking, despite the difference in scale and degree of

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<sup>66</sup> Margarita Tupitsyn, *El Lissitzky: Beyond the Abstract Cabinet: Photography, Design, Collaboration* (New Haven: Yale University Press, 1999).

<sup>67</sup> See Alexander Dorner, "Zur abstrakten Malerei (Erklärung zum Raum der Abstrakten in der hannoverschen Gemäldegalerie)" *Die Form* 3 (April 1928) 4:110-114, and "Glasraum in der Gewerbehalle auf der Werkbundaussstellung 'Die Wohnung' Stuttgart 1927" in the same number, 114-117.

containment. Mies's enclosure of the Lehmbruck bust at the Glass Room has already been described in relation to Lissitzky's inclusion of Gabo's *Modell für 'Rotierender Brunnen'* (1925), in a rectangular niche backed in mirrored glass, a spatial cell proportionate to the one used by Mies (fig. 2.3). In both cases the remaining contents of the space were overwhelmingly non-figural, although Mies's installation was staffed with the usual array of domestic props (desks, chairs), while Lissitzky's was peopled only by abstract painting and sculpture. The correspondingly unconventional treatment of the walls, and their optical surprises, provide another striking similarity, in spite of the different means employed in either space. On the basis of their close proximity in time, we might regard the two projects as analogous demonstrations of how to use architecture to see differently—or to see particular things in particular ways. They are both optical devices, with alternative applications—one for viewing art through heightened sensory (self-) awareness, the other simulating an idea of inhabitation through a similarly insistent, literal, self-examination (oneself reflected in glass; household objects as resonant of a missing user). If we accept Gough's argument, the subject of the *Abstrakte Kabinett* is the viewer himself, and the act of viewing art; in the case of Mies's display space, the same holds true, except that the viewer and the inhabitant of the space are now conceptually one and the same. Instead of paintings on public display, the architecture displayed only what it reflected—the occupant and his or her accoutrements (furniture). The hypothetical inhabitant of these spaces—reader, art lover, horticulturist—lives with the self on display and 'painted over' the staffage of daily life, which includes props like furniture, but also emblems of culture—books, figural sculpture, hothouse plants.

Mies's work reflects the various pictorial techniques adopted by the avant-garde within which he also figured. Montage and collage techniques are called up by his 'overpainted' (to use Lissitzky's word) reflective surfaces, where juxtaposition, transparency, and reflection all create a kind of precursor of the flatbed. Perhaps most resonant for Miesian surfaces is Lissitzky's own adaptation of photographic processes for his photographic work, known in Russian as *photopis*.<sup>68</sup> In this practice, Lissitzky used multiple photographic negatives to produce single images, often combining them with photogram techniques and manipulating them in the darkroom, either by simply shifting them during the process of exposure, or with techniques like dodging and burning in. Perversely, Lissitzky used a medium specifically intended for the production of multiple images in service of single-image production. As contrary as it might seem, he was in this case only duplicating a practice absolutely normative in architectural practice.<sup>69</sup> The production of architectural specifications and construction drawings is predicated on the possibility of multiple reproduction (of both drawings and building); in fact, buildings are generally produced only once. Lissitzky in this case 'degraded' (or 'upgraded') photography to the status of a non-reproducible phenomenon—or one whose route to reproduction differed not in the slightest from the mass reproduction of other works of art (his *photopis* images could of course always be re-photographed). By doing so he, like Mies and others, re-asserted the importance of artistic signature and authorship, and also the importance of technique, or craft.<sup>70</sup> Although one might be tempted to interpret

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<sup>68</sup> For a discussion of *photopis*, see Perloff, Nancy and Brian Reed. *Situating El Lissitzky: Vitebsk, Berlin, Moscow*. (Santa Monica: Getty Research Institute, 2003).

<sup>69</sup> He was also, arguably, extending the range of the photogram technique.

<sup>70</sup> See the discussion in Chapter 3 of the related theme of the 'handmade readymade' as one of the modes by which photography helped architecture represent itself.

Lissitzky's *photopis* as the retrograde use of a progressive technique, it should more rightly be contextualized within pre-WWII efforts to marshal progressive technologies to the banner of historically-validated truths about artistic creativity. This faith—in the unconflicted combination of old and new—only went out of favor after 1933, paradoxically, remaining so throughout the years of the Cold War.

Returning to the spatial choreographies of Mies's work, we might now calibrate the ways of moving through his buildings against the image-making operations of those same projects. Mertins's and Gough's arguments should then be brought into focus with respect to the earlier argument in this chapter, about the importance of bodily experience throughout the spaces of Mies's architecture, and the correlation of visual and corporal rhythms within them. While the photographs of the Pavilion provide clues about the coordination of visual and spatial experience, my point here is rather to signal a relationship between movement and viewing, of which the photographs only captured a small part. Part of the difficulty of analyzing this building (helped immeasurably by its reconstruction) is the need to capture these coordinated, but distinct, modes of experience. If anything is missing from Mertins's analysis, it is precisely this consideration of spatial sequence, the old late-modernist bane of Mies historiography. But if the ways of moving through Mies's buildings seem static or over-determined from my description, we might simply consider their exaggerated simplification in relation to the complexity created by the materials specified throughout—in relation to their visual mutability. If the spatial choreographies are hieratic, excessively ritualized and rhythmical, this is offset by the visual abundance provided by the architecture itself. In other words, Mertins's analysis of the mutability of the subject must also be weighed against the processional stability of the spatial sequences themselves.

While both visual abundance and highly scripted movement are most notable in the Glass Room and the Barcelona Pavilion, the same elements were deployed in a rather different way at the Tugendhat House, and, to a lesser degree, in the 1931 Exhibition House at the Berlin Building Exhibition. We may extrapolate their intended existence for the series of unbuilt commissions that followed. In this interpretation, both the carefully scripted circulation patterns and the visual excess around which they are deployed are then punctuated by the moments already described; the moments of directional change or turning—the moments at which photographs were often taken. Here then, is a trio of elements for understanding Mies's late 1920's work: ritualized, determined patterns of movement constructed roughly around a rhythmical interval; visual overlay, montage, or juxtaposition; calibration points from which the briefly-arrested body in motion perceives a new visual moment.

Before concluding this chapter, the discussion moves briefly to a consideration of the Tugendhat House and how it supports or contradicts points made in the previous discussion of the Barcelona Pavilion. While movement patterns similar to those that characterize the Pavilion might be detected at Tugendhat, they are rendered considerably more fluidly in the latter. Movement through the semi-public zones of the house is less tightly scripted than movement through the more constricted spaces of the Pavilion (fig.2.11). This is partly a function of its program as a private house whose inhabitants can move freely between the spatial zones of the living floor. It is also a function of the way space is divided at Tugendhat. While the floor plan of the main level is clearly separated into zones that correspond to the contents of the traditional bourgeois home (salon, dining room, library, study), the great achievement at Tugendhat was to accomplish this with virtually no interior walls, and no 'rooms' in the traditional sense at all. The space is articulated through

the placement of furniture, curtains, and simple spatial dividers; it is also visually connected and open, and navigable through multiple routes.

Views are also constructed rather differently at Tugendhat, not only compared to the Pavilion, but also in relation to earlier projects such as the Esters and Lange Houses or the Wolf House. Instead of framed visual tableaux defined by discreet spatial containers, the views at Tugendhat are less controlled and more open-ended. The glass walls of the living room combine with its lack of enclosing interior walls to keep the possibility of wide exterior views available from almost every vantage point. The visual emphasis on the city view out the window is markedly horizontal and wide-ranging. More specifically, the mode of viewing at the Tugendhat House could best be described as 'panoramic,' an adjective that can also be applied to a number of the photographs of the house.

In the unpublished files of the Library of Congress a large sheaf of material details Mies's rather intense involvement with the League for Independent Film (Deutsche Liga für unabhängigen Film). This involvement coincides almost exactly with his period of most intense involvement in Brno. One of his two clients in that project, Fritz Tugendhat, was not only an avid amateur photographer (trained in the expensive Autochrome technique for producing color photographs), but also a filmmaker. The house was equipped with a projection booth, in addition to a basement darkroom. Films were projected onto the white silk curtains that screened the main window wall of the living area, curtains that screened the reflective plate glass windows that continually played the film of the Tugendhat Family's life throughout the day. It is not hard to conclude that Mies, investigating photographic pictorial technique as it might apply to architecture at the Barcelona Pavilion, used the opportunity afforded by the Tugendhat commission to explore a filmic

architecture, one that reflected the constant run of daily life in the house, in marked contrast to the episodic visitations of an exhibition pavilion.

In both the Barcelona Pavilion and the Tugendhat House, there is a particular moment in the plan where things don't seem to work as I have described. At Barcelona, this is the square space abutting the outside of the milk-glass wall, bounded by that wall, the green marble wall perpendicular to it, by a single column and the roof plane it supports (fig. 2.12). This space is absent from nearly all photographs.<sup>71</sup> In the Tugendhat House, a similar space occurs just inside the main entry, in the space adjoining the stairway and the parents' bedrooms (fig. 2.13). In both cases, these large square spaces seem to have no specific, predetermined route allotted them. They are gathering spaces—spatial blanks that allow for movement in a variety of directions. They represent some of the few places where one can 'swirl around' in a Miesian plan at will—without being impelled in one specific direction. This distinguishes them rather dramatically from spaces that orchestrate the highly intentional sequences embedded in Mies's plans.<sup>72</sup> As open as the main living salon at the Tugendhat House is, it would be hard to find another such space. These two important spots provide keys with which to understand the Miesian plan and movement. They are, arguably, the exception that proves the rule.

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<sup>71</sup> It appears partially in one photograph of the opening ceremony.

<sup>72</sup> Barry Bergdoll describes this space at Barcelona as "clearly the descendant of the outdoor dining areas in most of Mies's earlier garden houses." I am claiming instead, that these spaces escape from the otherwise tight logic of the Miesian plan, not orchestrating the critical transitions of that plan, but constituting a moment of inconsistency, or escape, from the otherwise compelling trajectory of movement implied in the arrangement of the space. Tugendhat is, in fact, equipped with an outdoor dining terrace quite similar to those of earlier villas—a very different sort of space altogether. See Bergdoll, "The Nature of Mies's Space," 93.

Discussion of Mies's architecture in the period 1927-42 highlights visual concerns in concert with bodily ones. While the precedents for these concerns in his work are many, I have emphasized connections to the eurhythmic choreography of Adolphe Appia, the filmic consciousness of Hans Richter and the *photopis* technique of El Lissitzky. The following chapters shift ground now to consider the photographic documentation of Mies's work of the late 20s. The shift is substantial; from a close discussion of the 'main character' the emphasis now appears to shift to the 'supporting players', to discover how much of their silent work was subsumed in the construction of a master identity. The context of the discussion must then also shift to their context—that of professional photography and the professional press. I will return in the final chapter to this ground, attempting to show that the documents by which Mies became known established an alternative ground on which discussions of his work then built—a ground not exactly assimilable to that of the buildings themselves (as described here), but something like a mirror image, reflecting and transforming the features of the original subject.

### **CHAPTER THREE**

#### **WEIMAR PHOTOGRAPHIC PROPAGANDA: BARCELONA 1929**

In July of 1947, Ada Louise Huxtable, then assisting in the Department of Architecture at The Museum of Modern Art, sent an internal memo about the upcoming monographic exhibition of Mies's work. She wrote:

Using a new approach to the display of architecture, the photographs shown will be very large (the largest 20' x 14') and so arranged that they can be viewed from a distance to give the effect of actual buildings.<sup>1</sup>

In the MoMA exhibition, architectural photographs and drawings of Mies's German projects were enlarged to wall size, becoming the chief space-defining elements in the show (fig. 3.1). As Wallis Miller has shown, the design problem of the exhibition itself gave Mies (as exhibition designer) the opportunity to explore his own continuing design preoccupations further.<sup>2</sup> Supplementing Miller's comments, one might emphasize ambiguous relationships between surface and depth, and how Mies imported strategies of collage and montage directly into architecture proper—as he had already successfully done at the German Pavilion at Barcelona and at the Tugendhat House. The images used in the New York show were in several cases architectural photographs of Mies's work that had been previously published in architectural magazines worldwide.<sup>3</sup> These images, along with prints of Mies's architectural drawings, were re-photographed, enlarged, and mounted on wall-size panels by MoMA installers. To architects interested in modernism, many of these images were already familiar from journal publications, so that the exhibition

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<sup>1</sup> Correspondence dated July 23, 1947, Registrar's files. Museum of Modern Art.

<sup>2</sup> Wallis Miller, public lecture, American Academy Berlin, Fall 2003. Miller is currently at work on a detailed study of architecture exhibitions in 19<sup>th</sup> and 20<sup>th</sup> century Germany.

<sup>3</sup> The photographs in the show included one photo mural of the Glass Skyscraper (1922), one photo mural of the Monument to the November Revolution (1926), one photo mural and five smaller prints of the Barcelona Pavilion (1929), one photo mural and six smaller prints of the Tugendhat House (1931). My grateful thanks to Wallis Miller for this information.

experience would have partly consisted of a new—perhaps even slightly shocking—encounter with familiar material. This may even have been the case for Mies himself; in any case it was part of the genius of the show, which transformed small-scale architectural propaganda of the type that had been in wide circulation for well over forty years into spatial (space-defining) matter itself. While there were precedents for the exhibition strategy as a whole, in the large Werkbund exhibitions of the interwar years, this was perhaps its most radical aspect: not that architecture became image with virtually no scale diminution (although that too is impressive), but that the tools of architectural propaganda, generally transparent or even invisible *as media per se*, were blown up to monumental scale and placed within the space of the museum. The 1947 show alone provides sufficient provocation to examine the architectural photography of Mies's German work—and the graphic and ideological context within which it generally appeared—closely. Mies certainly understood the potential force of media representation in the promotion of his practice and his architectural ideas long before 1947; the best precedents for the MoMA show come from Mies's own grandly-scaled drawings of the early 1920s.

### **Argument**

The photographs of Mies's German Pavilion at Barcelona (and of the related commercial exhibits) played an important role for Weimar cultural propaganda and in the ideological battles that encircled architecture from late 1929 through the early 1930s. This and other factors push my discussion of these images away from specifically photographic concerns toward a consideration of the role the images played in the first years in which they appeared. The authorship of the images is ambiguous, they are stylistically inconsistent, and the technical quality of both prints

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and (apparently) negatives is similarly variable. Archival evidence is scant, due to the loss of critical caches of documents during World War Two, and it is unlikely that anything new remains to be discovered after the researches of the late 1980s. This chapter considers the photographs, not as products of a single photographic or architectural creator, but as documents circulating in a wider political arena. It considers the role of architectural photography in the culture battles between right and left in the Weimar years, pinpointing the critical role they played in the fight for and against modernism. As the first tentative effort to construct an entirely new conceptual idea under adverse circumstances, the Barcelona Pavilion depended more than usually on its photographs to relay the ideas its architect sought to build. And yet, throughout the experimental years of the late 1920s, the Pavilion also sums up a common condition of modern architecture, one in which technical capabilities and architectural intentions were not always well-synchronized. Photography played a particularly important role for buildings like these.

While the documents themselves remain inconclusive with respect to factual information about their production, their importance to Weimar media practice is without dispute—particularly in relation to the Weimar Republic’s advocacy of architecture and design generally. Connections between Weimar government policy and the Barcelona International Exposition lead fairly directly to the German Werkbund, which was jointly responsible for German contributions at Barcelona (organized with Germany’s Exhibition and Convention Office, based in Berlin), and through which the Neues Bauen commandeered ‘official’ Weimar culture policy after 1926. Through the carefully-considered activities of the Werkbund, Mies’s photographs (and architectural photography in general) emerged as important components of a propaganda campaign that at its best advocated a pro-active embrace of modern industrial culture. But the picture that emerges from such an

examination is in no way unilateral or consistent. The enthusiastic embrace of modernity and a love of historical tradition constituted the schizophrenic inheritance of the Werkbund in particular, and Weimar culture at large, and the various propaganda tools of Weimar (including the photographs of the Pavilion) bear clear evidence of the inconclusive struggles that they were deployed to fight in these critical years.

Situating the photographs of Mies's work within Werkbund discourse, and generally within discourse about architecture in Germany at the end of the 1920s and into the early 30s returns them to their original context.<sup>4</sup> It will then be conceptually clearer how to explore the other contexts they subsequently entered and helped shape. In terms of the immediate project, my questions are as follows: what roles did these images play in the formation of Werkbund policy, in the shaping of ideas about modern architecture, and how did they help define Germany's role in its development? That Mies was in 1929 at the height of his influence within the hierarchy of the Werkbund is clear; he had assumed that role by 1927, and was able to hang on to it at least into 1931.<sup>5</sup> But what effect did the Barcelona commission have on the organization as a whole, as well as on the reputation of its architect? Furthermore, what was the effect of perceiving this building as a series of

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<sup>4</sup> For information on the Werkbund see Frederic J. Schwartz, *The Werkbund. Design Theory and Mass Culture Before the First World War* (New Haven: Yale University Press, 1996); Joan Campbell, *The German Werkbund. The Politics of Reform in the Applied Arts* (Princeton: Princeton University Press, 1978); Kurt Junghanns, *Der Deutsche Werkbund. Sein erstes Jahrzehnt* (Berlin: Henschelverlag, 1982); *Der Deutsche Werkbund—1907, 1947, 1987* (exhibition catalogue, Berlin: Ernst & Sohn, 1987); Lucius Burckhardt, ed., *The Werkbund. History and Ideology, 1907-1933*, (Woodbury, NY: Barron's Educational Series, 1977); *Zwischen Kunst und Industrie: der Deutsche Werkbund* (exhibition catalogue, Munich: Neue Sammlung, 1975); and Sebastian Müller, *Kunst und Industrie: Ideologie und Organisation des Funktionalismus in der Architektur* (Munich: Carl Hansen, 1974); and Mark Jarzombek, "The Kunstgewerbe, the Werkbund, and the Aesthetics of Culture in the Wilhelmine Period," *Journal of the Society of Architectural Historians* 53: 1 (March 1994), 7-19.

<sup>5</sup> Mies's influence had waned by 1932, at which point he resigned the vice-presidency he had held since 1926. This coincided also with the general decline of the Werkbund as an influential force in German architecture. See Mies van der Rohe Papers, LoC, container 3.

photographs, rather than a physical construct, as so many contemporary consumers did, thanks to its remote location and short life? The reception of the Barcelona Pavilion provides a more concentrated version of a mode of reception commonly in evidence in Weimar architecture—the wide circulation of architectural ideas through images. But in the case of this influential building, is it possible to describe this effect more precisely?

### **Photo murals**

Although Mies's large photo murals were one of the chief selling points of the 1947 exhibition installation, they were not new in exhibition design per se; nor were they Mies's invention. As the artistic director of the 1929 World's Exposition at Barcelona, he himself had at least approved—if not specified—such devices as early as late 1928, in the design for the small Electricity Pavilion that was part of Germany's contribution to the exhibition. In that installation, the interior design of the pavilion was developed and executed by the architect Fritz Schüler;<sup>6</sup> the photo-murals were done by the photographer and exhibition designer (*Ausstellungsgestalter*) Wilhelm Niemann, who claimed later to have supervised construction of the entire building, as well as installation of the murals.<sup>7</sup> At a total size of 8 x 20 meters (approximately 24 x 60 feet), the Barcelona photo murals

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<sup>6</sup> See Schüler correspondence to Mies, demanding credit for his work at the pavilion; and Mies's response, certifying Schüler's credit. Barcelona Pavilion correspondence files, Mies van der Rohe Archive, Museum of Modern Art (henceforth MA). So far, I have found no other information on Schüler or his contact with Mies or Lily Reich.

<sup>7</sup> A memo given by Mies's former employee Sep Clauss to Ludwig Glaeser, Curator of the Mies van der Rohe Archive in the 1970s, in 1979, lists Fritz Schüler as both the designer and the project architect of the Electricity Pavilion. MA Research Files, Barcelona Pavilion. Niemann claimed credit for the work in an unpublished interview at the Werkbund-Archiv Berlin.

vastly exceeded the images used in the 1947 show; their composition and production were markedly different.<sup>8</sup>

Large-scale photo murals were in fact relatively common in Weimar exhibition design, most famously in El Lissitzky's Soviet installation at the Pressa Exhibition in Cologne in 1928.<sup>9</sup> They emerged from the scale of advertising already common in the late nineteenth century and from Russian agit-prop of the early twentieth. From their initial invention, large-scale photo murals borrowed from street culture—whether politically activist or commercial—grafting cultural communication of a slightly different sort onto the hitherto highly populist medium of the poster. Mies had already explored an expanded scale for his own presentation drawings for competitions, in the two skyscrapers and the concrete office building—drawings at the scale of the *Plakat* rather than the architectural rendering.<sup>10</sup> And in 1924 Mies was in search of someone to make a "generous-sized advertisement for an international journal with which I am involved" (this was almost certainly an advertising poster for the journal *G* that Mies edited with Hans Richter).<sup>11</sup> Mies's move into large-scale photo murals for his exhibition work was a logical step in the further investigation of the large-scale media representation with which he was already familiar.

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<sup>8</sup> The Electricity Pavilion was lined with murals composed as photographic mosaics, both in terms of image content and construction. See Willy Lesser, "Der deutsche Anteil an der Weltausstellung in Barcelona," *Technische Rundschau* 32 (Jahrgang 1929), 315-317.

<sup>9</sup> Photo murals were also used extensively at the Berlin Building Exhibition of 1931. See Michael Stöneberg, "Die Verwendung der Kösterschen Fotos," (unpublished ms) p.9.

<sup>10</sup> The *Mies in Berlin* exhibition provided a dramatic example of this contrast, in showing a drawn copy of Friedrich Gilly's Frederick the Great Memorial in close proximity to the Concrete Office Building rendering. For a fuller discussion, see Chapter 1.

<sup>11</sup> On January 1, 1924, Mies wrote to a Herr Hansen, requesting someone for a "grosszügige Anzeigenwerbung..für eine internationale Zeitschrift, deren Mitarbeiter ich bin". File H, Container 1, Mies van der Rohe Papers, LoC.

To return briefly to the 1947 MoMA exhibition: the chief difference between Mies's use of large-scale photos at MoMA in 1947 and that of earlier exhibition designers including Lissitzky lies in his reputed (by Huxtable and others) use of the technique to simulate full-scale construction. In fact, this impression might have been given only briefly and from a distance; for example, in the case of the Barcelona Pavilion photograph that stood directly on axis with the entrance to the exhibition. Although this sort of claim has frequently been made in Mies scholarship—that techniques used in representations like the photocollages simulate an effect that would operate in the constructed building—this argument reflects an odd refusal to distinguish between two-dimensional and three-dimensional representational strategies. Can we really repeat the mistake of supposing that Mies imagined visitors to the exhibition to be incapable of distinguishing between image and constructed architecture? Can we really imagine that he himself mistook flat surface for constructed space? This conflation between two forms of representation is highly unlikely—by 1947 Mies was an experienced architect and publicist.

More likely than any attempted confusion between space and surface is Mies's exploitation of two conditions. First, in the context of an architectural exhibition, full-scale photographs would poignantly recall the distance between viewer and object—a distance made up of time and geography, but also, in 1947, of politics and history.<sup>12</sup> They would make the inaccessible object—rendered so close in order to reiterate how far—all the more alluring. Secondly, in photographs of the exhibition (all that would remain after it closed its doors), this effect would be entirely voided by the inevitable confusion that results when photographs are photographed. In *pictures* of the show,

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<sup>12</sup> The inclusion of the Monument to the November Revolution can surely be taken as an ideologically exemplary project for immediate post-World War II America, situating Mies in the camp of the anti-fascists. His attitude towards the Nazi government had been conciliatory, and had not entitled him to this status. And a few years later, any connection to the left wing would again prove problematic in the political climate of the United States.

the confusion between space and photograph would be successfully provoked, simply by the fact of being juxtaposed photographically, but not spatially. In photographs of the installation, the equivalence between human figure and photographed space makes for a succession of alluring and somewhat disquieting images, particularly in the series of skillfully composed photographs shot by Charles Eames (fig. 3.2). If Mies used technologies of exhibition and reproduction in such a sophisticated manner in 1947, we might look carefully back to his earlier exhibition practices with an eye to understanding how he used such technologies earlier. The post-war American experience demanded a whole new range of responses to the newly palpable phenomenon of distance (distance from his office, his city, his client base, his architectural colleagues, his life-partner Lilly Reich). These responses were, of necessity, extraordinarily dependent on mass media and their instant internationalism. Nevertheless, Mies was a skillful exhibition designer long before 1947. How, in a case like Barcelona, was the widespread dissemination of architectural information about the exposition intended to take place?

### **Architectural Photographers and Authorship**

The photographic murals used in the 1929 Electricity pavilion, by contrast to those in the 1947 show, make no effort to give an illusion of spatial continuity between image and constructed space. They were conceived as large-scale propaganda display, not as museum installations. The images project multiple vantage points, some emphasizing visual control over a wide field, others sharply angled from above, surveying electrical installations like the vast electricity plant known as Klingenberg.<sup>13</sup> Perhaps the centerpiece of the installation was a photo montage of Berlin showing historic buildings, backdrop for a large model of the

Klingenberg plant (fig. 3.3). For the most part, the photo murals were lifted above head height on the walls of the pavilion, except where they served as background images for the models that sat in front of them. Unlike the 1947 murals, these murals emphasize the power of photography to provide panoramic overviews unavailable to the naked human eye, or assemblages of images that would not normally be viewed together. They emphasize vastness and visual power; conceived at the scale of the infrastructural and civil engineering projects they document. They take their cues from the newly popular mode of aerial photography, from Moholy-Nagy's *New Vision*, and from the commanding photographic murals of Soviet agit-prop, so familiar from the *Pressa* exhibition.<sup>14</sup>

Niemann and Mies and Lilly Reich may well have met in the course of organizing the electricity pavilion; Niemann's major client after 1926 was the Reichselektrowerke, for whom he had executed important publicity work in the form of exhibition design, film, and photography.<sup>15</sup> In addition, his acknowledged specialty

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<sup>13</sup> The murals were accompanied by models of various electrical installations, and a large relief map of Germany with public electricity facilities marked.

<sup>14</sup> While Wilhelm Niemann claimed no personal involvement in the Werkbund's 1929 Film und Foto Exhibition in Stuttgart (he would have been busy in Barcelona at the time), he was certainly familiar with the photographers exhibiting at Film und Foto, and closely involved with the Werkbund. In a conversation with Janos Frecot, Niemann noted that the exhibition had made a deep impression, convincing him of his own professional avocation as exhibition designer. Personal conversation with Janos Frecot, Fall 2002.

<sup>15</sup> Niemann had begun his career as a photo-journalist. He claimed to have been taken up, as a protégé, by Alfred Lichtwark in Hamburg before World War I. After the war, in which he was trained and served as photographer, he continued to work for the military. He claimed an association with the *New York Times* for a period of roughly ten years from 1919. Niemann had also worked for the advertising division of Hapag-Lloyd in Hamburg, and moved to Berlin sometime in the first half of the 1920s. He worked briefly for the director and dramatist Erwin Piscator on the sets for "Der Kaufmann von Berlin", and then began his association with the Reichs Elektrowerke, for whom he helped produce a film, "Der Großstadt der Zukunft." Subsequently, he began working for the editors of *Die Form* and members of the Deutsche Werkbund such as Wilhelm Lotz, Otto Baur, and Ernst Jäckh. He worked on an exhibition of Zeiss lenses with Wilhelm Wagenfeld, and for architects like Mies and Gropius. But his special skill was the production of large-scale photo murals in his workshop on Eisenacher Strasse in Berlin-Schöneberg, where he produced the murals for many of the big exhibitions of the late 1920s. For information on Niemann, see "Wilhelm Niemann, Lebenslauf," Photographic Collection, Berlinische Galerie, Berlin, and an unpublished interview at the Werkbund-Archiv, Berlin. I received much valuable information on Niemann from the former Photography

was large-scale photographic enlargement, a practice he had been engaged in since the mid-twenties, and which he claimed had inspired both Mies and Walter Gropius.<sup>16</sup> Wilhelm Niemann was, however, not only a successful exhibition designer in Berlin in the late 1920s. He was also the proprietor of one of the many photographic agencies founded in Berlin after the First World War,<sup>17</sup> specializing in architectural and exhibition photography. Although the photographs of Mies's Wolf House were taken in 1925 by Arthur Köster, by 1929 Mies was using Niemann's agency, the *Berliner Bild-Bericht*, almost exclusively. The *Bild-Bericht* photographed the Afrikanischestrasse Housing (1927)<sup>18</sup>, the Barcelona Pavilion and the Barcelona Industrial Exhibits (1929), the Esters and Lange Houses (1930), the drawings of the Neue Wache competition (1930), and the House for a Bachelor at the Berlin Building Exposition (1931). Between 1929 and 1931 Mies seems to have used no other photographers for work in Germany. The *Berliner Bild-Bericht* is thus credited with virtually all the extant publicity photographs of the German Pavilion and the German exhibition stands in Barcelona, with the exception of those taken by the Spanish photographers commissioned by the exhibition organizers—whose photographs were unsatisfactory to the exhibition clients at Barcelona, and also, by inference, to Mies

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Curator of the Berlinische Galerie, Janos Frecot, who generously shared his time and extensive knowledge with me in the research for this chapter. Similarly, Eckhardt Siepmann shared with me his own reflections on Niemann in my visits to the Werkbund Archive.

<sup>16</sup> Niemann subsequently went on to work for Albert Speer and organized numerous exhibitions, including the 1933 "Die Kamera," and the 1933/34 "Die Strasse," both of which featured large-scale photographic murals, and both of which were sponsored directly by the National Socialists.

<sup>17</sup> See Bernd Weise, "Photojournalism from the First World War to the Weimar Republic," in K. Honnef, R. Sachsse, K. Thomas, eds., *German Photography 1870-1970* (Dumont: Bonn, 1970).

<sup>18</sup> The *Berliner Bild-Bericht* photographs of the Afrikanischestrasse Housing Development were taken some time after its completion. See Terence Riley and Barry Bergdoll, *Mies in Berlin*, Plate 186.

and Reich.<sup>19</sup> Niemann, then, was responsible for the images of the Pavilion that have made it an icon of modern architecture.

By 1934, when he assumed an official position at the Berlin offices of the Deutsche Werkbund, Niemann was evidently an established architectural photographer. He then dropped the appellation "Berliner Bild-Bericht," along with his affiliations to the Weimar avant-garde, after the accession of the National Socialist government.<sup>20</sup> He subsequently worked for Albert Speer under his own name, "Niemann Photo" (and claimed in the late 70s to have maintained a long-term, close friendship with Speer), as well as on further propaganda-related projects for the Nazi government.<sup>21</sup>

Niemann is described in a Werkbund publication as a journalist, photographer, and exhibition designer active in the later phases of the Werkbund.<sup>22</sup> He was, in fact, the local official in charge of the Berlin branch of the Werkbund, from 1933 until the Werkbund was first absorbed and then disbanded by the

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<sup>19</sup> See Eric Raemisch (Deutsche Seide) to Lilly Reich, 2 July 1929, and A. Meyer-Gästters (IG Farben) to Lilly Reich, 22 July, 1929, Barcelona Pavilion correspondence files, MA.

<sup>20</sup> The photographer for the 1934 *Deutsches Volk, Deutsche Arbeit* exhibition was Arthur Köster; see *Die Form* 10 (1934): 5/6, 113. Early that year, in the fourth number of *Die Form*, Niemann's photo credit appeared under his own name, as "Niemann Photo", in a photograph of a project by Albert Speer. Possibly Niemann dissolved his agency, the Berliner Bild-Bericht, at this time; possibly he had good reasons for changing the identity under which he operated as architectural photographer. It is quite likely that the Bild-Bericht appellation, so closely affiliated with the large exhibition projects of the Werkbund and (by implication) the Neues Bauen, was dropped as the new government was in the process of stripping the Werkbund of its artistic independence, and of many of its earlier members and officers. See Niemann files in the Photography Collection of the Berlinische Galerie, Berlin.

<sup>21</sup> Niemann's niece survives him in Berlin. His papers, including an obsessively notated collection of newspaper clippings, survive in part at the Berlinische Galerie. His library, initially promised to the Gallery, was never transferred there. It seems to have been sold by his heirs, who rejected all requests for information and interviews. Niemann seems to have thrived under the Nazis and suffered ever after, dying an embittered man in 1980.

<sup>22</sup> Janos Frecot and Eckhardt Siepmann, *Zwischen Kunst und Industrie* (Lahn-Gießen: Anabas Verlag, 1977), 600; also see *Berlin fotografisch. Fotografie in Berlin 1860-1982* (Berlin: Berlinische Galerie, 1982), 65.

Reichskammer für bildende Künste in 1935.<sup>23</sup> Prior to assuming an official role at the Werkbund, Niemann worked on a number of important Werkbund exhibitions in the late 1920s and early 1930s.<sup>24</sup> In addition to the murals for the Electricity Pavilion at Barcelona, his involvement in the Deutsche Werkbund Section of the 1930 Paris exhibition of the Société des Artistes Décorateurs, possibly included the large-format photo murals for Herbert Bayer's architectural photography exhibit there.<sup>25</sup> Following this, his work appeared in 1933 at the "Die Kamera" exhibition already mentioned, where he worked closely with Winfried Wendland to produce the honorary central hall of the exhibit, complete with monumental photo murals of Adolf Hitler and National Socialist troops marching in formation.<sup>26</sup> Niemann may also have produced large-scale photo murals for the *Deutsches Volk, Deutsche Arbeit*

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<sup>23</sup> Niemann's official title, "Landesbezirksleiter für Brandenburg-Pommern" designates an important role in the Werkbund, but by no means as important as the position he attributed to himself, as Geschäftsführer of the DWB, in his Berlinische Galerie vita.

<sup>24</sup> In addition to his work at Barcelona, Niemann photographed the 1930 Decorative Arts Exhibition in Paris and Mies's section of the Berlin Building Exhibition in Berlin. See *Die Form* 5 (1930): 11/12, Table of Contents and 292. Also see *Die Form* 6 (1931), no. 2, p. 53 for Niemann and Gropius. For the Berlin Building Exhibition, see various articles throughout 1931 in *Die Form* 6 (1931).

<sup>25</sup> As was the case at Barcelona, Niemann received no official published credit for his work in exhibition design or installation at the Paris show, although the Berliner Bild-Bericht was given photo credit in *Die Form*, as architectural photographer of the exhibition itself. For further information on German contributions to the exhibition, see I. Ewig, T. Gaehtgens, M. Noell, *Das Bauhaus und Frankreich* (Berlin: Akademie Verlag, 2002). At Barcelona, Niemann was additionally cited in an independent article (see n. 7) as the producer of the photo murals. It is possible he played the same role for Gropius in Paris.

<sup>26</sup> Niemann's photographs in the Hall of Honor of "Die Kamera" used techniques similar to those in the photo murals in the Barcelona electricity pavilion. The photographs were again mounted high on the wall, placing Adolf Hitler and his personal guard well above the heads of visitors to the exhibition, and at an enlarged scale. In the case of the Barcelona electricity pavilion, the photographs publicized the German electrical industry; for the later political exhibit, photography served the same purpose with respect to the National Socialist government. The installation of an overtly political hall at an exhibition about photography constituted a relatively blatant inflation of the techniques of propaganda used by Weimar architects, photographers, and exhibition designers; but the basic technique, if not the intended ends, were quite similar.

exhibition of 1934. He was not, however, the exhibition photographer,<sup>27</sup> possibly because he had shortly before received a commission as the sole German supplier of large-scale photo murals for the Mustermesse at Basel scheduled to take place that year. According to his own report, he contributed to the 1934 exhibition, "Die Strasse," using photography to increase the implied scale and degree of completion of Hitler's Autobahn project. Niemann also claimed to have gone on to do important work for the Wehrmacht (German armed forces, then under the NS government). He photographed weapons prototypes not yet in large-scale production, supplying through propaganda what had not yet been possible in production. His manipulated photographs of armored tanks, he claimed, were used by the Nazis as propaganda devices to instill fear into the intelligence apparatuses of the opposing forces, for a weapon that had not yet entered the mass-production phase—a potentially critical chronological distortion for the ongoing war.

In interviews and written accounts of his life from the 1970s, Niemann accounted for himself as exhibition designer and as producer of large-scale photo murals. By contrast, his role as proprietor of the *Berliner Bild-Bericht* is almost never mentioned, and never dwelt upon at any length. Paradoxically, it is the photographs credited to Niemann's agency, both of single buildings like the Barcelona Pavilion, and of ephemeral exhibitions like that in Paris in 1930, that have had a lasting impact. His photographs of the Pavilion, particularly, remain among the most renowned pictures of German modernism. In his own view, as well as more universally, however, Niemann had no authorial status over the images that made that building famous. Whether this is because he was in fact not the exclusive author (he certainly went to Barcelona on at least two separate occasions to take pictures for Mies) of the images is not known. But in reviewing the available archival material,

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<sup>27</sup> *Die Form* 10 (1934), 5/6 credits "Köster," probably Arthur Köster, although possibly his

it is difficult to resist the impression that Niemann's neglect of his identity as architectural photographer went hand in hand with his efforts to inflate his identity as exhibition designer. This implies a status relationship that rendered architectural photographers as 'mere documentarians' to paraphrase Eugène Atget, rather than as artists in their own right.<sup>28</sup>

While it may be unremarkable that Niemann took no authorial credit for his work as architectural photographer, it is notable that, even after the Barcelona images had become iconic pictures of German and international modernism, Niemann still made no claim in print to his authorship of the images. That is, even after his reputation had been ruined by association with the Nazis, and his livelihood lost through Allied bombing of his entire workshop and offices on Eisenacher Street, and confiscation of property lying in the Russian occupation zone—even after he had, by all accounts, become a bitter old man with grudges against nearly all the famous figures he had worked for—even then he made no particular claim to these photographs. Like the architects he worked for, it would seem that there was no question of credit, beyond what Niemann had originally received under his Berliner Bild-Bericht stamp.

Architectural photographers in the Weimar period were, according to Michael Stöneberg and others, in general self-described craftsmen/technicians, proud of their technical skill and their ability to interpret the intentions of their clients through photography. The majority of photographers of the Neues Bauen in Germany, including Arthur Köster, Max Kracjewksy, Emil Leitner, Curt Rehbein, Hugo Schmölz, Werner Mantz, Lucia Moholy, and others, could be considered specialized craftsmen not so

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brother Walter, for the photographs published to accompany its article on the show.

<sup>28</sup> See Molly Nesbit, *Atget's Seven Albums* (New Haven: Yale University Press, 1982) for her clarification of this dubious contention.

different (in spite of their 'white-collar' identity) from the craftsmen who executed architects' orders on the building site. Notable exceptions to this rule were photographers like Albert Renger-Patzsch, Walter Peterhans, and Sasha and Cami Stone, who all defined themselves in terms of other photographic practices, and for whom architectural photography was a sideline or subspecialty. In these cases the photographer was clearly established as an art photographer or a photojournalist. But in the case of the premier architectural photographers of the Neues Bauen, those who had no other identity, we might consider the instability of the notion of authorship for a given body of work.

Recent scholarship on the work of Arthur Köster suggests a relationship between architect and photographer that might be described as 'collaborative' or even 'dialogic.' Both Erich Mendelsohn and Otto Haesler, to name only two, preferred to have all their buildings photographed by Köster, and worked closely with the photographer to produce striking images of their buildings.<sup>29</sup> Similarly, Rudolf Schwarz worked closely with Albert Renger-Patzsch—Renger-Patzsch's skewed photos of Schwarz's buildings mark some of the rare cases when the more extreme modes of the 'Neues Sehen' entered architectural photography, otherwise relatively tradition-bound.<sup>30</sup> Werner Mantz and Hugo Schmölz also had regular clients.<sup>31</sup>

Collaborations between architect and photographer weaken the notion of authorship on either side. The photographer's sensibility in these cases was obviously

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<sup>29</sup> The same relationship existed in the United States between Julius Schulman and Richard Neutra. See Julius Shulman, "The Architect and the Photographer," *AIA Journal*, 32 (December 1959) 40-44, for Shulman's view of this relationship.

<sup>30</sup> See *Rudolf Schwarz, Albert Renger-Patzsch. Der Architekt, der Photograph, und die Aachener Bauten* (Aachen: Suermondt-Ludwig-Museum, 1997).

<sup>31</sup> See Karl-Hugo Schmölz and Rolf Sachsse, *Hugo Schmölz: fotografierte Architektur 1924-1937* (Munich: Mahnert-Lueg, 1982); Werner Mantz, *Werner Mantz, Architekturphotographie in Köln, 1926-1932* (Cologne: Das Museum, 1982); Werner Mantz, *Werner Mantz: Fotografien, 1926-1938* (Cologne: Rheinland Verlag, 1978).

critical to the success of the work through its publication. We can, for example, discern the hand, or the eye, of a Köster or a Renger-Patzsch. And yet, architectural photographers have been nearly invisible in the eyes of academics for many years. They are now getting attention as skilled craftsmen—as artists even—in their own right. These new discussions, when they do not simply repeat the mistake of celebrating artistic mastery, can unfasten the clear understanding of authorship that has heretofore governed architecture. When buildings can only be experienced through their photographs (one might strenuously defend the notion that buildings are never ‘experienced’ through their drawings), and the photographs are self-evidently the work of someone other than the architect, it is difficult to leave original claims of authorship intact. In comparison, who would claim that a nude by Edward Weston should be primarily credited to the nameless subject of the photograph? Standards for the anonymity of the architectural photographer are drawn from the norms that govern the mechanical reproduction of two-dimensional art, on the one hand, and on well-established business standards for the commissioning of subcontractors and applied artists by architects on the other. But we are also right to question the similarity between these very different enterprises. Architectural photography is no more precisely assimilable to a photograph of a Cubist painting, for example, than it is to one of Weston’s alluring nudes. Nor is it precisely assimilable to the precise execution of a cornice detail or a complicated piece of plumbing. The explication of these images involves staking some claim to a middle ground.

### **The Barcelona Pictures**

In the case of Mies, the identity and authorship of the photographer are slightly more complicated. Wilhelm Niemann fits into neither of the available categories of architectural photographer so far discussed. His technical abilities as a

photographer were notably inferior to those of someone like Köster, for whom technical skill was of first importance. The Barcelona pictures are compositionally inventive in many cases; but in comparison to pictures by Köster, they suffer from substantial vignetting, leaving the focus at the edges of the image considerably fuzzier than at center. Köster's images, by contrast, were evenly focused throughout the field of the image: a point of pride for architectural photographers. Niemann lacked the status and the portfolio of a Renger-Patzsch, a Köster, or a Peterhans. It is not even entirely clear that he was the photographer of all of the images that bear his stamp; the Berlin photographer Sasha Stone was also in Barcelona on a photography commission connected to the German contribution to the Barcelona fair, and copy prints in the Mies archive show his wife and professional partner, Cami Stone, as the probable author of a number of photographs of the Kolbe statue in situ in the original pavilion. It is possible that some of the photographs of the Pavilion were taken by either of the Stones and subsequently sold to the Berliner Bild-Bericht.<sup>32</sup> Niemann was a kind of talented facilitator—a go-between connecting architecture, photography, and the propaganda industry. Whether Mies and Reich hired him serendipitously, because he happened to be on the spot installing the murals in the electricity pavilion, or whether they had originally commissioned him to photograph the Barcelona installations (in addition to his other contract) is not clear, although Barcelona may well have been the first commission that Niemann photographed for Mies.<sup>33</sup> But Niemann was not one of the premier Berlin

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<sup>32</sup> In this context see *Der Querschnitt* 9 (August 1929): 8, for Berliner Bild-Bericht photographs of the Pavilion and exhibition stands, and, in the same issue, an advertisement for German Silk with the credit "Stone." It was the German Silk industry that had commissioned Stone to go to Barcelona in the first place. See Barcelona Pavilion Correspondence Files, MA.

<sup>33</sup> During preparations for Weissenhof in 1927, Mies reputedly hired Werner Gräff to be his publicity agent in a rather informal manner, as Richard Pommer and Christian Otto recount: "Mies ran across him in Berlin, when he, Mies, was on his way to catch a train to Stuttgart to consult on Weissenhof. Mies said that he needed someone to do publicity for the exhibition,

architectural photographers like Köster and others. He was someone with a specialization related to exhibition design and installation, whose main livelihood came out of exhibition production in the latter half of the 1920s. Perhaps at this juncture, Mies, like Gropius, preferred a photographer with fewer creative impulses and less independence. Perhaps, though, he just took what fell into his lap, searching for a quick solution to the problem of the inadequate Spanish photographs provided by the extensive propaganda machine that was part of the Barcelona fair.<sup>34</sup>

While Mies did not personally direct the composition of photographs of his work on site, he did indicate his preference to the photographer on at least one occasion.<sup>35</sup> He does not appear to have established a close relationship with Niemann or any other photographer, although there is no question that he understood the value of good photographs of his work. He used the *Berliner Bild-Bericht* for a number of years (at least two, possibly more), even commissioning photographs of the Esters and Lange Houses in Krefeld from the Berlin firm. But he did not send Niemann to Brno in 1931, when the Tugendhat House was instead photographed by Rudolf Sandalo, a local architectural photographer of considerable repute and technical ability (see Chapter Four). In spite of that, Niemann is the only photographer whom Mies commissioned for long-distance work, if the case of Arthur Köster at the Wolf House in Guben is discounted. In all other cases, with the exception of the *Berliner Bild-Bericht*, Mies used a local photographer when possible.

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and he expected Gräff to show up and take over the task." See Richard Pommer and Christian Otto, *Weissenhof 1927 and the Modern Movement in Architecture*, 254 n16.

<sup>34</sup> The Barcelona exhibition organizers had created an extensive publicity apparatus for the exhibition, including a building dedicated to press activities and built especially for the event. The press arrangements were described in a prospectus, "Internationaler Kongress der Presse und Ausstellung des Zeitungswesens und der Buchdruckerkunst," *Internationale Ausstellung von Barcelona, 1929*. Also see "La publicidad en la Exposición de Barcelona," *Exposición Internacional de Barcelona 1929. Compañía de Publicidad*. Both publications can be found in the Arxiu de la Citat, Barcelona. The latter features a detailed schedule of the many different kinds of advertising for sale at the exhibition, from film projectors to mobile floats.

<sup>35</sup> See page 114.

Furthermore, he used the Berlin firm more than any other architectural photographer, over the life of his Berlin office, including commissioning the Bild-Bericht for photographs of the competition drawings of the Neue Wache. Other than Niemann, only Arthur Köster worked for Mies more than once, at the Wolf House and as photographer of the Monument to the Victims of the November Revolution. Mies evidently liked Niemann's work; this preference is not, however, based on any conclusive empirical fact nor on any archivally verifiable evidence, at least not at present. We can only conclude that Mies, and probably Lilly Reich, thought he was good (or 'good enough') and liked his work.<sup>36</sup>

One further piece of evidence in the Mies Archive supports this claim. Among the group of photographs of the Esters and Lange Houses bearing the Berliner Bild-Bericht stamp on their verso, there is also one photograph of the Lange House taken by Hugo Schmölz, the well-established architectural photographer based in Cologne (fig. 3.4). This particular print came into Mies's hands as late as 1965, although he must have been familiar with the photograph earlier.<sup>37</sup> It depicts the street façades of the Lange House, with Haus Esters in the distance, in a standard three-quarter raking view. In order to include both houses, the photographer has also included much of the front garden, so that the house sits at the back of a large sweep of ground plane. The photograph is very similar to one taken by Niemann's agency; both photographers had stood in nearly the same spot, only altering the height and

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<sup>36</sup> By 1934, Mies had contracted the photographer Paul Schulz, who also worked for Lilly Reich. This was perhaps related to the political changes at the Werkbund, and the speed with which Niemann entered a position of responsibility in the organization, after its restructuring under the Nazis in 1933. There seems to have been no love lost between Mies and Niemann, who claimed that all his dealings had been carried out with Lilly Reich.

<sup>37</sup> See letter of 9 May 1967 from Willy Hauswald to Mies, detailing the accompanying gift of old photographs, with Mies's shaky handwritten response, in Container 7, Unidentified correspondence files, LoC. Also see Container 31, File Hedrich-Blessing, for Mies's subsequent order for copy negatives of this and other prints sent by Hauswald. Hauswald had been the executor of Lilly Reich's estate.

angle of the camera. The Schmölz photograph shows considerably more of the ground in front of the house, diminishing the building's apparent height by a relatively high camera height and a broad foreground. The Berliner Bild-Bericht version of this view, by contrast, includes less context and more house; the tripod was lowered to well below eye height, and the picture includes foreground and planting beds out of focus and only insofar as they frame the building (fig. 3.5). The price for this closer focus is the exclusion of most of the Esters House next door—but the picture shows the Lange House to better effect. In doing so, it breaks the rules of standard architectural photography of the day: in addition to the lower camera height, the front of the house is in shadow, with strong sunlight coming from behind and casting dramatic shadows down the side of the projecting entrance block and the very short end facade of the house. The foreground is also rather dramatically out of focus, which serves to push attention back to the crisply focused outlines of the house itself—but was not considered good artistry among photographers.<sup>38</sup> Michael Stöneberg has speculated that Mies rejected the Schmölz image, preferring instead Niemann (or his factotum or contract photographer), whose image bears evidence of less technical skill, but clearer representation of the building and its site.<sup>39</sup>

Fifteen views of the Pavilion are currently credited to Niemann's agency. They were evidently taken over three separate photographic shoots, two of which took place around the time of the official opening. A photograph of the opening ceremonies shows the festive additions to the building podium in honor of that event: pots of blooming flowers adorn the edges of the architecture. A number of the Berliner Bild-Bericht prints include these flowers; another set lack flowers, but clearly show the building in its brand-new state, without plantings around the

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<sup>38</sup> See Chapter Four for a discussion of standards for photography of architecture at this time.

<sup>39</sup> Personal conversation with Michael Stöneberg, April 2002.

building. A third set includes instead mature plantings around the back entrance to the buildings. This third group was shot sometime around the beginning of November 1929, when Niemann made a return trip to Barcelona for the sake of making more photographs.<sup>40</sup>

As discussed in Chapter Two, these photographs are for the most part calibrated to points in the plan that involve a change of direction or the revelation of particular views as corollary to moving through the building. In other words, the 'entrance' to the building, experienced just after a 180-degree turn at the top of the steps, was photographed from that point; the next image was taken just as the inside edge of the marble wall that flanks the entrance revealed the 'chamber' with the onyx wall. Another view captures the tableau revealed upon entering the space with the small basin and the Kolbe statue; another the view upon leaving that space, and so on (figs. 2.9d-h). The photographer, whether acting on the architect's direction or not, has moved through the building with a photographer's eye, capturing the visual tableaux created by the architecture.

Possibly as a result of this coordination between photographs and spatial experience, many of the views of the Pavilion are insistently perspectival and relatively symmetrical. The view of the entrance is accompanied by at least two other views remarkably similar from a compositional standpoint. These tunnel-like images echo a photographic/compositional preference also adopted by Le Corbusier,<sup>41</sup> except, in this case, for the broadening effect of the horizontal reflection in the Pavilion's glass walls. Daniel Naegele has emphasized the optical illusionism

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<sup>40</sup> See letter, 8 November 1929, from Lilly Reich to Herr von Kettler in Barcelona: "Any day now, we await the photographer Niemann back, and we're very excited to see whether he brings us more good pictures. (Wir erwarten in diesen Tagen den Fotografen Niemann zurück und sind sehr gespannt, ob er uns noch gute Aufnahme bringt)." Barcelona Pavilion Correspondence Files, Folder 4, MA.

<sup>41</sup> Daniel Naegele has discussed Le Corbusier's photographic interests in some detail. See note 50, Chapter One.

that dominated Le Corbusier's use of this compositional motif in images; in the cases of photographs of the Pavilion, optical illusion in depth is replaced by a kind of syncopation between flatness and depth engendered by reflective surfaces that bind the image together horizontally, seemingly denying it the equally convincing illusion of spatial depth.

This group of images also provides an entry point into an issue of some significance for Mies's subsequent work, particularly throughout the 1930s. The image that shows the Kolbe statue from the back 'passage' that runs along the long side of the Pavilion bears a marked resemblance to a sketch Mies made some years later for the Hubbe House, an unbuilt project designed for a site in Magdeburg for 1935 (fig. 3.6). One must then consider the relationship between photography and Mies's manner of perspective sketching, particularly evident in the large cache of surviving drawings for projects such as the Gericke House, the Hubbe House, the Ulrich Lange House and the so-called "Courtyard Houses" of the next ten years. Since perspective sketches were much less in evidence in previous projects, one wonders whether the wide-angle photography of Mies's built work of 1929-31 may have had a direct impact on his subsequent production methods and subsequent design.<sup>42</sup> The sketches exhibit precisely the features of contemporary photographs of Mies's work—they are 'wide-angle' drawings. If anything, their extension deploys a wider angle than the camera itself. In the process, the foreground is generally greatly exaggerated by Mies's tendency to let the drawing float on the surface of the page.

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<sup>42</sup> Systematic interior photography exists for the Glass Room at Stuttgart, the Barcelona Pavilion, the Tugendhat House, the House for a Bachelor at the Berlin Building Exhibition. By contrast, interior shots of Mies's Block at the Weissenhofsiedlung are rare, appearing in limited numbers in Werner Gräff's *Innenräume* of 1928.

The exterior shots of the Pavilion, impressive and familiar as they are, don't break new photographic ground. They are standard views recognizable as normative architectural photographs shot from a three-quarter raking angle. Raking views from the interior of the space are more ambiguous and suggestive, again as a function of the space-changing properties of reflective surfaces in the pavilion. Also of this group, a rather poorly balanced view of the rear entry and the milk-glass wall should be mentioned, if only in defense of my claim for a variable standard in the quality of the images (fig. 3.7).

Finally, one view can be considered an exception to the general characteristic of the set as described above: an image taken from the inside corner of the main enclosure, where the milk-glass wall meets the exterior glass wall (fig. 3.8). Arguably, the table that occupied that corner, and the milk-glass wall itself would have inclined visitors to occupy the same spot the photographer occupied; but nevertheless, the image is not as clearly cued to a change of direction or spatial disposition in plan as is the case with the other images. Still, this may be the exception that proves the rule. And interestingly, this image, of all the pictures of the pavilion, is perhaps the most powerful, *as photograph*. Nearly every vertical surface is compromised by multiple reflections, such that the facing plane of the glass wall appears to extend through the right-hand wall of the building, just as it penetrates the onyx doré wall running directly toward the camera in the foreground. The flat planarity of the surfaces and the insistence of the horizontal reflection that dominates the center of the image are visually incompatible. We cannot recognize them as co-existent in space. The image projects ambiguity, constructing a virtual space of ghostly materiality through the apparent interpenetration of onyx and glass planes. Reminiscent of the work of other avant-gardists (see the discussion of El Lissitzky's *photopis* in Chapter Two), this picture, of all others in the set, registers its

own flatness in a manner that unmistakably calls up flatness as the certifier of modern aesthetic value.<sup>43</sup>

Like the compositional preferences that register themselves in the photographs of the Tugendhat House, in this case an interest in reflection in Weimar photographic circles emerged publicly at just this time. In the publications of the 1929 Werkbund exhibition *Film und Foto*, reflection appeared as an important feature enabling visual exploration by the new photography, described specifically by Werner Gräff, in *Es kommt der neue Fotograf!*, as one of the new possibilities of photography.<sup>44</sup> While nearly all of the photographs of the Pavilion mediate reflection in one way or another, this image exploits the condition for almost purely photographic ends. Its illusionism is specifically anti-spatial; it is only nominally an architectural photograph at all, in that its pictorialism actually interferes with its transmission of a general impression of the building or a specific impression of particular architectural attributes.

We might just briefly note the ways in which the fame of the building spread. Although a tentatively planned book project never came to fruition, other coverage was substantial.<sup>45</sup> Intensively published in 1929 and 1930 in the German press, the

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<sup>43</sup> In the case of these photographs and those of the Tugendhat House, one might go further into the question of flatness vs spatial illusionism. For this, the starting points from modernist painting are well known. Both Clement Greenberg and Michael Fried have devoted much attention to precisely this issue. T.J. Clark reiterated their aesthetic standard for painting in his recent, "El Lissitzky in Vitebsk," in Nancy Perloff and Brian Reed, *Situating El Lissitzky: Vitebsk, Berlin, Moscow* (Santa Monica: Getty Research Institute, 2003), 199-210. But more directly related to the current project are Rosalind Krauss's writings on photography, including *The Optical Unconscious* (Cambridge: MIT Press, 1993), and Jonathan Crary, *Suspensions of Perception* (Cambridge: MIT Press, 1999). But much of this discussion hinges on the conceptions of abstraction generated in the pre- and post-World War I years as developed by El Lissitzky and Wassily Kandinsky and others.

<sup>44</sup> Werner Gräff, *Es kommt der Neue Fotograf*. (Berlin: Hermann Reckendorf, 1929). Wilhelm Niemann reported to Janos Frecot that this exhibition had made a big impression on him, and had sealed his determination to be, not merely a photographer, but a designer who used photography in exhibition installation. Conversation with Janos Frecot, Fall 2002.

<sup>45</sup> In a letter of 4 December 1929 (mislabeled, "4 November"), Lilly Reich addressed the on-site commissioner of the exhibition, Dr. von Kettler, on this subject: "According to my

Barcelona Pavilion reached only a few international journals as part of the immediate coverage of the Fair.<sup>46</sup> A long article on the exhibition in *Art and Archaeology*, for example, omitted the German section altogether. But later, beginning in 1931 and continuing at a variable pace thereafter, the Pavilion began to appear in foreign journals with greater regularity. It was published in *Domus* and *Casabella* in 1931; in *The Architectural Review*, the MoMA catalogue *Modern Architecture* and the handbook that proceeded from it, *The International Style*, all in 1932. Wider publication followed a series of waves keyed to particular events: Mies's emigration to the United States in 1938; his first monographic exhibition there in 1947; Hilberseimer's monograph of 1956; efforts to reconstruct the Pavilion beginning in 1960; Mies's centennial in 1986, coincident with the incipient (if short-lived) post-modern critique of his work; his recent resurgence in *Mies in Berlin* in tandem with a resurgence of interest in modernism. A similar tale could be narrated for the photographs of the Tugendhat House (with significant differences in its German appearances—see Chapter Four). The Pavilion's reappearance in these different venues changed over time, as Juan Pablo Bonta has noted; but in this context it is the first appearance—from 1929 to 1933—that concerns us, beginning with relations to the Werkbund.

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knowledge, every world exhibition in which Germany participates should produce a printed report, that lays out the economic, cultural, and artistic success of the German contribution. Perhaps this is still possible for Barcelona, and there one could and should publish a significant number of photographs of the Pavilion and the halls. We have received some more good pictures from Niemann, that one could profitably use....Perhaps you could think this over and get back to us." Barcelona Pavilion Correspondence Files, MA.

<sup>46</sup> Nicolau Maria Rubió Tudurí, "Le Pavillon de l'Allemagne à l'Exposition de Barcelone," *Cahiers d'Art*, VIII-IX, 1929, pp. 408-411 (reprint: *Carrier de la Ciutat* no. 11, 4/80, p. 16.); Helen Appleton Read, "Germany at the Barcelona World's Fair," *Arts* 16 (10/29), pp. 112-113. Two articles on the Barcelona exhibition in *The Architectural Forum* omitted the Pavilion altogether. See also Juan Pablo Bonta's analysis of the media coverage of the Pavilion for an attempt to fix modern architectural values through an analysis of press coverage over time: Juan Pablos Bonta, *Anatomía de la interpretación en arquitectura, resena semiótica de la crítica del pabellón de Barcelona de Mies van der Rohe*. (Barcelona: Gili, 1975).

### **The Werkbund and Photographic Propaganda**

As noted, both Niemann's work for Mies and Mies and Lilly Reich's work at Barcelona should be understood in relation to the larger project of the Werkbund. Niemann got most of his work from the Werkbund itself or from powerful Werkbund members. He was a technician positioned between architects, their corporate clients, and the organization that sought to regulate German cultural production. His own introduction to Mies seems to have occurred through a typical Werkbund-style alliance between the electricity industry and the German government, an alliance that resulted in Germany's contributions to the Barcelona exposition, itself a fair celebrating the power of electricity.<sup>47</sup> It is thus important to understand contemporary developments within the Werkbund, and its attitude to photography and propaganda, in general and insofar as architecture was concerned. A brief review of select aspects of Werkbund history is relevant in describing the reception of these photographs.

The foundation and history of the Werkbund are well-known.<sup>48</sup> The organization was established in response to a call from the architect and German cultural ambassador Hermann Muthesius for the introduction of higher standards into the production of German goods, a call that was answered in 1907. The Deutsche Werkbund was established in response to the increasing complexity of industrial life and the increasingly complex organization of production—and to Germany's slow start as an industrial nation. As such, the issue of product quality (*Qualitätsarbeit*) had been central to Werkbund policy from the start. Preoccupations with quality in German products remained a concern of the Werkbund for the length of its

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<sup>47</sup> Dietrich Neumann has emphasized the importance of this context for the Pavilion. See Neumann, *Architecture of the Night*, (Cologne: Prestel, 2002).

<sup>48</sup> For bibliographical references on the Werkbund, see note 4.

existence, although the issue receded briefly in the second half of the twenties, only to reemerge with greater force at the end of the decade. The issue of *Qualitätsarbeit* became a kind of ideological hook for artists, critics, and industrial leaders to hang their hats on, from all points along the left-right spectrum. But it also served as an often salutary brake on risk-taking in product development. Thus, for right-wing critics in the late 1920s and early 1930s, the buildings of the Neues Bauen could generally be attacked on the grounds that their experimental construction methods (when such were used) had been insufficiently tested over time, and resulted in poorly-constructed buildings and industrial goods. One of the issues upon which the Werkbund had been founded thus in a sense deterred its architects and designers from proceeding with the other implicit founding principle on which the Werkbund was based. This was precisely the further development and advancement of German design through experimentation with new techniques and productive mechanisms for architecture and design. Frederick Schwartz claims that the DWB was doomed by the conflict between standardization and the free exercise of artistic agency; the organization was equally hung up by this other dispute, between the upholders of quality and the champions of progressive invention, at least in its post- World War I iterations.

The Werkbund tried hard to mediate ideological differences as they emerged in the late 1920s between the various architectural factions that divided German architecture culture. The divisions were more complex than simply a left-right polarity composed of Heimatstil architects on the right and Neues Bauen architects on the left, as I have indicated in an earlier chapter. In addition to the divisions within the ranks of core progressive modernists, serious differences arose from within the continuum of mainstream architects, those who were sympathetic to modernism but uncomfortable with socialist rhetoric and the exclusivity of the avant-

garde. Within the ranks of the right wing, divisions arose on the basis of architectural beliefs, even separating, for example, the opinions of the conservative architect Paul Bonatz from his more extreme colleagues in Stuttgart.

In the case of Stuttgart, regional affiliations proved stronger, in many cases, than ideological ones: Richard Döcker, as clearly as he affiliated himself with the architects of the Neues Bauen, also maintained close ties with the most conservative architects from his home town, at least until the end of the 1920s. His administration of the Weissenhof housing development brought him into direct conflict with Berlin modernists, most particularly with Mies, with whom he had long had a contentious relationship.<sup>49</sup> The Werkbund had attempted to deal with plurality of beliefs among its membership by adopting plurality as an overt policy, one that Mies further articulated, supported, and helped enforce, as both an active Werkbund member and its vice president after 1926.<sup>50</sup> Rather than dictating ideological direction, the Werkbund meant, at this time, to hang its hat squarely on the idea of *Qualitätsarbeit* and *Wert*, on standards of quality and value in the object itself, and on notions of artistic freedom first defended so strenuously by Henry van de Velde in 1914. This had more or less been the position of the Werkbund since the rejection of Muthesius's call to adopt the goal of *Typisierung* as a programmatic policy, although Werkbund critics claimed that both terms had been forgotten in the years since the takeover of the Werkbund by a younger faction in 1926. But by 1928, Mies and other

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<sup>49</sup> Mies and Döcker had known each other from the early twenties. Döcker responded to an invitation to participate in the 1924 Novembergruppe exhibition (organized by Mies) unenthusiastically, insisting that he would only exhibit on condition that it be clear that he was not a member of the Novembergruppe. Mies responded impatiently, and did not include Döcker's late submission when it did arrive. Container 1, LoC.

<sup>50</sup> These opinions were articulated at the annual meeting of the Deutsche Werkbund in Vienna in June of 1930. In response to accusations that the Werkbund followed a 'one-sided modern direction,' Mies noted the need to define more clearly what 'modern' might mean for the Werkbund. He noted, "The connection to the old is the concern for value (*Wert*), that could perhaps get lost. It remains for that reason to take up Mr. Schramm's suggestion. The Werkbund follows no one-sided politics (*Politik*)." Container 3, LoC.

members of the Werkbund board steadfastly opposed alterations to this policy, attempting to keep politics outside the Werkbund's doors, as a way to keep peace within the organization, and to maintain sight of its international goals. And in the late 1920s, this position distinguished the Werkbund very clearly from the Bauhaus.

The Bauhaus may have been the negative object lesson from which Werkbund members took their cues in the late 1920s. That is, the struggles between the Bauhaus and the local government in Thuringia had led to the school's move to Dessau. Problems with the Dessau government in the wake of a shift to the right in its local governing council were then a replay of a struggle the Bauhaus had already lost once. The Werkbund clearly distinguished itself from similar political affiliations, being solely an alliance of productive forces—at least until the early 1930s.

Nevertheless, while Mies helped distance the Werkbund as best he could from ideological positions, this effort on his part mostly followed what was arguably his most important work for the DWB—his administration of the Stuttgart Weissenhofsiedlung. Defending the Werkbund's plurality and neutrality, he nevertheless attempted, both at Weissenhof and later, to corral the resources of the Werkbund to the projects in which he or his artistic allies were most visible. But in spite of his rejection of the hard left wing thought of Hannes Meyer, for example, the criticisms launched at Weissenhof were generally leveled at two targets: the functional, 'socialist' form of the buildings themselves, and the poor quality of their construction. The latter criticism was the most damaging, since it demonstrably contradicted one of the Werkbund's only clearly articulated policies; quality in the object itself.

The battle in the years following Weissenhof had heated up and become more intense. Mies took firm command of the Barcelona exhibition in mid-1928, as vice president of the DWB; Walter Gropius managed a similar coup for the Paris exhibition

of 1930 (originally scheduled for 1929).<sup>51</sup> But disagreements over Werkbund practice erupted in 1929 nevertheless—not in Barcelona, but in Breslau, where the official “Werkbundtagung” took place in late summer. The leader of the Breslau exhibition, Adolf Rading, was accused of cronyism and incompetence in the administration of the exhibition.<sup>52</sup> Amid a variety of other accusations, criticism was focused specifically on a contract for graphic design awarded to Johannes Molzahn, a contract that had to be reassigned at the last minute because Molzahn reportedly failed to do his job. The accusations at Breslau inevitably turned into an attack on progressive modern architects, and their “clique,” seen as dominating the Werkbund. The door was thus opened to a power struggle that continued the following year.

Discussions about the direction of the DWB focused in 1930, first at the meeting of the German and Austrian Werkbund in Vienna in June, and then at a special gathering in Stuttgart later the same year, called specifically to address some of the criticisms of the Breslau exhibition as first raised in Vienna. It is in the context of this Vienna meeting that Mies delivered one of his rare statements on the direction of modern architecture. His piece, “The New Time,” took its title from the planned 1932 exhibition intended for Cologne; his remarks should be understood in relation to Werkbund discussions of the time. In the course of laying out thoughts on the international basis of the new exhibition, Mies delivered his well-known comments on the importance of spiritual over technocratic values, echoing a consistent theme of German artistic culture: “Precisely the question of value is decisive....The meaning and rectitude of any age, including the new one, lie solely in that it offers the spirit

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<sup>51</sup> See *Die Form* 11/12 (1930), and *Art et Decoration* 58 (1930). Also see “Paris 1930: Das Bauhaus in Frankreich/ Le Bauhaus en France,” in I. Ewig, T. Gaehtgens, M. Noell, *Das Bauhaus und Frankreich* (Berlin: Akademie Verlag, 2002), 253-347.

<sup>52</sup> It was criticism of Rading’s work at Breslau that provoked Mies’s comments on value at Vienna in 1930, as quoted above; it was this issue that led to the special meeting convened at Stuttgart later in 1930.

the [necessary] precondition, the possibility of existence."<sup>53</sup> This was a clear reflection of debates within the Werkbund, and questions about its *quantitative* contribution to German society.<sup>54</sup>

The ensuing meeting in Stuttgart took place in late October. Neither Mies nor Gropius attended. Throughout the disputes at this time, both architects attempted to remain outside the circle of potential targets for criticism, at the same time that they retained real power over Werkbund policy by virtue of the substantial and successful work they both carried out in their respective international exhibitions. Without explicitly abandoning their colleagues from Breslau, they also refused to come to their aid, leaving it to the functionaries of the Werkbund to mediate the crisis of 1930. But the crisis itself had been ready to erupt for some time, at least since 1927, and even more since Paul Schultze-Naumburg had founded a pendant organization to the progressive Ring, called 'Der Block,' and steadfastly opposed to modernism, in 1928; Breslau had merely provided an opportunity. And what was really at stake in the Werkbund was precisely what Mies and Gropius *did* provide—aesthetic leadership of a very particular kind, not in the least pluralist in its underlying intention.<sup>55</sup> Eventually, both architects had separately amassed too many enemies, from right and from left, although it was ultimately the right-leaning faction from whom they had the most to fear.

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<sup>53</sup> The text is reprinted in two versions in Neumeyer: the first includes Mies's prefatory remarks on the planned Cologne exhibition; the second is a reprint of the published version of the text. See F. Neumeyer, *The Artless Word*, 309-310.

<sup>54</sup> In comments on the proceedings at Vienna, the Viennese museum director Neurath commented on the necessity for the Werkbund to deal with quantitative questions. See "Die Tagung des Deutschen Werkbundes in Wien," *Neue Freie Presse, Wien* 25.6.1930.

<sup>55</sup> See Mies-Gropius correspondence regarding the 1923 Weimar building exhibition, for the clearest statement of this objective on the part of both architects. While formulated a full seven years earlier, it took until 1930 for both architects to be able to push through their own agenda as constitutive of Werkbund official policy. Container 1, Folder G, Mies van der Rohe Papers, LoC.

Mies and Gropius both maintained their high profile at the Werkbund for a little longer, sustaining differences in their interests and approaches. Both were able to argue for the substantial international success of their two exhibitions of 1929 and 1930 respectively.<sup>56</sup> Mies again encountered significant criticism for his management of financial affairs in respect to the Barcelona fair, which had run significantly over budget. But the Werkbund leadership defended him, arguing that a reduction in budget midway through the project had put Mies in an impossible situation, and that the budget overruns should be offset against the fact that Mies had in fact met the original budget figure. In any case, further discussion of exhibitions as a major emphasis of Werkbund activity continued at least into 1931.<sup>57</sup>

As the thirties advanced, right-wing architects found they had a number of targets to attack on the grounds that construction standards had been sacrificed for

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<sup>56</sup> Walter Gropius reported, "on the German Section of the Exhibition of the Society of Decorative Arts in the Grand Palais in Paris, which can be counted a complete success (...über die Deutsche Abteilung auf der Ausstellung der S.D.A.D. im Grand Palais in Paris, die als ein voller Erfolg zu buchen sei.)." Gropius's words were backed up with telegrams from Paris, including one from Prime Minister Tardieu, and another from the German ambassador. Minutes, Vorstands- und Ausschussitzung des Deutschen Werkbundes am 23.6.1930 (Wien). Container 6, Mies van der Rohe Papers, LoC.

<sup>57</sup> Much discussion in the DWB in the years 1929-31 centered around the upcoming 1932 exhibition, *Die Neue Zeit*, planned to take place in Cologne. Planned as an international exhibition (like Stuttgart), the experience of Stuttgart gave rise to discussions about the form such an exhibition should take. Gustav Stotz lobbied in favor of Mies and Gropius when he described the 1927 Stuttgart exhibition as critical for a new definition of exhibition modes, a direction that had been investigated further in the collaborations of Barcelona and Paris. He urged the editor of *Die Form*, Walter Riezler, to publish a call for the further development of the exhibition type in the course of planning the Cologne show. Although Mies in his commentary on the show emphasized the leadership of Ernst Jäckh for Cologne, his pronouncements had an air of authority about them that suggested his own preeminent role in German exhibition design. Mies was specifically concerned about the organization of the show; from the standpoint of content, he maintained, the show should be organized thematically. From a financial standpoint, however, there would be a natural tendency to organize it by nation. In Mies's view, the former organization ought to prevail, with careful financial coordination organized by international committees convened for each thematic section. Jäckh held Mies at arm's length for a powerful position in the Cologne exhibition, based on criticisms of his role at both Stuttgart and Barcelona, but Mies was given free reign over his designated section of the 1931 Berlin Building Exhibition. In any event, the Cologne show was destined never to take place; initially postponed until 1933 or 34 for financial reasons, it was subsequently cancelled altogether due to economic and political crisis.

the sake of Neues Bauen dogma. Rudolf Esterer, one of the apologists of the conservative *Heimatschutz* movement, described poor construction standards and new materials as mere symptoms of an overall corruption in traditional values, represented by the new architecture. He wrote: "Not glass, steel, and concrete, not all the new materials and ugly construction methods against which the Heimatschutz movement defended itself in vain, are responsible for the destruction and devastation of the picture of the homeland that we are still lamenting today, but rather the men of a culture-less time, who do not master the new materials technically, who cannot and will not take full command of the new construction methods, because their minds are directed toward other goals, to easy gain and hasty profit."<sup>58</sup> Chief among the targets of the Heimatschutz architects was the Weissenhofsiedlung, but perhaps even more vulnerable was the Törten Siedlung at Dessau, an experiment in industrialized building methods begun by Gropius but carried on by Hannes Meyer. In spite of the fact that Meyer's earlier work in Switzerland, and his concurrent officer training school for the powerful coalition of German unions (Allgemeine Deutscher Gewerkschaftsbund, or ADGB) in Bernau, were solidly constructed buildings, the Törten Siedlung, much more visible, was the subject of attacks in the press.<sup>59</sup> Here, the opponents of the Neues Bauen turned

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<sup>58</sup> "Nicht Glas, Eisen, und Beton, nicht all die neuen Materialien und hässlichen Konstruktionsweisen, gegen die sich die Heimatschutzbewegung vergebens wehrte, sind verantwortlich für die Zerstörung und Verwüstungen im Heimatbild, die wir heute noch beklagen, sondern die Menschen einer kulturlosen Zeit, die die neuen Materialien technisch nicht meistern, die neuen Konstruktionsweisen, nicht beherrschen konnten und wollten, weil ihr Sinn auf andere Ziele, auf leichten Erwerb und raschen Gewinn, gerichtet war." Rudolf Esterer, *Heimatschutz und neue Baugesinnung* (Dresden: Landesverein Sächsischer Heimatschutz, 1931), 22. Also see Christian Otto, "Heimatschutz," 150, 155.

<sup>59</sup> For negative press on the Törten-Siedlung, see "Zur Propaganda neuer Versuchsbauten," *Deutsche Bauhütte* 33 (1929): 12, 193-196. For negative press on the Weissenhofsiedlung, see Felix Schuster, *Schwäbische Merkur* nos. 410, 434, 470, 482, 506, 518 (Sept 3-Nov. 5, 1927); Werner Hegemann, "Stuttgarter Schildbürgerstreiche und Berliner Bauausstellung 1930," *Wasmuths Monatshefte zur Baukunst* (1928): 8-12; *Innen-Dekoration* XL (June 1929); "Eine zeitgemäße Aufdeckung," *Deutsche Bauhütte* 36 (1932): # 9, pp. 109-111; # 10, pp. 122-123; # 11, pp. 138-41.

one of their most successful weapons against them, in using photography to advance an attack on new construction methods in the press.

In the battle over construction standards and *Qualitätsarbeit*, it is abundantly clear that photography was a critical tool of argument; both sides used it with equal polemical intent. Detail photographs of construction flaws were common in right-wing periodicals; but more scandalous, on both sides of the battle, were the attempts to use photographic technique to improve or degrade the architectural subject depicted. While both groups argued over the meaning of terms like *Sachlichkeit*, neither attempted to adopt the slightest objectivity in their deployment of photography.

Right-wing architects and critics had in fact realized the propaganda potential of photography early in their efforts to argue for an architecture that would cast off the historical presumptions of the late nineteenth century, taking inspiration instead from the idealized model of German tradition so well exemplified in Paul Mebes' influential *Um 1800* of 1908. Mebes took some of the illustrations from his book from Paul Schultze-Naumburg's earlier *Kulturarbeiten*, a much more ambitious effort to establish twentieth-century architecture and planning on earlier historical bases. Schultze-Naumburg's 11-volume series constitutes an early example of the use of photographic propaganda. Schultze-Naumburg, co-founder and first president of the Bund für Heimatschutz from its 1904 inception, advanced his case for traditional architectural planning in the *Kulturarbeiten* by using paired photographs of positive and negative examples. In these pairings, Schultze-Naumburg consistently buttressed his argument by selecting positive examples that were also attractive photographic compositions; his counter-examples were, by contrast, routinely depicted in poorly-framed, poorly-lit images. An example from Volume 1,

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"Housebuilding," shows the positive example (badly in need of restoration) in a classic raking three-quarters view in bright late afternoon (or early morning) sunlight; in the counter-example, by contrast, the building is backlit and poorly cropped; the streetfront and entry are nearly invisible. In both cases, a contemporary reader may note the difference in the photographs more readily than the difference in their subject.<sup>60</sup> The *Kulturarbeiten* series first began to appear in 1902, as an extension of the author's work on the journal *Der Kunstwart*. Where positive photographic propaganda had been in use for some time, mimicking the conventions of earlier lithography (itself often based on photographs); the negative use of photographic images of architecture may have begun with Schultze-Naumburg's series.

As the thirties wore on, avant-garde architects and designers survived the negative propaganda onslaughts of their right-leaning colleagues partly to the extent that they were able to protect themselves from these accusations of lowered building standards. Neues Bauen architects often sought to break existing technical barriers, which required experimentation and risk, either practically or conceptually. The Weissenhofsiedlung was a particular target, thanks to its avowedly experimental aims, and the usual budgetary shortfalls that rendered technical innovation most difficult. There were plenty of problems at Weissenhof that translated into dramatic, accusatory photographs disseminated throughout the right-wing press. In general, the greatest 'offenders' of the Neues Bauen generally fled, if not in direct response to the attacks of their right-wing colleagues, then in response to the larger political situation that produced or allowed those attacks. Meyer went to the Soviet Union;

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<sup>60</sup> Paul Schultze-Naumburg, *Kulturarbeiten* (11 vols.; Munich: Georg D.W. Callwey im Kunstwart-Verläge zu München, 1902ff), vol 1 *Hausbau*, Abb. 9, 10, pp. 30-31; also see Andreas Haus, "Fotografische Polemik" 93-97; and Otto, "Heimatschutz," 149. Rosemarie Bletter has discussed the *Kulturarbeiten* in relation to the notion of *Sachlichkeit*, and the right-left polarization in Germany. See R. Bletter, Introduction to Adolf Behne, *The Modern Functional Building* (Santa Monica: Getty Research Institute, 1996), 66-70.

Gropius to England and then to the U.S. Personally vulnerable on more openly political grounds (he had worked in the Soviet Union), rather than to charges of poor workmanship, Bruno Taut also left, along with numerous others. Notably, an avant-garde designer like Wilhelm Wagenfeld remained; although he later claimed never to have felt free of potential harassment, Wagenfeld also noted that his relative security was a direct result of the experimental research into production standards that he carried out in partnership with the glass industry throughout the years of the National Socialist government. His research was concerned with mass production and product quality, a fact that protected him from persecution. He was in fact engaged in research and development as much as in production itself. Technological innovation was always eagerly received by the National Socialists, whether it would then be clothed in historicist architectural language or not. The right wing, as Albert Speer noted in the late 1970s, was not at all anti-modern; it was merely anti-progressive.<sup>61</sup>

Mies himself managed to stay on the right side of this ideological fight until well into the 1930s. Wagenfeld and others have noted that Mies would gladly have executed commissions for the Nazis had he had the opportunity. In spite of efforts to prove the contrary, there is no ideological skeleton hanging in Mies's closet here. He signed the Proclamation of the Creators of Culture, a Nazi culture manifesto,<sup>62</sup> but he abandoned the Nazified Werkbund entirely, and after failing to garner important commissions like the Reichsbank extension of 1933 and the Brussels Exhibition design of 1934, he became less and less visible in German architecture circles. On the whole, he was a practicing architect, primarily interested in getting

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<sup>61</sup> See typescript of 1978 interview with Albert Speer, by an unnamed Werkbund archivist, Werkbund-Archiv Berlin.

<sup>62</sup> See Rosemarie Bletter's translation and note, "Proclamation of the Creators of Culture, 1934," in *Assemblage 2* (February 1987), 44-45.

commissions, whether for right or for left. And while the National Socialists were a repressive, racist group from the start, their real menace did not fully reveal itself until 1938. In terms of the political climate, though, Mies was walking a very thin line much earlier. By 1927, he had already taken pains to distance himself from the clearly ideological concerns of many of the architects who would form the founding membership of CIAM in 1928, as shown in his short introductory statement to the Weissenhof exhibition monograph. Like the outspoken graphic designer Paul Renner, he was impatient with ideological dogmatism from either side, as much from the avant-garde as from the right.

In the early years of the National Socialist government, Mies was considered a modernist who built to a sufficiently high standard.<sup>63</sup> As Speer noted in a later interview, Mies was initially considered potentially acceptable, at least among the younger generation of the right wing. Mies's work at the Tugendhat House only confirmed this view, at least in its architectural attributes. The building was constructed with obsessive care and a total disregard to any standard of economy relative to its function (as a house for a wealthy industrialist, this was not an issue in NS architectural circles; as a house for a wealthy Jewish industrialist, however,

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<sup>63</sup> Mies fell from grace with the NS government over a different issue, in itself ideological, but clearly not political. For Mies, architecture (as *Baukunst*, building art) involved an enquiry into the nature of contemporary building rather than an exercise of didactic authority. In this sense, his conception of architecture could be described as both essentialist and universalist. There was an essentially modern mode of building, organic in his conception, that indicated how a building would look based on what its requirements were—requirements interpreted in the broadest sense of the word. He had no conscious preconceptions about building style as separate from other aspects of a building's 'organic' design and construction. The NS leadership, on the other hand, was wedded to the idea that style was the primary didactic tool of architecture. In this sense, Speer and his colleagues misinterpreted the teachings of Heinrich Tessenow, whose interest in connecting to the architecture of the past had little to do with what was essentially a nineteenth-century battle of styles. For the NS leadership, style was function-contingent; the modes of the Neues Bauen were appropriate for factory buildings; classicism was appropriate for monumental public buildings, and traditional "Heimatstil" for housing. This difference, as much as Mies attempted to surmount it in his projects for the Reichsbank and the Brussels Pavilion, was ultimately not to be surmounted.

problems may well have arisen<sup>64</sup>). But Mies was vulnerable on several points. His work as director of the Weissenhofsiedlung left him open to attack for the low standard that had been met in house construction there. He was, at that time, still firmly affiliated with the most progressive elements of the left-wing. In addition to quality-control problems at Weissenhof, for which he would have borne some responsibility, especially given Richard Döcker's hostile campaigns to discredit him, Mies had a similarly difficult experience administering the German section of the World's Exposition at Barcelona. There, as at Weissenhof, Mies was presented with too little money and too little time to execute the work laid out for him. In the case of the hastily-constructed German Pavilion, this might have proven disastrous for his future work. But its short life, combined with its distance from German architectural circles, proved critical to the survival of his reputation, both in the short and the long (but not the middle) term.

Both exhibitions, Paris and Barcelona, were mediated for their German audience by extensive press coverage, although neither had the publicity machine that had been put in place (by Mies) for Stuttgart in 1927.<sup>65</sup> The administrative entities for both fairs were careful to structure publicity campaigns that would both spread the word in local and international presses, and monitor the journals to which information was given. In other words, some journals were selected to receive privileged information from the architects themselves; others were considered too

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<sup>64</sup> Mies stopped sending pictures of the Tugendhat House to potential German clients and publishers in March of 1934. See letter of 17.3.34 to Herr Oberbürgermeister der Hauptstadt Mannheim. Mies sent work: the Tugendhat House was not included, otherwise Mies sent an extensive amount of material, including the Reichsbank extension, the Krefeld Golf Club, the office building projects of 1929, the Barcelona Pavilion, the Weissenhofsiedlung, the Berlin Building Exhibition, Haus Lange, Haus Kröller-Müller, *Der Baumeister* from 11/31, and the "Haus am Wannsee" (Haus Gericke). Container 1, LoC.

<sup>65</sup> See Pommer and Otto, Chapter 14, "Proclaiming Weissenhof: Werkbund Management of the Press," for an important investigation of press activities at Weissenhof, and Gräff's strategic approach to propaganda.

marginal, or too little known, and were passed over for publication altogether. Mia Seeger negotiated these relationships for Paris; her sister Gabriele assisted in a similar capacity in Barcelona. Mia Seeger had played a similar role at the Weissenhof in 1927 under Gustav Stotz and Werner Gräff, and by 1929 was an old friend of Mies and Lilly Reich's.

In the years following the Barcelona exhibition, Mies's work there was judged overwhelmingly on the basis of press reports, and photographs, with eye-witness accounts of visitors to the exhibition as largely supplementary. In Barcelona, the Spanish authorities had organized a substantial press office that handled journalists and administered the very substantial advertising permissions for the fair. The German authorities sidestepped this entity as much as possible, and nowhere more so than in the photography of the German sections. Spanish photographers shot a limited number of views of the Pavilion that were featured in the Spanish press; the German section used none of these images, instead relying on Niemann's Berliner Bild-Bericht photographs exclusively.

The pavilion was generally judged favorably in respect to the ideological battles of the time. Although unmistakably modern, the building used traditional materials and carried clear references to historical—or even mythical—architecture.<sup>66</sup> The Barcelona exhibition was published in numerous German journals, eclipsing the more local Breslau show in the pages of the Werkbund journal *Die Form*, both in terms of coverage and precedence. The Pavilion, and the show in general, were seen as positive representations of German national identity. This was partly due to the fact that the German stands were clearly identifiable on stylistic grounds throughout the various halls of the exhibition. This was related to a clear design language, in

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<sup>66</sup> Esterer wrote that the Pavilion's high level of functionalism rendered it acceptable even to those who "oppose new design." Rudolf Esterer, *Heimatschutz*, 15; also quoted in Otto, "Heimatschutz," 151.

graphics as much as in space-defining elements and displays. In contrast to the Beaux-Arts spectacle that characterized much of the exhibition, the German contributions were seen as clear, objective, understated, and unified. Furthermore, the consistent graphics (by Mies's childhood friend, the graphic designer Gerhard Severain), the similar color and material palette, and the restrained minimalism of chrome installations acted as a kind of trademark within the frame of the exhibition. The German sections were immediately identifiable as German. The German stands, and the Pavilion itself, were seen to attest the quality of German goods—a specific Werkbund objective. That the Pavilion used both modern and traditional means was seen as one of its greatest strengths.

The construction of the Pavilion itself, though, was plagued with difficulties, both before and after completion. Sergius Ruegenberg recounted some of these in a discussion with Sandra Honey, published in 1986. Ruegenberg's account is generally verified by the reports of the Spanish architects involved in reconstructing the building in 1986; the budget cuts forced compromises in the last-constructed piece of the building, but arguably its most critical: the roof. It becomes apparent, in looking into the building in some detail, that its dismantling may have been as much a necessity as a concession, due to the building's frailty. By early 1930 it was plagued by serious leakage and sagging in the cantilevers of the roof. Thus an understanding of the building as representative of quality in German goods became increasingly (over time) a function of the slippage allowed by photographs. In this instance, the use of extremely fine materials was a kind of guarantor of value for a building whose roof could barely protect them from the elements, much less stand up to their promise. Had the Barcelona building been subject to the same scrutiny as the Weissenhof development, in the years following its completion, the reputation of the building and its architect might well have suffered, as the Stuttgart buildings did.

In this case photography accomplished what architecture could not. It helped bind together a group that would shortly fall disastrously apart.

As previously noted, the Barcelona Pavilion and other monuments of Weimar modernism were, in effect, handmade readymades for an industrialized architecture. They pioneered new technical potentials, but as single isolated attempts to initiate changes in building, they were inevitably incapable of incorporating those potentials into the construction industry at large. As a result, the buildings produced at Weissenhof, at Barcelona, at Dessau, in Celle—in nearly all the experimental building projects of Neues Bauen architects—were plagued by similar problems. They could not fully integrate their own constructional discoveries. Instead, photography did this for them. The Barcelona Pavilion was not an industrialized building. Perhaps the most interesting aspect to this development is how effectively photography did its job, in that the notion of a streamlined, highly industrialized architecture then served as the starting point for post-War building activities. The photographs of buildings like the Barcelona Pavilion effectively upped the ante for the entire post-1945 architecture world. They contrast radically with the documents of Ernst May's experiments in industrialized building in Frankfurt. Although May received considerable attention in the 1920s, his work was scarcely known in this country until recently, and his emigration to the Soviet Union, although temporary, compromised his viability in the post-War architecture world. Mies's pavilion was a far more palatable version of modernism, both in its own day, and afterwards.

In terms of the issue of quality, the Pavilion photographs helped carry out a sleight of hand that protected Mies from a potentially dangerous Achilles heel. But in other respects, what might one say about the effects of these images on Werkbund architectural policy and on architectural circles generally? The years immediately following Barcelona saw a clear move toward the center on the part of the DWB,

which had already begun this move after 1927. The events of 1929, Barcelona included, exacerbated this tendency, drawing harsh criticism from Central European leftists like Karel Teige. But what specifically did the photographs add to this discussion, or, what role did they play in its development? Their projection of an abstract spatiality inhabited by traditional, and traditionally noble, materials struck a chord. In the publication of the Pavilion in the final number of *Der Baumeister* of 1929, a series of photographs of the Pavilion cover the final pages of the number.<sup>67</sup> Only the last page does not feature the Barcelona Pavilion. Instead, in an image reprinted from *Das Deutsche Lichtbild*, the editors included a close-up portrait of an Ionic column from Athens.

Here, then, the task of architectural photography grows more complex. In Mies's case, the distance between the building itself and the representations circulating in the media was critical. Speer himself cited the Barcelona Pavilion as the project that safely conveyed Mies into the camp of those architects working with modern method, but timeless principles.<sup>68</sup> On the left, the building was considered as experimental and as avant-garde as anything under construction in Europe at the time, in spite of its elegance and evident expense, which could be tolerated in a

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<sup>67</sup> Guido Harbers, "Deutscher Reichspavillon in Barcelona" *Der Baumeister* 27 (December 1929), 421-427.

<sup>68</sup> Speer noted in a 1978 interview, "...the first who brought back Werkbund quality, really Werkbund quality, into the modern was Mies van der Rohe...and especially in Barcelona. Barcelona was one for modern architecture, modern is a bad word for it. For this new development of architecture it was a breakthrough...Mies van der Rohe had really elevated it to a new, truly aesthetic level, and with that he was really back into Werkbund ideals...I imagine they [DWB membership?] have accepted two things about Mies van der Rohe. First, that he operated at a rather high aesthetic level, that thanks to the noble materials, the aesthetic perfection, that he was a Classicist (...der erste, der wieder Werkbundqualität, der überhaupt Werkbundqualität in die Moderne hereinbrachte, war der Mies van der Rohe....Da war ja besonders Barcelona. Barcelona war eine für die moderne Architektur, modern ist ein schlechtes Wort dafür, für diese neue Entwicklung einer Architektur war das ein Durchbruch. ....Mies van der Rohe hat es auf eine wirklich ästhetisch hohe Ebene gehoben, und damit war er wieder in den Werkbundidealen drin.....Ich vermute, sie [DWB Mitglieder?] haben zweierlei Dinge an Mies van der Rohe akzeptiert. Einmal, dass er eben ästhetisch ein ziemlich hohes Niveau hatte, also eben auf die edlen Materialien, die ästhetisch Perfektion, dass er Klassizist war)." Typescript, Werkbund-Archiv Berlin.

display building. On the right, the pavilion could be cast in direct line with traditional models: built of classical, 'timeless' materials, designed around the notion of a classical podium, vaguely reminiscent of temple architecture.

In this case photography opened up a space in which meaning might be construed according to pre-dispositions of the perceiver—in a manner that differs from the way in which we interpret buildings individually upon experiencing them in space. Photographs, as propaganda instruments, were (and are) liable to ideological construction wholly separate from the ideological constructions of the architecture they depict.<sup>69</sup> This is part of the distance created by the metonymic character of these sorts of images—as carriers of meaning that are *contiguous to* but distinctly separate from the construction they represent, they engender meanings that are hinged to the original construction, but that float free from it in various ways. In the context of German culture battles of the 1920s, photographs broke free in both directions; for all the positive propaganda of the Berliner Bild-Bericht images of the Pavilion, one also encounters the countless negative images published by right-wing journalists against building developments like Weissenhof. Even Barcelona, massively successful overall, had one highly negative critic, writing in the *Deutsche Bauzeitung*; not surprisingly, he had his own photographer. Equally unsurprisingly, the photographs show only the poorly constructed roof of the Pavilion (fig. 3.9).

The majority of the photographs of the Pavilion have continued to maintain a certain gradually mutating interpretation of the building over the years intervening since its construction, which partly accounts for the longevity of the building in historical accounts, and for its recent reconstruction. Where the ideological battles of the Weimar years had little significance in the years since World War II, the pictures

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<sup>69</sup> For example, the negative images of the Weissenhofsiedlung clearly promote an ideological stance quite separate from that advanced by the buildings themselves at the time of their construction.

proved themselves eminently adaptable to new audiences and new architecture culture. If metonymy is indeed the correct theoretical model for understanding how architectural photographs create meaning, then it is equally the gap between *any* precisely determinable meaning and photographic perception that may be the single most important relationship to be analyzed. In the case of the Barcelona Pavilion, the building is a monument of modern architecture, not *in spite of* its survival in photographs, but *precisely because* photography protected it from the fierce ideological battles of its day—a fact it shares with many other buildings. Photography here underlines the extent to which architectural value receded in the Weimar years (and often since) in favor of propaganda value. There was no confusion that the photographs of the pavilion were not architecture. They were propaganda agents for architecture, for Mies, and for Germany (at least for a while). Part of their lasting value emerged from their ability to suspend, not determine, fixed meaning. And in this they are followed by many photographs of buildings.

### **Postscript**

The press management conducted by the Werkbund for its exhibitions aimed to facilitate coverage in the German press, but also for an international audience. The German language coverage was generally a matter of preaching to the converted; the German press was, by and large, favorably disposed toward the exhibitions at Stuttgart, Barcelona, and Paris. The international press effort was a slightly different matter, demanding a compelling united front from the exhibition organizers and exhibitors, to advance the successful cultural and economic imperialism that the Werkbund aimed for. For German audiences, German journalists often made some effort to placate fears of the new; but for foreign journalists writing

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for an international audience, the main task was to persuade them that Weimar Germany *was* the new. Richard Pommer and Christian Otto have associated the internationalism of Werkbund and Neues Bauen propaganda with the abstraction of modern painting, linking this formulation back to Walter Gropius' *Internationale Architektur* of 1925.<sup>70</sup> In addition, they have underscored the roots of the internationalism of the new architecture, locating them as early as 1913 in Karl Scheffler's *Die Architektur der Grossstadt* and in Hermann Muthesius's program for the Werkbund. Certainly, international trade was basic to the Werkbund program. In this program, the international press constituted the avant-garde of the new way of building, the means by which ideas would travel far fast. If modern architecture was to become international, it would do so at first through its images. This formulation appears to have been precisely correct, insofar as shows like MoMA's 1932 *Modern Architecture* spread the ideas of European modernism to an international audience.

Pommer and Otto's affiliation of internationalism in architecture and abstraction in painting is no doubt correct. But as a formulation it requires some further explanation, particularly since the concept of internationalism in architecture also harbored explicitly political and ideological agendas of more than one sort, especially after the First World War—a fact that would seem to make connections between architecture and painterly discourses considerably more complex. If abstraction in painting was intended to remove representation from this figural world and deposit it in a utopic space beyond—a space as internal to the viewing subject as it was at the same time conceptually fully external—the same cannot be said of modern architecture. Abstraction in architecture has often assumed its own forms, imprecisely affixed to the rejection of classical language in architecture. The attempt has also been made to ground notions of abstraction and autonomy in formal

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<sup>70</sup> See Pommer and Otto, Chapter 16: "Weissenhof and the Politics of the International Style."

language itself. If internationalism and abstraction can be linked, as projects of modernism, it is through the medium of the printed page that this link was forged. The abstraction of the Barcelona Pavilion, such as it was, was fully available, internationally, in the images of it that began to circulate freely throughout the world precisely in the years when its national 'airtime' was temporarily suspended, throughout the years of the National Socialist hegemony.

## CHAPTER FOUR IMAGE AND UTOPIA AT THE TUGENDHAT HOUSE

But those who have gone back out of things, out of the center of the earth, out of the marrow of its creative exertions—they have striven toward space. Those who have cracked the shell of the egg of creation of nature and emerged from it with no thought to the pieces of its scattered armor. Those who have come out of the color of things to color. Let us proceed out of the labyrinth of the earth into boundless space with numbers and color and let us husk the grain of consciousness.<sup>1</sup>

### Argument

The Tugendhat House was completed by December 1930, and the Tugendhat family moved in that month. The first publication photographs were produced in the winter of 1930/31.<sup>2</sup> The set of extant prints of the house, from the original negatives, were almost certainly commissioned for possible publication by the Mies van der Rohe office in Berlin. The set consists of over 80 different exposures. A majority of these is housed in the Mies van der Rohe Archive at the Museum of Modern Art in New York. A smaller number is held by Daniela Hammer-Tugendhat in Vienna; another small group is held by the Muzeum Mesta Brna in Brno. Further prints are held at the Archiv Štenc in Prague, and in the hands of private collectors, and no extant negatives are currently known.<sup>3</sup>

This chapter examines the architecture created by the Tugendhat photographs as alternative to that created by the building in Brno. Much of the

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<sup>1</sup> Kazimir Malevich "The Mouth of the Earth and the Artist," as quoted in Nina Gurianova, "The *Supremus* 'Laboratory-House': Reconstructing the Journal," in Matthew Druitt, *Kazimir Malevich. Suprematism* (New York: Guggenheim Museum, 2003), 44-59.

<sup>2</sup> A view of the rear of the house from the garden below was published in the first issue of *bauhaus* in January of 1931.

<sup>3</sup> Daniela Hammer-Tugendhat graciously showed me her collection of photographs of the building; Lenka Kudělková also very kindly made the contents of the City Museum of Brno accessible to me.

discussion here focuses on differences between this depicted architecture and the building standing on site in Brno, and on the specific properties and extended reach of this ultimately mythical construct, in contrast to the limited reach of the building now open to the public on Cernopolní Street. This chapter seeks out specific properties of the architectural space of the photographs as constructed by the photographers and architects who created them, taking as given the importance of the virtual space opened up by media practices in the modern period. The purpose of this discussion is partly to distinguish this new space from, and relate it to, contemporary notions of virtuality in the era of digital imaging; but it is also meant to articulate the qualities of architecture as dreamt through the photographic lens. The chapter suggests that architectural photographs constitute a specialized sort of 'automatic writing'—'stenography' might even be a better term—from which we might learn something new about the intentions of modern architects. It further suggests that this form of self-portraiture of modern architecture reveals the nature of subjectivity as understood at this time.

### **The Human Subjects of Architectural Photography**

A 1931 photograph of the newly-completed house in Brno shows the upper level terrace, a concrete and travertine play area for the Tugendhat children (fig. 4.1). Shot from under the roof shielding bedrooms from late afternoon sun, the photograph captures a wedge of sky and treetops framed by concrete. A long single diagonal cuts across the picture from top right hand corner to the midpoint of the left hand side; the roof and shadow lines meet seamlessly in almost perfect alignment, the shadow cutting across cruciform columns and window embrasures with no deflections to its angled line. An echoing horizontal completes the

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triangular shape that captures sunlit areas as it overlaps and interpenetrates the triangle described by columns marching away from the viewer. A curved bench and a vertical trellis play against the order of columns and square paving slabs, lightly tracing elliptical shadows across the receding floor grid. Interpenetrating triangles and angled grids recall the work of avant-garde photographers and the exhortations of Weimar culture critics for a new visual order— a “New Vision”—to emerge from this erstwhile documentary and pictorial practice.<sup>4</sup>

But for this reader, the Barthesian *punctum* in this otherwise straightforward architectural photograph is provided by the nudity of two small children framed between dark steel columns at center depth, no doubt a happy accident of the moment.<sup>5</sup> Unusual for an architectural photograph, the image has a peculiar resonance resulting partly from the conflation of an ‘official’ architectural

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<sup>4</sup> See Werner Gräff, *Es kommt der neue Fotograf!* (Stuttgart: Verlag Hermann Reckendorf, 1929), and Laszlo Moholy-Nagy, *Malerei, Fotografie, Film*, (München: A Langen, 1925) for descriptions of new modes of composition and production. In Czechoslovakia, the photographs and photograms of Jaroslav Rössler provide influential templates for avant-garde composition. Rössler’s work was frequently published in Karel Teige’s *Devetsil* journal, *ReD* (Prague: Odeon, 1927-1931).

<sup>5</sup> Barthes’ definition of *punctum* is notoriously slippery, and in the end highly personal and subjective. Each reader of the photograph identifies the moment ‘which pricks me.’ This is part of what makes Barthes’ *Camera Lucida* such an interesting document of photographic theory. Barthes describes *punctum* thus: “A photograph’s *punctum* is that accident which pricks me (but also bruises me, is poignant to me).” and “However lightning-like it may be, the *punctum* has, more or less potentially, a power of expansion. This power is often metonymic” and, “.....There is another (less Proustian) expansion of the *punctum*: when paradoxically, while remaining a ‘detail,’ it fills the whole picture.” Barthes also describes the *punctum* as frequently a ‘part object’: “Hence the detail which interests me is not, or at least not strictly, intentional, and probably must not be so; it occurs in the field of the photographed thing like a supplement that is at once inevitable and delightful; it does not necessarily attest to the photographer’s art; it says only that the photographer was there, or else, still more simply, that he could not *not* photograph the partial object at the same time as the total object.” In nude/erotic photography: “The *punctum*, then, is a kind of subtle *beyond*---as if the image launched desire beyond what it permits us to see: not only toward ‘the rest’ of the nakedness, not only toward the fantasy of a *praxis*, but toward the absolute excellence of a being, body and soul together.” All from Roland Barthes, *Camera Lucida. Reflections on Photography* (trans. Richard Howard), New York, 1981, p.27, 45, 47, 59. Barthes’ notion of the *punctum* provides just one framework for discussing this image. He counterposes it with the *studium*, the more general visual context that directs our perception of the image. Barthes’ *punctum* is a nearly purely subjective criterion for discussing photographs; in spite of the inevitable lack of precision that results from that fact, Barthes’ analysis has been enormously influential.

photograph with a family snapshot. It was among the initial images to appear in the 1931 issue of *Die Form* which featured the Tugendhat House on its cover. These images were almost certainly approved by Mies and probably Lilly Reich. And since virtually no other presentation photographs of Mies's German projects include human figures, this picture may have had a particular resonance both for Mies and Reich and the photographer who made it, as it still has today. To show naked children playing on the terrace (the child Ernst Tugendhat leans over the sandbox a little to the right of the two girls, his blurred form caught in the midst of play) is to naturalize the architecture, forestalling accusations of sterility or indictments of the harshness of modern architecture. In this case, two of the three figures have stopped in the midst of play, coming to pose deliberately for the photographer. They address the camera frontally, standing stiffly side by side at attention. But the pose is clearly a moment out of the continuum of play whose passing is already implicit in the image; the children will/did resume their play. It would seem as if the picture were preemptively intended to combat accusations like those made in the pages of *Die Form* in the next months, in the well-known debate best dubbed, "Can one live in the Tugendhat House?" or a related debate of the same year, in which Bruno Taut characterized Mies's Berlin Building Exhibition House as an environment for the *Übermensch*.<sup>6</sup>

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<sup>6</sup> For the sequence of articles on this subject see *Die Form* 6 (1931): Walter Riezler, "Das Haus Tugendhat in Brünn," (September 1931), Justus Bier, "Kann man im Haus Tugendhat wohnen?" (October 1931), Walter Riezler's commentary on Bier (October 1931), Roger Ginsburger's exchange with Walter Riezler (November 1931), Grete and Fritz Tugendhat, "Die Bewohner des Hauses Tugendhat äußern sich" (November 1931), Ludwig Hilberseimer, commentary (November 1931). To see the persistence of this debate, see Daniela Hammer-Tugendhat and Wolf Tegethoff, *Ludwig Mies van der Rohe. Das Haus Tugendhat* (Wien, 1998). Bruno Taut commented on the Exhibition House at the Berlin Building Exhibition: "Mies's house...is certainly very 'beautiful,' even paradisiacally beautiful; it is the house of the Superman, the 'blond beast,' to cite Nietzsche loosely, of the completely isolated individual being, the individual as such." Reprinted in *Bauwelt* 63, no. 33 (1977): 11. See below for a fuller discussion.

The children and their surroundings depict an inhabitable modernism, where naked sunbathing and water play are fostered rather than deterred by the hard, planar surfaces of modern architecture. Even further, we might interpret the photograph as a kind of allegory of the individual subject in modernism. Stripped of the baggage of the past by their nudity and youthfulness, here stands a version of the twentieth-century subject, not newborn but newly capable, half-grown and ready for action, yet still uncontaminated and innocent, and, finally, female. The children embody the hopeful purism of 1920s modernism through their youth, nudity, and the implicit potential of their childlike state.<sup>7</sup>

The statues in Mies's projects of the late 1920s and early 1930s, by contrast, represent the human figure as female, naked, and sometimes larger than life-size. But these self-conscious stagings of woman as metaphoric (and static) inhabitant of Miesian space, highly stylized and objectified, say in fact very little about the subject of Mies's architecture, as such a concept might have been understood by Mies and his contemporaries, or might be understood today.<sup>8</sup> If we grant architecture the capacity to reflect a projected inhabitant, one for or around whom the building has in some conceptual sense been designed, then I would argue that the statues Mies deployed in his sketches and built projects do not embody or represent that subject even as they somehow act as placeholders, signifying metonyms rather than symbolic subjects. They don't so much represent

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<sup>7</sup> Figures of children are relatively rare in Weimar architectural photographs; photographs of naked children occur still less frequently. Photographs of Marlene Poelzig's Poelzig House of 1929/30 (discussed below) and of Bruno Taut's own house in Dahlewitz include naked children. See Christian Philipp Müller, *Im Geschmack der Zeit. Das Werk von Hans und Marlene Poelzig aus heutiger Sicht*, (Berlin: Verein zur Förderung von Kunst und Kultur am Rosa-Luxemburg-Platz, 2003), p.93, and Bruno Taut, *Ein Wohnhaus* (Berlin:Gebrüder Mann, 1995, reprint of 1927 edition), p.91.

<sup>8</sup>See in this connection, Alice Friedman, "Domestic Differences" in C. Reed, ed., *Not at Home* (New York: Thames and Hudson, 1996), and P. Singley, "Living in a Glass Prism: The Female Figure in Ludwig Mies van der Rohe's Domestic Architecture" *Critical Matrix* 6 no. 2 (1992).

subjects as objects. They are, in effect, what the ideal Miesian subject would like to look at. The female figure as evocation of nature, they are staged within the architecture also partly in an attempt to naturalize it, to reclaim a purified natural identity in the face of chaotic modern life.<sup>9</sup>

But precisely the same cannot be said of this photograph of the Tugendhat children, although there are certainly similarities.<sup>10</sup> Whatever the history of its publication, it is fairly certain that Mies did not travel to Brno in the summer of 1931 to orchestrate the composition of this picture. According to Jan Frohburg the children conceal unfinished construction (a tabletop is missing), in front of which they stand.<sup>11</sup> But another photograph that includes the same two girls has no such flaw, and it would certainly have been within the photographer's abilities to find another means to mask such a defect. Irrespective of Mies's attitude to this picture, to read these children as allegorical modern subjects is fanciful and entirely speculative. Nevertheless, certain of Mies's architectural propositions are better elaborated in this photograph than in the figural sculptures self-consciously posed in his built work. The photograph frames a cleared space in which a new narrative of inhabitation can be posited—one in which the object qualities of the posed figures are subsumed in our clear understanding of their activity as subjects. In this case, the narrative (of childhood play) resulted from and now depends on

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<sup>9</sup> Mies may well have drawn inspiration here from his colleague Willi Baumeister, who used human figures in photo collages from 1927. See p.15 and fig. 2.4.

<sup>10</sup> The two girls in the photograph are Grete Tugendhat's daughter by her first marriage, Hanna Weiss, and a friend of Hanna's.

<sup>11</sup> I owe thanks to Frohburg (Bauhaus-Universität Weimar) for pointing this out to me. I am perfectly ready to accept Frohburg's explanation of the children's presence as camouflage. But the persistence of the photograph, and its inclusion in the first published set of images of the building, in *Die Form VI* (1931), indicate a wider terrain on which to found discussion of this image. The photographer may have used the children to conceal a design flaw. It does not seem to me likely, though, that Mies or Reich would have selected the image *in spite* of the children, particularly given the large number of alternative views available.

the guardianship of photography. And in that fact also lies a suggestion: that certain critical elements of Miesian architecture have been (and continue to be) revealed by the photographs of his buildings shot for their initial publication. Thus in this one image, an entire project may also be summarized; a project that reads the commercial photographs of Mies's work as instrumental in the establishment of one version of modernism, and influential in the iterations that then proceeded from it. The current limits of the project lie close to the question (not meant to be answered here) of how these images acted on the architecture that came out of them, mostly following the Second World War in the United States.

### **Scale in Architectural Photographs**

In addition to the claims made above, the image with the Tugendhat children is also slightly unsettling, as if the children were somehow montaged into the surface of a 'straight' architectural photograph. (They are not.) The uncanny quality projected by this image is partly a function of the scale games that photography often precipitates. In this case, either the children seem too small, or the columns too big. Rather than clarifying the absolute size of the architecture, the image seems to further confuse it. Not only because children grow (and these two could be anywhere between the ages of 5 and 10), but because their position in space (framed by receding columns) is ambiguous, paving slabs notwithstanding. The image is reminiscent of one of Moholy-Nagy's photomontages of the late 1920s, in which pint-sized human figures are distributed across the surface of the image in little relation to the size of what frames them.

The child photograph does share one similarity with the Kolbe statue in the Barcelona Pavilion (fig. 2.9f). If one can consider the Kolbe a kind of scale figure, then this photograph shares one important characteristic with that one, if in an

inverse sense. The figures in both cases confuse the reading of architectural scale, rather than clarify it. The Kolbe figure is larger than a life-sized human figure; the children smaller. In neither case is the architecture, *as architecture*, given definite scale by their presence. Instead, the 'scale figures' in both cases help instantiate the new spatial construct of the architectural photograph, one where the absolute size of the building on site plays little part in the photographic construct of space depicted. While the child photograph may have been a fortuitous accident, the use of over-life-size sculpture in the Barcelona Pavilion, the Glass Room in Stuttgart (where a Wilhelm Lehmbruck bust was installed), and the Tugendhat House itself (where a different cast of the Lehmbruck used in Stuttgart was purchased by the Tugendhats and installed in front of the onyx wall) indicate an intentional choice by the architect, one that has very different ramifications in space than it has in image—yet another signal of the independence of images of Miesian architecture from the architecture itself.<sup>12</sup>

In contrast to the two cases represented by the photograph of the children at Tugendhat, and the photographs that depict the sculpture of the Barcelona Pavilion, scale figures in a photograph generally help size the building depicted, whether the figures are human or mechanical (a car will do). Photographs of Paul Schmitthenner's Gartenstadt Staaken, for example, provide clearer indicators of building scale at the same time that they supply a theatrical narrative of *Gemeinschaft*. The well-known motor cars often adorning pictures of the Weissenhofsiedlung, by contrast, supply a contrasting narrative element equally

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<sup>12</sup> Again, Mies provides an 'exemplary normative' case for modern architectural photography as a whole. The use of over-life-size sculpture was a particular habit of Mies's, one that contributes to a clear argument about how images and buildings functioned differently. Other avant-garde architects were perhaps less intentional in establishing points of potential divergence between these two forms. Nevertheless, the same sort of argument—that scale is confused, not clarified, by photographs—could be mounted for many architectural photographs of this period. A more common technique was to leave out scale figures entirely, an elision that assists in the ambiguous presentation of building scale.

loaded in the direction of the architect's ideological preference for the myths of machine technologies. But the absence of both motor cars and people from many architectural photographs is a persistent feature of architectural photography, even to the present day. This absence may have its roots in historical circumstance, but the continued exclusion of figures throughout the post World War I period cannot be explained by the technical limitations of photography. In the nineteenth century, buildings were good subjects for photography since they didn't move during the requisite long exposure times. People might move in and out of the frame, leaving at most a wisplike trace on the negative plate. Buildings stood still. The tendency to exclude people from architectural photographs may have originated from this early condition. But by the early Weimar years, exposure times were fast enough to allow for inclusion of adults and even fidgety children. Instead, we might consider the riddle of architectural photographs that specifically *withhold* the cues that enable us to accurately understand a building's absolute size, as an object in space on a specific site. Why would architectural photography embrace such a restriction, if its intended purpose were to relay information about the real-life scale of its subject?

The purposeful exclusion of scale figures was a characteristic of much architectural photography in the early 20<sup>th</sup> century. Carl Franck, writing in the *Photographische Rundschau und Mitteilungen* in 1915, noted:

Some believe that every picture should include staffage, particularly one or more people, even if only some passing schoolchildren. Everyone knows how fully such embellishments can spoil the effect of an otherwise successful picture. Certainly, from time to time the enlivening of a street or a square is very appealing, but it must also really be an enlivening, it must not be more or less obtrusive people spread around. Better no staffage than such a one, that looks all too much like sham.<sup>13</sup>

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<sup>13</sup> "Manche glauben, zu einem jeden Bilde gehört eine Staffage, besonders eine oder mehrere Personen, und seien es nur einige passende Schulkinder. Wie sehr solches Beiwerk ein sonst gelungenes Bild in seiner Wirkung gänzlich verderben kann, weiß ein jeder. Gewiß, zuweilen ist eine Belebung einer Straße, eines Platzes sehr ansprechend, aber es muß auch

Edmund Wach, writing the previous year, took the omission of staffage as a given provided by the long exposures necessary during cloudy days: "In this exposure time of nearly 3 minutes dozens of people and carts can move through the image field of the camera, without leaving even a shimmer of their existence on the plate."<sup>14</sup> Franck was one of a number of photography critics voicing similar opinions about the appearance of human figures in photographs. In this case, the exclusion of scale figures relates to the scenographic difficulty of a sufficiently natural *mise-en-scène*. Some writers on photography categorically rejected scale figures, while others merely suggested they be avoided. Max Frank, writing in 1917, recommended, "With staffage one should be very miserly; it's usually overdone. Gawking people make an ugly picture. To photograph busy streets without people, one can proceed as follows: stop the lens down to about f/50, and make a number of shorter exposures one after the other in short intervals, until the exposure time required by the aperture in question is reached."<sup>15</sup> In other words, the photographer should take a series of photographs one on top of the other, closing

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wirklich eine Belebung, es dürfen nicht mehr oder weniger aufdringlich sich breit machende Menschen sein. Lieber keine Staffage, als eine solche, die allzusehr nach Mache aussieht." Carl Franck "Aufnahmen von Bauwerken, Städteansichten usw.," *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* 52 (1915): 230.

<sup>14</sup> "In diesem Zeitraume von fast 3 Minuten können sich Dutzende von Personen und Fuhrwerke durch das Bildfeld der Kamera bewegen, ohne auch nur einen Schimmer ihrer Existenz auf der Platte zu hinterlassen." See E. Wach, "Architekturaufnahmen," *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* 51 (1914): 197. This opinion is more or less echoed by Bruno Haldy in a short piece on interior photography. See B. Haldy, "Innenaufnahmen bei Tageslicht." *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* 51 (1914): 23-25.

<sup>15</sup> "Mit Staffage sei man sehr geizig; man übertreibt meist diese. Glotzende Personen verunschönen stets das Bild. Um belebte Strassen usw. menschenleer zu photographieren, kann man folgendermassen verfahren: Man blendet stark ab, etw auf f/50, und macht in kurzen Intervallen eine Anzahl kurzer Aufnahmen hintereinander, bis deren Gesamtheit die erforderliche Belichtungszeit bei der betreffenden Blende erreicht...." Max Frank, "Aufnahmen von Architekturen" *Photographische Chronik und Allgemeine Photographen-Zeitung* 24 (1917), no. 17/18: 1. Also see Bruno Haldy, "Innenaufnahmen bei Tageslicht." for a description of how scale figures are not recorded during long exposures.

the aperture when people walk through the picture. Finally, in 1927, Maximilian von Karnitschnigg recommended avoiding staffage if it threatened to compete with the image itself, and especially in the case of interior photography: "One must remember that the purpose of the exposure is architecture and not the representation of some person. The use of people as staffage in interior photographs is absolutely reprehensible."<sup>16</sup> Whether for scenographic or aesthetic reasons, the absence of figures was seen as a positive effect, an intentional practice with intended results.

But the proscription of figures was not embraced by all photographers. While it was standard practice for photographers whose work emphasized aesthetic or formal value in photographic composition, for those interested in situating architectural photography in relation to narrative depictions of everyday life, scale figures were frequently used. An emphasis on formal pictorial value was, of course, a persistent feature of architectural photography throughout the Wilhelmine and Weimar periods. Alternatively, architects and photographers who emphasized buildings as the setting for a communal, tradition-bound lifestyle, like Schmitthenner and his Wasmuth photographer, were more likely to include scale figures, as in the Gartenstadt Staaken photographs, taken in the western suburbs of Berlin. This ideological constellation, where formal value retreated in favor of fictional narrative, was characteristic of *Heimatstil* architects.

In other cases, scale figures could be put to didactic use, to instruct the viewer about the intended use of the architecture. An interesting example of this

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<sup>16</sup>The paragraph reads, "Findet man nicht an Ort und Stelle eine wirklich ganz zum Bilde passende Staffage, so verzichte man lieber auf eine solche. Auch vermeide man es, Staffagen in einer derartigen Größe aufzunehmen, daß dadurch eine Konkurrenz der Motive entsteht. Man bedenke immer, daß ja die Architektur den Zweck der Aufnahme bildet und nicht die Wiedergabe irgendeiner Person. Völlig verwerflich ist die Verwendung von Personen als Staffagen bei der Aufnahme von Innenräumen," Maximilian R. von Karnitschnigg, "Moderne Architekturphotographie," *Photofreund* 7 (1927): 3, 44.

sort of inclusion of figures is found in Bruno Taut's 1927 *Ein Wohnhaus*, a monograph on the house he built for his family in Dahlewitz, outside of Berlin. In this publication Taut's daughter and other figures demonstrate the use of various spaces in the house. The set of photos includes one of the Taut daughter showering. The figures here seem less intended to provide scale than to inform the reader of the architect's spatial and functional intentions. In another spirit, photographs of Marlene Poelzig's house for her family in Berlin-Charlottenburg include photographs with the Poelzig children playing inside and out, sometimes clothed, sometimes naked.<sup>17</sup>

But the "mainstream" of modern architecture culture after the First World War endorsed the notion of an aesthetically purified photographic construction.<sup>18</sup> The vast majority of photographs of Neues Bauen buildings lacks scale figures. This is in marked contrast to the preference, in genre photographs of the nineteenth century, for people used in conscious juxtaposition to architecture, generally to provide scale, but also for sociological commentary.<sup>19</sup>

### **The Sandalo Photographs of the Tugendhat House**

All the professional photographs of the Tugendhat House, whether subsequently published or not, were taken by a Brno firm. The "Atelier de Sandalo" was locally well-known, already acting as the house photographers of Bohuslav Fuchs, one of the best-known modern architects practicing in Brno; but it was

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<sup>17</sup> Bruno Taut, *Ein Wohnhaus* (Berlin: Gebrüder Mann Verlag, 1927). Also see note 7.

<sup>18</sup> The prolific and highly successful architectural photographer Arthur Köster constitutes an important exception here. Köster sometimes used scale figures in his photographs, along with other pictorial and narrative devices. See Michael Stöneberg's forthcoming dissertation (Universität Göttingen) on Köster, and Simone Förster's forthcoming dissertation (Technische-Universität Berlin) on Köster's collaboration with Erich Mendelsohn.

<sup>19</sup> See Cervin Robinson and Joel Herschman, *Architecture Transformed*, 33-40.

equally active in commissions from other local architects. In 1930, the firm advertised its specialty in the photography of modern buildings; a reflection of the burgeoning of modernism in the Moravian capital. The firm was initially led by Rudolf Sandalo (senior—1869-1932), a German-speaking Czech citizen from Prague, and then inherited by his son, Rudolf Sandalo (junior—1899-?). Sandalo *films* opened a branch office in Prague sometime after his father's death, and subsequently moved to Berlin, where he photographed Albert Speer's Reichskanzlei in 1939. As of this writing, it is unclear which photographer (father or son) photographed the Tugendhat House.<sup>20</sup>

It is also unclear how Mies found the Sandalo firm. Fritz Tugendhat (himself a talented amateur photographer), Bohuslav Fuchs, Mies's two on-site building supervisors (first Friedrich Hirsch and later Hermann John), or one of the firm's subcontractors are all likely sources for the contact. Judging from the number of Sandalo photographs published in local architectural journals like *Forum*,<sup>21</sup> Sandalo father and son were the busiest architectural photographers in Brno, in spite of significant local competition.<sup>22</sup> Sandalo (father or son, or both) photographed the house in the winter of 1930/31, and again in spring and/or summer 1931, using a large-format view camera and full-scale glass plate negatives measuring 18x24 centimeters, from which the final gelatin silver prints were printed.

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<sup>20</sup> This information may yet be available in Czech archives, but it has proven very difficult to find, partly because of limits to access.

<sup>21</sup> *Forum Zeitschrift für Architektur, freie und angewandte Kunst*, published in Bratislava between 1931 and 1938, includes numerous de Sandalo photographs; "Atelier de Sandalo" advertised itself in the pages of *Index: leták kulturní informace*, (published Brno, 1929-39) as "photographers of modern architecture" ("Fota modernich architektury").

<sup>22</sup> Local competition included the photographers Karel Stoklas, Herbert Orth, Evzen Petruj. For information on Brno modernism, see Lenka Kudělková, Zdeněk Kudělka, Jindřich Chatrný, *For New Brno. The Architecture of Brno 1919-1939* (Brno: Muzeum Města Brna, 2000).

In the initial set of photographs, virtually all shot with a wide-angle lens, the house seems barely occupied, and the Lehmbruck statue in the main *salon* is not yet in place. The later photographs, taken when the winter was over, include a minimum of household accoutrements; the house never looks fully occupied in the Sandalo pictures. The total set of images includes significant repetition, some views taken from remarkably similar vantage points. Of those, only a small number document the private rooms of the Tugendhat family; even fewer describe the service spaces in the house. A number of rooms were not photographed at all—the living quarters of the house staff, most notably; the substantial mechanical works in the basement; and Fritz Tugendhat's film projection room and darkroom. Instead, the large number of prints includes a detailed incremental documentation of the street façade, the entry sequence leading into the main living space, that space itself, the sequence leading out and down into the garden, and, finally, the view from the garden back up to the house. Photo historian Michael Stöneberg has suggested that this large number of images, rather unusual for a private house commission, suggest a planned monograph similar to Erich Mendelsohn's *Neues Haus—Neue Welt* (1932) or Bruno Taut's *Ein Wohnhaus* (1927), roughly contemporary monographs by architects on their own houses.<sup>23</sup> Like so many facts about the Tugendhat House, we have no archival confirmation of this convincing hypothesis.<sup>24</sup>

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<sup>23</sup> Erich Mendelsohn, *Neues Haus—Neue Welt* (Berlin: Gebrüder Mann Verlag, 1932/ 1997), and Bruno Taut, *Ein Wohnhaus*. Personal conversation with Michael Stöneberg, Spring 2002.

<sup>24</sup> The office correspondence files for the Tugendhat House were not included with the office material transferred to Chicago in 1963. This material had originally been stored at Eduard Ludwig's parents' barn in Brandenburg before the onset of World War II. The Tugendhat files might conceivably have been seized by the East German government before the office material was released for shipment to the U.S. But no evidence has suggested that this was the case, and the only logical explanation for it might be the location of the house behind the "Iron Curtain". A more likely explanation is that the Tugendhat files were being kept at Lilly Reich's office after Mies's departure from Germany, possibly as a result of her close involvement in the project, the importance of her contribution, and continuing publication demands. They would then have been destroyed with her entire atelier in the 1940s.

At the time of construction, Brno was the center of a regional wave of modern building in Moravia that competed impressively with Prague architectural culture, always considered more cosmopolitan than its smaller neighbor.<sup>25</sup> In 1928 the city hosted an important public exhibition “The Exhibition of Contemporary Culture,” to display architectural modernism and innovations in industrial design. The exhibition grounds on the outskirts of Brno included a large number of newly-constructed modern buildings (depicted on another exhibition poster for 1929—fig. 4.1a) when Mies paid his first visit in the last week of September 1928. The Exhibition of Contemporary Culture, just about to close its doors at the time of Mies’s visit, included a number of interesting projects. Some of these were impressively innovative; in spite of their unfamiliar appearance, they clearly declared themselves part of the wave of modernism spreading throughout Central and Eastern Europe throughout the 1920s. Bohuslav Fuchs built a steel and glass pavilion for the municipal gasworks, in addition to the City of Brno Pavilion; equally modern was the Moravian Pavilion by Vlastislav Chroust.<sup>26</sup> A glass-clad observation tower and a concrete-ribbed exhibition building were also part of the exhibition grounds; on a separate site, a small housing colony inspired by the Weissenhofsiedlung in Stuttgart included a number of interesting buildings. Fuchs was constructing some of his most important projects at the time, including the Moravian Bank of 1928-30 (with Arnošt Wiesner, fig. 4.20), and the Masaryk

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Notably, the photo files (Reich may well have had her own) escaped this fate, and came to Chicago with the rest.

<sup>25</sup> The bibliography on Czech architecture in Moravia includes: Kudelka, *For New Brno. The Architecture of Brno 1919-1939*; Alena Kubova, *L’Avant-Garde Architecturale en Tchécoslovaquie, 1918-1939* (Liège: Mardaga, 1992); Vladimír Slapeta, *Die Brünner Funktionalisten: Moderne Architektur in Brünn* (Exh. cat. Innsbruck: Institut für Raumgestaltung, 1985); Zdeněk Kudělka, *Brněnská architektura 1919-1928* (Brno: Nakladatelství Blok, 1970).

<sup>26</sup> Did the all-glass gasworks pavilion by Fuchs have any influence on Mies, at the beginning of the process of designing the Barcelona Pavilion?

Student's Dormitory of 1929-30 (fig. 4.17).<sup>27</sup> While the Tugendhats' choice of Mies as their architect had as much to do with Grete Tugendhat's six-year residence in Berlin as with any rejection of local talent, nevertheless Mies entered an architectural context that was already well-versed in modern architecture, even if not entirely pre-disposed to Miesian modernism.<sup>28</sup>

### **Tugendhat Framed**

Roughly half of the known set of eighty views document the main *salon*, or living area, of the middle floor. The remaining half is divided roughly as follows: an equal number of views of the front facade/entry approach and of spaces on the upper level; a slightly larger number of views taken from various places in the garden; a much smaller number of views of the upper terrace; and two images of service spaces (kitchen and pantry). The images can easily be divided into two groups: the first group would consist of all images that document the most public, representational (or representative) routes through the house; the remainder would fall into a second group of semi-private or fully private zones.

The main group might be described here as a single (although multi-stranded) spatial narrative captured in a large number of single views.<sup>29</sup> One can

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<sup>27</sup> Archivists in the city architectural archive assure me that there is no evidence that Mies visited the Exhibition of Contemporary Culture, nor that he had any special acquaintance with Fuchs. Their evidence is purely negative; like Mies's Tugendhat files, the files that passed from the local building contractor into the possession of the city sometime during the Cold War years, were all destroyed. The city owns drawings, but no other files. Personal conversations, Dr. Lenka Kudělková, Muzeum Města Brna, and Jan Sapák, Brno.

<sup>28</sup> For discussions of the Tugendhat House in relation to local architectural culture, see Jan Sapák, "Umfeld und Entstehung eines berühmten Hauses," and Stephan Tempi, "Streiflichter auf die Baukultur in Brünn und Querverbindung nach Wien," both in A. Stiller, ed., *Das Haus Tugendhat. Ludwig Mies van der Rohe, Brünn 1930* exh. cat., Vienna: Verlag Anton Pustet, 1999, 63-76; 77-83.

<sup>29</sup> Although the photographer would have been fully aware that this linear description would almost certainly never be published in its entirety, nevertheless the possible preparation of views for a monograph on the house would have meant that many might have been. Thus such a description of the photographs does not seem to me irrelevant to discussions of the

use the images to trace a route through the plans (figs. 2.11, 2.13): street approach from the south on the opposite side of the street (figs. 4.2a and b; there are no images of the northern side in the MoMA set)<sup>30</sup>; turn to view the distant Spilberk through the framed aperture between the entry and the garage (figs. 4.3a, 4.3b); turn again to approach the front door and enter the building (fig. 4.4a); turn again within the foyer to descend the stairs (fig. 4.4b); turn again during the descent to arrive at the door to the main *salon*; view the broad space of the living floor several times (fig. 4.4c); look back through the door just entered; choose first to move towards the 'office' directly ahead; move through the office and into the 'library;' view the back corner of the library with table and reading niche; turn, to view the onyx wall (fig. 4.4d) through the office from the back corner of the space (don't look into that corner, where the hidden vault lies); move straight ahead back into the space of the office, turning to look back at the milk-glass wall and the entry door to the right (fig. 4.4e); continue past the onyx wall straight along the glass wall of the winter garden; look back (fig. 4.4f); look along the main garden facade, over the seating area; turn upon reaching the front corner of the space to look back at the seating area and onyx wall (fig. 4.4g); move along the main garden facade (perhaps with windows sunken into the floor); turn back to view the seating area from the opposite side; continue along this facade, turning to glimpse the grand piano behind the onyx wall; look back at and through the glass walls of the wintergarden, head-on (fig.4.4h); look ahead to the dining 'room;' move into the dining area and look back again (fig. 4.5a); move further and look

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photographer's intentions with respect to his documentation of the building, no matter how speculative such a discussion must remain.

<sup>30</sup> The lack of views of this side of the building could stem from two causes: the northern façade contains the garage and service wing of the house; and the view from the north shows a radically foreshortened building, since the garage masks the long wing that runs perpendicular to it behind, leaving only a small part of the wing visible from the street approach.

back along the entire length of the main facade; move out the terrace door and onto the terrace; look into the terrace corner, with table and chairs (fig. 4.5b); look back; look down the garden stairs(fig. 4.5c); descend the garden stairs, glance sweeping the garden facade; turn, look back at the stairs; move further into the garden and look back; move further and glance at the side of the wintergarden (fig. 4.5d); move down to the bottom of the garden and view the rear facade (fig. 4.5e). Repeat this process with curtains in various closed or half-open positions on the main floor (figs. 4.5f, 4.5g), and in various kinds of weather. This quasi-filmic presentation of views repeats spatial motifs with relatively minimal adjustments in point of view, camera angle, or framing. Given the strong affiliations between film and photography theory at the time, this is not essentially surprising.<sup>31</sup>

The extensive photographic coverage in this series accords rather precisely with two possible modes of architectural photography recommended by Wilhelm Lotz in a short essay on architectural photography in *Die Form* in 1929, discussed at greater length below. Lotz writes, "We show two attempts that are interesting insofar as they offer a link, or, better said, an approximation, of filmic representation. In the one case, the photographer has gone from the landscape ever nearer to the house, so that one gets the impression of how, as one comes closer, the house becomes an ever-stronger cube. In the other case, the photographer has gone around the house with his camera, and one senses the house in its corporeality through the overview of five exposures...One should, before all else, consider the task of photography as the medium of the impression

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<sup>31</sup> See Theo van Doesburg, "Film als reine Gestaltung," in *Die Form* 4 (1929): 10, pp. 241-249. Although film and photography are now considered essentially different media, this was not the case in the 1920s.

of the object."<sup>32</sup> This filmic model for architectural photography is not surprising, given the close affiliations between the two media at this time; in the context of the Tugendhat House, the importance of a filmic model has been touched on in Chapter Two, and would have been encouraged by Fritz Tugendhat.

The second, remaining group of photographs of the house consists of atomized views that together do not overlap or extend one another. This group includes: a view along the passageway toward the stairs on the entry floor; a view of Fritz Tugendhat's bedroom; views of the nanny's bedroom; views of Hannah Weiss's bedroom<sup>33</sup>; a view of the master bathroom; a view down the length of the winter garden; a view of the pantry; a view of the kitchen; and a short series of views of the upper terrace, including the image of the Tugendhat children playing.<sup>34</sup>

Broken down by compositional motif, a few formal groupings immediately suggest themselves. Overall front and back views, while depicting very different architectural features, nevertheless share formal traits. The overall views are mostly raking three-quarter views from the southwest (garden) or southeast

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<sup>32</sup> "Wir zeigen zwei Versuche, die insofern interessant sind, als sie ein Zwischenglied, oder besser gesagt, eine Annäherung an filmische Darstellung bieten. In dem einen Fall....ist der Fotograf von der Landschaft her immer näher an das Haus herangegangen, so daß man einen Eindruck davon bekommt, wie das Haus in der Landschaft allmählich beim Näherkommen stärker und stärker zum Kubus wird. Im anderen Fall ist der Fotograf mit seiner Kamera um das Haus herumgegangen und man empfindet das Haus beim Überblicken der fünf Aufnahmen in seiner Körperlichkeit.....Man sollte vor allen Dingen an die Aufgabe der Fotografie als Mittler des Eindrucks des Objekts denken." Wilhelm Lotz, "Architekturphotos," in *Die Form* 4 (1929):3. Lotz used two buildings photographed by Arthur Köster to illustrate his argument: Bruno Taut's own house, subject of its own house monograph in 1927; and a house extension by Otto Haesler in Celle.

I also note here Fritz Tugendhat's heightened interest in photography and film as pertinent here, although no archival documentation so far survives of connections between Tugendhat and Sandalo.

<sup>33</sup> Hannah Weiss was Grete Tugendhat's daughter from her first marriage, as noted above.

<sup>34</sup> This very short sequence of four views is in fact spatially continuous; a mini film strip by itself, but this time with protagonists: the two little girls appear in two of the four exposures in this group.

(street front).<sup>35</sup> In addition, these overall building shots are most firmly governed by their identity as photographs of whole buildings; their formal qualities are largely subsumed into the recognizable object quality of the thing depicted. They are conventional architectural photographs, following the recommendations of any number of primers on architectural photography available at the time. It is difficult to interpret them in terms of two-dimensional composition, and easy to see them as transparent to what they represent—a piece of architecture. But there are still elements left to the photographer's play, even in such 'straightforward' photographs. In one street view of the Tugendhat House (fig. 4.2a), the photographer has created a dramatic *mise en scène* by darkening the already lowering winter sky along the top edge of the image, and particularly in the top left corner. The house, by contrast, is framed in a nimbus of burned-in white. Another winter view of the same facade, very similarly framed, was shot instead in bright, late-afternoon sun. Raking sunlight casts the exaggerated shadows of bare branches (framed out of the image) onto the near front facade; the entry is cast into dark shadow; and the oversized shadow of a house across the street dominates the broad strip of unpaved road that engulfs the lower third of the image (fig. 4.2b). Low sunlight casts ghosts of invisible objects onto the surfaces of the image. In this view the pallid, undifferentiated sky is the only surprise; it would seem to belong to a different picture.

Another group of formally similar images focus on the hemicylindrical form of the entry. In this group of four exposures (shot sometime in the spring or summer) formal composition overwhelms the relay of architectural information, also almost completely screening out ancillary contextual information. A head-on

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<sup>35</sup> As noted, there are no extant views of the street facade from the north; and only one view from the northern corner of the garden, known from a copy print probably shot from a published example by Mies's Chicago photographers, Williams and Meyer. See photo files, MA.

shot of the doorway (fig. 4.4a), known in two versions, consists of a series of shapes arranged within the field of the image: white trapezoid, rectangular black door, slick grey panelized cylinder syncopated by black lines and the distorted reflections of things inside and out, striated dark grey column, square floor grid. The small swath of street context appears as a distant window onto some other scene. The door hardware, the small window frame in the top right hand corner, the socle on which the milk-glass cylinder and the walls sit, the mullions of the cylinder itself, the texture and staining of travertine floor slabs—these are the details that ground the image in architectural ‘reality,’ playing against its abstract compositional substructure.

This image raises a question that applies to many of the Tugendhat images, and that addresses this project as a whole. Do the abstract formal qualities of the picture simply record the abstract qualities of the architecture itself? In what sense are these qualities photographic, and in what sense ‘purely architectural’? It is impossible to answer such questions, since they cannot be answered without recourse to the images that form the subject of the question. To avoid this double bind—that of trying to use images to deconstruct themselves—we might rather turn to different questions, taking as self-evident the fact that photographs do more than just ‘record’. Whatever sort of architecture is depicted in photographs will be transformed by that process into something inherently photographic. Thus the abstraction of these images can be taken to be both photographic and architectural. The remainder of this study is dedicated to analyzing this proposition.

There are two versions of the entry depicted in Fig. 4.4a—one photographic, one available on site. They should in no sense be confused with one another. What distinguishes the image from the characteristics of the entry in Brno

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are: lack of color; lack of three dimensions; adjusted lighting conditions (either in the negative or the printing out process); lens distortion as described below; lack of co-presence in space, and atmospheric elements. *This* image is an image—the similarities between the building on site and the picture here merely serve to delineate a difference in kind. One might be inclined to affiliate this image with an abstract image by Malevich, Moholy-Nagy, or Lissitzky. What militates against this collapsing of different strands of modernism is precisely the dominance of perspective in these views. Reminiscent of the kind of spatial abstraction practised by these three artists, the image is nevertheless fully grounded in an optical system consonant with real space and time. I will discuss this reliance on perspectival space in greater detail below.

Turning back to the Tugendhat House photographs, a third compositional grouping coheres around those images dominated by the central vertical of one of the cross-shaped columns distributed throughout the building. While the top and bottom of the columns are cropped out in a number of these images, pictures that show the bottom and top are more successful. This partly results from the limits of the camera's depth of field—the fragmented columns tend to be significantly out of focus, and to therefore pull away from other elements in the picture—but it is also a function of what the floor and ceiling plane do for the interiors (and some exteriors). The white expanse of both provide a field in which the architectural staffage of the images float. As in Mondrian's early Neo-plastic paintings, where strong black verticals and horizontals stop short of the edge of the canvas, thus clearly establishing the separate space of painting, vertical elements here stop also short of the frame, demarcating the space of the image.<sup>36</sup> The floor and ceiling of

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<sup>36</sup> See Yve-Alan Bois, "The Iconoclast," *Piet Mondrian, 1872-1894*. (New York/ Milan: Leonardo Arte/ National Gallery of Art/ Museum of Modern Art, New York, 1994), pp. 313-340.

the Tugendhat House, just as they maintain the interior in Brno as an environment clearly separated from its surroundings (in the process, only highlighting the ways in which it is continuous with its surroundings, as through the sinkable windows), also serve to delineate a photographic space both potentially continuous with, but also carefully framed away from, the space of the viewer. The perspectival space of the photographs is familiar, potentially continuous with our own; but the sober, purified composition of the images themselves separates them from the viewer's space equally clearly. This tension between perspective as governing system and abstraction as compositional guide is a critical factor in this series of photographs.

In one image (fig. 4.5a), the foreground column is joined by two other distinguishing elements: the slanted crossing axis of the curtain rail in the ceiling; and the black rectangle of the edge of the dining room, punctuated by three white dots, switch buttons for the dining room. Beyond these three elements the remaining detail falls into a single broad horizontal stripe sandwiched between ceiling and floor and running from the edge of the dining room to the right hand edge of the image. This slightly splayed rectangle contains columns, chairs, rug, onyx wall, and wintergarden, joining one another in the single allied component of the highly detailed background. The column and the curtain rail cross one another at an angle—a motif common in abstract compositions of the 1920s.

### **Pictorialist Influences**

A comparison between the Tugendhat House and its photographs reveals differences consistent with other modern buildings. The photographs are cool black-and-white compositions. Horizontally extensive, they pull away from the camera, describing deep interior spaces or remote exterior blocks. To someone familiar with these photographs from extensive study over a long period of time,

the experience of the building itself comes as something of a surprise, not only because it appears dimensionally different, but because the experience differs in so many other respects as well. The main living floor, for example, seems dry and warm—full of texture—in contrast with the slick, cool surface of the images. The space, as stuff (in the German sense of *Stoff*, material) is palpable. The proportions and edges of the individually-assigned spaces—library, living room, music room, dining room—are clearly legible, and in comparison to their depicted image, they seem spatially full, square and generous. The warmth of materials, and the quality of light supplied by the extensive windows give the space a tactile presence; it is almost like cotton wool, fluffy. The spaces also seem to be distributed more evenly throughout the space of the main floor than appears to be the case in pictures.

The differences between space occupied and space depicted in photographs seems to reflect a proportional discrepancy, as if the relative dimensions of the space were altered in the photograph. This is, in effect, what happens in architectural photographs of this type, shot with a wide-angle lens. The extension so clearly evident in our perception of depth (a function of early photography exacerbated by the wide-angle lenses in widespread use after 1890) in turn alters the proportion between height, width, and depth, rendering the Tugendhat House in photographs lower and longer than we find it on site. In addition, the wide-angle lens distorts unevenly, stretching the foreground around all 360 degrees, and leaving the middle- and background progressively less distorted in proportion to their distance away from the camera. This characteristic distortion of the foreground brings elements in the middle- and background into apparently closer proximity to one another than they would appear on site. Because the more extremely distorted foreground pushes both middle- and background objects away, they also appear to lie further back in space. The objects look smaller, and the

distance between them also appears correspondingly smaller. In short, the wide-angle lens stretches space unevenly, elongating the space closest to the camera and compressing space behind.

A primary distortion in depth perception thus launches a basic destabilization of proportional relationships for the image as a whole, if we consider the object on site as definitive in its spatial characteristics. The photographs of the house describe a different spatial construct—different in its most basic characteristics, that is, its overall shape and the relationship of its parts. The features of this difference are critical to an understanding of the relationship between photography and architecture, and far more useful than any qualitative judgment of their significance. The alteration of proportional relationships is one of the basic operations of transferring visual information from a three-dimensional format to a two-dimensional one, a basic point of separation between two forms of representation. The two practices then diverge further through a host of other characteristics, such as color, texture or tactility, apperception, and viewing context. The constellation of differences add up to two different spatial representations with very clear characteristics, both of which can be described and analyzed.

That photographs distort most noticeably in their representation of depth had long been noted by photographers and early photo theorists. Willi Warstat, in his 1909 *Allgemeine Ästhetik der photographischen Kunst auf psychologischer Grundlage*, asserted that the camera records proportional relationships in two dimensions, height and width, with relative reliability. In the third dimension, however, in its record of depth, the photographic negative is highly unreliable:

But differences that require no further explanation, between the eye on the one hand, and the photographic plate on the other, appear to all with respect to the reproduction of the third dimension, the dimension of depth. It has certainly

come to the attention of every photographer, that the photographic camera doesn't handle distance as well as the human eye. Every photographer will have had the experience—sometime in the course of his career—that objects that seem not so far away from his eye, appear as if pushed disproportionately far back into the distance.<sup>37</sup>

Warstat's reflections on the differences between spatial perception and photographic recording occupy the first section of his book, a general treatise on photography in relation to pictorial art, specifically to painting. His study claims that the natural shortcomings of the photographic negative can be ameliorated by skillful production of the positive image, and he assigns photography its place among the other arts, each medium-specific, and all seen in relation to an aesthetic standard derived from painting.<sup>38</sup>

Warstat ascribed the distortion of depth perception in photography to a number of causes. The cues by which we understand depth with binocular vision on site include amount of detail, constant eye movement, and tonal variation in the object of view. These are inoperable in the black and white photograph, which records all detail without editing, limits eye movement in the third dimension

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<sup>37</sup> Unterschiede aber, die ohne weiteres jedermann auffallen, treten in Erscheinung, sobald es sich um die Wiedergabe der dritten, der Tiefendimension durch das Auge einerseits und durch die photographische Platte andererseits handelt. Es ist gewiß schon einem jeden Photographen aufgefallen, daß die photographische Kamera nicht so weit in die Ferne trägt, wie das menschliche Auge. Jeder Photograph wird—wenigstens in den Anfängen seiner Laufbahn—die Erfahrung gemacht haben, daß Gegenstände, die seinem Auge noch gar nicht so sehr weit entfernt zu sein schienen, auf der photographischen Platte ganz unverhältnismäßig stark in die Ferne gerückt erschienen. Willi Warstat, *Allgemeine Ästhetik der photographischen Kunst auf psychologischer Grundlage* (Halle a.S.: Verlag Wilhelm Knapp, 1909), 21.

<sup>38</sup> Warstat's critique was by no means original, nor even particularly new. The limitations of photography had long been noted. See, for example, the critique of Francis Wey in 1853: "first of all, the accuracy of perspective is only relative: we have corrected it, but we have not completely rectified it. Secondly, heliography deceives us with regard to the relationship among tones. It pales blue tints, pushes green and red toward black, and has difficulty capturing delicate shades of white," as quoted in Elisabeth Anne McCauley, *A.E.E. Disdéri and the Carte de Visite Portrait Photograph* (New Haven: Yale University Press, 1985). See also Martin Jay, "Photo-unrealism: The Contribution of the Camera to the Crisis of Ocularcentrism," in Stephen Melville and Bill Readings (eds.), *Vision & Textuality* (Durham: Duke University Press, 1995), 344-360, for a discussion of this issue.

(depth), and distorts many of the color and tonal values by which we read depth. Thus, the photographer must compensate for the shortcomings of the photographic plate and the camera lens by adopting certain compositional conventions and darkroom practices engineered to compensate for what Warstat understood to be the inherent limitations of the medium.

Warstat was a prominent theorist of photography well into the Weimar period, when he ultimately turned his attention to New Vision practices.<sup>39</sup> His published appearances in the professional photographic press were frequent and highly visible, particularly in the Wilhelmine years, when pictorial photography was developing intensively in Europe and the United States. In addition to numerous books on a variety of subjects in photography, Warstat wrote regular columns for photographic journals like *Photofreund* and *Deutsche Kamera-Almanach* throughout the 1920s and into the 1930s. He adapted himself to the changes of the interwar years without fundamentally altering his approach to photography. His overriding aim remained the establishment of photography as a pictorial art, and codification of the ground rules that might both promote and govern that transformation.

Warstat theorized photography from nineteenth-century theories of artistic reception, and from a base in neo-Kantian aesthetics. In the *Allgemeine Ästhetik*, photography was assessed in direct relation to better-established arts like painting, music, and architecture. Empathy theory defined one of the terms of the discussion. This was a mode of perceiving characterized by affinity between viewer and object, such that “we feel ourselves into the lines” of a photograph: “In a certain sense feeling finds in the course of the lines a completely defined and

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<sup>39</sup> See in this regard, Willi Warstat, “Die entfesselte Kamera und die produktive Kamera,” *Deutscher Kamera-Almanach*, 1929. In the same year, Warstat also published *Der schöne Akt: bildmässige Aktphotographie ihre Ästhetik und Technik* (Berlin:G. Hackebeil, 1929).

mandatory path, into which it pours itself forth."<sup>40</sup> That the viewer is 'feeling him (or her)self' into a spatial construct notably different from what it purports to recreate was no concern of Warstat's; attempting to establish photography as an art practice, his 'feeling in' was not meant as a documentary experience, but as a mode of artistic experience.

The book describes "artistic vision" (*künstlerisches Sehen*) as an absolute, irrespective of medium. The task facing the theorist, like the artist, demanded distinctions between what was medium-specific and what remained an absolute of artistic or spiritual conception. In this construct, photography was a relative newcomer to the field of artistic endeavor, but one not fundamentally distinct from other two-dimensional media. The difference was merely its newness, the extent to which it had thus far been insufficiently developed and then theorized, a lack that Warstat attempted to fill in his 1909 publication. His theorization differs from that of the pictorial photography movement developing in Great Britain and the United States at this time, although more in theory than in practice. Pictorialist photographers like Peter Henry Emerson and, somewhat later, Alfred Stieglitz, energetically distinguished photography from other art practices. But their 'rules of thumb' for photographic composition, and their standard for what constituted a successful photograph, seem not to have differed so radically from their German counterparts.<sup>41</sup>

In spite of his conception of the arts as part of one great aesthetic continuum, Warstat nevertheless identified specific photographic modes or limit

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<sup>40</sup> "Das Gefühl findet in dem Verlauf der Linie in gewissem Sinne eine vollständig bestimmte und vorgeschriebene Bahn, in die hinein es sich ergießt." W. Warstat, *Allgemeine Ästhetik*, 83.

<sup>41</sup> See Alfred Stieglitz, "Pictorial Photography," *Scribner's Magazine*, (Nov. 1899), pp. 528-36, and Peter Henry Emerson, *Naturalistic Photography for Students of the Art*, (New York: Arno Press, 1974/ London: Scovill Photographic Series, 1889).

conditions of the medium. Photographic composition emerged in his writing as a distinguishing feature critical to the artistic success of photography. He noted its difference from painterly composition: "The photographing artist depends on the object. He cannot, like the painter, 'place' his object, but rather must place himself in relation to the object."<sup>42</sup> This demanded the rejection of certain kinds of motifs and the embrace of others, hinging largely on the registration of detail and how its representation might be controlled. The artist can awaken interest in the optical impression of his photograph:

He can do this by accentuating the ordering of large and general traits in his picture, such that the less significant, the little detail, stands far to the back, and is fully lost in the energetic contrast of an aesthetic impression. The best medium for doing so is the judicious distribution of lines and forms over the different grounds of the image.<sup>43</sup>

A few generous, strongly evocative sweeping lines in the foreground awaken aesthetic interest and also make it possible to include greater detail in the middle- and background. This also addresses one of the most troubling weaknesses of photography, the distortion of depth perception already discussed. Warstat underscored the discrepancy between foreground and background in the perception of a photograph, and the resulting distortion of the background. He suggested the following:

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<sup>42</sup> "Der photographierende Künstler muß sich nämlich dann nach dem Objekt richten, er kann sich nicht, wie etwa der Maler, sein Objekt 'stellen,' sondern er muß sich zu dem Objekt stellen." Warstat, *Allgemeine Ästhetik*, p. 63. For a similar point, see Franz Roh, "The literary dispute about photography," in *Aenne Biermann, 60 Fotos* (Berlin, 1930), p. 6: "By this mechanism, the creative is pushed to another place. The act of choosing the object, the section, the lighting, the gradation of depth, the degree of sharpness, the paper, &c., all this combined, provides an although limited, yet broad enough scale of freedom in facing nature."

<sup>43</sup> "Das kann er dadurch erreichen, daß er die großen und allgemeinen Züge seines Bildes in der Anordnung derartig betont, daß die weniger bedeutenden, das kleinliche Detail hinten ganz zurücksteht und in dem energischen Kontrast für den ästhetischen Eindruck völlig verloren geht. Das beste Mittel dazu ist die weise Verteilung der Linien und Formen über die verschiedenen Gründe des Bildes." Warstat, *Allgemeine Ästhetik*, 65.

If, for example, he arranges a few large-scale lines of stronger sensory effect in the foreground of the image, so these will awaken aesthetic interest to a greater degree and employ it further so intensively, that the artist can then venture to bring more detail into the middle- and background. This is all the more the case since, as we have explained about the spatial value of the negative plate....[the middle- and background] appear in a significantly reduced scale relationship and in our resulting impression are thrown into greater distance through contrast to the foreground.<sup>44</sup>

Warstat's examples already subtend a degree of abstraction, where small-scale detail in the middle- and background is registered against the strong contrast of a boldly sweeping foreground (figs. 4.6, 4.7). In the most dramatic iterations, the middle ground falls away entirely, leaving a bold foreground juxtaposed against the pictorial backdrop of a highly detailed background, as in H. Bachmann's *Erlen im Schnee*, where a tree and a knoll of snow constitute the foreground, and a long distance view of evergreens on the horizon constitute the background (fig. 4.7a). In this case, the full elision of the middle ground short circuits the distorted depth of the image by omitting the central ground of the image altogether. The foreground can be registered as 'real' space (to be occupied through self-projection, and empathetically) and the background conversely read as image. Removing the middle ground from a picture, and leaving the foreground directly juxtaposed against the background, were understood to reduce the depth distortion inherent to photography, even if substituting an apparent void for the inaccurately recorded middle ground. The coincidence of this compositional schema with

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<sup>44</sup> 'Ordnet er z.B. im Vordergrund des Bildes einige wenige großzügige Linien von starker Gefühlswirkung an, so wecken diese das ästhetische Interesse in hohem Maße und beschäftigen es dann auch weiter so intensiv, daß der Künstler es schon wagen kann, im Mittel- und Hintergrund mehr Detail anzubringen, um so mehr, als es hier nach dem, was wir über die Wiedergabe der Raumwerte durch die Platte....auseinandergesetzt haben, in bedeutend verkleinerten Größenverhältnissen erscheint und für unseren Eindruck daher durch den Kontrast zum Vordergrund in größere Ferne gerückt wird.' Ibid.

nineteenth-century painting practice is not fortuitous; most formal conventions for pre-War photography were drawn quite directly from painting and graphic arts.<sup>45</sup> A figure like Karl Friedrich Schinkel, for example, had used similar compositional motifs in painting, set design, and architecture, as had Caspar David Friedrich.<sup>46</sup>

Warstat illustrated his point with numerous plates from a frequently cited publication, *Die photographische Kunst im Jahre 1907*, among them "Evening Landscape" by E. Weingartner and "Reflections", by Alfred Löwy (figs. 4.6, 4.7). In each of these, a bold, broad foreground is complemented by a highly detailed background. The elision of the middle ground in these images, as in "Erlen im Schnee," short-circuits the distortion of depth intrinsic to the photographic negative, almost precisely as Warstat described. Indeed, Warstat's description summons up just such images, with strong, dramatic, swinging horizontals across the foreground, and then a kind of cliff, or chasm behind, against which more or less unrelated details play on the flatness of the far distance.<sup>47</sup> But Warstat was not discussing architectural photography *per se* in this passage. Instead, he repeated a formula for image composition that governed all sorts of nineteenth century pictures, specifically drawn from paintings of landscape or *vedute* drawn from a wide range of genres and sources—all images that combine perspective systems with naturalistic settings.

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<sup>45</sup> See Enno Kaufhold, *Bilder des Übergangs: zur Mediengeschichte von Fotografie und Malerei in Deutschland um 1900* (Marburg: Jonas Verlag, 1986), and Ulrich Keller, "Modell Malerei: Die kunstfotografische Bewegung um 1900," in K. Honnef, R. Sachsse, K. Thomas (eds.), *Deutsche Fotografie: Macht eines Mediums, 1870-1970* (Bonn: Kunst und Ausstellungshalle der Bundesrepublik Deutschland, 1997), 31-40.

<sup>46</sup> Schinkel had, of course, a significant influence on Mies; the coincidence of pictorial and architectural interests here confirms that images of Mies's constructed work drew on pictorial as much as architectural reference for their impact.

<sup>47</sup> This compositional convention also appears in paintings by Caspar David Friedrich. Friedrich frequently used a high foreground, occluded middle distance, and distant, detailed background.

For Warstat and the photographers he represented, the exaggerated depth of the camera negative was a clear deficiency of photography. But this deficiency could be ignored in the construction of successful pictures, precisely because pictorial photography was not meant as a faithful record of its subject, but rather as an exercise in 'pure' picture-making. Wilhelmine and Weimar writers on *architectural* photography were not so sanguine about the distortions of photography. In their view, distortion in depth was an inherent problem of the photographic document, and a number of suggestions were offered to help compensate for it, including strictly controlled focal length, careful manipulation of the picture's depth of field, the preference for particular points of view, and the restricted use of the wide-angle lens.<sup>48</sup> Influenced by pictorialism in their picture-making role, architectural photographers before the war also maintained a belief in their role as documentarians.

### **New Vision and Architectural Photography**

In Warstat's early writings, and in the work of the photographers whose work he promoted, general visual conventions taken from the history of painting were applied to the practice of photography. This theorization of photography as an offshoot of painterly practice was part of the intensive development of pictorial photography in Europe and the United States around the turn of the century. But it soon began to give way to more autonomous theorizations of photography,

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<sup>48</sup> See for example, Carl Franck, "Aufnahmen von Bauwerken, Städteansichten usw," *Photographische Rundschau und Mitteilungen: Zeitschrift für Freunde der Photographie* 52 (1915), 227-231. Edmund Wach noted that an exaggerated impression of depth, exacerbated by stopping the lens down, is only recommended for photographs of an 'artistic character'. See E. Wach, "Architekturaufnahmen," *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* Jhrg. 51 (1914): 184-187; 197-8. Finally, for a correlation between distortion in depth perception and focal length, see Friedrich Hofmann, "Perspektive und Tiefenwirkung," *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* 52 (1915):165-167.

particularly noticeable after the First World War. In the 1920s, members of the avant-garde energetically turned to identifying and codifying photography's wide variety of uses and its relationship to more established art practices. Moholy-Nagy was essential to this transformation. New rules of thumb for photographic practice, laid down in his 1925 *Malerei, Fotografie, Film* were developed in more detail in Werner Gräff's 1929 book, *Es kommt der neue Fotograf!* and in Franz Roh and Jan Tschichold's trilingual *Foto-Auge*, published in conjunction with the 1929 exhibition, *Film und Foto* (Fifo) in Stuttgart, which Moholy largely organized.<sup>49</sup> Here 'new' possibilities for photographic composition were laid out with all the bravura of radical iconoclasm. The texts instruct the viewer to abandon received notions of photographic practice, replacing them with a new set of practices. This new set of rules, laid out around Fifo, were meant to emerge from photographic vision itself, from 'The New Vision' that photography enabled.

In fact, compositional norms codified before the First World War and compositional norms codified as part of the campaign for 'the New Vision' were often disconcertingly similar. Warstat's, bold, sweeping foreground as an essential element of photographic composition was almost precisely echoed in the new compositional norms developed around *Film und Foto*. In *Es kommt der neue Fotograf!*, his guide and commentary to the exhibition, Gräff advocated large areas of blank field in the foreground, as in a photograph of the concrete roof of the rue Marbeuf in Paris by Sigfried Giedion (fig. 4.8).<sup>50</sup> He presented this as compositionally revolutionary; in fact, the result is remarkably similar to the sweeping foreground celebrated by Warstat. The primary difference involves a

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<sup>49</sup> Werner Gräff, *Es kommt der neue Fotograf!* (Berlin: Hermann Reckendorf, 1929) and Franz Roh and Jan Tschichold, (eds.), *Foto-Auge* (Tübingen: Wasmuth, 1929).

<sup>50</sup> The image is similar to another view of the same building published in Giedion's 1928 *Bauen in Frankreich Bauen in Eisen, Bauen in Eisenbeton* (Santa Monica: Getty Publications, 1995), 204.

change in camera angle, so that the ground plane in New Vision images 'tips up.' In this case, the norm established by theorists like Warstat is in fact amplified, perhaps a semi-conscious result of the increased emphasis on the spectatorial possibilities of the camera—one of which meant looking *hard* at something from an unusual or unconventional angle. In any case, the Giedion image seems to fit Warstat's recommendation exceptionally well, as do other pictures in *Es kommt der neue Fotograf!*—bold sweeping gestures in the foreground balanced by a highly detailed background that elides the middle distance.<sup>51</sup>

While new photographers and critics in the Weimar period took pains to dismantle Warstat's painterly understanding of photography, replacing the empathetic eye with the denatured eye, still much of his theoretical apparatus survived in Neues Sehen practice. Not only did compositional conventions persist, but the overriding theoretical apparatus seems also to have remained intact. Just as Warstat characterized photography as an art better adapted to 'objective' seeing than to subjective vision, so do the theorists of the Neues Sehen celebrate the objective, disembodied nature of the camera eye. What Warstat described as a shortcoming, however, was subsequently seen as an advantage. The camera was no longer an inferior version of the human eye. Instead, camera seeing was celebrated in the latter half of the 1920s as a fundamentally different kind of seeing. While the theoretical apparatus remained intact from pre-World War I work, the system of valuation changed fundamentally.<sup>52</sup>

Just as compositional norms persisted throughout the pre- and post-World War I period, so the fluidity of those norms across different media grew. This is an

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<sup>51</sup> See Robert Elwall, *Building with Light*, 93, for a discussion of a similar point with respect to British and American pictorialist and modernist photography.

<sup>52</sup> See note 4 for sources on New Vision photography.

important point for architectural photography; like graphic design and advertising images, architectural photographs adopted compositional norms from other genres of photography and other art practices, just as those practices also borrowed back from photography. Thus the birthday portfolio presented by the Bauhaus masters to Walter Gropius in 1924 included a series of representations all based on a single photograph, executed in a variety of media (figs. 4.9, 4.10). The compositions were all derived from the original photograph given by Moholy to each of the artists. But while the Gropius birthday portfolio provides early evidence of a kind of compositional infrastructure that was medium-independent, any graphic design publication of the late 1920s or early 1930s makes an essentially similar point, in that advertising photographs and the graphic design of the journals themselves used the same motifs, the same kinds of formal compositions, as architects and artists were using in the pages of *Die Form*.<sup>53</sup> In looking at the photographs of the Tugendhat House, the compositional references to other art practices read particularly clearly, a point that emphasizes the kind of context which these images depended on, and through which they would have been read.

Returning to Figure 4.5 in the Tugendhat series, it partially conforms to Warstat's compositional recommendations, and still projects references to other avant-garde work, and it is not the only one in the series to do so. The bold vertical of the foreground column contrasted against the detailed surface of the wintergarden wall and the seating area push those areas into the background. In this image, the middle ground disappears into the white miasma of the ceiling and floor. This is not precisely what Warstat described, although it operates in similar fashion. Generally, in the Tugendhat House interiors a continuous floor and ceiling

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<sup>53</sup> See the pages of *Gebrauchsgraphik* in the years 1928-31, for example, next to a similar run of *Die Form*. Also see here Jeremy Aynsley, *Graphic Design in Germany 1890-1945* (Berkeley: University of California Press, 2000).

plane bind the fore- and background of the image together. But the broad white sweep of both surfaces tends to constitute a blank field that does as much to separate as to bring together. Put another way, fore- and background objects float on the white field of the setting, connected by perspective diminution, but separated by blankness.

But if I have used the photographs of the house to illustrate a deficiency that Warstat was trying to emend, how can I use them then as evidence of that same emendation? Or, to put it another way, why do the photographs still depict a kind of tunnelized architecture, if indeed the compositional rules of thumb developed by earlier photo critics intended to offset precisely that problem had been absorbed and attended to? In fact, while I would relate compositional rules of thumb to pictorialist practice as written around the turn of the century, I would also locate these particular photographs, and their particular spatiality, in terms of developments more contemporary to their making. The limits and shortcomings of the wide-angle lens were no longer the subject of significant discussion among photo theorists, critics, and practitioners of the Weimar period. Rather, the *possibilities* provided by new lens varieties and their particular forms of seeing were the subject of interwar discussion. The evidence suggests that while architectural photographers belonged to a professional cadre whose *operational* constraints affiliated them with older photographic practices, in the case of the Atelier de Sandalo, they also belonged to a contemporary architectural and photographic milieu that exercised its own influence. Added to this is the fact that, while New Vision photographic practices claimed absolute newness, in many cases compositional habits within the discipline changed rather subtly from pre- to post-World War I periods. Discourse centered around New Vision or around New

Objectivity similarly combined a new, specifically photographic polemic, with older pictorial conventions.

Returning to the image, the raking line of the ceiling curtain rail juxtaposed to the strong vertical of the column roughly recalls various Moholy-Nagy compositions. If Figure 4.5a. is compared to a print from the Kestner Mappe of 1922- 23 (fig. 4.11), the image is similar, although the two compositions are inverted relative to one another. If we turn the Tugendhat photograph upside down and backwards, as Sandalo would have composed it in the ground glass of his large-format camera, the compositional similarities increase markedly (fig. 4.12). Indeed, how much more intriguing might the architectural photographer's task have become, when he ceased compensating for the practical constraint of working upside down and backwards (no doubt second nature of course), instead finding there a momentary release from the inescapable rules of perspective vision and a way into the photographic abstract?<sup>54</sup> Such an exercise reminds us of the compositional imperative of this kind of photography: no matter the extent of the photographer's experience, working with an inverted upside-down image inevitably places more emphasis on abstract composition, less on perspectival picture-making.

But rather than suggesting a direct genealogy between them, the similarity between these two works registers the widespread interest in canted (non-perpendicular) crossing axes so characteristic of 1920s composition in painting, graphics, and photography.<sup>55</sup> In addition to this, the flat lighting of many of the

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<sup>54</sup> Meant in a local sense, this rhetorical question is also more broadly posed. During the 1920s, photographers of architecture grew far more confident of a certainty that art photographers had maintained for almost thirty years: that photographic composition demanded the simultaneous surrendering and acceptance of the dominance of perspective.

<sup>55</sup> Moholy's work of this period is particularly suggestive in this regard, but an examination of the compositional habits of a group of modern artists reveals similar compositional interests that were widespread by the late 1920s.

Tugendhat and Barcelona pictures, and their abstract compositional skeleton combine with other features of the photographs to reduce the impact of narrative elements and to enhance an idea of generic time and space. In this interpretation, the lack of scale figures, the flat lighting, and the spatial distortion of the wide-angle lens combine with other standard features of black-and-white photography—lack of color, slick image surface (whether of the original print or of the glossy spread)—to continually reduce the dependence of the image on a particular spatio-temporal context. Furthermore, compositional indicators point to non-figural compositional motifs and avant-garde photographic motifs as discussed above. The result is a group of photographs that present a building as both time-free and timeless. This might be one term for abstraction.<sup>56</sup>

### **Weimar Architectural Photography**

The distinctive visual experience offered by the Tugendhat House photographs should not be conflated with the experience of the building itself, although the two may never be held fully apart. The space of the photos—tunnelized, distended, and re-shaping the objects contained in it—re-figures architecture and, equally, the projected inhabitant—the human subject of modern architecture. But the argument here is not solely that architectural photography creates a new (discursive) space, or a new field of operations, within which certain mechanisms of the practice of architecture flourish, while others disappear. It is not surprising that common themes of modernism lace through the various media most intensively deployed in the pursuit of the modernist agenda. The common discourses on utopic or absolute space that emerged from architecture,

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<sup>56</sup> Martin Jay has described photography as “creating a temporality of pure presentness in which the historical becoming of narrative time was stripped away.” See Jay, “Photo-Unrealism,” 349. Also, see my final chapter for a fuller discussion of this point.

photography, painting, graphic arts, and film in this period have been the subject of sustained work in studies of painting and photography, both from within certain disciplinary limits, and from an interdisciplinary standpoint, although these themes are perhaps less intensively worked through in architectural history.<sup>57</sup> Rather, the emphasis here lies not so much on the identification of shared notions of modernist space, whether represented in photographs or buildings, as on a need to describe each individually, according to the specific pragmatic constraints that determined them, and to analyze their mutual operations as precisely as possible. A better understanding of the dynamic between these two media—architecture and photography—requires a clearer definition of their constituent parts. That goal leads here to a brief consideration of the context of professional architectural photography followed by an analysis of the photographic space of the Tugendhat House pictures.

While Willi Warstat and a number of other Wilhelmine and Weimar critics worked out the parameters for art-based photo practices, a yet more specialized discourse was aimed at the development of photography as a tool for depicting architecture in these years. This literature detailed compositional rules of thumb related to the technical requirements of the professional field that it served. These were laid down well before the Weimar years, but continued to be modified throughout the 1920s. By 1902 Hans Schmidt had laid out basic rules of architectural photography in his contribution to the Photographische Bibliothek, entitled, *Die Architektur-Photographie unter besonderer Berücksichtigung der Plastik und des Kunstgewerbes*. Like Warstat, Hans Schmidt and others also

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<sup>57</sup> A range of sources might be cited here. See L. Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* (Princeton: Princeton University Press, 1983), and Mark Cheetham, *The Rhetoric of Purity* (Cambridge: Cambridge University Press, 1991) for two discussions of modernist space and modern painting.

conceived photography as a pictorial art—but in an illustrative sense, without aiming for an exalted place in existing artistic hierarchies. Architectural photographs were to serve their object, and this illustrative function was conceived as fundamentally different from the pictorial function laid down by Warstat, regardless of how much it deployed the same techniques and some of the same compositional motifs.

Like other “applied arts,” architectural photography was not specifically directed to revealing new modes of photographic representation; instead, it used already existing, if frequently newly-discovered, photographic modes in the service of illustrating the latest developments in another field. In this sense architectural photography could seldom be fully subsumed into the avant-garde and still retain its commercial function, partly because many professional photographers had simply not ‘signed on’ to the program of the avant-garde. The Atelier de Sandalo constitutes an interesting exception here; it *had* specifically signed on to modernism as a program for its work, identifying itself as “photographers of modern architecture” in its advertisements. But photographers who were particularly close to various sectors of the avant-garde were walking a rather fine line between commercial viability and the ideological aims of the ‘New Vision,’ and their work should not be confused with the various agendas of the avant-garde. The need for ideological change after 1933 makes this apparent: Rudolf Sandalo shifted gear in taking pictures for Albert Speer during the Second World War; Wilhelm Niemann, proprietor of the Berliner Bild-Bericht, dropped his agency name (affiliated as it was with Mies and Gropius), and went on to sell photographs during the National Socialist years under the credit, “Niemann Photo.”<sup>58</sup>

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<sup>58</sup> See the fuller discussion of Wilhelm Niemann in Chapter Three.

On the other hand, part of the larger task of the avant-garde, particularly in Germany, Eastern Europe, and the Soviet Union, was to reduce divisions between productive realms, and to erode traditional definitions of art practice. Moholy-Nagy was a vocal advocate of this trend, and photography a critical tool in his development of a new cultural polemic. Furthermore, his own removal from the 'ivory tower' of the Bauhaus to the vagaries of commercial practice in Berlin in 1928 showed the seriousness of his commitment to the collapse of disciplinary boundaries. Moholy was merely articulating a position commonly held among progressive artists and intellectuals at the time. As Frederic Schwartz has noted, contact between the avant-garde and the world of 'applied' or commercial art assumed great significance at this time, as evidence of the potentially anti-aesthetic values to which certain members of the avant-garde in the interwar years aspired. As Schwartz notes, "...one of the most important tasks facing artists was the communication and coordination between these separate interstices of cultural life—a sort of encircling manoeuvre breaking down the boundaries between art and social life by excluding the more precious forms of practice. The relays established to this end...borrowed the forms of commercialized culture in order to define a new central area of practice from the margins."<sup>59</sup> Architectural photography, like graphic design, was endorsed as an arena for the application of new visual modes, and intimately wrapped up in certain forms of graphic design practice, such as Moholy's well known 'Typophoto.' Photographs of architecture were also part of the experimental apparatus of avant-garde photography from the earliest post-World War I years, as in, for example, Rodchenko's famous raking images of worker

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<sup>59</sup> Frederic Schwartz, book review of Eric Dluhosch and Rostislav Svácha, *Karel Teige, 1900-1951: L'Enfant Terrible of the Czech Modernist Avant-Garde*, and Jeffrey Aynsley, *Graphic Design in Germany 1890-1945* in *Oxford Art Journal* 25 (2002): 2, 172.

housing in Moscow. Thus one can locate this form of photography within the desire to normalize productive relations within mass culture.

On the other hand, an earlier literature on architectural photography did not disappear from the scene in the Weimar years, in favor of new literature based on contemporary photography. Just as pictorial photography continued to exert its influence on the work of Neues Sehen photographers, so did this earlier literature retain its applicability for photographs of architecture. If anything, it was subject to less, and less articulate, revision than was the case in other cultural fields. Hence, to review the 'documentary' requirements of architectural photography, Hans Schmidt's 1902 primer offers a useful, relatively comprehensive starting point. Schmidt himself designated the suggestions contained in his book as "practical rules for the general principles of the discipline," illustrated and clarified through examples. I will briefly review these here.

Schmidt's recommendations for equipment balanced image quality against portability, suggesting a negative plate of 18 x 24 centimeters, the standard image size for architectural photographs throughout the Weimar years. Schmidt emphasized the importance of image composition, noting that the emphasis on composition was increased by lack of color: "Since the photograph doesn't represent the color of the original, it is only really effective through the course of the lines themselves. A handsome perspective is thus far more decisive for the general worth of a photographic image than is the case with painting."<sup>60</sup> In

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<sup>60</sup> "Da die Photographie nicht die Farbe des Originals wiedergibt, so kann sie zum grössten Teil nur durch den Verlauf der Linien wirken. Eine hübsche Perspektive ist also für den Gesamtwert eines photographischen Bildes weitausschlaggebender als bei einem Gemälde der Fall ist." Hans Schmidt, *Die Architektur-Photographie unter besonderer Berücksichtigung der Plastik und des Kunstgewerbes*. Photographische Bibliothek Bd. 14. (Berlin: Verlag von Gustav Schmidt, 1902), 38. Schmidt re-emphasizes the importance of composition later in his book, noting the dependence of good composition on the careful choice of standpoint. He considers this choice more decisive for a good architectural photograph than any of the darkroom techniques available for manipulating an existing exposure. See p. 64.

addition, Schmidt noted the reduced control over lighting conditions that an architectural photographer enjoys, in comparison to a studio photographer: "In architectural photography particularly we cannot create effects through the nuanced distribution of light and shadow since, in contrast to portrait photography, we have only limited control here. Thus we must take great pains to create effects through perspective."<sup>61</sup> Further conditions included choosing the longest focal length possible, and the furthest practical distance from the object or space to be photographed; the preferred choice of a raking diagonal view (sometimes supplemented by head-on views); and perhaps most significantly, the choice of a standpoint that any casual observer might occupy as well, because, "Pictures taken from a hard-to-reach standpoint always have something unnatural about them."<sup>62</sup> Schmidt discouraged the choice of a high standpoint, sometimes necessary in the photographing of tall buildings, because it leads to an overemphasis on the foreground. He suggested one meter off the ground as an ideal camera height.

Under the subheading "Some Aesthetic Rules," Schmidt included the following rules. Having strongly recommended that architectural photographs be shot from a raking diagonal, he went on to note that certain situations—streets, colonnades, interiors, "and especially in the case of objects that pull strongly into depth (überhaupt bei sich stark in die Tiefe ziehenden Objekten)"—it is often necessary to photograph from a frontal standpoint. But on no condition should the photographer assume a position on the symmetrical middle axis; the camera

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<sup>61</sup> "Namentlich in der Architektur-Photographie können wir nicht durch feine Verteilung von Licht und Schatten wirken, da wir dieselbe, im Gegensatz zur Porträt-Photographie, hier nur wenig in der Hand haben, müssen also in besonderem Grade bestrebt sein durch die Perspektive zu wirken." *Ibid.*, 38.

<sup>62</sup> "Bilder, welche von nur sehr selten zu erreichenden Standpunkten aus aufgenommen sind, haben immer für den Beschauer etwas Unnatürliches." *Ibid.*, 60.

should always be set to one side or the other.<sup>63</sup> Only when the two sides of the space/object are notably different may the camera be placed directly on the center line of the space. In addition, in interior photography, one side of the enclosed space should always include the connection between wall and ceiling: "The total lack of such (closure) makes itself felt as tremendously disturbing, in that the whole shows no limit to itself....A picture must always have a fitting conclusion, and may never be a vault without supports."<sup>64</sup> He concludes this point with a positive example of how images may be fittingly framed by an arched doorway or other aperture. Schmidt instructs the photographer to keep the foreground as narrow as reasonably possible, except when trying to show a building perched on an elevated site. In certain such cases, Schmidt writes, exceptions are allowable. He implies that here, the picture represents an important fact about the architecture—its high siting—through an exaggerated foreground.

Many of Schmidt's arguments were repeated in other literature on architectural photography throughout the teens and twenties. Writers generally noted the reduced control over lighting that architectural photographers enjoy, and recommended against shooting in bright sunlight;<sup>65</sup> they opted for the raking

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<sup>63</sup> "...so möchten wir hier ergänzend, jedoch nicht berichtigend hinzufügen, dass bei Strassen, Säulengängen, Interieurs, überhaupt bei sich stark in die Tiefe ziehenden Objekten, manchmal auch eine Aufstellung der Camera so, dass die optische Achse parallel der Halbierungslinie des Objektes läuft, sehr brauchbare Bilder giebt. Man vermeide es dann aber unbedingt, die Camera genau in jene Linie zu stellen. Man sehe vielmehr darauf, dass dieselbe wesentlich seitlich davon abgestellt wird, widrigenfalls man in beiden Bildhäften genau symmetrische Aufnahmen erhält, die einen ungemein langweiligen Eindruck machen." *Ibid.*, 64.

<sup>64</sup> "Der gänzliche Mangel einer solchen macht sich ungemein störend geltend, indem das Ganze keinen Halt in sich zeigt...Ein Bild muss stets einen passenden Abschluss haben, und darf nie eine Wölbung (arch or vault) ohne Stütze sein." *Ibid.*, 65.

<sup>65</sup> "Für die Herstellung von Architekturaufnahmen eignet sich am besten ein mäßig bedeckter Himmel. Greller Sonnenschein wirft zu schwere Schatten, welche zahlreiche Details in Dunkel hüllen, deren Studium den eigentlichen Zweck der Aufnahme bildete." E. Wach, "Architekturaufnahmen," *Photographische Rundschau und Mitteilungen. Zeitschrift für Freunde der Photographie* 51 (1914):187.

diagonal as the preferred standpoint for exterior architectural photos; most dwelt at some length on the balance between focal length, standpoint, and the judicious use of the wide-angle lens; and on the necessity of assuming a standpoint that is not 'unnatural,' and that any casual observer might also assume.<sup>66</sup> A number of writers complained about the distorting effects of the wide-angle lens, at the same time noting its necessary use for the photography of buildings. Complaints about distorting lenses, about the overemphasis on deep space also engendered by stopping the lens down, and about the careful revelation of scale relationships emphasize the importance these writers placed on architectural photography as a means of faithful portrayal of building information. Aesthetic concerns were generally balanced against the photograph's role as communicator of accurate information; all concur in the artistic skill required for the successful architectural photograph. In contrast to Warstat's search for a viable pictorial art, and the desire of Weimar avant-gardists for a new way of seeing, the professional field was still tied to standards of verisimilitude in this form of photography. This standard was updated during Weimar years, when Wilhlem Lotz, as already noted, called for architectural photography to be "solely the medium of the impression of the object (nur Mittler des Eindrucks des Objekts)," and "a clear and objective representation of the object (eine klare und sachliche Darstellung des Objekts)." Whether Lotz's call for clear representation constituted an important if subtle shift from Wilhelmine sources, or merely a difference of rhetoric, is less clear. Discourse on art practices, in any case, changed much more substantially from 1902 to 1929 than is the case with standards for the photography of buildings.

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<sup>66</sup> See notes 14, 15, and 16 for other sources on architectural photography drawn on for this discussion. Also see Wilhelm Lotz, "Architekturfotos," *Die Form* 1929, pp. 69-70.

The most innovative architectural photographers working in Weimar Germany and much of Central Europe, while conversant with the rules of thumb of the discipline, were also clearly conscious of the developments of New Vision photography, and had in some cases found ways to deploy them creatively within the constraints of commercial practice. In other cases, their technique exhibited creative innovations specific to the technical and disciplinary limits of their distinct professional field. Perhaps most notable of these was Arthur Köster in Berlin.<sup>67</sup> Köster took pictures of two projects designed and built by Mies: the Wolf House of 1925/26, and the Monument to the November Revolution of 1926.<sup>68</sup> Where Köster's work tended to eschew unconventional camera angles, nevertheless he broke many of the rules of architectural photography as laid down by Schmidt and others. For example, he used human figures and cars to people (and scale) his photographs, and in other respects as well practiced a kind of dramatic scenography that included techniques such as backlighting street facades and photographing on bright sunny days with skies full of fluffy white clouds. On the other hand, he also frequently used the technique of framing architecture through an aperture, often from the building itself, as at Mendelsohn's Luckenwalde hat factory of 1921-23 (fig. 4.13). Köster's practice was highly idiosyncratic, intelligent, and creative. His work led to new trends in the architectural photography of the Neues Bauen. He was, by the end of the twenties, the selected photographer of the Berlin architectural scene, personally endorsed by The Ring. Two buildings

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<sup>67</sup> Michael Stöneberg and I have also discussed the Mies photographs at some length, conversations during which he generously relayed to me invaluable information about photography collected over the course of a ten year project.

<sup>68</sup> In the years 1919-1926 Köster had been permanently employed by the Wasmuth Verlag; it was only after 1926 that he established an independent photographic practice in Berlin. His work for Mies fell at the beginning of a long career during which Köster became the premier architectural photographer of the Neues Bauen. But his pictures for Mies give little indication of future work, although they are technically sophisticated large-format photographs of remarkable crispness.

photographed by Köster were used as exemplary images in Lotz's 1929 essay in *Die Form*.

Köster was particularly prone to breaking the basic rules of architectural photography as laid down in books and articles during the pre-war and interwar years. Whether he had read them or not is less clear. According to Michael Stöneberg, Köster was entirely self-trained, and considered himself something on the order of a photographic master technician. Stöneberg is skeptical about the degree of Köster's familiarity with the dense theoretical texts that circulated among photographic amateurs and professionals. Technically masterful, Köster set a new standard for photography in Berlin, in which the photographer's interpretation of an architect's practice played a central role in the public interpretation that followed. Köster was a regular collaborator of Mendelsohn's, who commissioned him repeatedly throughout the latter half of the 1920s and early 1930s, as noted above.

A contrasting case here is the photographer Albert Renger-Patzsch. Unlike Köster, Renger-Patzsch was primarily known as an art photographer whose work defined an opposite pole to that of Moholy-Nagy. Like Köster and Mendelsohn, Renger-Patzsch had a long-standing relationship with the architect Rudolf Schwarz, for whom he also made angled camera shots, shots from unusually high vantage points, and artfully-composed photographs echoing his own non-commissioned work and that of other New Vision photographers. Although Renger-Patzsch countered the notion of "Neues Sehen" with a preference for "Neue Sachlichkeit," nevertheless his architectural photographs were often distinguished by unconventional camera angles. Most of his commercial architectural work was done for his close friend, Schwarz, with whom Mies maintained close ties. In

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photographs of Schwarz's Frauenschule of 1929 in Aachen, for example, shots of the stairwell are reminiscent of New Vision work (fig. 4.14), almost as if Renger-Patzsch used this commercial venue as an opportunity to explore the camp of the opposition, where he might do so more or less undetected.<sup>69</sup>

Still, where both Renger-Patzsch and Köster left clear imprints of their own photographic signature on their work for architects, nevertheless much of their work was also governed by conventions of the discipline. In fact, it is the combination of individual photographic authorship, influence from other art genres (including other photographic genres) and a 'documentary' function based on some (relatively unfixed) standard of verisimilitude with respect to the delivery of architectural information, that defined the ground for photographs of architecture, and with which this discussion might go forward in the case of the Tugendhat photographs. This combination of influences and elements defines a hybrid representational practice.

### **The Space of the Tugendhat Photographs**

How might we assess the Atelier de Sandalo in relation to the norms for the field outlined in German pre- and post-World War I professional literature? Until 1918, Moravia was part of the Austro-Hungarian Empire, and German culture predominated. After 1918, when the region gained independence as part of Czechoslovakia, an anti-German reaction resulted in a preference for local or non-German authorities in all sorts of realms. It was in 1918 that Rudolf Sandalo (senior) lost his position on the Brno Chamber of Commerce, where he had previously represented the city's professional photographers. I do not mean to

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<sup>69</sup> For further information on Renger-Patzsch's architectural photography, see Albert Renger-Patzsch, *Architektur im Blick des Fotografen 1897-1966*, exh. cat. (Munich: Zentralinstitut für Kunstgeschichte, 1997).

flatten the Czech context such that it reflects only German influence; but as Sandalo senior was a German-speaking Czech citizen, and his son merely a tolerated alien (Sandalo jr. never gained Czech citizenship, despite having been born in Czech territory), it is perhaps fair to relate their work to German developments. My underlying assumption at this stage is that certain tenets of photographic practice had a limited internationalist focus at this time, and that German and Russian discourse on photography appeared either through imported publications or through the Czech press. The architectural press in Moravia at this time was split between German and Czech language publications.<sup>70</sup>

The evidence of the atelier's work for architects in and around Brno attests a practice dedicated to creative photographic composition within a modernist idiom. Still, its work was firmly tied to professional standards for the photography of buildings; as already noted, the firm advertised itself in the years following Tugendhat as specialists in the photography of modern buildings. A particularly striking series of images for Fuchs' Municipal Baths complex of 1927 in Brno affiliate abstract compositional modes with depictions of utilitarian spaces. So, in Figure 4.15, a photograph of the wardrobe in the changing rooms fluctuates between a rendering of vertiginously deep space and a circular composition of rays emanating from a central point not quite central to the image field.<sup>71</sup> In the same series a large number of images depict the mechanical equipment in the basement

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<sup>70</sup>See Vladimir Birgus, ed., *Czech Photographic Avant-Garde 1918-1948* (Cambridge, Mass.: MIT Press, 2002).

<sup>71</sup> Another image of the locker room combines the technique of framing architecture through architecture, a technique commonly used by Köster for Mendelsohn's work. In this case, though, Sandalo has framed the lavatory with its seat up, through an adjacent doorway. The playfulness of this image is found elsewhere throughout the work of the atelier—as, for instance, when a photograph of the Moravian Bank rooftop singles out the white signage of the nearby Hotel Avion, one of Fuchs's best-known buildings in the city, also photographed by the Sandalo firm.

of the complex, generally dramatically lit and evocatively framed.<sup>72</sup> Some of these images are included in a photo-collage attributed to Fuchs in the Brno City Museum, in which Typophoto practices similar to Moholy-Nagy's are combined with the playful collage of different architectural elements (fig. 4.16).<sup>73</sup> The work of the Sandalo firm, from the evidence of the pictures alone, reflects affiliations between art and industry, and the collapse of conventional distinctions between 'high' and 'low' art so important in the interwar years.

The firm photographed many projects for Fuchs, including his important Masaryk Student Dormitory in Brno in 1930 (fig. 4.17). In that effort, the Atelier de Sandalo was joined by the well-known avant-garde photographer Jaromír Funke, also of Brno. The Funke photographs of Fuchs's building are classic avant-garde photographic compositions deploying unconventional camera angles in diagonally-composed images (fig. 4.18). They are interspersed with Sandalo's more sober images in a small publication of the building issued by Fuchs in the year of its completion.<sup>74</sup> It is the conventions of architectural photography versus the new norms of avant-garde practice that distinguish the Sandalo images from the Funke pictures, so effectively juxtaposed in this small book. An insistence on some normative view—on the myth of the camera as biological eye—still governs the production of the Sandalo pictures, all Neues Sehen rhetoric aside. The implied subject is an occupant or a passerby, equipped not just with camera vision, but with wide-angle vision, with the kind of boring-in, supercharged x-ray vision that shoots the building off into depth. The architectural photograph relies on a strange

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<sup>72</sup> The extent of this series makes the lack of similar photos from Tugendhat notable. No photograph of the mechanism that operated the sinking window (*Versenkfenster*) exists. Perhaps these images were of no interest to Mies and have therefore not survived.

<sup>73</sup> This plate is also included in Vladimir Birgus, "Czech Avant-Garde Art and the World," in *Czech Photographic Avant-Garde*, p.19.

<sup>74</sup> Bohuslav Fuchs, *Masarykův studentský Domov Brno* (Brno:no publisher listed, 1930).

hybrid creature, much like Otto Umbehr's *Racing Reporter* of 1929—part human, part machine, this seeing eye is a mechanism of translation attempting to disguise not just the terms, but also the fact of its own translation. That it ultimately fails to do so—instead creating a new field for discussion—is the first claim of this study. If we wish to interpret the subject of modern architecture as defined by what the camera sees, then we must enter the illusion of the photographs, and transform this cyborg back into the mythical subject it purports to represent.

We can turn back to the Tugendhat photographs, and the impressive stability of their ubiquitously level standpoint. The horizontality that underlies almost all the images, whether vertical or horizontal format, contributes to the normative perspectival character that accords so well with the prescriptions of virtually all critics of architectural photography as a desirable feature of the practice. This insistent perspectivism, if we can call it that, is also a basic characteristic of Miesian architecture, both in terms of the architect's representational preferences and in terms of the insistence of the two horizontal planes of ceiling and floor, that keep Miesian space bounded within the perspective frame. And the cool, abstract composition of many of these views, evidence of the photographer's and the architect's skills, should be measured against two possibly contradictory features: the insistence of their level-ness; and the pull of their exaggerated depth. As clearly as the photographs register two-dimensional compositional motifs drawn from the same milieu as the architecture itself, they nevertheless also always return to the implied normative subject who sees from a height of one meter with the depth of a camera eye.

The Masaryk Dormitory images, and a number of other projects that the Sandalos photographed for Fuchs, project notable differences from the

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Tugendhat pictures. In images of the city baths complex, for example, the camera sweeps across the complex from the corners at various angles and varying heights (fig. 4.19). These kinds of angular views, which also appear in a series of pictures of Fuchs' Moravian Bank of 1929 (with Arnošt Wiesner), are totally uncharacteristic of the Tugendhat series (fig. 4.20), although they also occur among the Masaryk Dormitory photographs. What links the Tugendhat images to other photographs by the Atelier de Sandalo is the uncompromising use of the wide-angle lens in a large-format photograph. The combination of a dramatic wide-angle (probably shot with a 180 mm lens, as opposed to the 'normal' perspective of a 300 mm lens), and a large contact-printed positive make nearly all the Sandalo images dramatic and compelling. One feels the photographer's interest in the spatial constructions he has improvised from the architect's equally compelling score.

In contrast to many Sandalo photographs of other buildings, the normative perspective of a human subject dominates the frame of the photographs of the Tugendhat House. Although the choice of a standard viewing height agrees with general rules of thumb for architectural photography (as codified by the critics discussed above), the corpus of Tugendhat images departs from standard practice in at least one important respect. A larger number of the Tugendhat photographs were shot from the center line of the space they depict, with the camera oriented frontally to the planes of the architecture (figs. 4.1, 4.4a, 4.4h, 4.5d depict some examples). We might designate this as an angle of zero/ninety degrees, indicating parallelism between camera plate and the rectilinear geometry of the building. A second group was shot at an angle of 30 degrees or less off this direct parallel (figs. 4.4c, 4.5a, 4.5f, 4.5g); not the 45 degrees implied by the preferred 'three-quarter view' of the photography manuals, as the Sandalo photographers adopted

in so many of their other assignments, and, admittedly, in a third group of the Tugendhat images (figs. 4.4g, 4.5b and c).<sup>75</sup> The recurrence of views in which the camera stakes a frontal or near-frontal position at Tugendhat is distinctive, a characteristic shared with the Barcelona pictures, and thus one either approved by the architect and his partner Reich (see figs., 2.9d, f, g, h, 4.4a, c, h), or suggested by the geometry of the space itself. In certain cases, this approach required extreme measures from the photographer. In figure 4.1, for example, the camera was set up parallel to the wall opposite the tripod; because this wall lies to the extreme far left of the space depicted, the photographer shifted his plate (but not his lens) far to the right. An alternative approach would have yielded an angled view of the space; instead, the image vanishes to a point dead ahead, but remains off-center in its framing, with far more revealed to the right of the vanishing point, and less to the left. In addition, the little girls occupy the image center (but not the perspectival center), framed between the two columns marching past them. The same strategy was adopted in a number of other cases (figs. 4.4a, 4.5g are included here).

The recommendation for a side-angled view had a double cause. First, a camera position angled to the geometry of the architecture depicts two sides of any quadrilateral object or space. Second, the adoption of an angled view suggests a more 'natural' position within the normal course of spatial occupation. By contrast, a head-on view of a symmetrical or nearly symmetrical space both flattens the sides of objects rendered invisible to the camera, and ritualizes the image through the formality of the framing. Mies apparently preferred this hieratic image of his architecture. As Robin Evans has noted, the images of his buildings often

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<sup>75</sup> See Carl Franck, "Aufnahmen von Bauwerken, Städteansichten usw.," 229, and Max Frank, "Aufnahmen von Architekturen" *Photographische Chronik und Allgemeine Photographen-Zeitung* 24 (1917), no. 17/18: 1. Also see the detailed discussion of camera position in Hans Schmidt, *Die Architektur-Photographie*, 54-60.

engendered their own symmetry, thanks to the reflections captured in their long sheets of glass.<sup>76</sup>

The difference between the Tugendhat photographs and photographs of other modern buildings from the same photographer shot at roughly the same time highlights the influence of the architecture. The photographs describe a collaboration between architect and photographer, where the features of the architecture provoke a certain photographic response, based on the photographer's interpretation. In this case, the insistent horizontality of the images emerges both from the photographs and from qualities of the building itself. But then, how to better define the 'new spatiality' of these images? What are its distinctive features? Within the space of the wide-angle lens, within the compositional matrix described by Warstat (who articulated a rule of thumb still in use in contemporary photography), the distancing of the middle/background and the pulling closer of the foreground distend the space, as discussed earlier in this chapter. Even with the 'shelf' explored by pictorial photographers, where fore- and background are separated by a void, a chasm in the photograph, and certainly with the more exaggerated construction of Sandalo at Tugendhat, where one perceives the texture of travertine, the smoothness of linoleum as platforms one might step into, the effect is similar. The foreground is brought closer, the background pushed further away, its objects shrunken in relation to the space in front of them. The spatiality of the images and the viewing context, as already argued, are quite different from that on site. This describes the general effect of the wide-angle lens. The particular spatiality of Haus Tugendhat's photographic architecture can be

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<sup>76</sup> Robin Evans, "Mies's Paradoxical Symmetries," in *Translations from Drawing to Building and Other Essays* (Cambridge: MIT Press, 1997), 233-77.

more precisely described, after an apparent detour into the reception of these images.

The dramatic discrepancy between buildings and photographs may relate to one of the most infamous exchanges in modern architecture, the debate usually entitled, "Can one live in the Tugendhat House?" In the 1931 volume of *Die Form* in which the house first appeared, a series of exchanges about the building took place over three numbers, those of mid-September, mid-October, and mid-November. In October, the critic Justus Bier described the house as a showpiece, not a domestic space, critiquing the journal's September-issue presentation of the building, and eliciting a defense from the editor of *Die Form*, Walter Riezler. In the following number, in November, an exchange between the Marxist critic Roger Ginsburger and Riezler continued the debate. The two clients wrote individual rebuttals to Bier's and Ginsburger's critiques, claiming that the house represented an ideal habitable space. Their views were echoed by Ludwig Hilberseimer in the same number.<sup>77</sup>

Fritz Tugendhat hinted that Bier's and Ginsburger's critiques were based on building documents, specifically photographs, rather than an experience of the house. In fact, Ginsburger had not visited the house, although Bier probably had. Nevertheless, Bier's critique, which condemned the building for its monumentality, for its "representative style...intended...for impersonal spaces" that forced the resident to live "as if on display," recalls the distensive grandeur of the photographs Bier had seen in *Die Form* the previous month. Bier's remarks may well have been based on his analysis of the house represented in images, rather

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<sup>77</sup> See note 6 for bibliographical references. Also see Jean-Louis Cohen, "Roger Ginsburger: Agent Double et Critique Radical entre France et Allemagne," in I. Ewig, T. Gaehtgens, M. Noell, *Das Bauhaus und Frankreich* (Berlin: Akademie Verlag, 2002), 349-363 for more information on the elusive Ginsburger.

than his visit to the building. In spite of his probable visit to the house, the famous Tugendhat debate may have been as much a conversation carried on at cross-purposes, as a dissenting ideological critique of Mies's architecture for its expense and luxuriousness, and for its failure to engage with the central concerns of the Neues Bauen and CIAM.

Regardless of intent, the *Die Form* articles deployed the Sandalo photographs in a dual description of the house—on the one side, as a remarkable achievement of modern architecture; on the other, as impersonal, monumental, and grand, redolent of retrograde social values. Like the similar photographic debates that engulfed the Weissenhofsiedlung, and the semantic mutability of the Barcelona Pavilion photographs discussed at length in Chapter Three, this plurality of interpretation was partly engendered and certainly encouraged by photography—not by the fact that the photographs of the house were images *per se*, but by virtue of their unstable relationship to that which they depicted.

The Tugendhat House debate acquired particular urgency since the virtual stretching procedure carried out by the camera, that turned this building into a set of flat surfaces, resulted directly from the desire to move an object from the private to the public realm. This was equally a desire to transform it into something which could go anywhere and serve many viewers, with the sole requirement that viewers be ready to invest themselves in an exclusively visual experience.<sup>78</sup> The

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<sup>78</sup> One might mention here Mies's own visual appreciation of his architecture. George Nelson paraphrased Mies's experience at the Tugendhat House in a 1935 interview for *Pencil Points*: "Miës (sic) hates and despises cheap materials, but for once he indulged his tastes. An onyx wall, selected after months of searching for the right material, the curved macassar wall, the hundred feet of plate glass window and silk curtains to cover them—all these were things he really enjoyed working with. Into his search for the onyx wall he put a fantastic amount of time and money....but in the end he got his wall, which was all that interested him. Today, when he makes an occasional visit to Brno, he settles his bulk into one of the comfortable metal chairs, looks at his creation with contentment and says, 'Now there is a wall!'" George Nelson, "Architects of Europe Today, 7: Miës van der Rohe (sic)," *Pencil Points* XVI, no. 9 (September 1935), p. 456.

publicity of architecture was itself a stage on which the mass audience formed its opinions, and a site on which the social values of modern architecture were, of necessity, worked through. To discussions of the transformative socialist potential of modernism, the Tugendhat House offered only a counter-model. Its photographs projected a strangely distilled, purely visual experience of architecture. The printed page, sacrificing the sensorial effects so important to Mies, offered in exchange a compensating breadth of circulation. But the fundamental alteration to the thing itself, only partly camouflaged by the authority of photography, had then to propagate its own terms of discussion.

One sort of camouflage confusing our reading of architectural photography is the apparent *veracity* of the photographic image, operating in contrast to the less visually explicit spatial *distortion* of lens types. There is a basic disconnection between what we *see* and what we *get* on two levels (space versus image surface; and the diverse image surfaces encoded by different lens selections). This unhinging of knowledge or certainty from artifact (in this case, building) is one of the most recognizable and significant operations of photography, what Roland Barthes indicated when describing the 'pure spectatorial consciousness' of the photograph.<sup>79</sup> It is particularly in force in an architectural context. No matter what one *knows* about the wide-angle lens, the picture works against that knowledge, declaring itself a document containing compelling information about space. It is on this level that the spatial information depicted in the image might act on the

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<sup>79</sup> Barthes, commenting on the seemingly evidentiary nature of the photograph, further noted, 'the absence of code disintellectualizes the message because it seems to found in nature the signs of culture. This is without a doubt an important historical paradox: the more technology develops the diffusion of information (and notably of images), the more it provides the means of masking the constructed meaning under the appearance of the given meaning.' See R. Barthes, 'The Rhetoric of the Image' in *Image, Music, Text* (New York, 1977), pp. 45-46.

conscious creation of space, where architects deliberately strive to enact the spacious grandeur created by the wide-angle lens.<sup>80</sup>

To return to the starting point of this chapter—the ostensible subject of these pictures—or rather, the subjectivity they imply. To understand this, one might imagine moving through the space of these pictures. In movies shot with a wide-angle lens, a figure approaching the camera from a distance moves with exaggerated slowness until reaching a certain point in the image, the point at which middle ground gives gradually over into foreground. At that point the pace picks up, and the figure hurtles with unexpected speed by the camera and out of the frame of the shot. Were we to imagine a figure entering these pictures, the figure might be excessively small, as are the two little girls in the depth of the picture on the upper terrace (fig. 4.1). Or it might be close to the camera and excessively large. Or, more likely, occupying some of the extra space that the wide-angle lens has added to the middle distance. Conversely, if we consider the subject implicit in the camera eye (what Barthes calls the *operator*), such a subject is not required to scale canted surfaces, fly like a bird, or assume the position of a worm. The subject of these pictures walks firmly on flat surfaces, viewing architectural space with gravity, but equally with the distending, modern prosthesis of the wide-angle lens.<sup>81</sup>

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<sup>80</sup> Numerous examples might be offered here; for the present discussion, Mies's own perspective sketches, dated after the Tugendhat and Barcelona commissions, mimic the space of these earlier photographs, constituting 'wide-angle sketches.' See my earlier discussion of this issue, and sketches for the Krefeld Gold Club of 1930, the Gericke House of 1932, and the Hubbe House and Court House Studies of the years following 1934, all in Arthur Drexler, (ed.), *The Mies van der Rohe Archive* (New York, 1986-1992), vols. 4 and 6.

<sup>81</sup> My thanks to Tom Drysdale, (New York University), for discussions of the effect of different lens varieties on the representation of space, and on lens and camera types in common use in Weimar Germany.

When Theo van Doesburg described the new space of abstract film, he identified depth as its distinguishing characteristic. Within this spatial depth, the filmgoer would find new experiential dimensions, the kind of optical experience that led Karel Teige to call Man Ray "the Columbus of the new continent of optical poesy."<sup>82</sup> It is possible that we could locate the space of architectural photography, in modernism, in this realm, the realm of *Zukunftglauben*, of futuristic utopianism. Van Doesburg wrote, about the filmic surface (at a time when film and photography were understood to belong to the same order of product<sup>83</sup>), "it is just this surface that must be burst, in order to discover behind it the new deep, the space-time film continuum. There and nowhere else lies the constructive sphere of creative film! The poly-dimensional space that sculptors have vainly tried to create ever since Michelangelo's *Entombment of Christ*, will finally come to life through the means provided by refined film technique."<sup>84</sup> Van Doesburg's reference to sixteenth century art, however, corrects the impression: the space of these photographs, as much as it instantiates "a new deep," does so fully within the parameters understood as belonging to perspective vision.<sup>85</sup> But in them, this same system, that Erwin Panofsky described as "objectivity carried over into the domain of the phenomenal," has been subjected to internal disruption, not always detectable and

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<sup>82</sup> See the entire text of Teige's interesting essay, for a fuller understanding of film theory in the 1920s: Karel Teige, 'Zur Ästhetik des Films,' *Kunst für Alle*, 9 (1925), pp. 332-339.

<sup>83</sup> Barthes blasted this notion apart in his 'Rhetoric of the Image' as follows: '...the distinction between film and photograph is not a simple difference of degree but a radical opposition. Film can no longer be seen as animated photographs: the *having-been-there* gives way before a *being-there* of the thing...' "Rhetoric of the Image", p. 45.

<sup>84</sup> '... gerade diese Fläche muß gesprengt werden, um hinter ihr die neue Tiefe, das raumzeitliche Filmkontinuum zu entdecken. Dort und nirgends anders liegt die schöpferische Sphäre des gestaltenden Films! Der poly-dimensionale Raum, den die Bildhauer seit Michelangelos "Grablegung" vergeblich zu gestalten versucht haben, wird einmal mittels raffinierter Filmtechnik lebendig werden.' Theo van Doesburg, op. cit (note 30), p.249.

<sup>85</sup> "Die neue Tiefe" might also be translated "The new depth;" I use the more old-fashioned noun "Deep" for its spatial connotations, less present in the vector "depth."

often easy to overlook.<sup>86</sup> This 'new deep', what we might also describe as the new space of the surface of architectural representation, mimics the regularized systematic space of perspective. But at the same time, it draws us empathetically into a place our bodies could never in fact occupy, without undergoing their own dimensional and temporal extension. The 'new deep' of the architectural photograph turns out, in this case, to be something like a wormhole, a transport zone—but only that—into the modernist spatial utopia of perceptual enlightenment. Its promise—fully architectural; its means—graphic and two-dimensional. Its attraction—precisely that it distances the concrete, imposing the viewing regimen of the visual arts onto architecture, shooting that which we *can* grasp with all senses off into the domain of the virtual.

## **Conclusion**

Finally, to conclude: it is not surprising to find photographs of modern buildings projecting features we also associate with modern architecture. It is, though, interesting to consider the differences between the two, and to consider what gave rise to what. This is a question whose chief significance lies in the need for analytical precision in the study of interactions between different forms of cultural practice. It has long been noted that certain characteristics associated with modern architecture have their roots in photographic practices. But to what extent did this conflation impress itself on subsequent architecture culture? The character of these images subsumes the explicit essentialist goals of modern architecture as later theorized most clearly in the United States under the term "International

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<sup>86</sup> Panofsky's famous essay, "Perspective as Symbolic Form," is pertinent not only for its clear statement of the problematics of perspective, but also for its historiographical timeliness. Written in 1927, Panofsky's essay commented directly on contemporary theorizations of both perspectival space and the so-called "fourth dimension" embraced by El Lissitzky and others in these years. See also Christopher Wood, "Introduction," in Erwin Panofsky, *Perspective as Symbolic Form* (New York: Zone Books, 1991).

Style"—the notion of a ubiquitous, acontextual architecture, one that could be transferred with little alteration from place to place. But was the very notion of the International Style itself derived precisely from images like these, ambivalently wrapped up in the development of photographic abstraction, and the projection of architectural abstraction as transformed by photography?<sup>87</sup>

If architectural photography is defined by collusion and contradictions between abstract composition, evidentiary document, and a hidden dimensional distortion in implied perspectival space, it is also the means by which more general ideas about abstraction, derived from the painterly avant-gardes, most successfully entered the arena of architecture. Thus it appears that architectural photography was a covert force in the development of a contradictory notion—that of architectural abstraction. The pursuit of abstraction in two-dimensional media necessarily maintained a strict separation between the space of perception and the space of experience. The same was not the case in architecture. El Lissitzky's efforts to build something like an architectural equivalent of pure modern abstraction, both in his Proun spaces, and more successfully in his *Demonstrationsräume*, terminate one line of investigation. More recently, scholars have defined internationalism in architecture as analogous to abstraction in painting. If they are proved correct, it lies in the realm of the imaged to do the proving: internationalism in architecture was, first and foremost, the result of photographic circulation and its concomitant modes of cursory and inattentive seeing. These issues form the subject matter of the concluding chapter of this study.

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<sup>87</sup> See Alfred Barr's Introduction to *The International Style*: "And as in this book the text itself is intended as an introduction to the illustrations, one need scarcely speak at length about them." Henry Russell Hitchcock and Philip Johnson, *The International Style* (New York: The Museum of Modern Art, 1932), p. 15-16.

## **CHAPTER FIVE VARIANTS ON MODERNIST ABSTRACTION**

The human skull represents the infinity of movements for concepts; commensurate to the infinite cosmos; and like the cosmos possesses no ceiling, no ground, only offering space for projections which allow the appearance of gleaming points, starts in space. In the human skull everything originates and perishes exactly as in the universe: comets, epochs, everything originates and perishes in man's conceptions.<sup>1</sup>

Chapter Three located the space of Mies's architectural photography within the organizational constraints of Weimar architecture, and in relation to its appropriation for the ideological battles that accompanied modernization in Germany. Chapter Four described this new space as a virtual space created by collusion and contradictions between abstract composition, evidentiary photographic documents, and hidden dimensional distortions in implied perspectival space. Both of these chapters were preceded by the earlier discussion, in Chapter Two, of Mies's architectural investigations, showcased in projects in Stuttgart in 1927, for the Barcelona Pavilion in 1929, and for the Tugendhat House in Brno throughout the two years preceding 1930. These investigations went into the potential opportunities offered to architecture by the new media of photography and film, and were rather strictly defined as an overall search for new conceptual territories of architectural investigation. Mies addressed himself, in these years, to an intensive search for ways in which architecture might address challenges of industrial modernity, conceived by him as primarily conceptual and experiential in nature. His social and political commitments were then configured to promote this conceptual agenda within organizations like the Deutsche Werkbund.

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<sup>1</sup> Kazimir Malevich, "Suprematism as Non-Objectivity," in *Essays on Art 1915-1933*, ed. Troels Anderson, trans. Xenia Glowacki-Prus and Arnold McMillin (Copenhagen: Borgen, 1971).

One might expect the architectural photographs of Mies's built work to advance goals similar to those he pursued in his architectural work. They did so, in that they successfully depict a conceptual space as much as a physical space, as described more fully in Chapter Four. But within this analogous presentation of Mies's buildings through photographs, a number of differences crept in, almost entirely the result of the transfer from one medium to another. These differences were extremely fertile and influential in the wider dissemination of Mies's work. There is no sense, in the mind of this researcher, that they present anything like an 'incorrect' picture of Miesian modernism. They do what photographs generally do, which is to offer a photographic interpretation of physical material. And they are symptomatic of a similar process that characterized European modernism at large, even while different architects using different photographers present specific problems that differ in many details from those discussed here.

This final chapter explores a larger implication of this study more fully: the implication that architectural photography was one of the means by which two-dimensional abstraction, a concept ambivalently imported from the painterly avant-gardes, successfully and influentially entered the arena of architecture, particularly through the work of Mies. This form of representational abstraction was significantly different from an analogous investigation carried on by Mies and others simultaneously, into the possibilities of an 'abstract' architecture in three dimensions, a subject discussed at length in Chapter Two.

It is not the purpose of this chapter (nor this dissertation) to suggest that the form of 'built abstraction' practiced most successfully by Mies and El Lissitzky in the late 1920s was in any qualitative sense 'better' than the ideas about two-dimensional abstraction spread through photography. No straightforward valuation of built space versus photographic space is intended—or even, in my view,

possible. In fact, perhaps the most interesting part of the process outlined here lies in the very seamlessness with which two media infiltrated one another, as described in at least two senses. The ways in which photography and film influenced Mies's work as an architect reveal an important means through which the tradition-bound practice of architecture adapted itself to calls for modernization growing out of the nineteenth century. These means are rendered perhaps more fascinating by the fact that they are newly-retrieved modes of investigation, ones whose mechanisms remained temporarily obscured, thanks to historical events, until recently. Indeed, if conceptually rarified and segregated from the rhetoric of social reform that accompanied much architecture of the 1920s, Mies's architectural investigations represent one of the most ambitious attempts to reintegrate architecture into contemporary cultural life. This might be considered the central task that modern architects set for themselves in the wake of critical judgments of the historicizing architecture of the later nineteenth century, not just a response to that century's overriding call for modernization. Mies's success in both modernizing the conceptual basis of architecture, and neutralizing the threat of historicist architecture is surely evident in his continuing importance to the field, both to historians and to practicing architects.

In addition, the ways in which photography re-infiltrated architecture at the other end of the process, through the images of Mies's buildings that spread one version of his architectural ideas far and wide, are equally fascinating. The claim here, not at all controversial, is that we must look to the development of post-World War II American architecture to trace the full effect of these documents on subsequent architecture. In order to do that, however, it was necessary to first investigate the original context of these documents. That has been the goal of this dissertation: to identify the photographic and architectural modes of Miesian

architecture in the Weimar years, and to indicate the points of contact between Mies's buildings, these photographs and their settings in the media, and the conceptual frameworks that buildings and pictures helped establish. Abstraction is possibly the most important of these conceptual frameworks, one whose subsequent presence in architecture has been nearly constant, if troubled and unclear. In this final chapter, I investigate the context of discussions of abstraction in architecture in the modern period, and briefly indicate ways in which architectural photography answered many of the calls for an abstract architecture—or answered many of the questions raised by such a concept in the modern period. While photography supplied the flat surface and virtual space so necessary to painterly abstraction, privileging a certain understanding of that term for architecture, it also helped obscure other fruitful investigations related to this paradoxical architectural concept.

### **Definitions of abstraction**

In embarking on a discussion of the term 'abstraction' in the context of the current project, a number of qualifications emerge. Since a kind of abstraction was integral to the process of formulating theories about classical architecture from the time of Vitruvius, and also appeared in the writings of Alberti, Ruskin, Semper, and many other architects and theorists, pinpointing an alternative version of *modernist* abstraction—initially derived from a wide variety of experiments in nineteenth- and twentieth-century painting—to apply to architecture has always been difficult. Jonathan Crary's implicit widening of the possible definitions of this term proves useful for specifically architectural applications, in that he broadens the scope of

influences.<sup>2</sup> But in fact, architects watched the experiments of painters and sculptors very carefully, and seem to have understood the term relatively narrowly, within the confines of avant-garde experiment. The word 'abstraction' had to be qualified and altered in order to be re-directed from painting to architecture, just as it had to be when re-directed from architectural classicism to architectural modernism. This process has never been done very tidily. In addition, photography further complicates the picture. Photographs are acknowledged 'abstractions' of their subject matter. Non-abstract photographs nonetheless qualify as 'abstractions,' if only in the ways in which they reduce and summarize quantities of information.

There are, then, at least three entirely different contexts for the term, each one including a very different meaning, that are relevant to this discussion. First, abstraction might be described as an interpretive mode for transferring ideas from natural objects or mimetic forms of representation to a non-mimetic language of architecture (operative from Vitruvius, to Semper, to Le Corbusier, and beyond). This context is generally associated with Classical architecture, and neo-classicisms of various kinds, and emerged from the earliest attempts to provide an explanation of the Classical orders as having developed from natural forms.

Second, the term describes a movement in painting that privileged an interpretive representational mode that itself derived only indirectly from visual perception of physical phenomena, but quite directly from modes of visual perception themselves. Thus we might locate one important launching in the experiments of Impressionists and post-Impressionists, who regarded modes of

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<sup>2</sup> Jonathan Crary has explored this terrain in two books: see *Techniques of the Observer* (Cambridge, Mass.: MIT Press, 1989) and *Suspensions of Perception* (Cambridge, Mass.: MIT Press, 1999).

seeing as starting points for painterly experiment.<sup>3</sup> Later painterly investigations departed from stable physical models (first abandoning land- and cityscape, then successively abandoning objects altogether), and ultimately produced the visual abstraction of modernist painting, graphic art, and photography; this form of abstraction might better be designated as formal or compositional abstraction. But what that subsumed is a matter for longer discussion.

Third, abstraction describes a process. Black-and-white photography reduces a three-dimensional object to a two-dimensional surface, stripping away color, as a further reduction. This definition of the term is dependent on the notion of abstraction as a process of reduction of information. It arguably subsumes the other two definitions, in an overall general sense. But in order to mount this discussion within the historical framework in which it is relevant, the first two definitions, as historically contingent and medium-specific as they are, still need to be distinguished from the general definition of the term that is nevertheless still operable. This definition is understood here to describe a process, itself not historically contingent but rather continually operative over a broad historical span. These three definitions of the same term cover a great deal of diverse ground, a fact that indicates the difficulty of using any single definition to help generate the new, specifically architectural definition that is sought here. This fourth definition is intended to capture a relatively precise understanding of architectural abstraction in the modern period. Nevertheless, all three of the definitions outlined above are relevant to such an enterprise; it is my current claim that abstraction in modern

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<sup>3</sup> On relations between Impressionist painting and photography, see Kirk Varnedoe, "The Artifice of Candor: Impressionism and Photography Reconsidered," in Peter Walch and Thomas F. Barrow, *Perspectives on Photography* (Albuquerque: University of New Mexico Press, 1986), 99-124. Varnedoe's harsh dismissal of other scholars is disturbingly unilateral; but his discussion of the overall historical context is useful and insightful.

architecture rests on a rather pragmatic or *ad hoc* conflation of the three, but that it equally requires careful delineation and a new vocabulary.

Interest in the concept of abstraction has been renewed in the past decade, partly in relation to the return of abstract painting over the last two. Work on architecture and abstraction continues to rehearse the old hierarchy: abstraction emerging from painterly practice, architecture justifying its own version of abstraction (interpreted in terms of a purified language of form) by recourse to painting history and theory. Neil Levine reinforced this hierarchy in a 1986 article on Frank Lloyd Wright, in which he attempted to catapult Wright into a position of centrality within modern architectural study by drawing a lengthy analogy between Wright and Picasso, as two artists who both use 'figural' motifs within a generally non-figural framework. Needless to say, the definitions of these terms become very sticky, largely because the history of painting and that of architecture are so difficult to assimilate to one another.<sup>4</sup> Similarly, the philosopher-critic Andrew Benjamin has launched the most sustained revision of abstraction to touch on architecture circles: he, too, sees it in terms of a painting genealogy into which architecture must somehow be shoe-horned. In order to reincorporate space into this new narrative on abstraction, Benjamin and the writers he included in his 1995 special issue of the *Journal of Philosophy and Aesthetics* interpreted abstraction as a concept defined nearly exclusively by the Abstract Expressionism of post-War American painters. Into this 'world of Greenberg,' which ignores all developments before the Second World War, Benjamin can then inject a new spatial narrative drawn from Gilles

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<sup>4</sup> Neil Levine, "Abstraction and Representation in Modern Architecture: the International Style of Frank Lloyd Wright," *AA Files* 11 (Spring, 1986):3-21.

Deleuze and Félix Guattari.<sup>5</sup> But Deleuze and Guattari did not invent the notion of abstraction as a spatial construct—as a territory—although their discussion of it adds new and very tasty meat to an old bone. That achievement lies in the hands of nineteenth-century critics, historians, and theorists. And those who brought the concept of spatial abstraction most evidently into the visual arts—Kazimir Malevich and Eleazar Lissitzky, in addition to Wassili Kandinsky, Piet Mondrian, and Theo Van Doesburg—were themselves closely connected to architecture circles, as discussed below.

It should be understood at the outset that this imprecise term, ‘architectural abstraction,’ has very definite spatial implications that have no unqualified dependence on the medium of painting. Instead, the sort of spatial abstraction attempted by modern architects depended on the notion that abstraction as the painterly projection of utopic space—an idea that was still alive for the Abstract Expressionists—had a corollary in built space. This corollary ‘constructed abstraction,’ radically under-theorized by historians and critics, depended on the ideas best expressed by the epigraph at the beginning of this chapter, by Malevich: “In the human skull everything originates and perishes exactly as in the universe...” The remainder of this chapter explores this claim, and its implications for the subset of painterly abstraction relayed by the architectural photograph.

### **Architecture and Abstraction**

‘Architectural abstraction’ is currently a term with a dubious history and an unclear meaning over a very long time span. It was irregularly, sometimes reluctantly, used to describe a central task facing modern architecture. But

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<sup>5</sup> Andrew Benjamin, “Introduction,” and John Rajchman, “Another View of Abstraction,” in Andrew Benjamin, ed., *Abstraction Journal of Philosophy and the Visual Arts 5* (London: Academy Editions, 1995), 16-24.

painterly interpretations of abstraction that circulated in Europe in the early twentieth century had their birth much earlier, in the changed understanding of how vision is constituted that grew out of the late nineteenth century. These new conceptions of vision exercised broad influence over all aspects of avant-garde culture. Architecture was particularly sensitive to the mandate of modernist abstraction as it had developed by the early years of the 1920s, since that concept was so often described in terms of a projected spatiality—abstraction as the means by which to depict an imagined physical space of immense potential. This was especially true for the Russian avant-gardes—the Suprematists most of all, but also Russian Futurists and Constructivists. The discourse surrounding modernist abstraction was also central to Mies van der Rohe’s own architectural interests. Thus the photographic abstraction that characterized the images of Mies’s two most significant Weimar commissions—not solely a function of photographic composition, but also of abstraction as a process of reduction, of essentializing—is in complicated play with the architecture itself. It is the relationship between these photographic and architectural abstractions that I explore here.

If architectural photography was a covert force in the development of one particular version of the contradictory notion of architectural abstraction, then the next piece in this puzzle traces the development of that concept: where it came from, conceptually; and what it led to in concrete ways. Abstraction in two-dimensional media necessarily maintained a strict separation between the flat surface of the work and the physical space that surrounded it. The play between an imagined or projected reality, and the virtual status of that construct unambiguously declared by the surface of the canvas, was an essential component of abstract painting. But the same was not unilaterally the case in architecture,

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although 'visionary architecture' had always been hospitable to a wide variety of spatial abstractions contained within a two-dimensional surface.<sup>6</sup> El Lissitzky's efforts to *build* this version of pure abstraction in the mid 1920s, discussed below, terminate one line of investigation, in my view, but open up another. And they make especially evident the difficulty of tracing the genealogy of abstraction as it entered architecture.

Part of the difficulty lies in pinpointing the precise meaning of this word for modernist architects and critics over the course of the twentieth century. A preliminary survey reveals considerably more widespread use of the term 'abstraction' in post-World War II literature on architecture.<sup>7</sup> Pre-War modern architects and their defenders were far less eager to use the word in reference to architectural work. But in the postwar period, the word came into more frequent use, with a corresponding widening of possible interpretations for its meaning. Richard Pommer has explained the dearth of writing on architectural abstraction before World War II as follows: "In the 1920s...there was little desire to talk about abstraction in architecture, in good part because architects didn't have to. The contrast with the world of reality of which van Doesburg wrote came automatically with every building you conceived in glass and steel and without ornament. The new buildings stood out from the traditional architecture, and by that means alone could be equated with the new abstract painting and its rejection of the world

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<sup>6</sup> See Robin Evan's discussion of the architecture of Guarino Guarini, and of the painted architecture of Andrea Pozzo, in *The Projective Cast: Architecture and Its Three Geometries* (Cambridge, Mass.: MIT Press, 1995).

<sup>7</sup> Although I have repeatedly encountered evidence for this in a variety of texts, the simplest might be the following: a sweep of the periodicals indexes, for the terms 'architecture' and 'abstraction' by date brings up no entries before 1945; a smattering of entries between 1945 and 1980; and then a large group of entries from 1980 to the present. In the Avery Index, for example: 1900-1940 brought up no entries; 1940-1980 brought up six, all post-1959; and 1980-2004 brought up twenty-four.

outside....an ideology, a set of beliefs...equated the new stripped-down forms with the collective society and the machine age."<sup>8</sup> Pommer's explanation may be sufficient, but the suspicious absence of this term from architecture writing is perhaps also due to another cause: that the term 'abstraction' was never quite the right term to describe what architects were trying to create. Currently, critics and theorists have resorted to 'autonomy' as a term to describe abstraction in architecture, perhaps inadvertently following Pommer's lead.

Recent critics have also gone further in this direction by defining architectural abstraction as a quality that simultaneously combines an embrace of aesthetic experience with an Adorno-esque negation of the same, ultimately in the name of mass society (and by extension, presumably, mass production).<sup>9</sup> But relations between mass society and notions of abstraction of all sorts are quite complicated, to put it mildly. We are hard put, I think, to settle on a notion of architectural abstraction that so readily accepts the self-representations of abstract artists, without skeptically considering the various motivations of the 1910s and 1920s avant-gardes, not to mention the longings of the post- and neo-modern architectural community.

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<sup>8</sup> Richard Pommer, speaking in the colloquium, "Architecture and Abstraction," Pratt Institute School of Architecture, printed in *Architecture and Abstraction*, special issue, *Pratt Journal of Architecture* 1 (1985): 58-63.

<sup>9</sup> See K. Michael Hays, "Odysseus and the Oarsmen, or, Mies's Abstraction Once Again," in Detlef Mertins, ed., *The Presence of Mies* (New York: Princeton Architectural Press, 1994), 235-248, for his description: "the abstraction of Mies's North American architecture arises out of a central tension in his overall architectural program, namely, that between the desire to desubjectify the aesthetic phenomena—to displace the subject-centered categories of experience, consciousness, interiority, and the like with the elementary bits and pieces of the object world itself—and the commitment to produce aesthetic experience—to maintain some last dimension of fully achieved engagement with form that the desubjectifying desire cannot wish to deny....Mies's aesthetic production will push back toward the ineffable limit condition of architectural form, to the silence, the abstraction that almost every analysis of Mies ends up declaring." 237.

As already noted, Pommer himself, along with Christian Otto, has defined internationalism in architecture as analogous to abstraction in painting.<sup>10</sup> This is a somewhat surprising claim, further confirming the instability of the concept of abstraction for architecture. But further than that, I would draw a distinction (and a connection) between the desires contained in the constructed version of modernist architectural abstraction, and the experience provided in the photographic representation on which its internationalism was built. What was removed in the translation from building to photograph was precisely what allowed dreams of a (painterly) projected reality to enter in. The distance between the metonymic surface of the architectural photograph, and the building it depicted, was precisely a space for the imaginative play of a utopic concept like painterly abstraction. Pommer and Otto, by linking internationalism to painterly abstraction, leave open the terrain I wish to explore—i.e. the terrain of constructed abstraction.

### **Contrary modes of abstraction**

Photography and architecture, on the face of it, have a similarly problematic relationship to the concept of abstraction as it developed among the avant-gardes in the pre- and post-World War I period. Both are directly grounded in their own version of physical space: architecture in constructing space; photography in recording and interpreting it. Although both media pursued abstraction in the 1920s and 30s, both shared a similarly paradoxical relationship to the notion of abstraction as received from painting and graphic arts. And each made, I would argue, similarly creative adjustments to their own existing modalities in confronting the challenge presented by modernist abstraction in painting and the graphic arts.

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<sup>10</sup> See Richard Pommer and Christian Otto, "Weissenhof and the Politics of the International Style," *Weissenhof 1927 and the Modern Movement in Architecture*. Chicago: University of Chicago Press, 1991, 158-166.

Photography pursued abstraction in a variety of ways: in the deep, liquid space of the photogram; through the destabilization of existing visual conventions; and with newly-invented modes of photographic recording like those pioneered by Etienne-Jules Marey and Eadward Muybridge, to name just a few productive avenues of investigation.<sup>11</sup>

Architecture, in turn, explored forms of abstraction in 'visionary architecture', as pursued in two-dimensional representation, over a broad historical span.<sup>12</sup> But in addition, in the modern period architects relocated desires analogous to those found in painterly projection into bodily experience of space; the play between flat surface and projected depth showed up in architecture as a play between physical phenomena in space and their internal sensory effect on the occupant, drawing as much from music and performance as from visual art.<sup>13</sup> As the opening epigraph to this chapter makes clear, it was a small but critical jump from the notion of an aphysical abstract space (as depicted in abstract painting) to the conception of that space as internal to human consciousness and the physicality of the brain: an understanding that the abstract space of modern art

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<sup>11</sup> For a fuller survey of this concept in photography, see Thomas Kellein and Angela Lame, *Abstrakte Fotografie*, (Ostfildern-Ruit: Hatje Cantz, 2000).

<sup>12</sup> The bibliography on this subject is very large and growing. For a particularly interesting recent essay, see Erika Naginski, on Piranesi: "Romanticism's Piranesi," in Christy Anderson, ed. *The Built Surface. Architecture and the Pictorial Arts from Antiquity to the Enlightenment*, vol. 1 (Aldershot: Ashgate, 2002). Naginski discusses the relations between the projected spaces of Piranesi's drawings, and the historiographical response in the nineteenth century, to those spaces as they resonated with contemporary concerns. She thus connects an old source to a series of relatively contemporary concerns, as sketched here. In addition, we might cite Bruno Taut as the most pertinent exemplar of drawing as a tool for envisioning an 'abstract' architecture, in his crystalline Alpine Architecture projects. See Rosemarie Bletter, *Bruno Taut and Paul Scheerbart's Vision: Utopian Aspects of German Expressionist Architecture* (Ann Arbor, MI: University Microfilms International, 1974) and Matthias Schirren, *Bruno Taut: Alpine Architektur: eine Utopie* (Munich: Prestel, 2004).

<sup>13</sup> See Harry Francis Mallgrave and Eleftherios Ikonomou, *Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893* (Santa Monica: The Getty Center for the History of Art and the Humanities, 1994).

was, in effect, the internal space of the mind. Architects sought to make productive use of this understanding, which was initially based on nineteenth-century discoveries about the physiological basis of human perception, but that nevertheless seemed to negate the scientific determinism intrinsic to its earlier formulation. In other words, the notion of an internal world of human consciousness out of reach of scientific rationalism countered the understanding of human perception as a matter of quantifiable scientific method—the science of human physiology—with an anti-rational opposite. Thus the avant-garde undid the determinism of the nineteenth century, and replaced it with the myths of intrinsic essence and spiritualized aesthetics.<sup>14</sup>

But equally important for the argument here is the fact that architecture in the modern period relied on architectural photography for its dissemination. And the inevitable distance between object and image returned architecture to the two-dimensional surface—a virtual space that rendered construction both abstract and concrete at the same time—persuading us that the promised utopia of abstract (painterly) space could in fact be brought into existence, but obscuring another, very profitable line of architectural investigation. Certain modes of artistic communication privileged visual perception over other sensory modes; nevertheless, architects and artists in other media sought to explore new sensory possibilities through the eye *and* other senses, throughout the most productive years of modernist experiment. One might briefly note the synaesthesia of Art Nouveau and Expressionism.

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<sup>14</sup> See Jonathon Crary, *Techniques of the Observer*; *ibid*, *Suspensions of Perception*, for the first half of this story. Mysticism, theosophy, and embodied cult-like practices also influenced modernism. For a pertinent case, see Giertz, *Kultus ohne Götter*.

If Haus Tugendhat's photographic architecture describes a different spatiality, using a different visual model, from the architecture of the Tugendhat House, it is important to unpack the significance of this idea for modern architecture, in the context of the current discussion. How did the pictures project an architectural reality that then acted on architects and their broadly-defined clientele in the European culture world and subsequently? The spatiality of photographic architecture, at least in Mies's case, projected a space empty of figures and reduced of incidental objects of habitation, described by textured shades of grey, black and white, with a palpable immediacy in the foreground and a distant density in the background. This wasn't precisely the world in which architects executed their working drawings and built their ideas for clients. Instead, it was a conceptual world in which the dreams of utopic modernism most easily entered the world of architecture, in which architectural abstraction might be explored and developed in a two-dimensional mode, with cool, unchanging photographs leaving their built counterpart alone and in peace to fight the messy battles of budget shortfalls, good or poor construction, inhabitation, aging, and other trials of history—but also to mediate the domain of another form of 'abstract' experience—all by itself.

### **Abstraction**

The curtain is drawn aside from an image that is in reality the *idea* of an image, and thus it partakes of a different order of reality. The visible work is a symbol of an invisible beauty.

--Hans Belting<sup>15</sup>

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<sup>15</sup> Hans Belting, *Likeness and Presence. A History of the Image before the Era of Art*, trans. Edmund Jephcott (Chicago: University of Chicago Press, 1994; German ed. 1990), 484. Belting is discussing Raphael's Sistine Madonna of 1513. His discussion of the painting indicates the long genealogy of attempts to render something closely akin to modern abstraction.

The concept of abstraction has its roots in ancient philosophy, but was considerably updated and developed for modern use in the nineteenth century.<sup>16</sup> My purpose is not to trace the prehistory—or even the history—of abstraction throughout its many appearances. Rather, I will focus briefly on the coalescence of interest in this concept as it appeared in the early twentieth century among artists and architects. This is ground very well-covered, at least in art historical scholarship on modern painting. But how did writers address the question of architectural abstraction? Discussions of abstraction transferred into architecture tend to rely on the use of other, supplementary terms to describe this ambiguous concept: internationalism and autonomy are two such terms, although others might also be relevant: universalism, essentialism, purification. My initial questions here are as follows: what effect did discourse formulated around the problems of painting have on architectural discourse? How did the idea of an architectural abstraction as defined by Wilhelm Worringer play out among the twentieth-century architectural avant-garde? How much were efforts to modernize architecture following critiques of nineteenth-century historicism problematized or complicated by adjacent discourses? These problems are addressed here in reference to specific developments, mainly of the 1920s, and the conclusions arrived at through the explorations of modernism. Mies represents one end point, pertinent to this project. To mount this discussion, Worringer provides a logical starting point.

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<sup>16</sup> See Mark Cheetham, *Essentialist Theory and the Advent of Abstract Painting* (Cambridge: Cambridge University Press, 1991), for a discussion of the roots of twentieth-century abstraction in eighteenth and nineteenth century thought. Also see Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidian Geometry in Modern Art* (Princeton: Princeton University Press, 1983), for a discussion of related developments in nineteenth-century geometry and their effect on twentieth-century art.

Explanations for the ambiguous, tentative exegesis of a theory of architectural abstraction may lie partly with Worringer. Although not the first to discuss concepts of abstraction, his 1908 *Abstraction and Empathy* was an important art historical text with wide-ranging influence. The difficulties that accompany the transfer of ideas about abstraction into architecture are clearly reflected by the structure of Worringer's text, and the inconsistent attention given to the subject of architecture within it. In fact, Worringer's elaboration of the term "abstraction" depends precisely on a denial of qualities that might be considered specifically architectural. He located the 'urge to abstraction' in a fundamentally anti-spatial consciousness, as follows:

The urge to abstraction is the outcome of a great inner unrest inspired in man by the phenomena of the outside world; in a religious respect it corresponds to a strongly transcendental tinge to all notions. We might describe this state as an immense spiritual dread of space<sup>17</sup>

Worringer locates this 'spiritual dread' in 'the civilized peoples of the East,' who understood the purpose of art to lie specifically in resistance to the chaos of reality.

Worringer noted,

Tormented by the entangled inter-relationship and flux of the phenomena of the outer world, such peoples were dominated by an immense need for tranquility. The happiness they sought from art [consisted] ...in the possibility of taking the individual thing of the external world, out of its arbitrariness and seeming fortuitousness, of eternalizing it by approximation to abstract forms and, in this manner, of finding a point of tranquility and a refuge from appearances. Their most powerful urge was, so to speak, to wrest the object of the external world out of its natural context, out of the unending flux of being, to purify it of all its dependence upon life, i.e. of everything about it that was arbitrary, to render it necessary and irrefragable, to approximate it to its *absolute* value.<sup>18</sup>

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<sup>17</sup> Wilhelm Worringer, *Abstraction and Empathy. A Contribution to the Psychology of Style* (English ed., Cleveland: Meridian Books, 1967, German ed. Munich, 1908), 15.

<sup>18</sup> *Ibid*, 16-17.

We might recognize this analysis as a source reference for later investigations of artistic autonomy. The strategy mapped out by Worringer even shows up in architecture in efforts to clear out a blank space for action into which an architectural act might be inserted (discussed below), and was investigated by De Stijl and even taken up by Mies. Nevertheless, Worringer's text does not lend itself well to architectural interpretation on the face of it, a function of its declared resistance to spatiality and real space. Three-dimensionality was understood as not only *not* lending itself well to concepts of abstraction, but as running specifically counter to abstract art in its very definition, "since perception of three-dimensionality calls for a succession of perceptual elements." Worringer objected to this synthetic experience on a very basic level:

Suppression of representation of space was dictated by the urge to abstraction through the mere fact that it is precisely space which links things to one another, which imparts to them their relativity in the world-picture, and because space is the one thing it is impossible to individualize.....all endeavor was therefore directed toward the single form set free from space.<sup>19</sup>

He then went on in a later chapter to indicate the profoundly two-dimensional bias of his entire book:

Space is therefore the major enemy of all striving after abstraction, and hence is the first thing to be suppressed in the representation. This postulate is inseparably interlocked with the further postulate of avoiding the third dimension, the dimension of depth, in the representation, because this is the authentic dimension of space.<sup>20</sup>

Worringer considered architecture explicitly at a later point in his essay, but his very explanation is fraught with interesting reversals. Without reference to the

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<sup>19</sup> *Ibid*, 22.

<sup>20</sup> *Ibid*, 38-39.

terms he himself had brought into play, Worringer considered select architectures to be amenable to a concept of abstraction. These are: the Doric order of the ancient Greeks (in opposition to the Ionic order); Romanesque churches; and Gothic cathedrals. His analysis of the latter is perhaps the most problematic and interesting. The Gothic cathedral, Worringer argued, *is* susceptible to interpretation as an abstract concept; but it functions through empathetic means. Abandoning his former repudiation of spatiality, Worringer neither acknowledged this development as inconsistent (it is rather Hegelian), nor thoroughly explained how it was to be gotten over. Instead, he described the Gothic cathedral as partaking of both 'forms of self-alienation' (as he had earlier described both abstraction and empathy) in a kind of generalized aesthetic encomium to the very phenomenon he had previously discounted: space. His text runs as follows:

Faced with a Gothic cathedral, the question of whether its inner constitution is organic-living or abstract would throw us into perplexity.—By inner constitution we understand what may be described as the soul of a building, the mysterious inner power of its nature. Now the first thing we feel with the Gothic cathedral is a strong appeal to our capacity for empathy, and yet we shall hesitate to describe its inner constitution as organic....matter lives solely on its own mechanical laws; but these laws, despite their fundamentally abstract character, have become living, i.e. they have acquired expression. Man has transferred his capacity for empathy onto mechanical values. Now they are no longer a dead abstraction for him, but a living movement of forces.<sup>21</sup>

Worringer introduced here a new set of terms: 'inner constitution,' 'soul,' 'mysterious inner power,' and 'living movement of forces.' The organicism earlier associated with empathy was here recuperated, and redirected as an attribute of abstract construction. Worringer's use of language here included a fascinating reversal in his own work. In addition to 'organicism' as a positive attribute for art, 'dead abstraction' is avoided by the infusion of 'a living movement of forces.' We

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<sup>21</sup> Ibid, 138-139.

are surely meant to interpret this fusion in terms of Hegelian synthesis; with the 'abstract laws' of construction determining the organic order of construction. Nonetheless, there is a dramatic shift of ground, between the surface abstraction of the visual arts and the notion of organic abstraction in architecture, as outlined by Worringer. While he evocatively described a sacred building type (and it is only sacred buildings that his text addressed), Worringer abandoned the terms of his own earlier thesis and substituted a new set of terms of considerably diminished precision. Or rather, he shifted ground by substituting a notion of abstraction as process ('organic' laws of construction) for one of abstraction as a visual strategy of reduction or essentialization in artistic work. For architects attempting to explore abstraction in architecture, the means provided by this text were thus extremely general—although influential.<sup>22</sup> In terms of specific formal, spatial, or constructional definitions, the text leaves architecture to a very great extent outside of discussions of abstraction.

This exclusion (by encomium) is evident in the lack of consistency on the part of subsequent architecture critics and historians in addressing the same subject. In the light of what appears to be a largely non-existent discourse, the obvious question arises: why is this a point of discussion at all? why investigate the history of architectural abstraction? For two reasons. First, because a variety of writers *did* attempt to deal with the concept, as outlined in some detail below; and second, because the concept was so critical to general definitions of modernism. One of the mandates of modernism was directed towards abstraction across a set

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<sup>22</sup> Gropius's own adoption of the cathedral as symbol in the Bauhaus founding manifesto surely reflects Worringer's influence. The references to a 'living movement of forces' and the animation of mechanical values would have had general resonance in architecture, with specific results, thanks largely to the Expressionist work of Bruno Taut and the Arbeitsrat für Kunst, itself no doubt conscious of Worringer's importance. But none of these influences specifically describe an abstract architecture.

of affiliated disciplines (along with the related concerns orbiting around objectivity, universalism, purification). Architecture needed to join the discourse; and the terms under which it might do so, in the wake of Worringer's book, were still very unclear.

### **Spatial abstraction**

The work of art reflects itself on the surface of consciousness. It lies beyond reach, and disappears from the surface without a trace after its sensation ends. Here too a certain transparent, but strong, hard glass, makes direct internal relationship impossible. Here too is the possibility offered, to enter *into* the work, to become active in it, and to experience its pulsation with all senses.--Wassily Kandinsky<sup>23</sup>

Worringer was an influential force in describing abstraction for German culture—but he was not the only source. His advocacy of two-dimensional abstraction can be considered in relation to a parallel discussion that explored the realm of abstraction as spatial projection—that is, abstraction developed in two dimensions, but as a projection of three. These discourses map the concept we now call 'virtual space.' And where Worringer grew up in the art historical context of Wilhelmine Munich and Expressionism, this other movement came from various locations—including Russia (Suprematism), France (Cubism), Holland (De Stijl), even from Italy (Futurism).<sup>24</sup> Perhaps most significant for the present discussion, Kazimir Malevich and El Lissitzky both investigated forms of abstraction with specifically architectural implications. Malevich explored geometrical objects floating in implied unlimited space in his Suprematist paintings of the 1910s. Reaching the logical end of this trajectory around the time of the Russian

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<sup>23</sup> Wassily Kandinsky, *Punkt und Linie zur Fläche*, Bauhausbücher 9 (Munich: Albert Langen Verlag, 1926; reprint Max Bill, ed., Bern: Benteli Verlag, 1955). My translation.

<sup>24</sup> Worringer's connection to, and influence on, the Expressionists of the Blaue Reiter, the Arbeitsrat für Kunst, and the Novembergruppe is particularly significant in this regard.

Revolution, he followed the implications of his two-dimensional work through to the series of objects called *architektons* of the 1920s—objects that he claimed brought Suprematism into architecture.

Malevich regarded an architectural interpretation of Suprematism as a critical task, and spent a number of years developing ideas for Suprematist constructions between 1918 and his death in 1935 (fig. 5.1). The form of his *architektons* evolved over these years; in their initial development, a balanced tension between vertical and horizontal elements was maintained, but by the end of his life, Malevich was investigating increasingly monumental columnar forms, almost all of which were symmetrical. At no point in this development were the *architektons* to be literally interpreted as spatial containers—they had no projected architectural function identifiable with habitation. As purely monumental conceptual creations, we might note their close relationship with sculpture, and the fact that while their conceptual and formal intention operated at the scale of the building, their own rendering (as something akin to scale models) always operated at the scale of the object. They were not so much architectural models as indications of formal and spatial possibilities for architecture—an argument I would hold to even in the case of Malevich's few projected architectural projects, themselves only figured in drawings (fig. 5.2).

Where Malevich's Suprematist painting functioned precisely in the tension between a projected, cosmic world of floating objects beyond the surface of the canvas, and that surface itself, the inherently architectural problem remained unsolved in his constructions. Where Malevich *projected* the space and form of architectural abstraction, his efforts were critical for the generations that came

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after, in conceiving of the very notion. But his proposals did not signal precise ways in which to realize this paradoxical concept.

Malevich's younger colleague Lissitzky was trained as an architect. Perhaps for this reason, Lissitzky attacked the problem of abstraction in architecture more directly, basing his solutions on various sources, including Malevich, but also on Malevich's Constructivist rivals. Where the former's paintings functioned fully within the flatness of the canvas—always implying spatial extension through overlap, virtually never deploying projective geometries to describe objects in limitless space<sup>25</sup>—Lissitzky turned to projective geometry to describe three-dimensional objects floating in the ether. His preferred drawing method was axonometry. The Suprematists deplored this strategy: Malevich's student, Konstantin Rozhdestvensky, wrote about the series of painted investigations by Lissitzky called *Prouns*:

Sometimes the birth of Suprematist architecture is linked to the attempts to transfer painterly Suprematism to axonometry—but that is how prouns were born. But prouns are not Suprematist architecture. Not at all! Prouns lack what is most important in Suprematism: space filled with the dynamic energy of the life of the cosmos.<sup>26</sup>

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<sup>25</sup> By 1923, Malevich had turned to axonometric drawing to describe his *architektons* as potential practical buildings. Thus, his models, which functioned as sculptural objects with suggestive architectural implications, were joined by axonometric renderings at a relatively small scale. These drawings, for the most part, lack architectural detail and scale figures, but they do introduce colored planes. They seem to reflect the influence of Lissitzky and the DeStijl group. See illustrations of both modes of representation in Matthew Druitt, *Kazimir Malevich* (exh. cat., New York: Guggenheim Museum Publications, 2003).

<sup>26</sup> As cited in, Tatiana Mikhienko, "The Suprematist Column—a Monument to Nonobjective Art" in Matthew Druitt, *Kazimir Malevich*, 79-87. The citation continues, "They only contain Suprematist-like elements—but they are material and heavy; they can be fashioned out of plywood, painted, and mounted on a wall, but they do not radiate spatial energy. Prouns lack the Suprematist disposition." See also, in this context, Kazimir Malevich, "Suprematistische Architektur," *Wasmuths Monatshefte für Baukunst* 10 (1927), 412; Kazimir Malevich, *Suprematism: 34 Drawings* (Lausanne: Editions des Massons, 1974; original ed. Vitebsk: Unovis, 1920); and Kazimir Malevich, *Suprematismus—Die gegenstandslose Welt*, trans. Hans von Riesen (Mainz: Florian Kupfebreg, 1980; original edition 1920).

Where Lissitzky began with this series of two-dimensional spatial constructions (fig. 5.3), his most significant contribution to this discussion lies in his architectural projects and built work. Like Malevich, he attempted to construct abstract architectural space, but he distanced himself from Malevich by a critical act: Lissitzky worked with architectural interiors, where the inhabitation of space was a fundamental component of design from the start. Before shifting to a discussion of Lissitzky's work, a general discussion of architects' views on abstraction in the 1910s and 1920s sets the stage.

### **Architectural abstraction**

But we have seen that abstraction is a flight from the real, and the question arises as to whether the effort to rejoin reality...was not destined to fail precisely because of its own premises....tension toward the real was valid only so long as it remained just that, so long as it did not pretend to arrive at concrete results.

--Manfredo Tafuri and Francesco Dal Co<sup>27</sup>

Attempts to create and analyze 1920s architectural abstraction are complicated by the ambiguous nature of the discourse that surrounds them, historically and historiographically. Among the various groups that explored the idea, De Stijl embarked on an early attempt to integrate architecture into a program for abstract art. Wassily Kandinsky, too, had 'discovered' abstraction in painting long before 1913, by which date he had made the shift from figurative to 'non-objective' painting; he had defined abstraction in print as a process of purification, or elementarism, by 1908.<sup>28</sup> Theo van Doesburg and other proponents

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<sup>27</sup> Manfredo Tafuri and Francesco Dal Co, *Modern Architecture* (Milan: Electa, 1976), 112.

<sup>28</sup> The term 'abstraction' appeared in Kandinsky's first drafts for his essay "Die Farbensprache" in 1904, although his meaning seems to have clarified in the 1908 version of the text. See Matthias Halbemann, *Kandinskys Abstraktion. Die Entstehung und Transformation seines Bildkonzept* (Munich: Wilhelm Fink Verlag, 2000), 14 and R.C.

of De Stijl did likewise in the late teens and early 20s. The basic schema was as follows: each medium would refine itself to its inherent properties, and then reintegrate itself with other, similarly purified media. But this model did not coalesce with equal success in all art media. Kandinsky claimed a special place in his purifying artistic schema for painting, a medium that had made “a truly fantastic dramatic jump” in recent years. The art had “attained a level which imperiously demands that an exact scientific examination be made of the pictorial means and purposes of painting.”<sup>29</sup> Painting was thus at a critical juncture for further development, one that led painters into the exploration of painterly abstraction for the next decades.

Next to painting, Kandinsky mentioned two other media in the same passage: architecture, and music. He categorized these as occupying opposite positions, but noted the strong theoretical base of each. Architecture, “by its nature closely bound up with utility, consequently requires from its very start a certain degree of scientific knowledge.” Music, at the other end of the spectrum, had no practical purpose and “... has until today remained abstract.”<sup>30</sup> While Kandinsky thus signaled that the problem facing painting had already, at least in part, been

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Washton Long, *Kandinsky: the Development of an Abstract Style* (New York: Oxford University Press, 1980).

<sup>29</sup> The German text is: “einen tatsächlich märchenhaft gewaltigen Sprung....zu einer Stufe emporgestiegen, die nach einer genauer, rein wissenschaftlichen Prüfung ihrer malerischen Mittel zu ihrem malerischen Zweck unumgänglich verlangt.” Wassily Kandinsky, *Punkt und Linie zu Fläche* Bern: Benteli Verlag, 1955 (reprint of *Bauhaus-Bücher* 6 of 1926) 15; translated in Wassily Kandinsky, *Point and Line to Plane*, trans. H. Dearstyne and H. Rebay (New York: Dover, 1947), 18. Translation modified.

<sup>30</sup> The original German runs: “die naturegemäß mit praktischen Zwecken verbunden ist, mußte von vornherein gewisse wissenschaftliche Kenntnisse haben.” *Ibid.*, 14; “die bis heute allein für abstrakte Werke geeignet war.” *Ibid.*, 14. Kandinsky claimed for both architecture and music a shared intellectual basis—the one based on practical necessity, the other on a one-sided but continually developing scholarship: “So haben die beiden zueinander antipodisch liegenden Künste eine wissenschaftliche Basis, und es wird kein Anstoß daran genommen.” *Ibid.*, 14.

embraced by architecture (that is, the systematization of knowledge), he nonetheless also signaled architecture's difference from painting. And what architecture might offer painting by way of a model—"a certain degree of scientific knowledge"—did not represent the most critical concern for Kandinsky. That position belonged to abstraction, which came from music, far away from architecture on his spectrum of artistic media. This separation was underscored by Kandinsky's subsequent definition of abstraction, one based on a condition that architecture could never fulfill: "'abstract,' that means, isolated from the real environment of the material form of the material surface."<sup>31</sup> By contrast to architecture, music was fully integrated into Kandinsky's conceptual undertaking—it was in fact a model for him, as his exchanges with Arnold Schönberg indicate.<sup>32</sup> The form of abstraction that Kandinsky pursued as derived from its initial formulation in music was one of an important series of transfers between the two media that underlies Juliet Koss's discussion of the *Gesamtkunstwerk* as a precursor and model for modernist ideas about purification.<sup>33</sup>

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<sup>31</sup> The German is: "'abstrakt,' d.h. isoliert von der realen Umgebung der materialen Form der materiellen Fläche," *Ibid.*, 19. For Kandinsky's abstraction, see Matthias Halbemann, *Kandinskys Abstraktion*.

<sup>32</sup> See Theodor Adorno, "Über einige Relationen zwischen Musik und Malerei," in *Hommage à Schönberg. Der Blaue Reiter und das Musikalische in der Malerei der Zeit* (Werner Haftmann, ed. (Berlin: Nationalgalerie Berlin, 1974); Klaus Kropfinger, "Schönberg und Kandinsky", in *Bericht über den 1. Kongress der Internationalen Schönberg Gesellschaft Wien, 1974*, Rudolf Stephan, ed. (Vienna: E. Lafite, 1978); Jelena Hahl-Koch, *Arnold Schönberg, Wassily Kandinsky. Briefe, Bilder und Dokumente einer aussergewöhnliche Begegnung* (Salzburg/Vienna: Residenz Verlag, 1980); Karin von Maur, *Vom Klang der Bilder. Die Musik in der Kunst des 20. Jahrhunderts* (Munich: Prestel, 1985).

<sup>33</sup> See Juliet Koss, "Empathy and Abstraction at the Munich Artists' Theater," in *The Built Surface. Architectural and the Pictorial Arts from Romanticism to the Twenty-first Century*, vol. 2, ed. Karen Koehler (Aldershot: Ashgate, 2002), 91-110. Koss is currently at work on a book entitled, "The Total Work of Art," that documents the relationship between Richard Wagner's *Gesamtkunstwerk* and the increasing essentialism of modernism in the early years of the twentieth century. Koss traces numerous links between the two, noting the reliance of the original Wagnerian concept on conditions particular to theatre and stage design.

Architecture, on the other hand, appeared as a separate system for Kandinsky. This was the case in the passage cited above, from his 1926 text, but equally in an earlier piece on theater design of 1923. In this essay, "On Abstract Stage Synthesis" ("Über die abstrakte Bühnensynthese"), Kandinsky singled architecture out as the umbrella under which painting, music, and dance might be united.<sup>34</sup> Although in this essay Kandinsky was developing a theory of the reintegration of purified art forms, nevertheless architecture fails to fit comfortably within this scheme, so well suited to forms such as painting, sculpture, and graphics. Architecture remained a kind of container within which other abstracted modes might be re-integrated with one another. This is an echo of the Wagnerian *Gesamtkunstwerk*, in which architecture occupied a similar position. But in the process, the schema of purification characteristic of Kandinsky's theory failed to address the specific problematic of an abstract architecture. Architecture receded into the background, a framework for other arts. Its specific characteristics in this proposal remain veiled, even while Kandinsky insisted that each art was fundamentally characterized by its own essence.

A similar situation occurred within the milieu of De Stijl, with an important difference. Theo van Doesburg's commitment to and long engagement with architecture meant that De Stijl carried the investigation of an abstract architecture further than it had been carried by many other avant-gardes. For De Stijl, the container that architecture provided for the integration of art was itself a target for action. The elemental components of architecture, thought along similar lines to Kandinsky's elementarism for painting, were plane, mass, and space (evoking Kandinsky's point, line, and plane). But the extended, airless discussion of De Stijl

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<sup>34</sup> Wassily Kandinsky, "Über die Bühnensynthese," in *Essays über Kunst und Künstler*, Max Bill, ed. (Bern: Benteli-Verlag, 1955), 79-83.

principles laid out in van Doesburg's *Bauhausbuch, Grundbegriffe der neuen gestaltenden Kunst* of 1925, in 22 maxims for the new art, enlarged most on De Stijl's conception of the pictorial arts. Although he stated, "The content of all arts is the same. Only modes and means of expression are different,"<sup>35</sup> Van Doesburg's discussion of the process of transforming natural or material phenomena into aesthetic phenomena had painting, and perhaps sculpture, as its implicit base. Thus for example, he noted, "To the modern creative artist space is not a measurable, delimited surface, but rather the idea of extent which arises from the relationship between one means of formation (e.g. line, color) and another (e.g. the picture plane)."<sup>36</sup> This statement locates space itself first and foremost within the ambit of the painter.

In relation to De Stijl, Yve-Alain Bois discussed the relations between art media in his 1984 essay on De Stijl, "The De Stijl Idea." Dismissing buildings by architects who subsequently were affiliated with De Stijl, Bois confined his substantive discussion to the projects exhibited in 1923 at Léonce Rosenberg's *Galerie de l'Effort Moderne*, and to Gerrit Rietveld's work. Bois claimed that van Doesburg's "Counter Compositions," understood by Piet Mondrian as fully opposed to De Stijl principles in painting (and part of the reason for Mondrian's split from De Stijl), nevertheless found appropriate application in architecture.<sup>37</sup> Van Doesburg used counter-composition motifs as a means to mask out the existing architecture for the installation of projects like the Café Aubette in Strassbourg of 1926. Bois

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<sup>35</sup> Theo van Doesburg, *Grundbegriffe der neuen gestaltenden Kunst*, Bauhausbücher 6, (Munich: Albert Langen Verlag, 1925). English translation, *Principles of Neo-Plastic Art* (Greenwich Ct.: New York Graphic Society, 1968), 14.

<sup>36</sup> *Ibid.*, 7.

<sup>37</sup> Yve-Alain Bois, "De Stijl Idea," *Encyclopaedia Universalis*, vol. 17 (Paris: Encyclopaedia Universalis France, 1984; reprinted in Yve-Alain Bois, *Painting as Model* (Cambridge, Mass.: MIT Press, 1990), 101-122.

referred to this as an act of camouflage, such that an abstract architecture could be inserted only if it covered up the signs of non-abstraction that Bois, like van Doesburg, has associated with 'conventional' architecture. This act of covering—as a specifically architectural form of abstraction, a kind of negative masking out,—was supplemented by another method of realizing abstraction in architecture, discovered in the course of preparing drawings for the 1923 Paris exhibition. In this case, architect Cornelis van Eesteren's axonometric of a *maison particulière* served as the base for an overlaid drawing by van Doesburg that reduced architecture to the elements already named—plane, mass, and space (fig. 5.4). In this schema, architectural abstraction was approached. Bois pointed out that this version of an abstract architecture was still governed *by*, and was proposed *in resistance to* constructional necessities (that fell to van Eesteren to design), which in these projects still run counter to the move towards abstraction, in Bois' view. In other words, construction had not yet been integrated into the process associated with abstraction.

In his discussion of a small pavilion design for a Berlin exhibition of 1923, Bois noted the success of an earlier schematization similar to the villa projects for the Paris show, this time by Gerrit Rietveld and Vilmos Huszar (fig. 5.5). Bois interpreted this small proposal for an exhibition space (never executed) as a project in which painting successfully created abstraction for architecture. He noted,

the articulation of architectural surfaces (walls, floors, ceiling) could itself be elementarized by using the corner as a visual agent of spatial continuity. In this interior, colored planes painted on the walls do not stop where the wall surfaces meet, but overlap, continue around the corner, creating a kind of spatial displacement and obliging the spectator to spin his body or gaze around. Stretching to the utmost its own possibilities, painting solves a purely architectural problem—circulation in space.<sup>38</sup>

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<sup>38</sup> Yve-Alain Bois, "De Stijl Idea," *Painting as Model*, 115.

Thus here, abstraction in architecture resulted from the application of painterly modes in interior space. The specifically *architectural* strategy remained, as before, a process of neutralization to clear out a space in which painting could operate. This would constitute a purely negative description of abstraction in architecture; it entails a process of clearing of all traces of previous architectural language, in order to empty a space in which painting may begin to operate on the scale of architecture. This was certainly part of the project embraced by De Stijl; it was not, however, of long-lasting impact in architectural circles. Nor should it be confused with more engaged architectural experiments into the possibilities of the medium. The same sort of argumentation appeared in Bois' analysis of the van Doesburg/van Eesteren collaboration in Paris; the architectural means are still painterly and sculptural, not specifically architectural at all. But Bois lauded them for the degree of approximation they attained—that is, for having come closer still to a specifically architectural idea. His final discussion concerned the Rietveld-Schröder House of 1924, which he claimed finally embraced architectural abstraction in its incorporation of incremental elements (planes) into the structure of the house itself (fig. 5.6).

Bois's discussion indicates the degree to which ideas and standards from painting continue to be applied to architecture without a sufficiently sophisticated critical framework. In fact, the attempts by De Stijl architects to forge an abstract architecture were far from being fully resolved, because they failed to capture and promote 'essential' characteristics of the medium, as modernism in other realms sought to do. The qualities that render the Schröder House abstract, in Bois' view, cannot be distinguished from qualities that might adhere equally to a piece of sculpture—or indeed, to the well-known Red and Blue Chair, which Bois describes

as fully analogous to the house. But what might have constituted 'essential' characteristics of architecture were also not agreed upon generally.

The Rietveld-Schröder House is successful, in this view, for the closeness it maintains to properties of sculpture orchestrated by painterly means (color). This condition is of course implicit in van Doesburg's initial formulation of plane, mass, and space as the constituent elements of architecture.<sup>39</sup> But, if anything, Bois' analysis indicated the problems implicit in the concept both in a historical and contemporary (historiographical) sense. In short, it is difficult to consider De Stijl architecture as having been verifiably *essentially architectural*, although there is clearly much that is spatial, and even more that has to do with *implied* spatiality. In its desire to resort to painterly illusionism (the creation of implied spatial depth through color manipulation on a surface) in an architectural context, De Stijl failed to identify a condition of architecture that might have been considered intrinsic to the medium. How we might define the 'essence' of architecture in modernist terms is perhaps disputable. But by the logic of modernism, where all media were to be reduced to their essential properties, it was not enough to define architecture in terms that applied equally well to painting. This is at issue because the theorists of modern abstraction themselves *insisted* on the inherent properties of each artistic medium—that each medium had its own particular essence. But De Stijl's struggles raise the question of whether such an approach ever had meaning for

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<sup>39</sup> In the same text, van Doesburg described the analogous constituent elements of sculpture as volume and space, and relationships between the two. The assignment of mass to architecture and volume to sculpture might seem inverted; their meaning seems close. The third element of which architecture is composed, in van Doesburg's schema, is the plane; thus what distinguished architecture from sculpture was precisely this element. This relatively arbitrary assignment of a single formal element as the distinguishing character of an entire medium signals the confusion with which ideas of architectural abstraction were understood. Why is a plane not an element of spatial definition, or mass, or volume? Conversely, could a column not be considered another, similarly elementary component of an abstract architecture?

architecture—whether in fact architecture ever had a place in a discourse initially adapted from Wagner’s theorization of music and performance art, through contexts where its reification assumed theosophic and mythological overtones (Kandinsky, De Stijl), into a broad spectrum of the visual arts, no matter what its deferred spatial implications. To explore this question, the net might be cast a little wider.

Abstraction in architecture and the visual and performing arts was a specific concern of the Bauhaus in the years between 1923 and 1928. We might turn more directly to the publishing program of the Bauhaus to understand how the concept was intended to cross borders between media. Kandinsky’s *Punkt und Linie zu Fläche*, and van Doesburg’s *Grundbegriffe* were part of the *Bauhausbücher* series. The Bauhaus books included a wide cross-section of approaches to modern constructive and aesthetic culture. Piet Mondrian’s *Neue Gestaltung* (1925), Moholy-Nagy’s *Malerei Fotografie Film* (1925), Malevich’s *Die gegenstandlose Welt* (1927), and Albert Gleizes’ *Kubismus* (1928) also delimited the territory of abstract art, supplementing Kandinsky’s 1926 book on painterly abstraction. Books specifically on architecture included Walter Gropius’s *Internationale Architektur* of 1925, Adolf Meyer’s *Ein Versuchshaus des Bauhauses* of 1925, J.J.P. Oud’s *Holländische Architektur* of 1926, Moholy-Nagy’s *Von Material zu Architektur* of 1929, and Gropius’s *Bauhausneubauten in Dessau* of 1930.

Gropius, in his 1925 *Internationale Architektur*, followed the schema of elementarization laid out by Kandinsky and van Doesburg, but had difficulty defining the essential elements of architecture. First, he wrote, function constituted the essence of building. Gropius contrasted this functional essence to the formalism of the past, where building form was determined by technology (*Technik*), exterior

form, and means of representation. The 'new creative spirit', however, dictated the creation of things that functioned properly. For architecture, this required research into the essence of the thing (*Wesensforschung*), to be conducted in the areas of "mechanics, statics, optics, acoustics, and laws of proportion". Following this rather full roster of potential essences, Gropius then segued directly into a discussion of unification and objectivity in architecture, noting the importance of the individual act of creative genius. In other words, he gives every indication of having skipped the specific problematic of abstraction entirely. Instead, he recommended a more empirical approach, keyed precisely to the photographs used in his book:

By observing the illustrations in this book one can visualize: the efficient use of time, space, material, and money in industry and the economy decisively determine the range of features of all modern building-organisms: exactly minted form, simplicity in multiplicity, organization of all building units according to the functions of the building, the street, the means of transportation, reduction to typical forms, and their sequencing and repetition.<sup>40</sup>

Thus, the buildings themselves might be expected to reflect a list of qualities aligned with a sort of essentialization, but only in concert with forces of industry and the economy. That assessment was to be made by the contemplation of a series of photographic images within the format of a book. Gropius ended his short introduction with the suggestive statement: "The building masters of this book affirm the contemporary world of machines and moving vehicles and their tempo, they strive after ever-bolder means of creation, in order to overcome the earth's

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<sup>40</sup> Walter Gropius, "Vorwort," *Internationale Architektur*. Bauhausbuch 1 (Munich: Albert Langen Verlag, 1925), 5-8. The German runs: "Bei der Betrachtung der Abbildungen dieses Buches vergegenwärtige man sich: Die knappe Ausnutzung von Zeit, Raum, Stoff und Geld in Industrie und Wirtschaft bestimmt entscheidend die Faktoren der Gesichtsbildung für alle modernen Bauorganismen: Exakt geprägte Form, Einfachheit im Vielfachen, Gliederung aller Baueinheiten nach den Funktionen der Baukörper, der Straßen und Verkehrsmittel, Beschränkung auf typische Grundformen und ihre Reihung und Wiederholung." My translation.

inertia in reality and appearance."<sup>41</sup> Gropius was clearly torn between the mandates of fitting architecture to contemporary life, and the heady world envisioned within ideas of abstract utopia; like Hannes Meyer, he amalgamated the two into a futuristic urbanism.<sup>42</sup> Gropius's own work would take him increasingly into the world of modern industry and the economy, away from the then formalist discourse of the Bauhaus (as distinct from the earlier Bauhaus of Johannes Itten, and the later Bauhaus of Hannes Meyer). In the present argument, the split evident in Gropius's thinking about the task of architecture only increases the sense of confusion surrounding architecture's relations with the rest of the avant-garde and the notion of modernist abstraction.

Of the authors writing on architecture in the Bauhaus series, J.J.P. Oud comes perhaps closest to acknowledging the particular influence of painting in determining a concept of abstract architecture. In his essay "On Future Building-Art and its Architectonic Possibilities," written in 1921 and printed in the *Bauhausbuch* of 1926, Oud noted that painting preceded architecture in the development of an appropriate modern form of expression; he pointed to Futurism and Cubism as models for architecture, as, for example, in a passage analyzing the significance of Cubist painting for new architecture. After noting that "Cubism carried out the transition from the natural to the spiritual/intellectual" (*Geistigen*),<sup>43</sup> Oud continued:

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<sup>41</sup> Ibid., 8. "Die Baumeister dieses Buches bejahen die heutige Welt der Maschinen und Fahrzeuge und ihr Tempo, sie streben nach immer kühneren Gestaltungsmitteln, um die Erdenträgheit in Wirkung und Erscheinung schwebend zu überwinden."

<sup>42</sup> For a similar passage on the future of architecture, see Hannes Meyer's "Die neue Welt" ("The New World") in *Hannes Meyer. Architekt Urbanist Lehrer, 1889-1954*, (Bauhaus-Archiv, Berlin: Ernst und Sohn, 1989, 70-73).

<sup>43</sup> As Kandinsky and Expressionism had already done, long before Oud.

Following its internal driving force, [Cubism's] spiritual/intellectual tendency drives out the contingency of its natural model; letting go what is trivial, becoming tight in form and flat in color, the rigor of a pure painting art imposes itself, which through solely painterly means, through balanced proportion in placement and extent of color comes to space creation, and in this form, losing its right to exist as easel painting, it is of the greatest significance in showing the future of building art through its development of the element of color.<sup>44</sup>

Oud followed this passage by noting how little architecture had been affected by this 'process of fermentation,' how it had failed to overcome the desire to ornament, to trivialize, with a 'more spiritual/intellectual conception.'<sup>45</sup> Architects were instructed to take direct lessons from the advances of painting in its process of continual reduction of figurative subject matter and illusionistic space. Through the pursuit of this new conception, architects could hope to uncover the essence of building-art (*Baukunst*). Oud further noted that the removal of ornament from architecture was a necessary precondition for the development of an organic architecture analogous to the 'organic' painting constituted by Cubists and Futurists:

One could say comparatively, that ornament is for building-art what the natural object is for painting, i.e. an unsuitable medium and a triviality. Ornament on a building is—as natural objects in easel painting—not only an organ of the whole, of the work of art, but rather at the same time an organism in and of itself. Next to the eccentric, i.e. spatial relationship to the whole work, it thus has also a concentric, i.e. a limiting relationship to itself, which thus stands only in superficial connection to the whole. From the whole form an aesthetic duality therefore

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<sup>44</sup> J.J.P. Oud, *Holländische Baukunst*, Bauhausbücher 10 (Munich: Albert Langen Verlag, 1926), 67: "Seiner innerlichen Triebkraft folgend, verdrängt seine geistige Tendenz mehr und mehr die Zufälligkeit des natürlichen Vorbildes; was nebensächlich ist fahren lassend, straffwerdend in der Form und flächigwerdend in der Farbe, drängt sich die Konsequenz einer reinen Malerkunst auf, welche durch nur malerkünstlerische Mittel, durch gleichgewichtiges Verhältnis in Stand und Maß der Farbe zur Raumgestaltung kommt, und in dieser Form ihrer Existenzberechtigung als Staffeleibild verlierend, sich von der größten Bedeutung für die Entwicklung des Farbelementes in der zukünftigen Baukunst zeigen kann."

<sup>45</sup> Oud neglected any discussion of Expressionism in his Bauhaus book, as did Gropius.

emerges, which disturbs not only the organic unity of the whole, but also hinders architectural synthesis, which will be striven for in every direction, from the spirit of the time.<sup>46</sup>

Oud here defined specific mandates for architecture as derived from painting. The essential qualities of architecture were, for him, derived first from a notion of organicism whose clearest traits are balance or equilibrium (*Gleichgewicht*) and harmony; and second from these specific factors—removal of ornament and the investigation of color relationships in space. He concludes, “Ornament-free building-art requires the greatest possible purity of architectural composition.”<sup>47</sup> Here finally we find a specific proposal for abstract architecture. Oud not only theorized such building, but also proceeded to execute projects following his own new conceptual program. But the difficulty of translating this painterly concept to architecture did not thus disappear. It was simply transmuted from a conceptual difficulty to an operational one. It is difficult to build Oud’s abstract architecture.

Oud’s definition was more compelling than van Doesburg’s, and both clearer and bolder than Gropius’. But what it proposed for architecture had its own set of problems. The rejection of ornament from modern buildings (long since demanded by Loos) brought with it the requirement for an increased level of skill in building that proved inherently difficult in the Weimar period. Thus, an innovation in

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<sup>46</sup> Ibid., 50. “Das Ornament ist für die Baukunst, kann man vergleichsweise sagen, was das Natur-Objekt ist für die Malerei, d.h. ungeeignetes Mittel und Nebensächlichkeit. Das Ornament am Gebäude ist—wie das Natur-Objekt im Staffeleibilde—nicht nur Organ des Gesamtorganismus, des Kunstwerkes, sondern zu gleicher Zeit Organismus an und für sich. Neben den exzentrischen, d.h. räumlichen Beziehungen zum Gesamtwerke...hat es also auch konzentrische, d.h. einschränkende Beziehungen zum eigenen Selbst, welche letztere nur in äußerlichem Zusammenhang zum Ganzen stehen. Aus dem Gesamtbilde geht deshalb eine ästhetische Dualität hervor, welche nicht nur das Einheitlich-Organische des Ganzen stört, sondern auch eine baukünstlerische Synthese verhindert, wie sie vom Geiste der Zeit nach jeder Richtung hin angestrebt wird.”

<sup>47</sup> Ibid., 69. “Eine ornamentlose Baukunst erfordert die größtmögliche Reinheit der baukünstlerischen Komposition.” Immediately preceding this statement, Oud noted, “Ornament is the universal remedy for architectural impotence!”-- “Ornament ist das Universal-Heilmittel für baukünstlerische Impotenz!”

building intended to purify architectural meaning, significantly complicated the process of construction. Ornament was commonly the means to cover up infelicities in construction—unevenness of surfaces, difficult connections, crudely manufactured building components. In addition, the mandate against ornament tended also to require acceptance of the flat roof, another source of controversy for modern architects, and a cause of increased cost and ideological strife. Thus again, the move to abstraction in architecture seemed to carry with it at every turn a kind of inherent tension with respect to processes of materialization and construction. While painters suffered certain similar technical difficulties in the rendering of painting surface, the difference in measure and kind is incomparable. In its constructed objects, abstraction as derived from painting was inherently problematic for architecture.

Van Doesburg had identified this difficulty succinctly in 1926, when he wrote in the pages of *De Stijl*, "As used in connection with visual methods of expression, the term 'abstract' is extremely relative. 'To abstract' something implies one of those mental activities, in contrast to emotional spontaneity, through which certain aesthetic values are isolated from the world of reality. However, when such values were realized visually and applied as purely constructive means, they became real. Thus the abstract was transformed into the real, thereby illustrating the relativity of the term 'abstract.'"<sup>48</sup> Here van Doesburg identified a central problem, one that addressed both architecture and photography, and that indicates their relevance to the current discussion. Once built, an abstract architecture was no longer abstract, by the most basic definitions available for that term. Once built, it became (in the most literal sense) concrete. It is for this reason, I believe, that the term was not more widely used among modernists in the 1920s. At a time when all the

polemicists of modern architecture were watching their words very carefully, designating a constructed object in the world as 'abstract' left one vulnerable to certain ridicule; the term would have been considered an oxymoron. However, it is also important to note that what motivated painterly abstraction was equally present in the practice of architecture in the 1920s. The term 'architectural abstraction' may have gone partially underground; the investigation, however, remained at the forefront of progressive architects' agendas. The question then becomes: what were the principles identified and sought out by abstract painters, that also motivated architects? What is the analogous construct which architects sought? Although Richard Pommer has offered us a kind of *format* for abstraction in architecture (internationalism), his explanation gets nowhere near identifying what it was that architects wanted to identify in this search. Equally, what one might designate the 'negative project of abstraction' à la Adorno or Hays provides an equally insufficient explanation. But Oud might lead us back to the trail.

Oud seemed to offer a route for abstraction in architecture that others, including Mies, were quick to follow.<sup>49</sup> But while both were willing to settle modern architecture on concrete building norms, another investigation was taking place on the German front, one not entirely compatible with Dutch developments. Here we return to El Lissitzky. In the German context, by the mid-1920s, the name Lissitzky was synonymous with new investigations into architecture as an abstract system. Like Malevich, Lissitzky began to explore spatial ideas in painting long before he attempted to construct them. Also like Malevich, his subsequent efforts to build

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<sup>48</sup> As quoted by Richard Pommer in "Architecture and Abstraction," 58.

<sup>49</sup> Le Corbusier's relationship to the concept of architectural abstraction is complicated by the relationship of his painterly theory, Purism, to the Cubism that preceded it. Purism was, among other things, a resistance to the principles of Cubism; it thus seems to offer a different route from painting into architecture, one that is perhaps a two-way street.

what he had so successfully projected in two-dimensional space were marred by a basic contradiction that emerged in the transformation from concept to built space. Lissitzky's efforts were concentrated in two very profitable directions: into influential publications on the topic of abstraction and the various avant-gardes that practiced it;<sup>50</sup> and into exhibition interiors that provided the maximum amount of flexibility on a number of fronts. Lissitzky's *Proun Room* is probably the most well-known of his efforts to build the abstractions previously only depicted.<sup>51</sup> In fact, the two exhibition interiors already discussed in Chapter Two, the *Raum für konstruktive Kunst* at Dresden's Internationale Kunstausstellung in 1926, and the *Kabinett der Abstrakten* in Hannover in 1927, seem to offer more to a consideration of this theme. The *Proun Room* was itself an exhibition space, but what it exhibited might be fairly described by the Suprematist critique already cited above, in relation to Lissitzky's *Proun* compositions: "They only contain Suprematist-like elements—but they are material and heavy; they can be fashioned out of plywood, painted, and mounted on a wall, but they do not radiate spatial energy. Prouns lack the Suprematist disposition."<sup>52</sup> In fact, Lissitzky's *Proun Room*—so successful in its drawn iterations—does seem a strange exercise in its built manifestation. It depicts abstraction, following De Stijl, as a function of surface application, rather than 'building' it.

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<sup>50</sup> See El Lissitzky, "K. und Pangeometrie," in Carl Einstein and Paul Westheim, *Europa-Almanac* (Potsdam: Kiepenheuer, 1925); and El Lissitzky and Hans Arp, *Die Kunstisten*, (Zürich: Eugen Rentsch Verlag, 1925; reprint Lars Müller, 1990).

<sup>51</sup> On the *Proun Room*, see Éva Forgács, "Definitive Space: The Many Utopias of El Lissitzky's *Proun Room*" in Perloff, Nancy and Brian Reed, eds., *Situating El Lissitzky: Vitebsk, Berlin, Moscow* (Santa Monica: Getty Research Institute, 2003), 47-75.

<sup>52</sup> As cited in Tatiana Mikhienko, "The Suprematist Column—a Monument to Nonobjective Art" in Druitt, 80.

Lissitzky's exhibition spaces, by contrast, embraced a fuller architectural conception, in their function and use value: both constituted gallery spaces for the display of painting and sculpture (fig. 5.9). These spaces, perhaps in unconscious response to Oud, locate the space of painting fully *within* architecture, since the pictures were literally embedded within the highly articulated walls of the room. These walls were articulated, not as room-sized wall planes bounding the space, but rather as a series of very narrow vertical elements, painted black or white on alternate sides and mounted perpendicular to the wall behind.<sup>53</sup> Not only containing the paintings (and sculpture), the architecture also dictated the visual parameters within which painting would be seen. That is, the color of the 'background' shifted from black to white according to the viewer's position in the space—and never remained fixed for an entire wall at once, but shifted according to proximity and movement. Thus the shift of background color relative to the viewer's position in and movement through the space suggests architecture as the conditioning force behind abstract painting. This constituted an important shift from previous work on abstraction in architecture.

Maria Gough's recent essay appraised the effects of Lissitzky's two display rooms in terms of the optical disorientation central to their programmatic intent—to create a heightened consciousness of art as an object for visual display, means to an activated relationship between viewer and art work, through their striated walls.<sup>54</sup> As provocative as her discussion is, it seems to be based on a subtle but important architectural misunderstanding. Her affiliation of the surface treatment of

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<sup>53</sup> This treatment might be compared to the movable partitions at the Rietveld Schröder House.

<sup>54</sup> Maria Gough, "Constructivism Disoriented: El Lissitzky's Dresden and Hannover *Demonstrationsräume*," in Nancy Perloff and Brian Reed, *Situating El Lissitzky: Vitebsk, Berlin, Moscow*, 77-109.

the walls in both rooms—with some version of ‘open lath’ construction at Dresden, and of ‘steel frame’ construction at Hannover—obscures a more credible explanation. The walls in these rooms are based on a principle probably much closer to the *louver*, itself an applied system not to be confused with a structural system of any kind. The principle of the louver opens up the specific possibility of seeing one thing from one side, and something else from the other—both conditions fully controlled by the inhabitant of a given space. It suggests both visual control over an environment, and also the possibility of a kind of conceptual aperture—a looking beyond the walls of a bounded space. And it indicates a possible further trajectory of Lissitzky’s thinking, reminiscent of the possibilities Lissitzky did employ to allow for changing the positions of paintings on the wall.

Gough’s discussion distances Lissitzky’s exhibition rooms from any ‘totalizing’ intention. But the activist, liberative model she sketches needs to be assessed within the complicated history of abstraction in architecture, and the project of defining essential characteristics of the medium. In other words, Lissitzky’s contribution still took place within the larger history of modernism, one both essentialist *and* liberative. We might describe his interiors as relocating the entire discussion, much as Mies’s Glass Room (published adjacent to the *Abstrakte Kabinett* in *Die Form* in 1927, and discussed at greater length in Chapter Two) can be said to have done. In both cases, spatial abstraction bears little resemblance to painterly abstraction; in these display spaces, the activation of the inhabitant in relation to changing spatial effect seems to delineate a different model, one hinged on what we might call spatial self-awareness and corporeality. It embedded mobility in architectural planning, linking theatricality, performance, and film. Mies

investigated these qualities in work already discussed.<sup>55</sup> Both Mies and Lissitzky, relying squarely on the freedom inherent in exhibition space design, returned to Malevich's interpretation of the commensurability of the human skull and the cosmos, where "everything originates and perishes in man's conceptions." They have attempted to find a way into the cosmos through the eyes and other senses, and into the skull.<sup>56</sup> Their abstract architecture might be seen in relation to painterly utopia, but only if it is seen to be restating the problem. Instead of functioning through the tension between surface and projected depth, they locate architectural abstraction as a space that opens new conceptual and physical possibilities in and through the perceptual effects of perambulated space. While vision is a component of this approach, it is what is sometimes called 'an embodied visuality.' The role of the body—the full body, not simply the seeing eye—is at any rate critical to this constructed idea.

If the *Demonstrationsräume* of Lissitzky and the Glass Room project of Mies constitute something that I am designating an 'abstract architecture' (a term that comes to seem ever more inadequate), how widespread was their impact? To what extent could they be said to have inaugurated a new kind of architectural work? Unfortunately, as critical as they seem today to an understanding of the concept, they represent somewhat isolated historical attempts, not solely because of their short-term existence and provisional nature, a fact also true of the related Barcelona Pavilion. Both were exhibition installations, not longstanding

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<sup>55</sup> See Chapter Two.

<sup>56</sup> El Lissitzky's "K. und Pangeometrie," published in Carl Einstein and Paul Westheim's *Europa-Almanach* of 1925 is also relevant here. Similarly, Frederick Kiesler's work in Vienna and Paris is also related to Mies's concurrent projects in Berlin, particularly because of Kiesler's friendship with Mies. See correspondence in File K, LoC.

architectural projects that would survive in their immediate context. Both Lissitzky's *Abstraktes Kabinett* and Mies's room seem to have been used as evidence of the avant-garde nature of modern architecture in publications, without a terribly wide direct impact on subsequent projects. Or, rather, neither of these projects had to broach the practical limits that constrain more permanent architectural projects.

Furthermore, as ephemeral projects of limited duration, responsibility for their continued presence in annals of modern architecture devolved upon their photographs. As has been clear all along, the space of photography fundamentally alters the identity of what it depicts. Thus the full understanding of these spaces that has emerged in light of recent efforts to restore them to their historical and physical context were not in play throughout the last generations. What was instantiated through the photographs of these spaces was, I have argued, something rather different. The very specific, innovative modalities used to explore the notion of 'abstract architecture' here—the dynamic effects launched by the body in space—were the first things to perish in photographs. Thus, certain aspects of this achievement were lost nearly as soon as they had been found. Instead, photography projected a loosely analogous construct, but one with rather significant differences. The six years that lay between the creation of these projects and the closing down of artistic possibility in Germany constitute a rather short interval. The abrupt termination of this line of spatial enquiry was a function of historical events, with wide repercussions. One of these was the increased influence of their photographic representation.

The same mechanism holds true for the two projects discussed at length in this study. The Barcelona Pavilion, frail and tentative as a construction—plagued by leaking roof, jammed curtain rails, broken glass panes, the unsuccessful rendition

of a light box, and people falling inadvertently into the black pool of water—circulated boldly in photographs for fifty years. Furthermore, the abstraction of the photographs and the 'abstraction' of the architecture (see Chapter Two) were not the same. In the building itself, the syncopated rhythm between space, view, and sensorial affect had a whimsical but compelling narrative effect, disorienting but immensely suggestive. By contrast, photography returned architecture to the two-dimensional surface, the surface of easel painting—but also the surface of Malevich's Suprematist abstraction. One might refine the descriptive terms of this practice, then, to call it the photographic interpretation of architectural abstraction, emerging primarily as a function of the two-dimensional surface of the image. In the process, the tension between image surface and projected depth, so fundamentally a part of modern painting, was also instated for architecture.

For the communication and dissemination of Miesian abstraction, photography was a necessary support. But it is equally the case that Mies attempted, in the second half of the 1920s and into the 1930s, to come up with his own conceptual projection of an abstract architecture—or an architecture that confronted certain key issues, organized around spatial perception, occupying avant-gardists in Germany in the early years of the 1920s. This again is where the strategy of carving out, of establishing level datums of ceiling and floor as fixed conditions within which architectural space developed, signals Mies's connection to the discourse outlined above, and perhaps indicates the successful realization of De Stijl's written propositions for an abstract architecture. But unlike De Stijl, the emptying out of space—the negative of modern architecture—was followed, in the case of Mies, by the positive act of filling again. Mies filled his cleared planes with the means for a synaesthetic experience made possible by the most modern industrial methods, deployed in concert with old materials: marble, colored glass,

metal, water, fabric. This achievement followed Mies to America, even while his particular architectural strategies, once there, deflected radically to his new context.

How fully was Mies's architecture organized around the possibility of creating cosmically charged environments that called up the space of abstraction? There are many features in his work that make clear his consciousness of the importance of the issue, and the various means with which he helped form them. Just as no architect before him had succeeded in fully resolving the paradox of constructed reality versus projected space, so Mies also cannot be said to have solved a problem that had no solution. Instead, Mies's architecture, as constructed, was clearly embedded in the discourses with which he was closely involved, and sought means to realize certain apparently extra-physical propositions through physical means. In this he was eminently successful, even if this success has had to be recuperated and posed in contrast to the enormous influence of his photographs.

Abstraction as theorized by Worringer, Kandinsky, van Doesburg, Malevich, and Lissitzky rested squarely on the notion of limitless space in tension with a very clear limit—the limit of the canvas, or the two-dimensional surface. This much is clear in virtually all discussions that surround this matter in the teens and twenties. This particular version of modernist abstraction was therefore one that could never find a comfortable home in constructed architecture, even while architecture seemingly provided its end condition—the fact of constructed space. There is an argument to be made that the modern movement in architecture foundered on this fundamental paradox, in conjunction with the very worldly forces that came to bear on avant-garde thinking with particular intensity in the 1930s. For the purpose of

the present argument, though, architectural photography provided an alternative connection between the extension of Suprematist composition, and the limits of constructed space. In its most skillful manifestations, as in the photographs of Mies's Tugendhat House, the photograph represented the non-existent space of a virtually abstract architecture better than it had ever been represented before.

### **Abstraction—the process**

Returning briefly to Oud, the specific term "abstraction" was occasionally burdened in his Bauhaus text with negative associations, possibly in response to his dissatisfaction with De Stijl. He explored these in relation to another contemporary condition of architecture culture: mass production. Thus, in relation to the objects of industrial production such as automobiles, ships, yachts, men's clothing, sport's clothing, electric and sanitary 'articles,' and food equipment, Oud noted,

Through their shortage of ornamentation, their tight form and surface color, through the proportional perfection of their materials and their pure relationships...they have an indirectly fruitful effect on building-art in their current form, and allow an impulse to abstraction to come into being in them, that provisionally reveals itself as the spiritualization of form essences to come, not as the manifestation of a new feeling for life.

That this impulse to abstraction is still negative, i.e. more the result of life passing by than of life unfolding, shows itself, apart from the indeterminate nature of form, before all in the lack of aesthetic energy, of spiritual/intellectual tension.<sup>57</sup>

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<sup>57</sup> Oud, 68: "Durch ihren Mangel an Verzierung, ihre straffe Form und flächige Farbe, durch die verhältnismäßige Vollkommenheit ihres Materials und ihre reinen Verhältnisse....wirken sie indirekt befruchtend auf die Baukunst in ihrer jetzigen Form, und lassen in ihr einen....Drang nach Abstraktion entstehen, der sich vorläufig als Vergeistigung herkömmlichen Formwesens, nicht als Manifestation neuen Lebensgefühls offenbart. Daß dieser Drang nach Abstraktion noch negativ ist, d.h. Folge mehr von Lebensverfließung als von Lebensentfaltung, zeigt sich, abgesehen von der Unbestimmtheit der Form, vor allem in dem Fehlen an ästhetischer Energie, an geistiger Gespanntheit."

Oud's words bring us to another definition of abstraction for architecture, what one might characterize as the *Doppelgänger* of utopian projection. Considered in relation to building processes rather than representation, abstraction in architecture might be considered a function of hyper-rationalization and mechanization, not merely a function of formal composition. Modes of building, subject to increasing systematization in the Weimar years, were to be taken off the building site and relocated in the factory or other production facility. This could be considered an abstraction of building process. The traditional additive method of building construction, in which one construction process is dependent on the one that came before, and determinative of the one that comes after, was threatened by new ways of organizing building. It was this traditional process—or at least its outward appearance—that the right wing attempted to preserve, as much as particular attributes of building style.

But this kind of 'abstraction as process,' one where new infrastructures and processes could begin to dictate procedures for architecture, had clear ideological associations that ultimately rendered it unserviceable for the same ranks of the avant-garde that might have been interested in an alternative formalist, aestheticized mode of abstraction. Even as Gropius embraced the industrialization of building processes, and attempted to maintain a commitment to this potential long after his Bauhaus years, the success of abstraction as a process of industrialization, as prefabrication—was compromised by its unpalatable associations. Meyer's experience at the Bauhaus provides clear evidence of one form of abstraction that most members of the avant-garde were, in the last analysis, totally unwilling to embrace.

But understanding abstraction as a reductive process, not a formal possibility, returns us to a consideration of representational practice. Just as

arranging the task of building in terms of procedural efficiency stripped away conventional models of building, dependent on customization and sequencing, so had the process of representation always involved a reduction of material and experiential qualities for the purposes of an efficient process of information relay. Recent research has begun to lay that process bare, to indicate how 'information relay,' with its false connotations of a neutral transfer of fact, is in reality a process of transformation. In a wide sense, abstraction has entered into considerations of architectural representation (both three-dimensional and two-dimensional) over a very broad historical framework, to the point where it might be considered a central issue of both three-dimensional and two-dimensional versions of the practice. Following the lead of Robin Evans and others, we can track architectural photography into this realm, into the arena of agency and affect.

Photography as a representational system for architecture, and its relationship to the contradictory idea of architectural abstraction, have formed the subject of this chapter. I have considered photography, not only as a process of abstraction in and of itself—a process that abstracts aspects of building from the object, leaving behind what it cannot use—but photography as part of a system of information exchange that dictated modes of understanding throughout the modern period, and that continues to do so for architecture today. Any discussion of architectural photography involves both photographic and architectural discussion, but also consideration of the vast system of exchange populated by magazines, books, and exhibitions on architecture, the abstraction of the space of information.

As to the respective *valuation* of building versus photograph, I continue to reject qualitative assessments. Rather, I have attempted to highlight differences between two forms of representation—building and photograph—suggesting that the very power of each resides partly in a fuller understanding of the mechanics by

which each medium gets its business done. As a contemporary critic writes about abstraction, "this *world* is what abstraction is all about: abstraction as the attempt to show—in thought as in art, in sensation as in concept—the odd, multiple, unpredictable potential in the midst of things, of other new things, other new mixtures."<sup>58</sup> If the photographs of modern architecture required some process of reduction of buildings, they also brought with them a corresponding increase— increase in circulation, in accessibility, in the sharing of powerful ideas about modern cultural life. Walter Benjamin's wishful projection of this condition of increased accessibility of cultural material as a fundamentally democratic potential of modernity was in essential ways correct, even if things have not turned out exactly as he portrayed them. What architectural photographs chiefly did was to alter ideas received from architecture in interesting and critical ways. It was always up to the readers of these photographs, and of the buildings they depicted, to make good use of the varieties of information provided. And if the tools provided by both buildings and images were creatively adapted for new uses by younger interpreters, so much the better.

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<sup>58</sup> John Rajchman, "Another view of Abstraction," 23.

## CONCLUSION

The dissertation has considered the role of photography for architecture in the Weimar years, in the particular, highly influential case of Mies van der Rohe. It has considered the extent to which modes of representation were important to central debates about architectural modernism. Photography has been considered here in relation to architectural design itself, in relation to the propaganda that popularized architecture in these years, in relation to modernist abstraction and its role in and influence on architecture. The ostensible subject of the dissertation—the photographs of two of the most important buildings of Weimar modernism, by Mies—have been examined within the context in which they were created. The comparative narrowness of the sample set contrasts with the breadth of the context in which the photographs must be examined.

Thus a seemingly small window has opened up on a wide terrain, much like the understated aperture at the entry to the Tugendhat House, its panorama of Brno increasing in breadth and detail with every step closer. It became gradually clearer throughout the phases of this study that the significance of a body of commercial photographs was connected to much larger discussions of how modernity might function. This is partly a result of the ways in which the photographs were so directly hinged to something else. Never intended to function as fully independent aesthetic objects, the photographs of Mies's buildings nevertheless deployed a full range of transformative aesthetic techniques with which the architect had to be satisfied—or with which he in fact *was* eminently satisfied. In the end, the relationship of the photographs to the unseen building, in tension with their own visual presence, were two of the factors that complicate the picture they present to us.

I have suggested Jakobson's definition of metonymy to describe this relationship, with the intention of using it to help specify points of divergence between photographs and buildings. Because of the difficulty of affiliating architecture with linguistic theory in any wholesale fashion, this theoretical framework has been left in a 'latent' state. A few, very brief, comments are in order here. Jakobson's famous 1956 essay, "Two Aspects of Language and Two Types of Aphasic Disturbances," distinguished two modes of language use: the metonymic and the metaphoric. The first, Jakobson associated with contextualized language, dependent on its specific appearance in a sentence or an utterance. The second was associated with language as system. These two poles were fundamental to structuralist theory, ordering language in accordance with the earliest linguistic distinction between applied use and systematic concept. Jakobson observed that patients with aphasic disturbance in their grasp of systematic language relied heavily on sentence context in order to speak. In these cases, metonymy was deployed beyond its customary uses, to a point where the analyst had difficulty distinguishing the patient's intended meaning. The distance between the signified and its metonymic signifier was mediated by a sequence of terms that had dropped away thanks to the patient's pathology, leaving the necessary chain of reference oblique or invisible.

I do not cite Jakobson as a textual authority by which to justify my analysis of architectural photography in the modern period. Rather, the particular function that Jakobson assigned to the metonym is useful for developing a theoretical proposition by which to understand architectural photography. As such, the terms borrowed from Jakobson need to be digested for their new context. In order to render 'metonymy' a useful analytical category for the present study, we might agree that architectural photographs are part of a system of meaning that includes constructed buildings and

other forms of representation. The term then emphasizes the independence of representations of architecture (in this case photographic) from that which they represent, as well as the notion that photographs of buildings constitute a substantial part of the contextual fabric within which architecture in the modern period functioned—as a cultural practice.

However, my use of the term has not emphasized the idea of a contextual reading of architecture in any conventional sense. Architectural photographs, on the contrary, remove representation from the context within which the building exists. That they install the representation into a new context is readily apparent, as is the fact that this new context is textual and graphic. It is within this context that we might begin to see the signification of the architectural photograph as metonymic. While the building, its drawings (sketches might be distinguished from orthographic drawings, presentation drawings from construction drawings from shop drawings), and its photographic representations (one might add other elements here) all constitute the contextual field within which the building is conceived, constructed, sold, and historically considered, any of the members of this federation might be considered part of a semantic system that relies on metonymy. Thus the architectural photograph is in this view not distinct from the other terms, except in one regard. While building plans have never been understood as anything other than abstract representations of movement patterns in space, the photograph has seemingly been confused with the building itself. Jakobson's term provides a point of correction.

More importantly, though, the term formalizes a certain order of difference between constructed building and photographic representation, in a potentially useful fashion. Jakobson reminds us that the contextual bed in which metonymy operates relies on different attributes or descriptive aspects of a single object to establish

meanings. Thus, the term begins to help clarify the difference. Architectural photographs *do* designate an entire architectural object; but they do so through specific semantic terms. Thus the abstract formal beauty of a Sandalo photograph is potentially intended as a complete characterization of the Tugendhat House, just as the words of a written description might be. If this explanation risks the over-valorization of the architectural object itself (the building standing on site in Brno), as the implied 'signified' of this construction, that is precisely the reason not to stretch this theoretical analogy too far, but to keep it firmly chained to the pragmatics of architectural analysis. One might instead argue that the experience of the building has its own syntagmatic determinants, ones that must be dealt with in relation to one another and the conditions that produced them. In other words, there is perhaps a different analysis altogether that might be developed for the experience of objects in space. My analysis thus far should indicate that I regard that as a different undertaking altogether.

Another functional field for these images, in addition to the aesthetic formalism mentioned above, was provided by political considerations determined by Weimar culture battles. The precise ways in which photographs shielded and projected architecture were immensely important in the Weimar years, a legacy that has remained with us today. The perhaps inflated propaganda of the new architecture, launched to wage the war for progressive modernity and all the variants of 'a better life' that that implied, established both mechanisms and specific formal conventions that were adopted for rather different purposes after their initial context had long since faded away. While we have absorbed many of the visual conventions, and some of the rhetoric, that were established in the context of ideological polarity and struggle of Germany in the 1920s, we have used them within very different

contexts in the intervening years. This study provides a first step in decoding the mechanisms of architectural photography of modernism, and its continuously evolving effect.

Finally, I have indicated the important role that architectural photographs have played in integrating architecture with other art and cultural discourse, particularly in the case of abstraction. Where the dissertation argues that, in the process, certain understandings or experiences have been lost or transformed, I also argue that others have been found. The relationship between architecture and other art disciplines is a topic of continuing importance at a time when so much art practice shows the increased level of interest in spatial and architectural conditions. At the same time, the ever-increasing importance of the physically inaccessible/visually accessible space of the flat screen seems to echo the discoveries of Weimar photographers, that there was a whole conceptual space 'out / in there,' that artists might attempt to harness to their own particular agendas. Has the physically inaccessible space of the computer already eclipsed the inspirations of an old modernist like Mies? History would seem to indicate otherwise.

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