MODERN ARCHITECTURE IN THE AGE OF CINEMA:
MIES VAN DER ROHE
AND THE MOVING IMAGE

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ABSTRACT

This dissertation investigates the relation between Mies van der Rohe and cinema. Its purpose is to elucidate, both historically and theoretically, the association between the architect Mies and the pioneers of abstract film Hans Richter and Viking Eggeling during the early 1920s. I argue that for each of these figures, as well as for many artists and intellectuals assembling around the journal *G – Material zur elementaren Gestaltung*, the medium of cinema epitomized the possibility for an alternative modernist project. They realized that cinema was not simply a powerful instrument for a convincing representation of reality or for entertaining the masses but a medium that fundamentally reshaped the existing regimes of vision, perception and knowledge. Both the architecture of Mies and the film experiments of Richter and Eggeling are, I argue, manifestations of this epistemic shift that promised to counteract modernism’s failed reception of technology. They render visible and thinkable images, objects and processes that were formerly excluded from the cognitive field, and thereby contribute to an alternative, intermedial history of modern architecture.

The intention of this study is to draw up a discursive map of Weimar Germany’s avant-garde currents regarding the role of the moving image and to locate Mies’s position on this map. The first part prepares the ground by analyzing the ambivalent discourses the emergence of the subject of the moving image elicited, from the 1910s onwards, in the writings and projects of numerous architectural critics, historians and practitioners. In the subsequent sections the focus is placed on the discourses of cinema that crystallized in and around the journal G and on Mies’s affiliation with Richter and Eggeling. The aim is to correlate these discourses with both Mies’s
exposure to the highly cinematic life-reform project Dresden-Hellerau during early 1910s, as well as with his realized architectural works of the late 1920s.
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Film: unfolding [result] of all the forms of perception, the tempos and rhythms, which lie preformed in today’s machines, such that all problems of contemporary art find their definitive formulation in the context of film.

Walter Benjamin

I never make an image when I want to built a house.

Mies van der Rohe

Filmkämpfer Mies?

“How did Mies van der Rohe become involved with film?” With this opening question a brief article entitled “Filmkämpfer von außen” [“film-fighter from outside”] published in 1931 in the German film industry daily Film-Kurier, stirs the curiosity of its readership. [Fig. 1]

Unfortunately, while stating that this is “a question that is not difficult to answer” the anonymous author does not corroborate, and instead leaves the reader with a commonplace remark: “as someone who takes position with respect to the spiritual matters [geistige Dinge] of the time, it goes without saying that [Mies] is preoccupied with questions of film.”

1 “Wie Mies van der Rohe zum Film kommt? – Keine schwer zu beantwortende Frage: Als Mensch, der zu den geistigen Dingen der Zeit Stellung nimmt, befaßt er sich selbstverständlich auch mit Fragen des Films.” “Filmkämpfer von außen,” Film-Kurier, January 1, 1931, Beiblatt zum Filmkurier. All translations are mine unless indicated otherwise. It is likely that the article is a response to the founding of the Deutsche Liga für den unabhängigen Film [German League for Independent Film]. The first constitutive assembly of the Liga happened on November 16, 1930 at the “Rote Mühle,” an 800 seat movie palace located in Berlin-Halensee right next to the famous “Lunapark” amusement venue. During this event Hans Richter demands the audience to react against the “film kitsch” and Brecht and Weill denounce the methods of the capitalist film industry. Two films were screened during this event: The Earth by Alexander Dovshenko and Étoile de mer by Man Ray. The second meeting happened on January 4, 1931 during which Russian and French documentaries were screened. See Arbeiterbühne und Film 17, no. 12 (1930); Lichtbild-Bühne 24, no. 4 (1931).
As self-evident as Mies van der Rohe’s involvement with film might have appeared in the early 1930s, as curious it appears today. Mies scholarship, despite its prolificacy and breadth of scope, has little to say about the modern master’s connection with the moving image. For good reasons: neither in his architectural work nor in his written statements do we find direct references to film. Mies never designed stage sets, collaborated in the production of documentary films or incorporated cinema screens in any of his buildings. This lack of evidence explains why Mies has hitherto been excluded from the field of research that, since the early 1970s, has begun to investigate the links between architecture and film. This is particularly noteworthy because many of the incursions of architects into the field of cinema and, vice versa, of filmmakers into the field of architecture happened during the interwar years. Many of Mies’s peers regarded the film/architecture nexus as a token of modernity. They designed film sets, incorporated the cinematographic apparatus into the architectural body, and theorized about architecture and film being complementary. For some architecture was essentially images in movement while others discovered the plastic qualities of cinema.2 Emblematic for this field of research is the case of Le Corbusier, who most openly exploited the cross-medium relation. He used the motion picture medium to propagate his architecture (Architecture d’aujourd’hui (1930), in collaboration with Pierre Chenal, Les bâtisseurs (1938) with Jean Epstein) and argued that he thinks “as Eisenstein does in his films,”3 and identifies in both modern architecture and film a “new form of thinking.”4 Still, Le Corbusier’s interest in cinema remained academic: “J’aime beaucoup le


cinéma. Je n’y vais presque jamais.” Mies, by contrast, while seemingly having been one of the few modernist architects who remained silent on the question of cinema, was an avid moviegoer.

The 1931 Filmkämpfer article might hence be perceived as a wake-up call for Mies scholars to return to the archives and to seize the documents hitherto overlooked. The Mies archive in fact contains evidence that substantiate Mies’s connection with the world of film. The problem is that this evidence is meager and inconclusive. For example, his name appears on a pamphlet published in 1930 by the Deutsche Liga für den unabhängigen Film [German League for Independent Film] where he figures as one of the members of the Film League’s central committee. Mies’s name appears next to prominent figures such as the pioneer of abstract cinema and director of Berlin: Symphony of a Great City Walter Ruttmann, the pioneer of animation film Lotte Reininger, documentary filmmaker Carl Junghans, actress Asta Nielsön, abstract filmmakers Hans Richter and his collaborator Werner Graeff, gallery owner Karl

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6 Mies’s daughter Georgia recalls that almost every night Mies took his daughters to the movies. In particular, she remembers her father taking her to see the American melodrama The Way of all Flesh (1927) starring Emil Jannings. See Georgia van der Rohe, La donna è mobile (Berlin: Aufbau Verlag, 2002), 35, 54.

7 The German Liga was a spin-off of the International League of Independent Film founded in 1929 by, amongst others, Sergei Eisenstein, Hans Richter, and Béla Balázs at La Sarraz, the very same place where a year prior the CIAM organized its inaugural meeting. (See Jean-Marie Pilet, "La Sarraz, carrefour des arts," Travelling, no. 55 (1979)). The Liga supported alternative, non-commercial films to be screened in front of a larger audience. The film clubs were also a way to circumvent the strict censorship rules in different countries. In 1927 Richter, together with Guido Bagier and the camera operator Karl Freund, started the Gesellschaft Neuer Film. See Jan-Christopher Horak, "Entwicklung einer visuellen Sprache im Stummfilm," Film und Foto der zwanziger Jahre: Eine Betrachtung der Internationalen Werkbundausstellung 'Film und Foto' 1929, eds. Ute Eskildsen and Jan-Christopher Horak (Stuttgart: Hatje, 1979), 55.
Nierendorf and composer Paul Hindemith. The pamphlet addresses the “Friends of Film” [Filmfreunde] and declares the fight against “the fabrication of kitsch” and commercial film’s “abuse” of technical progress and instead supports “artistic, independent film as the expression of time” and “the true Gestaltung of reality!” There is reason to believe that Mies was not simply a passive member. Not only did he actively plead the cause of the Film League by sending copies of its statute to Otto Stotz, organizer of the Werkbund exhibitions “Die Wohnung” (1927) and “Film und Foto” (1929); Mies also adjourned his travels to participate at a League meeting.

8 Pamphlet entitled “Filmfreunde,” undated, Archive of the Stiftung Deutsche Kinemathek, Berlin. The following names appear as members of the league’s board: Dr. Blumenthal, Dr. Feld, Dr. Flesch, Paul Hindemith, Werner Gräff, Arthur Hollitscher, Dr. Marianoff, Asta Nielsen, Carl Nierendorf, Hans Richter, Walter, Ruttmann, Mies van der Rohe, Lotte Reininger. See “Eine Deutsche Liga für unabhängigen Film," Film-Kurier 12, no. 115 (1930); "Die erste Veranstaltung der Film-Liga," Film-Kurier 12, no. 256 (1930).


10 The report of the Liga für unabhängigen Film’s general assembly held on November 20, 1930 contains a list of names of people who were either present or considered as full members. Amongst them one finds Dr. Wolfgang Bruhn (possibly related to Mies ex-wife Ada Bruhn), Mia Seeger (who worked for the Werkbund and helped organizing the exhibitions at Weissenhof in 1929 and Berlin in 1931), the painter Emil Nolde (who Mies had first met at Dresden-Hellerau in 1912), the art dealer Hugo Perls (for whom Mies had designed a house in 1911), Bruno and Max Taut and the members of the Novembergruppe. During the course of 1931 the active participation appeared to subside. A letter dated September 23, 1931 reproaches the “entire executive board” of “failing to show any interest in the League.” Nonetheless in the period between November 1930 and 1932 the Liga appeared to have succeeded in screening films like “Architecture d’aujourd’hui” by Pierre Chenal (1930), “Enthusiasm” by Dziga Vertov (1930), “Jeux des reflets et de la vitesse” by Henri Chomette (1923), “Die neue Wohnung” by Hans Richter (1930) and even an entire film matinee entitled “Neues Wohnen – Neues Bauen” which included “Wo wohnen alte Leute” by Ella Bergmann-Michel (1931), “Ein Riese aus Stahl” (ca. 1930, the original title was probably “Making a Skyscraper (Steel),” an 11 minutes documentary showing the use of steel for the construction of the Empire State Building) and the animation film “Hier wird gebaut.” Ibid.
Other documented instances of Mies’s connection with the world of cinema flash up during his career. The now famous film matinee *Der absolute Film* in Berlin had been organized in May 1925 by the “Novembergruppe,” at a time when Mies served as its chairman. The matinee was the first public screening in Germany of the abstract films by Ludwig Hirschfeld-Mack, Hans Richter, Viking Eggeling, Walter Ruttmann, Fernand Léger, Francis Picabia and René Clair. Mies had met the pioneer of abstract film Hans Richter four years prior – an encounter which would lead to the founding of the journal *G – Material zur elementaren Gestaltung*. And even a decade later Mies’s interest in film appeared to not have faded when, in 1934, he accepted an invitation by the infamous Reichskammer of the Art to participate in a discussion event on the question of the role of film in the arts, and which as one of the sub-themes announced a debate on “Architecture in Film.”

We are hence confronted with a contradiction. On the one hand, there are few scattered pieces of evidence that sustain the claim that Mies indeed had been a *Filmkämpfer* all along. On the other hand, neither his architectural work nor his few written statements of the 1920s evince any concrete involvement with cinema. But maybe this contradiction only exists because scholarship has been looking for the wrong evidence. Maybe, what Mies was “fighting” for, in a strict sense, has little to do with cinematographic projectors, silver screens, and celluloid strips, with filmic representations of architectural spaces or architectural incorporations of cinematographic devices. Maybe what had made Mies a “*Filmkämpfer*” was the fact that the new

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11 In a letter dated December 3, 1934 the president of the Reichskammer (founded by Goebbels in 1933 to push for the consolidation [*Gleichschaltung*] of German culture) invites Mies for a discussion event with filmmaker. On December 18 Mies responds: “I gladly participate […]. Heil Hitler.” Whether or not Mies attended the event is unknown. See Mies’s correspondences in “Mies van der Rohe: Research Papers,” Papers related to Mies van der Rohe and the establishment of the Museum of Modern Art's Mies van der Rohe Archive, collection of archival material compiled by Ludwig Glaeser, Canadian Center of Architecture at the Canadian Center of Architecture (CCA), Montreal.
medium of cinema was “completely new and different,” as the film scholar Rudolf Arnheim put it. Maybe it is due to the nature of cinema itself, the “monstrous” nature of film, as the French film theorist Jean Epstein warned already in 1921,\(^\text{12}\) that makes cinema incompatible with the assumptions and methodological approaches of architectural scholarship.

Cinema challenges the mechanisms of formal description and analysis and the set of media (such as drawings, photographs and slide projections) that sustains the body of knowledge we call architecture. More than simply a medium of visual representation, the moving image must be regarded as the manifestation of a new condition, a profound shift in the ways the world is perceived, understood and communicated. And it is this epistemological dimension, as I will try to show in this work, that inspired a group of artists and intellectuals, to which Mies belonged during the early 1920s, to radically rethink a whole set of assumptions regarding the fundamental tenets of modern Western thought: the role of the subject, the quality of the object, the status of the image, the regimes of perception and knowledge. This study attempts to resolve the seeming contradiction and to show that speaking of Mies as a “Filmkämpfer” is not an accidental aberration but a point of departure for reading his architectural work differently: through the lens of cinema.

*Taut/Mies: two ideas of cinema*

From the outset, the theme of cinema was present in the discursive contexts of Mies’s work. Take for example his very first article, entitled “Hochhäuser,” and published in 1922 in Bruno Taut’s journal *Frühlicht*. Here Mies proposes a quasi-cinematic definition of architecture when he argues that his design for the *Glashochhaus* was driven by the desire to achieve “the

\(^{12}\) Jean Epstein, "Magnification and Other Writings," *October*, no. 3 (1977), 24.
play of desired light reflections.” Architecture loses its solid materiality, the text implies, and transforms into a kind of dematerialized, cinematic light spectacle. This idea of an architecture as light-play is accompanied by a number of illustrations. An entire page adjacent the text is filled with altogether six images: a photograph of the Glashochhaus model taken from below and the curvilinear plan of the same project are interspersed by altogether four drawings of Bruno Taut’s “Exhibition Building in Glass with Daylight Cinema” [Ausstellungsbau in Glas mit Tageslichtkino].[14] Although it is not clear who selected the images, it is likely that it was Taut himself who, as the editor of Frühlicht, decided to juxtapose his own project with Mies’s design.

What was probably meant as a way of implying a kinship between Taut’s own crystalline pavilion and Mies’s polygonal glass high-rise, ironically turns out to reveal an unintended opposition. Taut, who aspired to achieve buildings that are “not only architecture” but total works of art in which architecture once again “merges with the other arts,”[15] imagines a crystalline screening space for motion pictures as a highly calculated spectacle that organizes the subject’s passage from mobile visitor to stunned spectator. In order to achieve this objective, Taut merges the animate quality of glass with the spectacular effects produced by the cinematographic apparatus. In the case of Mies, by contrast, it is the architectural object itself that acts as a light-shaping, light-producing apparatus. Devoid of cinematographic projection devices or screens the Glashochhaus becomes the active ‘producer’ of light-plays that transcends the spectatorial effects Taut’s cinema-pavilion attempts to engineer. While Mies, who

[14] Taut had designed the cinema pavilion for the 1922 Mitteldeutsche Ausstellung für Siedlung, Sozialfürsorge und Arbeit in Magdeburg.
photographs the dark glass model at an oblique angle from the point of view of a pedestrian in the street, and was concerned with creating visual resonances between ambulant observer, the light-emitting building and the “street-image,”\textsuperscript{16} or what he calls “rich interplay of light reflections;”\textsuperscript{17} Taut simply adds the cinematographic apparatus to heighten the calculated effect on the visitor.

We are hence dealing with two opposed definitions of “cinema” in the context of architecture: on the one hand, an architecture that both mimics and supports the cinematographic apparatus’ phantasmagorical ability to affect the audience; on the other hand, architecture that through the interaction of materials, forms, light and perception sets in motion an “interplay” of movements and bodies. While the former uses technology to actualize the position of subject and object in accordance with the new modern condition, the latter places the viewer/passerby in a life world of animate images where the Cartesian split between active subject and inert object dissolves in playful acts of innervations of technology.

The juxtaposition of Mies’s \textit{Glashochaus} and Taut’s pavilion is hence emblematic for two different ways of comprehending the relation between architecture and the moving image. On the one hand, there is Taut, who actively integrates the new medium film into his architectural designs and the theory that accompanies it.Repeatedly, he literally incorporated projectors, screens and projection spaces into his designs: in 1910, he designed Berlin’s first movie theater, placed an auditorium for the screening of films in the center of his \textit{Monument des Eisens} (1913)

\textsuperscript{16} In the original version Mies speaks of the effect of the “Baumasse im Straßenbild” as having been one determining factor for the glass curtain’s curvilinear shape. Translated as “effect of the building mass in the urban context” the English version loses the association with image. Fritz Neumeyer, \textit{The Artless Word: Mies van der Rohe on the Building Art}, trans. Mark Jarzombek (Cambridge, Mass.: MIT Press, 1991), 240.

\textsuperscript{17} Mies van der Rohe, "Hochhäuser," 124.
and designed a spectacular promenade through the crystalline world of his famous *Glashaus* at the Cologne Werkbund exhibition (1914) that climaxes in front of a milk-glass screen showing animated kaleidoscopic images produced by a hidden projector. [Fig. 4] Taut even patents the design for a “vertical cinema” [Fig. 5] and publishes visual booklets like *Die Galoschen des Glücks* (1920) or *Der Weltbaumeister* (1920) that were meant as screenplays for motion pictures.

In addition, the cinematographic image plays an important role in Taut’s theoretical reflections on architecture. In 1917 he describes film as a possible agent to further “the development of architecture” because it would permit the “redemption” from the still image, which he had identified as one of the principle obstacles for the realization of modern architecture. \(^{19}\) Taut’s argument rests on the assumption that architecture is directly contingent upon the image, at least since Alberti transformed the architect into a creator of images. \(^{20}\) Modern architecture, in fact, is characterized by the shift in the metonymical relations between buildings and its images. Because new technologies of mechanical reproduction prompted new perceptual habits and new practices of visual cognition, a new formal language of architecture had to be invented to adjust to the changing technologies of mechanical reproduction. For Taut, film therefore becomes the new paradigmatic model for architecture to follow, a veritable “*Gesamtkunstwerk* of effects” that realizes his dream of an architecture once again capable of uniting the different arts and, at the same time, of resonating with “the simple effects of the

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\(^{18}\) Bruno Taut, "Bildvorführungen für liegende Zuschauer," *Bauwelt*, no. 32 (1924). The vertical cinema was patented on July 16, 1921 under the number 367863, 37, Gruppe 2 at the German Patent Office.

\(^{19}\) Bruno Taut, "Mitteilung," *Der Städtebau* 14, no. 2-3 (1917), 32-33.

masses.” Taut even goes as far as to imagine the experience of watching a film as a surrogate for experiencing architecture when he suggests in 1917 that “the moving cinematographic recording almost replaces the guided tour around and through the building and allows it to be appraised as a whole as organism and as body.”

The irony is that Taut’s affirmation of the new medium film can be interpreted as a defensive gesture. By divorcing, in a first step, architecture’s conceptual bind to the still image only to then, in a second step, introducing the moving image as a substitute Taut is able to perpetuate the subject’s controlling sway over the production and reception of architectural objects. In other words, notwithstanding the technological changes Taut upholds the Albertian paradigm that insists on a coincidence of image (drawing or model that expresses the intellect of the architect) and built reality (with the perceiving subject as the intermediary) or to be more precise, the primacy of the image over reality. Cinematography is hence first and foremost an instrument that helps maintain the classical imperatives of authenticity, iconicity, identity – or, in short, ‘reproduction,’ a notion central in Albertian thought – inside a shifting environment made up of animate and fluid objects.

By contrast, in the case of Mies we leave the Albertian universe altogether. The moving image does not simply take the place of the still image in order to perpetuate the ‘old order,’ nor does it herald the return to a quasi-medieval ideal of a collective, anonymous architectural

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22 Taut, "Mitteilung," 33.
practice where the image had not yet exercised its indexical sway over the real.\(^{23}\) With Mies the architecture/image nexus persists: what changes through the emergence of cinema is the status of the image itself. It is no longer a vehicle of reproduction, a safeguard for the subject’s autonomy, or a warrant for the real. If modernism was, as Jacques Rancière argues, obsessed with achieving the end of the image (the black square, the white wall) and postmodernism obsessed with achieving the omnipotence of the image and the end of the real (hypereality), we find in the moment of cinema’s emergence an affirmation of the mediating potential of both.\(^{24}\) Mies’s encounter with cinema is an occasion to excavate a conception of cinema that entails the loss of visual stability and the subject’s instrumental control that since the Renaissance had assured the mimetic consistency between image and object. Cinema, as I intend to show in this work, is hence not simply a more sophisticated image of mechanical reproduction, but the synonym for a new media condition that opened up the possibility for contingency, ambiguity, and play – and potentially new forms of identification and meaning.\(^{25}\) It renders unstable and blurry a whole set of essentialist ideas and precepts (e.g. the coherency and separation of subject and object, the role of images as vehicles of information and knowledge in architectural discourses, the linearity

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\(^{23}\) This is the line of argument developed by Carpo regarding the digital turn in architecture. For him, the malleability of the digital image suggests a return to a pre-Albertian universe. Mario Carpo, "Video killed the Icon Star: Inkarnationen der Architektur im Zeitalter unbeständiger Bilder," *Die Realität des Imaginären: Architektur und das digitale Bild*, eds. Jörg H. Gleiter, Norbert Korrek and Gerd Zimmermann (Weimar: Verlag der Bauhaus-Universität, 2008), 37-42.


of history etc.) that hitherto have staked out the epistemic limits in which architecture was permitted to operate.

The intention of my work is not to describe, analyze or interpret what can be discerned in filmic representations of architecture, or architectural implementations of cinematographic technologies. What I will try to do is to extrapolate Mies’s role as a *Filmkämpfer* by reconstituting his discursive environment in which cinema was discussed and explored as something “completely new and different” (Arnheim), which hence posed epistemological questions, which the network of artists and intellectuals assembling around journal *G – Material zur elementaren Gestaltung* tried to explore.

Conspicuously, many of the artists Mies was acquainted with during this period had started to develop a keen interest in questions of the moving image. A quick glance at the first issue of *G* reveals that the theme of film was conspicuous. We can see Mies’s piece “Bürohaus” surrounded by articles that all deal in some way or another with the subject of the moving image: [Fig. 6] Raoul Hausmann proposes to use film for the search of new “binding forms,” Hans Richter gives “material demonstration” of one of his abstract films in the form of a film strip running along the top of the double page, Naum Gabo and Antoine Pevsner call for the “cinematic” to become the new central element of art and El Lissitzky brings up the idea of installing a periscopic projection device in his *Proun* space.26 Mies himself, without using the terms cinema or film, describes


In the subsequent issues *G – Material zur elementaren Gestaltung* continued to serve as a platform for developing an alternative idea of cinema. Artists and critics like Richter, Hausmann, Viking Eggeling, Werner Graeff, Theo van Doesburg, Erich Buchholz, Friedrich Kiesler, Ludwig Hilberseimer, Hugo Häring, George Grosz, Adolf Behne and others had begun to consider film for its epistemological or “revelationist”27 potential. Film, once taken seriously, prompted the rethinking a whole set of fundamental assumptions relating to all forms of artistic expressions. It was regarded as pertinent not because it reproduced and represented a dynamic image of modern life, but because it produced and rendered present the “material for elementary Gestaltung.” In other words, film was no longer understood as an invisible vehicle transporting images and narratives, but as a material manifestation of time and motion, an exemplary practice for rethinking the fundamental tenets of modern thought.

One can take it one step further and argue that the juxtaposition of Taut and Mies in the 1922 *Frühlicht* article exposes two different conceptions of media. First, exemplified by Taut, the conventional idea of media as transparent representational vehicles, technological forms that enable the active subject to project his instrumental control on the world of lifeless and passive artifacts. On the other hand, there is the idea of media that, freed from representation, becomes capable of producing emotions, concepts, and even a new conception of space,28 media that prompts a dynamic “*agencement*” (“assemblage,” to use the Deleuzian term) of bodies, images

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and spaces.\textsuperscript{29} The first type of media generates an interstice between subject and object whose apparatic support structure (projector, screen) is kept invisible; the second renders the in-between space, the medium itself, present, material, and alive by liberating it from the need to function as a representational vehicle. In other words, while Taut’s interest in cinema as a medium is motivated by the desire to optimize the subject’s instrumental sway over his life-world, Mies is interested in discovering \textit{in} (and not \textit{through}) media contingent constellations and unpredictable events. While Taut is concerned with ameliorating representation, Mies is concerned with the epistemic potential of the interplay between lights, objects and bodies. Through Mies and the thinking of the \textit{G} group we can reclaim a notion of media that helps us shift the focus away from the analysis of observable object to a concern with events and processes of becoming. The intersection of Mies with cinema makes visible, at a certain moment in the history of modern architecture, the possibility of architecture as media that not only conditions the possibility for events (e.g. the communication of iconic meanings, programmatic activities or representation of narratives) but that first and foremost functions itself an event.

Understood in this way, architecture becomes a constellation of technologies, regimes of knowledge and institutions that actively form the basis for human experiences and, in turn, generate new forms of knowledge. Through the ‘lens’ of cinema I intend to approach Mies’s architecture as a “\textit{dispositif},” an object that “becomes a medium,” in other words, that releases its epistemological charge once it is situated in a certain condition.\textsuperscript{30} Once we think media beyond


\textsuperscript{30} Joseph Vogl, "Becoming-media: Galileo's Telescope," \textit{Grey Room}, no. 29 (2007), 14-25. See also the introduction to the special issue of Grey Room on “New German Media Theory.”
its “in-between-ness” as an “agencement” that has epistemic effects the distinction between film and architecture becomes irrelevant. In the case of my work this assemblage is “cinema.”

A “cinematic turn” for architecture?

Then again, one might ask, why should we be astonished after all to see Mies’s name in connection with the moving image? Already by the 1910s the “living image” had become a ubiquitous everyday presence in German cities. Newly built movie palaces with light-bathed facades had begun to leave eye-catching, ephemeral imprints on the face of the modern metropolis. Every day, the urban masses gathered in more or less silent communion in front of the flickering images that were projected in ever more numerous and larger Lichtspielhäusern [which literally means ‘light-play houses’]. Soon critics recognized the power of the new medium, “this wonderful invention, which,” the art historian Fritz Wichert writes in 1912, “like a wild mountain stream, tears down everything that gets in its way.”31 Cinema had penetrated deep into the social fabric and subjective imaginary of the modern masses, to a point that it “replaces everyday life,”32 as the film historian Emilie Altenloh notes in 1914. Most troubling for the German intellectual elites, torn between being mystified and appalled by the popular success of


film’s ‘immoral’ bodily immediacy, was the new medium’s uninhibited visuality that threatened the hegemony of distanced, contemplative thought and the reign of the word.33

By contrast, parts of the avant-garde emphatically embraced film’s enchanting dynamism, universal intelligibility and class-transcending appeal. There was a widely shared conviction that cinema would, as Yvan Goll notes in 1920, the “basis of all future art.”34 With cinema a new popular language had emerged that finally superceded the logocentric worldview. As the poet Blaise Cendrars proclaims in 1917: “We are moving towards a new synthesis of the human spirit, towards a new humanity, that a new humanity and a new human race will emerge. Its language will be cinema. Look!”35 There was a growing sense that cinema was more than a dynamic variant of photography or a technically sophisticated form of theater. Cinema was perceived as a fundamentally new medium, the symptom of a profound cultural and technological shift which penetrated deep into all areas of modern life altering even the parameters of perception and thought. Many avant-garde artists hailed the cinematic image as a successor to the word capable of creating a new coherence between the cacophonous impressions of a more and more fragmented life world. For example, in the very first issue of L’Esprit Nouveau, published in 1920, the writer Bosko Tokin demands for instance to update Victor Hugo’s famous catchphrase from Notre Dame de Paris “Ceci tuera cela” for the new era: after the printing press had taken over the role of the mass medium architecture it was now the question whether cinema, as Tokin argues, “is

34 Yvan Goll, "Das Kinodram,” Die neue Schaubühne 2, no. 6 (1920), 142.
the beginning of a new art, bigger and more human that the other arts. Will it kill those others?"\textsuperscript{36}

For the majority of the academic and intellectual elite this question was circumvented by simply ignoring the social, political and aesthetic importance of film. For historical research, until very recently, what could not be put into writing, did not exist. If images were admitted to historical works they acted as transparent illustrations or confirmations of written evidence. Film itself remained an “undesired document” for historians, as Marc Ferro put it.\textsuperscript{37} This was not due to the fact that historians had never learnt to read and analyzes the ‘language’ of an image that is always in a simultaneous state of loss and becoming; rather, film is unwanted because the instruments and methods historians have developed to construct and justify their own discipline fail to analyze, control and appropriate film’s reality into its own discourse. In other words, the moving presents a threat: the truth of what it shows as well as the truth of its popularity constitutes the basis for “another history than History, the counter-analysis of society.”\textsuperscript{38}

For the longest time art history has found itself in a paradoxical position: while its principle vocation consists in giving meaning to visual representations, it has remained resistant to acknowledge the impact of popular and technically reproduced imagery.\textsuperscript{39} Béla Balázs opens


\textsuperscript{38} Ibid., 40.

\textsuperscript{39} Still today the influence of other art forms on modern architecture excludes a popular medium such as film. The introductory remarks in a recent publication on Mies are revelatory in that regard: “The first decades of the 20\textsuperscript{th} century were marked through the stunning developments in
his film-theoretical study *Der sichtbare Mensch* (1924) with the ironic request to the “learned guardians of aesthetics and art studies” to recognize film as a proper form of art. He mocks the fact that the “great aesthetic systems that discuss all sorts of things ranging from carved table-legs to the art of braiding […] do not even mention film.”  

Once art historians dealt with film they had to leave the institutionalized discursive circuits. Adolf Behne, for instance, engaged the question of cinema in his role of an art critic. Joseph Gantner embraced film while serving as the editor of *Das Neue Frankfurt*. Works like Victor Schamoni’s *Das Lichtspiel* (1926) or Joseph Gregor’s *Das Zeitalter des Films* (1932) remained exceptions, just as Erwin Panofsky’s *Style and Medium in the Motion Pictures* (1947) retains a marginal place in his overall oeuvre.

The French art historian Élie Faure was probably the first to realize that the emergence of the moving image presented as a paradigmatic shift for art history. For him, film was not simply the latest manifestation of the image in history of art but the first manifestation of a new “universe.” In the conclusion of the last volume of his *Histoire de l’art* (1921) he writes in 1921

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40 Balázs, *Der sichtbare Mensch*, 9.
41 Both Behne and Gantner, along with the film historian Lotte Eisner, had been students of Heinrich Wölfflin.
that “the growing importance we give to duration has secretly introduced itself into our ancient notion of space. There, in front of our eyes, cinema brings it to life and lets it die again by precipitating in the counterpoint of a universal and continuous movement what previously painting congealed on a canvas: volumes, transitions, associations, oppositions, contrasts that alter, respond to each other, interpenetrate and intertwine incessantly in all dimensions.”

Instead of ‘killing’ the other arts, Faure argues, cinema helped to renew them, especially architecture because it rendered tangible the link between duration and space. Finally, “[T]ime becomes a real dimension of space” and hence permits the emergence of an “ideal architecture” based on an entirely new object, the “cinéplastique.”

While the established cultural elites tried to resist the ‘threat’ of cinema, the avant-gardes, in their revolt against aesthetic and social norms, claimed that their “aspirations and energies subsumed and articulated a filmic ontology.”

The irony was, once put into practice, this very ontology proved incompatible with the regimes of experience, representation and knowledge that large sections of the modernist avant-garde, in a more or less concealed fashion, perpetuated. Most artists, whether Futurist, Dadaist, Constructivist, or Surrealist, would simply subsume cinema as an extension of modern painting.

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45 Elie Faure, Histoire de l'art - L'art moderne (Paris: Plon, 1948 [1921]), 490. “L’univers se refait. Le flottement de la valeur plastique correspond à la indécision de la science, à l’instabilité fondamentale de la vie que les biologistes nous révèlent, et son essai de fixation dans un rythme architectonique, à une défense collective contre cette instabilité. […] Mais l’importance peu à peu grandissante que nous donnons à la durée s’est souroisemement introduite dans notre ancienne notion de l’espace. Le cinéma l’y fait naître et mourir de nouveau sous nos yeux en précipitant dans le contrepoint du mouvement universel et continu ce que la peinture, jadis, figeait sur la toile, volumes, passages, valeurs, associations, oppositions, contrastes qui se modifient, se répondent, s’interpénètrent et s’enchevêtrent sans arrêt dans toutes les dimensions.”


Rare were the cases in which cinema was recognized as “fundamentally new and different.” A 1929 article on the relation between rhythm and film published in the *Bauhaus* journal, for example, decries the widespread misappropriation of film: “We should avoid illustrating essays on film with film stills. Such stills only function as static sequences of single snapshots. They don’t give any impressions neither of the movement that lies in-between these shots, nor of the continuous fusion of all single moments. Still shots say everything and nothing at the same time. [...] They are photomechanical fragments.”48

The history of the affinity between architecture and cinema is as much marked by the utopian exuberance of architects, filmmakers, critics and historians to achieve the fusion of the two media into a new space-time entity as by their incapacity to realize that very fusion. Taut’s various unrealized schemes only led his participation in the production of highly conventional promotion films for *Neues Bauen*.49 Theo van Doesburg’s radical call for a new dynamic and immersive “*Lichtraum*” [light-space] wants to replace an outdated conception of space but ultimately materializes in the form of a highly conventional film screen superimposed on neoplasticist decoration elements in his *Aubette* project (1928). In his canonical work *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton* (1928) architectural historian Sigfried Giedion sketches out the blueprint for a new modern space characterized by transparency, motion and interpenetration, which first emerged ‘unconsciously’ in the utilitarian glass and iron structures in nineteenth century France, only to reach full artistic maturity in the work of Le Corbusier, an

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architecture that “only film can make the new architecture intelligible.” The trained art historian Giedion faces the paradox that though recognizing film’s unparalleled kinship with modern architectural space, he is equally aware of the irresolvable epistemological challenge the new medium poses to art history’s methodology which, by definition, relies on the suspension of movement and time in order to constitute a visual content that can then be described and analyzed. Giedion, in attempts to short-circuit Neues Bauen and Neues Sehen, never resolves the contradiction, and instead perpetuates the traditional habit of privileging painting as the visual model for architecture to follow – one only has to think of his famous juxtaposition of Picasso’s L’Arlésienne with Gropius’ Bauhaus building in the pages of Space, Time and Architecture (1941).

One way of containing the ‘threat’ cinema posed was to integrate it by simulating the perceptual experience of modern architecture in the space of a book as a dynamic interplay of texts, illustrations, graphic elements and photographs. Moholy-Nagy’s Dynamik der Großstadt – Skizze zu einem Filmmanuskript (1924), for instance, sets out to construct a new type of observer who “instead of mediating upon a static image and instead of immersing himself in it […] is forced […] simultaneously to comprehend and to participate in the optical events.” More graphic interpretation of a multi-sensory itinerary through a cacophonous metropolis than film script the idea never went beyond the conceptual stage of what the graphic designer Johannes Molzahn called “bookcinema” – the attempt to readjust the visual appearance of the book to the changing perceptual habits of the modern audience increasingly accustomed to viewing films

50 Sigfried Giedion, Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton (Berlin: Gebr. Mann, 2000 [1928]), 92.

rather than reading literature. In his graphic design for Max Taut’s book *Bauten und Pläne* (1927) Molzahn himself attempted to ‘represent’ a cinematic vision of architecture inside the medium of the illustrated book. Here, instead of depicting Taut’s buildings through representative photographic views, sequences of cinematic snapshots that show a temporal and dynamic experience of an ambulant camera/observer. In one case, the photographic camera imitates a *dolly shot* by ‘moving through’ space [Fig. 7]; in another the ‘reader’ is first presented with an *establishing shot* of the outside of an elevator that is followed by a sequence of four point-of-view shots apparently taken from the inside of the moving glass elevator. [Fig. 8]

From the side of film the numerous “city symphonies” produced during the interwar period are often interpreted as evidence for the ability of the cinema apparatus to reconstitute modernity’s shattered spaces through montage (Vertov, Deslaw, Ruttmann etc.). While the “Cine-Eye” (Vertov) becomes a prosthetic device that, by producing a new coherent picture of the real, remedies the human body’s shortcomings, other filmmakers like Eisenstein dreamt of a complete leap into the new dimension of a “*Raumfilm*” [space-film] by producing a real three-dimensionality that “spills” from the screen into the auditorium. Beginning in 1926, he worked on and off until the end of his life in 1948 on the *Glasshouse* project. Probably inspired by Mies’s project for the Friedrichstraße high-rise, Eisenstein imagined an unprecedented symbiosis...

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52 “The image will be one of the most effective weapons against intellectualism and the mechanization of the spirit. ‘Stop Reading! Look! will be the motto for questions of pedagogy.” Johannes Molzahn, "Nicht mehr lesen! Sehen!," *Das Kunstblatt* 12, no. 3 (1928). Cited in Anton Kaes, ed., *Weimarer Republik. Manifeste und Dokumente zur deutschen Literatur 1918-1933* (Stuttgart: Metzler, 1983), 228.


of architecture and film, two media whose potentials Eisenstein considered still unexploited. Yet, despite repeated efforts, Eisenstein was incapable of pushing the project beyond a conceptual stage, calling the Glasshouse the “mystery” of his career.55

But it should be made clear that my intention here is not to frame the film/architecture symbiosis of the 1920s as a prelude to what contemporary critics have hailed as the iconic or digital turn:56 the shift in the general cultural logic of an era from the serial production of material objects to the digital generation of immaterial images. Anthony Vidler, for example, has argued that “in the 1920s and after, film and architecture were, in a fundamental sense, entirely different media utilizing their respective technologies, the one to simulate space, the other to built it, now, by contrast, the increasing digitalization of the world has rendered them if not the same, at least coterminous.”57 My argument is not to prove such an statement wrong by relocating the digital turn to the early part of the twentieth century and to add a ‘cinematic turn’ to the list. Rather, my purpose is to show that cinema emerged into existing practices of representation and signification, altering the ways of thinking, imaging and producing architecture.


56 The term “iconic turn” has been introduced by Fredric Jameson who distinguishes between a modernity defined by temporality and a late-capitalist postmodernity characterized by the “spatialization of time” – which tellingly matches Panofsky’s famous definition of film. See Fredric Jameson, "Postmodernism, or the Cultural Logic of Late Capitalism,” New Left Review, no. 146 (1984).

If ever a ‘turn’ occurred it happened on the level of a becoming conscious of the architecture/image nexus that had changed through the emergence of film. The moving image prompted certain artists to ask questions that have become central to contemporary debates in visual culture studies and germanophone Bildwissenschaften. Or, as W.J.T. Mitchell put it, “we still do not exactly know what pictures are, what their relation to language is, how they operate on observers and on the world.”

Rather than being simple transparent representations that ‘mirror’ a reality, images are, Mitchell argues, “a complex interplay between visuality, apparatus, institutions, discourse, bodies, and figurality.” The case of Mies and his connection to cinema signals a moment where the architect appears as a highly ambivalent figure, who acts as the empowered producer of concrete worlds and at the same time produces, manipulates and is part of the ‘total flow’ of images. Decades before digital technology conjured up a congruency between reality and image, it was cinema that interrogated both the complexities and the critical potentials of the post-linguistic architecture/image nexus. Already back then it became evident what the architectural theorist Jörg H. Gleiter has ascribed to the digital, namely that “we can no

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longer speak about architecture without determining the image-theoretical status in its own communicative structure.”

After all, architecture from the onset has been inextricably linked to the image. Ever since Vitruvius declared the orthographic set of ichnographia [plan], orthographia [section] and scenographia [perspectival view] to be the indispensable visual means for the process of building, images have been constitutive for the ways architecture is perceived, designed, communicated and imbued with meaning. Projective drawings, axonometries, typological series, diagrammatic renderings, photographs and, lately, animated digital images would enrich the repertoire of images specific to architecture. With the Renaissance the dominant influence of a particular visual regime emerged: “He is a good painter and master of perspective, and therefore will be a good architect” the painter Andrea Pozzo declared in his Prospettiva de pittori e architetti (1693). The perspectival image, as much a codified set of rules for the representation of reality as an epistemological model for knowing the world, framed the ways in which architecture could be pictured. It was one of the principle objectives of the modern movement to respond to the fact that empirical psychology, neo-Kantian philosophy and the experience of new modes of transportation and new forms of visual entertainment had shattered the dream of a homogenous and rational space. As the example of Sigfried Giedion shows, painting continued to serve as the paradigmatic model for architecture; it simply shifted its formal language from realist to abstract. While the idea of space as a container of bodies and objects gave way to entity

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60 Jörg H. Gleiter, Architekturtheorie heute (Bielefeld: Transcript, 2008), 23-24.
that was moving, processual and relational, the good architect is still the one who proves to be a
good (abstract) painter.

Ut architectura pictura is hence self-evident as it is occulted. Architectural scholarship has
shown little interest in elucidating the historical evolution and theoretical implications of this
interdependence between architecture and image.\textsuperscript{62} This is especially surprising considering that
major currents in twentieth century architecture had developed a more and more contradictory
attitude towards the role of the image. Modern architecture, with its penchant for pure white
walls and abstract spaces, can be interpreted on the one hand as an iconoclastic reaction against
architecture’s association with the visual arts and perspectival illusionism. On the other hand,
protagonists of modern architecture emphatically celebrated the new visual culture and actively
took part in rendering their work compatible for the dissemination and circulation of
architectural imagery. Likewise, while postmodernism reinstated the image into the language of
architecture as an affirmative remedy against the tyranny of modernist absence (“less is bore”),
its strict control over the meaning of architectural language can equally be regarded as a defense
against the threat of the incommensurable and corporeal nature of the image.

\textsuperscript{62} The large-scale exhibition \textit{Architecture and its Image}, held in 1989 at the CCA in Montreal,
sets out to present a global overview of, as the editors not in their introduction, “the most
common ways in which architectural representations structure their subjects [...] in the form of
drawings, prints, photographs, illustrations in books and magazines, or the transient images of
film, video, or computer screen.” \textsuperscript{[13]} Yet, neither the analytic nor the catalogue section discuss
or present moving images of and in architecture. Eve Blau and Edward Kaufman, eds.,
\textit{Architecture and its Image: Four Centuries of Architectural Representation} (Cambridge Mass.:\textsuperscript{MIT}
Press, 1989). See also \textit{Images et imaginaires d'architecture: dessin, peinture, photographie,\textsuperscript{arts graphiques, théâtre, cinéma}}, (Paris: Centre Georges Pompidou, 1984) Christy Anderson and
Karen Koehler, eds., \textit{The Built Surface}, 2 vols. (Hants: Ashgate, 2002). Robin Evans has shifted
attention from the object to its visual presentations, focusing in his insightful elaboration on the
architectural practice of projection. Robin Evans, \textit{The Projective Cast} (Cambridge, Mass.:\textsuperscript{MIT}
Dalibor Vesely, \textit{Architecture in the Age of Divided Representation: The Question of Creativity
In this context it seems ironic that at the very moment Richard Rorty proclaimed the *linguistic turn* in 1967 – the starting signal for postmodernism’s language games that would quickly infiltrate into the discourses and practice of architecture – Manfredo Tafuri points to the relation between architecture and the image as pivotal for his quest for reinstating a critical dimension in architecture. According to Tafuri, it is the false use of images that is responsible for the loss of critical attention. The observer is involved “in a sort of mere game, *divertissement*, *imagerie*: the city as a non-functioning fun fair, full of persuasive images, replete with signs more and more empty of meaning […].”63 In order to recuperate the possibility for architecture to still retain his/her critical agency in a modern world where images are no longer capable of signification, Tafuri proposes to interrogate the “critical value” of the very image that is suspected of having demolished the critical faculties in the first place.64 Repeating the insight originally developed by Benjamin in his *Artwork* essay, Tafuri turns to the cinematic image, for its proximity to technology, as possessing a critical potential. It is cinema that is able to create “a new relationship with things and nature” putting the “artist, the public and the media of

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64 In *Theories and History of Architecture* Manfredo Tafuri clearly opposes two forms of critique, one based on a linguistic model, another on the image.

“Dans le premier cas [language], le langage artistique peut en effet exploser toutes les limites jusqu’à où il peut aller – une fois admis le choix arbitraire et initial d’un code – y compris par une contestation cruelle et systématique. Mais il ne peut pas éclairer les raisons qui, historiquement, déterminent ce choix initial. Dans le second cas [image], nous avons déjà dépassé les choix linguistiques examiné. […] La critique opère dans une situation de contestation plus radicale, puisqu’elle est en mesure – sans se servir de l’organisation linguistique à analyser – de mettre en lumière, d’une part l’historicité de ce code, d’autre part les idéologies qui lui sont sous-jacentes, sans être explicitées, parce qu’elle se manifestent à un niveau qui n’est pas toujours conscient. » Manfredo Tafuri, *Théories et histoire de l’architecture* (Paris: Éditions SADG, 1976), 146.
What Tafuri makes clear is that cinema is not simply another sophisticated form of representation that can be added to the repertoire the architectural imagery or an agent of spectacle numbing the subject’s critical faculties but a new paradigm that fundamentally alters the existing ways of comprehending, perceiving, imagining and producing architecture. Yet, despite the fact that film flashes up at different moments in Tafuri’s work – for example, in his writing on Eisenstein or the brief reference to Eggeling or Ruttmann in the context of Mies’s architecture – he never elaborates further on the question of film.

Maybe it is because scholarship itself repeats what T.J. Clark has identified as the modernist avant-garde’s habit of “counterfeiting” the “new descriptions of the world” in order to generate an “immense, unstoppable relish at putting the means of illusionism through their paces, making them generate impossible objects, pressing them on to further and further feats of intimation and nuance – all for the purpose of showing the ways in which they might form a different constellation.” In other words, just as parts of the avant-garde ‘counterfeited’ cinema in order to make it fit its own ideological underpinnings, much of the research puts forward approximate or reductive definitions of cinema that fail to acknowledge that the moving image acted as a foreign body vis-a-vis the existing regimes of representation and signification causing a profound yet highly prolific confusion amongst certain members of the avant-garde.

Recovering some of these discourses – occluded in a first degree by parts of the avant-garde

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itself, and in a second degree by a scholarship that still needs to recast cinema so it fits in with its own regimes of representation and signification – will be part of the task of this present work.

What triggered the astonishment, enthusiasm and anxiety of early commentators of cinema such as Blaise Cendrars, Yvan Goll, or Emilie Altenloh was precisely cinema’s radical incommensurability with the prior ways of knowing and representing the world and the subject’s place within it. Cinema, as Benjamin writes, “burst this prison-world asunder by the dynamite of the tenth of a second,” and hence prompted a fundamental reassessment of the notions of subjectivity, time and space. At first sight, the radical novelty of the new medium seemed to fully correspond with the formal premises and political agendas of the different avant-garde currents (one only has to look at the prominent place cinema occupies in avant-garde journal such L’Esprit Nouveau, MA, De Stijl, i10, Pásmo or G). Yet at the same time, by exposing its epistemic limits, cinema threatened to not only blow apart the old world view but also the avant-garde enterprise itself. The aim of my work will hence be to distinguish between those engaged in “counterfeiting” cinema as mere effect or “simulation” in order to contain the menacing contingency of the new medium, and those who welcomed “room-for-play” [Spielraum] cinema offered as a first step into a new condition.

On second level, any critical engagement with the question of interferences between two different media, architecture and film, must question the medial dimension of architectural historiography itself. Maybe architectural scholarship’s own methodological a priori – its reliance on a conception of the world populated by concrete, inert objects and images that can be described, analyzed and imbued with existing categories of meaning – restricted inquiries to a set of evidence that conforms to a rather limited definition of cinema. Might it be that scholarship itself is also responsible of “counterfeiting” the evidence, of emphasizing film’s illusionist
potential and spell-binding attractiveness while at the same time blanking out its dynamic, time-based form that could neither be described through language, nor be fixed as a visual illustration?

The objective of this study is to close a blind spot in the scholarship on Mies by charting his position amidst Germany’s visual culture during the formative period of his career between the early 1910s and the mid-1920s. It is not the objective of this study to excavate as yet undiscovered profilmic evidence showing Mies’s work on film but to analyze the ways architectural discourses were altered through the advent of cinema. The aim here is to show that cinema was not merely regarded as a powerful mechanism through which architectural modernism promoted itself, generated potent metaphors or constituted its own historical status, but that cinema was seen by some as a solution to the crisis of the object and the material manifestation of new ‘time-space.’ My work’s intention is not to simply present further evidence in the form of yet unknown films but to elucidate the changes prompted through the emergence of the cinematic image for the ever-changing intermedial relationship between architecture and the image. What this study will attempt to show is that the proclamation of Mies as a “film-fighter” was not an off-hand remark that can be easily dismissed as a marginal anecdote, but evidence that exposes the epistemic limits of architecture and its relation to the image. Cinema is hence a means to highlight these limits which might prove revelatory for reconstructing the outlines of an alternative modernity as they appeared in the brief moments of intersection with the new medium cinema.
Cinema/architecture: existing body of research

Attempts by architectural theorists and scholars of cinema to explore the nexus film/architecture have remained within the epistemological limits staked out Taut. The interest in the field peaked by the late 1980s and early 1990s, just at the moment when the spread of digital imaging technologies was seen as the harbinger of a hyperreality blurring the boundary between image and reality. Large-scale exhibitions played with porous lines separating of the virtual from the real. Journals like Iris, Architectural Design and Bauwelt devoted special

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68 Some of the credit for initiating this field of research can be given to Manfredo Tafuri. In 1969 he follows the invitation of Giulio Carlo Argan to participate in the conference on urbanism and cinematography and three years later Tafuri publishes an article on Piranesi and Eisenstein. Lo spazio visivo della citta 'urbanistica e cinematografo', Gli incontri di Verucchio (Bologna: Capelli, 1969); Manfredo Tafuri, "Piranesi, Eisenstein e la dialettica dell'avanguardia," Rassegna Sovietica, no. 1-2 (1972). Another example for early reflections on the kinship between film and architecture is the short booklet by the film scholar Helmut Färber (who translated Panofsky’s Style and Medium in the Moving Picture into German in 1967). Helmut Färber, Baukunst und Film (München: private print, 1977). Other crucial moments for the elaboration of the ties between film and architecture were numerous film festivals beginning in the 1970s that focused on the theme of film and architecture (Built-Environment Film Festival, Columbia University, 1973; Urban Focus Film Festival, Columbia University, 1975; Forum Architecture, Communication, Territoire, Lausanne, 1979).

issues to the theme film/architecture. Numerous articles, conference proceedings and monographs were published on the subject.

This considerable body of research is mainly concerned with three aspects: architecture in film, filmic architecture, and film in architecture. The first theme, architecture in film, focuses on architectural objects that are part of film’s diegesis, i.e. which are visible in the virtual realm of the cinematographic image. Architectural stage sets for fiction films or documentary recordings of known buildings and recognizable cityscapes are the typical subjects of research. The idea that cinematographic stage sets can be revelatory for particular “moments of dialogue between film and architecture” is taken up by Dietrich Neumann’s Film Architecture – From Metropolis

70 “Cinema and Architecture,” Iris, no. 12 (1991); Architectural Design 64, no. 11/12 (1994); "Film und Architektur (Special Issue)," Bauwelt 85, no. 9 (1994).


72 Donald Albrecht, Designer Dreams: Modern Architecture in the Movies (New York: Harper and Row, 1986), VII. It is ironic that the first comprehensive genealogy of modern architectural film sets of the 1920s and 1930s presented by Albrecht resulted from a project dating back to the late 1960s when Ludwig Glaeser, at the time head of the Museum of Modern Art’s architecture department, had the idea to conduct a study of the film-architecture affiliation by comparing of the museum’s neighboring collections of architectural photographs and movie stills.

to Blade Runner (1996). Neumann perceives the space of film as a proxy for real space which, because it is less burdened by financial considerations and aesthetic traditions, allows architects, stage designers and film with “a testing ground for innovative visions, and as a realm in which a different approach to the art and practice of architecture can be realized.”

The second approach, *filmic architecture*, takes cinema as a model for capturing the phenomenological experience of the subject moving through architectural or urban spaces. Rather than presenting the image of an immobile, immutable object, architecture ‘happens’ inside the mind of an ambulant observer as a sequence of images. This phenomenological approach to art was first developed by Wölfflin, Hildebrand, Riegl, and Schmarsow who shifted the focus from substantialist and formalist methods for reading works of art to an interest in questions of intuition, perception and apprehension independent of pre-established ideas. The cinematographic apparatus does not simply imitate human visual perception or memory but functions as a prosthetic device capable of expanding vision to previously inaccessible viewpoints (close-up, aerial shots etc.) and temporalities (slow motion, reverse motion, temporal leaps through montage etc.). Not only does this conflation of human vision with the camera eye lead to an enlarged field of architecture, it also generates the awareness that architecture can no longer be dissociated from the media that condition its perception. Especially since modern architecture, as Anthony Vidler argues, “operated as a psychic mechanism, constructing its subject in space and time” has it become inextricably linked with cinematographic film.

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74 Ibid., 7.
The common point of reference for much of the works that proceeds from the assumption that there exists a perceptual dimension shared by modern architecture and film is the work of Walter Benjamin, especially the point he develops in the Artwork essay in which he argues that architecture and film are both being perceived in a state of distraction. This kinship is hence not based on film accurate representation of the real but due to the fact that “film corresponds to profound changes in the apparatus of apperception.”

To get a hold of modern subjectivity we have to pass via film and in order to understand film, Benjamin argues, we have to look to architecture which provides “a platform for the analysis for film” because “the laws of its reception are most instructive.”

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It is cinema itself that “constructs spaces in the mind,” (Pallasmaa) mixing lived experience with the kinesthetic ways of experiencing the blend of retinal, haptic and memory images. The calibration of the modern subject’s perception through mass media is also the basis for Colomina’s interpretation of Le Corbusier. The experience of the inhabitant of Le Corbusier’s houses is described as resembling that of a film spectator who, deprived of a fixed point of view, embarks on an architectural/cinematographic promenade. For Colomina, the Villa Savoye “is no more than a series of views choreographed by the visitor, the way a filmmaker affects the
What is implied is that modernity and cinema are somehow synonymous, that cinema is as at once symptom, agent and remedy of the violent restructuring of perception and cognition effected by the emergence of new technologies of locomotion and communication. Since the experience of nineteenth century train travel has been identified as the archetype of modern perception, the analogy persists between the ambulant observer actually riding vehicle through space and the film spectator being transported virtually while remaining fixed physically. By focusing on perception the experience of watching a motion picture is seen as on a par with the experience of actually moving through space. Yet cinema distinguishes itself because it also functions as a remedy that provides the stunned and disoriented modern subject with the illusion montage of a film.” Le Corbusier’s deliberate dispersion of a fixed point of view and the annihilation of perspectival space through the use of windows en longeur achieve what Colomina calls an “architectural correlative of the space of the movie camera.” Architecture and film short-circuit on the level of the subject’s perception: “It is space that is not made of walls but of images. Images as walls. [...] the big window is a paper wall with a picture on it, a picture wall, a (movie) screen.” Beatriz Colomina, Privacy and Publicity: Modern Architecture as Mass Media (Cambridge: MIT Press, 1994), 6, 312. Beatriz Colomina, "Le Corbusier and Photography," Assemblage, no. 4 (1987), 21. Cf. François Arnault, "Le cinématographie de l’oeuvre de Le Corbusier," Cinémathèque (1996), 39-55.

of coherence and stability. In other words, film does not simply reproduce the “riot of detail” (Baudelaire) and the “unexpectedness of onrushing impressions” (Simmel) of modern metropolitan life, it also allows the subject to regain at least the illusion of control through a new of kinetic apperception. Cinema thus becomes the model for architecture to imitate – but only because the former is regarded as device for the cultivation of a newly empowered albeit distracted subject. Whether this is a sufficient definition of cinema is questionable. Cinema is presented here as an optical instrument that renders comprehensible and pleasurable the pandemonium of modern life.

Lastly, the subject film in architecture focuses on attempts to incorporate the cinematographic apparatus into the design of an architectural object or its façade. Examples range from architectural designs of buildings exclusively dedicated to the screening of films such as Johannes Duiker’s Cineac (1934) [Fig. 9] to instances where the cinematographic apparatus becomes an integral part of a larger programmatic idea like Theo van Doesburg’s Ciné-dancing at the Aubette in Strasbourg (1927), Walter Gropius’ inclusion of film projectors into the design for his Totaltheater (1927) or the screen on the façade of Oscar Nitzchke’s Maison de la Publicité, 1936). [Fig. 10]

79 Famously, Walter Benjamin has called film a “training ground” [Übungsinstrument] for the modern subject to practice with the particularly modern tactile “reception in distraction.” Benjamin, ”The Work of Art in the Age of Its Technological Reproducibility (Third Version),” 269.

80 Only recently theorists like Giuliana Bruno have begun to comprehend cinema not only for its ability to reproduce iconic views or to simulate modern perception – which both situated the medium of the moving image in the tradition of ocular-centric, disembodied Enlightenment vision. Benjamin had already argued that film blows up the “prison-world” of pictorial space “by the dynamite of the tenth of a second,” letting emerge another type of space we are invited to investigate. Cinema hence becomes a haptic, “multiform practice of geopsychic exploration.” Bruno, Atlas of Emotion: Journeys in Art, Architecture, and Film, 15.
The popularity of the film-architecture analogy has also elicited critical voices. Roger Connah, for instance, while acknowledging that “earlier in the century, the very ubiquitous poetics of the ‘motion’ picture could not have failed to inform, distract, and interfere with many earlier architects,”¹ the modalities of these interferences remain open to interpretations. Due to the lack of serious interrogation of what cinema actually is, the medium has remained susceptible to be “hijacked” by certain architectural discourses. In particular, he points to contemporary architecture infatuation with the dazzling “image-thinking” or “phraseology”² of poststructuralist thought. The latter’s preoccupation with movement, incompletion, deferral, event – metaphors of thought that film most convincingly embodies – has inspired architects to ‘visualize’ these concepts more or less literally in the form of architectural objects.³ Filmic terms like ‘framing,’ ‘montage,’ ‘sequence,’ or ‘(jump)cuts’ have become commonplace lingo in architectural debates. Architects like Bernhard Tschumi, who describes his *Manhattan Transcripts* as being “not unlike an Eisenstein film script,” openly reference film theory as the source of inspiration for their design.⁴ Kester Rattenbury even goes as far to argue that much of postmodernism’s use of the film-architecture symbiosis resembles a “pornographic reshaping of architectural space into perceived and replicated experience,” a narcissist, self-destructive

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² Ibid., 28.
⁴ Bernard Tschumi, *The Manhattan Transcripts* (London: Academy Editions, 1981), 7. Tschumi explicitly founds his design on a conception of the cinematic image: “The *Transcripts* are thus not self-contained images. They establish a memory of the preceding frame, of the course of events. Their final meaning is cumulative; it does not merely depend on a single frame (such as a façade), but the succession of frames and space.” Tschumi, *The Manhattan Transcripts*, 11.
obsession that obscures and jeopardizes architect’s responsibility to respond to the political, historical and collective essence of architecture.\textsuperscript{85}

The pairing up of architecture and cinema is only relevant, Connah reminds us, if “film begins to ‘read’ architecture anew.”\textsuperscript{86} One might wonder whether the wealth of articles published on the subject the inflationary use of filmic metaphors in architectural discourses indeed prompt this novel understanding of architecture. I would argue that we are confronted with clichés and empty metaphors that gloss over the rhetorical frills of contemporary architectural discourses. The homology film-architecture offers an occasion to furtively conserve the heroic posture of the modernist \textit{Gesamtkunstwerk} for a post-industrial age of immaterial production. The architect-as-filmmaker is then no one else than the updated \textit{Doppelgänger} of modernism’s heroic figure par excellence the artist-as-engineer, who for the occasion of the “digital turn” is dressed up to fit the role of postmodern designer of time-based events. There is suspicion that the infatuation with the pairing film/architecture facilitates, rather than critically questions, the seamless transition into the digital era.

To avoid this travesty to happen and salvage the possibility to ‘read’ architecture anew through film, we need to start by examining what cinema actually means, or rather, what cinema meant to those architects, artists, critics and historians during the 1910s and 1920s who, at the moment of its emergence, realized or intuited the creative and critical possibilities (as well as the dangers) of the moving image. Until the present day, much of the research has dealt with the object of cinema in very much the same way it deals with still images or solid objects. In order to fit the methodological mold inherited by art history the filmic image has to become readable,

\textsuperscript{85} Kester Rattenbury, "Echo and Narcissus," \textit{Architectural Design} 64, no. 11/12 (1994), 36.
identifiable, and analyzable. In other words, the manner in which the filmic image is used as evidence is structurally not different from for example a photographic image. Many authors writing on the subject often mention film and photography indiscriminately since both are media of mechanical reproduction. Reading film as a still image hence surreptitiously reinforces a form-based, iconological methodology that stems from art historical research.

Even the claim that the perceptive experience of film is akin to that of architecture perpetuates the insight first developed around the turn of the century by Wölfflin, Schmarsow and Hildebrand. It displaces the debate onto the level of perception by mapping film onto existing semiotic and psychoanalytic theories of subjectivity. What remains unaccounted for is the fact that it was the radical novelty of cinema, its unprecedented ability to prompt, to use Erwin Panofsky’s words, the “dynamization of space” and the “spatialization of time.” Cinema demanded a completely new way of thinking the image and its active role in the ways the subject perceives, comprehends, engages with and creates the world of objects.

The objective of my work is not to unearth yet another instance in which a well-known architect collaborates in the making of a film or to identify yet another famous edifice recorded on a strip of celluloid. Instead, I want to focus on different moments where the encounter of the two media, architecture and film, instead of producing meaningful metaphors and dreams of Gesamtkunstwerke, sparked unforeseeable constellations for imagining a new architecture, a new film. The aim of my work is to recover some of the discursive precipitations that the encounters of architecture with the moving image generated. Because I am aware of the fact that the

87 See for example Werner Oechslin, "Gestaltung der Darstellung', 'optische Wahrheit', und der Wille zum Bild: Sigfried Giedion und die Wandlungen im Geschichts- und Bildverständnis," Sigfried Giedion und die Fotografie: Bildinszenierungen der Moderne, eds. Werner Oechslin and Gregor Harbusch (Zürich: gta Verlag, 2010).
88 Panofsky, "Style and Medium in the Motion Pictures," 281.
structural qualities of cinema – time and motion – escape the arresting and analyzing gaze of any scholarly inquiry, we have to turn towards the various discourses the emergence of cinema sparked. The aim is hence to attempt to sketch out a discursive map of Weimar Germany’s intellectual and artistic currents with respect to the intersection architecture/cinema, and to locate Mies’s position on this map. If we want to retrieve some of potentially productive and critical impulses of these encounters for an architect like Mies, we need to look beyond the ‘successful’ outcomes of the encounter between the two media, and rather take a closer look at the apparent contradictions and failures, at marginal moments and surprising encounters that hitherto have escaped scholarly interest.

For Mies scholars, the period between 1921 and 1924, when the architect, as he would later note, “tried to understand architecture, […] tried to find positive solutions,”89 has always posed a challenge. While there is agreement that his revolutionary “five projects”90 produced during this period are evidence for, as Philip Johnson writes, the emergence of “a new kind of architecture,”91 scholars still today debate about what might have allowed this novelty to emerge. The sheer scarcity of archival information related to this period coupled with the highly suggestive quality of Mies’s images has left ample room for speculations portraying Mies alternatively as a Constructivist, as the representative of a conservative modernism who seamlessly fits into the genealogy making his the heir of Schinkel and Behrens,92 a follower of

90 The famous “five projects” are: Friedrichstrasse Skyscraper, Glass Skyscraper, Concrete Office Building, Concrete Country House, Brick Country House.
92 This reading was first put forward by Paul Westheim’s interpretation of Mies. Paul Westheim, "Mies van der Rohe - Entwicklung eines Architekten," Das Kunstblatt XI (1927), 55. For a
Scheerbart,93 the inventor of the International Style,94 or the avatar of neo-modernism and event architecture etc.95

The intention of my work is not to prove any of these interpretations right or wrong. What I will try to do is to open up a new perspective on Mies’s work by shifting the focus to the architect’s proximity with artists like Richter and Eggeling, but also van Doesburg, Erich Buchholz or Friedrich Kiesler who all, in one way or another, tried to integrate the lesson of the moving image into their work. What they all have in common is the intuition or conviction that the emergence of the new medium cinema entails new conception of space and architecture.

Mies and his ties to a network of discourses on the moving image hence serve as a case study to prepare the ground for a re-thinking of the architecture/image nexus.

Until the present day few authors have, in more or less explicit ways, alluded to the subject of cinema in the context of Mies’s architecture. Joachim Krausse, for example, suggests that Mies, through his acquaintance with artists who actively dealt with photomechanical media reproduction, schooled his architectural sensibilities via the visual culture of his time.96

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94 Johnson, Mies van der Rohe, 30.


96 Joachim Krausse points to Mies personal connections during the early 1920s to a group of artists (Werner Graeff, Kurt Schwitters, Heinz and Bodo Rasch) who started to experiment with
Architecture becomes for Mies, Krausse believes, an “image-machine” that orchestrates the ever-changing relationship between architecture as image and architecture as built reality. Spyros Papapetros, in his close reading of the Mies’s 1922 *Glashochhaus* model, interprets the high-rise project as “an early cinematographic machine, creatively engineered for the projection of other architectures.” Bruno Reichlin, in his attempt to identify the possible sources of inspiration for Mies’s interwar work, suggests that Hans Richter’s drawing *Filmmomente* – an illustration for his abstract film *Rhythmus 21* published in 1923 in *De Stijl* – was “certainly capable of stimulating the fantasy of the architect; just like the space-time-effects in his abstract films.” Franz Schulze calls Hans Richter as the “most catalytic” of all relationships Mies established during the early 1920s.

In their writing on modern architecture Manfredo Tafuri and Francesco Dal Co evoke Mies’s connection to Viking Eggeling. His glass architecture, they argue, in order to subdue all dialogue between the building and the city, creates “distortions” comparable to abstract film: “the experimental films of Viking Eggeling are constructed of deformations and isolations...
(Diagonal Symphony)." They continue arguing that “[...] his [Mies’s] architecture assumes the lesson of the elementary experience but would not follow the course taken in the films by Walter Ruttmann. The conversation between Mies and the avant-garde never went beyond the pages of the review G and his designs for a brick house in 1923 and a cement house in 1924."

Recent scholarly work on Mies by Paolo Amaldi, Robin Evans and Ulrich Müller places his architecture of 1920s in the context of the proto-phenomenological aesthetics of Schmarsow arguing that Mies’s architecture, because it is perceived from the point of view of a moving subject, remains in a state of becoming. Mies produces paradoxical spaces that are the “properties of a changing gaze” and therefore resist all appropriation.

The most sustained effort to substantiate Mies’s indebtedness to cinema has hitherto been presented by Detlef Mertins. Anchoring Mies’s oeuvre in the visual culture of early 1920s Weimar Germany Mertins concludes by interpreting the Barcelona Pavilion as a “cinematic poesis in which visitors participated in a performance of self-estrangement and rediscovery on a

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100 Tafuri and Dal Co, Modern Architecture, 132.
101 Ibid., 132. Given the fact that Ruttmann, after having experimented with abstract film (Lichtspiel Opus I-IV, 1921-25), turned towards the figurative, documentary Berlin: Sinfonie der Großstadt (1927), means that Mies pursued the path both Ruttmann and the avant-garde had abandoned. See also Francesco Dal Co, who identifies the clarity of Mies’s writing as a “last habitat of the ‘second world’” as described by Romano Guardini. This world Dal Co finds analyzed in “the Nervenleben of Simmel and transferred to film by the collaborators of G, a world of an immobile spectator of modern Vergeistigung and Spengler’s ‘decline.’” Francesco Dal Co, "La culture de Mies considérée à travers ses notes et ses lectures," Mies van der Rohe: sa carrière, son héritage et ses disciples (Paris: Centre Georges Pompidou, 1988), 87.
higher plan of existence.”

This effect, Mertins argues, is similar to Hans Richter’s surrealist film *Vormittagspuk* [Ghosts before Breakfast, 1928] in which Richter exploits the capacity of cinematographic apparatus – by showing slow motions, superimpositions, repetitions – “to make miracles and epiphanies a part of everyday life.”

My own work tries to pick up some of the loose ends left untied by Mertins, and to elaborate in greater detail what cinema meant, and the specific role it played amidst the artistic and intellectual networks Mies was part of. Rather than a phenomenological reading of Miesian spaces that employs film or cinema as a metaphor I want to answer the question of what cinema meant for those artists Mies was close to during the early 1920s. And rather than approaching the cinematographic apparatus as an extension of vision capable of rendering accessible to the gaze what before remained concealed, I want to stress the medium’s epistemic quality, helping to reshape what is thinkable or unthinkable, what can be considered as architecture and what cannot. What attracted Mies, of all architects, to the G group, whose members, as I shall demonstrate, all tried to come to terms with the new medium of cinema, with the challenges it posed and creative opportunities it offered? What role did cinema play for developing this new language which was to apply to all the arts including architecture? What lessons did the cinematic experiments of Richter, Eggeling and others hold for Mies in this period in which he tried to “understand architecture”? To answer these questions we not only have to locate Mies’s position on Berlin’s shifting intellectual and artistic map of the early 1920s, but we also have to understand how the emergence of cinema altered the very “condition” that sustained the modernist project.

104 Ibid., 133.
105 Ibid., 133.
**Cinema determines the situation**

While from the point of view of the 1920s avant-gardes it seemed self-evident that, as Miriam Hansen put it, “modernity realized itself in and through the cinema,” it is still debated what cinema actually is and how it was understood during the early part of the twentieth century. Recent studies have tried to expand the conception of cinema: rather than being limited to an ensemble of cinematographic devices and to a set of pro-filmic conventions (framing, montage, narration) that presumes an immobilized spectator starring at a screen that like an Albertian window opens up the view into an illusionary reality, cinema is understood as multifarious practices of producing, exhibiting and perceiving moving images. Cinema is hence not synonymous with cinematography or film, i.e. an ensemble of cinematographic technologies capable of reproducing the real as an indexical, ‘living’ image. It cannot be limited to a representational vehicle for capturing and projecting images, a sophisticated derivative of photography that records and rearranges through montage the real. Reading film as an innovation of existing art forms (like theatre) or technologies of representation (such as photography) reveals more the desire on the part of the scholar to inscribe a new technology into a linear, continuous logic of history than the willingness to come to terms with this radical novelty of cinema that during the 1910s and 1920s emerges into existing networks of signification.

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Early film theorists who tried to come to terms with the radical novelty of cinema repeatedly point out two particular aspects of the new medium: its material or spatial aspects as well as its epistemological dimension. Both aspects were already highlighted by early film theorists. In 1911, Ricciotto Canudo describes cinema as a “plastic art in motion”\(^{108}\) which one time will become “our immaterial Temple, Parthenon, and Cathedral.”\(^{109}\) Abel Gance, who would experiment with multiple, immersive screens, sees film “an admirable synthèse du mouvement de l’espace et du temps.”\(^{110}\) Fernand Léger points to cinema’s “limitless plastic possibilities”\(^{111}\) Others like Jean Epstein underline the revolutionary epistemic charge inherent in film. He argues that “the cinematic image carries a warning of something monstrous, that it bears a subtle venom which could corrupt the entire rational order so painstakingly imagined in the destiny of the universe.”\(^{112}\) Cinema conveyed a “particular form of knowing”\(^{113}\) coercing the individual to open to a “new condition of intelligence.”\(^{114}\) The cinema invoked by Epstein offers an alternative to the disembodied, transcendental model of the eye inherited from Renaissance visuality which even, in the modern age, produced an autonomous subject situated outside of


\(^{112}\) Epstein, "Magnification and Other Writings," 24.


matter and time. The new subject that emerges in Epstein’s monstrous cinema is corporeal, immanent and capable of accessing and engaging with the animate world of objects and intensities.

More than half a century later, it is Gilles Deleuze who singles out cinema as a privileged site for comprehending and experiencing a fundamental shift in the ways the world is understood, imbued with meaning and constructed. This shift Deleuze locates in the distinction between what he calls “movement-image” and “time-image”: while the former functions in a Newtonian universe where time is subordinated to movement, the latter dissociates time from movement allowing aberrant or irrational movements to emerge.115 Once we accept that cinema is made of blocks of time, i.e. that it has a temporal form, the focus shifts from what can be seen in an image to the constantly changing intervals and interferences between images. In this Deleuzian universe, meaning is no longer predetermined by ideal forms, but produced by processes of emergence and contingency. In other words, cinema generates events that escape the rationalizing and commodifying gaze. “What is specific about to the image,” Deleuze writes, “is to make perceptible, to make visible, relationships of time which cannot be seen in the represented object and do not allow themselves to be reduced to the present”116

Many artists of the modernist avant-gardes of the 1920s embraced cinema, but, to stay with the Deleuzian taxonomy, it was movement rather than time they were preoccupied with. The advantage of foregrounding movement was that the threatening contingency of the cinematic image could be controlled through montage and hence be returned to the level of representation.


116 Deleuze, Cinema 2: The Time-Image, xii.
By contrast, it is precisely Deleuze’s motivation to render ‘visible’ through the concept of the “time-image” what lies outside of representation and hence outside of the reach of the scientific, analytic gaze. Cinema is an image of thought as an open and incommensurable process, “as a deterritorialized and nomadic becoming, a creative act.” Deleuzian thinking about cinema recovers a dimension that the chronophotographic works of Marey and Muybridge, or Bergson’s critique of cinematographic knowledge resist. Rather than representing the optical unconscious of ordinary movement through sequences of arrested time-slices, Deleuze wants us to become able to think flow, becoming and multiplicity.

Cinema hence appears as a highly ambivalent practice that embodies the contradictory nature of modernity itself. On the one hand, cinema, because of its technical structure’s ability to construct an imaginary coherence with real time, acts as an active agent for capitalism’s rationalization and restructuring of time. By containing the contingent flux of images, bodies and goods in seemingly stable and coherent images, cinema acts as a controlling dispositif. On the other hand, however, cinema also embodies a temporality that is contingent, ephemeral and anti-systematic. It permits us to rethink time and, as a corollary, space and the position and role of the subject within this ambivalent constellation. Or, as Jacques Aumont put, it is cinema that “allows us to reason differently, to dream differently, to remember differently.”

A certain number of theorists have picked up the Deleuzian lead and developed cinema’s epistemic potential into different directions. Jacques Rancière, for example, has emphasized the

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crucial role of film as an agent for a new “politics of aesthetics.” Through its very structure film extends beyond the existing symbolic orders and systems of communication. All true aesthetic practices do, Rancière believes, what true politics does: they re-define, re-draw the boundaries of the sphere of common experience and thinking and thereby challenge the reigning dispositifs of power. In the modern era it is film that becomes “the art of an aesthetic community” par excellence because, in contrast to abstraction of the law, it establishes concrete and immediate connections between human beings, a communal rhythm that defies existing order and hierarchy.

Cinema also allows us, once we no longer define it solely in terms of its apparatic basis or narrative, formal, and exhibitory practices, to also think architecture differently. Raymond Bellour cinema constructs “a second space,” a kind of installation that confronts the spectator turned promeneur with “the moving, touching [mouvant, émouvante] conditions of his/her own thinking.” Hubert Damisch even goes as far as to argue for a “cinematographic approach of architecture” that deals not only with “an optics of time but with an optics of movement, which no longer is understood as a translation in space but as a change in duration.”

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121 It should be pointed out that for Rancière the suggested common world is not meant as a homogeneous and static sphere of shared beliefs and narratives but rather “a polemical distribution of modes of being and ‘occupations’ in a space of possibilities.” Ibid., 42.


It is via these approaches that I would like to frame Mies’s encounters during the early 1920s with numerous artists reflecting about the new medium cinema. The purpose of my work is to recover some of the intermedial discourses that sparked up by cinema’s emergence into the field of architecture, reshaping its epistemic limits, rendering visible, thinkable, realizable images, objects and processes that formerly remained outside the cognitive field. Despite, or should one rather say, precisely because of the repeated failures to realize the dreamt up utopian fusions between film and architecture we have to interrogate the ways in which cinema inspired new ways of conceiving the world and of making art.¹²⁴

What I want to demonstrate is that the idea of cinema as a medium that effects epistemic shifts and allows for a new conception of (architectural) space was already present in the discourses of artists like Richter, Eggeling, Hausmann, van Doesburg, Graeff and others. None of them regarded cinema as a neutral representation vehicle but as a means that exemplifies, as Richter writes in *G*, “the mastery of matter in consonance with the functions of our perceptive apparatus.”¹²⁵ The main challenge of cinema was, as Richter would later put it, “the overcoming of *reproduction*.¹²⁶ It was seen as a means that helps to create resonances between the organs of human perception and the animate life-world in order to enable the subject to actively participate in the shaping of this very world. In that sense, Richter’s abstract films of the early 1920s (just as Mies’s architecture from the period) do not present the subject with visions of new worlds to come, they simply ‘speak to’ the modern individual who, as Richter puts it in *G*, “is already

¹²⁵ Hans Richter, "Die schlecht trainierte Seele," *G: Zeitschrift für elementare Gestaltung*, no. 3 (1924), 44.
¹²⁶ Richter, "The Film as an Original Art Form," 157.
equipped with all the modern apparatuses of instinct, reception and transmission, which assure his connection with life.” In the context of G, film and architecture function as such “apparatuses,” or what Foucault called “dispositifs,” as media that connect the subject with his/her life world, producing and conditioning new forms of knowledge that prompts us to challenge the dominant regimes of vision, language and signification in place. For many of those associated with G, cinema carried an epistemic charge that would allow the subject to regain some form of agency to shape his/her material environment.

What is more is that the case of Mies the Filmkämpfer poses the question of methodology: how to deal with the nexus cinema/architecture if all formal, narrative and representational aspects, if all formalist interpretations of architectural spaces as potentially ‘cinematic’ are ruled out from the outset? One way of approaching the question is to consider both cinema and architecture as media. Recent scholarship has stressed the idea that architecture, instead of standing in relation to other media, should be considered itself as media. This idea, notwithstanding its relevance, displaces the argument to the question of media – which itself is a highly contested term ever since in the 1990s, German Media Studies began to challenge all ontological concepts of media as mere technologies of transmission or communication.


129 Beatriz Colomina has remarked that her work “is not so much concerned with the relationship between architecture and the media as with the possibility of thinking of architecture as media.” Colomina, Privacy and Publicity: Modern Architecture as Mass Media, 15.

Rather, as the system theorist Niklas Luhmann claims, media do not communicate but organize the world. Media are not ‘external’ tools or instruments that allow the subject to project his/her will but rather a technological a priori that conditions, organizes and prescribes certain “discourse networks” as Friedrich Kittler put it.

But how to deal with this data or describe the situation if technological media like cinema alter the epistemic field and render their own description impossible? In such a situation, Kittler writes, “as in the case of the sectional plane of two optical media, patterns and moirés emerge, myths, fictions of science, oracles…” The intention of my work is therefore not to describe, interpret and analyze architectural objects or cinematographic images, but to collect the scattered fragments that emerged in the discourses of certain artists, architects and writers who sensed the power of the new media. “What writers,” Kittler argues, “astonished by gramophones, films, and typewriters – the first technological media – committed to paper between 1880 and 1920 amounts, therefore, to a ghostly image of our present as future.” The purpose of my work is to narrow this approach to the interferences that were generated by the arrival of film in architectural discourses. In this sense, the journal G – Material zur elementaren Gestaltung, Adolf Behne’s writings on film, Theo van Doesburg’s Ciné-Dancing, and Mies’s Glasraum – to cite only a few of the discursive instances that will be discussed in the following pages – are

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133 Friedrich Kittler, Gramophone, Film, Typewriter, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), xxxix-xl. Kittler sees in the emergence of these first technological media a prelude for contemporary development sparked by digital media. “Those early and seemingly harmless machines capable of storing and therefore separating sounds, sights and writing, ushered in a technologizing of information which, in retrospect, paved the way for today’s self-recursive stream of numbers.”
To simply think architecture as media might consequently not be sufficient. In order to extract meaningful instances from the flow of history it is important to locate architecture inside the larger fields of interferences with other media. It is at particular instances when an emergent technology (like cinema) establishes new relations with existing media (like architecture) that potentially significant discourses emerge. Gathering, organizing and analyzing these discourses will be the task of this dissertation.\textsuperscript{134} Raising the critical awareness of the intermediality not only of architectural practice (which is self-evident today with the widespread use of digital drawing, modeling and animation tools) but also of architectural history will hopefully be the concomitant concern of my discourse analysis: until the present day the production of historical meaning remains by and large media-blind, ignoring both the technological conditions of architectural production at a given point in time as well as history’s own implication with printing technologies, drawings, photographs etc.\textsuperscript{135}

That said, I am aware of the irony that a discourse analysis of cinema implies. As Michel Foucault reminds us, discourses are always “snatched from the law of development and established in a discontinuous atemporality.” In other words, discourses fundamentally contradict the very essence of the moving image. Trying to reassemble these immobilized fragments to restore the flow of images and hence the shattered whole (that can take the guise of either history or film) is consequently a futile undertaking since, as Foucault writes, “a play of fixed images


\textsuperscript{135} Horst Bredekamp has repeatedly pointed to the role media like photography and slide projections played for the constitution of modern art history. Bredekamp, "A Neglected Tradition: Art History as Bildwissenschaft," 418-28.
disappearing in turn, do not constitute either movement, time, or history.” 136 Just as history cannot make us relive the past, film cannot reproduce the experience of modern life. What cinema can do is render ‘tangible’ the medial and social conditions that delimit the space of experience, thinking and knowledge – which is a political task.

What follows is therefore not simply a historical account of Mies’s links with cinema, but a collection of case studies that reflect the fantasies and anxieties, bursts of creativity and inevitable failures triggered by the new medium. The following chapters, rather than establishing a linear narrative and hermetically closing an overlooked gap in Mies scholarship, are meant as strata that render visible discourses that surfaced with the emergence of cinema in the field of architecture. Chapter II can be considered as the most remote of these strata. It maps different dispersed instances in which the moving image appeared during the early part of the twentieth century in central texts of aesthetics, art history and architectural theory. In particular, it focuses on the early writings of Adolf Behne and Sigfried Giedion. Chapter III investigates Mies’s involvement in the journal G – Material zur elementaren Gestaltung and explores the ways in which many of the artists and intellectuals that constituted the G group were preoccupied with questions of the moving image. Chapter IV places the emphasis on Mies’s association with the filmmakers Hans Richter and Viking Eggeling. At the same time, the last chapter opens up the scope of investigation and revisits both an earlier period of Mies’s career, his familiarity with the Dresden-Hellerau project of the early 1910s, and his later well-known realizations of the second part of the 1920s.

136 Foucault, The Archaeology of Knowledge, 166-67.
II. Cinema in the Discourses of the Architectural Avantgarde

People are only barely beginning to realize that an unforeseen art has come into being. One that is absolutely new. We must understand what that means.

Jean Epstein (1921)

Architectural Aesthetics and Cinema

The first encounters between cinema and architecture, which for the most part remained on a theoretical level, are particularly instructive because they happened at a moment when the formal language, social status and political meaning of the new medium were still fluid and uncertain. It is this initial indetermination of the medium of the moving image, its radical novelty and incompatibility with existing regimes of signification and representation which allowed cinema to render visible hidden contradictions and unknown possibilities for the modernist project. The following chapter treats select moments of disruption and incomprehension produced by the emergence of cinema, but also instances where the nexus film/architecture opened up new possibilities for thinking architecture.

The following chapter focuses on three ‘moments’ in which the theme of the moving image flashed up in central aesthetic and historical texts written by intellectual spearheads and partisan advocates of the modernist avant-garde during the first three decades of the twentieth century: in aesthetic theory (Herman Sörgel, Paul Zucker, Élie Faure), in the context of reform movements in 1910s in Germany (Adolf Behne), and in Sigfried Giedion’s preoccupation with fusing “Neues Sehen” with “Neues Bauen.” For them, cinema announced the demise of antiquated world-views, whether logocentric or perspectival. Yet, at the same time, cinema presented a threat because it exposed that the fact that underneath the veil of visual and material
ambiguity, the avant-garde had surreptitiously constructed their historical narratives on the classical visual regimes of the still image and perspectival vision.\(^1\) Once taken seriously, cinema revealed itself a new practice of the image, which rather than improving the access to reality, fundamentally put into crisis the very concepts of representation and transcendental subjectivity.

Well before the interwar years, cinema had become a ubiquitous presence in the modern city. Flamboyantly decorated movie palaces with their ephemeral, brightly lit billboards had become conspicuous faces in the metropolitan landscapes and going to the movies had become instantly after the ‘invention’ of cinema, a favorite pastime for the urban masses. One could even argue, as Georg Simmel did in his famous 1903 essay “The Metropolis and Mental Life,” that the everyday experience of the modern urban dweller itself, characterized by the “rapid crowding of changing images” and “the unexpectedness of onrushing impressions,” had become cinematic.\(^2\) The fragmentary and visceral experience of modern city life could not be dissociated from the experience of spectators of cinematic and pre-cinematic spectacles who willingly consumed a multitude of animated light-spectacles.

While the urban masses instantly embraced the new mass medium (in Berlin, for example, only a decade after the Lumière brothers projected their first films in 1895, there were already three hundred movie theatres), artists, even those belonging to various avant-garde movements, were both slow and reluctant to recognize the aesthetic and political potential of the new medium. The idea that by staring at the silver screen or by exposing themselves to dazzling,

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\(^1\) The argument I am trying to make here with respect to the introduction of the moving image into architectural discourses retraces the thesis put forward by Robin Evans about the continued sway of metric, classical space on modern architecture. See Evans, *The Projective Cast* 353.

shock-inducing spectacles, the “homogenous metropolitan audience” acted truthfully in a profound sense, as Siegfried Kracauer would argue later, still had not come to the minds of most artists in during the first two decades of the twentieth century. With the exception of certain members of the Italian Futurists and single voices like the French poets Pierre Albert-Birot or Philippe Soupault, whose poetry from the 1910s tried to directly capture film’s immanence, the avant-garde would only start to acknowledge the fundamental impact of the new medium cinema in the early 1920s. Only then avant-garde publications such as *L’Esprit Nouveau*, *G*, *De Stijl*, *MA* or *ABC* started to devote editorial space to questions of cinema canonizing the medium – alongside photography, typography, modern architecture, ocean steamers and airplanes – as simply another iconic expression of the modern age.

This belatedness would be reason enough to interrogate both the role cinema played for the construction of the avant-gardes and for the modernist project in general. For the following chapter, however, I would like to narrow the question to the peculiar fact that amongst those who first became interested in cinema, one finds the names of many architects such as Bruno Taut,

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4 The notable exceptions amongst the avant-gardes were the Italian Futurists who already in the early 1910s celebrated film’s speed and dynamics. Both the technological structures and formal aesthetics of film were to serve as a model for all artistic expression. Marinetti, who was fascinated by the ways films were inserted in variety shows, saw in cinema a “dynamic and fragmentary symphony of gestures, words, sounds, and light” (1915). He imagined Futurist poetry to be “an uninterrupted sequence of images.” In their manifesto calling for a Futurist cinema, Marinetti, Corra, Settimelli, Ginna, Balla and Chiti call for film to function as “the ideal instrument of a new art,” as an autonomous yet “poly-expressive symphony” uniting in itself numerous of the older arts. See Filippo Tommaso Marinetti, Bruno Corra, Emilio Settimelli, Arnaldo Ginna, Giacomo Balla and Remo Chiti, "La cinematografia futurista," *L’Italia futurista* 1, no. 10 (1916). See also See Günter Berghaus, *International Futurism in Arts and Literature* (Berlin: de Gruyter, 2000), 404-421.

Ludwig Hiberseimer, Peter Behrens, and Kurt Schumacher, or critics and historians who early on had championed the causes of the modern movement in architecture such as Fritz Wichert, Adolf Behne, Herman Sörgel, and Élie Faure. What did these figures perceive in cinema that they considered conducive for advancing the causes of modern architecture? Why were architectural discourses receptive to the new medium? And how did the new medium of the moving image not only embody the spirit of the modern age but, at the same time, expose certain contradictions of the avant-gardes? These are the question the following chapter attempts to answer by analyzing certain instances in which cinema first entered the discourses of the modern movement in architecture.

*From “Space-creation” to “Image-Effect”: August Schmarsow’s aesthetics and Absolute Film*

Perceptual empiricism reached architectural discourses after first having been transcribed into art history. German theorists such as Adolf von Hildebrand, Heinrich Wölfflin and Aloïs Riegl shifted the question of the essence of architecture from questions of form – perceived from a stationary position – to images of the object perceived by an ambulatory observer. August Schmarsow took this idea one step further by suggesting that the perception of the architectural object was not merely dependent on a moving eye, but on bodily kinetics. In order to arrive at “Raumgestaltung” (‘space creation’), which was to become modern architecture’s principle vocation, one had to presume a body that moves in space.

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7 August Schmarsow, "Raumgestaltung als Wesen der architektonischen Schöpfung," *Zeitschrift für Ästhetik und allgemeine Kunstwissenschaften*, no. 9 (1914). See also Mitchell Schwarzer, "The Emergence of Architectural Space: August Schmarsow’s Theory of 'Raumgestaltung',"
Space is hence, as Schmarsow points out, “an emanation of the human being present, a projection from within the subject, irrespective of whether we physically place ourselves inside the space or mentally project ourselves into it.”\(^8\) In other words, the architecture is the expression of an interior sense of space, a property of the mind that is ‘projected.’ In Schmarsow’s aesthetics the anthropomorphic conception of architecture reflecting an idealized image of the body has been replaced by an active body – both physically and mentally - that becomes the site of spatial production. He no longer considers architecture as a fixed and opaque entity whose representational functions consist in visually communicating through ornament, façade or structural articulations; rather, architecture has become “space-generating art” \([\text{raumbildende Kunst}]\)\(^9\) or “Raumgebilde”\(^10\) – a correlation of the terms ‘space’ \([\text{Raum}]\) and ‘image’ \([\text{Bild}]\) – that originates in and resonates with the bodily intuition of the moving subject. By activating for architectural thinking themes that before had been introduced in the fields of psychology and physiology, Schmarsow starts to investigate the kinetic relations between the subject and his or her environment.

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\(^8\) August Schmarsow, "The Essence of Architectural Creation," \textit{Empathy, Form and Space. Problems in German Aesthetics 1873-1893}, eds. Harry Francis Mallgrave and Eleftherios Ikonomou (Los Angeles: Getty Center for the History of Art and the Humanities, 1994 [1893]), 289. Adrian Forty points out that these developments in German aesthetics not merely constituted a new spatial paradigm but that the term ‘space’ itself “simply did not exist in the architectural vocabulary until the 1890s” and it hence intrinsically tied to the historical context of modernism itself. Adrian Forty, \textit{Words and Buildings} (London: Thames & Hudson, 2000), 256.


Schmarsow’s phenomenological conception of an architecture produced as image by a perceptively active and moving subject was taken up by other German architectural theorists during the 1910s and 1920s: Hermann Sörgel argues that it was the task of the architect to create a “Wirkungsraum” [effectual space] capable of inciting reactions from the beholder; Leo Adler defines architecture as a “visual purposeful reality of three-dimensional space”; and Fritz Schumacher subordinates functional considerations as secondary and prefers to emphasize first and foremost architecture’s “Bildwirkung” [image-effect], a visual experience of successive movements in time.11 Schmarsow’s aesthetics had liberating implications for architects.12 Rather than limiting their work to the construction of solid and concrete objects they could henceforth use the “room-for-play” [Spielraum],13 as Schmarsow put it, that the shift to human perception afforded.14 Yet, once architecture became to be understood as Raumgestaltung, with a scientific foundation on nineteenth century empirical psychology, it could also be appropriated for specific ideological ends. Walter Gropius, for example, defines the architect’s task as finding the “optical ‘key’” and the “controlling agent within the creative art” in order to control the perceptive


12 Mallgrave and Ikonomou, eds., Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893, 39.

13 Schmarsow, "Das Wesen der architektonischen Schöpfung. Antrittsvorlesung," 156. See also the discussion on the notion of Spielraum discussed in this work.

14 Cornelia Jöchner has shown how members of the modernist avant-garde such as Paul Zucker, Moholy-Nagy or Walter Gropius intrumentalized Scharsow’s potentially emancipatory “room-for-play.” While in Schmarsow’s conception space as a medium is an end in itself, it later becomes subordinated to a overarching social or political objectives. Cornelia Jöchner, "Wie kommt 'Bewegung' in die Architekturtheorie? Zur Raum-Debatte am Beginn der Moderne," Wolkenkuckucksheim 9, no. 1 (2004).
relations between image and object. Movement and time, which in Schmarsow’s conception still were considered as generating moments for a new architecture and possible new forms of sociality, becomes reduced, as Cornelia Jöchner notes, to a “cinematographic effects,” in the sense that the creative perceiver transforms into a user who is optically stimulated by an architectural apparatus calibrated to produce and to satisfy his or her perceptive needs.

Interestingly, the very first dissertation in art history that dealt with abstract film was based on Schmarsow’s theories. Victor Schamoni’s 1926 work Das Lichtspiel: Möglichkeiten des absoluten Films [The Light-Play: Possibilities of Absolute Film] analyzes the abstract cinema of Hans Richter, Viking Eggeling and Walter Ruttmann as objects of art historical interest by drawing the parallel with architecture and, in particular, the architectural aesthetics of August Schmarsow. In the opening passage Schamoni refers to the latter’s conception of architecture as a perceptual experience of the moving body through space: “The spatial figure [Raumgebilde] is experienced by entering it, by wandering through it with our eyes. The creator of space [Raumschöpfer] knows that we experience [erfahren] space simultaneously as a great total impression; yet we experience [erleben] it successively in its parts, in the harmonies of its forms.”

15 Walter Gropius, Scope of Total Architecture (New York: Harper & Brothers, 1955). Tellingly, the German version of this work appeared under the title Architektur: Wege zu einer optischen Kultur [Architecture: Roads Towards an Optical Culture].

16 See Jöchner, "Wie kommt 'Bewegung' in die Architekturtheorie? Zur Raum-Debatte am Beginn der Moderne," Tafuri makes a similar argument when he writes that certain members of the avant-garde had transformed the potentially emancipatory intersection of art and technology into a “technique of communication.” Tafuri, "U.S.S.R.-Berlin, 1922: From Populism to Constructivist International," 142.

17 Schamoni, Das Lichtspiel: Möglichkeiten des absoluten Films, 11. One should pay attention to Schamoni’s use of language. He clearly distinguishes between erleben and erfahren, the two words in German that translate as ‘experience.’ It is Walter Benjamin who later contrasts these two terms for a typology of experience. On the one hand, Erlebnis refers to a form of non-
From the onset, Schamoni approaches the subject of film without making the habitual analogy to theatre, painting or other cinematographic works. Instead, by evoking the terms and concepts of Schmarsow’s aesthetics, it is architecture that serves as reference for the new medium of film. The use of expressions taken from Schmarsow like for example “Raumgebilde,” which literally means “objects in space,” but in fact is a composite of “space” and the ambiguous term “Gebilde,” which, in turn, refers to both “image” and “object” that is in a state of becoming, allows Schamoni to associate architecture with an image that is both dynamic and objective.

Schamoni identifies manifestations of this aesthetics in popular practices like fairs, festivals, sports or dance which already have the dynamic, corporeal and collective dimensions of cinema. In particular, he focuses on light spectacles and rhythmic light projections such as Louis-Bertrand Castel’s eighteenth century “clavecin oculaire,” David Brewster’s early nineteenth century kaleidoscope, or Alexander Wallace Rimington’s color organ. Film hence becomes the latest manifestation of an alternative history of cinema defined as non-narrative, non-figurative light-plays. Moreover, these rhythmic light spectacles often were designed to have an impact on their environment. For example, Schamoni points to “water-plays” [Wasserkünste] which, through their elaborate illuminations, affect the surrounding architecture. Moving water next to buildings can produce, Schamoni writes, “downright contrapuntal meaning” (a cumulative experience tied to machine labor (and cinema) performed in a state of distraction, an experience of fragmented objects and arbitrarily juxtaposed information. On the other hand, Erfahrung is a cumulative, communicable experience referring to tradition labor and leading to a coherent accretion of meaning in a comprehensible world. See Walter Benjamin, "On Some Motifs in Baudelaire," Selected Writings, eds. Michael Jennings and Howard Eiland, vol. 4 (Cambridge Mass.: Harvard University Press, 2003), 319.

terminology he certainly takes from Richter and Eggeling’s writings) when it “picks up and
varies rigid tectonic structures and even architectural motifs.”\(^{19}\)

Examples for this transformation of solid architectural objects into ephemeral light-plays
Schamoni finds at the 1900 Paris World Exposition. He describes the “incredible light effects” of
fountain at the Château d’eau which could “be operated like an organ” and the Salle des glaces
et des illusions, this “fantastic, huge space” with its “orgies of light color.”\(^{20}\) According to
Schamoni, visitors rejoiced at the sight of the “enormous mass of light consisting of thousands of
electric light bulbs.” Moreover, Schamoni does fail to mention that this delightful spectacle of
light and movement was sustained by technology, the “complicated apparatuses” and the
“enthusiastic electricians under the leadership of Eugène Hénard.”\(^{21}\) The fact that the nocturnal
metropolitan streets, as Schamoni writes, “shine in ever more colorful, ever more moving
colors,”\(^{22}\) show that spectacle and functionality are no longer to be understood as contradictions.
Via Schmarsow and the architectural manifestations of light-spectacles, Schamoni eventually
arrives at the object of his study, the “absolute” films of Richter, Eggeling and Ruttmann.
Despite minor formal differences he identifies them as “something completely new.” Compared
to the experience of the framed still image, the spectator now experiences “flow, movement,
becoming, passing away.”\(^{23}\)

\(^{19}\) Schamoni, Das Lichtspiel: Möglichkeiten des absoluten Films, 29.
\(^{20}\) Ibid., 29.
\(^{21}\) Ibid., 29. Hénard, a visionary French urbanist and author of Études sur les transformations de
Paris (1909), contributed greatly to the master planning of the 1900 World Exposition.
\(^{22}\) Ibid., 30.
\(^{23}\) Ibid., 52.
“Raumsinn” through film (Herman Sörgel)

Modern art history as an academic discipline would have been unthinkable without the technological developments of processes of photographic reproduction and slide projection.²⁴ Like all media, printed and projected images were no transparent vehicles of representation but cultural technologies that altered the epistemological status of the real, of the visual and, by consequence, of art historical knowledge. Wölfflin, for instance, was very interested in the question of how to capture and reproduce three-dimensional objects.²⁵ In his lectures he extensively used double slide projections, a technique of visual comparison which he would also use in his Kunstgeschichtliche Grundbegriffe (1915) to reinforce by visual means the arguments put forwards in the text. ²⁶

While photographic reproductions and slide projections, would become the standard visual media that sustained and conditioned the art historical knowledge promoted in both publications and teaching, film, both as an artistic subject and as a representational support, remained ignored

²⁴ It took nonetheless until the turn of the century, after a long period of resistance of the art historical establishment, for slide projections to become a standard instrument for the teaching of art history. Herman Grimm, first professor of art history at the University of Berlin, made extensive use of the skiopticon, a magic lantern apparatus for the projection of slides. In an 1892 article Grimm elaborates on the new teaching methods and changes of art historical education. When Wölfflin succeeded Herman Grimm as professor of art history at the University of Berlin he discovered a collection of altogether 15,000 slides. See Ingeborg Reichle, "Medienbrüche," Kritische Berichte, no. 1 (2002), 40-52.

²⁵ Heinrich Wölfflin, "Wie man Skulpturen aufnehmen soll," Zeitschrift für bildende Kunst 7, no. 10 (1896), 224-28. While Wölfflin was concerned with the question of how to photograph three-dimensional sculpture correctly he never brought into play the question film.

²⁶ Gabriele Wimböck, "Im Bilde: Heinrich Wölfflin," Ideengeschichte der Bildwissenschaft, ed. Jörg Probst (Frankfurt a.M.: Suhrkamp, 2009), 97-116. On the history of the use of reproductive visual media, such as photographs and slide, in art history see Bredekamp, "A Neglected Tradition: Art History as Bildwissenschaft." In his summarizing sketch about the evolution of Bildwissenschaften Bredekamp refers to both photographic and cinematographic images as new types of reproductive media that gradually entered art historical discourses and practices. However, Bredekamp falls short in recognizing the decisive qualitative distinction between two.
or marginalized by art history.27 Ironically, it was this resistance to consider film as a serious subject of inquiry that served as motive for one of the first theories of film. Béla Balázs opens his film-theoretical study Der sichtbare Mensch (1924) with the request to the “learned guardians of aesthetics and art studies” to finally recognize film as a proper form of art. He mocks the fact that the “great aesthetic systems that discuss all sorts of things ranging from carved table-legs to the art of braiding […] do not even mention film.”28

Although Balázs’ charge against the conservatism of the art historical establishment was justified, there were nonetheless isolated instances in which certain art historians showed an interest in film. Aby Warburg, for instance, ended his 1912 Schifanoja lecture with the confession that he just presented a “cinematographic projection” [kinematographisch scheinwerfern]29; Victor Schamoni published Das Lichtspiel in 1926 the very first art historical dissertation on the subject of film30; and Erwin Panofsky, probably the most known example, repeatedly drew analogies between artworks and cinema.31 In 1934, the avid movie-goer Panofsky presented a lecture entitled “On Movies,” later published as “Style and Medium in the Motion Pictures” (1947),32 in which he famously identifies cinema’s specificity in the

27 Meder, "Die Verdrängung des Films aus der deutschen Kunstwissenschaft 1925-1950,"
28 Balázs, Der sichtbare Mensch, 9.
30 Schamoni, Das Lichtspiel: Möglichkeiten des absoluten Films. Crucial works like Joseph Gregor’s Das Zeitalter des Films (1932) or Rudolf Arnheim’s Film als Kunst (1932) were not written by trained art historians.
32 Tom Y. Levin has pointed to the discrepancy between the argument Panofsky develops in his writing on film and his iconographic method. Levin, "Iconology at the Movies: Panofsky's Film Theory." See also Bredekamp, "A Neglected Tradition: Art History as Bildwissenschaft." Meder, "Die Verdrängung des Films aus der deutschen Kunstwissenschaft 1925-1950."
“dynamization of space” and, concurrently, the “spatialization of time.”

In addition, there were a number of trained art historians who during the 1910s had become interested in the new culture of the moving image. Many of them had studied under Heinrich Wölfflin: Adolf Behne, writes early on about questions of cinema and movie theater architecture; Joseph Gantner, later editor-in-chief of Das Neue Frankfurt, embraced film as a crucial ingredient for the construction of an entirely new urbanity; Lotte Eisner, author of The Haunted Screen, would entirely devote herself to her career as a film critic.

Concerning the aesthetic debates on architecture it was the practicing architect and architectural theorist Herman Sörgel who first reflected on the medium cinema. His Einführung in die Architektur-Ästhetik (1918) can be read as an overt criticism of the dominant aesthetic theories of the time by Adolf von Hildebrand and Heinrich Wölfflin: “The ‘problem of form,’” Sörgel notes, “must be transformed into a ‘problem of space.’” Much more in line with August Schmarsow’s phenomenological conception of architecture as Raumkunst [art of space], he shifts the focus to the moving, perceptive body and the multiple correlations, psychological, cognitive, and sensuous, that the perceiving subject entertained with the architectural object. Sörgel criticized dominant architectural aesthetics for not being based on observations of architecture but rather of painting and sculpture.

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33 Panofsky, "Style and Medium in the Motion Pictures," 235.
34 Sörgel was an unconventional figure of Germany’s architectural scene who would later become infamous for his Atlantropa project, a megalomaniac plan to connect the European and African continents through the lowering of Mediterranean Sea.
35 The work was first published in 1918 but, as Sörgel explains in the preface, finished already in 1914.
Moreover, he denounced the continued sway of painterly-optical perspective that prevented the development of an autonomous architectural “sense of space” [Raumsinn]. What Sörgel repudiates is not the relation between architecture and the image per se, but the persistent sway of the still image on architecture and, as its corollary, the disembodied, transcendental, viewing subject. The habit of designing according to “aspects that have been chosen beforehand to fit perspectival representation” leads to the regrettable fact that, as Sörgel writes, “an architect schooled in such a way only perceives images everywhere and spaces nowhere.”

In particular, Sörgel attacks the influence of the photographic image on architectural education:

> Preferably he roams the land with his Kodack [sic] and fixes during his excursions all spaces onto a plate. Back home, when he regards his photographs, his spatial impression [Raumeindruck] – presuming he ever had one – has become a pictorial impression [Bildeindruck]. During his education he neither had the time nor the occasion to deal in a profound way with the spatial nature of his art. But, he attended a course in art photography. It is hence not surprising that the principle part of his knowledge is situated in the Kodack.”

For Sörgel the dominance of a particular visual regime, exemplified by the photographic image, inhibits architectural vision. Certain images, rather than acting as media for

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39 Specifically, Sörgel attacks not only the aesthetic theories of von Hildebrand and Wölfflin, but also the idea, propagated by one of his teachers Karl Hocheders, that the framed view or the theater stage are the conceptual models of space. See Jochen Meyer’s informative epilog to the
architectural representation and creation, actually reveal themselves as obstacles for ‘true’
architectural design.

In addition, Sörgel is the first to connect his questioning of the relations between
architecture and image to the problem of mechanical mass reproduction. Not only does the
practice of taking photos inhibit the inert “sense of space” [Raumsinn]; in addition, the mass
circulation and consumption of photographic reproductions of buildings in “an era of image-
overproduction” [Bildüberproduktion] acts as an additional constraint:

The effortlessness and versatility of modern processes of reproduction, besides
having incontestable advantages for architecture, have limited many architects’
sense of space. Hence, one knows architecture more and more from images and the
three-dimensional sensation withers.

The technology of present day graphic art institutions have as consequence that
every day the images in numerous magazines enter the architect’s eye, images that
were all captured from the best possible viewpoint […]. The selection of these
images according to painterly aspects is evidence that the receptiveness for visual images is more developed and estimated higher than the sense for the all-sided, spatial arts. […] Today literature on architecture consists almost entirely of
picture-books with accompanying texts. How many editing houses of ‘architecture’ publish in principle only picture volumes! This flattening of three-dimensionality to two-dimensionality has unfortunately become second nature to
the eye and the sensation of today’s space-artist.”

reprint of the 1921 edition of Sörgel’s book. Sörgel, Architektur-Ästhetik: Theorie der Baukunst,
353.
40 Ibid., 23.
41 Sörgel, Einführung in die Architektur-Ästhetik: Prolegomena zu einer Theorie der Baukunst,
253-54.

“Die Leichtigkeit und Vielseitigkeit der modernen Reproduktionsverfahren z.B. haben, neben
unbestreitbar großen Vorteilen für die Baukunst, bei vielen Architekten den Sinn für das
Raummäßige sehr beschränkt. Man lernt die Raumkunst so mehr und mehr aus Bildern kennen, und das drei-dimensionale Empfinden verkümmert. Die Technik graphischer Kunstanstalten der Gegenwart bringt es mit sich, daß täglich die Bilderaufnahmen zahlreicher Zeitschriften am Auge des Architekten vorbeiziehen, die alle von einem möglichst günstigen Punkte […] aufgenommen sind. Schon die Auswahl dieser Bilder nach malerischen Gesichtspunkten ist ein Argument dafür, daß die Aufnahmefähigkeit für das Bildmäßige mehr ausgebildet und höher eingeschätzt wird als der Sinn für die allseitig räumliche Kunst. Die Literatur über Architektur
The architect’s eye is hence schooled in the wrong way. Rather than capturing stationary views, architectural perception requires a perceptive body that moves in space. “Space creations [Raumbildungen],” Sörgel writes, “can only be integrated into artistic perception when walking around, in successive perception, so that inside a space [Raum] there is no use for ‘pictures.’”

Only the moving body, whose dynamic perception is not limited to the eye but encompasses perceptive, cognitive and sensuous registers, is capable of Raumbildungen. It is hence not the general correlation of architecture/image that is criticized, but the conceptual sway of the still image on architecture that is problematic.

The solution, Sörgel identifies in cinema, the proper medium for developing the Raumsinn:

The screening of moving cinematographic images instead of fixed projected pictures would present a significant improvement for architecture lectures. The fact that the cinematograph is capable of optically sensing space from a fixed position, would strongly support the all-sided, spatial imagination.

The fact that film still limits the observer’s freedom of movement by determining both speed and content of the image sequences is outweighed by its advantages. It is due to cinema’s dynamic, synaesthetic and bodily qualities – rather than its capacity to reproduce a precise real –

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42 Ibid., 141. “Raumbildungen können nur im Herumgehen, sukzessive betrachtet und in die künstlerische Wahrnehmung aufgenommen werden, so daß in einem Raum mit ‘Bildern’ nichts anzufangen ist.”

that Sörgel calls on schools of architecture to replace slide projectors with cinematographic projectors.

Although Sörgel might have been the first to support the use of moving image projections for the education of architects, the idea to use film for educational purposes had appeared already in the first decade of the twentieth century. From about 1907 onwards, the “Kinoreform” movement began to develop in Germany promoting the use of films as teaching tools. In 1912 the writer Lucien Descaves describes cinema as a “mobile and circulating museum” that would support the students’ efforts. In an article entitled “Architecture and the Motion Picture,” that appeared in 1919 in The American Architect, Carl A. Ziegler asks rhetorically what would “prevent the much maligned picture play from doing what our great colleges have failed to do, namely, the teaching of architecture as a matter of education?” The Rapport général sur l’emploi du Cinématographe dans les différentes branches de l’enseignement published in 1920 praises cinema’s positive impact on the “youth’s intellectual and moral education.” Film is both a “marvelous instrument of demonstration and analysis” and by showing “landscapes, scenes of nature, masterpieces of art” film could develop the students’ aesthetic sensibilities.

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Cinema and the city

The first incursions of the subject of the moving image into urbanist discourses happened in the mid-1910s. H.W. Jost\(^{48}\) published in 1916 an article entitled “Kino und Architektur” in *Der Städtbau* in which he underlined film’s ability to produce a convincing double of the real by describing the virtual “passage“ through Berlin’s urban space from the perceptive of a movie camera:

> We drive through Berlin, in a cosy carriage, not in a car [...] past the lively street with, on both sides, trivial masses of big city apartment houses. All of the sudden we are amidst shadows, darkness – left and right, in close proximity, appear stony masses, rigidly fluted columns of noble width, and quickly it becomes lighter again. [...] We just passed through the Brandenburg Gate. Now we already see it becoming smaller and reaching a state of completeness again, on which our eye rests with delight. We see it forming a relation to the adjacent buildings on the Pariser Platz, to the Straße unter den Linden, until it finally disappears from sight as a distant point and the waves of the city traffic sweep over its image.\(^{49}\)

The point Jost is trying to make is that while the cinematic ride through the streets of Berlin captures the real experience of the city, “lifeless photography” does not. Like Sörgel, Jost underlines the impossibility of the still image to capture the urban dynamic. Metropolitan experience and the aesthetics of film were identified as similar. It is this insight that Walter

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\(^{48}\) The author is probably Hermann Wilhelm Jost (1887-1949) who would become the assistant of Schmitthenner and the president of the Technical University Dresden.

\(^{49}\) H.W. Jost, "Kino und Architektur," *Der Städtebau* 13, no. 6/7 (1916), 91.

Benjamin would later express in his *Berliner Chronik*: “For the closer we come to its present-day, fluid, functional existence, the narrower draws the circle that can be photographed. […] Only the cinema commands optical approaches to the essence of the city, such as conducting the motorist into the new center.”

Jost pushes his argument about film’s proximity to the urban real even further by stating that film has the potential of “offering certain advantages over reality.” First, film offers the practical advantage of permitting to “study a building while sitting in an armchair,” which renders time-consuming onsite visits redundant. Secondly, cinema makes time malleable: it can slow down or accelerates time or abruptly leap from one point of view to another. What is more is that Jost sees in cinema the possibility for the urbanist to access an entirely new dimension of scientific knowledge. Rather than relying on sets of quantifiable data, statistics and diagrams, film has the ability to render the urban “vivid” and to furnish “a realistic image of what captivates [the urban planner] most: the living city.” The cinematic image hence promises a ‘scientific’ approach without disfiguring or suppressing the essential quality of the object of study: the animate, dynamic condition of the city.


51 Interestingly Jost’s early insights about film giving access to an urban reality that is superior to lived reality would resurface unchanged in later scholarship. Guilio Carlo Argan writes in his contribution to a conference on the subject of cinema and urbanism in the late 1960s: “Nel film, lo spettatore vive l’esperienza della città moltu piú intensamente di quanto non la viva come ‘cittadino.’” Guilio Carlo Argan, "Lo spazio visivo della città: 'Urbanistica e cinematografo'," *Gli incontri di Verucchio* (Bologna: Cappelli, 1969), 12.

52 Jost, "Kino und Architektur,"
This reasoning has direct consequences for architectural design: through the experience of the cinematic city one becomes aware of the fact that certain architectural designs are directly conditioned by still photography. “Living images,” Jost argues, “would mercilessly expose the boredom” of certain monumental buildings that “do not come to life for the moving eye and the moving lens.” Dismissively he calls them “postcard beauties,” relics of a bygone media era that fail to “integrate into the rhythmic sequence of space and volume”\(^53\) that Jost perceives as the essence of urban life. “Living architectural photography,” by contrast, redefines architecture itself: freed from Goethe’s famous designation as “frozen music,” Jost argues, architecture become alive again. Movie theaters were to become sites where in the future the audience, instead of watching fiction films, would gather to attend an “architecture concert,” the most “beautiful feasts for the eye.”\(^54\)

We can also find the same enthusiastic analogy between modern urban experiences and cinema in the writing of American poet Vachel Lindsay who in 1915 calls cinema “architecture-in-motion.” He argues that both the “photoplay” and the temporary architecture of the world’s fairs “speak the same language.” Lindsay imagines the urban future of America resembling a “Permanent World’s Fair” whose psychological disposition is to emulate that of film:

After duly weighing all the world's fairs, let our architects set about making the whole of the United States into a permanent one. Supposing the date to begin the erection be 1930. Till that time there should be tireless if indirect propaganda that will further the architectural state of mind, and later bring about the elucidation of the plans while they are being perfected. For many years this America, founded on the psychology of the Splendor Photoplay, will be evolving. […] A ‘Permanent

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\(^{53}\) Ibid.

\(^{54}\) Ibid.
World's Fair’ may be a phrase distressing to the literal mind. Perhaps it would be better to say ‘An Architect's America.’

As a consequence, Lindsay demands architects to produce “publicity films which are not only delineations of a future Cincinnati, Cleveland, or St. Louis, but whole counties and states […].”

Sörgel, Jost and Lindsay all proclaim, in some way or another, the kinship between the space of architecture and the space of film. Their comments accompany what the lens of the cinematographic camera had begun to capture ‘instinctively’ from the very onset. Urban views had been an essential part of the repertoire of the first actualités produced by Edison or the Lumière brothers. Shot from static viewpoints or moving vehicles (from driving trains, ships or cars), these early films sent their audiences on virtual voyages through the urban textures of the metropolis. In about half a minute running time, urban views like Panorama de l’arrivée en gare de Perrache pris du train (Lumière, 1896) [Fig. 11] or Berlin Potsdamer Platz (Lumière, 1896) captured city life by meticulously combining sights of monuments with scenes of bustling street life. They all appear to anticipate the city symphonies of the 1920s by Ruttmann, Deslaw and Vertov, or the rare pedagogical films on the subject of urban design like Was wir schufen (Hans

56 Ibid., vol.
Fuhrmann, 1928), *Die Stadt von morgen* (Maximilian von Goldbeck, Erich Kotzer, Svend Noldan, 1930), or even Pierre Chenal and Le Corbusier’s *Architecture aujourd’hui* (1930).

*Architecture and time (Paul Zucker)*

Another theorist who advanced the aesthetic discussion on architecture into the direction that focused on the correlation between architecture and the image is Paul Zucker (1888-1971). The writing of the practicing architect Zucker is noteworthy for the sheer range of subjects his work covers. Subjects of his work cover painting and city planning, the aesthetics of iron bridges, the sociology of architecture, the architecture museum, the new *Raumgefühl* (sense of space) of airplane travel, and the design of movie theaters. What connects this disparate blend


59 The following list of titles give a sense of Zucker’s multi-faceted written oeuvre. Zucker wrote on engineering works (i.e. *Industriebauten*, 1914; *Die Ästhetik der Eisenbahnbrücke*, 1921; *American Bridges and Dams*, 1941), urban history and city planning (Das Gesicht der Straße, 1926; *Entwicklung des Stadtbildes*, 1929; *New Architecture and City Planning*, 1944; *Town and Square: From Agora to the Village Green*, 1959), aesthetics (*Ornament, Rhythmus und Gedanke*, 1911; *Die Unwirklichkeit des Raumes*, 1918; *Fascination of Decay. Ruins: Relict – Symbol – Ornament*, 1968), architectural exhibitions (*Architekturausstellungen*, 1917; *Architektur-Museen*, 1918) and stage design (*Zur Kunstgeschichte des klassischen Bühnenbildes*, 1917; *Optik der Oper*, 1925). He is interested in the design of cars (*Architektur auf Rädern*, 1932) and the new spatial experience prompted by air travel (*Neues Raumgefühl und Flugzeug. Ein Beitrag zur Geschichte des Sehens*, 1925). Moreover, Zucker publishes articles on American and French architecture (*Architektur in Amerika*, 1926; *Pariser Impressionen (Exposition Internationale des Arts Décoratifs et Industriels Modernes)*, 1925, *Moderne Architektur in Frankreich, gesehen von einem deutschen Architekten*, 1932).

Zucker was a highly visible intellectual figure in Weimar Berlin who actively embraced the possibilities new media offered. He had been an instructor at the famous Lessing-Hochschule in Berlin for almost twenty years (1916-1935), the editor of the “Archiv für Geschichte und Ästhetik der Architektur” (a supplement to *Wasmuth’s Monatshefte für Baukunst*, 1919-1921), a
of topics is Zucker’s continuous interest in the ways new technologies and media alter the understanding of architecture. Already his 1912 dissertation “Raumdarstellungen und Bildarchitekturen im Florentiner Quattrocento” [Representations of space and image-architectures in the Florentine Quattrocento] focuses on what he calls art’s “Zwischenland,” the realm where architecture and the image intersect. It is here, Zucker notes, where “beginnings of developments are visible which had been complicated or rendered impossible through technical conditions in the sister arts.”

Zucker can be credited for having been the first to challenge the ontological quest of late nineteenth century German aesthetics to define architecture as “an art of space” by introducing the notion of time. In his 1924 article “Der Begriff der Zeit in der Architektur” [The Concept of Time in Architecture], he argues that time is supposed to be understood as “an immanent attribute of the architectural work of art independent of perception.” While crediting Hildebrand and Schmarsow for having introduced movement (and along with it, the dimension of time) into the aesthetic discourse on architecture, he emphasizes that this temporal dimension

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60 Paul Zucker, Raumdarstellung und Bildarchitekturen im Florentiner Quattrocento (Leipzig: Klinkhardt & Biermann, 1913), 1. Zucker was not the only critic to try to develop an alternative to the idea of architecture as a Raumkunst based on perceptual empiricism. Apart from Sörgel one has to mention the work of Leo Adler (who tried to theorize architecture as “event” and “appearance” and suggested a proper “architectural geography”). See Adler, Vom Wesen der Baukunst: Die Baukunst als Ereignis und Erscheinung.


62 Paul Zucker, "Der Begriff der Zeit in der Architektur," Repertorium der Kunstwissenschaft, no. 44 (1924), 240.
rests confined to the act of perception. Architectural design would hence be reduced to being nothing more than a mere “reverse act of perception.”  

The innovation Zucker introduces into the debate is that he displaces the ‘site’ of architectural temporality from the observing and/or moving subject back to the architectural object itself, which becomes the vehicle of a “functional concept of time.” Buildings, structures and even cities are no longer analyzed according to their formal appearances or technical characteristics, but for the ways they allow the subject to engage in “purposive movement” [zweckhafte Bewegung]. By placing the “functional concept of time” at the center of architectural aesthetics, Zucker presents an approach that can be universally applied to all epochs and buildings types without excluding new building types (e.g. engineering structures) or succumb to misleading dualisms (e.g. form and function, space and volume etc.). The writing of architectural history would hence have to begin with trying to understand, Zucker writes, “the concept of time in single eras through objective, artistic works (poetry, music, dance, but also costumes etc.) and also through extra-artistic phenomena (e.g. gestures, scripture etc.)” which would then be put into a comparative perspective with “architecture’s spatial or bodily ideas of the same era.”

With this shift from architecture as Raumbildung to architecture as a time-based practice of functional movement the role of the image changes. Zucker refutes the idea that architecture is perceived as “a succession of optical images” in space that happens as a “temporal process” [zeitliche Vollzug]. Instead he calls architectural experience a “flowing process” [fließender Vollzug], in which time is not a quantifiable sequence of frozen moments, but an immersive

63 Ibid., 242.
64 Ibid., 245.
65 Ibid., 244. In a footnote Zucker explicitly mentions Spengler’s method as a source of inspiration for such a methodology.
practice in time. Time can no longer be regarded as something that exists outside the architectural object but, Zucker writes, as “a constant function of a finished building and the immanent factor of its design.”66 In other words, while before architectural creation and representation happened as a projective leap from a planar image into a three-dimensional space, or back, Zucker locates architecture’s essence in the duration of “transition,” the passage between the “visual arts (in space) and absolute design in time (music).”67

That said, it is not surprising that Zucker showed a strong interest in various material manifestations of modern life. Works like The Aesthetics of the Train Bridge (1921), The New Spatial Sensation and the Airplane. A Contribution to the History of Seeing (1925), or Architecture on Wheels (1932) are evidence for this shift in architectural thinking. It is in this theoretical context that he published Theater und Lichtspielhäuser [Theaters and Movie Theaters] in 1926, one of the very first works that analyze Berlin’s newly-built cinema palaces as an autonomous architecture whose aesthetic categories are not derived from the traditional theater but from the new cultural practice of the moving image.68 Cinemas should resonate with the “speed” of the films onscreen. “All this has nothing to do with tradition, cultural conservation or questions of Kultur,” Zucker argues, “but with the superlative of our urbanized lives

66 Ibid., 242.
67 Ibid., 243. “Übergang zwischen den bildenden Künsten (im Raume) und dem absoluten Gestalten in der Zeit (Musik).” This emphasis on time as the constitutive factor for architecture certainly resonated, as we will later see in this work, with certain members of the Berlin avant-garde who were concerned with similar issues – especially figures like Mies van der Rohe, Hans Richter, Viking Eggeling or Theo van Doesburg.
68 Paul Zucker, Theater und Lichtspielhäuser (Berlin: Wasmuth, 1926).
[verstädtete Leben], [...] the most genuine expression of our time, which has to be affirmed and be given architectural form, notwithstanding if we define all this as ‘art’ or not.”

Cinéplastique (Élie Faure)

Among the critics and art historians who first made forays into the subject of cinema, it was Élie Faure who attempted to incorporate the synthesis of architecture and image into a general outline of art history. Already in 1922 Faure, a medical doctor by training who became a self-taught and highly prolific art historian, demanded in his article “De la cinéplastique” for film to be taken seriously as an art form. Alongside architecture, he considered film was the only collective art form that would fit the immanent “civilization plastique.” While painting, which

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69 Ibid., 131. In the same way Zucker takes the temporal experience of the moving image as exemplary for urban experience he questions the ways the city itself was represented. In his 1929 book Entwicklung des Stadtbildes [Development of the City-Image] Zucker not only rules out any consideration of architectural details, social questions or political history that could support an understanding of the city, he also rejects a visual approach to the urban that would lead to a “succession of images.” What he is interested in is “a pure typology which is entirely based on what is optically and spatially perceptible” and not as “a sum of isolated views” – an overt charge against the historicizing picturesque à la Camillo Sitte or the tectonic analogies à la Ostendorf. It is through the “appearance of the grown city [gewordene Stadt],” the panoramic total view of the city as image that Zucker wants to convey its essence. See Paul Zucker, Entwicklung des Stadtbildes: Die Stadt als Form (München: Drei Masken Verlag, 1929), 7.


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for him was the expression of an antiquated individualism, would become irrelevant, cinema would develop into a utopian object Faure calls “cinéplastique.”

Faure was not the only voice in the French intellectual environment of the 1910s and early 1920s who conjured up the utopia of cinema acting as a synthesis of the arts. Rather than reducing film to narrative aspects or its capacity to record reality, critics began to consider the “plastique,” or architectural dimension of cinema. Ricciotto Canudo predicted already in 1911 that film would “induce the powerful current of a new aesthetic function, whence, in the most astonishing apotheosis, the Plastic Art in Motion, will arise.” Cinema would then become “our immaterial Temple, Pantheon, and Cathedral.” Léon Moussinac defined cinema as both “a plastic art of space” and “an art of time.” Fernand Léger pointed to cinema’s “limitless plastic possibilities” that would continue the lineage of “objet-spectacles” like the Eiffel Tower or the

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72 Canudo, "The Birth of the Sixth Art," 59. Canudo is probably the source for Faure’s idea of “cinéplastique.” They had been friends already by the time Faure became a member of the Club des Amis du Septième Art, founded by Canudo in 1922. Canudo is the first to consider cinema not for its ability to reproduce a realistic image of reality but for the latest evolution of festive rituals in an age of technology:

“Suddenly, the cinematograph has become popular, summing up at once all the values of a still eminently scientific age, entrusted to Calculus rather than to the operations of Fantasie (Fanatsia), and has imposed itself in a peculiar way as a new kind of theater, a scientific theater built with precise calculations, a mechanical mode of expression. Restless humanity has welcomed it with joy. It is precisely this theater of plastic Art in motion which seems to have brought us the rich promise of the Festival which has been longed for unconsciously, the ultimate evolution of the ancient Festival taking place in the temples, the theaters, the fairgrounds of each generation.” [60]

73 Canudo, "Reflections on the Seventh Art," 293.

Grand Wheel, objects that have been freed of all rational, symbolic or anecdotal meaning.\textsuperscript{75} Marcel L’Herbier, director of \textit{L’inhumaine} (1924), recognized in the \textit{cinématographe} the “absolute master of space and the relative master of time.”\textsuperscript{76} Drawing a parallel between the cinema screen and the pavilions of the \textit{Exposition des arts décoratifs} he argues that despite dominance of commodities both contain “the common passion of builders for a new dream.”\textsuperscript{77}

Such theoretical reflections were accompanied by practical experiments on the level of filmic form (e.g. Henri Chomette’s \textit{Jeux des reflets et de la vitesse}, 1925, Léger’s rhythmic abstractions in \textit{Ballet méchanique} 1924, or the multi-screen immersion of Abel Gance’s \textit{Napoléon}, 1927). The effects on architectural practice, however, remained limited.

Notwithstanding the fact that cinema stirred the curiosity (as a poll amongst artists, architects and critics published 1928 in the journal \textit{L’amour de l’art} demonstrates\textsuperscript{78}) the practical results

\textsuperscript{75} Léger, "The Spectacle: Light, Color, Moving Image, Object-Spectacle," 42, 44. One also has to mention the American poet Vachel Lindsay who already in 1915 presented fragments of similar ideas when he spoke of film as “architecture-in-motion” and singled out architects as the chosen people “to advance the work in the ultra-creative photoplay.” Lindsay, "The Art of the Moving Picture," vol. http://infomotions.com/etexts/gutenberg/dirs/1/3/0/2/13029/13029.htm.

\textsuperscript{76} Interestingly, L’Herbier begins his reflections about “cinema and space” with the claim that time has become a rarefied good. For proof he turns to architecture and makes a comparison between the Tour Saint-Jacques and the \textit{Tour du tourisme} designed by Mallet-Stevens for the \textit{Exposition des arts décoratifs} in 1925. The difference between the two is that the former, full of ornaments and decorations, contains “an enormous capital of time.” Classical monuments are like strongboxes where bundles of ‘time’ lie “dormant” without “producing interest.” By contrast, the latter is “smooth, naked” and hence timeless. What, L’Herbier asks, can an artist, architect or sculptor do when he discovers that his “pockets are empty of time and space.” Cinema becomes the “expression of a “new humanity” and a “formidable tool in the hands of democrats” that will allow artists to reclaim space: “Try to recognize the skill of the artist who henceforth plays animated images on a piano. And rejoice to find their presence even in a place as maligned as a movie theater.” Marcel L’Herbier, "Le cinématographe et l'espace,” \textit{L'Art cinématographique} 4 (1927), 7-8.

\textsuperscript{77} Ibid., 21.

\textsuperscript{78} The correlation between cinema and the decorative appeared pertinent enough for the journal \textit{L’amour de l’art} to conduct a poll amongst various architects, artist and critics like Mallet-Stevens, Man Ray, Pierre Chareau, Alberto Cavalcanti, or Germaine Dullac. Asked about the
remained limited to some collaborative efforts between filmmakers and art deco architects, most notably between Marcel L’Herbier and Robert Mallet-Stevens.

Faure himself defined film as “a moving architecture that has to be in constant harmony, in a state of dynamic equilibrium with the surroundings and the landscapes where it rises and collapses.”79 He associates both cinema and architecture with the notion of durée [duration], the notion that painting structurally lacks. This new object cinéplastique is a temporal, immaterial and imaginary entity that exists within the “walls of the brain,” as a “living rhythm” similar to music and dance:

Time becomes necessary. It increasingly belongs to the ever more dynamic conception we develop of the object. […] The notion of duration is introduced like a constitutive element as the notion of space. We easily imagine a blossoming cinéplastique art that would be nothing else but an ideal architecture and from which, I repeat, the cinémime disappears because a great artist could himself construct buildings which would incessantly rise and collapse and rise again through the imperceptible passages of sounds and models. These would themselves be architecture at every instant of the duration, without us being able to discern the thousandth of a second in which the transition takes place.80

influence of the cinema on the arts décoratifs the modernist architect André Lurçat, who had designed stage props for Le cabaret épileptique by Henri Gad (1928), answered: “[…] I only see one contribution of cinema to architecture: the cinematography of a modern house from the points of view, that are privileged in cinema, allow to express its appeal in all harmony.” The architect Raymond Nicolas (who would later design the Parisian cinema Kinopanorama) responded: “Yes, the cinema has an influence on the decorative arts (and not the other way around): Architecture is the slave of cinema. […] For me, cinema is sculpture and not a flat thing like many people imagine.” The journalist and later film director Henri Clouzot showed himself convinced about cinema’s influence: “It [cinema] did not create a new universe but a new vision, a different way of looking. It permitted to see with other eyes.” See André Gain, "Le cinéma et les Arts Décoratifs,” L’Amour de l’Art, no. 9 (1928), 321-30.

79 Faure, "De la cinéplastique," 287. “Le cinéma est plastique d’abord : il représente, en quelque sorte, une architecture en mouvement qui doit être en accord constant, en équilibre dynamiquement poursuivi avec le milieu et les paysages où elle s’élève et s’écroule.”

80 Ibid., 301. “Le temps nous devient nécessaire. Il fait de plus en plus partie de l’idée de jour en jour plus dynamique que nous nous faisons de l’objet. La notion de la durée entant comme élément constitutif dans la notion de l’espace, nous imagineons facilement un art cinéplastique épanoui qui ne soit plus qu’une architecture idéale et d’où le cinémime, je le répète, disparaîtra,
It is the thinking of his teacher Henri Bergson that allows Faure to develop an alternative understanding of film. Its defining characteristic is not psychological, narrative or representational, but time-based, permitting “hitherto unknown plastic pleasures.” Cinéplastique, this ideal architecture, opens an epistemological dimension in which spatial and temporal interpenetrations are explored that transcend the Laocoönian split between temporal arts (music, poetry) and spatial arts (painting, sculpture): “For the first time in history, cinema, which is moving architecture, arrives at arousing the musical sensations that come together in space through visual sensations that come together in time.”

Rather than acting as a window into a world, no matter whether figurative or abstract, the filmic image becomes “intelligence’s visual frame.” In other words, with the cinéplastique the mind is able to ‘project’ itself into the living world. Then “thousands and thousands new spaces open up” and “new passages between man and thing” allows for an entirely different, sensuous and tactile “intelligence” to develop.

As a consequence, architecture, excluded from Gottfried Lessing’s scheme of media specificity, re-enters the scene – during the period between the year 1907 and 1919 when Apolliniare, Marinetti and Canudo had begun to speak of cinema as art, and just when the laws

parce qu’un grand artiste pourra bâtir seul des édifices se constituant et s’effondrant et se reconstituant sans cesse par insensibles passages de tons et de modelés qui seront eux-mêmes architecture à tout instant de la durée, sans que nous puissions saisir le millième de seconde où s’opère la transition.”


of compositional harmony, spatial perspective and mimetic representation became discredited. Yet, despite his theoretical certainty, Faure remains vague about cinéplastique’s concrete appearance and only mentions possible architectural examples: “movable industrial construction, ships, trains, cars, airplanes for whom harbors, esplanades, floating pontoon, giant domes would serve as shelters and relays.” Notwithstanding this vagueness of appearance, Faure is convinced about cinéplastique social role as a “spiritual ornament” which sees as crucial “for developing, in the masses, the need of confidence, harmony and cohesion.”

As an engaged historian Faure sought the proximity to architectural practice, and especially to Le Corbusier. From 1921 until his death in 1937 the art historian and the architect exchanged letters in which they expressed their high esteem for each other, and participated together in colloquia. Faure took a subscription of L’Esprit nouveau in 1921, which shortly thereafter published his article on Charlie Chaplin. For the preface of the 1923 edition of his best-selling, multi-volume Histoire de l’art Faure reproduced a photo of an American factory that had appeared in the L’Esprit nouveau. For his 1927 L’Esprit des formes Faure used three additional

84 Faure was not the first who recognized film’s ability to overcome Lessing’s aesthetic categorization. Already in 1911 Ricciotto Canudo described film as a “superb conciliation of the Rhythms of Space (the Plastic Arts) and the Rhythms of Time (Music and Poetry).”
86 Ibid., 302.
photographs from the journal: an ocean liner, an airplane, and Eugène Freyssenet’s airplane hangar at Orly. As a letter from Le Corbusier to Faure from 1923 reveals, the architect did read, at least partly, L’Arbre d’Eden (mistakenly calling it Jardin d’Eden) which contained Faure’s De la cinéplastique.

Despite their mutual admiration, the relationship between Faure and Le Corbusier was characterized by divergent interests. Faure regarded the ambitious Le Corbusier as a “constructeur,” a heroic individual who belonged to an elite of select artists, scientists or philosophers and, as an agent of historical change, led the way into a radiant, collective future.90 In his panegyric review of La Ville Radieuse (1935) Faure amalgamates Le Corbusier’s “l’architecture mobilière” – trains, oceans liners, airplanes, factories, grain silos, airports – with the central tenets of his own Bergsonian thinking: Le Corbusier’s dynamic architecture not only “enlarges every day a new sense of distance, of duration, of light and of space”91 but also functions as a response to “the problems posed by the car, the airplane, the radio and the cinema.” According to Faure, Le Corbusier is not a designer of objects, but of time-based cinematic experiences: “In order to conquer space we must live inside duration, which modifies at every moment the shape of space.”92

For Le Corbusier, the interest of the well-known art historian Faure presented first and foremost an occasion to benefit from scholarly recognition. In 1921, Le Corbusier expressed his admiration for Faure’s call for collective universalism and against “dangerous and fractious”


92 “Pour conquérir l’espace, il faut vivre dans la durée, qui modifie à tout instant la figure de l’espace.” Ibid., 2.
individualism. But it is not clear to what extent Le Corbusier knew at the time about the epistemological dimension of Faure’s concept of a time-based cinéma plastique. What is certain is that Le Corbusier had an interest in cinema before meeting Faure. From the very first issue in 1920 onwards, cinema was one of the central themes in L’Esprit nouveau, as articles by Louis Delluc, Bosko Tokine, Jean Epstein and Fernand Léger can attest. And even prior, in a letter written in 1918 to his friend William Ritter, Le Corbusier describes his experience of watching a movie as both a virtual promenade and an epistemological challenge: “I went to the cinema where the fantastic journeys of American films carry you far away, your thinking, the entire being.”

Faure’s theory of cinema could have offered Le Corbusier a solution for the problematic relation he had developed with the medium of photography. During the early stages of his career he had considered taking photographs crucial for the development of his gaze. And even later, he made ample use of photographic images in many of his publications. At the same time, he expressed his frustration with the limitations of the photographic camera, calling it “a tool for

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93 Letter of Le Corbusier to Faure, Jan 19, 1923, Fondation Le Corbusier E2-2 285. In the letter Le Corbusier included a photograph of the diorama of the Cité Contemporaine which, according to Le Corbusier, was very much appreciated by Faure.

94 It is telling that while Faure exhibited an interest in Le Corbusier’s architecture and urban designs Le Corbusier was eager to present his paintings to Faure. See letter of Corbusier to Élie Faure, Dec 3, 1921, Fondation Le Corbusier, A1-170 18.


97 It is ironical that Le Corbusier actively made use of the powerful impact of printed mass media. In a promotional brochure for L’Esprit nouveau, he emphatically supports photographic illustrations: “the facts explode under the eyes of the reader through the force of images.” Fondation Le Corbusier, B2-15.
idlers.”98 Still images prevented the artist from capturing the dynamic play of forms. Film, he writes in a 1933 article entitled *L'esprit de vérité*, was no substitute for human vision either. But the camera-eye functioned as the “most admirable and perfect optical machine […] without nerves nor soul” permitting the viewer to discover a two-sided reality that has little to do with the correct visual representations of the objective world. On the one hand, film captures the events that happen in the material world (he call it “spectacle of the world” which includes “airplane, microscope, slow motion, electric light”); on the other hand, because film elevates reality to “a more direct, more intense, more absolute state,” it is capable of revealing the inside “truth of human conscience.”99 Cinema, like architecture, overcomes the ‘blindness’ of des yeux qui ne voient pas: “Cinema calls upon ‘the eyes that see.’ Upon the people who are sensible to the truths. Diogenes can light his lantern: useless to embark for Los Angeles.”100 And it is in particular the realist cinema of Sergei Eisenstein’s *The General Line* (1929), rather than Fritz Lang’s utopian fiction *Metropolis*, that is, as Le Corbusier states after meeting Eisenstein in 1928, “shot through with the sense of truth.”101 Le Corbusier senses congeniality with the Soviet

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100 Ibid., 13. “Le cinéma fait appel ‘à des yeux qui voient,’ à des homes sensibles aux vérités, Diogène peut allumer sa lanterne; inutile qu’il s’embarque pour Los Angeles. ”

101 “Architecture and the cinema are the only two arts of our time. In my own work I seem to think as Eisenstein does in his films. His work is shot through with a sense of truth, and bears witness to the truth alone. In their ideas, his films resemble closely what I am striving to do in my own work.” Le Corbusier, "Moderni architektura a sovetské filmy S.M.Eisensteina," Cited in Cohen, Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow, 1928-1936, 48.
filmmaker due to the “architectonic conception” of Potemkin, the cinematographic treatment of the “dynamic porticos” of Andrei Burov’s modernist kolkhoz farmhouse Eisenstein integrates in a lengthy scene of The General Line, and the raising of “everyday events that escape our superficial attention (be it running milk, women scything, or piglets) to the level of monumental images.”

Scholarship on Le Corbusier has repeatedly emphasized the fact that his villa projects of the 1920s prompt the subject to embark on a promenade architecturale. And it has been argued that it is architecture which affects the perception of the subject in the same way as a modern mass medium such as cinematography. The thirteen minute long documentary Architecture aujourd’hui (1930) Le Corbusier produced in collaboration with Pierre Chenal confirms the underlying idea that both architecture and film converge in the same figure: the observer who moves through space. But the film itself, as well as some of Le Corbusier’s comments, evince an understanding of the correlation between cinema and architecture that can not be subsumed in an experiential voyage through space. First and foremost, Architecture aujourd’hui has the form of a conventional educational film that exposes the master architect’s principle projects and ideas. Interestingly, Le Corbusier, not unlike Faure, located an epistemological dimension in

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Given the fact that The General Line was officially released in 1929 Le Corbusier must have been given a screening of an earlier version of the film whose production had begun in 1927.


103 “Using Walter Benjamin’s distinction between the painter and the cameraman, we could conclude that Le Corbusier’s architecture is the result of his positioning himself behind the camera. By this I refer not only to the afore-mentioned implications, Le Corbusier’s "producer" rather than "interpreter" of industrial reality, but also to a more literal reading that sees in the deliberate dispersal of the eye in Le Corbusier’s villas of the twenties - effected through the architectural promenade together with the collapsing of space outside the fenêtre en longueur - the architectural correlative of the space of the movie camera.” Colomina, "Le Corbusier and Photography," 21. See also Bruno, "Site-Seeing: Architecture and the Moving Image," 15.
architecture which the film camera exposes. In an unpublished manuscript entitled “Deux films de Pierre Chenal: ‘Bâtir’ & ‘Architecture’” Le Corbusier states that by watching or filming *Architecture aujourd’hui* “the spectator and Pierre Chenal get the sense that these new means must correspond with a new form of thinking and this new form of thinking is precisely architecture.”

And it is less the linear picturesque promenade through space that Le Corbusier but shock of seeing a modern building on screen that he is interested in: “[…] when a new building appears on the screen it happens to be brutal and powerful fact, for many it is a slap straight in the face.” Hence Le Corbusier not only repeats his own surprise of seeing Burov’s modernist farmhouse in *The General Line* but also appropriates Eisenstein’s idea of a “film-fist,” a cinematic aesthetics based on astonishment and shock. The sculpting of modern vision through both architecture and film is hence not simply a matter of setting in motion a formerly fixed point of view. Rather, it is through bodily shocks and the chronotopic convergence of the visual and the haptic that meaning is generated.

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105 “Le monde qui eu sa vie totalement bouleversée depuis cent ans, s’ingénie à ne pas le mesurer et entend continuer son insensible effort au jour le jour, tandis qu’une maison neuve campée sur l’écran, c’est un fait brutal et agissant, et pour beaucoup c’est le coup de poing au milieu de la figure.” Le Corbusier, “Deux films de Pierre Chenal: ‘Bâtir’ & ‘Architecture,’” Fondation Le Corbusier, B 3-5 382.

In comments made after the Second World War, Le Corbusier demonstrated a keen awareness of larger questions of cinema and its relation to space.107 “I love cinema very much,” he writes, “but I almost never go.” Part of the reason is the unresolved problem of the threshold between film and reality:

In cinema, there is one thing that is not yet resolved: the way in which the spectators leave the screen. The way they recuperate the sidewalk under their feet, the sidewalk of their banal everyday lives. There’s nothing else. Nothing happens. It is depressing to turn one’s back to the screen while leaving… They invented the cigarette for this moment: while leaving one lights a cigarette and the rupture is confirmed. I believe that therein lies the state of things that still needs to be resolved in cinema, a gap that remains to be filled.108

It is this gap between image and reality, between the screen and the street, that becomes the site for architectural design. Rather than assuming a shared form of spectatorship between cinema and architecture, Le Corbusier shifts the focus to the space of the threshold, to the in-between space that is produced between cinema and its material environment – the same question explored earlier by Benjamin (in the Arcades Project where the threshold or Passage becomes the organizer of spatial and temporal experiences and the site that permits the subject to regain an “immediate presence”109 by awakening to a new collective consciousness).110

107 Francois Arnault speaks of altogether twelve occasions in which Le Corbusier participated in the production of film. To that one must add his written statements on cinema, his editorial support of film subjects, his connections with various filmmakers and the private films he made himself. See Arnault, "Le cinématographie de l’œuvre de Le Corbusier," 39.

108 Le Corbusier in Villiers, ed., Architecture et dramaturgie, 167. “J’aime beaucoup le cinéma. Je n’y vais presque jamais. […] Au cinéma il y a une chose qui n’est pas encore résolue : c’est la manière dont les spectateurs quittent l’écran. La manière dont ils retrouvent le trottoir sous leurs pieds, le trottoir de la vie quotidienne et banale. Ils s’en vont… poussent vers le trottoir… Il n’y a rien de plus ! Il ne se passe rien…. C’est désespérant de tourner ainsi le dos à l’écran en s’en allant… On invente la cigarette pour cela ; on sort en allumant une cigarette, et le geste de rupture est consenti. Je crois qu’il y a là un état de choses qui reste à résoudre dans le cinéma, un trou qu’il reste à combler.”

Architecture and Kinoreform: Adolf Behne

One of the first instances in which architects and architectural critics focused on questions of film happened in the context of the so-called Kino-Debatte.111 From about 1907 onwards German writers, culture critics and reform-minded pedagogues expressed their concerns about the supposedly harmful influences of ‘immoral’ and crudely sensuous “trash films.”112 Cinema had become a conspicuous social, cultural and economic phenomenon that could no longer be ignored. One could even argue that the concomitant emergence of a new classless public sphere presented a threat to the dominant position of the Bildungsbürgertum, Wilhelmine Germany’s cultural elite schooled in literature and theater.113 The culture of the moving image questioned artistic and aesthetic practices which hitherto had been exclusively defined by the educated


110 Later it is Roland Barthes who in “Leaving the Movie Theater” describes the passage from the screening room back to the street as a moment in which the subject regains both language and body after having been in a state of cinematic hypnosis. In Barthes’ view cinema is not evidence for the displacement of the formerly dynamic experiences of urban space into a dark screening room where the images move but the subject is fixed (as Bruno (2002) argues). What is important for Barthes is that cinema establishes a threshold that permits the subject to become conscious of his or her own urban environment. This awareness is at the same time bodily, delirious and rational and hence opens up the possibility for an alternative critical practice. Roland Barthes, "En sortant du cinéma," Oeuvres complètes, vol. 3 (Paris: Seuil, 1995 [1975]); English translation as “Leaving the Movie Theater,” in: The Rustle of Language (Berkeley: 1989), 345-49


112 See Diederichs, Frühgeschichte deutscher Filmtheorie. Early writings on film theory were dominated by writers from the fields of theater and literature. Commentators from the visual arts were rare. The painter Gustav Melcher, who between 1909 and 1912 published numerous articles in the journal Kinematograph, presents an exception.

113 On a debate on early cinema and the question of a public sphere see Miriam Hansen, "Early Silent Cinema: Whose Public Sphere?," New German Critique 29, no. Spring/Summer (1983), 147-84.
middle class’s moral values, desires and habits of perception. The individual’s striving for a higher spirituality, inner edification and contemplative pleasures suddenly was confronted with cinema that was immediate, corporeal and popular.114

By speaking out in favor of a reformed cinema as a “means for the education of the masses that combines instruction with entertainment,”115 the social-liberal elites hoped to gain control over the aesthetic and narrative codes of representation of the new medium.116 For this progressively-minded group the “cinematograph represents a cultural progress” as the theologian Adolf Sellmann declared in 1912, a possible weapon in the battle against the wide-spread feeling of cultural degeneration and rampant materialism.117 Hermann Häfker, one of the first voices that most emphatically advocated a cinema that would function in the service of ‘higher’ values without sacrificing its popular appeal, imagined already in 1908 a cinematographic Gesamtkunstwerk as an interplay of different art forms, reconciling words and images.118

116 Horrified by film’s openly manifested commodity character and its ecstatic visuality, the conservative part of the cultural elite attempted to defy the threat by clinging on to an outdated conception of culture.
117 Adolf Sellmann, "Kinoreform," Bild und Film 1, no. 2 (1912), 50.
118 In a 1908 two-part essay about the “cultural meaning of the cinematograph” Häfker draws comparisons between different media: writing and print, photography and phonography. The novelty of cinema Häfker detects in the medium’s ability to record and reproduce events without human intervention. He also imagined the total experience of cinema: “It is the question whether if and to what extend one can produce an total artistic effect through the inclusion of other art forms to cinematography, that is automatic and free music, the spoken word, sounds (thunder etc.), atmospheric interior spaces, a calculated program sequence etc.” Hermann Häfker, "Die Kulturbedeutung der Kinematographie und der verwandten Techniken. Können kinographische
Interestingly, amongst the participants of this *Kino-Debatte* one also finds the names of leading architects and future architectural critics. The politically active city architect of Hamburg and founding member of the Werkbund Fritz Schumacher declares in 1920 the “question of cinema as the question of the people” arguing that even within “the most cultivated person there remains a residual desire for excitement” which film excels in satisfying.\(^\text{119}\) Impressed by the cinematographic displays at the Museum of Hygiene in Dresden, Schumacher argued that “cinema methods” are able to incite interest in the masses for scientific knowledge.\(^\text{120}\) The artistic worth of the new medium was subject of 1920 issue of the Werkbund publication *Das Werk*. On the one hand, it is Peter Behrens who reiterates in an article entitled “Kino-Kultur” the culturally conservative position developed since the early 1910s by the *Kinoreform* movement. For better or for worse, he argues, one he has to recognize cinema just like one had to accept other technological achievements before:

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\(^\text{119}\) "Kinofrage als Volksfrage”; see Fritz Schumacher, *Kulturpolitik - Neue Streifzüge eines Architekten* (Jena: Eugen Diederichs, 1920), 20, 22. Schumacher’s interest in cinema was preconfigured through the fact that he understood architecture as characterized through its “image-effect” and temporal basis and less through its function. The image is however not, like with Wölfflin, one that positions the observer in front of the scene (like in the case of Wölfflin) but one that places the moving subject *inside* the image. See Fritz Schumacher, "Sinnliche Auswirkungen des baulichen Kunstwerks," *Architekturtheorie im 20.Jahrhundert*, ed. Ákos Moravánszky (Wien: Springer, 2003).

\(^\text{120}\) Schumacher, *Kulturpolitik - Neue Streifzüge eines Architekten*, 22.
One can hardly avoid cinema any longer. One would not accomplish much if oneself, as a single individual would abstain from using it. The fascinating effect on the large audience and thus the ominous mass influence remains. We therefore have to accept this technological invention, just like we earlier had to accept the steam machine, electricity, iron constructions and other accomplishments of our time.  

While Behrens classifies architecture as belonging to a “worldly experience” (as opposed to painting that, he argues, can attain a “spiritual” [geistig] dimension), it nonetheless can reach a “higher value” once it becomes “even more cinema-like, more sensational, eerie, stunning.” Only when film stresses its proper cinematic qualities like “the acceleration or slowing down of time, the defiance of the laws of time and space” it can come close to the quality of painting: “If such stunning appearances, which through their unprecedented novelty affect us like phantasmagoria, […] maybe become higher forms through deeper sensations, then image sequences can emerge that seem to resemble Expressionist painting.” In other words, Behrens identifies film’s media specificity but is still not able to comprehend it outside the existing artistic hierarchies.

122 Ibid., 8.
123 Ibid., 8.
124 What is noteworthy about these comments is that they indirectly mark a shift in Behrens’ comprehension of modern space. Still in 1914 Behrens pointed to the changes in human perception prompted by the advent of automobile and train travel. The single architectural object “does not speak for itself anymore,” Behrens wrote, because by “speeding through our big cities in an overly fast vehicle” architecture loses its details and the “city-images” [Städtebilder] become reduced to formless silhouettes. Here, time, rhythm and movement constitute decisive factors for the re-shaping of architectural perception. By contrast, in his later comments on the Kino-Kultur, his emphasis shifts from the contingency of human visual perception to the extension of the field of the visible through the new medium film. Peter Behrens, "Einfluß der Zeit-und Raumwahrnehmung auf moderne Formentwicklung," Jahrbuch des Deutschen Werkbundes (1914), 8.
In the same issue of *Das Werk* the critic Hans Liebmann develops an antithetical argument. He also stresses film’s fundamental novelty but foregoes Behrens’s comparisons with painting. For Liebmann, the cinematographic apparatus produced a completely new art form he calls “motion art” [*Bewegungskunst*]:

Hitherto no pure motion art existed. It was practically unthinkable. But film makes it possible. Its characteristic resides in the fact that it still contains unknown qualities. […] The eye for which movement has to be created artistically is the lens of the cinematographic apparatus. Through this lens the mass public sees pantomime and dance, sequences of motion that from now on are unambiguously determined in an optical way. […] The pictorial rhythmic movement is film’s artistic material of expression. […] The inventor of film senses in appearances, he senses pictorially. [*Der Filmerfinder fühlt in Erscheinungen, er fühlt bildhaft*]125

Liebmann’s comments are noteworthy, because unlike Behrens he sees film outside the *paragone*, the competition between the different arts. Because film introduces a completely new quality all comparisons with the existing arts are senseless. Through film dynamic phenomena and objects can for the first time be ‘captured’ with precision. What is more is that Leibmann recognizes the crucial importance of technical media as the indispensible condition for not only producing a certain art but also for allowing a new way of thinking based on film. Film becomes the “chosen *Organ* for a pure motion art”126 which achieves a “pictorial order of movement […] which forces the understanding of events in motion.”127

*Film as benefactor*

One of the central figures of Weimar Germany’s architectural avant-garde who participated in the *Kinoreform* debate was the art critic and trained art historian Adolf Behne. Before

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126 Ibid., 4.
127 Ibid., 6.
becoming known as one of the chief apologists of the *Neues Bauen*, the author of *Der moderne Zweckbau* (1926) exhibited a pronounced interest in various aspects of the culture of film.\(^\text{128}\)

Long before other academically trained art historians recognized the existence of cinema, Behne, who had studied under Heinrich Wölfflin and Georg Simmel,\(^\text{129}\) sensed the new medium’s capacity to reach and educate the masses. Behne was one of the first to emphasize cinema’s fundamental impact, not only on the visual arts but also on its wider context relating to questions of architecture. In an era where the growing complications of the relations between the subject and his or her objective world aroused suspicions about the transparency of visual perception\(^\text{130}\)
or caused anxieties about the disintegration of a coherent subjectivity, it was Behne who

\(^{128}\) The scholarship in the field has paid little attention to the Behne’s interest in cinema. Niels Gutschow has placed Behne’s early critical work in the context of the emerging modern mass culture as it developed in Berlin during the first three decades of the twentieth century Gutschow demonstrates how Behne, between 1912 and 1933, tirelessly supported the cause of modern art and architecture through more than 1300 published articles in a panoply of over 150 different journals and newspapers. While Gutschow underlines the fact that Behne’s interest in cinema dates from his youth experience of growing up in the working-class district near the Centralviehhof of Berlin where cinema has already been a highly popular form of entertainment, he does not bestow cinema with a particular importance. Kai Konstanty Gutschow, "The Culture of Criticism: Adolf Behne and the Development of Modern Architecture in Germany, 1910-1914," Dissertation, Columbia University, 2005.. In the same way, Magdalena Bushart considers Behne’s interest in film as part of his overall attempt to extend the boundaries of art to become a “constructed reality” [“gestaltete Wirklichkeit”]. For him, cinema was simply another practice of mass communication such as photography, advertisement and typography. See Magdalena Bushart, "Adolf Behne, 'Kunst-Theoretikus'," *Adolf Behne: Essays zu seiner Kunst- und Architektur-Kritik*, ed. Madgalena Bushart (Berlin: Gebr. Mann, 2000), 48-49.

\(^{129}\) It should also be pointed out that Behne studied architecture between 1905 and 1907 at the Königliche Technische Hochschule [Polytechnic] in Berlin. Because of the conservative and pragmatic education at the Technische Hochschule Behne switched to art history at the Friedrich-Wilhelm-Universität where he attended courses by Wölfflin and Karl Frey, by the sociologist Georg Simmel and the philosopher Alois Riehl (who would become an important influence on Mies van der Rohe’s career). See Gutschow, "The Culture of Criticism: Adolf Behne and the Development of Modern Architecture in Germany, 1910-1914."56-64.

\(^{130}\) See Christoph Asendorf, *Ströme und Strahlen: Das langsame Verschwinden der Materie um 1900* (Giessen: Anabas, 1989).
identified cinema as a model for a new visual language that would transcend modernity’s particular antinomy between image and space, subject and object.  

In July 1913, less than a year after finishing his dissertation, the art historian Behne publishes his first article on the subject of cinema. Interestingly, his first written piece on film, entitled “Kino und Plakatkunst” [Cinema and Advertisement], is not a film critique in the traditional sense. Instead, Behne writes about commercial urban images that developed as a by-product of the new medium of film. The sheer ubiquity of street advertisement, Behne argues, makes them a “public affaire.” At the same time, he deplores its inferior quality and the “lack of culture one can still encounter frequently in the cinema business,” deficiencies which he does not perceive as an inherent problem of the medium but rather as being due to the cinema owners’ “insufficient knowledge of the nature of advertisement and the psychology of the clients.” In other words, it is not the uncivilized mass audience that is to blame, but the ignorance of the producers of these images of the altered perceptive predisposition of the audience. Being an inherent part of the metropolitan environment, Behne regarded this form of visual mass communication as the harbinger for a re-definition of artistic and architectural production. The production and communication of meaning is no longer the monopoly of


132 When Behne began to write on cinema, the production and exhibition practices of the medium were going through a period of transformation. All over Germany large movie theaters replaced the Kintopp, small and often improvised screening rooms. These new movie palaces became a spectacular presence in the city centers. For instance, Behne mentions in his first article for Bild und Film the famous Marmorhaus cinema from 1912/13, designed by Hugo Pal with the expressionist interior decoration by César Klein.

133 Adolf Behne, "Kino und Plakatkunst," Bild und Film 2, no. 10 (1913), 235.


135 Behne, "Kino und Plakatkunst," 236.
cultured elite, since “exhibitions, lectures and books” are replaced by the “gramophone, fashion images, film and illustrated magazines.”¹³⁶ The site of art has migrated from the canvas or gallery to the street: “The most beautiful art exhibition is also the cheapest one. It is for free – day and night: display windows and gables of large shopping streets.”¹³⁷ Still in 1929, Behne maintains that the “facades of office buildings are no longer architecture but writing boards.” This new kind of screen-architecture is once again capable of connecting with the mass psyche through dynamic and spectacular ‘inscriptions’ on its surface:

The street produces a powerful collective, the new type of man. The face of Greta Garbo, looking down from the walls of the house, fascinates the by-passer; since antiquity there has not been such images of gods.¹³⁸

Behne’s interest in cinema grew out of his earlier involvement during the early 1910s in Friedrich Naumann and Eugen Diederichs’ cultural reform movement.¹³⁹ In 1913, he starts to write on cinema and until 1915 Behne produced altogether seven articles for the cinema journal Bild und Film. This made him one of the most prolific authors of the short-lived journal published by the Lichtbilderei – which belonged to the “Association for Catholic Germany” [Volksverein für das katholische Deutschland] – the largest educational film institute before WWI.¹⁴⁰ Bild und Film was a mouthpiece of the so-called Kinoreform movement, which since

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¹³⁷ Ibid., 153.
¹³⁸ Ibid., 154.
¹³⁹ Behne started writing short pieces for Die Hilfe, the official publication of Friedrich Naumann’s Christian-social reform movement. Gutschow points out that this movement was inherently conservative for supporting a top-down approach for educating the uncivilized masses. See Gutschow, "The Culture of Criticism: Adolf Behne and the Development of Modern Architecture in Germany, 1910-1914.\", 54-114.
¹⁴⁰ By 1913 the catalogue of the Lichtbilderei offered 1400 film titles and 400 slides series that were shown schools, churches and clubs. See Scott Curtis, "The Taste of a Nation: Training the
1907 had begun the first sustained theoretical debate about the nature and function of film.\textsuperscript{141} Alongside personalities like Ludwig Rubiner, Emilie Altenloh, Hermann Häfker or Herbert Tannenbaum, Behne spoke out in favor of the new medium which, because of its openly manifested commodity character and ecstatic visuality, had been ignored or disdained by the conservative part of the cultural elite. By contrast, the liberal-positivist reformers embraced the new form of mass entertainment yet advocated for higher cultural and moral standards.\textsuperscript{142}

\textit{Kinoarchitekturen}

From the onset, the art historian Behne’s interest in cinema was propelled by the early realization that film was a phenomenon that went beyond the confines of the screen. Cinema spilled out into the streets and prompted questions that were pertinent to both architecture and art. The culture of cinema held the promise of re-imbuing the disenchanted reality of modern life with meaning and spirituality. It is not surprising that one of his very first articles on cinema, published in 1913, focuses on an architectural object: Bruno Taut and Franz Hoffmann’s \textit{Monument des Eisens} [“iron monument”], an octagonal pavilion entirely made of iron and glass.

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\textsuperscript{141} Theodor Heuss, from 1905-1912 collaborator in Naumann’s publication \textit{Die Hilfe} and from 1918 onwards chief administrator of the \textit{Werkbund}, would recall in 1927 the vividness of the debates about film: “Whoever sat in an editorial department fifteen years ago […] which dealt with the so-called cultural politics, had to reckon with about two or three manuscripts every week about the aesthetic nature of film.” Theodor Heuss, ”Metropolis,” \textit{Die Hilfe}, no. 4 (1927) Cited in Diederichs, \textit{Frühgeschichte deutscher Filmtheorie}, 4.

\textsuperscript{142} Tannenbaum, who can be considered as one of the first film theorist before the First World War also writes, like Behne, on the subject of cinema advertisement. He writes: “Cinema and advertisement spring from the the spirit of out times which, because of its haste and business, wants to be captured by potent means. It wants to capture man as widely as possible through the visual sense […].” Also, Tannenbaum notes the fact that tasteless film posters used to “horribly disfigure the streetscape [\textit{Strassenbild}].” Herbert Tannenbaum, "Kino, Plakat und Kinoplakat," \textit{Bild und Film} 4, no. 9 (1914/15)
the representational building of the German steel industry erected for the occasion of the Leipzig fair in 1913. Surprisingly, Behne appears less interested in its remarkable architectural aspects and more with the fact that the upper floor housed a large space for cinematographic projections. Emphasizing the pavilion’s educational vocation, Behne invokes the “superb lesson” about the steel industry through the aid of “models, drawings, graphic representations, collections of prototypes and more,” a lesson which “concludes in the upper story with cinematographic screenings.”

Behne is particularly enthusiastic about the fact that Taut, rather than adopting the model of the dark projection chamber, intended the screening to be conducted in moderately lit spaces. Daylight, filtered through yellow “cathedral glass” windows in the upper clearstory, fell into the projection room creating a “mild twilight.” Behne sees two advantages: first, it permits the spectator to not lose his orientation: “One recognizes one’s surrounding without problem. At the same time the shift into darkest night accompanied by the blinding electric light, uncomfortable for the eyes, disappears.” Secondly, projections in dim daylight have a pedagogical advantage. “As it is known from experience,” Behne writes, “that cinematographic projections which are combined with lectures suffer from the room’s impenetrable darkness. One does not see the speaker which undoubtedly increases the difficulty to follow the spoken word.” What he calls an “ideal cinema” is hence not the perfectly sealed off projection chamber that fully immerses

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143 Adolf Behne, "Das Kino im Leipziger Monument des Eisens," Bild und Film 2, no. 11/12 (1913), 269. Behne mentions three films produced by Siemens-Schuckert that were screened: one that shows the production of steel, a second its processing, and a third that shows the construction of steel mills.

144 Ibid., 270.

145 Ibid., 270.

146 Ibid., 271.
the spectator into the world of film, but a space that reconciles the cinematographic apparatus with the traditional discursive practices such as lectures or public discussion.\textsuperscript{147} And it becomes the task of the architect to orchestrate the interplay of modern building materials and methods with modern media technologies.

In 1915 Behne first wrote about movie theater design in 1915. In “Kinoarchitekturen” he sketches the development of the new typology of the movie theater from its first installations in refurbished apartments or stores, via the emergence of the first screening rooms often located on the ground floor of buildings, to specially designed movie theaters which had grown to impressive dimensions. Taking into account the technical requirements for cinema, the critic Behne is content with the aesthetic aspects of most Berlin cinemas yet complains that “many cinema architects often forget that they are dealing with cinema and that cinema, even in its best and most noble form, is not the site of devotion, consecration and heeling.”\textsuperscript{148} As a successful example Behne cites the cinema which Bruno Taut in 1910 integrated into the design of an apartment building at Kottbusser Damm in Berlin [Fig. 12].\textsuperscript{149} In his critique Behne is particularly concerned with the perceptive transition from the screen to the decorated interior walls:

As a plastic carpet it offers to the eye, after the fast play of the film, an occupation of a wholly different, and hence pleasant, kind. It prevents the stimulated eye from

\textsuperscript{147} The intention to reconcile the culture of the written or spoken word with the emergence of the mass culture based on the mechanically reproduced images is also already present in his earlier writings. In “Populäre Kunstbücher,” which was published in 1912 in Friedrich Naumann’s journal \textit{Die Hilfe}, Behne demands to improve the quality of photographic reproductions of art works. See Adolf Behne, "Populäre Kunstbücher," \textit{Die Hilfe} 18, no. 7 (1912).

\textsuperscript{148} Adolf Behne, "Kinoarchitekturen," \textit{Bild und Film} 4, no. 7/8 (1915), 134.

\textsuperscript{149} The movie theater at Kottbusser Damm had been the very first in Berlin designed particularly for this purpose. See Bruno Taut, "Zu den Arbeiten des Architekten Bruno Taut und Hoffmann," \textit{Moderne Bauformen} 12, no. 3 (1913).
falling into a void. […] When it looks upwards, the eye does not want to again see a planar white surface like the screen, but something stimulating that uses totally different means than film.\textsuperscript{150}

The architect’s task is to orchestrate the visual experience of the cinema spectator, i.e. to facilitate the movement of the eye that wanders on and off the movie screen. Behne pushes the analogy between architecture and film even further by pointing to the screen as the site where material wall and ephemeral image merge. “In reality,” Behne writes, “the back wall of the cinema is something light and airy, basically a flickering, changing image which only needs a white cloth for its slight fixation.”\textsuperscript{151} He credits Taut for having realized that the screen is not a monumental frame but a “thin, spanned-out skin” that “floats” in front of the back wall.\textsuperscript{152}

With a discussion of recently constructed Berlin movie theaters, Behne demonstrates how the new medium cinema has altered the relation between image and architecture. Oskar Kaufmann’s \textit{Cinestheater} (1913)\textsuperscript{153} is presented as the prototype of a well-designed cinema. Here “the image truly seems to be part of space” because the viewer sees a “light-image [that] stands in space” [\textit{Lichtbild im Raume steht}].\textsuperscript{154} Another positive example for what Behne calls “cinema-like architecture” is the \textit{Marmorkino} (1913) at Kurfürstendamm 236. According to Behne, the cinema has a “certain historical significance” because it presents the first instance in

\textsuperscript{150} Behne, "Kinoarchitekturen," 135. “Als ein plastischer Teppich bietet sie dem Auge nach dem schnellen Spiel des Films eine Beschäftigung völlig anderer und deshalb wohltuender Art und verhütet, daß das angeregte Auge plötzlich ins Nichts fällt. [...] Das Auge will nicht, wenn es nach oben sieht, abermals eine ausgespannte weiße Fläche sehen, wie es die Bühnenwand ist, sondern etwas Anregendes, das nur völlig andere Mittel verwendet, als der Film.“

\textsuperscript{151} Ibid., 135. “In Wahrheit ist aber die Rückwand des Kinos etwas ganz Leichtes und Luftiges, im Grunde genommen ein flirrendes, wechselndes Bild, das nur zu feiner Fixierung eines weißen Tuches benötigt.“

\textsuperscript{152} Ibid., 136.

\textsuperscript{153} Kaufmann was known for his design of the Hebbeltheater and the Neue Freie Volksbühne.

\textsuperscript{154} Behne, "Kinoarchitekturen," 138.
which expressionist artists were involved in the design. The Hungarian architect Hugo Pál, the sculptor Georg Sieburg and the painter César Klein\(^{155}\) are given credit for having “gestaltet” a space of “strong colors” and “daring lines” that has entirely cast off all references to conventional theater (“[…] no column, no Attic entablature, no acanthus”).\(^{156}\) The architectural success of the movie theater is thus determined by its capacity to, in a first step, blend image and space, and, in a second step, calibrate the reverberations between the design of the space and the perceptual dispositions and expectations of the spectator. The aim is to produce an immersive experience, as in the case of the Marmorkino, in which the spectator, as Behne writes, “merges splendidly with the walls.”\(^{157}\)

Already in 1915 Behne realized that the nascent typology of the cinema theater holds a lesson for architecture: time enters the scene and needs to be incorporated into the production of built space. What is “temporary,” Behne argues, becomes a “real factor” in the design of “light” and “fantastic forms.” Hitherto architects have to understand that “change is the psychological quintessence of the cinema business.”\(^{158}\) It is for that reason that the architect does not have to be

\(^{155}\) It should be pointed out that Klein, who would become a founding member of the Novembergruppe and the Arbeitsrat für Kunst, continued his experiments of blending ephemeral images with the materiality of the world. In 1919 he imagines an “Ideal-Bauprojekt” composed of walls “filled with colorful glass figures” [farbige Glasgebilde], “transparent, glowing glass floors,” “mobile stages” and “side stages for shadow-images.” César Klein, "Untitled," Ja! Stimmen des Arbeitsrates für Kunst in Berlin (Berlin: Photographische Gesellschaft, 1919), 49.

\(^{156}\) Behne, "Kinoarchitekturen," 138. Behne’s criticism was not the only critic who interpreted the Marmorkino as a successful example for the new typology of the movie theater. An article that was published May 15, 1913 in the Lichtbild-Bühne the author applauds the three collaborating artists for having achieved a “temple of cinema that captures the essence of the cinematograph.” See Wolfgang Jacobsen, "Frühgeschichte des deutschen Films," Geschichte des deutschen Films, eds. Wolfgang Jacobsen and Anton Kaes (Stuttgart: Metzler, 2004), 21.


\(^{158}\) Ibid., 138.
embarrassed “if he chooses a form for the movie theater that directly relates to the tents of the traveling people”159 (the irony is of course that the very first film projections were held in tents on fairground sites). The temporary nature of the movie theater is approached by Behne as a model for a “modern architecture,” which, as he points out, suffers from the “illness” of having to wrap the most banal buildings, department stores and office buildings, “in the forms of the Holly Grail.”160

For Behne, cinema is the harbinger of a new architecture whose relation to the image has changed. While previously the framed picture on the wall provided the model for the spatial logic of architecture, modern space has changed this constellation: “As soon as a room is experienced spatially, pictures start to perturb,”161 Behne later writes in his highly illustrated booklet Eine Stunde Architektur (1928) [One hour of architecture]. To argue his point, Behne illustrates the historical contingency of the pairing architecture/image by juxtaposing on the same page a Sienese altarpiece with the “Raum für konstruktive Kunst” El Lissitzky designed for the International Art Exhibition in Dresden held in 1926 [Fig. 13]. Displaced inside a museum the aesthetic function of the altarpiece, Behne argues, is “inhibited.” The image has gained visibility

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159 Ibid., 139. This insistence on a built-in anti-deterministic and procedural character of a work of art as a precondition for reestablishing the lost unity of art and life is also evident in the writings of his peers. Gropius, for instance, who alongside Behne signs the manifesto of the Arbeitsrat für Kunst, also published in 1919, the abolition of traditional salon exhibition and the creation of mobile art shows that would be housed in “demountable, colorful barracks or tents.” Here, architecture was supposed to be shown through “models of small and large scales, stereo images and cinematographic representations.” Walter Gropius, Ja! Stimmen des Arbeitsrates für Kunst in Berlin (Berlin: Photographische Gesellschaft, 1919), 32.

160 Behne, "Kinoarchitekturen," 139.

161 Adolf Behne, Eine Stunde Architektur (Stuttgart: Akademischer Verlag Dr. Fritz Wedekind, 1928), 37. It should be mentioned that this brief illustrated booklet with a popular appeal to a popular audience belonged was one of the two books by Behne owned by Walter Benjamin owned. The other work is Neues Bauen – Neues Wohnen from 1927. See Benjamin, Gesammelte Schriften, vol. 7, no. 1, 460-61.
in exchange of a reduced perceptive appeal to the eye: “The image is well visible, but looking at it is still not easy.” Lissitzky’s “Bildraum” [image-space], by contrast, reverses this logic: by depriving the wall of its planar flatness – which hitherto supported the visibility of what is found inside a framed image or view – the image is no longer a “colorful surface on the wall” but becomes “an optical instrument.”

Not only what can be seen inside an image is important, but how the image conditions visibility itself.

For the same reason Behne was one of the very first critics to comment on the abstract films of Viking Eggeling and Hans Richter. As early as 1921 Behne praised their work, which at this point was still at an experimental stage, as a “special, new, and unique artistic means” for the “materialization of the kinetic artwork.” For Behne, the light plays of abstract forms were a step forwards in developing a cinema which no longer records “movements in the sense of changes of place, that take place in a natural space” but instead a cinema that depicts “pure, disinterested laws of movement in an ideal space.” Both Lissitzky’s abstract space and Eggeling’s abstract film are hence means for arriving at the same ideal space. In other words, the image is no longer inside space but it is space that is produced by an image that extends beyond the limits of the screen.

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162 “Das Bild ist gut sichtbar, aber noch nicht gut zu sehen.“ Ibid., 25.
163 Ibid. Lissitzky himself describes his Prounenraum in the first issue of G as a “new space that neither needs nor demands pictures,” adding however that “if one wishes to evoke the illusion of life in closed rooms” one should install a “periscopic device which shows me at every moment the real events in true colors and real movements.” Lissitzky, "Prounenraum," 4.
164 Adolf Behne, "Der Film als Kunstwerk," Sozialistische Monatshefte (1921), 1117. See also Adolf Behne, "Bewegungskunst," Freiheit 4, no. 452 (1921), 2.
165 Behne, "Der Film als Kunstwerk," 1117.
From “retina architecture” to “ideal film space”

Early on, Behne identified the persuasive power of visual mass media and, in particular, film. He wanted to reclaim its potential, which hitherto had been mainly exploited for commercial and political purposes, Behne wants to reclaim for art. In his 1919 book *Die Wiederkehr der Kunst* [The Return of Art] he argues for a consolidation of the potential of reproductive technologies for activating the modern masses with architecture’s “primordial character.” Refuting all conceptions of art that are based on individual sentiment (Dürerbund) or mercantile interests (Werkbund), Behne singles out architecture as being inherently in touch with a kind of collective and elementary “world love” that could activate the productive forces of the masses. Yet because architecture, spoiled by bourgeois education [Bildung], no longer resonated with the perceptual expectations of the masses, it finds itself in a deplorable state. Faced with newly constructed buildings that “appear serious, melancholic and boring” Behne asks: “Is it impossible for a cinema to be funny, a theater to be light and enchanting, a department store to be amusing?”

For Behne, what prevents architecture from achieving “a full, pure, original and immediate consciousness of the world” is the fact that the existing architectural practice has “spoiled the eye.” As examples he cites the historicizing modernism of Behrens’ AEG turbine factory and the kitsch-laden facades of the movie palaces. He dismisses such architecture as “retina architecture” [Netzhautarchitektur], built images that conform to the optical model of the Renaissance and

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167 Ibid., 24.
168 See Bushart, "Adolf Behne, 'Kunst-Theoretikus'," 31-34
170 Ibid., 42.
only stimulate but never transgress the threshold “into the full, pure, original and immediate world-consciousness.” Behne clarifies that “it is not the retina of our corporeal eye that is the foil for our optical sensations […]” For architecture to resonate again with the primordial sensations of the masses it needs a tactile, bodily vision – an argument we find not only in the aesthetic theories of Hildebrand, Riegl and Schnarsow but also in the thinking of the Dadaist Raoul Hausmann or filmmaker Hans Richter. During this period Behne deals with the question of how to account in his own work as an architectural critic for the fact that architecture is a dynamic entity that reacts to and shapes the existing perceptive configuration of modern subjectivity. In 1917, two years prior to Die Wiederkehr der Kunst, Behne makes a first foray into this problem with the publication of Oranienburg als Beispiel für Stadtbetrachtungen [Oranienburg as Example for Urban Observations]. The choice of this relatively small town outside of Berlin for a “city guide,” a town devoid of both the historical monuments and the excitement of metropolitan life that could have prompted academic or popular interest, was of course intentional. Instead of a “correct” academic guide-book in the form of “a historical survey” or “a description of sights,” Behne writes “a modest companion which stimulates the eye.” The “reader” becomes a “wanderer” who instead of being enlightened with abstract facts is put into an immediate “spiritual [seelisches] relation to the things as such.” Vision and body merge in the immediate dynamic

171 Ibid., 48.
172 Ibid., 50. In 1919 Behne comprehends artistic perception along the lines of Ernst Marcus’s esoteric theory of perception as “eccentric perception,” a theory which had been popular amongst Berlin Dadaists and Constructivists. It would resurface in the writings of Moholy-Nagy, Hausmann, Eggeling and Freundlich. For Behne the truly artistic image is not captured on the retinal surface of the eye but on the “immense cosmic firmament.”
173 Adolf Behne, Oranienburg als Beispiel für Stadtbetrachtungen (München: Callwey, 1917), 1.
174 Ibid., 1.
experience of the city. It is for this reason that Behne proposes to replace the “point-of-view
photography” [Standpunktphotographie] with what he calls “motion photography”
[Bewegungsphotographie]. Capturing the urban scene with conventional photographs “fails
miserably in most of the cases,” because according to Behne, “movement is, especially for the
enjoyment of beautiful urban organisms, an integral part, prerequisite and means of
enjoyment.”175 The problem with the traditional guide book is that they “cut out” single
architectural objects and hence the motion that stimulates both eye and body. Instead, Behne
proposes a guide to Oranienburg that arrives at merging “the artistic meaning of the city into the
movement of the enjoying visitor.”176 Accordingly, the photographic reproductions included in
the book are not to be perceived as discrete objects made available for the analytic gaze of the
detached observer, but as urban scenes from the point of view of an ambulant observer who
moves through the streets.

Also, Behne tries to incorporate the lesson of cinema into his art publications. For his short
booklet on the painter Heinrich Zille, he includes a film-like sequence composed of thirty-two
“phases.”177 Rather than simply placing a certain number of reproductions “between two
bookcovers” Behne wanted all images to relate to one another. Like the single filmic image
makes only sense in relation to the other images, Behne wanted to orchestrate a sequence of
images spanning 32 pages. The Zille publication becomes a test case for Behne “to treat the

175 Ibid., 1.
176 Ibid.
177 Adolf Behne, Heinrich Zille (Berlin: Neue Kunsthandlung, 1925).
feeling for images, sharpened through film, not as a simple juxtaposition or succession but as a spatio-temporal unity.”\textsuperscript{178}

While in \textit{Oranienburg} Behne still employs photographs for the effect of an experiential realism, he would later assemble numerous images to form dynamic montages. In \textit{Neues Wohnen – Neues Bauen} (1928) or \textit{Eine Stunde Architektur} (1928), highly illustrated pamphlets in support of the \textit{Neues Bauen}, photographic images have become a “weapon – strong, captivating, illustrative, unambiguous.”\textsuperscript{179} Meaning is constructed through visual analogies between objects from different, often incongruous contexts, periods or points of view. A view of the towers of the Tuscan town San Gimignano is montaged with a series of industrial smokestacks; or, on a more humorous note, an image showing a castle with a thin round turret topped with a sharp spire and a thicker turret is juxtaposed with the image of two German soldiers, a thin one wearing a spiked helmet who stands next to his ‘round’ colleague [Fig. 14]. On a double page in \textit{Neues Bauen – Neues Wohnen} Behne presents the viewer with four images: a detail from an early Renaissance painting showing high city walls is juxtaposed with a view from the sea of a harbor town, a picturesque vista of a city in the distance with its towering cathedral, and an birds-eye view of an abstract territory. [Fig. 15] In the accompanying text Behne writes:

The modern town is open to all sides. Its design does not happen as the formation of a closed, plastic body but as a generous design of the place and as an organization flat across the land. It is the aerial image which best reveals the meaning, an image in which the cathedral and the wall disappear. […] Isn’t it nicer

\textsuperscript{178} Adolf Behne, "Der Film und die Bildkunst," \textit{Der Kunstwanderer} 7, no. 11 (1925), 378.
\textsuperscript{179} Behne in a letter to Günther Wasmuth (1924), Bauhaus-Archive, Bestand Adolf Behne, 61, cited in Bushart, "Adolf Behne, 'Kunst-Theoretikus'," 50. By employing the expression “weapon” Behne certainly refers to Heinrich Zille’s famous dictum “One can kill a man with an apartment as easily as with an axe,” which Behne would later use as an opening quotation in \textit{Neues Wohnen – Neues Bauen}. 
how we can today, by spanning incredible expanses, throw ourselves actively into space, freely into the world.\textsuperscript{180}

*Neues Sehen* hence legitimizes *Neues Bauen*. In the same way, Behne welcomed the fact that newspapers had begun to add illustrated supplements, leading the way to “art-critical, constructive image-pages.”\textsuperscript{181} Behne himself would later experiment with forms of “art criticism” which was almost entirely image-based: in *Das Neue Frankfurt* he would publish “Berlin-Bildbericht” [*Berlin Image-Report*] as a kind of printed newsreel.\textsuperscript{182} For a particularly interesting “image-report” entitled “Berlin – Der Film als Wohltäter” [*Berlin – Film as Benefactor*] Behne juxtaposes a sequence of film stills showing the movement study of a skier with a photograph of the undulating façade with its horizontal strip windows of the Café Telschow in Berlin (designed by Alfons Anker, Hans and Wassily Luckhardt), a still from Murnau’s film *Sunrise*, Georg Kolbe’s Beethoven monument and a wall painting by Max Klinger.\textsuperscript{183} [Fig. 16] The accompanying text reads:

> Ever since the image has been put on a moving strip, it only needs to insinuate movement – it becomes evident that insinuations are sufficient in painting and drawing. Only the ‘still image’ regresses into Klinger’s ideals. […] Through film, albeit not only through film, our eye is educated to love simplicity […].\textsuperscript{184}


\textsuperscript{181} Adolf Behne, "Über Kunstkritik," *Sozialistische Monatshefte* 36, no. 2 (1930), 153-54.


\textsuperscript{183} Adolf Behne, "Berlin: Der Film als Wohltäter," *Das Neue Frankfurt* 2, no. 4 (1928), 72.

\textsuperscript{184} Ibid., 72. When Behne speaks of “Klingersche Ideal” he refers to the German *Sturm und Drang* writer Friedrich Maximilian Klinger (1752-1831) who was known for his sentimental writing.
In his earlier articles “Populäre Kunstbücher” (1912)\textsuperscript{185} and “Das reproductive Zeitalter” (1917)\textsuperscript{186} Behne still expressed his fear that the mechanical reproduction of images would infringe on artistic freedom by imposing the framed view of the photographic plate. By the late 1920s, however, Behne takes an opposite point of view: because of its technical basis, film is the “benefactor” that both educates the eyes of the masses and dictates the conditions of art production. The artistic worth of a building such as the Café Telschow by Luckhardt/Anker is hence evaluated according to the building’s ability to resonate with the perceptive expectation of the subject, which, in turn, is shaped by film. The façade offers no ‘complete’ single image. The horizontal bands function like a filmstrip where each image references a prior image and simultaneously propels the subject to move forward to the next image. While Behne welcomes such montages of photographic images inspired by film as steps in the right direction, he considers his “image report” [\textit{Bilderbericht}] as a preliminary step before arriving at a film-based art criticism: “Once one will be able to produce [art criticism] as a film for the newsreel, it would be even better.”\textsuperscript{187}

\textsuperscript{185} Behne, "Populäre Kunstbücher,"

\textsuperscript{186} Not without an air of nostalgia, Behne hints at a fundamental conflict between the human producer and the format of the media. It is should be pointed out however, that Behne’s diatribe against the “dominance of the square” is still based on a rather literal and formal understanding of reproduction. Contrary to the argument Benjamin later put forward in his artwork essay, which proclaims a fundamental change of the nature of the artwork, Behne still clings to the artistic authority of the unique original. For Behne, the powerful new means of mechanical reproduction do not alter the artwork’s status per se, but by producing copies which deviate to a lesser or higher degrees from the original, he is concerned with the flawed perception on the side of the mass audience. Adolf Behne, "Das reproductive Zeitalter," \textit{Marsyas} 3 (1917), 219-25. Inferring a direct influence of Behne’s essay on Benjamin’s artwork essay appears inadequate. See Arnd Bohm, "Artful Reproduction: Benjamin's Appropriation of Adolf Behne's 'Das reproduktive Zeitalter' in the \textit{Kunstwerk}-Essay," \textit{Germanic Review} 68, no. 4 (1993), 146-55.

\textsuperscript{187} Behne, "Über Kunstkritik," 154.
By the end of the 1920s, Behne’s belief in what constitutes the pedagogical worth of cinema had completely shifted. While during the 1910s, the period when Behne was closely affiliated with the reform movement, he still was convinced of film’s capacity to educate the masses, he later emphasizes the pedagogical worth of cinema’s technological ‘form’:

We don’t recognize the educating talent of film in the so-called ‘pedagogical film,’ which at times is brave and boring, but in the technology of film, in its image-generating new method, which it applies even where the subject is totally unpedagogical […]. It is our conviction that the image, along with some other functions it had to fulfill, had always the biological function of cultivating and perfecting the eye. […] The image draws associations, not with the imagination, desires, lessons of man, but with his optical sense - which is a little more than simply the eye. It is clear enough that looking at a picture is not a mechanical eye-function for the purpose of recognition, but it is a play of the productive eye with the image. The optical sense, through its own development, creates itself new worlds of visibility.188

For Behne, education has nothing to do with a mechanistic act of ‘reading’ on the level of the pictorial surface; rather, education happens through acts of play between the eye and the image. This spontaneous interaction with and incorporation of film technology leads to the cultivation of what Behne calls “optical sense” – a faculty that exceeds the limited capacities of the ‘uneducated’ eye and opens up hitherto unknown “worlds of visibility.”

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He is not interested in the figurative contents of film but in its “new technical structure.” Behne is hopeful that film will force the viewer to be much more precise in his perception of things. In “Der Film und die Bildkunst” (1925) he argues:

[Film] will make the isolating assessment impossible and oblige us to base every judgement on the exact consideration of the object’s position in space and time. All pictorial values are no longer valid on their own but as moments of a spatio-temporal whole. The entire course of art history, from the coordinated image of the middle-ages, the composed image of the Renaissance […] to the constructed image of the present. […] Yet, while we have until today been dealing with defining the planar surface, film achieves this determination in the function of time. In film every value is situated inside a spatio-temporal system and everything that is objective transforms into a ‘phase.’

This explains why Behne was one of the very early supporters of the abstract film experiments by Viking Eggeling and Hans Richter. Already in 1913/14 Behne had criticized that habitually the scope of filmic representation was limited to two aspects: on the one side, to film that only depicts “candid processes of nature”; on the other side, to film that invents “fantastic and fairy tale-like” stories and worlds. Behne argued that this dialectics between fact and fiction relied on the presumption of an “objectivity of the lens” that bestows on certain things the “semblance of truth” [Schein der Wahrheit]. By reducing the medium film to these two aspects the spectator is subjected to a deceptive perceptual experience. Film therefore functions, as Behne argues, like a panorama, “where we also oscillate unpleasantly between the truth of real props and the deception of painted things.”

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189 Behne, "Der Film und die Bildkunst," 378.
190 Behne, "Der Film als Kunstwerk," Behne, "Bewegungskunst,"
191 Adolf Behne, "Kino und Geschichtsklitterung," Bild und Film 3, no. 1 (1913/14), 15.
192 Ibid., 16. His suspicion concerning film’s apparent visual verisimilitude, as well as his emphasis on film’s capacity to communicate “the totally invisible interior.” Adolf Behne, "Review of 'Das Kinobuch. Kinodramen,'" Bild und Film 3, no. 6 (1914), 146.
In other words, early on Behne exhibits a pronounced mistrust vis-à-vis the filmic image’s powerful realism, a powerful mimetic quality that tends to obscure the access to a historical reality: “The outer similarity is not terribly important for the impression of truth.” For him cinema possesses the potential of throwing off the dependence on the pictorial regime of the still image, a dependence that perpetuated the classical idea of mimesis and its accompanying conception of space. Hence, for Behne, Eggeling’s film is a step forwards in developing a cinema which no longer records “movements in the sense of changes of place, that take place in a natural space” but instead depicts “pure, disinterested laws of movement in an ideal space.”

For Behne, the advent of film is not simply a technological advancement that complements the repertoire of representational forms along a linear historical line. Rather, anticipating Benjamin’s central argument from the Artwork essay, Behne regards the advent of film as a paradigmatic “leap” that alters the status of art on a variety of levels:

It is a tremendous leap from the altarpiece to the film strip. It is not only a leap from the rest to movement; it is also the leap from crafts to industry, from painting to photography […] It is the leap from cultic distance, which wrestles down the eye, to a mass instrument that one finds at every street corner. But most of all it is the leap from a seeing-apart to a seeing-together … (namely to a seeing-together that happens at the speed of lighting). Never before have eyes clung to an image with so much fascination as the eyes of these children, who watch in the school cinema how the dogs of Nanuk [sic] get snowed up at nightfall and how Nyla washes her child. They are captivated by what is told. But what has to be achieved for them to understand this picture story, for it can even be perceived as a story. What is necessary is an astonishing work of seeing space and time as one, of imaginative combinations and instantaneous associations. And by prompting such efforts film is a pedagogue of great caliber. The people who have been educated to a new, communal seeing, will now position themselves differently to all things, more trusting and friendly.

194 Ibid., 16.
195 Behne, "Der Film als Kunstwerk," 1117.
196 Behne, "Der Film als Pädagoge," 204. “Vom gotischen Altarbild zum Filmstreifen ist ein ungeheurer Sprung. Es ist nicht nur der Sprung vom Ruhenden zum Bewegten; es ist auch der
While in Behne’s previous critical writing he mentions film on a par with other forms of representation, by the end of the 1920s, film has unmistakably attained a status apart. Besides being a formidable means to communicate with the masses, a programmatic addition to the architectural object or a model of urban perception, film now represents a veritable paradigm shift: film renders the optical sense productive, substitutes cultic and contemplative distance for immersive shock experiences in everyday life and creates a new collective form of communication. It is film that permits the realization of what has been at the forefront of his critical striving since participation in the Arbeitsrat für Kunst: the quest for the unity of art and life, of subject and object.

Film is the crucial step towards the realization of what has been a constant theme in Behne’s critical work: the idea that art permits access to forms of collective experience. Already in Die Wiederkehr der Kunst, his 1919 programmatic pamphlet in support of expressionist art, Behne sketched out a future vision of a return to an art that has as vocation “the creation of a Volk that perceives as one.” And despite the expressionist undertone of his prose, Behne by no means expels technology in exchange for a return of an imagined, pre-industrial medievalism.

Sprung vom Handwerk zur Industrie, von der Malerei zur Photographie.[… ] Er ist der Sprung von kultischer Abgerücktheit, die das Auge niederzwingt, zum Masseninstrument an jeder Straßenecke, aber vor allem ist es der Sprung vom Auseinandersehen zum Zusammensehen… (und zwar zu einem blitzschnellen). Niemals zuvor haben Augen so fasziniert an einem Bilde gehangen wie die Augen dieser Kinder, die im Schulkino sehen, wie Nanuks Hunde in der einbrechenden Polarnacht einschneien und wie Nyla ihr Kind wäscht. Sie sind gebannt von dem, was da erzählt wird. Aber was muß von ihnen geleistet werden, damit sie diese Bilderzählung verstehen, ja damit es ihnen überhaupt eine Erzählung ist. Eine ganz erstaunliche Arbeit des Zusammensehens in Raum und Zeit, des phantasievollen Kombinierens und der augenblicklichen Assoziation ist erforderlich, und indem der Film zu solchen Leistungen anregt, ist er ein Pädagoge großen Formates. Den Menschen, die so zu einem neuen verbindenden Sehen erzogen sind, werden nun zu allen Dingen anders stehen, vertrauensvoller und freundschaftlicher.”

While clinging to the idea of architecture as the integrative *Gesamtkunstwerk* per se, Behne demands an updated definition of architecture which from now on needs to incorporate the new technologies and accept their perceptive effects as models to emulate.

**Body, Image, Architecture: Sigfried Giedion and the Moving Image**

*Only film can make the new architecture “fäßbar”*

Contrary to Adolf Behne, who was one of the first art historians to publish prolifically on the emergent culture of cinema and, during the early 1920s, was crucial for supporting the cause of abstract film, Sigfried Giedion, the other chief advocate of modern architecture, never wrote extensively or explicitly on film. Nonetheless, the subject of cinema flashes up at crucial instances of his writing. The following section will elaborate on the ambivalent position cinema occupies in Giedion’s thinking – especially with respect to Giedion’s attempt to link the new visual culture of his era (*Neues Sehen*) with the new architectural paradigm (*Neues Bauen*). Mechanically reproduced images present a new “optical truth” altering the way historical knowledge is produced. Beginning with *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton* (1928) accounts for this new medial condition by assigning photographic images a central role for the book’s argument. Images, paired up or orchestrated in sequences, take primacy over the written text.198 Already in the book’s preliminary remarks Giedion makes it

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198 Giedion had sent a copy of *Bauen in Frankreich* to his teacher Heinrich Wölfflin, who had established the method of formal comparative viewing for art history. Wölfflin responded to Giedion by implying “secret lines” connecting his own *Renaissance und Barock* with *Bauen in Frankreich*. See Sokratis Georgiadis, “Introduction” in Sigfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*, trans. J. Duncan Berry (Santa Monica: Getty Center for the History of Art and the Humanities, 1995), 77.
clear that the book has been “written and designed” for the “hurried reader” [eilige Leser].

Texts are merely secondary supports that are supposed to explain what is shown visually. Yet, this new “will to the image,” as Werner Oechslin has called it, suggesting a radical re-conceptualization of the constitutive relation image/architecture, seems like a way of safeguarding the still image’s continuing conceptual sway on both the construction of historical meaning and of architectural knowledge. Although Giedion mentions film as the epitome of modern visuality, he never elaborates further possibly because film’s radical novelty presented a threat to the privileged relation architecture entertains with the still image and, by extension, to art history’s formalist basis.

In *Bauen in Frankreich* Giedion argues that “the concept of architecture has become too narrow” and needs to be liberated from the “isolated position it had shared with painting and sculpture.” In order to prepare the historical ground for a new architecture that escapes the Laocoönian concept of aesthetic specificity, he points to utilitarian iron constructions of the nineteenth century, early masterpieces of structural engineering like the Pont Transbordeur in Marseilles or the Eiffel Tower. Here, the solid architectural object dematerializes into a dynamic, moving field of relations, processes and interpenetrations:

Fields overlap: walls no longer rigidly define streets. The street has been transformed into a stream of movement. [...] The fluctuating element becomes a part of building. [...] through the delicate iron net suspended in midair stream

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199 Ibid., 84.
202 Ibid., 91.
things, ships, sea, houses, masts landscape, harbor. They lose their delimited form: as one descends, they circle each other and intermingle simultaneously.  

Giedion presents these works of structural engineering as the ‘pre-history’ to Le Corbusier’s buildings of the 1920s. Like the space of the Eiffel Tower and the Pont Transbordeur, Giedion argues, the rows of cubic houses at Pessac, the Cité Frugès working-class housing estate Le Corbusier’s designed in 1924, “embryonically” [“keimhaft”] contain the conception of a new “indivisible space in which relations and interpenetrations, rather than boundaries reign.” In other words, at Pessac, thanks to the artistic genius of the architect, comes to proper architectural fruition what previously had merely laid ‘unconscious’ in utilitarian iron constructions that first begun to appear around 1830.

Notwithstanding the willingness to liberate architecture from the conceptual sway of painting and sculpture, Giedion emphasizes the kinship with modern painting. Responding to the criticism of the Pessac houses as being “as thin as paper,” Giedion writes:

Yes, Corbusier’s houses seem as thin as paper. They remind us, if you will, of the fragile wall paintings of Pompeii. What they express in reality, however, coincides completely with the will expressed in all of abstract painting. We should not compare them to paper and to Pompeii but point to Cubist paintings, in which things are seen in a floating transparency, and to the Purist Jeanneret himself, who as architect had assumed the name Le Corbusier. In his *Peinture modern* he likes to assure us that he has deliberately chosen only the most ordinary bottles and glasses, that is, the most uninteresting objects, for his pictures so as not to detract attention from the painting. But the historian does not see this choice as accidental. For him the significance of choice lies in the preference for floating, transparent

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203 Ibid., 90-91. Giedion, *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton*, 7. „Durch das dünne Eisennetz, das in den Luftraum gespannt bleibt, strömen die Dinge, ... verlieren ihre abgegrenzte Gestalt; kreisen im Abwärtsschreiten ineinander, vermischen sich simultan.“


205 Giedion, *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton*, 7. „Keinhaft aber liegt in jeder Gestaltung des Neuen Bauens: Es gibt nur einen großen, unteilbaren Raum, in dem Beziehungen und Durchdringungen herrschen, an Stelle von Abgrenzungen.“

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objects whose contours flow weightlessly into each other. He points from the pictures to the architecture.\textsuperscript{206}

In this section Giedion underlines the privileged role of Cubist painting for modern architecture – an argument that he would later elevate to a self-explanatory truth. In his seminal work *Space, Time and Architecture* (1941) famously juxtaposes Picasso’s *L’Arlésienne* with a photograph of the glass curtain wall of Gropius and Meyer’s Bauhaus building at Dessau.\textsuperscript{207} [Fig. 17] As Giedion notes, “no one can understand contemporary architecture […] unless he has grasped the spirit animating this painting.”\textsuperscript{208} The history of modern architecture is canonized as a result of the pioneering efforts by modern painters to overcome the sway of an anthropocentric Albertian perspectival realism and to visually represent the fourth dimension. Through the identification of supposedly shared attributes such as “transparency” or “simultaneity,” Giedion draws this visual analogy that supposedly evinced the emergence of a new “space-time” to replace the dominant representational and conceptual regime imposed by Renaissance perspective.\textsuperscript{209}

\textsuperscript{206} Giedion, Building in France, Building in Iron, Building in Ferroconcrete, 169


\textsuperscript{208} Ibid., 353.

\textsuperscript{209} It is astonishing that Giedion, at least from *Space, Time and Architecture* onwards, constricts his historical construction of modern architecture to the analogy with Cubism. Paul Zucker decried in 1945 in direct reaction to the publication of *Space, Time and Architecture*, the arbitrary nature of such comparisons: “[…] it is virtually not true that a cubistic painting by Braque and a modern building by Gropius show identical space concepts. The aesthetic concepts underlying both are utterly dissimilar, even beyond the fact that the painting shows reproduced space while the building creates real space. The similarity lies only in the rhythmic organization imposed on the projected and on the penetrable space of painting and building respectively.” Paul Zucker, "The Aesthetics of Space in Architecture, Sculpture, and City Planning," *Journal of Aesthetics and Art Criticism* 4, no. 1 (1945), 12
In *Bauen in Frankreich* painting still figures as only one possible model for architecture. Although Giedion argues that in order to understand Le Corbusier’s architecture “we have to point to the images of the Cubists;”<sup>210</sup> a few pages further, in the central passage of the book, he states that the only form of representation capable of capturing the architecture of Le Corbusier at Pessac is film:

> These houses that so rigorously respect the planar surface are themselves being penetrated with expansive, onrushing cubes of air, which among themselves receive new stimulation and modulation […]. The row houses as a whole again reach into the space next to and behind them. Still photography does not capture them clearly [*starre Aufnahmen bringen da keine Klarheit*]. One would have to accompany the eye as it moves [*Man müßte den Wandel des Blickes begleiten*]: only film can make the new architecture intelligible [*fassbar*]! But even then only in a limited excerpt: does one really think that the wall on the right, as taut as a movie screen and altogether deprived of its corporeality, stands there only accidentally, unrelated to the opening and surface of the brown elements next to it? Certainly this effect in its particular features is not calculated. But the result evolves by itself from the elements of an architecture that — freed from the play of load and support — has cast off the anthropomorphic shackles. We owe it to the Dutch, to Mondrian and Doesburg, that they first opened our eyes to the oscillating relations that may arise from surfaces, lines, air.<sup>211</sup>

Giedion’s position is hence ambivalent: here it is film, not painting, that is the “only” medium that allows the subject to experience the new architecture. This avowal, which might

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<sup>210</sup> Giedion, *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton*, 85

appear like a spontaneous, off-hand statement, in fact can be read as a contradiction of Giedion’s repeated privileging of abstract painting as the visual and, by implication, spatial model of modern architecture. All of the sudden, the “new culture of seeing,” evoked by Giedion, no longer presents itself as a self-evident transition from painting to the built environment. Cinema enters the picture – both a new model of vision and, literally, in the form of an unadorned wall transformed into a screen, ready to intercept the projected light beam.

To better understand Giedion’s take on film it is necessary to analyze closely and in its original version what he said. At first sight, it seems for example that Giedion regards photography as inadequate for the representation of Le Corbusier’s buildings at Pessac (“Still photography does not capture them clearly.”), which is surprising considering his otherwise emphatic use of photographic images. Yet, once we look more closely at the original text Giedion’s use of words is more ambiguous. He speaks of “starre Aufnahmen,” which can be translated as “still image,” but verbatim means “immobile recording” or “frozen recording.” In other words, Giedion never explicitly refers to photography. It is more likely that he did not consider the many photographs in Bauen in Frankreich as immobile or frozen. Taken at oblique angles these images left a dynamic visual impression and hence conform to anti-perspectival codes of the “new vision” propagated by artists like Moholy-Nagy or Werner Gräff.

212 Sigfried Giedion, "Ankündigung der Ausstellung 'Neue Optik'," Züricher Illustrierte, no. 43 (1929), Special Section. In this article Giedion juxtaposes Picasso’s Majolie (1912) with a vertical shot of the network of steel trusses taken inside the Eiffel Tower and adds two smaller images of works by Arp and Brancusi. The text draws a clear parallel between abstract painting and modern architecture: “The painting of the 20th century demands a new culture of seeing. Only today, after our eyes have been schooled in all directions through abstract painting we realize the appeal which had remained unnoticed in the abstract constructions of iron bridges, the Eiffel Tower and pylons. The so-called Neue Bauen also requires a schooling of the eyes.”
whether these photographs add up to a new “cinematographic vision,”\textsuperscript{213} as Sokratis Georgiadis has suggested, and Giedion’s evocation of film presents a logical evolution from photography to film is questionable. However, what is certain is that during the late 1920s Giedion was preoccupied with trying to comprehend architecture by understanding the conditions and practices of visual perception. In the illustrated booklet \textit{Befreites Wohnen} (1929) he notes: “We don’t want to communicate knowledge of single buildings but today’s vision.”\textsuperscript{214} Modern architecture’s claim for universality can no longer be asserted on the level of the ‘word,’ let alone on the level of the single object’s form or style. What is required in order to accomplish the leap into the present is the concurrence of image and object, i.e. a generalized “vision” of the modern subject, with which architecture has to resonate in order to gain historical significance. Both architect and historian hence cease to be concerned with the architectural object itself and instead turn media for producing and understanding architectural perception.

In 1928, Giedion clearly singles out film as the modern medium par excellence that structurally differed from photography and painting. Already the photograph of row houses facing a white, two-dimensional wall surface which Giedion uses to illustrate the wall resembles a movie screen, “deprived of its corporeality,” [Fig. 18] has little in common with the dynamic

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  \item \textsuperscript{213} Sokratis Georgiadis, “Übungen im Neuen Sehen: Ein Kunsthistoriker als Architekturfotograf,” \textit{Kunst und Architektur in der Schweiz} 51, no. 4 (2000), 16. Georgiadis interprets Giedion’s reference to film as part of a larger strategy of the subject to construct an “apparatus of perception” which functions independently of the “compositional geometry of the building” (69). Like a camera this “apparatus’ can “move in all directions, accelerate and slow down, magnify and reduce, isolate and relate.” Georgiadis clearly identifies film as this “apparatus” yet falls short in situating film with respect to other image types or Giedion’s concern with the \textit{Neues Sehen}. Sokratis Georgiadis, \textit{Sigfried Giedion - Eine intellektuelle Biografie} (Zürich: Ammann, 1989), 69, 78.
  \item \textsuperscript{214} “Wir wollen nicht die Kenntnis einzelner Bauten vermitteln, sondern die heutige Anschauung.“ Once again, Giedion makes us of the ambiguity the German language offers. The original term for “vision” is “Anschauung” means intuition or idea and view or vision. Sigfried Giedion, \textit{Befreites Wohnen} (Zürich: Orell Füssli Verlag, 1929), 4.
\end{itemize}
abstractions of the “new vision” aesthetics celebrated a few pages earlier in the shots taken ‘inside’ the iron structure of the Eiffel Tower. [Fig. 19] Giedion implies that, just like in a movie screen, the flat wall surfaces of Le Corbusier’s architecture come to life and regain corporeality it resonates with the subject’s ambulatory eye conditioned by the medium film. Contrary to the still common habit of mentioning photography and film in the same breath without drawing a distinction,215 there exists an unspoken differentiation in Giedion’s thinking which was, for example grasped by J.J.P. Oud who described the illustrations in Bauen in Frankreich as “filmtechnisch.”216

Giedion’s choice of word is important in this context. He writes that only film makes the new architecture “faßbar” – an expression that can be translated as both “intelligible” and “tangible.” The word derives from the German verb “fassen,” meaning to “grab” or “grasp,” implying a proactive mode of physically approaching, communicating with, and intervening with the objective world.217 Stating that “only film can make the new architecture faßbar” hence expands the role of the medium film: not only does it record and reproduce a realist vision of the

215 Werner Oechslin, for example, still mentions the two media interchangeably. See Oechslin, "'Gestaltung der Darstellung', 'optische Wahrheit', und der Wille zum Bild: Sigfried Giedion und die Wandlungen im Geschichts- und Bildverständnis," 24.


world; film also opens to an unprecedented range of creative and receptive possibilities involving the body.  

By stressing that “only” the medium of film allows for a tactile apperception/comprehension of modern architecture Giedion contradicts his conviction that it was first and foremost photography that could “grab” the objects “quickly and immediately.”  

The reference to this haptic mode of reception evokes Aloïs Riegl’s differentiation between the “haptic” and “optic” properties of art, which had been introduced into art historical discourses at the turn of the century.  

By the late 1920s, Giedion repeatedly evokes a haptic vision which is produced by the photographic medium.

Despite this clear privileging of film in *Bauen in Frankreich*, cinema otherwise appears rather sporadically in Giedion’s thinking. In 1931, for example, he supports the use of moving image displays for a contemporary museum (“films, demonstration films, particular exhibition

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218 In another passage of *Bauen in Frankreich* Giedion uses the term *faßbar* again. In the captions of two shots of the Villa Stein at Garches he speaks of the “*Sprengung der fassbaren Fassade!*” (“Blasting of the tangible/comprehensible façade”). Here, by ‘exploding’ the building’s façade into fragmented pieces, the architect performs the very same task as a film director. Both, by first fragmenting a coherent whole, re-assemble in a particular sequence and orchestrate on the level of perception the scattered pieces. By speaking about “Sprengung” [explosion] Giedion inevitably call to mind Walter Benjamin’s famous evocation in the Artwork essay where he evokes film ability to “burst this prison-world asunder by the dynamite of the tenth of a second.” Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*, 182. Benjamin, "The Work of Art in the Age of Mechanical Reproduction," 236.


apparatus (pater noster system, stereoscopes etc.).” Later, in his postwar work *Mechanization Takes Command* (1948), which explicitly deals with the problem of motion, Giedion reveals his familiarity with a Bergsonian understanding of cinema and its relation to time. He credits Marey for having invented “chronophotographies” that “render visible movements that the human eye cannot perceive,” yet disapproves of Marey’s later use of the movie camera “which proved not especially suited to the purpose.” The purpose of film was not to give quantifiable images of frozen time but to allow the experience of ceaselessly changing movement which “proves itself ever more strongly the key to our thought.” The idea that modern thought is connected to the possibility to represent continuous movement evokes the philosophy of Bergson, who Giedion refers to in one brief phrase: “Almost simultaneously with Lumière’s cinematograph (1895-6), Henri Bergson was lecturing to the Collège de France on the Cinematographic Mechanism of Thought (1900).” Interestingly, Giedion illustrates these brief elaborations on the possible relations between movement, thought and cinema with a photograph taken by Frank B. Gilbreth.

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221 Giedion in a letter to the CIAM members dated June 6, 1931. Cited in Sokratis Georgiadis, ed., *Wege in die Öffentlichkeit* (Zürich: Ammann, 1987), 70. In the letter Giedion mentions the fact that both the CIAM and, a year later in 1929, the *International League of Independent Film* had been founded at La Sarraz. Already earlier, Giedion had become aware of film’s importance, especially in the context of art education. In an article entitled “Zur Neugestaltung der Kunstgewerbeschulen” (1926) Giedion argues for an inclusion into the teaching of art of “those area of life which today are neglected (advertisement, theatre, film, light, color, material).” The model for this interdisciplinary disciplinary curriculum was certainly the Bauhaus, which he had visited in 1923. Sigfried Giedion, "Zur Neugestaltung der Kunstgewerbeschulen," *Wege in die Öffentlichkeit*, ed. Sokratis Georgiadis (Zürich: Ammann, 1987 [1926]), 15. Cf. Sigfried Giedion, "Bauhaus und Bauhauswoche zu Weimar," *Das Werk* 10, no. 9 (1923).


223 Ibid., 22.

224 Ibid., 28.

225 Ibid., 28.
The image shows the trajectory of the hand of surgeon performing the tying of a knot. [Fig. 20] Obviously, the idea of cinema Giedion has in mind echoes Bergson’s critique of knowledge being of a “cinematographical kind.” Contrary to an understanding of cinema as a sequence of separate still shots brought to life with the help of the cinematographic apparatus, the very idea of cinema criticized by Bergson, Giedion imagines a seamless, continuous inscription of movement and *durée*, an alternative idea of cinema that at the same time implies and alternative idea of thinking.

*Space as “Erleben”*

The evocation of the the bodily notion of the ‘haptic’ is emblematic for Giedion’s discontent with art history’s dependence on word-based discourses. “It is desirable,” Giedion writes a year later in the brief illustrated booklet *Befreites Wohnen* (1929), “that, for once, the author does not get a ‘word’ in and that he is forced to express himself in optical ways.[…] We don’t want to communicate knowledge of single buildings but today’s vision.” This discontent with the “word” and a faith in “vision” already became manifest in his dissertation *Spätbarocker und Romantischer Klassizismus* [Late Baroque and Romantic Classicism] published in 1922. Here Giedion contrasts two opposite definitions of subjectivity: on the one hand, Baroque’s

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226 Alongside Frederick Winslow Taylor, Gilbreth is considered the inventor of scientific management. See Frank Bunker Gilbreth, *Motion Study: A Method for Increasing the Efficiency of the Workman* (New York: Van Nostrand, 1911). It is interesting to note that Martin Wagner, Berlin chief building official and propagator of Greater Berlin, explicitly drew inspiration from Gilbreth’s film experiments, which were intended to increase work productivity. See Huber, "Center of Nexus: Berlin's 'New' Politics of Belonging," 94.


228 “Es ist ganz gut, wenn der Autor einmal nicht zu ′Wort′ kommen kann und gezwungen ist, sich auf optische Art auszudrücken. […] Wir wollen nicht die Kenntnis einzelner Bauten vermitteln, sondern die heutige Anschauung.“ Giedion, *Befreites Wohnen*, 4.
“almost objective concentration of a greater will”\textsuperscript{229} that supersedes subjectivity; on the other hand, Romanticism’s emphatic celebration of an “equal I” that effaces the “dominant social ideal.”\textsuperscript{230} Writing against the backdrop of artistic developments of the post-World War I years, a period in which he detects signs of a new Romanticism,\textsuperscript{231} Giedion rejects both the anthropocentric, objectivizing conception of subjectivity inherited from the Renaissance and the romantic and irrational self-centeredness of Expressionism. Giedion positions himself as a proponent of a posthumanist constructivist rationalism and searches for a new collective and rational “I.” And this “I” he detects in the “experience” of the perceptive production of space:

Space is produced through a sudden leap into the third dimension. The psychological interpretation of this leap will never lose its enigmatic character. […] One can only try to define the conditions of its occurrence and its general nature; but the leap from wall to space remains unfathomable and is only accessible through experience \textit{Erleben}.\textsuperscript{232}

This passage can be read as a redefinition of the task of the architectural historian. Space is no longer defined as an entity that can be measured, quantified and used for the historian’s own projections; instead, space becomes an event that ‘happens’ in this inscrutable moment of

\textsuperscript{230} Ibid., 162.
\textsuperscript{231} In the last paragraph of \textit{Spätbarocker und Romantischer Klassizismus} Giedion writes: “Once a continuous, common goal forces all parts of a design into one direction then the lost reason can become fruitful again with new reason. Then the singular plastic appearances, which reappear over and again under strange formal disguises and which unconsciously carry the Romantic signet, will be swept away and the ability will reappear: to tame great masses, to dissolve matter in space and to let the single I become resurrected magnificently in a greater chorus.” Ibid., 164. See also Georgiadis, \textit{Sigfried Giedion - Eine intellektuelle Biografie}, 39-44.
transition from “wall to space.” For Giedion, this “leap” from image to volume remains fundamentally unfathomable for the art historian’s conventional instruments of representation and conceptualization. What remains to be done, however, is to examine the conditions that permit the modern subject to experience [Erleben] this “leap” – an experience which is inherently non-cumulative, non-communicable and corporeal.  

And even experience, Giedion points out, is never limited to the body’s organic limitations; it is always conditioned by the media technologies of an era. Both artist and critic, he writes, “can only approach things with the Organen [perceptual organs/media] of his own time” – an expression which is noteworthy because the original German term blurs the distinction between bodily organs of perception (e.g. the eye) and external technological device (e.g. the camera).

Giedion hence shifts the locus of the architectural historian and critic’s inquiry from an interest in the aesthetic object, a priori notions of cognition and a Hegelian teleology of the spirit, to a media-contingent perceptual empiricism. “Only film can make the new architecture faßbar” can hence be interpreted as an invitation to ‘experience’ through media a certain type of architecture.

**Movement, time and architecture**

Giedion experienced these new forms of subjectivity during the 1923 Bauhauswoche at Weimar. In the review he wrote for the journal Werk he reiterates the official Bauhaus credo

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233 Explicitly Giedion employs the term *Erleben*, which, as Walter Benjamin would later emphasize, is distinct from the term *Erfahren*. The former relates to an isolated, incidental and corporeal experience (of for instance cinema), the latter to cumulative and communicable experience. See Benjamin, "On Some Motifs in Baudelaire," 319.


concerning “the reconciliation of man’s artistic impulses with industry,” yet never espouses a merely functionalist determinism. At the Bauhaus show he detects posthumanist and non-organic zones of expression and experience: “Do we realize,” Giedion wonders, “that things independent of man, animal or tree can open up a new sphere of experience? […] Here, another step forward has been accomplished not only for the new Gestaltung but also for Erleben [experience].”

Especially the first-hand experience of seeing the “space-dance” of illuminated mechanical bodies on Oskar Schlemmer’s abstract stage and, most likely, Ludwig Hirschfeld-Mack and Kurt Schwerdtfeger’s “Reflektorische Lichtspiele” as well as Mies’s glass model for a high-rise, lead Giedion to put the emphasis on bodily and experiential aspects of modernist production.

The experience of this time-based art at the Bauhauswoche resonated with Giedion’s quest for a unified, non-Romantic conception of a dynamic subjectivity and new idea of objecthood. His remarks at Weimar where “[d]ead things have received a face and gained vitality” and “the absolute rhythm of things come alive” correspond to a desire that already had been latent in his earlier writing. In an article written in 1917 entitled “Skifahrt auf dem Jungfraujoch” [Skiing on the Jungfraujoch], Giedion decries the separation of spirit from reality. By “losing oneself the pure spirit and the absorption of the self […] elements, mountains and the world turn into dead

236 Giedion, "Bauhaus und Bauhauswoche zu Weimar,"
237 Ibid.
238 On the notion of Schlemmer’s Raumtanz see Anne Hoormann, Lichtspiele: Zur Medienreflexion der Avantgarde in der Weimarer Republik (München: Fink, 2003), 206.
240 Giedion, "Bauhaus und Bauhauswoche zu Weimar,"
forms, empty volumes that exist deprived of spirit.”241 At the Bauhaus Giedion experiences spaces that are no longer populated by discreet, motionless objects but are experienced by a moving body as a sequence of experiential intensities in time. The motif of an Alpine, snowy landscape, paradigmatic for an immersive, ecstatic experience of space, recurs eleven years later in Bauen in Frankreich. Here the Alpine landscape is evoked in analogy to the experience of the indivisible “airspace”242 of relations and interpenetrations which Giedion detects in engineering structures like the Eiffel Tower or a master example of Neues Bauen like Pessac. The effect of Le Corbusier’s houses, perceived both as photographic image and in reality, is that there “arises – as with certain lighting conditions in snowy landscapes – that dematerialization of solid demarcation that distinguishes neither rise nor fall and that gradually produces the feeling of walking in clouds.”243

The ideal space Giedion strives for is a boundless atmosphere where identifiable coordinates and objective references have been replaced by the ecstatic experience of changing intensities. The objective world which used to be lifeless and immobile becomes animated and gains both face and rhythm. Attempts to permit a new subjectivity to evolve via the construction


242 Giedion, Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton, 7. It should be noted that the preoccupation with “air-space” as the site of architectural design has already appeared in the stage design of Italian Futurism. See Enrico Prampolini, "Futurist Scenography," Futurist Performance, ed. Michael Kirby (New York: Dutton, 1971 [1915]), 203-206. The particle reprinted in 1924 in the avant-garde journal MA. Moreover, the term “Luftraum” appears in an earlier art critique of Ludwig Hilberseimer. In 1921 he praises the sculpture of Alexander Archipenko for taking into consideration the surrounding “air-space”: “That way sculpture becomes architecture, relation is no longer isolation. He relates everything to everything, creates with corporeal volumes as well as with voids, with positive and with negative space.” The result according to Hilberseimer is “the path to a new dynamic architecture.” Ludwig Hilberseimer, "Bewegungskunst," Sozialistische Monatshefte 27 (1921), 466.

of an ideal space were pervasive, especially in the Futurist conception of theatre put forward by Prampolini’s stage designs, Appia’s stage sets at Hellerau and Meyerhold’s biomechanical sets, as well as in the rhythmic light-plays by Ruttmann, Eggeling and Richter.

What is peculiar about Giedion’s approach is that it conflates a phenomenological model for the dynamic experience of architectural space with a Benjaminian model for the production of historical meaning. It is noteworthy that Giedion mentions cinema in a work like *Bauen in Frankreich* that suggests a conception of historical progress which is not linear and causal, but retroactive and emergent. For him, Pessac is not a milestone for the history of modern architecture because of its technical innovations. Rather, the architecture prompts a perceptive experience that awakens the dormant historical charge of the past. Later he would introduce the term “Wandel,” translated as both transition and movement, to denote the seamless, atmospheric interweaving of the objective world with the individual’s perceptual experience which would lead to sudden moments of emergence of a historic truth: “Constancy does not imply mere continuation.” Giedion writes in his later work *Architecture and the Phenomena of Transition*, “but rather the ability of the human mind to suddenly bring to life things that have been slumbering through long ages.”

Factual gaps in his history of modern architecture (Reyner Banham, for instance, criticized Giedion for having “mislaid” a whole section of the history of modern architecture) exist precisely in order to sustain a sort of historical continuity that retroactively establishes an interweaving of past, present and future. The notion of rupture is

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hence fundamental for his historical method as well as the “optical” experience of both the space of architecture and the space of the book whose eye-catching layout, signed Moholy-Nagy, incessantly jumps back and forth between of texts, images and typographic design. It is then hardly surprising that Walter Benjamin, author of the later *Passagenwerk*, was “electrified” by the *Bauen in Frankreich*’s “radical spirit” and “radical knowledge” that permits to “enlighten tradition through the present,” as he enthusiastically exclaims in a letter in 1929 to Giedion.247

Four months later Benjamin cites Giedion’s book, alongside Alfred Gotthold Meyer’s *Eisenbauten*, as belonging to those “Books that have Remained Alive” because they function as a “prolegomena to any future historical materialist history of architecture.”248

In sum, one can argue that Giedion’s rare references to film cannot be dismissed as spontaneous or accidental digressions. He was aware that film – through the corporeal experience it allowed, its animate nature, its collective visuality, its historical significance – offered itself as an alternative to both painting and photography for constructing a structural link between *Neues Sehen* and *Neues Bauen*. Yet, it also became clear that once the critics began to


explore the phenomenon of the filmic image further, they recognized the threat film posed. With
the introduction of time and movement, the basic elements film is ‘made of,’ both architectural
production and the historical and theoretical reflection on architecture loose their anchorage in
the representational regime of the still image. If cinema had become the new model, how could
architects continue to produce still drawings of buildings, how could critics continue to make
statements about architecture based on visual evidence in the form of “starre Aufnahmen,”
immobile drawings, illustrations and photographs? The critic’s or historian’s basic
methodological tools – description, comparison or formal analysis – thus intrinsically depend on
the structure of the still image. The desired short-cutting of Neues Bauen and Neues Sehen,
which can be considered the underlying motive behind the visual exuberance of publications like
Giedion’s Bauen in Frankreich or Behne’s Eine Stunde Architektur, while invoking the
cinematographic image, never could go beyond the level of the illustrative. Cinema, once taken
seriously, threatens the epistemological and representational foundations of the modern
movement’s own historical construction.
III. G and Cinema

Not everything that happens takes place in full view. [...] The visible is only the final step of a historical form, its fulfillment. Its true fulfillment. Then it breaks off and a new world arises.¹

Mies van der Rohe

To obtain this conversion from the virtual to the actual, it would be necessary, not to throw more light on the object, but on the contrary, to obscure some of its aspects, to diminish it by a greater part of itself, so that the remainder, instead of being encased in its surroundings as a thing, should detach itself from them as a picture.

Henri Bergson, Matter and Memory

Film as ‘Material for Elementary Gestaltung’

In the haze: crisis of vision

The year 1923 marks the arrival of Mies van der Rohe in the spotlight of Weimar’s modern architecture movement. He participates in the founding of the journal G–Material zur elementaren Gestaltung in which he publishes two short articles that, together with his piece “Hochhäuser” that appeared the previous year in Bruno Taut’s Frühlicht, sketch out the contours of his architectural thinking.² In 1923, his work is put on display at major exhibitions, it is part of the Große Berliner Kunstaustellung, shown at the Arbeitsgemeinschaft für neue Kunst und Dichtung in Magdeburg and included in the De Stijl exhibition at Leóncé Rosenberg’s Galerie de

² The edited English translation of G, edited by Detlef Mertins and Michael Jennings, was published when my dissertation was already in its final stage. Neither the translated original texts nor the accompanying essays (especially by Detlef Mertins and Edward Dimendberg) could be taken into account. See Detlef Mertins and Michael W. Jennings, G: An Avant-garde Journal of Art, Architecture, Design, and Film (Los Angeles: Getty Research Institute).
l’Effort Moderne in Paris. In addition, he is part of the *Internationale Architektur* section of the Bauhaus exhibition at Weimar, the famous show that marked the school’s programmatic shift from its initial Expressionist penchant to the new constructivist paradigm encapsulated in Gropius’s slogan “Art and Technology–A New Unity.”

In this very moment when the modern movement in architecture appears triumphant and Mies appears to be one of its protagonists an air of suspicion takes hold of him. Upon his return from Weimar, he wrote a letter to Werner Jakstein in which he expressed his profound worries for the *G* project:

> On Sunday September 16 a crucial meeting with the people of *G* will take place in Berlin. I will use the opportunity to clarify where each of us stands, I will proclaim my point of view in a clear and unambiguous way. There it will be decided who can be loyal to us and who cannot. Those who can be loyal will then participate in detailed conversations which have as objective an exact plan of action. In

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3 See Walter Gropius, “Erklärung wegen Meinungsverschiedenheiten am Bauhaus,” February 3, 1922. Thüringischen Hautstaatsarchivs Weimar, 1.3, sheet 18. The “Ausstellung Staatliches Bauhaus,” organized by Gropius, was on show between the August 15 and September 30, 1923. Apart from the architecture exhibition there were lectures given by Gropius, Kandinsky and Oud, performances of Schlemmer’s “Triadisches Ballett,” Schmidt’s “Mechanisches Ballett,” and Hirschfeld-Mack’s “Reflektorische Lichtspiele.” There were also film screenings on August 18 at “Helds Lichtspieltheater.” On the program one finds an educational film by Carl Koch as well as microscopic, slow-motion and accelerated-motion films from the “Kultur-Filme” branch of the UFA film conglomerate.

4 See for instance the univocal praise for the Bauhaus show expressed by figures like Adolf Behne, Sigfried Giedion, Walter Curt Behrendt or Fritz Wichert. See *Pressestimmen für das Staatliche Bauhaus Weimar: Auszüge, Nachtrag, Kundgebungen*, 15-72.

5 Werner Jakstein (1876-1961) was an architect and the municipal building official (Baurat) for the city of Altona. He entertained a vivid correspondence with Mies but also with Gropius, J.J.P. Oud and Cornelis van Eesteren. It is interesting to note that in a 1924 article, Jakstein made the distinction between “baukünstlerische” and “architektonische” buildings – a distinction frequently made by Mies. In fact, Werner Hegemann, the editor-in-chief of *Wasmuth Monatshefte*, was compelled to annotate Jakstein’s article by distinguishing “handwerklich” [craft] from “akademisch geschulten Baumeistern” [academically trained masterbuilders]. See Olaf Bartels, "Architektur als nationale Frage? Die Hansen-Rezeption durch Werner Jakstein und die Altonaer Architektur zwischen 1910 und 1930," *Christian Frederik Hansen und die Architektur um 1800*, ed. Ulrich Schwarz (München: Deutscher Kunstverlag, 2003), 181-94.
particular the makeshift Constructivist formalism [wüste konstruktivistische Formalismus] which I encountered in Weimar and the reigning artistic haze [herrschenden künstlerischen Nebel] have prompted me to formulate my point of view again in the issue of G, especially since a part of what I had written was not published by mistake in the first issue.6

We do not know what precisely caused Mies’s fervent reaction. Possibly, he was “disappointed”7 to see Gropius’s skyscraper model for the Chicago Tribune competition disturbing the “place-formation” [Platzbildung] he had intended with the precise composition of his “Glashochhaus” and “Bürohaus” models with the coarse plaster models of traditional Gründerzeit apartment buildings in-between.8 [Fig. 21] Possibly, his reaction had to do with his visit to the municipal theater in Jena whose interior, refurnished by Gropius in 1921-22, had been hailed as a milestone of modern architecture.9 Later, Mies would recall that the visit to Gropius’s Jena theater triggered the decision to publish the journal G: [Fig. 22] “The G stood for


7 Mies in an interview with Dirk Lohan, tape recording. Ibid.

8 In a letter sent prior to the show to Gropius, Mies had insisted on the spatial orchestration of his two models: “As models I can only provide the glass model of my high-rise building and the wood model of the big office building, and, in fact, I thought about uniting these two models to a place-formation [Platzbildung] by arranging them next to one another. I have tested it; the effect is excellent and I believe that you would also understand why the office building is only organized horizontally.” Mies in a letter to Gropius, 1923, Ibid.

9 In particular, Mies recalls noticing the desk in Gropius’s office that reminded him of the “Wiener Werkstätten,” a solid wood table to which Gropius had attached light-elements “with a couple of wires… light-tubes.” Mies in an interview with Dirk Lohan, tape recording. Ibid.
Gestaltung. That was the word we wanted. With architecture you can do everything, but Gestaltung is something very specific. It is not such a frippery [Firlefanz], not design.”

As peripheral as this scene from 1923 might seem, as revelatory it is of the contradictory situation finds himself in. On the one hand, we see Mies, habitually known for being the stoic and reticent master-builder, in the role of the empowered guardian of the G group’s programmatic stance, a leader willing to assume leadership when he calls for “a clear separation of spirits” and an “exact plan of action.” On the other hand, this heroic posture contrasts drastically with the apparent incapacity to see and say things clearly – hence limiting his ability to recognize the possible deviant amongst his own ranks. The promised clarification, published in the second issue of G, thus only confirmed the exhaustion of language’s signifying capacity. His short piece entitled “Bauen” merely amounts to a conundrum of tautologies (“We are concerned with liberating Bauerei from the aesthetical speculation and returning Bauen to what it solely should be, that is Bauen.”).

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10 Mies in an interview with Dirk Lohan, tape recording, Ibid. Since the first number of G appeared just before the Bauhaus show it is incorrect to say that visiting the theatre in Jena triggered the idea for G. Mies’s recollections do underscore his more active involvement in the issues two and three. According to Howard Dearstyne, Mies and Hilberseimer had banned the term ‘design’ during their period at the Bauhaus. See Dearstyne manuscripts, Mies van der Rohe Research Paper, CCA.

11 “[…] eine klare Trennung der Geister herbeizuführen.” Letter of Mies to Werner Jakstein, Mies Paper, CCA. It is possible that Mies addressed his ‘call for order’ to Theo van Doesburg whose insistence on the differentiation between form and style can be read as a response to Mies’s argument already “the will to style is formalist.” See Neumeyer, Mies van der Rohe: Das kunstlose Wort, 214-15.

The discontent Mies expresses to Jakstein points to a more profound problem. There was a crisis of vision and representation located at the heart of the modernist project and it turned the $G$ project into a subtle and fragile undertaking. Clearly, there was a fissure running through the modern project as it was imagined by Mies and the fellow members at $G$ separating “makeshift Constructivist formalism” from *Gestaltung*. The problem was that this fissure could only be intuited but not seen, identified or named.

The entire $G$ project is thus marked by this peculiar concurrence of determination and blindness, the desire for “elementary” clarity and the simultaneous inability to see, name and represent things. $G$ was supposed to lift the “reigning artistic haze” that obscured vision, to open the eyes to an existing life-world permeated by modern technologies and to develop a new meaningful language. And cinema was the medium that opened the eyes to this new dimension.

 Canonical interpretations of Mies’s architecture have underlined an exhaustion of the systems of representation and signification. According to Manfredo Tafuri, Mies turned this incapacity to communicate into a modernist critical virtue par excellence: the high-modernist negative aesthetics of silence fills the cleared fields of signification with absolute absence. Like twentieth century abstract painting, striving towards material purity and formal essence, had emptied the canvas of all recognizable objects, so did Mies’s spaces elevate the reluctance to speak in a ruined language to the level of “symbolic form.” What a closer reading of $G$ and the role discourses on cinema played for its development suggests is an altogether different conclusion for the architecture Mies developed between 1921 and 1924. It had less to do with a

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negative modernist “endgame,” the quest towards pure forms, empty spaces and the elimination of architecture’s mediating ability. On the contrary, Mies’s support of “elementary Gestaltung” presents a first step into an extended realm of the visible, a realm of contingency and corporeality. It is behind the “collapse of the visible,” in a moment of blindness that emerges, as Gilles Deleuze writes, unpredictable virtualities. It is precisely this type of non-essentialist abstraction that members of the G worked on. Rather than eliminate mediation in order to arrive at the ultimate state of silence, Gestaltung was “of a destructive and constructive nature,” as Hans Richter and Werner Graeff underlined in the programmatic statement of the journal’s first issue. Once the means of representation of “yesterday’s art” – apodictic words, stilled images and petrified objects – would have been replaced by what Richter called the “modern apparatuses of instinct, reception and transmission which secure his connection with life” he believed that “new life and abundance” could emerge.

Cinema was considered by many of those involved in G as the model for the new meaningful ‘language’ without falling into the pitfalls of a subject-effacing, productivist ideology, or the appeal to an imaginary transcendental wholeness. Cinema was not simply a powerful tool for the representation of reality or for the entertainment of the masses. Rather, it was regarded as both symptom and agent of a fundamental perceptive and epistemological shift that would allow a new access to an expanded visible world. Cinema held a lesson for the

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14 Gilles Deleuze quoted in John Rajchman, Constructions (Cambridge Mass.: MIT Press, 1998), 72. The canvas of a painting, Deleuze argues, is never blank but already “covered over with too many givens, too many probabilities, from which one must extract a singular space that allows for the chance of an ‘après-coup’ of strange new virtualities, unpredictable or unforeseeable.”

15 Richter, "G,” .

members of $G$, a lesson that first became manifest in the play of lights and movements in both the “absolute” films of Hans Richter and the architectural projects of Mies.

The argument that follows picks up the loose ends left untied by Tafuri and Dal Co, who were the first to insinuate a connection between Mies and avant-garde cinema. In order to substantiate the idea that Mies’s use of glass walls as “impenetrable jewelcases” “distorts” the dialogue with the city, Tafuri and Dal Co draw a parallel with the experimental films of Viking Eggeling which “are constructed of deformations and isolations (Diagonal Symphony).” Following Benjamin’s famous dictum about the “different nature which speaks to the camera,” Tafuri repeatedly singles out cinematographic technology for possessing an unprecedented potential for creating “a new relationship with things and nature.” This new relationship could serve, Tafuri argues, as a “generalisable example in which the reproduction techniques put the artist, the public and the media of production into a new condition.” Tafuri hence suggests that

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17 It is surprising to note how little critical attention Mies scholarship has devoted to the Mies’s involvement with $G$ and his relationship with Richter. The notable exception is Detlef Mertins’ insightful article on Mies’s connection with the visual culture of early 1920s Berlin which addresses the role of Richter. See Mertins, "Architectures of Becoming: Mies van der Rohe and the Avant-Garde,” 107-33.

18 Tafuri and Dal Co, Modern Architecture, 132.


cinema is more than simply a sophisticated technology for the reproduction of reality. It instead provides a way out of the impasse the avant-garde had maneuvered itself, out of the “eclipse of history” and the “crisis of the object.” Tafuri and Dal Co imply that Mies had entertained direct, productive, albeit aborted relations with cinema: “His architecture assumes the lesson of the elementary experience but would not follow the course taken in the films by Walter Ruttmann. The conversation between Mies and the avant-garde never went beyond the pages of the review [sic] G and his designs for a brick house in 1923 and a cement house in 1924.”

Tafuri and Dal Co, though singling out the central importance of cinema and the journal G, do not elaborate any further. We have to consequently ask: what was the “lesson” Tafuri hints at? What were the contents of the “conversations” that took place amongst the G members? This chapter can consequently be regarded as an attempt to redraw the discourse map of the G project, to define the role of cinema as its conceptual basis, and to locate Mies’s and architecture’s position therein.

Mies’s role in G

In order to answer the questions raised by Tafuri and Dal Co we have to take a closer look at G–Material zur elementaren Gestaltung. Published between 1923 and 1926 in six issues (the last two appeared as a double issue), the journal can be considered as the expression of discourses that seemed to sustain both the abstract film experiments of Hans Richter and

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22 Tafuri and Dal Co, Modern Architecture, 132. The analogy with Ruttmann might be an evocation but cannot be sustained by historical facts. Graeff, whose judgment had been contested, is the only one who includes Ruttmann in his long list of collaborators of G. Only later, at the occasion of the founding of the Liga für unabhängigen Film in 1930 would his name appear alongside that of Mies. Werner Graeff, "Über die sogenannte 'G-Gruppe'," werk und zeit, no. 11 (1962).
architectural projects of Mies. While film studies has produced evidence showing that $G$ developed as a coincidental corollary of Hans Richter and Viking Eggeling’s works, the surprising involvement of Mies – who was the only architect belonging the inner circle of the so-called $G$ group – has hitherto attracted little interest. Mies scholars, though mentioning the publication, have done little to examine in detail what $G$ stood for and what role Mies played. Simply labeling $G$ “a constructivist journal” fails to take into account the fact that it was supported by a remarkably heterogeneous blend of artists, intellectuals, and architects. Aside

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24 Wolf Tegethoff, "From Obscurity to Maturity: Mies van der Rohe's Breakthrough to Modernism," Mies van der Rohe: Critical Essays, ed. Franz Schulze (New York: Museum of Modern Art, 1989), 42. Jean-Louis Cohen, by contrast, is more prudent with his characterization of $G$. He describes $G$ as an avant-garde publication that “showed images of technology and derived from them a scientific approach to architecture, rooted in the principle of economy and detached from any explicit connection with social reform.” (Cohen, Mies van der Rohe, 34). Fritz Neumeyer’s intellectual biography on Mies, while arguing that his involvement with the journal only attracted insufficient attention, limits itself to documenting Mies’s contributions without however clarifying the motifs of his involvement or the possible cross-connections with other texts published in $G$. Neumeyer, Mies van der Rohe: Das kunstlose Wort, 40-46. See also János Bonta, Ludwig Mies van der Rohe (Berlin: Henschelverlag, 1983), 8.

25 It is difficult to state with final clarity who belonged to the ‘G group,’ who was an active protagonist and who was a passive sympathizer. Richter, whose statements are notoriously imprecise, would later recall the founding of $G$ as follows: “The magazine ‘G’ and the so called ‘G’ group, which grew around it, were founded in 1920 by the Swedish painter Vicking Eggeling [sic] and me. We were working over two years together at the problem of ‘Elementare Gestaltung’ (syntax of the elements of abstract expression) and had just gotten a substantial loan to continue our research which was leading us towards an abstract film. Richter cited by Raoul Hausmann, "More on Group 'G'," Art Journal 24, no. 4 (1965), 352.

from its founder Richter and his “main collaborator” Mies who, as Richter notes, “fundamentally influenced”26 the journal, contributors to G included former Bauhaus student and industrial designer Werner Graeff; architects like Ludwig Hilberseimer and Friedrich Kiesler, Neo-Plasticists like Theo van Doesburg, the Dadaists Raoul Hausmann, Tristan Tzara, Kurt Schwitters, and Hans Arp, Soviet Constructivists El Lissitzky, Naom Gabo and Antoine Pevsner, the Expressionist George Grosz, interior designer and photographer Max Burchartz, critics Adolf Behne and Walter Benjamin, the psychiatrist and art historian Hans Prinzhorn, or the music theorist Ernst Schoen.27

Hans Richter cites the following figures: “Tzara, Hilberseimer, Doesburg but soon also Mies van der Rohe, Lissitzky, Gabô, Pevszner, Kiesler, Grosz, Man Ray, Soupault, Benjamin, Hausmann etc.” Hans Richter, Köpfe und Hinterköpfe (Zürich: Arche, 1967), 69. In a later account Richter suggests a hierarchy amongst those involved in G. Crucial seemed to have been the involvement of Lissitzky, van Doesburg, Graeff and Mies; then there was a second group of artists and intellectuals without whom “neither the magazine nor the group would have existed or would have stayed alive without their active infiltration”: Arp, Schwitters, Ernst Schoen, Hilberseimer, Charles Métaïn [a former photographer who concentrated on biological cinematography before becoming the camera operator for Richter’s Rhythmus films and his later Inflation (1928). In the late 1920s and early 1930s Métaïn worked as the camera operator for a number of large scale German cinema productions], Tzara, Benjamin, Man Ray, Grosz, and John Heartfield. Richter in a letter from February 1964 cited by Hausmann, "More on Group 'G'," 352.

Walter Benjamin’s role remains unclear. His connection with Richter, who he possibly met in Zürich in 1918-19, is documented through the translation of the Tzara article in G number three. And even later, Benjamin and Richter appeared to have remained in contact. Supposedly, Richter was the first to whom Benjamin sent a draft of the Artwork essay. (See Eckard Köhn, "Nichts gegen die Illustrierte! Benjamin, der Berliner Konstruktivismus und das avantgardistische Objekt," Schrift Bilder Denken, ed. Detlev Schöttker (Frankfurt a.M.: Suhrkamp, 2004), 68). However, in a letter to Gershom Scholem dated September 16, 1924 Benjamin judges his own involvement rather derogatively: “Currently I am not able to send you an issue of the new journal H [sic], for whose first issue, in an act of weakness rather than courtesy vis-à-vis the publisher (Hans Richter), I have translated with reverent dash a blague of Tristan Tzara.” (Walter Benjamin, Briefe, eds. Gershom Scholem and Theodor W. Adorno (Frankfurt a.M.: Suhrkamp, 1966).

26 Hans Richter, Begegnungen von Dada bis heute (Köl: DuMont, 1973), 53.
27 Schoen had been a musician, music theorist and school-friend of Walter Benjamin who in 1929 became the program editor for the Southwestern German radio broadcasting company and who changed Weimar radio’s programmatic direction from passive “entertainment and
What connected the so-called ‘G group,’ this informal assemblage of artists and intellectuals from various disciplines, was not the subordination to a particular doctrine but rather the shared resistance to any utopian project and the emphatic affirmation of technology and science. G was not a programmatic pamphlet, but rather a snapshot of an intellectual and artistic environment in Berlin taken at a moment of transition, when Expressionist and Dadaist currents were on the wane and Dutch De Stijl and Soviet Constructivism were introduced. If at all one was to assign G to any of the movements it would be Dadaism’s inherent Constructivist strain that had already been latent during the art movement’s early Zürich years, and which first became evident in the 1921 article “A Call for Elementarist Art” where the Dadaists Raoul Hausmann and Hans Arp, and the Constructivists Moholy-Nagy and Puni demanded an anti-individualist art to “grow as something pure, liberated from usefulness and beauty, as something elemental in everybody.” Dadaists embraced the virtues of the sciences, rationality and radical
social change without hesitation as Kurt Schwitters’ comments illustrate: “The Dada artist points the way towards the future. He united in himself the contrast: Dada and construction. Only consistent rigor is the means that liberate us from the chaos. […] Dada is the transition. If we wish to participate in the construction of a new era, we are obliged to start with the most elementary means.”

The realization that Mies not only belonged to the G group but was “indispensable and decisive for ‘G’” (Richter) or an “essential pillar” (Graeff) of the project might come as a surprise. During his involvement which spanned the first three issues (published in July and September of 1923, and June of 1924) he contributes not only three articles (“Bürohaus,” “Bauen,” and “Industrielles Bauen”) but also the design for the cover of the famous third issue as well as numerous illustrations of his designs (Office Building, Concrete Country House and two of the Friedrichstraße renderings). What is more is that he provided the financial help that was necessary for realizing the expensive third issue.

Before 1923, Mies’s name has not appeared in any of the avant-garde currents. Both his professional work and personal life during the first decade of his career as an architect in Berlin predestined him to develop a conventional architectural practice oriented towards designing mansions for Berlin’s wealthy bourgeoisie. His marriage with the daughter of a rich industrialist

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31 Richter, Köpfe und Hinterköpfe, 69.

appeared to have sealed the social ascent of this son of a stone mason from the provincial town of Aachen. Mies, who was never shy to exhibit the attributes of his professional success and social ascension, fit more the role of the pragmatic arriviste than that of the engaged militant for an artistic cause. Or, as Franz Schulze put it: “Ludwig Mies, stonecutter’s son, assistant to Bruno Paul and Peter Behrens, disciple of Schinkel and admirer of Hendrik Berlage, was by training and temperament ill-suited to either expressionism or dada.”

But maybe Mies’s proximity to the avant-garde scene was not entirely unpremeditated. Probably already as early as 1911 Mies became acquainted with some of the most important representatives of the nascent avant-garde through his wife Ada Bruhn, who belonged to the first group of students at Jaques-Dalcroze’s Eurhythmics institute at Dresden-Hellerau. After World War I he continued to seek the proximity to the Dadaist as well as Constructivist circles. On a photograph taken in 1920 at the “First International Dada Fair” [Erste Internationale Dada-Messe] we see Mies in the company of the artists Hannah Höch, Raoul Hausmann, John Heartfield, Wieland Herzfelde, Johannes Baader and the gallery owner Otto Burchard. [Fig. 23] It was probably in early 1921 when Mies met Theo van Doesburg, probably through his acquaintance with Höch and Hausmann. Van Doesburg in turn introduced him to Hans Richter. From that moment on, Mies’s name appears amongst those avant-gardists participating in the gatherings at the studios of Gerd Caden and Erich Buchholz. Richter remembered that Mies was

33 Schulze, Mies van der Rohe - A Critical Biography, 89.
34 See the following chapter for a detailed discussion of Mies’s link to Hellerau.
present at Caden’s place, probably during the founding meeting of the Berlin Constructivist group in 1922. It was also during this period that Mies’s attempt “to understand architecture” was also accompanied by the change of name from “Ludwig Mies” to “Ludwig Miës van der Rohe.” Consequently, Mies appeared far from having been “ill-suited” to fit in with the avant-gardes.

The sheer fact that $G$ emerged out of the “chaos of jumbled-up forces” must have appealed to Mies, who writes in 1926 that it was precisely such chaos that was the precondition of all architectural production. $G$ tried to give visibility to new gamut of objects and practices that modern technologies had introduced yet still remained unaccounted for by the dominant systems of representation and signification in place. Iron and glass constructions, car design, fashion, city planning, photography, cinema all belonged to “the means of our time” Mies speaks of in his article for the first issue of $G$. The journal was made, as Richter emphasizes in his

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37 Mies cited in Blake, "A Conversation with Mies," 101. Supposedly, Mies ordered his assistant Sergius Ruegenberg in 1926 to throw out the entire inventory.

38 Most scholars suggest that this switch was probably motivated by a desire to cover up both his humble social origin and the negative meaning of the word “mies” (in German: “lousy,” “rotten,” or “mean”) with a name that would provide him with an aristocratically air (see David Spaeth, "Ludwig Mies van der Rohe: A Biographical Essay," Mies Reconsidered: His Career, Legacy, and Disciples (Chicago: Art Institute of Chicago, 1986), 15). I believe, however, that the name change is a Dadaist joke he makes about himself: ‘Mies who springs from the Rohe,’ with Rohe being the maiden name of his mother.


40 Mies van der Rohe, "Bürohaus," 3.
programmatic article, for “the coeval who enjoys and has an interest in taking part in the growth of the great body to which he belongs (mankind), who is not suffering from inhibitions against life and who is already equipped with all the modern apparatuses of instinct, reception and transmission, which assure his connection with life.” And architecture and film were regarded as two crucial “apparatuses” that could achieve this reconnection to a life made of flux, intensities and interconnections, and to open up to new forms of visibility and signification.

**Gestaltung, Gestalt, Film**

*Gestaltung* was a term the heterogeneous *G* group identified with. The word *Gestalt* itself carries multiple meanings like ‘figure,’ ‘form,’ ‘guise,’ or ‘silhouette.’ By adding the suffix ‘-*ung*’ it acquires an active quality of ‘becoming’ or ‘creating’ a *Gestalt*. The term itself was central in certain late nineteenth century aesthetic discourses in Germany when it became used by reform-minded artists and thinkers who explored escape roads from the constraints of empirical and instrumentalist thinking that reigning positivism had imposed. Ever since industrialization, the liberalization of society and the dominance of ‘exact’ modern sciences had prompted a feeling of loss and crisis amongst the reigning *Bildungsbürgertum*, a “hunger for wholeness” (Peter Gay) had infiltrated into the cultural and academic spheres. *Gestaltung*

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41 Richter, "G," 3. “DEN Zeitgenossen, der am Wachstum des großen Körpers, zu dem er gehört (der Menschheit) Interesse und Vergnügen hat, der nicht an Hemmungen dem Leben gegenüber leidet und der schon mit all den modernen Instinkt- Empfangs- und Absendungsapparaten ausgerüstet ist, die ihm Verbindung mit dem Leben sichern.” Interestingly, just underneath his article, Richter places the photo-collage of Mies’s Friedrichstrasse skyscraper project. It is not only the dreamlike apparition of a crystalline high-rise amidst the traditional Berlin streetscape that catches our attention. What strikes us is the conspicuous superimposition of Mies’s high-rise by a set of suspended telephones cables that diagonally cut through the entire image.

42 *Gestalt* theory can be interpreted as a reaction against the ‘crisis of sciences’ that the educated middle-class in Germany perceived during the turn of the century through the advancements of a liberal democratic reform pressures. See Jeffrey Herf, *Reactionary Modernism* (Princeton: Princeton University Press, 1984).
attested to the attempts in the social sciences, philosophy and psychology to find a ‘third way’ that would help overcome the antagonistic world view that oscillated between discourses of totality and fragmentation, a practice that could capture notions of process and openness without completely abandoning the idea of subjective agency. Tellingly it is Oswald Spengler who gives the first volume of *The Decline of the West* the subtitle “Gestalt and Reality” (1918). While reality is considered as abstract, static and of a life-world subjected to mechanical order, *Gestalt*, by contrast, operates “in the realm of moving and becoming” and creates cultural object that attest to “life” and “soul.”

In architectural discourses, the dualism between form and *Gestalt* is present in Adolf Behne’s *Der moderne Zweckbau* (1923) [*Modern Functional Building*]:

‘form’ carries the negative connotations of the normative, historically fixed *Stilform*, whereas *Gestalt* embodies an artistic creativity that is unencumbered by authoritative historical models yet dedicated to an imagined wholeness. Behne quotes the definitions by theologian Paul Tillich and the philosopher Kurt Riezler.

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44 Adolf Behne, *Der moderne Zweckbau* (Berlin: Ullstein, 1964 [1926]), 64. The manuscript was finished by 1923. Translated as Adolf Behne, *The Modern Functional Building* (Santa Monica: Getty Research Institute for the History of Art and the Humanities, 1996). In his contribution to the second issue of *G* Behne projects his idea of *Gestaltung* onto the subject of urban design (*Städtebau*): “All disciplines of elementary *Gestaltung* lead to the construction of the new city.” Adolf Behne, "Über Städtebau," *G: Material zur elementaren Gestaltung*, no. 2 (1923).

45 His brother was Walter Riezler, editor-in-chief of the *Werkbund* publication *Die Form*. He published on questions of illuminated architecture but also commented extensively on avant-garde film. In 1927 he and Mies exchange letters in which Mies demands to change the journal’s name. In 1931 Walter Riezler describes Mies’s Tugendhat House as a space that has neither “a tangible basic form” nor “a definite boundary,” a space that announces “a completely new world picture.” Walter Riezler, "Das Haus Tugendhat in Brünn," *Die Form* 6, no. 9 (1931), 328.
modern age, it “is what is concrete, the actual Being.” For the latter, *Gestaltung* attests to the “crisis of reality” due to the inability of mechanical physics to account for phenomena in biology and psychology. According to Behne, architecture gains a “vivid, concrete *Gestalt*” once the “interpenetration” of a temporal “sequence” in a flow of biological needs” with general, abstract “laws” occurs - an idea of architecture as becoming we already find in the aesthetics of Konrad Fiedler who defines architecture as a “progression from what lacks *Gestalt* to what has undergone the process of *Gestaltung*” ([*Fortschritt vom Gestaltlosen zum Gestalteten*]).

Moreover, Mies’s insistence to name the journal *Gestaltung* might have been due to his being aware of Gestalt psychology. Some of the protagonists in this new field of research like Wolfgang Köhler and Kurt Koffka had studied under the neo-Kantian philosopher Aloïs Riehl, Mies’s first client who during the early 1910s had introduced young Mies into the social circles of Berlin’s upper middle-class.

The repeated insistence by the G members on the importance of the whole over its parts is congruent with Gestalt theory’s basic premise. *Gestalt* presupposes an organized whole whose parts belong together and cannot be deduced to a single analyzable unit. Or, as Max

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46 Behne quotes Tillich’s *Das System der Wissenschaften nach Gegenständen und Methoden* in his *Der moderne Zweckbau*.


50 The etymological root of the German “Gestalt” refers to “gestellt,” a way a thing has been “placed” or “put together,” but never takes on the sense of “construct” – which refers to the building of a whole through the putting together of its parts.
Wertheimer, put it: “There are situations in which what happens in the whole is not derived from the nature of the several parts […] but where […] that which happens to a part of this whole is determined by the inner structural laws of this whole.”51 The experienced objects and relationships of the whole are fundamentally different from the experience of the single isolated sensory element.

_Gestalt_ psychology participated in a wide-spread shift in the field of psychology from elementarist models of human consciousness to operational and functional models characterized by dynamic and fugitive subject effects.52 First and foremost concerned with the visual perception of motion, the Gestalt experiments conducted by Wertheimer, Köhler and Koffka proved the existence of an emergent phenomenon present in the single isolated stimulus but always dependent upon the relations between numerous stimuli. Through the findings, perception could assert its primacy over sensation. Apodictic forms could no longer be simply imposed onto the chaotic and dynamic sensory material that the subject perceived. In other words, the psychological research no longer asked what could be found behind the flux of experience but within it.53

One of Wertheimer’s experiments demonstrated the so-called “phi-phenomenon”: the visual illusion of stationary objects that appear to move when shown in rapid succession – the very phenomenon which provides the basis for cinematographic perception.54 The cinematographic apparatus, by calibrating sequences of images in such a way that the spectator

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52 Kern, _The Culture of Time and Space 1880-1918_.
53 Ash, _Gestalt Psychology in German Culture, 1890-1967_, 2-4
perceives motion, can be considered an everyday practice that exploits certain *Gestalt* phenomena. It is hence hardly surprising that the first coherent theoretical attempt to explore filmic form was written by Rudolf Arnheim, one of the students of Köhler and Wertheim. His *Film as Art* (1932) is filled with references to *Gestalt* theory.\(^{55}\) Interestingly, Arnheim’s insistence for film’s formal autonomy did not make him a ‘formalist,’ but rather the opposite. Arguing against the idea that documentary realism (which by the late 1920s had become popular not only in Soviet cinema but even amongst the former pioneers of abstract cinema like Richter and Ruttmann) could affect social advancements, Arnheim believed that only when film achieves its formal “salience” [*Prägnanz*] can it transcend the reigning materialism and produce true social progress.\(^{56}\)

From the onset Mies appeared to have understood the possibility *Gestaltung*’s productive vagueness offered to bypass reigning normative positivism: “Every form of aesthetic speculation, every doctrine, and every formalism–we oppose,”\(^{57}\) Mies proclaims in the first issue of *G*. Instead he defines architecture as *Zeitwille* (an ambiguous formulation expressing simultaneously a Schopenhauerian ‘will of the age’ but also literally as the ‘will of time’) which is always in a state of becoming.

\(^{55}\) Rudolf Arnheim, *Film as Art* (Berkeley: University of California Press, 1957 [1931]).

\(^{56}\) Arnheim saw cinema as a cultural practice that extended well beyond projection screen and movie theater: “Thus, we are not dealing any longer with a particular influence exerted by a special cultural product on the ‘public’ gathered in a dark room, but with a general form, unique in life which has to instill every one of its constitutive element […]” Rudolf Arnheim, "De l'influence du film sur le public," *Le rôle intellectuel du cinéma* (Paris: Institut International de Coopération Intellectuelle, 1937), 159. See also Horst Bredekamp, "On Movies: Erwin Panofsky zwischen Rudolf Arnheim und Walter Benjamin," *Bildtheorie und Film*, eds. Thomas Koebner and Thomas Meder (München: Edition text + kritik, 2005).

\(^{57}\) Mies van der Rohe, "Bürohaus," no page numbers given.
Film in G

Film belonged to the repertoire of almost all modernist avant-garde magazines during the 1920s. The very first issue of *L’Esprit Nouveau* (1920), for instance, features an article on the aesthetics of cinema by Bosko Tokin. From 1921 onwards, *De Stijl* devotes ample space to abstract film. The Hungarian magazine *MA* publishes an article by Viking Eggeling.\(^58\) Later, *Die Form* and *Das Neue Frankfurt* treat the mass medium film as an indispensable emblem of modern life. Alongside other subjects like painting, music, architecture, mechanical engineering, furniture design, fashion, city planning and so on film had become a token of any magazine’s modernity.

In the case of *G* cinema meant more. Already in its ‘founding myth’ Richter presents the journal as a substitute for an ill-fated film project. The idea to publish a journal had been part of a strategic plan imagined by van Doesburg who advised Richter and Eggeling to use money destined to finance their abstract film experiments for the publication of a journal. Because, as Richter would freely admit, neither he nor Eggeling “knew anything about photographic let alone about cinematography,”\(^59\) it seemed prudent to first propagate their ideas which would eventually generate enough support for the production of not just one but of numerous films:

Now we [Eggeling and Richter] had the starting capital, but still no plan. Eggeling suggested to collect expert opinions from important personalities and then to take them to a large film corporation which would realize our films. In the meantime the art critic Adolf Behne had written favorable articles about our works, which all of the sudden lead to the visit of the unknown Theo van Doesburg, editor of the unknown journal ‘de Stijl.’ He was very interested in the prospect of making abstract films. But the plan to realize these films through experiments he found

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\(^{58}\) Tokine, "L’esthetique du cinema," 84-87; Theo van Doesburg, "Abstracte Filmbeelding," *De Stijl* 4, no. 5 (1921); Viking Eggeling, "Elvi Fejtegetesek a Mozgomüveszetről [Theoretical Presentation of Dynamic Art]," *MA*, no. 8 (1921), 105-06.

\(^{59}\) Richter, *Begegnungen von Dada bis heute*, 189.
completely wrong. Instead, he proposed something which he himself had done with great success: to launch a journal using the money, to propagate our ideas and intentions with the help of all friends and followers, so as to win the moral and financial means for the execution of not only one but of many films.60

This anecdotal account, though possibly correct, presents G as an exclusive undertaking by Richter. In reality, G assembled a heterogeneous blend of artists and intellectuals who (with the notable exception of Mies) had already either written about or experimented with film.61 Apart from Richter and Eggeling artists such as Werner Graeff, John Heartfield, George Grosz, Friedrich Kiesler, László Moholy-Nagy and Walter Ruttmann had recognized the slumbering artistic potential of cinematography and had started to experiment with film. Others, like Theo van Doesburg, Raoul Hausmann, El Lissitzky and Ludwig Hilberseimer tried to integrate the ‘lesson’ of the new medium cinema into their artistic practice and theoretical thinking.

In order to get an idea of the place of the moving image in the pages of G, it suffices to take a look at the first issue. The central double page of the pamphlet-style leaflet depicts Mies’s “Bürohaus” rendering surrounded by a film sequence from one of Richter’s abstract Rhythm films and a filmstrip that serves as an illustration for Raoul Hausmann’s reflections on film and “optophonetics.” [Fig. 6] Even the drawings van Doesburg’s contributes showing variations of the dynamic, ‘four-dimensional’ hypercube are attempts to introduce time and movement into the image.62 In addition, on the back page, El Lissitzky reconstitutes the experience of an ambulatory visitor of the Prounenraum in the form of a storyboard composed of a linear

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60 Ibid., 189.
61 The authors featuring in the first issue were: Richter, van Doesburg, Graeff, Lissitzky, Hausmann, Gabo/Pevsner, Behne, Hilberseimer, and Mies.
sequence of three views. [Fig. 24] And even the overall design with its bold graphic lines resembled Moholy-Nagy’s “film-manuscript” *Dynamik der Gross-Stadt* (1921/22).

Richter’s article, placed just above Mies’s “Bürohaus” piece, can be read both a programmatic statement for the project of *Gestaltung* and as a manual for the correct ‘reading’ of *G*. He sums up the essence of the film experiments he had undertaken with Eggeling since 1920 and illustrates these findings by letting a long filmstrip run alongside the edge of the double fold-out page. Consisting of altogether twenty-eight frames the sequence is not an actual copy of a film negative but what Richter calls “the demonstration of the material.” While the perforation suggests an actual celluloid print, the frames are selected moments of a composition of squares and lines. In an obvious attempt to familiarize the reader-turned-viewer with a “*gestaltende* demonstration”63 on what *Gestaltung* is and how it operates, the annotations have to be read laterally, forcing the reader to turn the paper on the side. In concise words Richter proposes a radical redefinition of film:

Film is a play of light relations […] The emerging ‘forms’ are de facto delimitations of processes in different dimensions (or of dimensions in different time sequences). The line serves as a delimitation during planar processes (as material of planar limitations), the planar surface as delimitation during spatial processes. […]

□ and — are supports.

The actual means of construction is light, its intensity and quantity. The *Gestaltung* of the light-nature in the sense of a concluding visibility [*Anschaulichkeit*] is the task for the whole. […] The single sensuous content of the plane etc.–the ‘form’ (whether abstract or natural) is avoided. The emerging forms are *neither* analogies *nor* symbols *nor* means of beauty. Film communicates in its process (projection) light’s actual tension-relations and contrast-relations. […]

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The aim is to organize film in such a way that the single parts generate tension between each other and with respect to the whole, so that the whole remains intellectually [geistig] dynamic.\textsuperscript{64}

In cinema, we no longer see what we get. What we see (for example in Richter’s first finished abstract film \textit{Rhythmus 21} [Fig. 25]) is the interplay of squares and lines that attests to the presence of the images preceding and following it. Richter’s images circumscribe processes that relate to a “whole” that can only be grasped temporally. Essentially, film is hence nothing but a “play of light relations.” Any attempt to render the fluid image available to formal analysis and quantification ultimately causes its essence to disappear. Reluctant to use the words ‘squares’ and ‘lines’ Richter instead uses the graphic imagery arguing that “\[
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and \[
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are not “forms” (in absence of a proper word Richter puts the term “form” in quotation marks) but “material” that is free of all associative, symbolic or aesthetic signification. They are neither windows through which the spectator can project himself into a world, nor does this picture language reference preexisting ideas. Richter’s cinema is completely independent of the question of mimetic representation of nature and, in what is more, refuses to participate in the modernist fragmentation and abstraction of a formerly coherent space.

\textsuperscript{64} Ibid., 3. “Film ist ein Spiel von Lichtverhältnissen. […] Die auftretenden ‘Formen’ sind de facto Begrenzungen von Vorgängen in verschiedenen Dimensionen (oder von Dimensionen in verschiedener Zeitfolge). Die Linie dient zur Begrenzung bei Flächenvorgängen (als Material der Flächenbegrenzung), die Fläche als Begrenzung bei Raumvorgängen. Linie ohne praktische Breite, Fläche ohne Begrenzung ist nicht darstellbar […] \[
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und \[
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 sind Hilfsmittel. Das eigentliche Konstruktionsmittel ist das Licht, dessen Intensität und Menge. Die Gestaltung der Lichtnatur im Sinne einer zusammenfassenden Anschaulichkeit ist die Aufgabe für das Ganze. […] Der einzelne sinnliche Gehalt der Fläche etc. – die ‘Form’ (ob abstrakt oder natürlich) – ist vermieden. Die auftretenden Formen sind weder Analogien noch Symbole, noch Schönheitsmittel. Der Film vermittelt in seinem Ablauf (Vorführung) ganz eigentlich die Spannungs- und Kontrastverhältnisse des Lichts. […] Es wird versucht, den Film so zu organisieren, dass die einzelnen Teile untereinander und zum Ganzen in aktiver Spannung stehen, sodaß das Ganze in sich geistig beweglich bleibt.”
Later, Richter would repeat the basic insight first discovered in the early 1920s: “The main aesthetic problem in the movies, which were invented for reproduction (of movement) is, paradoxically, the overcoming of *reproduction*.”\(^6^5\) Instead of recording of a precinematic reality film produces sensations; instead of conveying established signification film generates new meaning. What the filmstrip running along the top side of the central double page of *G* hence shows are elementary ‘attractions’ that create, contain and sustain ‘blocks’ of sensations in time. The film spectator does not see symbols or representations of objects but indices of his or her experience of the “process as such,” as Richter already emphasizes in his 1921 article “Prinzipielles zur Bewegungskunst.” And because this process happens devoid of “all material comparisons and memories” and is liberated from the limitations of “the world of words” it becomes “elementary-magical.”\(^6^6\)

Once liberated from the obligation to reproduce, to record the real, the idea that abstract film stands opposed to figurative film no longer make sense. Even documentary film, which by definition is limited to the factual world, possess the “magic, poetic, irrational qualities”\(^6^7\) inherent to all cinema. It is this quality, which uses the external object as “raw material,” that Dadaist and, later, Surrealist film (like Richter’s own *Ghosts before Breakfast*, 1927) would exploit. The same argument applied to the journal *G*: rather than serving as a vehicle for the reproduction and dissemination of a certain reality, *G* was supposed to be a medium that


\(^6^6\) Hans Richter, "Prinzipielles zur Bewegungskunst," *De Stijl* IV, no. 7 (1921), 109.

\(^6^7\) Richter, "The Film as an Original Art Form," 16.
“collects universal material,” material that manifests itself in architecture, urbanism, fashion, industrial design, and cinema.

What is crucial about the experience of watching film is the fact that the eyes become extensions of the body, a body that senses in duration the play of dynamic intensities. In other words, Richter discovers in and through his experiments with film that the new medium is not simply a means for capturing reality with unprecedented verisimilitude, but the expansion of the realm of the visible through the body. And this unprecedented quality makes cinema, as Richter put it, “decisive to the same degree for music, language, dance, architecture, drama.”

Once we define film as “a play of light reflections” we are not far anymore from Mies’s definition of Baukunst as “a rich interplay of light reflections” which he had formulated a year earlier in his article for the journal Frühlicht. Liberated from the constraints of form, style,

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69 Richter, "Prinzipielles zur Bewegungskunst," 110.
70 Mies van der Rohe, "Hochhäuser," 124. Regarding the different light situations Mies tested on the glass model, Spyros Papapetros suggests that Mies not only intended the “interplay of light reflections” but that he seemed “to construct a scientific film about the behavior of his building, just as plant physiologists would do for the movement of a plant.” One might argue whether Mies’s interest was scientific in the sense that images of the skyscraper in different light situations add up to a sequence when shown in accelerated motion. Mies was certainly interested in the notion of time and the various behaviors of the material glass in different light situations. Equally, Mies was highly aware of the effect the building would have on the person walking or driving past the high-rise. Graeff remembers Mies having been conscious of the danger of the “huge plane surface of glass would blind pedestrians and carriage horses all along Friedrichstrasse.” (Graeff quoted in Tegethoff, "From Obscurity to Maturity: Mies van der Rohe's Breakthrough to Modernism," 41). Instead of only visualizing the ‘natural behavior’ of the building during the course of the day (an approach similar to Impressionist painting), I think that Mies, given his considerable knowledge about the range of possible manipulations of the imaging process (use of lenses, modulation of light exposure during the printing process, touching up techniques to darken or color backgrounds), explores the entire range of architectural possibilities that the blend of materials, construction and media technologies allows. See Papapetros, "Malicious Houses: Animation, Animism, Animosity in German Architecture and Film--From Mies to Murnau," 21.
solid materiality, or historical context architecture becomes a dynamic entity that employs light as “constructive material.”71 Architecture is from now on “Alive. Changing. New”72 as Mies writes in “Bürohaus,” situated right next to Richter’s reflections on film. Just like the visible forms imprinted on the single cinematographic frame are merely “supports,” the architectural objects that appear in Mies’s renderings should not be comprehended as projections of an actual object but as delimitation of processes, tensions and relations.73

The following issues of G gave Richter ample space to elaborate his theory of cinema. Especially the last two issues focused almost exclusively on questions of film. Issue four, though carrying the theme “Painting and Architecture” can be regarded as an homage to the recently deceased Viking Eggeling and his discovery of a “spatio-temporal-rhythmic Gestaltung,” a “new

71 Richter, "The Film as an Original Art Form," 16.
72 Mies van der Rohe, "Bürohaus," “Baukunst ist raumgefaßter Zeitwille. Lebendig. Wechselnd. Neu.” My translation. Habitually the term “raumgefaßt” is translated as “conceived in spatial terms,” which fails to register the tactile connotation of the term “fassen” (to grasp, to hold, to touch). It seems to me that Mies made use of this composite term “raumgefaßt” in order to produce a strong contrast between the concept of “Raum” (space), conventionally understood as empty and inaccessible to the senses, and the act of “grasping” or “grabbing,” which connotes a strong and immediate physical investment.
73 Mies’s phenomenological understanding of architecture as a dynamic entity of moving lights might have been influenced by Richter and Eggeling’s approach to film. At the same time, German architectural discourses were already influenced by the impressionistic ideas of August Endell, who in Die Schönheit der großen Stadt (1908) describes the city as an “Augenwunder” [eye wonder], an optical spectacle of process of movements and dematerializations that opens “an access to a new vision.” Jean-Louis Cohen suggests that Mies knew Endell’s descriptions of urban space as an animate interplay of movements, light and fleeting, fluid objects that have lost their solidity. And indeed, Endell’s description of the Friedrichstraße train station completely resembles Mies later glass architecture: “How wonderful the Friedrichstraße station when seen from the outer platform over the Spree River where one cannot see anything of the ‘architecture’ except the large expanse of the glass apron […]. Particularly beautiful when dusk conceals with it shadows this confused environment and then the many small panels begin to reflect the sunset and the entire plane assumes a colorful, shimmering life […].”August Endell, "Die Schönheit der großen Stadt," August Endell: Der Architekt des Photoateliers Elvira 1871-1925 (München: 1977 [1908]), 101-103. Cf. Cohen, Mies van der Rohe .
optics” that would revive “the belief in the overall meaning in what is alive.” But it was the 38-page last issue – themed “Film” – which gives Richter amply space to summarize his film theoretical reflections on Gestaltung. [Fig. 26] In a total of eight articles, Richter argues that cinema is not simply another technology for the representation of the real or a kind of “perverse variety of photographed literature.” It is cinema that has added a new dimension to “the optical consciousness of today’s individual in which the coherent Gestalt of things emerges as the constant change of its form.” He predicts that once the individual will have learnt to recognize the “cinematographic Gestalt,” a new “field of spatio-temporal consciousness of an unknown and rich power” would open up. For the former architecture student Richter the new medium cinema promised an epistemological leap out of the obsolete regimes of visuality and representation:

Our optical conceptual capacity [optisches Begriffsvermögen] is above all the result of the static space conception of the visual arts. Until now the concept of a kinetic form does almost not exist. Because there never has been an art of visual movement, the capacity to think in optical series is still fully underdeveloped. Yet in film this is the creative problem [Gestaltungsproblem].

The insistence on the direct correlation between image, space and perception had become a truism amongst the avant-gardes since German late nineteenth century aesthetic theory, Schmarsow in particular, had located the site of architectural production in a subject moving

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75 Hans Richter, "Zur Stärkung unseres Bewusstseins!," G: Zeitschrift für elementare Gestaltung, no. 5/6 (1926), 108.
76 Ibid.
through space. The novelty of \( G \) consisted in replacing this site from the empathetic or estranged modern subject to an animated world of materials, media and technologies. “The sphere intrinsic to film is ‘moving’ space,” Richter repeats his argument he first develops in *De Stijl* three years prior. Richter writes:

This space is not essentially architectonic or essentially sculptural but temporal, i.e. through a change in quality (light-dark, big-small) light creates light-spaces [*Lichträume*] which do not have a volume but which transformed into space through succession what otherwise, if one were to interrupt the temporal sequence, would only be planar surface, line, point.\(^{78}\)

These “*Lichträume*” could be produced with film but also with architecture. Film is singled out because as a new medium it is capable of awakening the awareness of a dynamic space devoid of solid volume and made of light. The conclusion Richter draws resembles a direct transcription of *Gestalt* psychology’s basic premises:

The task is hence the following: making the tension-process, which in the single case produces light-space, the basis of the whole in such a way that the result is not a simple sum of space units but a new quality altogether.\(^{79}\)

Moreover, Richter takes this redefinition of film as an occasion to wage a fundamental critique of the conceptual basis of history and art history in particular. Inspired by the publication of Rudolf Kurtz’s book *Expressionismus und Film* (1926),\(^{80}\) the first comprehensive discussion

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\(^{78}\) Hans Richter, "Die eigentliche Sphäre des Films," *G: Zeitschrift für elementare Gestaltung*, no. 5/6 (1926). “Die eigentliche Sphäre des Films ist die des bewegten Raumes, der bewegten Fläche, der bewegten Linie. Dieser Raum ist nicht wesentlich architektonisch oder wesentlich plastisch, sondern zeitlich, d.h. das Licht bildet durch Wechsel der Qualität (hell-dunkel, groß-klein) Lichträume, die nicht voluminös sind, sondern eben nur durch Folge das zum Raum machte, was wenn man den Zeitverlauf unterbräche, nur Fläche, Linie, Punkt wäre. ‘[…] Die Zeiteinheit verhält sich zum Raum wie eine Raumeinheit zur Fläche.’

\(^{79}\) Ibid. “Die Aufgabe, die besteht, ist also: Den Spannungsvorgang, der im Einzelnen zum Lichtraum führt, zur Grundlage des Ganzen zu machen, so daß nicht eine einfache Summe von Raumeinheiten entsteht, sondern eine neue Qualität.”

\(^{80}\) Rudolf Kurtz, author of one of the first comprehensive discussions of avant-garde film *Expressionismus und Film* describes Eggeling’s work in exactly these terms: “History, narrative,
of abstract avant-garde film, Richter argues in “Geschichte ist das, was heute geschieht” [History is what happens today]\(^{81}\) against an empathetic, psychological approach to art. It is the “birth defect” of art history, the article argues, to require stasis in order to retrospectively construct meaning. Only through “the deep and affirmative understanding of today,” Richter writes, “will the past become meaningful again.” It is the past that becomes animated by the present and not the other way around – a logic of history that reflects Hausmann’s “Presentismus” and anticipates Giedion’s retroactive approach in *Bauen in Frankreich*.

Richter sustains his own film theoretical elaborations by including a number of articles written by some of the protagonists of the French avant-garde: Germaine Dulac describes film as

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The article is signed “G” yet was most likely written by Richter.
a new art of the “visual idea,”82 Léger as “the image of an object that is completely unknown to our eye.”83 Marcel L’Herbier, known for his collaborations with Robert Mallet-Stevens on *L’Inhumaine*, stresses the obligation of cinematography “to know itself” because in the future it would become a “tremendous tool of future democracy,”84 while Clair wants to protect “the world of images” from the constraints of “rules and logic.”85 More a panoramic overview than a thorough and systematic exploration of early French film theory, the purpose of publishing these ideas was to complement the famous film matinee *Der absolute Film*, organized in May of 1925 by the Novembergruppe, where *Entr’acte* (René Clair, Francis Picabia, 1924) and *Images mobiles - Ballet mécanique* (Fernand Léger, Dudley Murphy, 1924) were screened for the first time in front of a German audience.

Moreover, Richter includes two articles written by the practicing architects Ludwig Hilberseimer and Hugo Häring (who shared an office space with Mies). Hilberseimer, who was one of the first to publish an article of Richter and Eggeling’s film experiments in 1921, wrote a piece in support of Eisenstein’s *Battelship Potemkin* (which had premiered in Berlin just before the publication of *G 5/6*) rejecting abstract cinema’s “l’art pour l’art” attitude and instead emphasizing the needs to effect social change through film, “the most comprehensive of all means of propaganda.”86 Nonetheless, the current state of film was not yet satisfactory. It would

83 Fernand Léger, "Malerei und Kino," *G: Zeitschrift für elementare Gestaltung*, no. 5/6 (1926), 139.
84 Marcel L’Herbier, "Ich behaupte," *G: Zeitschrift für elementare Gestaltung*, no. 5/6 (1926), 110.
86 Ludwig Hilberseimer, "Nicht lesen, verbotener Film!," *G: Zeitschrift für elementare Gestaltung*, no. 5/6 (1926).
only reach a state of perfection once “wireless transmission” would render it “immediately visible” to everyone – a comment that echoes similar media-technological fantasies expressed earlier by van Doesburg, Richter, Hausmann, and Teige. Häring, in his article entitled “Was wirkt im Lichtbild?” [What has an effect in the light-image?], debates issues of film set design. 87 What is noteworthy about Häring’s article is that he is aware of architecture’s intrinsic dependency on the type of image in which it will be represented. The design, Häring notes, is determined by the “effect” of the “transformative” image and enables the “environment to take part in the action.” 88

Cinema in the Discursive Field of G

Dada: Raoul Hausmann and haptic cinema

Especially amongst Berlin Dadaists, cinema was a central theme. At the “First International Dada Fair” (1920) – which was attended by Mies van der Rohe 89 – the subject of cinema was omnipresent. In his introductory remarks to the Dada-Fair, Wieland Herzfelde described Heartfield and Grosz’s cacophonic collage Leben und Treiben in Universal City 12 Uhr 5 mittags as a painting made “with the means of film.” 90 And Grosz exclaimed: “I am like a

87 Hugo Häring, "Was wirkt im Lichtbild?," G: Zeitschrift für elementare Gestaltung, no. 5/6 (1926), 128. Published previously as Hugo Häring, "Filmbauen," Der Neubau, Halbmonatszeitschrift für Baukunst 11 (1924).
88 Häring, "Was wirkt im Lichtbild?," 129.
89 The photograph shows Mies in the company of the artists Hannah Höch, Raoul Hausmann, John Heartfield, Wieland Herzfelde, Johannes Baader and the gallery owner Otto Burchard. Mies had probably met Hannah Höch, and through her Raoul Hausmann, as early as 1918 in the Der Sturm circles of Herwarth Walden. See Adkins, "Erste Internationale Dada-Messe," 157-83.
strip of film and like a child in a thousand lunaparks." In Hausmann’s collage *Dada im gewöhnlichen Leben (Dada Cino)* (1920) the dancing letters of the word “Cino” are superimposed onto cut-out newspaper images of people and buildings. [Fig. 27] In his programmatic pamphlet *Synthetisches Cino der Malerei* (1919) Hausmann calls photomontage “static film.” In his review of the Dada fair, Adolf Behne also stresses the filmic aspects: “Here we find an abundance of important suggestions – not least for film whose future I imagine being Dadaist.”

Yet, only few Dadaists had actually produced films. John Heartfield and George Grosz had in 1917 asked for funding from the Department of Foreign Affairs for the production of a series of propagandistic animation films in support of the German war effort. Finished in late 1918, one of the films ridicules the American landing efforts. In 1924, Hausmann and Schwitters would write a scenario for a ‘comic film’ on request of the film director Robert Siodmak. One could also argue that the fact that there were hardly any Dadaist films being produced was due to the fact that the tactile and shocking perceptive effect of the medium film could already be considered as

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91 Grosz quoted in Anton Kaes, "Film und Dada," *Sinn aus Unsinn: Dada International*, eds. Wolfgang Paulsen and Helmut Herman (Bern: Francke, 1982), 73.

92 Hausmann cited in Timothy O. Benson, *Raoul Hausmann and Berlin Dada* (Ann Arbor: UMI Research Press, 1987), 144. Erlhoff tries to explain the fact that Hausmann never made films himself with the argument that latter was too much of a painter who was reluctant to give up “vision at a single glance” of the still image for the sequential structure of film. See Michael Erlhoff, *Raoul Hausmann, Dadasoph* (Hannover: Zweitschritt, 1982), 89-93.

93 Adolf Behne, "Dada," *Die Freiheit* 3, no. 269 (1920).


Dadaist. What Dadaists needed above all in order to launch their mocking, nonsensical assaults were well-established representational codes and habits of reception. They needed the recycled debris of mass modern communication in order to desecrate all postures of bourgeois contemplative elevation and to trigger the effects of bodily shock. Being inherently immediate and corporeal, film already embodied a counter model to bourgeois artistic conventions. “By means of its technical structure,” Benjamin writes in the Artwork essay, “the film has taken the physical shock effect out of the wrappers in which Dadaism had, as it were, kept it inside the moral shock effect.” 96 Film’s shock-inducing quality – hitting the spectator “like a bullet,” as Benjamin puts it – achieves “naturally” what Dada can only do “morally” by shifting the attention from a representation of reality to the reality of the conditions of perception.

Amongst those Dadaists interested in cinema, it was Raoul Hausmann who showed a continued interest the animated image, an interest that went well beyond the superficial fascination of certain of his peers. For our discussion here, Hausmann is pertinent because he was acquainted with Mies even before joining the inner circle of collaborators of G. “Already today our art is film! At once event, sculpture and image! Unsurpassable!”97 he declares in his 1921 article “PRÉsentismus.” Already in his earlier manifesto Synthetisches Cino der Malerei (1918) – also called Das neue Material in der Malerei – Hausmann denounces the anthropocentric delusion perpetuated by art movements such as Expressionism, Cubism and Futurism. For him these movements were merely attempts at “improving the performance of the sense organs through science or art,” i.e. the adjustment of human perceptive capacity to a new

technological environment. The optical, and this is Hausmann’s point of contestation, remains merely a stimulus limited to inciting a simple causal response from the subject. The photomontages Hausmann produced between 1918 and 1923 are symptomatic for the Dadaist attempt to do away with the artistic production of aesthetic events. What he wanted to construct were synaesthetics, pan-sensuous events that were to expose the subject fully to the unleashed delirium of an already mediated Lebenswelt [life-world] permeated by technology. The ensuing shock would in turn liberate the visual senses blinded by conventions. “Hearing with the eyes – seeing with the ears” became the catchphrase of the Berlin Dadaists. Hausmann called this overcoming the separation of the senses “optophonetics” – a metaphor for a new pan-sensuous wholeness of vision and hearing that would lead to the freeing of the objects “from the prison accorded by their usage.”

Cinema appears repeatedly in Hausmann’s photomontages, either in the form the word “Cino,” as part of expressions like “cinémademapensée” (borrowed from Albert-Birot’s poem) which he emblazoned across the forehead of a figure in his work Gurk (1919), or in the form of depicted objects that reference the filmic apparatus (like, for example, in his Selbstportait des Dadasophen [Self-Portait of the Dadasoph] in which film strips are dangling from a man’s head). Calling his photomontages “static film” Hausmann points to the structural kinship with filmic montage. His 1920 work Dada im gewöhnlichen Leben (Dada Cino) [Dada in everyday life (Dada Cino)] superimposes layers of cut-out typographical slogans (“Dada siegt”; “Meer der

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99 Benson, Raoul Hausmann and Berlin Dada, 144.
Cinema, as Hausmann understands it, has little to do with the cinematographic representation of a narrated or documented real. Rather he regards it as the cipher for a new language of immanent experience. “Material” is no longer the “raw material” in the form of an original nature in a state of chaos and disorder which the artist imbues with a meaningful form, but rather – like an “electric prism” – a formless, changing medium that incessantly organizes and re-organizes the world. After all Dada, had intended the “explosion” that permitted “the dissolution and reformation of the concept of the thing, of the object, of forming of reality.”

Light becomes the total metaphor that transcends the cognitive and epistemological burden inherited from Euclidean geometry and Newtonian mechanics. Light’s simultaneity, formlessness and intangibility surpass the linearity of space, the sequentiality of time and thus evokes the nostalgia for a pre-civilized art that still reconciled spirit and matter. “In the early days of humanity,” Hausmann writes in 1921, “man’s representation of his environment was not naturalistic; it was not a simple matter of reproduction, but rather a representation of all his relations to the world and his perception of it: the powers emanating from the world were symbolically and magically grasped, condensed, transposed.” Light becomes an active agent that is emanating, changing, generating images and producing volatile events. Hausmann evokes light, in its productive, materialized form, as the emblem for a realist, anti-historicist and constructivist utopia of bodily presence.

101 Hausmann, "Was war Dada" (1959), typoscript quoted in Benson, Raoul Hausmann and Berlin Dada, 157.
We, however, want the light! Away with this longing, away with the impossible, because it is not possible and realizable […] We want the light, that penetrates all bodies, we don’t want to drown its [light’s] fine emanations, filled with relations, because of our weary eyes; through the light we want the big, undiscovered America, life. […] Amidst the middle European flatness we finally want the aspect of a world that is real, a synthesis of the spirit and the material – instead of the never-ending, grumbling analyses and trifles of the German soul!  

With the senses ["our weary eyes"] kept ‘blind’ through the imposition of anachronistic conventions by the ruling class, the revolutionary struggle is relocated to the corporeal level of perception. “Why cannot we paint today anymore pictures like Botticelli, Michelangelo or Leonardo and Titian?” Hausmann asks, “Because man in our consciousness has changed completely, not only because we have telephone and airplane and electric piano or lathe, but because our entire psychophysis is transformed by our experience.” That experience has rendered the idea of individual subjectivity, coupled with a perspectival conception of space, redundant. The airplane – like for many other protagonists of the avant-garde – becomes the emblem for this new space: “We fly through the ether in an airplane and have become small points in a boundless space which cannot be expressed through perspective anymore.”

Perspective is nothing more than a “technical construction” incapable of capturing the “perpetual

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104: Ibid., 3.

105: Concerning the role of the airplane in modernist discourses see Christoph Asendorf, Super-Constellation: Flugzeug und Raumrevolution (Wien: Springer, 1997).

changes of the illuminated metropolitan street.”¹⁰⁷ And it is the artist’s task to bring “the intellectual life, the so-called sciences and the arts”¹⁰⁸ to par with this present.

According to Hausmann, the first thing that has to be done is to “dissolve the gaze that is focused on a thing.” The capacity to replace old regime of perception with its centering gaze, Hausmann claims, is already preconfigured since “science had rendered the extended gaze round and full.” And because of this existent yet reticent perceptive preconfiguration the spectator is able to advance in “optics” and to penetrate all the way to the “basic phenomenon of light.” Emphatically he proclaims “we love light and its movement.”¹⁰⁹

To help actualize the human perceptive apparatus Hausmann demands “electrical, scientific painting” whose appearance can be both visual and acoustic. If something is heard or seen, it is not due to an ontological difference, but merely due to a quantitative difference of wave frequency. “Cino,” for Hausmann, has consequently little to do with the apparatic and narrative conventions of representational film; rather, the revolutionary potential Hausmann located in the experiments undertaken by Ernst Ruhmer, who transformed sounds into visible signs, or in Thomas Wilfred’s orchestrated plays of “free-floating colored appearances” in space.¹¹⁰ These existing technologies, Hausmann argued, needed to be magnified in scale and then transposed into the lived environment:

¹⁰⁷ Ibid., 4.
¹⁰⁸ Ibid., 4.
¹⁰⁹ Ibid., 4.
[...] after the successful experiments with free-floating color appearances by Thomas Wilfred in America and the audio experiments of American and German broadcast stations it is easy to transform these waves through huge, appropriate transformers into colored and musical air performances [Luftvorstellungen]. At night these gigantic colored light-dramas will be played out in our sky and during the day these transformers will be switched to audio waves, letting the atmosphere resonate!!!111

For Hausmann, cinema’s revolutionary vocation, while already intrinsic to its structure, would only come to full fruition once released from the representational and apparatic conventions in place. The “cinema” he imagines possible permeates the atmosphere rhythmically with “Luftvorstellungen” – a term that ambiguously oscillates between concrete, theatrical “air-performances” and fantastic “air-imaginations.”

Thomas Wilfred (1889-1968) was one of the pioneers of “color music” experiments, orchestrated projections of moving geometric shapes in analogy to musical scores, which had become popular during the 1920s. After a decade of experimentation, in which patented a “Light Projection Display” (1922), Wilfred in 1922 performed for the first time with a sophisticated color-music projector called the Clavilux his color-music composition Lumia.112 The ecstasy of


112 “Lumia” was first performed on January 10 1922 in New York City. Because of its public success it went on a European tour in 1925. It was also the only American contribution featured at the Exposition des arts décoratifs the same year in Paris. The work was structured in analogy to musical composition: form, color and motion were linked to rhythm, harmony and melody. And the visual spectacle was performed by ‘soloist.’ Stephen Eskilson describes the performance as follows: “The pieces explored themes of movement—“unfolding,” “advancing,” “rising,” etc. The typical Clavilux consisted of one or more powerful light projectors with variable focal lengths directing their beams through a carefully devised assortment of prisms, colored gels and slides mounted on electric rotation devices. Wilfred also used custom-shaped light filaments in order to create form with a direct beam. The artist was limited technically in the amount of detail he could give to his forms, most of which consisted of tightly focused areas of brilliant colored
color-music was to become the antidote to the hysteria of an unleashed consumer society. The main instrument employed six projectors and a series of colored prisms all controlled from a central ‘keyboard.’ The performances consisted in exploring themes of rhythmic movement of intersecting abstract shapes in various colors.

Hausmann imagines total cinema as a modulation of all-pervasive, atmospheric, penetrating waves that were not to be seen or heard in the traditional sense. Instead they were sensed “haptically.” The alteration of the modern subject’s receptive and perceptive capacities becomes a revolutionary task: “We demand the extension and conquest of all our senses!” Hausmann proclaims, but not in the way for example the Futurist Marinetti declared in a pamphlet entitled Le Tactilisme (1921) – published the same year as PRÉsentismus. Here Marinetti envisions various synaesthetically engineered environments such as a “tactile theater” where the “seated audience presses their hands on long tactile ribbons which move to produce tactile sensations with different rhythms.” Hausmann regards the Futurist idea of the tactile as it should also be emphasized that Wilfred was not the inventor of “color music.” Already in the mid-eighteenth century pamphlets by Erasmus Darwin or D.D. Jameson suggested the possibility of producing “Colour-Music.” 1893 Wallace Rimington patented the “Colour-Organ” and published a book entitled Colour-Music: The Art of Mobile Colour (1911). In this book Rimington speculated about the analogies between sound and color claiming that both phenomena are “due to vibrations which stimulate the optic and aural nerve respectively.” Other examples are Alexander Scriabin color symphony Prometheus, color stage lighting systems by Alexander Klein, Leonard Taylor and Alexander Laszlo (whose Farblichmusik was published in 1925). In 1922 Ludwig Hirschfeld-Mack began his reflected-light experiments at the Bauhaus. On the history of “color-music” see Kenneth Peacock, "Instruments to Perform Color-Music: Two Centuries of Technological Experimentation," Leonardo 21, no. 4 (1988).

113 Marinetti enumerates a number of objects to be rendered ‘tactile’. He imagines a tactile room made of “ice, flowing water, stones, metals, brushes, threads lightly charged with electricity, marble, velour, carpets”. In addition, he proposes “tactile streets” and “tactile theaters. See Filippo Tommaso Marinetti, "Le Tactilisme. Manifeste futuriste," dated January 11, 1921. Collection of the Centre Pompidou, Bibliothèque Kandisky.
“a substitution for the sadism of gladiator fights in ancient Rome.” By contrast, in order to mark the distinction with this sensational Taktilismus, Hausmann draws upon the terminology of a “scientific” Haptismus requiring a “superior consciousness.” – a pan-sensuous concept already well established through the optic/haptic binary put forward by Aloïs Riegl. Hausmann takes it even one step further and elevates Haptismus to being modernity’s fundamental characteristic: it “is the differentiation of the modern attitude towards life [modernen Lebensgefühl].”

Becoming modern therefore meant establishing the medial conditions for such an embodied “hapticism.” The revolution was not to succeed if fought on the level of political institutions or redistribution of wealth. Only changing the structures of the masses’ perceptual habits and techniques would trigger the breakdown of the existing order and consequently lead to an overthrow of the bourgeois class: “Let’s build haptic and tele-haptic broadcast stations! The haptic theater will hit the bourgeois class of living gravediggers in its stunted life-energies, and jolt it and dissolve it […]”

The widespread suspicion against the hegemony of the visual sense was accompanied by a search for alternative model of perception. Hausmann was influenced by the esoteric theory of “eccentric perception” developed by the Neo-Kantian philosopher Ernst Marcus, who believed that the human senses expanded beyond the limits of the body. In a letter from 1916 to his lover

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115 This binary opposition was developed by Aloïs Riegl in his Spätrömische Kunstillustrie (1901). Riegl interprets the notion of haptisch as a historically contingent category that encompassed the perceptive faculties of the subject and consequently corresponds to Hausmann’s own conception of history.
117 Ibid., 6.
Hannah Höch (who was also a close acquaintance of Mies) Hausmann describes his theory of “eccentric” vision:

It is no sense perception in the ‘central organ’ brain, but those rays concentrically lead into the central organ through the eye emit rays from there [sic], so that for example this letter, which you read here, is not located somewhere in the brain but at the point outside of your body, where it is felt. Thus the body’s limits are not the boundaries of the sense perception, but this perception, by virtue of the eccentric rays, could be found at the most remote sites.\textsuperscript{118}

Hausmann reverses the idealist model of perception: it is not the seeing subject that perceives and actualizes dead matter. Instead he eliminates the subject/object dialectic altogether and replaces both with an all-encompassing concept of “bodies”: objects are “bodies which radiate feeling and movement amongst which we [subjects] too are only bodies.”\textsuperscript{119} Quasi-empathically the subject penetrates every object and, vis versa, every object sends off “relationally rich emanations.”\textsuperscript{120}

Other artists who would later become part of the G group referenced Marcus’s theories. Otto Freundlich expresses his admiration for the Marcus’s work concerning a human physiology that exceeds the boundaries of the body through “organs of light-like creation” [“\textit{Organe lichthafter Gestaltung}”].\textsuperscript{121} Ludwig Hilberseimer hails Freundlich’s work in his 1921 article “Bewegungskunst” using a terminology that appears to be taken directly from Marcus. He speaks

\textsuperscript{118} Letter written by Hausmann to Höch is dated 1916. Quoted in Hanne Bergius, \textit{Das Lachen Dadas} (Giessen: Anabas, 1989), 121.

\textsuperscript{119} Raoul Hausmann, architecte - architect Ibiza 1933-1936, (Bruxelles: Aux Archives d'Architecture Moderne, 1990), 46.

\textsuperscript{120} Hausmann, "PRÉsentismus: gegen den Puffkeismus der teutschen Seele," 2.

of “a new visibility, a spiritual reality that emanated pictorially [bildhaft] towards matter.”

Already in 1919, Freundlich anticipates Hausmann’s call for a pan-sensuous, haptic environment when he encourages the modern subject to “tactilely explore the in-between spaces.” The space that opens up is an “unfulfilled space: the thing as such [das Ding an sich], medium between all those damned and banned by boundaries, demolishers of formal serfdom.” Once the subject decides to “fling off the constraints of exact vision” and to “move inquiringly into the void,” he or she will experience how “iron, stone and all solid things come alive.” In Die Wiederkehr der Kunst (1919) Adolf Behne quotes Marcus at length to establish the link between “eccentric perception” and new architecture. According to Behne, it is Marcus who “shows us, that the human spirit fills the world with sensations, emanates into the cosmos, that it is not a stiff machine of reception […]. It is not our bodily eye’s retina which functions as the foil of our optical sensations but in reality it is the gigantic firmament. […] [T]hat’s why architecture should no longer offer retina-architecture but cosmic architecture.” And in their “Second Presentist Declaration” (1923) Hausmann and Viking Eggeling refer to Marcus to formulate their criticism of a functionalist or formalist comprehension of Constructivism. For Hausmann and Eggeling the innovations had to take place on the level of the senses: modern sciences were to help

122 Freundlich “schuf eine neue Sichtbarkeit, eine geistige Wirklichkeit, die bildhaft auf die Materie hinausstrahlt.“ Hilberseimer, "Bewegungskunst,” 466.
124 Ibid., 106.
125 Ibid.
126 See Behne, Die Wiederkehr der Kunst, 50.
127 Hausmann and Eggeling reacted to a declaration published by the Hungarian Constructivists Kallai, Kemeny, Moholy-Nagy and Peri in the journal Egysék.
achieve the “expansion and reform of the human sensory emanations.”¹²⁸ Using Marcus as a model, both artists and engineers were to search for the “spatio-temporal sense” as the smallest common denominator that would allow for a dynamic perception of nature as a “reciprocal reinforcement of vibration.”¹²⁹

_Theo van Doesburg: light- and time-architecture_

Amongst those artists belonging to the G group (apart from Hans Richter) it was probably Theo van Doesburg who, throughout the 1920s, dealt most emphatically with the new medium of cinema and its creative impact for a redefinition of architecture. His encounter with Richter and Eggeling during his first visit to Berlin in 1920 can be regarded as the pivotal moment when he realizes the potential of the medium cinema for both theoretical reflections and his own artistic work.¹³⁰ Realizing the potential of film as a new “universal language,” as Richter and Eggeling were in the process of formulating, resonated with van Doesburg and his understanding of De Stijl. Already in May of 1921, he publishes “Abstracte filmbeelding,” the first critical discussion of Richter and Eggeling’s work.¹³¹ Van Doesburg’s enthusiastic reception of cinema is revelatory because opens up a better comprehension of the development of his dynamic kind of Neo-Plasticism. In addition, approaching van Doesburg’s work from the perspective of the moving image allows us to relativize the often repeated analogy between his painting _Rhythm of_

¹²⁹ Ibid., 477.
¹³¹ Doesburg, "Abstracte Filmbeelding,"
a Russian Dance and Mies’s Brick Country House plan. The comparison might be accurate, but only if we approach it from the side of cinema.

For van Doesburg, the new medium of cinema, through its immanence and corporeality, transcends the tension Neo-Plasticism established between painting and architecture. On the one hand, influenced by J.J.P. Oud’s idealization of the Gothic age’s holistic world, van Doesburg hailed architecture as the “true environment” that would permit the newly enchanted “truthful art” to emerge.132 On the other hand, he was influenced by Mondrian’s unequivocal privileging of painting over architecture, sculpture or music. It was the painter, not the architect, Mondrian argued, who was in charge of masterminding the project for the synthesis of the arts.133 Van Doesburg wanted to bring architecture and painting together inside a dynamic, tension-filled field of stabilizing (architecture) and destabilizing (painting) elements.

Even before discovering absolute film in late 1920 van Doesburg imagined an art conditioned by the “fourth dimension.”134 Time and movement enter the picture and in turn become the basis for van Doesburg’s reconceptualization of architecture:

While old architecture only relies on space as its sole constitutive element, the new architecture also relies on the moment of time. The formative [gestaltende] unity

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of time and space will give architectural design [Gestaltung] an entirely new and perfect expression (four-dimensional spatio-temporal design aspect).¹³⁵

From the early 1920s onwards, van Doesburg imagines a time-based architecture as synonymous for a “new art” that is a “summary of all arts in their most elementary guise.” As he puts it in 1921, architecture can be “formless, which does not mean without order, proportion or composure. […] The new art is formless in the sense that it fundamentally exceeds all inner and outer cultural form.”¹³⁶ With the introduction of time “a four-dimensional attitude” is demanded from the artist who becomes a “gestaltende architect” forced “to construct in the new dimension of space-time […].”¹³⁷

In 1917 he discovered this new space-while watching a popular slapstick comedy film entitled How Nathan Trapped the Villain. In a letter to J.J.P. Oud he expresses his enthusiasm about the cinematic spectacle:

In an intensity of motion and light you saw people fall away into ever-receding distances, then reappear the next moment. A continuous dying and reviving in the same instant. The end of time and space! The destruction of gravity! The secret of movement in the fourth dimension.¹³⁸

¹³⁵ Theo van Doesburg, "Die neue Architektur und ihre Folgen," Wasmuth's Monatshefte für Baukunst 9, no. 12 (1925), 502. The idea of a Fourth Dimension in architecture would repeatedly come up in the discourses of the modernist avant-garde. Even Gropius would refer to the problem of time in architecture – more than thirty years after it was first mentioned by van Doesburg: “Today we are confronted by new problems, e.g. the fourth dimension and the simultaneity of events, ideas foreign to former periods, but inherent in a modern conception of space. […] Science now speaks of a fourth dimension in space, which means the introduction of an element of time onto space.” Walter Gropius, introduction to László Moholy-Nagy, The New Vision (New York: Wittenborn, 1947), 6.

¹³⁶ Theo van Doesburg, "De betekenis der mechanische esthetiek voor de architectuur en de andere vakken," Bouwkundig Weekblad, no. 42 (1921), 182-3.

¹³⁷ Doesburg, "Die neue Architektur und ihre Folgen," 518.

By watching a commercial spectacle free of any artistic intention, van Doesburg actually experienced physically what at this point had merely existed theoretically or rhetorically in the discourses of De Stijl: the end of gravity, solid objectivity and illusionist three-dimensionality, the discovery of the “secret of movement in the fourth dimension” and of a new topological and relational space.\(^\text{139}\)

Still it would require the encounter with Richter and Eggeling to grasp the artistic potential of new medium film for realizing what the de Stijl protagonists called “nieuwe beelding.” The Dutch term beeld (image or picture) in its various inflections, took a central position in the writings of Mondrian (“De nieuwe beelding in de schilderkunst,” 1917), Oud (“Het monumentale stadsbeeld,” 1917), and van Doesburg (“Tot een beeldende architectuur,” 1924). The verb beelding possesses an ambiguity the awkward English translation “Plasticism” has lost.\(^\text{140}\) It refers to both the practice and the process of “imaging” as well as “building.”\(^\text{141}\) Concrete reality and visual representation blend in the act of “construction.” While the signification oscillates between image and architecture, as a gerund it unequivocally implies the act or process of construction.

\(^{139}\) In 1917 he defines space as a condition that is produced through “tensions” of forms, surfaces and lines which considered by themselves are incomplete. Space organizes the “relation of one design medium [Gestaltungsmittel] to another.” Theo van Doesburg, Grundbegriffe der neuen gestaltenden Kunst (Mainz: Kupferberg, 1966), 7.

\(^{140}\) Richard Padovan has pointed to the influence of the philosopher and art theorist Mathieu Schoenmaekers on Mondrian and van Doesburg. Beelding first appeared in Schoenmaekers writings as synonymous with the term uitbeelding (‘imaging-out’) which refers to the representation of an inner reality beyond appearance. In opposition to this term, the word afbeelding (‘imaging-off’) stands a representation that comes from the outside (for van Doesburg Baroque art, to which he was strongly opposed, is an example for afbeelding). See Richard Padovan, Towards Universality: Le Corbusier, Mies and De Stijl (London: Routledge, 2001).

\(^{141}\) Interestingly, for his later German texts, van Doesburg would translate beelding with Gestaltung, which entailed a certain shift of in meaning towards an ambiguous complexity.
Art could henceforth be based, as Richter argues in “Prinzipielles zur Filmkunst” (1921) – a summery of his and Eggeling’s call for a “universal language” – on the “pure relationship of forms” that would be “projected in time.” Van Doesburg identifies the first abstract films as an effort to construct with light a new type of ephemeral, time-based space, an “in-between space” [middenpartij] generated incessantly through the collision of dynamic contrasts. And it is through the perceptive experience of this blind spot in the interval between two moving images, this new space, van Doesburg argues, that the viewer discovers a “constructive/image-creating concreteness” [beeldende bepaaldheid], a new building material.

But how to incorporate film into De Stijl artworks which, after all, privileged abstract painting? Van Doesburg struggles with this problem in his article entitled “Der Wille zum Stil: Neugestaltung von Leben, Kunst und Technik” [The Will to Style: Redesign of Life, Art and Technique], the transcription of an illustrated lecture he presented in 1921 and 1922 in front of audiences in Jena, Weimar and Berlin. Van Doesburg’s invocation of a new unity between life, art and technology foreshadows some of the central arguments that would be propagated from 1923 onwards in the pages of G. Like fellow members of the G group Raoul Hausmann and Hans Richter, he stresses the psycho-physiological limitations of human vision. “In order to understand the task of our time,” van Doesburg notes, “it is necessary not to see with our eyes but rather to grasp life’s structure with our internal sense organs.” The feeling that vision is deceptive or inadequate was a widespread sentiment sustained by the scientific discoveries of

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143 Doesburg, "Abstracte Filmbeelding," 56.
145 Ibid., 24.
immaterial, previously invisible phenomena like X-ray imaging, sound waves, telecommunication, chronophotography, aerial photography etc.\textsuperscript{146} In order to regain vision the subject has to learn to “see” the dimension of time rather than representations of space: “As a result of the scientific and technical extension of vision,” van Doesburg writes, “a new and important problem has arisen in painting and sculpture beside the problem of space: the problem of time.”\textsuperscript{147}

Cinema presented the solution to this problem. Through the time-based medium cinema the observer learned to perceive what escaped the eye: the “\textit{middelpartij},” the interval between two contrasting images.\textsuperscript{148} Van Doesburg sees examples for this “new \textit{Stilwollen}” – an undisguised allusion to Riegl’s \textit{Kunstwollen} – in “painting, sculpture and architecture, in literature, jazz and the cinema.”\textsuperscript{149} Anticipating the later writings of Sigfried Giedion and Walter Benjamin, he detects the new “truthfulness of the thing itself”\textsuperscript{150} not only in the traditional forms of artistic expression, but also in the unconsciously produced, constructive purity of modern engineering structures like iron bridges, cars, airplane hangars and skyscrapers, as well as in “country

\textsuperscript{146} On the role of invisible phenomena in artistic and literary discourses around the turn of the century see Asendorf, \textit{Ströme und Strahlen: Das langsame Verschwinden der Materie um 1900}.


\textsuperscript{148} This embrace of time as a central element for van Doesburg’s theory of architecture triggered opposition from Mondrian. In reaction to “Der Wille zum Stil” the latter writes to van Doesburg: “I don’t think much of this ‘position in time’ because the new expression eliminates time. […] The sentence on page 32 I find awkwardly formulated because one can gather that you account for time, while I think that you don’t mean it that way, but that you only want to say that according to me space and time appear (as one and the same thing).” Letter from Mondrian to van Doesburg, May 25, 1922 cited in Straaten, "Theo van Doesburg - Konstrukteur eines neuen Lebens," 63.

\textsuperscript{149} Doesburg, "The Will to Style: The Reconstruction of Life, Art and Technology," 159.

\textsuperscript{150} Ibid., 158.
houses” (very likely a reference to Mies’s two projects for country houses), and “children’s toys.” The imitation of nature or the expression of individual sentiments as art’s central vocation is replaced by an art that invites the practice of play: “Art is play again and play has its own rules. Just like earlier generations of artists played with nature, today the new artists (e.g. Dadaists) play again with the machine.”

It is by playing with modern technology, by using the telegraph, wireless telephones, fast trains, airplanes and even “cordless telephones in the hat,” that the modern subject unconsciously controls and moves inside “space-time.”

Yet, while van Doesburg goes to great pains sketching out the linear history of art and identifying the three main themes pertinent to contemporary artistic production (extended perception, time as form, and play as a mode of creative interaction and intervention), his conclusion for the actual practice of the new Stilwollen remains ambiguous. He reiterates the Neo-Plasticist position according to which the ultimate expression of the new unity of the arts has been achieved in constructing a creative tension through the incorporation of abstract painting into architectural space: (“[…] the solution of spatial and temporal moments is only to be found in chromo-sculpture, i.e. in the painterly composition of three-dimensional space.”).

At the same time, however, he calls for an active embrace of moving image technology. Film, and in particular Richter and Eggeling’s first abstract film compositions, correspond directly to the key issues of perception: “Here too [in film] one searches for the new artistic Gestalt through the combination of space- and time-instances (Example: V. Eggeling and Hans Richter). […] Through this application of film technology for a painting that is purely gestaltend, it [painting] gains a new potential: the artistic solution of what is static and what is dynamic, of space and

152 Ibid., 36.
153 Ibid., 39.
time, a solution which responds to the artistic demands of our time.”

This unresolved contradiction becomes visible in the perspectival rendering van Doesburg produced in collaboration with van Eesteren in 1923 for the entrance hall of Amsterdam University. Whereas the ceiling is designed according to van Doesburg’s “Elementarist” principles, i.e. with a painted composition of monochrome “oblique and discordant planes which are opposed to gravitation and architectural-static construction,”

the enveloping wall decorations are fully consistent with traditional three-dimensional architectural space.

[Fig. 28] Rather than prompting a play of tension between painting and architecture these rectangles appear like windows or even movie screens that open up the view into a projective space.

In 1923, right around the time when the first issue of *G – Material zur elementaren Gestaltung* was published, the journal *De Stijl* devoted an entire issue to the subject of film. With the drawing “Filmmoment” by Hans Richter on its cover, [Fig. 29] the issue attempts to conceptualize the medium film in the context of *beelding*. In his lead article entitled “Licht-en Tijdbilding (Film)” [*Light and Time Forming (Film)*] van Doesburg for the first time draws the direct analogy between film and architecture: “The constructive [beeldende] possibilities of

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156 Not until 1926 would van Doesburg draw a clear distinction between “Elementarism” and Mondrian’s “Neo-Plasticism.” The former emanated as a reaction from the latter’s practical shortcomings. While “Neo-Plasticism” is always reduced to a two-dimensional space, “Elementarism” is obliged to spread into the fourth dimension of space-time. Theo van Doesburg, "Schilderkunst en Plastiek," *De Stijl*, no. 78 (1926/27), 82.
expression can be found in both time and space – just like in the new architecture – articulating both time- and space-instances and thus rendering visible a new dimension.”¹⁵⁷ For him, “film beelding” is defined as a practice of cinema liberated from all constraints of the picture frame, narrative and representational codes. Film is hitherto defined as an “elementary light movement” that creates a “light field unlimited to all sides.”¹⁵⁸

While his earlier article “Abstracte Filmbeelding” can be considered as a direct reflection of Richter and Eggeling’s film theory, two years later in “Licht- en Tijdbeelding (Film)” van Doesburg begin to develop his own theoretical perspective. Here he distinguishes between three forms of artistic film: the abstract-graphic film (Richter/Eggeling), the montage of naturalistic contrasts without aesthetic composition (Charles Sheeler’s Manhatta, 1921), and the self-referential deformation of the realist image (he mentions Man Ray, and very likely his 1923 film Le Retour à la raison). While these works all attempt to express the elementary materiality of film, they fail, van Doesburg argues, because film, for “philosophical reasons” still remains constrained to the framed, two-dimensional projection screen. The elementary nature of film becomes apparent once it appears as an unbound “light-field” distinct from the “architectural surface” that intercepts the projection:

¹⁵⁷ Theo van Doesburg, "Licht- en Tijdbeelding (Film)," De Stijl 6, no. 5 (1923), 61
¹⁵⁸ It is interesting to note that van Doesburg did not only credit the moving image with enabling the subject to experience the fourth dimension. In addition he stresses Dada’s contribution to the opening up of this new dimension: “Dada completely negates the generally acknowledged duality of matter and mind, women and man, and in doing so creates the ‘point of indifference,’ a point beyond man’s understanding of time and space. For this reason Dada is able to mobilize the optical and dimensional static viewpoint which keeps us imprisoned in our (three-dimensional) illusions. Thus it becomes possible to perceive the entire prism of the world instead of just one facet at a time. In this connection Dada is one of the strongest manifestations of the fourth dimension, transposed onto the subject.” Van Doesburg, “What is Dada?” (1923) cited in Henderson, The Fourth Dimension and Non-Euclidean Geometry in Modern Art, 328.
It is a mistake to think that the film-field is identical with the flat surface and that consequently the forming thereof should be one of two-dimensionality. The light-field has nothing to do with the architectonic surface from which light actually distinguishes it. It is light and not the surface which is its means of expression. […]

Movement and light are the elements of the new film forming. The light-field is unbounded on all sides. The artistic possibilities of expression lie as much in time as in space – just as in the new architecture – and can make visible a new dimension to the extent to which temporal and spatial moments are expressed equivalently and in balance.¹⁵⁹

Cinema, defined as an unbound and changing light-field, hence resembles modern architecture. Both are ways of achieving “nieuwe beelding.” Notwithstanding the shortcomings of the films cited, they help the subject to understand that film is not merely a form of representation that projects more or less recognizable images onto a screen, but an apparatus that produces what van Doesburg calls “(light) substance,” a materiality that emerges once we will have learnt to perceive the montage of “time-instants”:

Since we have become conscious that the projection screen of film is not an (architectonic) surface, but a (light) substance of which and in which Beelding has been constructed (or rather has constructed itself through the technique of film), we should recognize the unlimited possibilities of the mechanical film apparatus for the new design [beelding]. Liberated from stasis and weight film can realize a light- and time-architecture which fits our modern way of life.¹⁶⁰

The ‘discovery’ of film’s potential to expand the material world, hitherto limited to being inert, static and solid, towards the sphere of the ephemeral and informal, allows van Doesburg to corroborate an interpretation of nieuwe beelding different from that of Mondrian. While the latter sees the artist as someone in search of the unchanging universal laws amidst a turbulent reality, the former stresses the artist’s active involvement in shaping the processes of construction and destruction. The difference between the two crystallizes around the question of time: for van Doesburg, "Licht- en Tijdbeelding (Film)," 61. ¹⁵⁹

Ibid., 62. ¹⁶⁰
Doesburg time is “the elementary means of expression”\textsuperscript{161} and the “great discovery of our time.”\textsuperscript{162} Mondrian, by contrast, rejects the introduction of the temporal into the arts.\textsuperscript{163}

Richter, in his contribution to the 1923 \textit{De Stijl} issue, repeats the relation between film and space when he states that “the sphere intrinsic to film is ‘moving’ space.”\textsuperscript{164} Like van Doesburg, Richter speaks of film as a moving, time-based “light-space.” According to Richter, both filmmaker and architect are faced with the same task: creating “tension-generating processes” in order to prevent the flow of images and events from petrifying, from becoming quantifiable representations. Only then would emerge what Richter calls “light-space.”

Moreover, the issue of \textit{De Stijl} contains a demonstration of this new “light-space” provided by Werner Gräff, Richter’s assistant and former Bauhaus student. His experimental film script \textit{“Filmpartitur I/22”} and \textit{“Filmpartitur II/22”} resembles a storyboard drawing that shows a linear succession of white, differently-sized rectangles on a black background. [Fig. 30] The sequence was timed in such a way that the spectator would see flickering light-pulses verging on, but never attaining the frequency necessary to induce the cinematographic illusion of movement. By calibrating the speed at sixteen frames per second Gräff keeps the image exactly at the threshold of visibility where the stroboscopic rhythm of the cinematographic image entering the eye resonates with the afterimage that is processed cognitively. As a result the spectator experiences a kind of blindness that allows him or her see in a different way. Gräff notes that his

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{161} Ibid., 61.
\item \textsuperscript{162} Ibid., 62.
\item \textsuperscript{163} See Mondrian’s critique of the notion of time in van Doesburg thinking on architecture. Letter from Mondrian to van Doesburg, May 25, 1922 in Straaten, "Theo van Doesburg - Konstrukteur eines neuen Lebens," 63.
\item \textsuperscript{164} Hans Richter, "Film," \textit{De Stijl} 6, no. 5 (1923), 65.
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“Filmpartitur I/22” (1923) would cause an “almost bodily effect.”\(^{165}\) In other words, the calculated light-play stimulates a form of visual perception that is not limited to the eye but has a bodily dimension. The notation hence renders visible a hitherto unknown space, opened up by “elementary film-technical means,”\(^{166}\) which had remained submerged under the dominant “scoptic regimes of modernity.”\(^{167}\) Through this shift from the visual to the visceral, the body takes the place of the eye as the site where the subject forms meaningful connections with the world.\(^{168}\) Meaning exists no longer in the form of images or objects that the observer can see, read or contemplate, but through “variation of […] surprises […] blows, tears, pressure”\(^{169}\) designed by the artist-engineer.

Through the discovery of medium film van Doesburg, Richter and Gräff are able to formulate an alternative response to the widely perceived dissolution of the objective world and the growing incapacity of the eye to capture the flux of events. Rather than seeking refuge in Expressionism’s crystalline reveries of “Auflösung,” Mondrian’s esoteric hope for redemption, or the various aesthetizations of the machine (which all, in some way or another, acknowledge the

\(^{165}\) Werner Gräff, "Anmerkungen zur Filmpartitur Komp. II 22," De Stijl 6, no. 5 (1923), 70. When in 1977 “Filmpartitur I/22” was actually performed it became clear that Gräff intended the stroboscopic irritation of the eye. Before a green background yellow and blue squares of various sizes flash up and disappear prompting a spatialization of the planar surfaces. The superposition of various squares created a flickering effect that pushed the spectator to his/her perceptive limits. Distinguishing between perceived projected image and mental afterimage becomes impossible. See Hoormann, Lichtspiele: Zur Medienreflexion der Avantgarde in der Weimarer Republik, 183-84.

\(^{166}\) Gräff, "Anmerkungen zur Filmpartitur Komp. II 22," 70.

\(^{167}\) On the idea that visual experience is always historically and culturally contingent see Martin Jay, Downcast Eyes (Berkeley: University of California Press, 1994) Hal Foster, ed., Vision and Visuality (Seattle: Bay View Press, 1988).

\(^{168}\) See also Crary’s discussion about the role of the body in nineteenth century visuality. Crary, Techniques of the Observer: On Vision and Modernity in the Nineteenth Century

\(^{169}\) Gräff, "Anmerkungen zur Filmpartitur Komp. II 22," 70
impossibility of mediation between the subject and the objective world) van Doesburg, Richter and Gräff discover in film a possibility to intervene in the objective world without having to forego the claim of subjective agency and autonomy. Film, by ‘blinding’ the eye that has become conditioned to perceive the world in an optical way, redefines the spectrum of the visible. Yet, in contrast to the majority of the avant-gardes, which celebrated the new visual dimensions on the level of representational support (in aerial views, microscopic images and x-rays, in accelerated, slow and reverse motion pictures), van Doesburg, Richter and Gräff scientifically interrogate the limits of perception itself.

By 1923 Van Doesburg’s idea of beelding had assumed concrete outlines. The new architectural space would be ‘built’ with moving lights and images. It would ‘happen’ on the level of perception and time, and be perceived bodily in and as a topological space. Yet, despite his theoretical efforts the practical demonstration for this leap into “light space” was still pending. Van Doesburg’s attempts to employ the new medium of film for the construction of a Neo-Plasticist Gesamtkunstwerk were never realized. Emblematic for this failure is the design of the Ciné-Dancing hall, his contribution to the interior refurbishing of the famous Café Aubette in Strasbourg (1926-28, in collaboration with Jean Arp and Sophie Taeuber-Arp). [Fig. 31]

170 In order to give his call for a new space scientific grounding, van Doesburg reprints in the 1923 issue of De Stijl an essay entitled “Pourquoi l’espace a trois dimensions?” written by the famous mathematician and philosopher Henri Poincaré, originally published in 1912. Here Poincaré, who in his best-selling works such as Science et méthode (1908) had interrogated Euclidean geometry as merely a convenient convention, develops the concept of a “third space,” a space that is neither metric nor projective, but topological. This “amorphous space” exists independent of our measuring instruments and which, through its continuous deformation, resists all attempt of deducing it to a stable form. Henri Poincaré, "Pourquoi l'espace a trois dimensions?," De Stijl 6, no. 5 (1923), 69. Henri Poincaré, "Pourquoi l'espace a trois dimensions?," Revue de métaphysique et de morale 20 (1912).
At first sight, this event space for dance, cabaret performances and social gatherings appears like a direct translation of Neo-Plasticism’s design principles into architectural space. Just like his 1923 project for a university lobby, the Ciné-Dancing creates tensions between static architecture and diagonal, painted planar surfaces.\(^{171}\) The composition puts into practice what Bart van der Leck, one of De Stijl’s founding members, had suggested when he argued that “architect and painter cannot and must not exchange their tasks.”\(^{172}\) Modern architecture, van der Leck argued, would emerge not through a fusion of the arts into a Gesamtkunstwerk but through a separate search for every single art form’s “purity.” Only then “interlacement,” “solidarity” and “interrelations” could occur.\(^{173}\)

However, this call for the separation of media is undercut by the introduction of the moving image. The very year van Doesburg participated in the Aubette design he signed an article in which he calls for a new “light-architecture” that would fuse projection space and auditorium space into one dynamic experiential field.\(^{174}\) In fact, the element that bridges the fundamental opposition of static architecture/structure versus painting/wall in the Ciné-Dancing is the film screen which van Doesburg mounts at a central position on the wall facing the


\(^{172}\) Bart van der Leck, "Over schilderer en bouwen," De Stijl 1, no. 4 (1918).

\(^{173}\) Van Doesburg repeats this De Stijl credo in his contribution to the first issue of G: “Separation of the different fields of design. […] Without this sharp separation (sculpture from painting; painting from architecture etc.) it is impossible to create order out of chaos and to get to know the elementary means of design.”Doesburg, "Zur elementaren Gestaltung," 1-2.

entrance. With the Ciné-Dancing van Doesburg intended, as he put it, to “oppose the material three-dimensional room with a super-material and plural space.” Like in a conventional De Stijl environment van Doesburg contrasts architectural space with painted monochromatic rectangles.

What upsets this composition is the film screen that hovers horizontally on top of the diagonally arranged wall paintings. What remains unclear is whether the cinema screen was meant as another contrasting element or whether van Doesburg regarded cinema as the dialectic’s synthesis that would open a passage into a new “light-space” [Lichtraum]. For certain, both options lead into a conceptual impasse: the first option implies the collapse of the theoretical edifice around the question of film that van Doesburg had erected since meeting Richter and Eggeling in 1921; the second declares redundant De Stijl’s fundamental position on the crucial separation of the arts being the precondition for intermedial “solidarity” and “interlacement.” The sketches that van Doesburg produced convey this dilemma: neither the ‘blending in’ of the screen with the painted wall decorations nor the semblance of an architectural element seem like feasible solutions.

The critic Pierre Georgel describes the Ciné-Dancing as a space in which everything “composes, decomposes and recomposes in a general movement” rendering tangible the

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175 As a methodological disclaimer I would like to point to the difficulty in using photographic illustrations like the well-known shots of the Ciné-Dancing. All we can see on the image is a white blank screen which originally would have been ‘alive’ with moving images. The image is hence ‘incorrect’ and, what is more, reinforces the criticism of the still image that had been key for many of the members of the G group.


177 Ibid., 24.
fourth dimension, “the duration, the continuous transformation of the environment effected by movement and light.”\textsuperscript{178} The entire interior design of the Aubette resembles a “cinétique” passage propelling the visitor into “an intelligible and changing space” composed of a spectacle of “plastique activity” which blends the space with the dancing masses, the music and the moving light projections. \textsuperscript{179} Contemporary visitors to the Ciné-Dancing were less enthusiastic. Many experienced the supposed passage into the new “light-space” as a nauseous errantry and complained about the unpleasant dizziness the space caused. For van Doesburg the audience’s hostile reactions were only further evidence that “the time is not yet ripe for an ‘all-embracing creation.’”\textsuperscript{180} In 1928 he complained that the public was not willing to be re-educated and “stubbornly rejects the new space. The public wants to live in mire and shall perish in mire.”\textsuperscript{181} The Ciné-Dancing is far from the “light- and time-architecture” van Doesburg had imagined, far from an image-space that leaves the picture frame behind and immerses the newly embodied user-turned-dancer in a field of visual and acoustic rhythms rendering redundant all distinction between reality and representation, matter and image.

One year after the completion of the Aubette, Van Doesburg published an article entitled “Film als reine Gestaltung” [\textit{Film as pure Design}] in the Werkbund journal \textit{Die Form} which can be read as both a critical self-assessment of his own incapacity to realize a truly cinematic space. At the same time, van Doesburg renews his faith in the potential of the filmic image to open the eyes to a new architecture. In what can be read as a self-critique of his Ciné-Dancing he singles out the importance of the spatial conditions of projection for the production of a “light-space”:

\textsuperscript{178} Ibid., 22.
\textsuperscript{179} Ibid., 24.
\textsuperscript{180} Van Doesburg in a letter to Behne quoted Troy, \textit{The De Stijl Environment}, 176.
\textsuperscript{181} Ibid., 176.
While until now one has regarded the screen as a canvas, yes, even as a canvas delimited by a frame, it is finally time to discover the light-space [Lichtraum], the film-continuum. The attempt to use film technology in order to turn the temporal dimension, which the static image lacks, into an element of design have failed only because, coming from the side of the image, one has perceived the projection screen as a canvas.\footnote{182}

What hitherto had prevented the construction of the “light-space” was hence the continued perception of the film screen as a framed canvas – a more or less open avowal of the rectangular film screen he had installed in the \textit{Aubette}. Years before the film theorist André Bazin identified the specificity of cinema in the difference between picture frame and screen, van Doesburg demanded to “blast” the framed image in order to help emerge the “creative sphere of constructive \textit{gestaltende} film.” Only by liberating the image from the delimited and planar projection screen “new depth, the space-time film-continuum”\footnote{183} would open up. Only then film could accomplish what “sculptors since Michelangelo’s \textit{Deposition}” had tried with the creation of “poly-dimensional space.”\footnote{184}

Van Doesburg decries that even thirty years after the invention of the cinematograph and a decade of artistic experimentation with the moving image, the emergence of the new space was still pending. According to van Doesburg there are numerous reasons for this failure. First of all, film attempted to compete with the realistic image by incorporating figurative objects – a futile effort since the latter’s proximity to its photographic basis provides it with an irresistible mimetic appeal.\footnote{185} He also rejects the self-referential avant-garde methods of “combinations, contortions

\footnote{182} Theo van Doesburg, "Film als reine Gestaltung," \textit{Die Form}, no. 10 (1929), 246.  
\footnote{183} Ibid., 247.  
\footnote{184} Ibid., 247.  
\footnote{185} As an example van Doesburg cites the American film \textit{Solitude} (1928; aka \textit{Lonesome}) by the Hungarian-born director Pál Fejős. Before leaving for the United States Fejős had been working in Berlin with Max Reinhardt and Fritz Lang. The film, which tell the story of a young couple going to Coney Island to “take in the sights,” incorporates certain avant-garde techniques.
and deformations” seen in avant-garde films like René Clair and Francis Picabia’s *Entr’acte* (1923), Abel Gance’s *La Roue* (1923), or Fernand Léger and Dudley Murphy’s *Ballet méchanique* (1926) which constitute nothing more than a “new illusionism.” Even Eggeling’s work, a revelation for van Doesburg nine years earlier, while pointing into the right direction, never evolved beyond the state of what he calls “animated graphics.”

While acknowledging the avant-garde’s attempts to produce “surrealist” or “poetic” impressions, van Doesburg demands another type of film he calls “*gestaltend*.” Unlike the films of the avant-garde which ultimately resist transgressing the structure of its photographic support and to take effect “in space,” the *gestaltende* film has an inherent spatial quality. It no longer functions as an animated window into the world but as a passage towards and a means for the construction of a different space, and, by extension, of what he calls a “dynamic light-architecture.” Avant-garde film artists failed because they never abandoned the idea that all images are ultimately based on a “canvas” instead of approaching film architecturally. Only then it would be possible to arrive at a “controlled construction of light and shadow into a spatio-temporal *Gestalt*.”

The emergence of the true “film-space” [*Filmraum*] is long in coming because of the still underdeveloped perceptive capacities of the subject. The modern subject, he complains, is still not able “to *grasp it* [space] *bodily*, simultaneously in all directions and through movement in the direction of time (continuous and discontinuous).” The hostile reactions to his *Aubette* design

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186 Doesburg, "Film als reine Gestaltung," 248.
187 Ibid., 246.
188 Ibid., 246.
189 Ibid., 246.
190 Ibid., 248.
unmistakably demonstrated that the public “stubbornly rejects the new ‘white’ world,” as van Doesburg complained in a letter to the critic Adolf Behne.\(^{191}\) This is because up until now all films, whether realistic or abstract, “had been constructed with our habitual spatial perception.”\(^{192}\) Only if the subject abandons his painterly attitude for an “architectural attitude” will a “boundless light-space” and a new materiality emerge.

Yet, on the question of how to actually go about constructing the passage into the new dimension he remains vague. He continues to appeal to the musical model for conjuring up the indeterminate vision of a “wholly new world” in which the subject will become immersed in the opto-phonetic “event” of a “dynamic light structure” that resembles an orchestral piece by Schönberg, Stravinsky or Antheil.\(^{193}\) He reiterates the synaesthetic enthusiasm which since the early 1920s had been present in both artistic practice and psychological research.\(^{194}\) Moreover, van Doesburg returns to the idea of the “tesseractic” space which in 1925 he still considered “the only universal space in which to express form (including film).”\(^{195}\)

\(^{191}\) Van Doesburg quoted in Troy, The De Stijl Environment, 176.
\(^{192}\) Doesburg, "Film als reine Gestaltung," 248.
\(^{193}\) Ibid., 248.
\(^{194}\) One only has to think of the research of inter-sensorial phenomena conducted by Georg Anschütz, Friedrich Mahling and Albert Wellek.
\(^{195}\) In 1925 van Doesburg writes an enthusiastic letter to Hannah Höch: “Artistically I have been developing a schematic representation for the new space. Have now acknowledged the tesseractic space as the only universal space in which to express form (including film) I am quite sure that mathematical and lucid knowledge is needed, and that all film, architecture, Proun etc experiments, no matter how interesting, are based on aesthetic speculation.” Letter cited in Straaten, Theo van Doesburg, Painter and Architect, 190.

The idea of the “tesseract” or “hypercube” was popularized by the esoteric British mathematician and philosopher Charles Howard Hinton (1853-1907) who worked on methods to visualize the “fourth dimension.” In 1880 Hinton publishes an article entitled “What is the Fourth Dimension?” and in 1904 the book Casting out the Self where he suggested a system of colored cubes that would visualize four-dimensional space.
van Doesburg includes a drawing of the four-dimensional “hypercube” displacing itself simultaneously in different directions.

Ultimately, van Doesburg’s ideas for a possible film-space or light-architecture that would emerge after the destruction of the screen remain dependent on future innovations in “ingenious film technology.” One day, he believes, the “polydimensional space” would become a reality. The only concrete example he adds as a footnote: he recalls seeing Vladimir Baranoff-Rossiné and his “piano optophonique,” a popular synaesthetic color-music spectacle (first performed in 1915) at “Studio 28” in 1923 during his stay in Paris where he organized the Dadaist “Soirée du cœur à barbe” where Richter’s *Rhythm* film was first shown in public. The effect it had left on van Doesburg was “so intense that, in the interest of the development of the new space-time film, one should not ignore this experiment.”

*Stage television: Friedrich Kiesler’s use of the moving image*

In spring of 1923, van Doesburg and Hans Richter attended a performance of *R.U.R.* (Rossum’s Universal Robots), by the Czech playwright Karel Čapek, shown at the Theater am Kurfürstendamm in Berlin. What was remarkable about the performance was not only the techno-dystopian story about a scientist who invents human-like machines (“robots”), but also the spectacular stage design by the Austrian-Hungarian-born artist Friedrich Kiesler (1890-1965). As a central backdrop of the play Kiesler designed scaffolding-like panel composed of

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197 Doesburg, "Film als reine Gestaltung," 248.

198 Richter recalls that it was van Doesburg’s idea to see *R.U.R.* in 1923 (Richter, who dates the encounter to 1922 is incorrect). See Richter, *Köpfe und Hinterköpfe*, 77.
various moving machine elements. [Fig. 32] What must have caught van Doesburg’s interest were the two screens included in the panel that showed animated images. Richter would later recall that it was “this kind of ‘modernity’” that enthralled van Doesburg.\(^ {199}\) The performance incited van Doesburg to meet Kiesler personally to discuss his technological stage innovations – an encounter which would prompt Kiesler to join De Stijl. Kiesler would figure alongside Mies, Gräff and Richter as member of the editorial staff of G number three.

Kiesler himself described the panel’s synaesthetic montage of movements, materials and images as follows:

The image’s stillness has come alive. The backdrop is active, participates in the play. De la nature vivante [sic], means of reanimation are: The movement of lines, glaring colors. Transition of planes into relief forms to the round-sculpture MAN (actor). Dynamic play of colored lights and spotlights onto the backdrop. Rhythmically accentuated, coordinated with speech and movement of the actors. SPEED. On the left a large iris lens, 1.10 m in diameter. Material: nickel-plated. The lens opens slowly: The film projector clatters, a film is shown on the circular surface, cranked at lighting speed; the iris closes. On the right, built into the props a Tanagra-apparatus. Flaps open, close. The director controls the waiting room in the mirror image of the apparatus. The keyboard on the desk organizes his orders. The seismograph (in the middle) moves forward intermittently. The turbine control (middle below) rotates incessantly.\(^ {200}\)

Reminiscent of Vsevolod Meyerhold’s constructivist stage designs, the kinetic constructions and light sculptures of the Czech sculptor Zdenek Pešánek [Fig. 33], or the Futurist mechanical theatre of Enrico Prampolini, Kiesler’s “electromechanical” stage panel is the first to

\(^{199}\) Ibid., 77. Also in Bruno Reichlin, "The City in Space," Frederick Kiesler: Artiste-architecte (Paris: Centre Georges Pompidou, 1996), 17. While the design for R.U.R. left Richter indifferent, Kiesler’s subsequent scene creation for The Emperor Jones by Eugene O’Neill performed in 1924 in Berlin found his approval because of his use of projections: “Here and there a projector lit up the ‘walls,’ the figure, the path. With almost nothing he succeeded in creating a world filled with a disquieting strangeness.”

implement film projections into the scene. In fact, Kiesler integrates two different projection techniques into this heterogeneous backdrop panel: on the lower left side he mounts an adjustable iris membrane through which the audience could see a cinematographically projected sequence showing a tracking shot into a factory space. It was filmed in such a way that the audience had the impression that the filmic space, as Kiesler writes, “penetrated the auditorium.”

The second projection device displaying animated images was the so-called *Tanagra* apparatus. Mounted at the center of the panel the *Tanagra* screen did not show recorded images but was rather like “television” screen showing images that were channeled through a system of concave mirrors. These animated images were live transmissions, reduced in scale, from a scene that happened in real-time yet in a space separate from the stage. The *Tanagra* apparatus was not an invention by Kiesler. The technique, after being patented in 1909, had become a widely known form of visual entertainment for the mass audience.

Kiesler apparently experienced the *Tanagra* theater first hand at the 1914 Werkbund exhibition in Cologne. There it was not part of the official exhibition’s trade section (known for Bruno Taut’s *Glashaus*, Gropius’s spectacular glass-encased staircase and van der Velde’s theatre) but it could be found

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202 Ibid., 42.

203 Although there exist accounts of projection practices that go back to the classical antiquity, the term ‘Tanagra theatre’ originates in the late nineteenth century. The word ‘Tanagra’ derives from the ancient Greek city of the same name where in 1873 small terracotta figures had been excavated. After its technique had become patented in 1909 Tanagra theaters opened in many cities. See Marianne Mildenberger, Film und Projektion auf der Bühne (Emsdetten: Lechte, 1961), 26-31.
in the expansive and often overlooked entertainment section. The Tanagra theatre competed for the attention (or should one rather say, for the distraction) of the mass audience with a heterogeneous mix of other ephemeral and spectacular fairground attractions such as fireworks, illuminations, “Bengal fires” or a “cinematographic shooting range.”

The appeal of the Tanagra theatre was not due to the realism film brought to the stage but to the dazzling sense unreality the impossible simultaneity of spatial absence and temporal presence produced. In 1914, a local described the “irritating alienation effect” that left the spectator “highly astonished.” It is not surprising that the Tanagra theatre was used to show dreams scenes and ghostly apparitions. Less than ten years later Alfred Polgar, critic of the Weltbühne, repeats this praise for the illusionary trickery of the R.U.R. prop. “The light and mirror magic” of Kiesler’s design resembles “a fairytale of technology.” With suspicion,

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204 The fact that organizers regarded the entertainment section as an “unwelcome addition,” an economic necessity to attract the mass audience, seems ironic considering that the ‘serious’ buildings of Taut, Gropius and van der Felde equally incited a spectacular appeal by exploiting the visual-visceral potential of the new buildings materials like glass and steel. It reveals an attempt to establish a hierarchy of spectacle.

205 Already in 1908 Alfons Paquet, then director of the Werkbund, emphasized the economic necessity of trade exhibition to offer spectacular forms of entertainment in order to appeal to a mass audience. Explicitly he speaks of “calculated sensational effect [auf den Knalleffekt Berechnete], adapted to attract large masses, that which is almost tropically decorative and delirious […].” Paquet cited in Angelika Thiekötter, "Die Ausstellung - Ein rauschendes Fest," Die Deutsche Werkbundausstellung Köln 1914, eds. Wulf Herzogenrath, Dirk Teuber and Angelika Thiekötter (Köln: Kölnischer Kunstverein, 1984), 337.

206 “The Tanagra theatre draws its attraction from an irritating alienation effect: a group of actors, visible to the audience only though a complicated mirror system as doll-like miniaturization, performed ballet scenes, song and violin solos or even opera pieces like the dungeon scene in the ‘Troubadour’ on a miniature stage: one is highly astonished and asks oneself how such an illusion is possible at all.” Kölner Tageblatt, no. 377, May 22, 1914.
however, the critic notes the audience’s “delectation” at the combination of dramatic “play” [Spiel] with “gadgetry” [Spielerei].

What the highbrow theatre critic belittled as gadgetry in fact constituted the design’s innovative potential. The polyphonic juxtaposition of scrapped machine parts, clattering projectors, moving colored lights, rotating turbines and rocking seismographs, inciting the audience to playfully oscillate between a multitude of perceptual registers appealed to different, contradictory epistephilic and scopophilic predispositions of the audience. Kiesler’s backdrop did not function as an illusionist scene that induces a reifying spectatorial pleasure through the willful delusion of the real. Rather, R.U.R’s technological panel follows the logic of a Baroque wonder-cabinet that organizes materials, images and movements, thus inciting the audience to play with multiple tactile and intellectual levels of subjectivity. Using animated images Kiesler hence overcomes the “fourth wall” – the imaginary demarcation line between stage and audience space that constitutes a fundamental aspect of classical Western stage conventions – not

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208 See Barbara Lesák, "Everything is Turning, Everything is Moving... The Dynamic Stage Projects of Friedrich Kiesler," Daidalos, no. 14 (1984), 83. See also David Robinson and Wolfgang Seitz, eds., Der Guckkasten: Einblick, Durchblick, Ausblick (Stuttgart: Füsslin, 1995). The use of viewer-activated, viewer-activating optical apparatuses and ‘vision machines’ remained pivotal in Kiesler’s installation and architectural designs. In 1926 he envisions a domestic “Telemuseum,” the installation of “walls for sensitized panels that would act as receiving surfaces for broadcasted pictures.” The same year Kiesler a “television room” for the Société Anonyme exhibition which permitted the visitor to see famous artworks from all over the world by simply pushing a button. In 1929 he designs the Film Guild Cinema (New York) with its characteristic aperture-like shutter placed in front of Art of Our Century the screen; in 1942 Kiesler creates the display gadgetry employed at Peggy Guggenheim’s gallery. See Mary Ann Staniszewski, The Power of Display: A History of Exhibition Installations at the Museum of Modern Art (Cambridge Mass.: MIT Press, 1998), 313.
by rearranging the actual spatial layout but by shifting the site of spatial construction to the level of perception.\textsuperscript{209}

Contrary to certain nineteenth century visual practices, which, as Jonathan Crary has pointed out in his discussion of \textit{Guckkasten} (box-shaped viewing devices that would take the form of various forms of peep-show gadgets like the kinetoscope or the \textit{Kaiserpanorama}), prioritized certain forms of apparatically enhanced visual experience in order to self-discipline and immobilize the nascent modern audience,\textsuperscript{210} Kiesler orchestrates the same optical gadgetry for the opposite effect: to stimulate and mobilize the audience. For example, seeing the actors projected ‘live’ onstage and at the same time reduced in scale triggered a “storm of applause” from the audience, as Kiesler notes\textsuperscript{211} – a spontaneous expression of pleasure which had less to do with the \textit{effet de réel} of the image and more with the magical amalgamation of realistic representation and surreal presence. The reality effect felt by the audience, as Kiesler understands it, was not the consequence of the recognition of visual approximations with an imagined real, but the corollary of experiencing correlations and collisions of radically heterogeneous objects, instruments and images. Thus, it becomes the designer’s task to orchestrate the transitions and interferences in such a way that they stimulate and resonate with the spectator’s perceptual, corporeal and intellectual predispositions.

\textsuperscript{209} It is interesting to note that in \textit{Cubism and Abstract} Alfred H. Barr makes the analogy between film and theatre by using a sketch of Kiesler’s constructivist stage design of \textit{R.U.R.} in juxtaposition with the famous still from the \textit{The Cabinet of Dr. Caligari} showing the actor Conrad Veidt on the slanted, abstract roof. Veidt also played the leading role in \textit{R.U.R.} See Alfred H. Barr, \textit{Cubism and Abstract Art} (New York: Museum of Modern Art, 1936), 154.

\textsuperscript{210} Jonathan Crary, "Géricault, the Panorama, and the Sites of Reality in the Early Nineteenth Century," \textit{Grey Room}, no. 9 (2002). Crary argues that the first two decades of the nineteenth century saw a transformation of visuality: from a traditional regime based on “geometrical optics” and embodied by the camera obscura to a modern regime of “physiological optics” exemplified by the stereoscope.

\textsuperscript{211} Kiesler, "Utilisation du cinéma en 1922, dans R.U.R., de Karel Capek," 43.
With the Raumbühne [space-stage], designed in 1924 inside the Vienna Concert Hall for the occasion of the “International Exhibition of New Theatre Technology,” Kiesler takes another step towards what he calls “the theater of time floating in space.”\[212\] [Fig. 34] The Raumbühne was constructed as a spiral ramp made of iron and woods, with the actors, as Kiesler writes, able to perform “loop movements around a spherical stage core” generating a “constructive form and play of movement [that] is poly-dimensional, that means spherical.” Although the Raumbühme completely dispensed of all stage decorations or painted sceneries in order to foreground bodily movement, Kiesler nonetheless installed a “light-carrousel.”\[213\] This device would throw cinematic projections onto screens outside the spiral stage evoking, what he called, “milieu-suggestions.”\[214\] The moving image would gain a plastic quality through the use of a “glass-like balloon fabric.”\[215\] Ironically, one of the dance performances staged on Kiesler’s short-lived Raumbühne was a piece called “Film ohne Leinwand” [film without screen].\[216\]

Through the use of spherical extensions and projections screens Kiesler hence continues in an aesthetic and experiential register we find in nineteenth century sites of mass entertainment (e.g. panoramas, cycloramas, or Grimson-Sanson’s Cinéorama) or the patented spherical stage


\[213\] Kiesler’s biographer Barbara Lesák points out that Kiesler might have been influenced by a stage design by Günter Hirsche-Protsch published in 1922 in the Hungarian journal MA. Here the idea of a stage montage of optical and acoustic attractions is developed in a similar fashion. Barbara Lesák, Die Kulisse explodiert. Friedrich Kieslers Theaterexperimente und Architekturprojekte 1923-1925 (Wien: Locker, 1988), 76.


backdrops by Mariano Fortuny\textsuperscript{217} (first used at the 1900 World Exposition in Paris) or Enrico Prampolini’s Futurist explorations of “polydimensional” stage sets that produced centrifugal reflection of moving light and objects in motion.\textsuperscript{218}

Emphatically, Kiesler refuted any idea of \textit{Bühnenbild}, a term that literally signifies “stage-image” and evokes illusionistic still imagery. As an alternative, he proposes the projection of moving images that stimulate, through play, a heightened experience of time in a space. Kiesler writes:

> The stage is empty, it acts as space, as decoration the stage does not satisfy. It waits to be brought to life through play. From now on everything is geared towards play. Vehicles of movement are: sound, \textit{Gestalt}, objects, the mechanics of the entire stage machinery, light. The play is produced through the organization of play-elements that achieve unity through stability and movement. One element is dependent on the other. Their innate contradictions are not concealed but deepened. One thing cannot be effective without the other. Nothing is decoration, everything is complement, consequence, development, conclusion.\textsuperscript{219}

It is the idea that space is not an intrinsic feature of the world but the corollary of an organized intervention through technological, interwoven “play-elements” that comes to the fore in Kiesler’s stage design for \textit{R.U.R}. In 1925, with his proposal for a \textit{Raumstadt} [Space-City], presented at the \textit{Exposition internationale des arts décoratifs} in Paris in 1925, Kiesler blows the spherical space of his stage design to urban proportions. [Fig. 35] A grid of thin horizontal and vertical beams\textsuperscript{220} onto which screens, images and object were hung ‘in space,’ the wall-less \textit{Raumstadt} model appears like a gravity-defying, floating environment. A blackened background

\textsuperscript{217} Guillermo De Osma, \textit{Mariano Fortuny: His Life and Work} (London: Aurum, 1980).
\textsuperscript{218} See Oliver Grau, \textit{Virtual Art: From Illusion to Immersion} (Cambridge, Mass.: MIT Press, 2003), 144.
\textsuperscript{219} Kiesler, "Debacle des Theaters," 54.
\textsuperscript{220} The \textit{Raumstadt} model was continuation of the “L and T system” [\textit{Leger und Träger}] that Kiesler had invented for the International Theatre Exhibition held in 1924 in Vienna.
and the use of ingenious spot-lighting make an outside dimension disappear.\(^{221}\) Kiesler liberates the concept of construction from necessary association with solid matter and instead imagines the urban as a “constructive system of tensions in free space,” a Zeitstadt [Time-City] where “time has become the criterion for spatial organization.”\(^{222}\) Not surprisingly, van Doesburg celebrated Kiesler’s urban scale and time-based space as the eagerly awaited Gesamtkunstwerk: “You have realized what we have only dreamt of. […] It is here where the integration of the arts takes place, not in Le Corbusier’s L’Esprit Nouveau Pavilion.”

In 1928, as an equivalent to the Raumstadt, Kiesler designed the interior of the Film Guild Theatre in New York. He described this cinema as a completely new type of architectural space that resolves the supposed contradiction between “surface” quality of film and the spatial character of theater:

> The film is a play on surface, the theatre is a play in space, and this difference has not been realized concretely in any architecture, either that of the theatre or the cinema. The ideal cinema is the house of silence. […] This is the most important quality of the auditorium; its power to suggest concentrated attention and at the same time to destroy the sensation of confinement that may occur easily when the spectator concentrates on the screen. The spectator must be able to lose himself in an imaginary, endless space.\(^{223}\)

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\(^{221}\) See Reichlin, "The City in Space," 16.


The new “imaginary, endless space” opens up in cinema once the spectator will have learnt to perceive concentrated and delirious at once. Cinema, and in particular the ideal “screen-o-scope” cinema imagined by Kiesler, would facilitate this opening of this space. But first the movie theatres needed to rid themselves of the residues of traditional theatre design: the fixed, curtain-flanked proscenium was replaced with a screen whose size would be controlled through an aperture-like mechanism (already used for the R.U.R. prop) and the habitual decorations on walls and ceilings substituted with black projection screens.

When Kiesler proclaims in 1924 “Enough of the projects. We need realities!” he attacks modernism’s idealist underpinnings which relentlessly conjure up collective arcadias through technological means. Cinematic technologies had become a reality, a new spatial practice the urban masses understood and enjoyed. It was an ecstatic extension and intensification of experience into the direction of the irrational, the corporeal and the spiritual. Like his fellow members of the G group, Kiesler wanted a modernity which, in contrast to the rational engineering of an Existenzminimum and the idealization of social and technological utopias, was characterized by laughter and “excessive abundance”.

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224 Ibid., 16
225 Kiesler, "Das Railway-Theater," 5.
227 A similar criticism of modernism’s techno-mechanical determinism (what he calls “obsession with the mechanical”) and in favor of an employment of technology for the expansion of human experience one finds in Werner Gräff’s article Vergnüglicher Überfluß durch neue Technik [Joyful abundance through new technology] published in 1926 in G, but dated February 1923.
“Alive. Changing. New.”: Animated Images in G

Mies could have hardly given a more ‘cinematic’ definition of architecture when, in the first issue of G, he calls for buildings that are “Alive. Changing. New.”229 A quick glance at the 1923 pamphlet-style publication corroborates the fact that Mies’s pithy definition of an object as an animate and moving entity was equally reflected in the other contributions. [Fig. 6] Mies’s article is surrounded by ‘cinematic’ images that in various ways not only eliminate all realist elements and various attempt to express time, movement, and seriality. Richter includes an abstract film strip running along the entire length of the double page; van Doesburg shows versions of the hypercube; Hausmann illustrates his ideas for “optophonetics” with a film sequence; and Lissitzky presents his Prounenraum in the form of a cinematic storyboard suggesting a promenade through his image-space.

Strangely however, contrary to these illustrations which, in different ways, conspicuously break with the conventions of figurative and illusionist representation and include the dimensions of time and motion, Mies’s own Bürohaus maintains the structure of a perspectival ‘still’ image. [Fig. 36] Seemingly against his own rhetoric, his image reinforces an anachronistic visual regime G set out to overcome. By capturing the imposing cube-like structure at an angle and stressing the parallel horizontal slabs of the cantilevered floors as powerful vanishing lines, Mies presents the viewer with an emphatic perspective drawing of a more or less recognizable urban scene

229 Mies van der Rohe, "Bürohaus," 3.
taken from the point of view of a pedestrian.\textsuperscript{230} Besides this apparent affirmation of perspectival space, the image also gives a quasi-realistic view of Berlin’s streetscape exhibiting strong contrasts between new and old, between the radiant light grey office building and the black silhouettes of traditional Berlin \textit{Gründerzeit} buildings.

The following section tries to demonstrate that Mies’s apparent violation of modern art’s fundamental formal tenets was in fact coherent with \textit{G}’s objectives. The aim of the \textit{G} group was not to change the content or the form of representation, to subvert or empty its signification, but to question the very idea of ‘representation.’ \textit{G} appealed to the individual who is equipped with, as Richter notes, “all the modern apparatuses of instinct, reception and transmission, which assure his connection with life”\textsuperscript{231} because the journal itself – besides cinema, industrial architecture, fashion etc. – acted as such an apparatus. The question we need to answer is how Mies’s \textit{Bürohaus} rendering (as well as the other images he produces during this period), notwithstanding its seeming realism, perspectival semblance, and montage of contrasts, still fits the new ‘cinematic’ paradigm, still can be considered as “Alive. Changing. New.”

\textsuperscript{230} This deliberate emphasis of perspectival, photographic vision is also apparent in the other images Mies contributes to \textit{G}: the photo collage of the Friedrichstrasse skyscraper and the photograph of the Country Country House model taken before a black background. Moreover, it was probably Mies who selected altogether eight photographs from Werner Lindner’s \textit{Ingenieurbauten} (1923). The three photographs of large-scale interiors of utilitarian structures that illustrate Mies’s article “Industriebauten,” published in the third issue of \textit{G}, are all taken from a centralized position creating a rigid perspectival impression.

Complete difference

Wolf Tegethoff has pointed out that the office building appears to be “floating” inside the urban environment. The Bürohaus strikes the viewer because it seems both as a highly rational, utilitarian structure and as an irrational, ghostly apparition. The radiant slabs fit into the urban picture yet at the same time keep the dark cityscape at a distance. While Mies’s drawing conforms to certain visual codes of representation that facilitate the integration of the office building into the “street-image” [Straßenbild], others transgress this visual construction of space. For example, while the parallel floor slabs’ emphatic horizontality emphasizes the perspectival space of the street grid, the office building at the same time retreats slightly from the block line.

The floating effect of the Bürohaus is further emphasized by the ambivalent realism of Mies’s picture. Certainly, the Berlin streetscape is recognizable through vague allusions to bay windows, turrets and gable roofs. But it is impossible to identify a specific building or location. What we see is a dark, amorphous streetscape composed of generic objects without indexical relations with reality. Interestingly, Mies seems to intend the same effect through his use of miniature plaster models representing traditional Berlin apartment houses that he had especially commissioned from the Expressionist sculptor Oswald Herzog to be used as comparative models in certain of the Glashochhaus photographs and at the Bauhaus exhibition in 1923. Graeff later recalls how Herzog told him that Mies had asked him “to make me a piece of Friedrichstraße

232 Tegethoff, "From Obscurity to Maturity: Mies van der Rohe's Breakthrough to Modernism," 51.
233 Mies van der Rohe, "Hochhäuser," 124. In his translation Jarzombek uses the term “urban context” for “Straßenbild,” which in my opinion loses the suggestive connotations of the original word.
[...]; it does not have to be exact, only in principle.” Of importance was not the correct copy of an architectural object or urban setting; what mattered to Mies was the context’s capacity to trigger the play of difference. Contrary to other architects, who he criticized for adapting their representations of the surrounding setting to their own architectural ideas, Mies considered it important, as Graeff later remembered, to show that his buildings would stand “in-between stuff that is completely different.” Perpetuating rather than resolving the play of difference appeared to have what Mies was after – in other words, the very same principle of contrapuntal montage that formed the basis for Richter and Eggeling’s experiments.

The same contradictory play of difference Mies produces with the altogether four large scale renderings of the Friedrichstraße skyscraper. In all these images Mies includes the urban context in order to highlight the variations of contrast between the existing historical urban texture and the diaphanous crystal edifice. For the three perspectival views taken from the north of the Friedrichstraße Mies uses the same photographic template. [Fig. 37] In the first version, the street image is left untouched: clearly one can make out detailed Gründerzeit facades, the cobblestone street and the telegraph posts and wires. By contrast, the pencil-drawn skyscraper

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235 “Ja ich weiß noch, Mies sagte: ‘Ja, die meisten machen da Entwürfe und die anschließenden Bauten, die passen auch zu ihren.’ Und das will er nicht. Denn in Wirklichkeit, wenn man was zu bauen hätte, steht es zwischen Zeug, das ganz anders ist.” [I remember how Mies said: ‘Most make drawings and the resulting buildings would then correspond.’ This he did not want. Because in reality, if one has to build something it stands in-between stuff that is completely different.”] Werner Graeff, interviewed by Werner Glaeser, September 17, 1972, Mies van der Rohe: Research Papers, Documents and Tape Recordings Related to Mies van der Rohe and the Establishment of the Museum of Modern Art's Mies van der Rohe Archive, compiled by Ludwig Glaeser.Box 3, 4.
appears like a flat and opaque addition. In the second version, where one can discern the high-rise’s slim floor slabs, the façade on the right has been darkened and the entire image has lost both contrast and detail. Finally, in the charcoal and pencil drawing the Berlin streetscape is completely transformed into a blackened faceless silhouette reminiscent of his Bürohaus rendering. Here the “riot of detail” which Baudelaire famously cited as characteristic for metropolitan street life, façade details, readable signs and advertisements have all transformed into a blackened texture.

Andres Lepik has argued that the perspective charcoal and pencil drawing is the final version of the Friedrichstraße skyscraper project and that the photomontages were preliminary studies.236 Given the fact that Mies would later still chose to publish the early photomontage in order to illustrate Richter’s programmatic lead article in the third issue of G speaks against Lepik’s argument. What Mies was primarily concerned with was, as he writes in 1922, “the effect of the building mass (Baumasse) in the street-image (im Straßenbild).”237 And this street image, just like the ephemeral light-plays on the skyscraper’s skin, was contingent, both abstract and figurative, oscillating between functioning as a kaleidoscopic distraction and a readable text.

This insistence on ‘complete difference’ is also the compositional principle for Mies’s “Bürohaus” article. The text is meticulously split into two sections: the first being poetic and programmatic238, the second describing in a matter-of-fact manner the building’s constructive

238 “Not the yesterday, not the tomorrow, only the today is formable. Only this building creates. Create form out of the nature of the task with the means of our time.”
details. Contrary to the different avant-garde currents of the time that were striving in one way or another to resolve, once and for all, the antinomies and contradictions of modern life, Mies sought to expose and intensify ‘complete difference.’ Everywhere in his oeuvre Mies attempts to accept and to gestalten architecture incommensurable yet defining split between the constructive and the aesthetic (and this is true not only for the Bürohaus, which is at once rational constructions and scintillating urban spectacles, but later becomes exemplified through the chrome-clad cruciform columns at the Barcelona Pavilion and the Tugendhat House that are at once entirely structural and entirely decorative, constructive and aesthetic, hard matter and substanceless smear of light.) The idea was not to design objects that were capable of connecting with their contexts in order to enter into a dialectical play of identification and contradiction. Instead, following the model of film, the objective was to organize “material” in such a way that a play of tensions would be perpetuated ad infinitum so that the “whole” would remain “geistig dynamic,” as Richter writes.

In the same way, Mies constructs an endless play of difference that disrupts and interrogates the processes of architectural interpretation and signification. A few years later, inspired by Romano Guardini’s writings, Mies would underline precisely this notion of complete difference. Inspired by Guardini’ Letters from Lake Como Mies writes: “To feel and acknowledge differences. Large, delicate etc. […] Yes, perhaps even sanctity, extreme realism. More than anything natural.” The very essence of modernity, the dialectics between, on the

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239 “The most practical distribution of the work stations determined room depth; it is 16 m. A double-shafted frame of 8 m span-width with 4 m long lateral cantilever brackets on either side were established as the most economical construction principle. The beam distance is 5 m. […]”


one hand, rational organization and systematic planning, and, on the other hand, irrationality,
rupture and dissolution is exposed in the same image and brought to a standstill to undermine the
dream of regained unity.

The ghostly impression of the Bürohaus inside Berlin’s perspectival space is further
reinforced by the way the light inside the image is distributed. Whether we are witnessing a
daytime or nighttime scene is not clear. One can discern one light source concealed from view
behind the old Berlin facades on the left. From here the large front side facing the viewer is
bathed in light, creating a stark contrast between the radiant office building and the cityscape
which seems to sink into indistinct darkness. What is peculiar is that the street side also fades
into darkness suggesting that the surfaces of the flat horizontal slabs are not light-absorbing but
light-reflecting. This observation is corroborated by a photograph of the Bürohaus model taken
at the Internationale Architekturausstellung at Weimar in 1923. [Fig. 21] Whereas the charcoal
drawing shows an open structure whose ribbon windows allow for a high degree of transparency,
the photographed model appears like a solid and dark block whose glossy surface throws back
the flash of the camera.242

Comparing the two versions of the Bürohaus, the drawing on one side and the model on
the other, one might easily be convinced that one looks at two completely different objects. Yet
this is precisely the point: the status of the object is no longer determined by what we capture in

242 According to Werner Graeff, the model was painted gray and had red stripes on the façade.
Graeff does not further specify what these “stripes” were made of. Werner Graeff, interviewed
by Werner Glaeser, September 17, 1972, Mies van der Rohe: Research Papers, Documents and
Tape Recordings Related to Mies van der Rohe and the Establishment of the Museum of Modern
an instant, i.e. by a process of formal identification which relies on the absence of time and a
conception of materiality that is concrete, stable and opaque. What we see in Mies’s images of
the early 1920s are neither ideal Platonic forms nor snapshots taken from a *promenade
architecturale* – which both in their own ways construct the subject in space and time and
thereby contain the threat of contingency. Rather, they should be considered, to use Richter’s
term for his description of film, “supports” [*Hilfsmittel*] that circumscribe dynamic, temporal
processes. Just as the observer of Richter’s printed film sequence has to understand that the
interplay of “☐” and “——” are not to be used as “compositional means” but as delimitations of
light relations and intensities, he or she is invited to perceive Mies’s glass architecture as
ephemeral inscriptions of a “rich interplay of light reflections.”

In view of this choice of words published in 1922 one might very well suspect the impact of Richter and Eggeling’s ideas. In
other words, Mies’s fascination with the light-plays produced by the glass skin of his architecture
is not to be interpreted as proof of an Expressionist streak in his architecture.

What connected Mies and Richter was the realization that both architecture and film can bring alive the
immaterial, ultimately unforeseeable play of light in duration.

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der Rohe on the Building Art, 240.

244 Frampton argues that “there can be little doubt that his first skyscraper project of 1920 was
made in response to Paul Scheerbart’s *Glasarchitektur* of 1914. The same faceted, crystal
skyscraper theme occurred in his Friedrichstrasse competition entry of 1921, and the publication
of both of these projects in the last issue of Taut’s magazine *Frühlicht* confirmed his post-war
Expressionist affiliation.” Kenneth Frampton, Modern Architecture, 3rd ed. (New York: Thames
& Hudson, 1992), 162. Tegethoff writes that the glass skyscrapers “cannot be understood
without understanding the literary activities of Paul Scheerbart.” Tegethoff, Die Villen und
Landhausprojekte, 66. See also Jean-Louis Cohen, Mies van der Rohe, trans. Maggie
On the contrary, Schink emphasizes the difference between Mies and Scheerbart. For the former,
glass is “a construction material with special visual qualities, not a fetish for social happiness.”
Schink, Mies van der Rohe: Beiträge zur ästhetischen Entwicklung der Wohnarchitektur, 236.
Richter gives a didactic “demonstration of the material” that does not mimic the experience of film but illustrates the way Gestaltung operates. Mies, for his part, presents far from ‘correct’ projections of how his Bürohaus or his “skin and bone” glass towers architecture would look in reality. Mies’s visions neither corresponded precisely to the Friedrichstraße site nor did he take into account the technological realities of construction at the time. After all, G was about producing “new inclinations and desires,” as Richter and Graeff underline in their editorial of the first issue, less about satisfying the imagination with representations of possible worlds to come. Accordingly, Mies’s images are neither transcription of the technologically possible nor utopian reveries. Rather, they interrogate and render conscious the projective bend that is inherent to all architectural images. The architectural image becomes a critical mediation on the historical and social function of architectural representations in general that give premonitions of “new life forms,” to use an expression one finds in Mies’s notebook. This attitude characteristic of the entire G project is reminiscent of the “waiting” attitude of the modern subject described by Siegfried Kracauer in 1922 whose “tense activity and engaged self-preparation” anticipates an eventual “leap” into a reconciled “closeness between men.”

“*This type is alive*”

One of the central preoccupations of the G project was the creation of new life by means of technology. “He who makes the connections, who deepens and organizes the means of

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Richter and Graeff write as the concluding sentence in their programmatic statement on the front page of the first issue of G. Architecture, film, fashion, urbanism, industrial buildings, car design etc. were manifestations of this “new life” created by artists, architects and designer capable of making the connections and of organizing the media. But Richter even extended this idea of animism further to the journal itself. In the editorial statement of G number four, two years after the publication of the famous third issue, he wants to reassure his readership that the spirit that had originally animated the G project was still present. “THIS TYPE IS ALIVE!” [DIESER TYP LEBT!] Richter proclaims in capital letters. The expression “Typ” is a deliberately ambivalent choice of words referring simultaneously to the journal, the typographic sign, and, in a colloquial sense, to a human being with a particular character. On a visual level, Richter intersperses his text with two large, completely identical letters “G.” The living “type,” this intuitive yet ultimately inscrutable material presence resembles an animate totem rather than a letter taken from the alphabet, the smallest unit of a potentially meaningful linguistic sign. This “type,” Richter argues, combines in itself the objective of the entire G movement:

It is our task to make us comprehensible to it [the ‘type,’ i.e. G] as well as to comprehend it – then we will all see more clearly and will learn to work more methodically. The intuition and knowledge of a collective [gemeinschaftliche] task and a shared elementary experience [gemeinsame Grunderlebnis] will produce a spiritual connection [...].


"Es ist unsere Aufgabe – ebenso uns ihm verständlich zu machen, wie ihn zu begreifen – so werden wir alle klarer sehen und planmäßiger arbeiten lernen Aus dem Ahnen und Wissen um eine gemeinsame Aufgabe und ein gemeinsames Grunderlebnis wird die geistige Berührung entstehen [...].” Ibid., 3.
The letter “G” is hence not merely a signifier used by the subject to communicate a message. For Richter, the “type” is a living entity that demands from the subject to make himself understood. This ‘living type’ already encapsulates collective knowledge and meaning and it is the vocation of G to establish new connections not through but with the “type’s” material and animate presence.

To better understand this skepticism vis-à-vis the idea that language, both linguistic and visual, is first and foremost a neutral vehicle for the communication the knowledge it is helpful to call to mind the language philosophical thinking of Walter Benjamin who during the time of his involvement with G had begun to reflect on the nature and function of the sign.252 In “Über die Malerei oder Zeichen und Mal” (1917) Benjamin reflects about painting and makes a distinction between sign and mark: while the former is “printed” onto a support, which for the most part is inanimate like “buildings, trees,” the latter “emerges” on what is alive (e.g. a scar or a birthmark).253 For Benjamin the mark is a “medium” that can produce a “temporal magic” that

252 There are contradictory statements about Benjamin’s participation in G. The only written trace of his involvement is the translation of an article by Tristan Tzara for issue three. Yet, his relationship with Richter seems significant enough for Benjamin to send him a first draft of his Artwork essay for review. Tristan Tzara, "Die Photographie von der Kehrseite," G: Zeitschrift für elementare Gestaltung, no. 3 (1924). Benjamin is cited as the translator. See Köhn, "Nichts gegen die Illustrierte! Benjamin, der Berliner Konstruktivismus und das avantgardistische Objekt," 68.

253 Walter Benjamin, "Über die Malerei oder Zeichen und Mal," Gesammelte Schriften, eds. Rolf Tiedemann and Hermann Schweppenhäuser, vol. 2.2. (Frankfurt a.M.: Suhrkamp, 1977 [1917]), 605. Translated as Walter Benjamin, "On Painting or Signs and Marks," Selected Writings, eds. Marcus Bullock and Michael W. Jennings, vol. 1 (Cambridge Mass.: Harvard University Press, 2003 [1917]), 85. Benjamin elaborates at length on relation between the mark and the word in painting. He also introduces the question of the “mark in space” [Das Mal im Raum] arguing that the “sphere of the mark also appears in spatial formations/images [räumlichen Gebilden], just like the sign in a certain function of the lines has an unquestionable architectural significance (and hence also a spatial one). […] Above all they appear in monuments to the dead or tombs [Toten- und Grabmale], of which, in a more precise sense, only those edifices [Gebilde] are marks which are formed architecturally or plastically.” Benjamin, "Über die Malerei oder Zeichen und Mal," 607.
overcomes the division between past and present. In his habilitation work on the German
*Trauerspiel* (begun in 1923-24) Benjamin explores language elements which, once
“emancipated” from meaning-generating structures, can be “exploited allegorically” and hence
become invested with a different meaning. Tellingly, he argues that it was the “fragmentative,
dissociative principle of the allegorical approach” that caused the capitalization of the first letter
in nouns in German: for Benjamin the proof of a language that no longer serves as “mere
communication” but itself becomes a “new-born object.”  

The “type” becomes this new object
which at the same time refers back to an original “script.” At length, Benjamin refers to the
Romantic physicist and philosopher Johann Wilhelm Ritter (1776-1810) who had tried to “re-
discover, or else to find the primeval or natural script [*Ur- oder Naturschrift*] by means of
electricity.”  

In other words, it is modern technology that can render visible and give access to
an *Ur*-state of nature that lies submerged in human language - an idea which seems completely
congruent with the programmatic basis of *G*. In Ritter’s writings Benjamin finds confirmation of
his belief that the world is “literally created by the word,” and that “the plastic arts: architecture,
sculpture, painting, etc. belong pre-eminently among such script, and developments

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2003), 207-08.

255 Ritter quoted by Benjamin Ibid., 214. Walter Benjamin, "Ursprung des deutschen

256 The idea that an original nature can be recuperated behind or through the medium is also
central to Kracauer’s thinking on photography which would allow access to the “previously
unexamined foundation of nature” Siegfried Kracauer, "Photography," trans. Thomas Y. Levin,
62. The same motif we find im Mies’s notes when he writes about the cultural longing for “a
totally untouched nature.” Mies quoting from Guardini’s *Letters from Lake Como* cited in
And even the image itself is first and foremost a “Schriftbild” or “scripture-image” as Benjamin puts it in the original German version. In its allegorical use the image is not a mirror of the real but “a signature, only the monogram of essence, not the essence itself in a mask.”

The idea that architecture and images can be both considered as “scripts” or ideograms is maybe most plausibly shown in the cover drawing Mies produces for G’s third issue. Here we see the red letter “G” pasted onto the schematic, flat drawing of the dark skyscraper dwarfing the black silhouette of what the viewer can barely discern as a traditional building. Tilted, semi-transparent and almost the size of the skyscraper, the red letter is highly ambivalent functioning at once as self-referential linguistic sign that refers to the title of the journal and as a mark that emerges from both the white page of the journal and the depicted architectural objects. All habitual codes of signification seem reversed: the supposed glass high-rise, devoid of all volume and three-dimensionality, appears as a flat and opaque rectangular grid whose monochrome rhythm resembles more Richter’s film sequences than as a traditional representation of architecture. By contrast, it is the animate letter “G” that is transparent and takes the scale of a building.

“Give meaning back to the words. […] We want to give meaning again to things,” Mies would later write into his notebook in response to reading Romano Guardini. But even before,

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258 Ibid., 214. The English version translated “Schriftbild” with “form of writing” which loses the connotation with “Bild” that was certainly intended by Benjamin.
259 Ibid., 214.
260 Mies van der Rohe, “Notebook” (1927/28), in Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, 289. Mies’s notes are inspired by his reading of Guardini’s Vom heiligen Zeichen. Mies underlined the following passage in Guardini’s work: “Words are names.
through his association with the Berlin Dada scene Mies must have become conscious of the new to renew language’s capacity to signify. Moreover, having been a reader of Henri Bergson Mies certain was aware of the central theme of the former’s thinking: the contradiction between the continuous flow of life and the fixation of form. In the copy of *Creative Evolution* Mies owned, just one paragraph before Mies’s only annotation, Bergson stresses the inherent contradiction between words and the living, creative spirit: “The word turns against the idea. The letter kills the spirit. And our most ardent enthusiasm, as soon as it is externalized into action, is so naturally congealed onto the cold calculation of interest or vanity, the one takes so easily the shape of the other, that we might confuse them together […] if we did not know that the dead retain for a time the features of the living.”

“G,” the letter, the journal and the entire project of *Gestaltung*, was about ending this dichotomy between word and idea and regaining the ancient ability to “name” living phenomena. It opens up to the dimension of pre-linguistic collective *physis* and the “shared elementary experience” that Richter referred to. By superimposing the sign/mark with architecture, Mies’s cover design for *G* number three proposes an image that is at once “*Schriftbild*” [script-image] and “*Bildraum*” [image-space], where meaning “flashes up” in moments of recognizability.

**Ghostly traces**

Besides the ghostly presence of the *Bürohaus* and the reanimation of language there is a third detail in Mies’s images of the 1920s that appears strange. For many of urban

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And to speak is the high art of relating to the names of things; with the essence of things and the essence of one’s own soul in its divinely ordained harmony… But language with its names is no longer a numinous communication with the essence of things, no longer an encounter between object and soul.” (289).

photomontages Mies chose to include human figures.\textsuperscript{262} For example, in two of the sketches he produces for the Friedrichstraße competition one can discern black silhouettes of miniscule human figures eclipsed by the verticality of his glass skyscraper – a common practice used by architects since the turn of the century to illustrate the scale of the building.\textsuperscript{263} [Fig. 39] Yet, in his famous urban photomontages, whose eye-level perspectival views place the viewer directly inside bustling urban environments, the human figures are no longer blackened scale indicators. While we can discern them as pedestrians in the streets of Berlin they also lack recognizable features. They appear like fleeting shadows [Fig. 40, 41] or, as in the case of his photomontage of the Adam department store design (1928-29), like a semi-translucent, ghost-like apparition that supernaturally blends into the urban scene. [Fig. 42, Fig. 43] The blurred figures are hence ethereal traces of human presence rather than the established visual evidence that would assist the viewer in identifying and classifying the urban scene.

One could of course argue that human figures often turn out blurry in older photographs. In effect, until the nineteenth century the blurring of moving figures and objects had still been an ineluctable consequence of slow lenses and long exposure times. But by the 1920s these trajectories of time has become a choice that photographers employed to achieve a certain effect. Mies himself demonstrates in the photomontages he produces for an office- and bank building in Stuttgart (1928) and an office building at Friedrichstraße (1929), that pedestrians could very well

\textsuperscript{262} It should be emphasized that the novelty of Mies’s approach was not the use of photomontage as such. Already since the turn of the century photomontage had become a means of architectural representation that was used frequently for competition entries. In order to heighten the reality effect of their proposals, architects simply incorporated perspectival drawings into the photographic image, precisely as Mies did in his submission to the Bismarck monument competition in 1910. See Lepik, "Mies van der Rohe and Photomontage," 324.

\textsuperscript{263} See Zimmermann, ed., Der Schrei nach dem Turmhaus: Der Ideenwettbewerb Hochhaus am Bahnhof Friedrichstraße Berlin 1921/22.
be captured sharply.\textsuperscript{264} [Fig. 44] The effects produced by the blurred figures inside Mies’s architectural photomontages become evident once one compares his images with similar photomontages.

Take for instance the commercial photomontage produced in 1927 by the photographer Heinz Hajek-Halke. [Fig. 45] The image, which appeared on the inside cover of the popular scientific magazine \textit{Wissen und Fortschritt}, shows Mies’s photograph of the cut-out Glashochhaus pasted into another Berlin street scene.\textsuperscript{265} In fact, Hajek-Halke chooses about the same point of view looking south down the Friedrichstraße as Mies did in 1921. At the very location between train station and the banks of the Spree River where Mies had positioned the sharp-angled “Wabe” [honeycomb] drawing a few years earlier we now see the undulating

\textsuperscript{264} This image presents an exception possibly because it was taken by Mies’s assistant Werner Graeff. While it was not Mies himself who took the photograph, it was he who chose a snapshot taken at eye-level from the side of Paul Bonatz’s monumental Stuttgart train station (completed in 1922). The image only shows the foot of the station’s rusticated, stone-clad tower, hence withholding from view the building’s iconic tower as well as its monumental front. Like in the case of his Friedrichstrasse views, which he transforms into flat, indistinct silhouettes or cacophonous fields of competing signs, Mies represents the metropolitan context, the “\textit{Straßenbild},” as completely detached from the institutionalized iconic and historical meaning of the city. What distinguishes the later photomontages, the Stuttgart and the 1929 Friedrichstraße competitions, from the earlier Friedrichstraße high-rise images is the absence of the emphatic perspectival views. The point-of-view is that of a pedestrian who moves inside the chaotic urban environments where even the most monumental building or visual axis is no longer capable of imposing its order. See Werner Graeff, interviewed by Werner Glaeser, September 17, 1972, Mies van der Rohe: Research Papers, Documents and Tape Recordings Related to Mies van der Rohe and the Establishment of the Museum of Modern Art's Mies van der Rohe Archive, compiled by Ludwig Glaeser. Box 3, 4.

\textsuperscript{265} Hajek-Halke’s photomontage was used to as an illustration that refers to the article inside the journal by a certain Dr. Kurt Dieth. Starting with an acknowledgement of Paul Scheerbart’s book “Glasarchitektur,” the article provides a brief panoramic summary from the use of glass in Gothic architecture, via nineteenth century window display architecture, to skyscrapers and factory buildings. Mies is mentioned alongside Bruno Taut, Gropius, Bruno Paul, Peter Behrens and Ernst May as one of the architects who has understood the new architectural possibilities. Kurt Dieth, "Glasarchitektur, eine verwirklichte Utopie," \textit{Wissen und Fortschritt: Populäre Monatsschrift für Technik und Wissenschaft}, no. 1 (1927), 91-97.
Glashochhaus pasted inside Berlin’s urban scene. The difference is that Hajek-Halke’s image is completely devoid of the eeriness that characterizes Mies’s photomontage. The blurred figures have disappeared just as the nineteenth century street facades are cut off from the image. Instead we see a crowded street with pedestrians and ‘driving’ automobiles that are sharply captured in a realistic shot.

Interestingly, it is Walter Benjamin, a marginal ‘member’ of the G group, who would later identify the decreased exposure time as the technical aspect that caused a fundamental caesura in the history of photography. In his “Little History of Photography” he distinguished between two different temporalities: an earlier period of the “Bild,” or “original picture,” and a later period of the clearly recognizable and reproducible “Abbild” [copy].266 In the first decades of photography light still had to “struggle out of darkness.” The magic aura of these early images was banished when optical and photochemical advancements allowed events to be recorded “as faithfully as any mirror.”267 At the same time the aura was “simulated” through the practice of retouching, toning or artificially highlighting the photographic image.268 One could very well accuse Mies of trying to simulate this lost aura. For an architect of his time he employs an astonishing range of retouching techniques to darken facades or coloring the sky.269

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266 Benjamin, "Little History of Photography," 519.
267 Ibid., 517.
268 Ibid., 517.
269 Mies’s innovation consisted in manipulating the photographic support extensively – which was certainly due to Mies having being acquainted since 1919 with the pioneers of photomontage like Hannah Höch and Raoul Hausmann. His connections to members of the Berlin Dada circles certainly had an impact on Mies’s critical awareness of mass reproduced imagery and the possibilities of manipulating the photographic supports. Yet during the early 1920s experimenting with long-term exposure was not a Dada practice. Only with the publication of Moholy-Nagy’s *Malerei, Photography, Film* (1925), which contains a double exposed photographic portrait by Höch, the inscription of time and movement onto photography
Yet while gum prints, penumbral tones and artificial highlights were habitually used to cover up, as Benjamin argues, “the impotence of [a] generation in the face of technical progress,” Mies’s manipulated photomontages produce the opposite effect: his intention seems precisely to render technology visible again (in the form of the glass high-rise) and to evoke the potential for a renewed congruency between modern subject and technology, the same congruency which, Benjamin argues, had existed during the early period of photography but has been irretrievably lost.

But if the aura has vanished once and for all from the medium photography, and if Mies’s intention was not to resurrect a false aura, what to make of the ghostly figures in Mies’s photomontages? What I would like to argue is that the images of Mies contain the very critical impulse Benjamin recognizes in the deserted Paris streets views taken by Eugène Atget at the turn of the century. Atget’s “unremarkable, forgotten, cast adrift” urban spaces, cleared of human countenance and devoid of “great sights and so-called landmarks,” unsettle the viewer and prepare the ground for a “salutary estrangement between man and his surroundings.” By banishing all signs human presence from his images (which for Benjamin were the last vestiges of an aura present in early portrait photographs) Atget allows for an unprecedented encounter with an urban world everyday objects. The political significance of this hitherto overlooked

became a recurrent practice. A subject that hitherto has not been sufficiently explored is Mies’s connection with the graphic designers Bodo and Heinz Rasch who were amongst the first to theorize Weimar’s visual culture. In their work Gefesselter Blick they argue that “photomontages are small films on a planar surface” that force the eye to go on a promenade. See Heinz Rasch and Bodo Rasch, Gefesselter Blick (Stuttgart: Dr. Zaugg & Co., 1930), 8. See also Krausse, "Miesverständnisse," 18.

271 Ibid., 518.
272 Ibid., 519.
object world that appears in mechanically reproduced images is that it demands from the viewer an entirely new perception. In the Artwork essay Benjamin argues that Atget’s images, rather than demanding a contemplative gaze, “unsettle the viewer; he feels challenged to find a particular way to approach them.” But because mechanically produced images still have a shocking effect on the viewer, a “free play to the politically educated eye” is not yet possible. The viewer still needs assistance, which according to Benjamin, are provided by the captions:

At the same time picture magazines begin to put up signposts for him – whether these are right or wrong is irrelevant. For the first time, captions become obligatory. And it is clear that they have a character altogether different character from the titles of paintings. The directives given by captions to those looking at images in illustrated magazines soon even become more precise and commanding in films, where the way each single image is understood appears prescribed by the sequence of all the preceding images.

Could it be that Mies’s new architecture, just like mechanically reproduced images, requires “captions,” i.e. comprehensible texts, objects and spaces? In fact, Mies might have well been aware of Benjamin’s ideas since its central tenets are present in the pages of G, especially via Benjamin’s own contribution, the translation of an article entitled “Die Photographie von der Kehrseite” by Tristan Tzara in which the Dadaist develops the idea that the mechanically reproduced image reveals a hitherto overlooked object world. In fact, because architecture is

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275 Benjamin, "The Work of Art in the Age of Its Technological Reproducibility (Third Version)," 258.

276 A section of Benjamin’s translation for the third issue of G would later reappear in “Little History of Photography: “When everything that called itself art was stricken with palsy, the photographer switched on his thousand-candle-power lamp and gradually the light-sensitive paper absorbed the darkness of a few everyday objects. He had discovered what could be done by a pure and sensitive flash of light – a light that was more important than all the constellations arranged for the eye’s pleasure.” Tristan Tzara, "La photographie à l’envers," (1922), translated
always both image and built object this new condition poses a double challenge to Mies: not only can the renderings of the Friedrichstraße high-rise, the office building or the Adam department store, pasted inside photographic urban views, be considered as avatars of the new technological condition; what is more is that Mies’s architecture, which itself functions like mechanically reproduced images in the sense that it changes the status of the object and requires the viewer/user to alter the way he or she perceives the object, becomes in turn the subject of the camera’s gaze.

But maybe in Mies’s photomontages we neither get a clear image of reality nor an image of future architecture. It was Siegfried Kracauer who cautioned against understanding photography as “a sort of recording medium.” Rather, he argues, photographs show realities that “elude the grasp of systematic thought” and helps with overcoming the dominance of abstract thinking encouraging the viewer to “think through things, not above them.” It is only by ‘manipulating’ the photographic image that Mies helps the viewer to see photography’s actual structure. By darkening details, by allowing duration to inscribe itself on the photosensitive surface, and through double exposures, Mies reveals the face of things behind the veil of appearance. While in the case of Atget one realizes that photographic images “begin to be


278 Ibid., 192.

279 One could make the argument that Mies’s tampering with the photographic process anticipates his continuous play with the reciprocity of surface and truth. Here one only has to mention the ambiguous status of the chrom-clad cruciform pillars inside the Barcelona Pavilion or the I-beams glued on to the façade of the Seagram Building.
evidence in the historical process,”280 in the case of Mies another type of evidence tied to a completely different history, a history relating to a world of motion and duration emerges disclosing what Kracauer called “this previously unexamined foundation of nature.”281

The same applies for Mies’s architectural visions. They are not utopian projections of future buildings but harbingers of a new architecture to come. Still in 1927/28 Mies was convinced that “[w]e can only talk of a new building art when new life forms have been formed.”282 In fact, the entire G project was less about giving precepts for the future or satisfying existing needs and more about creating “new inclinations and needs” and “new life,” as Richter and Graeff emphasize in the first issue.283 The images of the glass high-rise or the concrete office building are supposed to unsettle the viewer, to coerce him to come to terms with a completely new architecture based on a completely new regime of vision. Following Benjamin’s argument, ruined Berlin cityscapes and the outmoded perspectival spaces in Mies’s images are less to be understood as dialectically opposing the new. Rather, they function as comprehensible “captions” or “signposts” to assist the stunned modern subject in find his way.


282 Mies van der Rohe, “Notes” (1927/28), in Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, 269. It is likely that the notes Mies writes down in 1927/28 were made in preparation for the opening speech of the Werkbund exhibition in Stuttgart. In his review Siegfried Kracauer cites Mies who speaks about rationalization in architecture merely being a means to an end. This end should be to arrive at “the display of new forms of life.” [“Die Frage, was die heute von einer internationalen Vorhut der Architekten vollzogene Wendung bedeutet, wird nicht auszuweichen sein; so wenig auch gerade solchen Anfängen gegenüber abschlußhafte Formulierungen statthaft sind. Rationalisierung und Typisierung sagte Mies van der Rohe in seiner Eröffnungsansprache, seien nur Mittel zum Zweck; in Wahrheit gehe es um die Darstellung neuer Lebensformen.“] Siegfried Kracauer, "Das Neue Bauen. Zur Stuttgarter Werkbund Ausstellung 'Die Wohnung'," Frankfurter Zeitung July 31 1927. 2.

Still, this Benjaminian reading of Mies images does not fully explain Mies’s conscious decision to include the apparitions of blurred human figures. The reference to work of the Futurist photographer and filmmaker Anton Giulio Bragaglia (1890-1960) in this context is potentially revealing. During the 1910s, Bragaglia began to experiment with longtime exposures of human bodies in motion. [Fig. 46] His work was a response to still photography, which he criticized for being “the reproduction of the immobile and static truth,” as well as conventional film which failed to represent, he argued, “the shape of movement.”

The latter simply reconstructed “dispersed fragments of reality in the same way that the needle of a stopwatch divides time.” Marey’s chronophotographic motion studies presented no solution either since they “shattered the action” by rationalizing movement as successive instances in space. “We are not interested in the precise reconstruction of movement,” Bragaglia writes, “which has already been broken up and analyzed. We are interested in the area of movement which produces sensation, the memory which still palpitates in our awareness.”

Bragaglia responded to chronophotography with what he called “fotodinamismo”: the continuous inscription of the moving body’s light emanations on the photosensitive surface. What we see, the trajectory of time, exposes what lies in-between two shots, the space of the interval rendered invisible by the cinematographic apparatus. In other words, in Bragaglia’s work we already detect the utopian aim of cinema which according to Merleau-Ponty’s is “to perceive

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as things the interval between things.” Bragaglia captures “pure movement,” informal and immaterial experiences that allowed access to a transcendental “interior essence of things.”

Bragaglia proposes an alternative to the positivist view of reality based on the existence of solid forms, quantifiable data, and fixed images. The inscription of the traces of time responds to the famous analogy Henri Bergson draws between the functioning of knowledge and of the cinematograph:

> We take snapshots, as it were, of the passing reality, and, as these are characteristic of the reality, we have only to string them on a becoming, abstract, uniform and invisible, situated at the back of the apparatus of knowledge, in order to imitate what there is that is characteristic of this becoming itself. Perception, intellection, language so proceed in general. Whether we would think becoming, or express it, or even perceive it, we hardly do anything else than set going a kind of cinematograph inside us.

> With fotodinamismo Bragaglia responds to Bergson’s criticism and proposes an alternative conception of cinema. His blurred images evoke a type of knowledge that does not reduce the body in movement to series of instant views but registers the traces of the “fluid continuity of the real.” The shadows we see are no longer cast by solid objects in space intercepting light rays of light but inscribed by time itself.

> Interestingly, it is Benjamin who in 1928 writes an article on the occasion of Bragaglia’s visit to Berlin in which he stresses the latter’s reluctance to slice up reality and quantify time.

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289 Bergson, Creative Evolution, 306.

290 Ibid., 302.
Benjamin quotes Bragaglia’s own critique of Erwin Piscator’s use of film onstage, which he regards as a “one-way-street, but a beautiful one.” The difference between Piscator and his own work he sees in the relation between text and filmic image: “He disintegrates his texts with technical means […] transects them, while I try to construct a transparent superstructure above the unblemished text.” In the Futurist theatre of Bragaglia it was not the projection of film but the use of moving rubber masks that brought the stage alive. The mask allowed the actor to remain “isolated from his empirical I” and to become elevated into a “higher space of effect” [höhere Wirkungsraum]. The trajectory of light inscribed by Bragaglia’s moving body on the photosensitive surface functions like the masks in his later theatre productions: in both cases the body seen by the spectator is merely, as Bragaglia puts it, “the instrument of the invisible body,” which itself remains protected from the dissecting empirical gaze.

This use of masks to protect the body from the gaze is also prevalent in the work of the modern dancer Mary Wigman, who had been a close acquaintance of Mies since they first met in early 1910s in Dresden-Hellerau. Wigman used her costumes to mask her body and her gender and to instead be perceived as “a dynamic configuration of energy in space.” See Valerie Preston-Dunlop, "Notes on Bodies in Dada," Dada: The Coordinates of Cultural Politics, ed. Stephen C. Foster (New York: Simon & Schuster, 1996), 173.
early 1910s in Dresden-Hellerau. Wigman used her costumes to mask her body and her gender and to instead be perceived as “a dynamic configuration of energy in space.”

Mies’s blurred figures function like Bragaglia’s masks. The human body is present yet remains “unblemished” by the empirical eye. It is visible yet unavailable to the analytical, empirical gaze. Therefore, to call Mies’s images photomontages, an expression which denotes the avant-garde practice of assembling fragments of cut-up texts and images, might be misleading. His intervention in the imaging process leaves the picture intact and instead superimposes onto it an oneiric veil. The blurred figures are hence not simulations of a lost aura, but, like Bragaglia’s rubber masks, threshold into an alternative form of evidence that has existed all along. Their trajectories are not actual but potential. They do not capture but “subtend” movement.296

The same argument can be made for Mies’s glass towers. They resemble film screens that neither fix nor mirror images of the urban environment. The film theorist André Bazin has argued that the “film screen is a mask whose function is no less to hide reality than it is to reveal it.”297 The meaning of what is seen on a screen is therefore relative to what remains hidden from view. Similarly, the tower’s diaphanous glass membrane neither dissolve all visual barriers to let the gaze freely penetrate the open spaces, nor do they break up the urban image into scattered fragments. Mies’s glass architectures are masks that protect against the empirical, analytical gaze and prompt the urban dweller to see a new reality in “a rich interplay of light reflections.”298

296 On the philosophical problem of movement see Doane’s discussion of Bergson and Zeno’s paradoxes. Doane, The Emergence of Cinematic Time, 174.


After all, Mies intended to “give sense again to things” by liberating “them out of frozen forms.”

By 1922 Mies had realized that to bring glass architecture alive all considerations “from the point of view of light and shadow” had to be excluded. For him, the dynamic play of volumes created by the interception of light through solid or opaque objects had become redundant with the new medium glass.

Ironically, Le Corbusier’s idea of an animated architecture, developed in the pages of *Esprit Nouveau*, is precisely based on the interplay of light and shadow. In his famous reminders to architects published in 1920 he defines architecture as “the masterful, correct, and magnificent play of volumes brought together in light. Our eyes were made for seeing forms in light; shadow and light reveal forms; cubes, cones, spheres, cylinders, and pyramids are the great primary forms that light reveals well; the image is clear and tangible for us, without ambiguity.” For Le Corbusier, it is the “architect’s task to bring the surfaces that envelop these volumes to life.”

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302 “L’architecture étant le jeu savant, correct et magnifique des volumes assemblés sous la lumière, l’architecte a pour tâche de faire vivre les surfaces qui enveloppent ces volumes, sans que celles-ci, devenues des parasites, dévorent le volume et l’absorbent à leur profit.” Le
We are hence faced with two opposing conceptions of animation. For Le Corbusier, bringing architecture to life means engineering with light the interplay of surfaces and volumes until it reaches a ‘right’ balance and becomes unambiguous. For Mies, light no longer reveals form or volumes but light itself is the revelation. The architectural image, in order to be precise, has to blur and render ambiguous empirical vision. While for Le Corbusier it is the architect’s genius that projects life onto dead matter, for Mies life is an inherent albeit submerged condition of all things. Animating his glass building is hence not a question of bringing dead matter alive by bringing to life the correct interplay of volume and light. Life is an a priori condition, not a psychological effect of perception.

Through his experiments with the model of the Glashochhaus Mies realizes that the false use of glass entails “the danger of an effect of lifelessness” [Gefahr der toten Wirkung]. While the architect is not the creator of life, he can certainly prevent life from emerging. This “dead effect” is not caused by a sudden absence of motion but rather by the threat of the glass surface turning into either an alienating mirror or a disembodying transparent picture – the two effects modern architecture’s predilection for glass habitually associated with. In both cases the vital link between the subject and the glass edifice is broken. The numerous renderings Mies


304 Comparing the figure of the vampire to Mies’s crystal, shadowless monolith, Spyros Papapetros has done, is suggestive. For Papapetros the vampire is “a cluster of solidified desires” that reveal a lack. As Friedrich Kittler reminds us, the vampire is not driven by a desire to fill a lack or an absence but a drive creature animated by technological forces of communication and information. The vampire is the byproduct of technologies of mechanical reproduction and appears in the popular imagination when apparatus like typewriter, gramophone and cinema
produced of the Friedrichstraße high-rise demonstrate how he experimented with different degrees of “lifelessness,” allowing different degrees of permeability of the curtain walls revealing constructive details of concrete girders, floor slabs and elevator shafts.

With the distinction between surface and volume having become redundant, Mies’s “skin and bone” edifice is not a solid object defined by its more or less transparent delineations but, to use Siegfried Ebeling’s definition of architecture a “three-dimensional, biologically defined membrane” that mediates between the human body and the “subtle forces of the spheres.”305 (In fact, Mies owned a copy of the somewhat forgotten esoteric work Der Raum als Membran written by Ebeling, who was student of Johannes Itten at the Bauhaus and dance student of Rudolf von Laban). Ebeling’s work combined life-philosophical insights with the recognition of technology’s impact. In his book, which is nothing less than an attempt to fundamentally redefine architecture, Ebeling points to the fact that the “cube for living” as imagined by architects fails to take into account the inventions of modern “apparatuses,” of heating systems, electrical light, of “television and telephone.”306 As “unambiguous exponents of the Zeitgeist” he considers these technologies as “technical ‘wonders’” that are completely disinterested in the stylistic character of the architectural space in which they stand. Architectural space, no matter whether classical, baroque or “hyper-dynamic,” only offers a “visual impression,” yet is

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305 Siegfried Ebeling, Der Raum als Membran (Dessau: C. Dünahaupt Verlag, 1926), 19.
306 Ibid., 13.
otherwise reduced to a “trite, insignificant shell.” 307 The existence of technology renders redundant both the idea of architecture as delimitation of space (Semper’s “Raumbegrenzung”) and as space creation or (“Raumgestaltung” as developed by Schmarsow later picked up in thinking of Giedion and Moholy-Nagy). A “strangely vibrant new dimension, which literally shines towards us” 308 has entered the scene and demands a fundamental reconceptualization of architecture: in order to “transvaluate space,” as Ebeling notes with Nietzschean undertones, one had to start from the “the spirit of the apparatuses.” 309 It is the architect’s task to create architecture as a “medium of transition” which sustains the “play of forces” so that the building itself becomes its own “source of energy.” 310

And indeed, there are parallels between Ebeling’s attempt to fuse Lebensphilosophie with technology and G’s programmatic direction. Werner Graeff, who also had been a student at the Bauhaus and might have met Ebeling there, called for a “supra-mechanical New Technology,” this “magnificent technology of tensions, of invisible movements, of remote effects, of energy generation through the active relation of materials.” In this post-mechanical universe the artist would achieve the “spiritual [geistig] basis” through an “intrinsic, even energy generating use of

307 Ibid., 14.
308 Ibid., 14.
309 Ibid., 15.
310 Calling for an understanding of the house as its “eigene Energiequelle” that uses apparatuses and technologies to incorporate the building into the fields of forces that surround it, Ebeling develops an alternative, environmentalist comprehension of the house as machine metaphor. For him the stove pipe and the lightening rod are first manifestations of the physical relations of the exterior space with the “immediate-dynamic functions of the house organism.” Ebeling exhibits an astonishing understanding of architecture’s connection to an economy’s energetic basis (coal). He even mentions the experiments with a “sun power machine” (Sonnenkraftmaschine) as an alternative path for architecture. Ibid., 15-16.
materials.” Art would thus become a “power system that incessantly radiates energy” \(^{311}\) – statements that resonate with Ebeling defining the house as “medium of passage of […] an energy stream.”\(^ {312}\)

What renders Mies’s photomontages eerie is hence not the simulation of a lost aura or the phantasmagorical return of the past, but the becoming conscious of a life-world inaccessible to the empirical eye, a contingent world of waves, flows and currents that is situated outside the epistemological margins of positivist, exact sciences, a world were body and technology once again can innervate. Mies’s images do not represent architectural visions of the past or the future, but attests to the presence of invisible and immaterial processes that have remained submerged under modernity’s “frenzy of the visible.”\(^ {313}\) It is certainly no coincidence that Mies includes in two of the three Friedrichstraße image a bundle of telephone wires that diagonally transects the image. Devoid of volume or corporeality the dangling black lines do not participate neither in the construction of perspectival space, nor do they relate to the visible metropolitan surroundings of signs and advertisements. They stand completely outside the picture. Together with the blurred human figures, and the masking glass towers they indicate an existing life that lies exposed in the veiled appearances.


\(^{312}\) Ebeling, Der Raum als Membran, 38. “Durchgangsmedium eines kontinuierlichen […] Kräftstroms.”

Panorama in the image

Mies’s, possibly conscious, referencing of the shifting media condition is further evinced by the inclusion of nineteenth century panorama building which can be seen in one of the photographs Mies takes of the *Glashochhaus* model. In the background of the carefully composed picture, a cylindrical structure appears partly visible, partly superposed behind the transparent glass tower and Herzog’s clay miniature models of generic Wilhelmian apartment buildings, is clearly visible. [Fig. 47] In 1922, the contemporary observer living in Berlin would have immediately recognized the building as the “Marine Panorama.” [Fig. 48] Constructed in 1893, the landmark rotunda was prominently located in-between the Lehrter Bahnhof and the State Exhibition Hall (*Landesausstellungsgebäude*), also known as the “*Glaspalast*.” The panorama had been a popular site of urban mass entertainment housing a huge circular painting showing the Manhattan skyline from the illusionary point of view of a passenger onboard a ship in the New York harbor. [Fig. 49]

At the time, Mies took the photograph of the *Glashochhaus* from outside the *Glaspalast*, the location where the *Große Berliner Kunstaustellung* was organized and where Mies had put his glass model on display in 1922, the Marine Panorama is no longer in used as a site of visual entertainment. After it was first transformed into the German Colonial Museum in 1899\textsuperscript{314} it subsequently became a shop for wood works. Given the fact that Mies was at the time very

\textsuperscript{314} The intention of the *Deutsche Kolonialmuseum* (1899-1915) was less scientific and more propagandistic and spectacular. The German colonies and their resources were put on show by using the most advanced of display media of the time: photographs, panoramic images and even simulations of an East-African landscape.
concerned with “place-formation” [“Platzbildung”], i.e. with creating contrast relations, the presence of the low panorama edifice in the building is not coincidental. Does Mies possibly invoke the memory of the image of the New York skyline to make a deliberate pun on the ambivalent fascination the American skyscraper exerted on Germany’s post-World War I architectural scene which provided the subtext for the Friedrichstraße competition? Or, given the debates on media technologies amongst the G group, did Mies even try to place his glass high-rise into a genealogical context with older “optical mass media”? Isn’t the panorama a striking example for an architectural object of, as Mies would later put it, “a changed world that wants its own form”?

A precursor to cinema, the panorama’s form is entirely determined by the intended aesthetic effect. The 360 degree painting spanning the inside wall, lacking both frame and pictorial middle-ground, was to mesmerize the visitors with the highly realistic scene presented “à coup d’oeil” [at a glance], as Robert Baker, inventor of the panorama, headlined his patent. This loss of contemplative distance and pictorial delimitation produce a vertiginous thrill of being trapped in what an early nineteenth century observer called as “contradictory dream-


Regarding architectural form, the low and opaque rotunda appears as the complete opposite of the vertical and transparent *Glashochaus*. While the former hermetically seals off from the surrounding, the latter’s openness seems to render the distinction between inside and outside redundant. Yet what they have in common is that they both do not have windows. They both embody a visual regime independent of the framed view. It is precisely this argument that Benjamin makes in the *Passagenwerk* when he relates the window with a false reception of the life-world.

Panoramas, instead of framing views of the city show the true city:

> The true has no windows. Nowhere does the true look out to the universe. And the interest of the panoramas is in seeing the true city. […] What is found within the windowless house is true. […] Hence, also the pleasure taken in those windowless rotundas, the panoramas. […] Those passing through arcades are, in a certain sense, inhabitants of a panorama. The windows of this house open out on them. They can be seen out these windows but cannot themselves look in.\(^{320}\)

The difference between the panorama and the glass tower lies in the fact that while the former accommodates the “dreaming collective” (Benjamin), which temporarily satisfies the

\(^{319}\) Johann August Eberhard (1739–1809) was one of the earliest critics of the panorama. In his *Handbuch der Ästhetik* he describes how inside the panorama, the subject is forced to “look at the dead corps of nature.” Eberhard distinguishes between the panorama from camera obscura: the latter projects a moving image, hence different from art, while the former remains immobile, the reason for its “repulsiveness.” The visitor is conscious of and at the same time incapable of eluding the deceptive simulation of nature: “I sway between reality and unreality, between nature and non-nature, between truth and appearance. My thoughts and my spirits are set in motion, forced to swing from side to side, like going round in circles or being rocked in a boat. I can only explain the dizziness and sickness that befall the unprepared observer of the panorama in this way. […] “I found myself trapped in the net of a contradictory dream-world,… not even comparison with the bodies that surround me can awake me from this terrifying nightmare, which I must go on dreaming against my will.” Johann August Eberhard, *Handbuch der Ästhetik*, second ed. (Halle: 1807), 178-179. Translated in Grau, *Virtual Art: From Illusion to Immersion*, 63-64.

\(^{320}\) Benjamin, *The Arcades Project*, 840.
need to find reassurance in the dizzying simulations of the real “sink[ing] into an ever deeper sleep,” the glass tower awakens the collective by projecting the formerly contained “contradictory life-world” into the metropolitan streets. While the threshold between monadic interior and the outside reality becomes reinforced by the panorama (and later by the conventional movie theater), the glass tower transforms reality into a transient image. After all, Mies writes in 1922 that he was interested in the effect of moving light-plays in the “Straßenbild” [urban image]. What the inhabitant of the glass tower looks at when ‘looking out’ is not a view of the world but the animated world looking at him. Conversely, when looking at the Glashochhaus the viewer does not get an unimpeded view of what happens ‘inside’ the transparent building, but faced with an unpredictable play of light reflections.

This reversal of perspective is fundamental. The Bürohaus or the Friedrichstraße images appear eerie or ghostly because they make the viewer aware of a dimension outside of quantifiable time and space, beyond the analytical and objectifying gaze. While the panorama is a derelict architectural materialization of an alternative perceptual aesthetics, the crystal skyscraper is the harbinger of “new life-forms” to come. When Ludwig Hilberseimer remarks in 1931 that it is impossible to capture the Tugendhat House in photographs, he expresses an insight that is already true of Mies’s images of the early 1920s. In order to get a hold of his images or buildings the viewer needs a ‘cinematic’ gaze. And cinematic is not understood as the 

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321 Ibid., 389.
322 Mies van der Rohe, "Hochhäuser," .
representation of reality in motion but as the reality of a moving presence. We hence enter into a
Bergsonian universe of duration and indivisible flux with the assistance of Deleuze’s re-reading
of Bergson’s own critic of cinematographic perception. The eerie presence of Mies’s architecture
ventilates the very ghostly essence of the cinematic image which, as the pioneer of French
impressionist film Jean Epstein writes, “carries a warning of something monstrous [...] which
could corrupt the entire rational order so painstakingly imagined in the destiny of the
universe.”

“New” as awakening

Habitually, the New is regarded as the signature of the modern. As Habermas noted,
through the incessant process of self-actualization along a linear trajectory, the modern always
“retains a secret link with the classical,” thus allowing the classical to survive unchanged through
the course of history. The idea that the new inevitably is tied to the classical also provides the
interpretative frame for certain Mies scholars who point to the the presence of symmetries and
perspectival views in the architect’s work as evidence for a classicism that confirms Mies’s
modernity. Yet, the idea that progress and innovation is always tied back to the timeless
essence of classicism might just be more of a convenient way for historians to legitimize their
own hidden a priori. Mies himself expressed a general doubt about the dichotomy old versus
new. In 1927-28 he notes: “The battle against the new does not necessarily need to arise out of

326 Jürgen Habermas, "Modernity: An Incomplete Project," The Anti-Aesthetic, ed. Hal Foster
327 See Georgiadis, "Mies' preußische Gefangenschaft," 84-87. See also Amaldi, Espace et densité: Mies van der Rohe, 165.
an attachment to the old.” If the new can be imagined independent of the old one might ask what the new actually meant in his work – especially because it figures in his programmatic statement in the first issue of G (“Alive. Changing. New.”).

For Ernst Bloch the fascination with newness and perpetual becoming during the Weimar years was sustained by the need to escape the horror vacui of disenchanted modern life. It is this reaction that opened up the field for abstraction and the “most treacherous montage of fragments.” The emptying of the visual field through formal abstraction, Dada’s erosion of languages signifying potential, or Constructivism’s biomechanical synchronization of the body with the processes of production, all the avant-garde movements promised liberating renewal through the destruction of what supposedly had caused the disenchantment in the first place. Ultimately, in order to escape this endless circle the avant-garde dreamt, as Jacques Rancière notes, the “end of the image,” or ultimately the end of the need of all mediation.

For the G group the ‘new’ no longer describes the most advanced point on a linear trajectory of historical progress. Neither does it stand in opposition to what is old nor does the

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329 Exemplary for this repeated interpretation of Weimar culture is Ernst Bloch’s essay “Berlin, as Viewed from the Landscape” (1932). Bloch describes Berlin as an “always new city of Hollow Space” [Hohlraumstadt] with an “unstable, probabilistic ground” and a “colonial exhibition character.” Here in this perpetual state of becoming history can never become “alive, not even on the street called Unter den Linden. The military geometry is abstract, ahistorical, and consequently always new.” While a parallel with Mies’s 1923 definition of architecture (“Building art is the spatially apprehended will of the epoch. Alive. Changing. New. Not the yesterday, not the tomorrow, only the today is formable.”) might seem evident, Mies does not equate newness with abstraction and an absence of history. Ernst Bloch, "Berlin, as Viewed from the Landscape," trans. Andrew Joron, Literary Essays (Stanford: Stanford University Press, 1998), 368.

330 Ibid., 371.

331 Rancière, Le destin des images, 27.
new erasure what existed before. Werner Graeff declares in the first issue of G that “the new engineer does not re-design [gestaltet um] – he designs anew [gestaltet neu], i.e. he does not improve but fulfills every demand in an absolutely elementary fashion.”332 Mies expressed precisely the same idea when at the occasion of the 1923 Bauhaus exhibition he justifies to Gropius his rejection of “every kind of formalism” with the fact that he tried to find architectural solutions “based on the nature of the task” [aus dem Wesen der Aufgabe heraus].333 Instead, the idea of the ‘new’ as understood by Mies, Richter and Graeff denotes the attempt to recuperate the material, bodily and contingent dimension of mediation that lies beyond questions of signification or representation. The ‘new’ is thus synonymous with maintaining and updating the image’s capacity to mediate by yielding unpredictable and contingent constellations.

Mies’s urban montages of the early 1920s confront the viewer with ruins, derelict spaces, both architectural and perceptual. The allusion to perspectival space and identifiable Gründerzeit architectural forms are remnants of a bygone era that have become obsolete under the new technological paradigm. Nonetheless they continue to exert its symbolic meaning stored in the memory of the observer and the material reality of the city. When Mies speaks of an architecture that is “new” he anticipates the dictum expressed by Moholy-Nagy in Malerei, Photographie, Film in 1925: “The creative potential of the new is for the most part slowly revealed through old forms, old instruments and areas of design which in their essence have already been superseded by the new, but which under pressure from the new as it takes shape are driven to a euphoric

332 “Der neue Ingenieur gestaltet nicht um – er gestaltet neu, d.h. er verbessert nicht, sondern er erfüllt jede Forderung absolut elementar.” Werner Graeff, "Es kommt der neue Ingenieur,” G: Material zur elementaren Gestaltung, no. 1 (1923), 4.

efflorescence.” In his reflections on the aesthetics of film, also published in 1925, Karel Teige argues that modern vision is not about simply capturing an image of the world. Rather, modern vision “thinks and feels” and develops “the play of inherited conceptions, memories.” In other words, the new never simply replaces what existed before. When a new medium is introduced into a given field, a “remediation” with existing media takes place. This refashioning of existing representations and signification always occurs within a cultural context. The new is hence never ‘completely new’ since it always co-exists with residues of the old creating constellations of different temporalities.

When Mies calls for an architecture that is “new” he does so in the awareness that all proclamations of the victory of Neues Bauen are premature. Even by the late twenties a genuinely new architecture was far from being a reality. “We can only talk of a new building art,” Mies notes in preparation probably for a lecture held at the Werkbund exhibition in Stuttgart in 1927, “when new life forms have been formed.” And even by the late nineteen-twenties

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334 Moholy-Nagy, Malerei, Photographie, Film, 21. Moholy-Nagy cites Futurist painting as an example for having “defined the problematic of the simultaneity of motion, the representation of the instant, which was later to destroy it – and this at a time when film was already known but far from being understood […].” Not surprisingly it is Benjamin who cites this passage in his Little History of Photography.


337 Mies van der Rohe, “Notes” (1927/28), in Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, 269. It is likely that the notes Mies writes down in 1927/28 were made in preparation for the opening speech of the Werkbund exhibition in Stuttgart. In his review Siegfried Kracauer cites Mies who speaks about rationalization in architecture merely being a means to an end. This end should be to arrive at “the display of new forms of life.” [“Die Frage, was die heute von einer internationalen Vorhut der Architekten vollzogene Wendung bedeutet, wird nicht auszuweichen sein; so wenig auch gerade solchen Anfängen gegenüber abschlußhafte Formulierungen statthaft sind. Rationalisierung und Typisierung sagte Mies van der Rohe in
these new life forms were not yet present. Because it is not the role of the artist or architect to create these new worlds, to define “new directions,” as Richter and Graeff claim in their programmatic editorial of the journal’s first issue, what is left to do is to first and foremost try to “theoretically and practically grapple with what elementary Gestaltung” means.\textsuperscript{338} The task of the artist or architect was not to imagine how a future built environment might look like but to anticipate the emergence of “new life and abundance” and to “create connections, to broaden and organize the means of creation [Mittel des Gestaltens].”\textsuperscript{339} In other words, G saw itself as a laboratory for speculative, open-ended research devoid of any predetermined social or political agendas.

Mies’s montages are highly contradictory in the sense that despite being still images that intimate coherent spatial relations within a single frame, and thereby imply linear historical progress (from the dark Gründerzeit buildings to the concrete office building or the radiant glass monolith), they nonetheless invoke an uncanny dimension that subverts the analytical eye and perturbs the construction of a linear history. Benjamin proposes the idea of “awakening” as an alternative to the gradual logic of becoming: the New is no longer the most recent actualization in a linear development but an irruption of the consciousness of “today’s life, today’s forms in the life and in the apparently secondary, lost forms of that epoch.”\textsuperscript{340} It is in the dusty corridors of the Parisian arcades, amongst derelict objects, transient displays, and kaleidoscopic distractions, that Benjamin finds the locus where the trajectory of progressive historical time is

\textsuperscript{338} Richter and Graeff, "Ewige Wahrheiten," 1.
\textsuperscript{339} Ibid., 1.
\textsuperscript{340} Benjamin, The Arcades Project, 838.
broken. The ‘continuity of history,’ connecting the past with the present, is replaced with a
dialectical, erratic constellation between “what has been” and the “now.” In the Passagen “the
not-yet-conscious knowledge of what has been”\textsuperscript{341} is awakened, bringing alive a historical object
that had been waiting for a moment capable of receiving it. Once this moment arrives, the
dialectical image,\textsuperscript{342} as Benjamin puts it, “emerges suddenly, in a flash”\textsuperscript{343} and “explodes the
homogeneity of the epoch, interspersing it with ruins – that is, with the present.”\textsuperscript{344}

Just like Benjamin conceived of the Arcades Project as “an experiment in the technique of
awakening,”\textsuperscript{345} the entire G project was an attempt to discover in modern technology – especially
in architecture and cinema – new media of remembrance. “Wake up finally!!!” Richter demands
in the editorial of G’s last issue. Mies’s implementation of Bürohaus and the glass skyscrapers
into the historical image-space of Berlin produces precisely this effect: they “explode” and turn
into ruins not only the traditional facades but also the perspectival regime of vision that sustained
the old architectural paradigm. The buildings Mies inserts into the image are hence less a vision
of the future and rather the materialized moments of awakening, the coming-alive of an
‘architectural unconscious’ that had lain dormant all along. Like Benjamin’s dialectical image,
Mies’s photomontages and renderings are neither descriptive nor pictorial, neither to be grasped

\textsuperscript{341} Ibid., 458.
\textsuperscript{342} Benjamin defines the dialectical image as follows: “It is not that what is past casts its light on
what is present, or what is present its light on what is past; rather, image is that wherein what has
been comes together in a flash with the now to form a constellation. In other words: image is
dialectics at a standstill. For while the relation of the present to the past is purely temporal, the
relation of what-has-been to the now is dialectical: not temporal in nature but figural ‘bildlich.’
Only the image that is read – which is to say, the image in the now of its recognizability – bears
to the highest degree the imprint of the perilous critical moment on which all reading is
founded.” Ibid., 463.
\textsuperscript{343} Ibid., 473.
\textsuperscript{344} Ibid., 474.
\textsuperscript{345} Ibid., 388.
by formal analysis nor by analogy. At once blinding and captivating, dream-image and phantasmagoria, his images visualize, in an overlap of novelty and repetition, a temporal constellation that prepares the modern subject, as Ebeling put it in Der Raum als Membran, for “an inner leap into the Ur-zone of Gestaltung.”346

When we look at Mies’s images or watch the abstract films of Richter and Eggeling we not look through an imaginary window or into a mirror of the real. What we see are not objects in space but entities made of time. At one moment in the Arcades Project Benjamin cites a phrase from Ferdinand Lion’s Geschichte biologisch gesehen (1935) where Lion uses the expression “mountain of time [Zeitenberg]”347 to describe the experience of houses in a city. The visibility of Mies’s dream-like glass tower is not due to its appearance in space but because it is charged with time. What Mies calls “Alive. Changing. New” is thus the visible potential for an unmediated awakening of the experience of time.

346 Ebeling, Der Raum als Membran, 20.
347 “The most heterogeneous temporal elements thus coexist in the city. If we step form an eighteenth-century house into one from the sixteenth century, we tumble down the slope of time. Right next door stands a Gothic church, and we sink to the depths. A few steps farther, we are in a street from out of the early years of Bismarck's rule […], and once again climbing the mountain of time. Whoever sets foot in a city feels caught up as in a web of dreams, where the most remote past is linked to the events of today. One house allies with another, no matter what period they come from, and a street is born.” Ferdinand Lion: Geschichte biologisch gesehen cited by Benjamin, The Arcades Project, 435.
IV. Richter, Eggeling, Mies: Spielräume of Modernity

We have to become master of the unleashed forces and build them into a new order, an order that allows for room-for-play [Spielraum] for the unfolding of life.¹

Mies van der Rohe

Immersion and Innervation: The Animated Light-Space at Hellerau

Amongst historians of architecture it was Manfredo Tafuri who first invoked an affinity between the architecture of Mies and modern stage design. In “The Stage as ‘Virtual City’: From Fuchs to the Totaltheater” Tafuri argues that “the theatre dreamed of” by the stage designer Adolphe Appia (1862-1928) “for a community that needs no theatre to realize itself” shares “profound similarities” with Mies’s Barcelona Pavilion: “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 the spectacle that is really ‘total’ 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 that he must attempt daily.”²

Tafuri interprets Mies’s architecture not only as a blind spot amidst the urban maelstrom of exhausted signs and “pure ‘data’” but, what is more, as a constructive medium that opens up a new dimension beyond the limitations of the sign. The space both Appia and Mies invoke attests

¹ “Der entfesselten Kräfte müssen wir Herr werden und sie in eine neue Ordnung bauen, und zwar in eine Ordnung, die dem Leben freien Spielraum zu seiner Entfaltung läßt.” Mies van der Rohe, "Die Voraussetzungen baukünstlerischen Schaffens [1928]," in Neumeyer, Mies van der Rohe: Das kunstlose Wort, 365. Jarzombek’s translation loses the sense of “Spielraum”: “We have to become master of the unleashed forces and built them into a new order, an order that permits free play for the unfolding of life. Yes, but an order also that is related to mankind.” See “The Preconditions of Architectural Work,” lecture held in February 1928, in Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, 301.

² Tafuri, "The Stage as 'Virtual City': From Fuchs to the Totaltheater," 111.
to an alternative modernity that exposes and steps beyond the “sorcery” of the avant-gardes, as Tafuri puts it, which all along were sustained by, as T.J. Clark puts it, an “immense, unstoppable relish at putting the means of illusionism through their paces.” In Mies’s *Repräsentationspavillon*, (as it was ironically called) the visitor is relieved of the futile quest of deciphering the cacophonous world of emptied signs yet is obliged to engage with the dimension that lies beyond the realm of representations and illusions. The absence Tafuri detects hence summons the visitor to become a dancer, to generate a new space, new virtualities, and to, as he argues, “give life to a language composed of empty and isolated signifier[s]” through the interplay of moving bodies and lights.

As compelling as Tafuri’s argument might appear, it remains unsubstantiated from both historical and theoretical points of view. This is precisely the objective of the following chapter: I want to demonstrate that Tafuri’s interpretation can be sustained by the fact that there actually existed connections between Mies and the world of modern theater and dance. The site where Appia might have come closest to concretizing his visions for theatrical space was the so-called *Festsaal*, the main performance space of Émile Jaques-Dalcroze’s Eurhythmics Institute at Hellerau. As the centerpiece of the famous urban-scale life-reform project conceived by the owner of the Dresdner Werkstätten Karl Schmidt and economist Wolf Dohrn and, the *Festsaal* embodied what contemporary critics hailed as the “laboratory of a new humanity” and “the cradle of something new, a new way of life.” During the early 1910s, Germany’s first garden city became the manifestation of a successful union of a nascent anti-intellectual *Körperkultur*

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5 Paul Barchan, "Abschied auf Hellerau," *Berliner Tageblatt* (1912).
[culture of the body] with rational-scientific methods for the organization of life and labour.

During a very brief period, this urban-scale attempt to create a new “Zukunftsmensch” attracted countless artists, writers, and architects from all over to come to Hellerau; amongst them the architects Peter Behrens, Le Corbusier, and Henry van der Velde, scholars Heinrich Wölfflin and Wilhelm Worringer, writers Franz Kafka and Rainer Maria Rilke, or future Dadaists such as Kurt Schwitters, Hugo Ball, Johannes Baader and Raoul Haussmann.6

Mies’s name is missing from this list. Yet, it is safe to assume that Mies was much more intimately acquainted with the Hellerau experiment than many of the figures mentioned above. Between 1910 and 1912, Mies frequently came to Hellerau to visit his future wife Ada Bruhn who belonged to the very first group of students at Jaques-Dalcroze’s institute. The fact that Mies scholarship has so far treated the Hellerau episode as an ancillary detail that was not pursued more thoroughly can certainly be explained with the scarcity of archival documents and the absence of personal comments from Mies regarding this period of his life.7 Still, thanks to an interview Mary Wigman gave in 1972, we know unmistakably that Mies frequently came down


7 Some authors mention the connection to Hellerau. Berry Bergdoll, for example, has argued that the garden of the Werner House (1912-13) recalls “both Schinkel’s staging of a portico and trellis in the landscape at the Charlottenhof and Adolphe Appia’s contemporary stage designs for Heinrich Tessenow’s Festsaal at Hellerau.” Detlef Mertins argues that Mies’s visits to Hellerau could have familiarized him with the discourses on rhythm which would later resurface in the writings of the avant-garde. Nonetheless, it is surprising that Mies’s connection to Hellerau and its discourses relating to modern stage design and modern dance, Lebensreform and eurhythmics have not prompted further research. See Barry Bergdoll, "The Nature of Mies's Space," Mies in Berlin, eds. Barry Bergdoll and Terence Riley (New York: Museum of Modern Art, 2001), 78. Mertins, "Architectures of Becoming: Mies van der Rohe and the Avant-Garde."
to Hellerau from Berlin where, at the time, he worked at Behrens’s office. It could be argued that his presence at Hellerau and, in particular, the experience of the Festsaal, whose design was significantly influenced by Appia, left a crucial impact on Mies. It was during this formative period that the outline for a completely novel conception of architecture emerged, a new “room-for-play” (Spielraum), to use a term repeatedly employed by Benjamin, started to emerge for Mies. Hellerau’s philosophical and aesthetic foundations as well as its architectural spaces, offered Mies first glimpses into alternative attitude towards technology, and provided the aspiring young architect with the conceptual framework to re-think the fundamental tenets of time and space, subject and object – the very same themes that would later sustain the G project, the films of Richter and Eggeling, and, Mies’s own architectural designs.

*Rhythm and light architecture: Mies at Hellerau*

According to Wigman, Mies regularly came to Hellerau to visit his future wife Bruhn, who together with Wigman was part of the first group of dance students to enroll in late 1910 in Jaques-Dalcroze’s newly opened Bildungsanstalt für rhythmische Erziehung. Bruhn and Wigman shared one of the recently completed row houses situated at “Am grünen Zipfel.” Mies’s relationship with the daughter of a wealthy Berlin industrialist allowed him to gain access to Berlin’s cultured and wealthy establishment. Young Mies, who came from a modest social background and lacked formal or university education, might have found the vibrant artistic and

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intellectual environment of Hellerau in the early 1910s to be more inspiring than the staid bourgeois social life at the Riehls.\(^\text{10}\)

Hellerau provided Mies with an intellectual environment that would leave its mark. We do not know if Mies actually met any of the famous writers, artists and architecture who came to Hellerau. What is for certain, however, is that Mies was part of a group of friends who regularly met at “Am grünen Zipfel” where he became acquainted with Bruhn’s roommates Wigman and Erna Hoffmann, the art historian Hans Prinzhorn (Hoffmann’s future husband who would later become a specialist for the art of the mentally ill) as well as the painter Emil Nolde.\(^\text{11}\)

There were numerous aspects of Hellerau that were likely to have attracted Mies’s attention. As a young architect, he undoubtedly must have been interested in the life-reformatory Gesamtkunstwerk Hellerau where well-known architects such as Heinrich Tessenow, Hermann Muthesius, Richard Riemerschmid, and Theodor Fischer participated in the attempt to reconcile economic, pedagogical and architectural concerns.\(^\text{12}\)

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11 See also the list of students printed in the first issue of Der Rhythmus in 1911. Amongst the list of 115 students we find the names of Ada Bruhn, Erna Hoffmann and Marie Wiegmann, later Mary Wigman, inscribed as first-year students. In addition, we find the name of of Le Corbusier’s brother Albert Jeanneret who since 1905 had been a disciple of Jaques-Dalcroze Jeanneret. At Hellerau he belonged to the teaching staff after finishing his dance education. In 1920, Albert established a dance school in Paris based on the pedagogy of his teacher. He also writes on the Swiss innovator of modern dance in L’Esprit Nouveau. See Albert Jeanneret, "La Rythmique," L’Esprit nouveau, no. 2 and 3 (1920).

12 Founded in 1908 by owner of the Dresdner Werkstätten Karl Schmidt and the philologist and economist Wolf Dohrn, Hellerau distinctly differed from the original garden city model described by Ebenezer Howard in his 1898 work Garden Cities of Tomorrow (translated into German in 1907). Though Howard had placed the emphasis on social and political questions, Hellerau was conceived as a veritable life-reformatory Gesamtkunstwerk that integrated economic, pedagogical and architectural concerns. On Hellerau see Klaus-Peter Arnold, Vom Sofakissen zum Städtebau: Die Geschichte der Deutschen Werkstätten und der Gartenstadt Hellerau (Dresden: Verlag der Kunst, 1993), 329-361. Marco De Michelis, "Gesamtkunstwerk Hellerau," Entwurf zur Moderne. Hellerau: Stand Ort Bestimmung, ed. Werner Durth (Stuttgart:
Bruno Paul in 1907, at a time when the latter had been a colleague and collaborator with Riemerschmid, makes it likely that Mies, even before coming to Hellerau, was aware of the architectural debates surrounding the garden city movement. In fact, in 1910, Mies participated in a trip, organized by the Deutsche Gartenstadtgesellschaft to visit the German garden city exhibition in London prior to Hellerau.13

As a reform laboratory of an alternative modernity, Hellerau was to counteract the alienation produced by industrial modernity that threatened to “irretrievably proletarianize and anarchically degenerate” (Dohrn) the masses.14 The key for averting the threat of a revolutionary situation was the schooling of the human body’s rhythmic movements and expressions. From the outset the blending of body and architecture was to play a crucial role for this “reactionary-progressive” project.15 The construction of a central edifice called the “Haus” was to allow for the “interpenetration”16 of different programs and scales. Architecture become an indeterminate

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13 Schulze, Mies van der Rohe - A Critical Biography, 41. In a 1910 letter to Adalbert Colsman, Mies writes that another member of the tour group was Karl-Ernst Osthaus, an important patron of the reform architecture movement in Germany. Osthaus was also present in Hellerau in 1912 to see the Orfeus and Eurydice performance.


space where the dissolution of the boundaries between stage and audience, work and life, spirit and body could be performed raising the new human being to a higher spiritual level.17

What connected the holistic Lebensreform project was the notion of rhythm. During the early years of the twentieth century rhythm had become extremely popular in vitalist and biologic discourses. Philosophers like Friedrich Nietzsche, Ludwig Klages or Rudolf Bode identified rhythm as a founding principle of both life and culture that stood in radical opposition to the Enlightenment tradition.18 It was seen as an original vital force which, once deployed properly in education, could become an all-encompassing remedy to cure the ills of civilization and industrialization. At Hellerau, it was the anthropological conception of rhythm developed by the economist Karl Bücher (1847-1930) in his widely read book Arbeit und Rhythmus (1896) that had been the crucial influence on Dohrn. Bücher describes rhythm as an aesthetic-economic principle that directly correlates bodily movement with the production of goods. He regards rhythm as the underlying organic characteristic of all human life. Not only is rhythm a source of physical pleasure, a means that helps to ease the effort of work, but Bücher regards rhythm as a democratizing force that renders art accessible to all human beings “regardless of their schooling.”19 Contrary to ancient Greece, where rhythm was a pillar of society that structured

17 Dohrn cites Theodor Fischer and his indeterminate definition of a Haus which would not be there “for the dwelling of individuals or families but for all, not for learning and becoming intelligent but for becoming happy, not for the worship according to whatever creed but for devotion and inner experience. Thus no school, no museum, no church, no concert hall, no auditorium! Yet from all this still something and, in addition, still something else.” Fischer cited in Dohrn, Die Gartenstadt Hellerau, 27.

18 On the role of rhythm in Germany around the turn of century see Oliver Hanse, "Rythme et Civilisation dans la pensée allemand autour de 1900," Dissertation, Université Rennes 2, 2007..

19 Karl Bücher, Arbeit und Rhythmus, 2nd ed. (Leipzig: Teubner, 1899), 359. During the late nineteenth century rhythm had become a central question in psychological research in Germany and America: Bolton (1894) investigated involuntary movements which accompany the perception of rhythm; Meumann (1894) recognized that movement plays primordial role in the
political, religious and artistic life, modern industrialized societies struggled with the “de-rhythmization” of life, as Dohrn put it,\(^ {20}\) caused by the division of labor and the substitution of manual work by machines. The solution to this problem was not to fight the advances of technology. On the contrary, Bücher believed that “technology and art will come together in a higher rhythmic unity”\(^ {21}\) leading to a condition in which “labor, play, and art” become indistinguishable once again.\(^ {22}\)

What Bücher had developed as an anthropological theory, the Swiss composer, dance pedagogue, and inventor of eurhythmics Émile Jaques-Dalcroze promised to transform into bodily practice. Eager to disseminate his dance-pedagogical ideas throughout Europe and convinced by Hellerau’s potential, Jaques-Dalcroze followed the offer of Schmidt and Dohrn to move his *Bildungsanstalt für rhythmische Erziehung* to the outskirts of Dresden: “In Berlin or any other large city I would create a music school,” Jaques-Dalcroze notes, “in Hellerau raise rhythm to the height of a social institution.”\(^ {23}\) As a critic remarked at the time after seeing the famous performance of Gluck’s *Orpheus*, Jaques-Dalcroze went beyond Max Reinhardt’s exclusive appeal to the mass audience and instead, very much in accordance with the anti-revolutionary spirit of the reform movement, “educates every single individual to become

\[^{20}\] Wolf Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," *Der Rhythmus*, no. 1 (1911), 5.


\[^{22}\] Ibid., 357.

autonomous and to become aware of his freedom notwithstanding his integration into the whole.\textsuperscript{24} In his quest to reform the social body through eurhythmics, i.e. to return the modern, atomized individual to an authentic popular experience of community untainted by the forces of modernity,\textsuperscript{25} Jaques-Dalcroze evokes both ancient Greek theater with its unity of orchestral music, dance, and poetry as well as preconscious and preverbal rituals.

However, it would be misleading to regard Hellerau as a defensive impulse against rational and scientific modernity.\textsuperscript{26} On the contrary: the sciences and their impact on the mind served as models to be emulated for areas of human activity that had remain neglected: “man’s senses and the feelings, together with the schooling of the will, are to be cultivated to the same height to which the sciences have schooled our mind.”\textsuperscript{27} Rhythm, as an a priori fact of life, lies submerged and needs to be re-discovered as a “psychic natural power”\textsuperscript{28} that could also be exploited like one can exploit the “tension energy of steam or of electricity,” as Dohrn writes in 1911.\textsuperscript{29} Hellerau was consequently not regarded as a regressive reaction to the consequences of modernization, but rather the attempt to correct what was seen as a one-sided development that had failed to exploit the dormant potential of the body.

\textsuperscript{24} August Horneffer, "Jaques-Dalcroze in Hellerau," \textit{Die Tat} 4, no. 3 (1912), 127.

\textsuperscript{25} On the issue of rhythm as a modern ideology see Inge Baxmann, \textit{Mythos: Gemeinschaft: Körper- und Tanzkulturen in der Moderne} (München: Fink, 2000).

\textsuperscript{26} Paul Claudel writes in reaction to witnessing \textit{Orpheus und Eurydike}: “Never I experience such a unity of music, bodies, and light. The first time since the time of the Greeks there exists a true beauty of theatre again.” Claudel cited in Angelika Jakobs, "Kreuzwege der Moderne in Hellerau. Anmerkungen zu Rilke und Claudel," \textit{Études Germaniques} 62, no. 1 (2007), 91.

\textsuperscript{27} Émile Jaques-Dalcroze, \textit{Die Bildungsanstalt für Musik und Rhythmus E. Jaques-Dalcroze in Dresden-Hellerau} (Jena: Diederichs, 1910).

\textsuperscript{28} Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," 12.

\textsuperscript{29} Ibid., 12.
Rhythm was not only the key to unlocking this unused potential of the body, but also a means for finally overcoming the antinomies that had dominated modern thought for the longest time (mind versus body, subject versus object, space versus time etc.) "Embodied rhythm will inevitably present a beautiful spectacle," Jaques-Dalcroze writes. "The music in use gains Gestalt, it forms our bodies. What used to be temporal becomes corporal, what used to have sound and sequence becomes image and movement." 30 What he calls Gestalt is hence synonymous to a new conception of form ‘made of’ time and movement, a form that no longer has a stable shape or substance. 31 As Émile Benveniste points out in his etymological analysis, rhythm is to be understood as “form in the moment of its realization through what changes, moves, and flows […] It is form that is improvised, momentous, changeable." 32 In other words, rhythm allows for the production of temporal form.

Meeting Prinzhorn

In 1911 and 1912 Mies became part of the group who lived and met at his future wife’s residence Am grünen Zipfel Here he meets two figures with whom he would form life-long friendships: the art historian Hans Prinzhorn (who at the time of their first meeting had not yet become widely known for the pioneering research he would undertake during the 1920s on the relation between art and mental illness) and the dancer Mary Wigman, who would later,

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30 Émile Jaques-Dalcroze, "Was rhythmische Gymnastik Ihnen gibt und was sie von Ihnen fordert," Der Rhythmus, no. 1 (1911), 46.
32 Émile Benveniste has demonstrated that rhythm’s lack of definitional clarity has to do with the fact that the Platonic temporal signification of rhythm as “flowing” was antedated by the term ruthmos which originally had been associated with skema [form]. Ruthmos is neither fixed form nor movement but the suspension of flow and the freezing of movement. Émile Benveniste, Problèmes de linguistique générale (Paris: Gallimard, 1996), 333.
especially through her association with Rudolf von Laban, revolutionize modern dance. In 1910-1911, both Mies and Prinzhorn went to Hellerau for the same reason: to visit their future wives. Ada Bruhn and Erna Hoffmann were both housemates and fellow dance students of Jaques-Dalcroze. It is not clear whether Mies and Prinzhorn first met at Hellerau. At the same time that Mies works on his very first commission, the private residence for the Neo-Kantian philosopher Aloïs Riehl in Neubabelsberg (1907), Prinzhorn completes his dissertation on the subject of Gottfried Semper’s aesthetics (1908), with Theodor Lipps as one of his readers. Hellerau marks the beginning of a private friendship between the couples Mies/Bruhn and Prinzhorn/Hoffmann. Even after both couples separate in 1921, Mies and Prinzhorn remain in contact. Shortly after the publication of Bildnerei der Geisteskranken: ein Beitrag zur Psychologie und Psychopathologie der Gestaltung in 1922 Prinzhorn authors an article entitled “Gestaltung und Gesundheit” in the third issue of G. Famously, the article opens with the salutation “Lieber M.v.d.R.,” which is evidence that the article had been directly requested by Mies. In 1925, Prinzhorn unsuccessfully tries to convince Mies to contribute a volume on the subject of architecture to an “encyclopedia

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33 See Neumeyer, "Mies’s First Project: Revisiting the Atmosphere at Klösterli." Ada Bruhn, who was on friendly terms with the Riehl children, met Mies at one of the gatherings. She had not been the only amongst those close to the Riehls who had taken an interest in Eurhythmics. Amongst the list of adult students taking courses at Jaques-Dalcroze’s school in Berlin we find the names of Wolfgang Bruhn (probably Ada’s brother who was an art historian) and Eva Prinzhorn (possibly Hans Prinzhorn’s sister). It is therefore likely that Jaques-Dalcroze’s eurhythmics experiments had already been a subject of discussion at Riehl House.


35 Hans Prinzhorn, "Gestaltung und Gesundheit," G: Zeitschrift für elementare Gestaltung, no. 3 (1924), 52. The article is written in a pronounced personal style. “Dear M.v.d.R! Complying to your request to tell you what aspect of my studies on the “painting of the mentally ill” could be of interest for you, I can only reply to in an incomplete fashion.”

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of living knowledge” edited by Prinzhorn. Prinzhorn considers Mies (who had a horror of writing) as the author to write on architecture for a series of volumes entitled *Das Weltbild* [the World-Image] which all were to deal with dynamic and evolutionary life processes. An invitation in 1932, after Mies had become director of the Bauhaus, to Prinzhorn to give a lecture entitled “Trieb und Wille im künstlerischen Schaffen” [Instinct and Will in Artistic Creation] shows the longevity of their relationship.

At the time when Mies and Prinzhorn first met, the latter had not yet become the renowned specialist on questions of psychological disorders and art. Prinzhorn had just finished his dissertation on Semper’s aesthetics which contained ideas that certainly resonated with many of the central issues in the intellectual environment of Hellerau. In addition, one could be argued that Prinzhorn acted as an intermediary for Mies. He would have been able to contextualize and transcribe the artistic and philosophical innovations Hellerau introduced. Certain conclusions Prinzhorn draws from his reading of Semper seem to forestall some of the fundamental tenets of

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37 In 1925, Prinzhorn planned to publish an “encyclopedia of living knowledge” and unsuccessfully tried to convince Mies to contribute a volume on the subject of architecture. The other works Prinzhorn wanted to include were *Formen und Kräfte in der lebendigen Natur* by the anatomist Martin Heidenheim, *Vortäge und Aufsätze über Entwicklungsmechanik der Organismen* by the experimental biologist Wilhelm Roux, and Henri Bergson, *Schöpferische Entwicklung*. See letter from Prinzhorn to Mies, September 4, 1926, Ibid.

Mies’s architectural thinking as it became apparent during the 1920s. Not only does Prinzhorn emphasize Semper’s opposition to all formalism and aestheticism, he also stresses the idea of architecture as an autonomous form of knowledge that resists being “scientifically analyzed.”

And although architecture allows the subject to reconnect with “higher general life,” it has no utopian vocation and hence is able to trigger social or political change. According to Prinzhorn, only after “a reorganization of society” can a new art emerge.

Prinzhorn places a particular emphasis on Semper’s notion of “eurhythmy.” Invoking the Vitruvian concept of *eurythmia*, Prinzhorn defines *eurhythmics* as a “regular sequence of equal parts around a center to which all elements relate.” What distinguishes Prinzhorn’s from the classical definition is the changed role of the subject: the eurhythmic figure “produces an enclosed entity as the center of order and only relates to this entity, not to the spectator, who, in

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40 Ibid., 7.

41 Ibid., 3.


43 Prinzhorn, "Gottfried Sempers Aesthetische Grundanschauungen.", 42. Werner Oechslin has commented on the reception history of Vitruvius’s distinction between the terms “eurhythmy” (“beauty and fitness in the adjustments of its members […] when they correspond symmetrically.”) and “symmetry (“a proper agreement between the members of the work itself, and relation between the different parts and the whole general scheme, in accordance with a certain part selected as standard.”)). Oechslin sees eurhythmics as an aesthetic category that relates to appearance, while he relates symmetry to the parts of an architectural object. Werner Oechslin, "Symmetry - Eurythmy or : 'Is Symmetry Beautiful'," *Daidalos*, no. 15 (1985), 16-19.
order to see, is forced to move into the center.” 44 The subject thus no longer occupies the center of the world but has to move and change his position in order to interact with the dynamic eurhythmic figure that exists independent of the subject’s gaze or will. In other words, Prinzhorn activates the concept of eurhythmics to overcome both a Cartesian subject-object dualism and his mentor Theodor Lipp’s idealist aesthetics of Einfühlung.

In this new eurhythmic universe the mode of interaction has changed. Space is no longer an empty receptacle capable of containing projects, images, and ideas produced by the subject but rather an environment in which the persistent “free will of the creative human spirit” engages with the surrounding forces. 45 And while Prinzhorn recognizes that the subject is neither the center nor the originator of the universe, he does not altogether abandon the possibility of human agency for the shaping of objects and events. “The free will must accept the higher laws of traditions, needs and necessity,” Prinzhorn writes, “but he utilizes them for himself through free and objective perception and use.” 46

This shift from a static Cartesian subject/object dualism to a constellation, in which the subject is still active, albeit part of a dynamic environment of animate forces, does not render the central terms of humanist aesthetics redundant. What has changed is the signification of these terms. Centrality, for instance, still exists in Prinzhorn’s thinking, but it has been set in motion and can no longer be captured by a spectator from a fixed point of view. Symmetry, in the conventional sense as the exact correspondence of form on opposite sides of a central axis,

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44 Prinzhorn, "Gottfried Sempers Aesthetische Grundanschauungen.", 42. “Die eurhythmische Figur führt auf das Eingeschlossene als den Mittelpunkt der Ordnung hin, bezieht sich nur auf dieses und nicht auf den Beschauer, der sich vielmehr bei der Betrachtung in das Zentrum versetzen muß.“


46 Ibid., 59.
becomes defined as “a fraction of a eurhythmic whole,”\(^{47}\) i.e. a correspondence that becomes visible only when in motion. Proportion is no longer defined as the harmonious relation of parts within a predefined whole but as a “proportional development” which is “the result of the conflict between the striving towards independence (centrifugal) and the dependence on central points (centripetal).”\(^{48}\) Tessenow’s often misunderstood classicism (one only has to think of Riemerschid’s criticism of the Festspielhaus’s symmetry) is based on a dynamic idea of symmetry. In 1916, he describes the effect of a symmetrical composition from the perspective of a spectator: “If we side-step the demands of the axis slightly, and propose new images to the side of the axis,[…] then our interest in the axis remains alive, but it is divided into interest in the axis, and interest in the new elements in the image, with the effect that our eyes will oscillate, so to speak, between the axis and the new elements, so that the overall plane is set in motion and becomes alive.”\(^{49}\)

\(^{47}\) Ibid., 42.

\(^{48}\) Ibid., 43. Prinzhorn argues that Eurhythmics eliminates all vertical proportions and symmetries. Interestingly, this argument matches Robin Evans’s reading of the Barcelona pavilion. See Evans, ”Mies van der Rohe’s Paradoxical Symmetries,”

\(^{49}\) Heinrich Tessenow, Hausbau und dergleichen (Berlin: Cassirer, 1916). Translated as Heinrich Tessenow, "Housebuilding and such Things," 9H - On Rigor, eds. Richard Burdett and Wilfried Wang (Cambridge, Mass.: 9 H Publications, 1989), 20. Tessenow appeared to have been in complete agreement with Jaques-Dalcroze’s understanding of dance. Dalcroze writes in a letter: “Moreover, to my greatest satisfaction I realize that Tessenow has also completely understood my moral and artistic goals. In its simplicity and harmony, the style of his buildings matches the style of the rhythmic movement of the body, which is enormously necessary for this particular way of designing space [Raumgestaltung]. The participation of space is indispensable for the art that I want to revitalize; this participation, I have to emphasize, does not take anything away from its freedom and originality.” See Jacques-Dalcroze quoted in Arnold, Vom Sofakissen zum Städtebau: Die Geschichte der Deutschen Werkstätten und der Gartenstadt Hellerau, 354.
Mary Wigman, who is considered as one of “the most significant German dancers and choreographers of the 1920s,” is the second important figure Mies meets at Am grünen Zipfel. It is Wigman who in an interview with Werner Glaser recalls Mies’s visits to Hellerau. A life-long acquaintance of Mies, Wigman’s role merits closer attention especially because certain innovations she brought to the field of dance involved the rethinking of the conception of space. If it was Ada Bruhn who initially introduced Mies to the world of dance, it might have been Wigman’s questioning of Jaques-Dalcroze’s method and her interest in the interaction between body and space which resonated with Mies. Mies’s encounter with Wigman at Hellerau was the beginning of a friendship that endured throughout the 1920s and even after his emigration to the US.

Originally a student of Dalcroze, Wigman soon took her distance from her teacher’s dance philosophy. In particular, she was critical of Dalcroze’s privileging of the musical score to which both the dancing body and the surrounding space had to comply. Contrary to Dalcroze’s eurhythmics, which was based on a strictly enforced vocabulary of clearly codified, non-spontaneous, endlessly repeated gestures and movements, Wigman, from 1913 onwards, began to integrate the spontaneous impulses and uncontrolled expressions of a body freed from music. While Dalcroze’s dance spectacle at Hellerau resulted in a Gesamtkunstwerk that subordinated the individual body to an ecstatic collective body, Wigman places the individual back onstage. Yet, through her choreography of the body’s movement and the costume design she obscures the subjective identity of the body. [Fig. 50] Confronted with a “Gestalt im Raum” [a figure in

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51 In the interview Wigman gave to Glaser in 1972 she recalled that at numerous occasions she and her dance group would stay overnight at Mies’s studio/apartment at Am Karlsbad 24.
space], as Wigman put it, that rejects the objectifying gaze, the audience is no longer capable of projecting a pre-established identity onto the figures onstage. The dancing body no longer represents a figure or narrative but, by transcending the subject-object binary, begins to correlate with physical space.

It was precisely this emphasis on space over time that the dance critic Fritz Böhme would later identify as the quintessentially modern aspect of Wigman’s work. This focus on the relationship between space and bodies in motion emerged once the dominance of the musical score was broken. Wigman would later credit her mentor and collaborator Rudolf von Laban (1879-1958) for having “liberated dance from its slave-like association with music, and reinstated its independence and beauty of an abstract language.” Laban’s language tried to capture an individual’s relation to surrounding space through an elaborate system for the analysis of form in motion he called “choreutics.” [Fig. 51] This system, in turn, was based on a non-personal, precise recording method called “Labanotation,” the graphic notation of bodily movements.

52 Wigman cited in Susan Laikin Funkenstein, "There’s Something about Mary Wigman: The Woman Dancer as Subject in German Expressionist Art," Gender & History 17, no. 3 (2005), 833. For a general introduction to Wigman’s work see Gabriele Fritsch-Vivié, Mary Wigman (Reinbek b. Hamburg: Rowohlt, 1999).

53 Funkenstein, "There’s Something about Mary Wigman: The Woman Dancer as Subject in German Expressionist Art," 826.

54 See Fritz Böhme, Der Tanz der Zukunft (München: Delphin, 1926).

55 Mary Wigman, "Rudolf von Laban zum Geburtstag," Schrifttanz, no. 4 (1929), 65. Laban himself writes in 1919 that dance does not necessarily have to be accompanied by music, that music indeed prevents movement to emerge as a “primary experience.” Rudolf von Laban, "Tanz und Musik," i10 2, no. 19 (1919), 132. This is a principle difference between Jaques-Dalcroze and Laban. While the former intends to transpose musical and light rhythms into bodily rhythms, the latter wanted his students to discover the rhythm inherent in their own body movements.

56 Based on the individual’s relation to surrounding space, “choreutics” specified 12 primary directions of movement derived from complex geometric figures.

57 Laban’s system is reminiscent of the motion studies of stood in line with the motion studies of Étienne-Jules Marey and Frank Bunker Gilbreth. It is hardly surprising that Laban’s system for
movements in space based on the existence of what Laban calls a “Kinesphere,” a space that
does not exist as an a priori condition, but that is produced and actualized through bodily motion.

Laban, who had studied architecture, rejected the conception of the environment as a static,
empty sphere filled with innate quantifiable objects, waiting for the subject to be animated.
Impressed by the recent scientific findings of electricity and crystal growth, Laban believed that
all beings and things were interconnected as “infinite variation of relations of tensions.”
For him space was by definition connected to movement: “The conception of space as a locality in
which changes take place can be helpful here. However, we must not look at the locality simply
as an empty room, separated from movement, nor at movement as an occasional happening only,
for movement is a continuous flux within the locality itself, this being the fundamental aspect of
space. Space is a hidden feature of movement and movement is a visible aspect of space.”
For Laban the task of the choreographer who produces a notation of the motions of the body
resembles that of a designing architect:

When we wish to describe a single unit of space-movement we can adopt a method
similar to that of an architect when drafting a building. He cannot show all the
inner and outer views in one draft only. He is obliged to make a ground-plan, and
at least two elevations, thus conveying to the mind a plastic image of the three-
dimensional whole.

the measuring of movement, conceived at first as a liberating new language of rhythmic
collective bodies, was later used for the optimization of work processes in industrial production.
See Rudolf von Laban and Frederick Lawrence, Effort: Economy of Human Movement, 2nd ed.
(London: MacDonald & Evans, 1974 [1947]). Moreover, it is worth pointing out that choreutics,
which he defines as “the art, or the science dealing with the analysis and synthesis of
movement,” was meant as practice that dissolves the distinction between art and science. See
Vera Maletic, Body - Space - Expression: The Development of Rudolf Laban's Movement and
Dance Concept (Berlin: Mouton de Gruyter, 1987), 57.

60 Ibid., 4.
Ground plans and elevations are consequently only single static views that have to be read in sequence in order to compose a “plastic image.” Finally, it is movement that generates what Laban calls “living architecture”: “Movement is, so to speak, living architecture – alive in the sense of changing emplacements as well as of changing cohesion. This architecture is created by human movements and is made up of pathways tracing shapes in space, and these we may call ‘trace-forms.’” According to Laban there is no difference between built architecture and “living architecture.” Buildings are not regarded as objects made of dead matter but as dynamic entities designed to actively balance out shocks and vibrations. The same is true for “living architecture” which always interacts with its environment made up of forces:

A building can hold together only if its parts have definite proportions which provide a certain balance in the midst of the continual vibrations and movements taking place in the material of which it is constructed. The structure of a building must endure shocks from alien sources, for instance, by the passing traffic, or by the jumping of lively inhabitants. The living architecture composed of the trace-forms of human movements has to endure other disequilibrating influences as they come from within the structure itself and not from without. The living building of trace-forms which a moving body creates is bound to certain spatial relationships. Such relationships exist between the single parts of the sequence."

Adding certain expressionist undertones, Mary Wigman would paraphrase Laban’s conception as “moving architecture”: “Invisibly spanned above the floor, felt by the soul of the dance, there are forms and lines. They grow upwards like crystals: invisible palaces made of swinging movements. Every movement of the dancer becomes the cornerstone of a moving architecture [bewegte Architektur].” The body in modern dance, while liberated from the obligation to represent a narrative or to follow a music score, is not moving freely ‘inside’ a

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61 Ibid., 4.
62 Ibid., 4-5.
63 Mary Wigman quoted in Fritsch-Vivié, Mary Wigman.
boundless space but is girded by a system of fluid relations with the environment. The dancer hence acts as a medium that actively coordinates the “marriage of body and space.”

The conception of dance developed by Wigman and Laban yields a dynamic architecture generated by the dancer. It prompts sensory events whose contingency resists to be captured through static images. Architecture no longer presents itself as a pre-established limit but as a fluid material that interacts with the unpredictable bodily movements of the dancer. It is therefore no surprise that Laban himself not only composed dance steps, but also developed architectural fantasies of an enormous dome structure he called the “Kilometerhaus” (the kilometer-long house), a “motion paradise” for participants and spectators, free of supporting columns and equipped with an artificial sun and lights. It is equally not surprising that Siegfried Ebeling, who revolutionized the conception of architecture in his 1926 work Der Raum als Membran, had been a student of Laban.

Wigman and Laban were part of a wide-spread movement amongst the avant-garde who challenged the dominance of a word-based “book culture” (Schlemmer) preventing the emergence of a veritable Gemeinschaft. Already Jaques-Dalcroze’s teachings were sustained by the conviction that the “‘thinking man shall from now onwards be no longer a separate person from ‘physical man.” Through rhythm and the fusion of bodies and spaces bodies and minds would be reconciled again. The limiting “word-world-picture” [Wortweltbild], as Fritz Böhme

64 Ibid.
put it, would be replaced by a new “language of motion.” Through precise analysis, geometrical modulation and graphic notation of the body’s movements, Wigman and Laban proposed an alternative to the Cartesian universe of representations. According to Laban, dance, “as a form of movement and space-image [Raumbild],” bridges the distance separating the meaning-imbued symbol and representational picture [Abbild]. Both become identical.”

Laban and Wigman’s quest for new forms of immediate, immersive language invoke parallels with the experiments with abstract rhythmic film undertaken during the same period by Eggeling, Richter and Ruttmann. Eggeling called his abstract films a new “universal language,” which was also based on the affirmation of the body as the site of communal, unmediated meaning, and on the inclusion of duration and movement as constitutive for any conception of space. The dance critic Böhme sensed this kinship between modern dance and abstract film when he wrote in 1926: “Already years ago, I have proposed to the painter Ruttmann to realize […] filmic background light-plays and preludes for the solo dances of Mary Wigman.” Böhme’s suggestion was not far-fetched given the fact that both Laban and Wigman would not only engage in the production of films, but also because both knew the pioneers of abstract film personally. During the 1910s, they stayed for extended periods of time at the life-reform retreat

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68 Böhme, *Der Tanz der Zukunft*, 40.

69 Laban, *Die Welt des Tänzers*, 141.


Monte Verità\textsuperscript{72} and in Zürich where Laban’s dance school was located in close vicinity to Hugo Ball’s \textit{Cabaret Voltaire}; where Dadaists Jean Arp, Richard Huelsenbeck, Johannes Baader, Marcel Janco, and Hausmann met Richter and Eggeling. Richter would later recall that many of the Dadaists developed close personal ties with Laban’s dance students: “If the [Café] Odeon was our terrestrial base, our celestial headquarters was Laban’s ballet school. There we met young dancers of our generation. Mary Wigman, Maria Vanselow, Sophie Taeuber, Susanne Perrottet, Maja Kruscek, Käthe Wulff and others.”\textsuperscript{73} These personal ties were sustained by a shared artistic objective: to search for new kinds of language that could measure up, in both film and dance, to a conception of the world as a moving, embodied environment of relations and hidden forces.\textsuperscript{74}

In conclusion one can argue that although Mies never refers to the world of dance in his writings, he was nevertheless closely tied to a network of personal acquaintances who directly or indirectly were involved with dance. What Laban called “living architecture,” the idea that space is always produced as the interplay of the moving subject and his/her environment, had become a recurrent theme in the discourses of the avant-garde. They all shared the conviction that modern space could no longer be represented, calculated and properly understood outside the notions of embodied movement and time.

\textsuperscript{72} Preston-Dunlop, “Notes on Bodies in Dada,” 176.


\textsuperscript{74} This connection between Dadaists and Laban supports the argument that Dada was first and foremost not a nihilist enterprise, a “fool’s game out of nothingness” to quote Hugo Ball but rather characterized by a “constructive utopianism” which would eventually lead to the founding of \textit{G. Hugo Ball, Die Flucht aus der Zeit} (Luzern: Stocker, 1946), 91; Peter Wollen, "Lund Celebrates Dada Child," \textit{PIX}, no. 2 (1997), 154.
When in 1929, as part of the so-called “German week,” the Laban School was scheduled to perform at Mies’s Barcelona Pavilion, we can speak of more than a coincidence. The pavilion might have been the architectural equivalent, the “motion paradise,” Laban had imagined, supporting the “living architecture” generated by the dancing bodies. And Mies had already integrated a dancing body, albeit suspended, into his space: a sculpture depicting a nude dancer entitled “Morgen” by the advocate of gymnastic culture Georg Kolbe.

Expanded Cinema: the Festsaal at Hellerau

In an article published in 1921, Jaques-Dalcroze points to the kinship between dance and cinema. He considers cinematography as “an education, today still unknown to the people of the theatre, that intends to establish the relations between dynamism and time, between dynamism and space, between the dynamism of the soloist and that of the crowd; only the education of the muscular and spatial sense can (subordinated to or associated with the effects of light) assure the progress of the special art that we are concerned with and will allow the cinematograph to

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76 It is worth mentioning that Siegfried Ebeling had been a dancer in Laban’s troupe in 1927-28. In his work Der Raum als Membran (1926) Ebeling argues that the invention of modern apparatuses necessitates a fundamental reconceptualization of architecture. The idea that the house is a “medium of passage” for streams of energy is similar to Laban’s conception of dance as a relational practice involving the moving body and its environment. See Ebeling, Der Raum als Membran, 38-39.

77 The Court House (Hofhaus) Mies designed for the 1931 German Building Exposition had another Kolbe sculpture (“Große Laufende”) placed in its courtyard. Oswald Herzog, who produced the miniature model houses of tradition Berlin apartment buildings Mies displays next to his Glashochhaus model, was also known for sculptural work representing dancing figures. See Töpfer, Empire of Ecstasy: Nudity and Movement in German Body Culture, 1910-1935, 365.
produce superior effects that we expect of him.” By “superior effects” Dalcroze not only refers to cinema’s unprecedented capacity to represent the real. Rather, he comprehends cinema as an innervating medium that educates the body and its spatial perception inside a dynamic environment. And it was precisely this effect which Dalcroze had tried to achieve at the Eurhythmics Institute in 1912 and 1913. While there were no films produced or shown at Hellerau, the relation between the body, space, and moving light-plays had already been one of the principle preoccupations.

Inside the Festspielhaus visitors discovered an extraordinary space. The so-called Festsaal, the Eurhythmics institute’s main performance space, must have caused utter astonishment. The space was devoid of all references to traditional theater space. Proscenium and

78 “[…] or, seule une éducation, encore insoupçonnée des gens de théâtre, celle qui a pour but d’établir des rapports entre le dynamisme et le temps, entre le dynamisme et l’espace, entre le dynamisme des solistes et celui des foules, seule une éducation du sens musculaire et spatial peut (subordonnée ou alliée à celle des effets de lumière) assurer le progrès des l’art spécial qui nous occupe, et permettre au cinématographe de réaliser les effets supérieurs que nous sommes beaucoup à attendre de lui.” Émile Jaques-Dalcroze, "L’art et le cinématographe," La Tribune de Genève (1921), 5. On the crucial role of rhythm for the French discourses on film during the early twentieth century see Laurent Guido, L’Age du rythme: Cinéma, musicalité et culture du corps dans les théories francaises des années 1910-1930 (Lausanne: Editions Payot, 2007).

79 This definition of an extended cinema bears similarities not only with the abstract film experiments by Richter, Eggeling. One is also reminded of French Impressionist film theorists like Germaine Dulac, who recognized the dance performances of Loïe Fuller as being part of cinema (“[…] that also was cinema, the play of light and of colors in relief and in movement”). Germaine Dulac, "Trois rencontres avec Loïe Fuller," Écrits sur le Cinéma, ed. Prosper Hillairet (Paris: Paris Expérimental, 1994), 108.

80 According to Guido, one film on rhythmic dance, now lost, was produced by Laban in 1924. However, Jean Choux mentions film experiments in a 1920 article published in La Suisse : “[…] développement naturel de l’Institut Jaques-Dalcroze, des pléiades des artistes, des phalanges de rythmiciens et de rythmiciennes consacreront tout leur génie à faire des films grandioses où, tour à tour graves et lents ou bondissants comme la vie, des personnages symboliques exprimeront tous les aspects de la légende, tous les rythmes de l’univers et dans un si parfait accord avec l’orchestre qu’on ne saura plus si c’est la musique qui émane de leurs gestes et si c’est elle qui les suscite !” Guido, L’Age du rythme: Cinéma, musicalité et culture du corps dans les théories francaises des années 1910-1930, 308.
scenographic illusionist backdrops had disappeared in favor of a single space. In fact, visitors found themselves inside of a windowless white luminous cube. This empty room formed a stark contrast with the architectural styles of Hellerau (i.e. the arts and crafts inspired reform architecture by Riemerschid and Muthesius or Tessenow’s austere neo-classicism). The Festsaal demanded from its visitors to yield to the very “superior effects” Jaques-Dalcroze later ascribes to cinematography. As an active space that generated a dynamic light spectacle, the Festsaal demanded a new understanding of architecture.

The Festsaal is usually considered as a collaborative design by Tessenow, Jaques-Dalcroze, the Swiss theater theoretician and stage designer Adolphe Appia (1862-1928), and the Georgian artist Alexander von Salzmann (1870-1933). While the precise authorship of the Festsaal remains unclear it is safe to assume that the design of the space’s light apparatus can be attributed to von Salzmann, with Appia giving conceptual input. Stripped of all illusionist decoration and the picture-frame proscenium that in conventional theatres separates the stage from the audience, the Festsaal appeared as Appia described it, as “an empty room, waiting."

Apart from the so-called “practicals” (movable ramps and platforms) and the audience seating,

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81 During the late 1890s, Salzmann had studied painting in Munich where he meets Wassily Kandinsky. Before participating in the design of the Festsaal Salzmann probably worked for Karl Schmidt’s Dresdner Werkstätten. Through the great success of his lighting installations for the performances of Orpheus and L’annonce faite à Marie in 1913 Salzmann becomes internationally known. For a performance of Pelleas et Melisande at the Théâtre des Champs-Elysées in 1921 he design another light installation. See Carla Di Donato, "Alexandre Salzmann et Pelléas et Mélisande au Théâtre des Champs-Elysées," Revue d'histoire du théâtre 60, no. 2 (2008).


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the rectangular box was indeed empty. It ‘waited’ to be filled with what had become, as the stage
designer Edward Gordon Craig writes to Appia, “the only true material of the art of theater.” For
Craig this material was light and “through light, motion.”

The few existing photographs of the Great Hall show the inside of an empty rectangular box. What strikes the observer is the glaring whiteness of the walls and ceiling. [Fig. 54]
Contrary to the wall in a conventional sense (a solid and opaque boundary of a room whose
surfaces possibly carry ornaments or pictures), the Festsaal’s walls have been transformed into a
luminous skin made of translucent white cloth. This transformation from a ‘passive’ room into
an animated, light-emitting body was made possible with the help of a highly sophisticated
technical apparatus hidden ‘inside’ the translucent double partitioned wall. Custom-made by
Siemens-Schuckert at the enormous cost of 70,000 marks, this lighting system’s 3000 electric
light bulbs of submerged the space in a “mysterious glow.” [Fig. 55] These lights were
connected to a central control board from where one could regulate at will both their intensity
and distribution.

While the existing photographs show the luminous walls, they cannot convey the
immersive and temporal experience of the new union of music, dancing bodies and rhythmic
lights. The written reactions of those who experienced the Festsaal give a sense of the

84 Craig quoted in Denis Bablet, Edward Gordon Craig (Paris: L’Arche, 1962), 204.
The details concerning the number of light bulbs installed vary. MacGovern gives the number
10000, Seidl 3000, Giertz 7000.
86 Considering that the costs of the lighting installation reached almost 10% of the costs of the
entire building (800,000 marks) underscores the central importance the Festsaal had for the
entire Hellerau enterprise. See the figures published in "Die Bildungsanstalt in Hellerau bei
Dresden," Blätter für Architektur und Kunstdhandwerk 26, no. 5 (1913), 19.
astonishment this unprecedented space prompted. A spectator who saw Christoph Willibald Gluck’s opera *Orfeus and Eurydice* in June of 1912 described the performance as “beyond imagination. The space lived – it was a conspiring force, a co-creator of life.” In a similar way, Arthur Seidl emphasizes the novelty of this animated space: at Hellerau something “indescribably unique has emerged and has become alive […] a light delirium that we never before have seen or experienced.” George Bernard Shaw, who visited the building to see the light installation, notes that “the only thing still missing was a transparent floor with light underneath; then one would be able to perform all things heavenly.” Upton Sinclair, the American writer who was present during the performance wrote: “It was music made visible; and when the curtain had fallen upon the bliss of Orfeo and his bride, a storm of applause shook the auditorium. Men and women stood shouting their delight at the revelation of a new form of art.”

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87 There were two festivals that took place at the school. The first took place between the 28th of June and the 11th of July 1912. Besides one scene from the second act of *Orpheus and Eurydice* the Dalcroze students performed one of his own creations entitled *Echo und Narziss*. In 1913, between the 18th and 29th of June, the second *Schulfest* was organized: besides demonstrations of rhythmic gymnastics, *Orpheus and Eurydice* was performed in its entirety. See Marco De Michelis, Heinrich Tessenow: 1876-1950 (Stuttgart: Deutsche Verlags Anstalt, 1991), 208.


89 Arthur Seidl, *Die Hellerauer Schulfeste und die 'Bildungsanstalt Jaques-Dalcroze'* (Regensburg: Bosse, n.d. [probably 1913]), 13. See also Platzdecker who praises the fact that the light effects are “enchanting the eye” Heinrich Platzdecker, "Paul Claudels 'Verkündung' in Hellerau,” *Salonblatt* 8, no. 41 (1913), 1429.


theatre space designed by Tessenow, Jaques [sic] and Salzmann for Hellerau will be a milestone for the development of the era.”92

With the Festsaal Appia substantiates his conceptual ideas and practical experiments with stage projections that he had undertaken since the early 1890s.93 His designs for Wagner’s Rhinegold (1892 and 1896)94 [Fig. 56] and his famous series of drawings entitled Rhythmic Spaces (1909) [Fig. 57] attest to the fundamental distinction Appia makes between two types of light: on the one hand, a sort of light that accentuates and lifts objects out of darkness; on the other hand, a type of proactive, “gestaltendes” [forming] light.95 In other words, Appia no longer treats light as an invisible support for the illumination of objects and figures onstage but as an active, space-generating agent.96 Light itself becomes visible, gains a material quality and, by extension, changes fundamentally the relation between the space and body. For Appia, light has a “truly powerful creative capacity” to convey “in a full and lively manner the eternally changing image of our world of appearances.”97

In other words, in Appia’s understanding, light is no longer associated with the visible world but, like music, renders perceptible to the body what previously has remained invisible: “light has the same function in representational terms as music has in the score: it is the

95 Adolphe Appia, Die Musik und die Inszenierung (München: Bruckmann, 1899), 84.
96 I thank Spyros Papapetros for pointing out the resemblance between Appia’s ethereal drawing of the Valhalla for the 1892 Rhinegold production and Mies’s Friedrichstraße charcoal drawing.
97 Appia (1899), 17. In a series of drawings of primary forms, timeless walls, staircases, slopes Appia, in many ways, prefigured his later theoretical work on a light-immersed theatrical space.
expressive element opposed to the visible; and just like music, it cannot express anything that is
not an integral part of the essential elements of vision.”98 Light, like music, not only “let’s [us]
discover the human body anew,”99 as Jaques-Dalcroze describes Appia’s approach, it also
“spreads out into space, filling it with living color and infinite variations of an ever-changing
atmosphere.”100 Previously an ‘invisible’ means for illuminating dead matter and enlightening
the omnipotent subject, light now exists independently, becomes visible and ‘material.’ This shift
entailed a fundamentally different conception of space, as Salzmann himself was aware of:

[Light] has to be free-floating and mobile like a sound. That’s why we have
transformed the entire space – the four side walls and the ceiling – into a single
luminous body. We have placed the light bulbs in rows and covered them with
treated panels of cloth. That way instead of a lighted space we get a light-
producing space. Light is directly transmitted into space [...].101

In the Festsaal light no longer makes visible, it becomes visible (a drawing by Dora
Brandenburg-Polster conveys this active character of light better than the photographs do [Fig.
58]). Seidl recognized the fundamentally changed constellation between light and architecture
when he aptly calls the performance space a “permeable big light-edifice” [durchlässiges großes

98 Appia, La musique et la mis-en-scène (1897). Cited in Osma, 65 Richard Wagner’s
Gesamtkunstwerk fantasy, who, after having made the orchestra disappear from the spectator’s
eye in his Bayreuth Festspielhaus, longed for the invention of what he called an “invisible
theater.” Denis Bablet, "Appia and Theatrical Space," Adolphe Appia 1862-1928 : Actor-Space-
Light (London: Calder, 1982), 14. As to the discourses concerning the pervasive fascination with
the invisible from the mid-nineteenth century onwards see Asendorf, Ströme und Strahlen: Das
langsame Verschwinden der Materie um 1900.
99 Jaques-Dalcroze, "Was rhythmische Gymnastik Ihnen gibt und was sie von Ihnen fordert," 50.
100 Adolphe Appia, “Eurhythms and the Theatre,” Der Rhythmus, Ein Jahrbuch 1 (1911).
Translated in Adolphe Appia, Adolphe Appia: Essays, Scenarios, and Designs, trans. Walther R.
101 Alexander von Salzmann, "Licht Belichtung und Beleuchtung: Bemerkungen zur
Beleuchtungsanlage des Grossen Saales der Dalcroze-Schule," Die Schulfeste der
Bildungsanstalt Jaques-Dalcroze (Jena: Eugen Diederichs, 1912), 70
Instead of illuminating objects in space, and hence, sustaining the staged “illusion” (von Salzmann), this “strangely diffuse, shadowless, immaterializing light” has the task of allowing “colors, planes, lines, bodies, movements to unfold.” In other words, space is no longer an a priori condition but is a time-based condition produced and sculpted by the interplay of moving light and bodies.

With the Festsaal light installation, Appia and von Salzmann reenact modernity’s original dream: the regained coexistence of pure transcendence and pure immanence, of rational measure and sensuous immediacy. By liquefying a world once conceived as a linear composition of solids into vaporous, informal, “ever-changing” states, Appia incants a form of pure ‘visuality,’ a complete short-cutting of the spatial and temporal distancing between subject and object. It is a total space which allows the ecstatic spectator’s subjectivity to “evaporate” in the rhythm of moving bodies and the hidden lighting dispositif. “After many centuries of living isolation,” Appia notes, “the spectator may then exclaim, full of gratitude: Yes, it is myself!”

Before Appia collaborated with von Salzmann in the design of the Festsaal, he had intended to equip the performance space with one of the light domes invented by Mariano Fortuny (1871–1949) in 1901. In search for an alternative to the static backdrop paintings of

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103 Scheffler, "Das Haus," 11.
107 Appia explicitly approved of Fortuny’s ideas. In 1904 he wrote: “Monsieur Mariano Fortuny has invented a completely new system of lightning, based on the properties of reflected lights.
classical theater, Fortuny had patented a lighting system ("Système d’éclairage scénique pour lumière indirecte") consisting of a curved canopy or cyclospherical half-dome onto which multicolored and reflected electric light was projected. In 1906, Fortuny even formed a partnership with the AEG [Allgemeine Elektrizitätsgesellschaft] to commercialize the foldable stage screen composed of a collapsible wire structure covered with opaque fabric and an elaborate electric light system. Powerful arc lamps projected light through colored glass and revolving reflectors which diffused the reflected light and set it in motion. According to Fortuny, his lighting system was to revolutionize theater because for the first time “theatrical scenery will be able to transform itself in tune with music, within the latter’s domain, that is to say in ‘time’, whereas hitherto it has only been able to develop in ‘space’.”

Despite the novelty of the effect produced by Fortuny’s apparatus, one can argue that the failure to install one of Fortuny’s scenic domes at Hellerau can be regarded as a windfall. While Fortuny’s “ celestial vault” still functions as a picture-frame through which the spectators peek into a separate (albeit ephemeral and mesmerizing) reality, von Salzmann’s final design for the Festsaal is a truly total (if not totalitarian) environment. “We are spectators but at the same time

The results are extraordinarily successful, and this invention will bring about radical change in favour of lighting in the stage management of every theatre.” See De Osma, Mariano Fortuny: His Life and Work, 75

108 Appia collaborated with Fortuny for a 1903 theatrical production in Paris. In the following years, Fortuny equipped numerous theaters with his lighting system and foldable cycloramas – among them the Kroll Theater in Berlin in 1907 where Max Reinhardt saw it and decided to install one of the “Himmelskuppeln,” as he called them, in the Deutsche Theater in Berlin. Apparently, Appia wanted to use one of the Fortuny screens located in Berlin which, to Appia’s disappointment was no longer transportable. See Edmond Stadler, "Jaques-Dalcroze et Adolphe Appia," Émile Jaques-Dalcroze, L'Homme, le Compositeur, le Createur de la Rythmique, ed. Frank Martin (Neuchâtel: Editions de la Baconnère, 1965), 439; De Osma, Mariano Fortuny: His Life and Work, 65-75.

109 Mariano Fortuny, Eclairage scénique: Système Fortuny (Paris: 1904) cited in De Osma, Mariano Fortuny: His Life and Work, 70.
more than spectators,” von Salzmann writes. Here all the binaries that sustain modern thinking (subject/object, space/time, light/darkness) dissolved, leaving the spectator-turned-participant no other choice than to abandon its position as a distanced subject and to merge with the rhythm of moving lights, music and bodies.

The Festsaal blew emptiness of signs and signification to architectural proportions. Here the entire space became a luminous body that rendered the subject/object binary completely redundant. The Festsaal ‘spatializes’ the purely cinematic delight and ‘temporalizes’ the immersive freezing of time in the panorama. The body appears on the scene, a scene which has become an environment of changing intensities. Inside the pulsating performance space at Hellerau, the body takes a first step into becoming what Schlemmer later calls a “Tänzermensch” [Man as Dancer]. The modern subject is consequently neither positioned in front of nor inside of an image of space; rather he/she is part of a dynamic image-space. Hence, it is in the Festsaal


111 It should be underlined that while a room like the Festsaal was without precedent in the world of theatre, spaces of immanent and immersive sensual attractions had become ubiquitous in metropolitan life of the nineteenth century. “Orgies of light and colors” at the World Fairs, immensely popular light-organ spectacles (Claude Bragdon, Thomas Wilfred, Alexander Scriabin, etc.), forms of visual entertainment like the panorama, optical toys were all manifestations of an expanded field of contemporaneous practices that forged the link between light, the body, and motion.

112 For Schlemmer the Tänzermensch is the modern figure par excellence: “The laws of cubical space are the visible, linear network of planimetric and stereometric relationships. […] The laws of organic man reside in the invisible functions of the inner self: heartbeat, circulation, respiration, the activities of the brain and the nervous system. If these are to be the determining factors, then their center is the human being, whose movements and emanations create an imaginary space. Cubical-abstract space is the only the horizontal and vertical framework of this flow.” The Tänzermensch mediates between two conceptions of space: the first obeying the organic laws of the body, a second obeying the structure of abstract-cubic space. By comparison, Appia and von Salzmann’s Festsaal is ‘total’ in the sense that it inhibits all mediation and imposes the dominance of the musical score onto dancing bodies and lights. See Oskar Schlemmer, "Man and Art Figure," trans. Arthur S. Wensinger, The Theater of the Bauhaus, ed. Walter Gropius (Middletown: Wesleyan University Press, 1961 [1925]), 25.
that we take the first step towards re-imagining the modern subject as a playful creator, towards understanding things as process, and spaces as events.

Von Salzmann and Appia realized by 1913 what subsequently would become an architectural fantasy of the various avant-gardes: for example, in the concept for an “architecture électromécanique colorée” by the Futurist Enrico Prampolini, who experimented with sensorial environments of ephemeral lights, colors and sounds\textsuperscript{113}; in Moholy-Nagy’s idea for a “Theatre of Totality”; and, most explicitly, in Hans Luckhardt’s description “Your third Skin” [*Deine dritte Haut*] in which the wall of a utopian light-edifice are solely made of electric rays.\textsuperscript{114} It seems ironic that still in 1925, thirteen years after the *Festsaal*, Moholy-Nagy would demand “to produce a kind of stage activity which will no longer permit the masses to be silent spectators, which will not only excite them inwardly but will let them *take hold and participate* – actually allow them to fuse with the action on the stage at the peak of cathartic ecstasy.”\textsuperscript{115}

\textsuperscript{113} Prampolini, "Futurist Scenography."

\textsuperscript{114} Luckhardt notes in “Deine dritte Haut” in 1945: “I can light the walls like neon or argon tubes in the most beautiful colors of its diffuse light. But I can also make them shine in such a way that they protect against the daylight and let in the outside world like filtered through a veil. […] Eventually, they [the walls] embalm me, following my will from the deepest darkness and the colors of the color wheel to the whitest light.” Luckhardt quoted in Matthias Schirren, "Das Glashaus als hermetische Leuchte," *Kristallizationen, Splitterungen: Bruno Taut’s Glashaus*, ed. Angelika Thiekötter (Basel: Birkhäuser, 1993) 123. It was Luckhardt who first used the term “Lichtarchitektur” [light-architecture] at the occasion of the “Gesolei” exhibition in 1926 in Düsseldorf. In 1924 he patented an apparatus for the “generation of colored moving publicity images.” See Hoormann, *Lichtspiele: Zur Medienreflexion der Avantgarde in der Weimarer Republik*, 261.

Richter and the Lesson of Abstract Cinema

Meeting Hans Richter

In 1921 Mies made the acquaintance of the painter and pioneer of abstract film Hans Richter (1888-1976). The exact date of their first encounter rests uncertain: they either first met in late December 1920 during Van Doesburg’s initial visit to Berlin or after van Doesburg’s move to Germany in April 1921. Later, Richter would recall his first encounter with Mies as follows:

I had met Mies through Doesburg […]. He asked me one day to come with him to see a young architect who he had just met. I told him that I am not interested in architects or architecture. For a long time my father had insisted that I should take on a solid job [and become an architect]… before becoming a painter. That’s why I am still allergic against this field. ‘But the plans of his houses resemble Mondrian’s drawings or yours from the Präludiumrolle,’ van Doesburg tried to convince me. […] So I accompanied van Doesburg to see this young architect by the name of Mies van der Rohe who lived in the most exclusive neighborhood of Old Berlin, Am Karlsbad 24. The ground plans and renderings [of a house he was just in the process of building in Neu-Babelsberg] indeed not only looked like Mondrian’s or my drawings, but like music, that virtual music about which we spoke, which we discussed, at which we worked and which we tried to realize in

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116 The canonical works on modern architecture treat Richter and Eggeling as peripheral figures. Banham contents himself with referencing Richter as a “former Dadaist who had turned to abstraction independently of the Dutch Movement.” Banham briefly mentions the films of Richter and Eggeling, stating that “their Abstraction and ‘space-time’ qualities would obviously appeal.” Banham, Theory and Design in the First Machine Age, 185, 187.

117 Van Doesburg had come to Berlin at the invitation of Adolf Behne, who in the summer of 1920 went on a trip to Holland to establish contacts with the Dutch De Stijl group. He stayed in Berlin between December 20, 1920 and January 3, 1921. It is during this time that he meets among others Walter Gropius, Bruno Taut, Adolf Meyer, Paul Westheim, as well as Richter, Eggeling and Hausmann. The first meeting between van Doesburg, Eggeling and Richter probably happened on December 23 1920 in Klein-Köllzig outside of Berlin where Richter and Eggeling had retreated to work on their film experiments. See Birnie Danzker, ed., Theo van Doesburg: Maler - Architekt, 180. See also Finkeldey, "Hans Richter and the Constructivist International," 92-121.
film. This was not only a plan, this was a new language which seemed to connect our generation.\textsuperscript{118}

In a second account of this first meeting Richter notes:

Through a ploy, van Doesburg directed me in 1921 to Mies van der Rohe, who I did not know, by insinuating that my abstract drawings had found a concrete ‘application.’ […] In fact, Mies’s plans and my drawings had a striking resemblance. It seemed the beginning of a new formal language. It was the same formal language that, beginning with Mondrian, had been developed by Doesburg’s “de Stijl” group, that was expressed in Malevich’s architectural visions, the same that play musically in my ‘Rhythm’ films and that became necessary as the new notation for the documentation of electronic music.\textsuperscript{119}

It is not clear which ground plan Richter saw at Mies’s Am Karlsbad 24 studio that resembled the work he produced at the time for the so-called \textit{Präludium} scroll or the works of Mondrian, van Doesburg and Malevich.\textsuperscript{120} Possibly he saw Mies’s drawings of the \textit{Haus Petermann} (1921) or the \textit{Haus Lessing} (1923), which show the same orthogonal composition of

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\item[118] Hans Richter, \textit{Köpfe und Hinterköpfe} (Zürich: Arche, 1967), 70. Ironically, Richter describes the circumstances of his first encounter with Eggeling in a similar way: “One day at the beginning of 1918 […] Tristan Tzara knocked at the wall which separated our rooms in a little hotel in Zürich and introduced me to Viking Eggeling. He was supposed to be involved in the same kind of esthetic research. Ten minutes later, Eggeling showed me some of his work. Our complete agreement on esthetic as well as on philosophical matters, a kind of ‘enthusiastic identity’ between us, led spontaneously to an intensive collaboration, and a friendship which lasted until his death in 1925.” Hans Richter, "Easel-Scroll-Film," \textit{Magazine of Art}, no. 45 (1952), 79.
\item[120] Richter overlooks the works of an artist like Erich Buchholz who at the time produces drawings and architectural models that show the same kind of dynamic-orthogonal composition of abstract rectangles and lines. What is more is that Buchholz introduced a tactile dimension by using colored material that reflected light in various ways.
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interlocking rectangles Mies already demonstrated in his unrealized *Kröller-Müller Villa* project (1912-13) or the *Haus des Architekten* (1914).\(^\text{121}\) No matter the image that Richter actually saw, what is important about Richter’s recollections is the realization that the later *G* project was not the product of an individual ‘genius.’ The discovery of a “striking resemblance” between the architectural plan and the cinematic drawings imply a Zeitgeist yielding similar solutions from artists working independently and in different media.

The palpable affinity Richter felt with Mies’s work proved incisive enough to not only cure the former architecture student off his “allergy” against architecture; it also marked the beginning of a lifelong friendship. Despite the difference in personality – on the one hand the erratic and politically engaged painter of bourgeois decent, on the other, the professional architect and son of a provincial stone mason from Aachen who throughout his life remained wary of all political activism – the consciousness of the fact that they shared the “new language” created a common bond. Henceforth their paths crossed more than once, leading to collaboration on the first three issues of the journal *G–Material zur elementaren Gestaltung* (1923-26), most likely to the organization of the 1925 *Filmmatinee ‘Der absolute Film’* under the auspices of the Novembergruppe and institutional support of the “Deutsche Liga für unabhängigen Film” [German League of Independent Film].

And even after the war, when both continued their careers in the US, they were involved in plans to produce altogether thirteen half-hour films about Mies’s architecture. According to the filmmaker’s own recollections, it was Ludwig Hilberseimer who in 1960 recommended Richter

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\(^\text{121}\) The drawings for the *Haus des Architekten, Haus Petermann* and *Haus Lessing* were published in Kurt Westheim, “Mies van der Rohe: Entwicklung eines Architekten,” *Das Kunstblatt* 11, no.2, February 1927, 57-58.
to produce a film on Mies’s work: “Only you can say something definitive about Mies.”122

Interestingly, it was Richter who objected against the project and who had to explain to Mies (“who I loved as an old friend and as a great artist and personality”123) that one cannot represent his architecture cinematographically [filmisch nicht darstellungsreif].124

Rhythm

While the precise circumstances and the exact date of Mies’s first encounter with the Berlin avant-garde and, in particular, with Richter remaining vague, we can nonetheless assume that straight away there existed a mutual appreciation and a shared conception for future art and architecture. In order to better understand what convinced Mies to eventually become involved in G and continue his acquaintance with Richter, it is helpful to grasp the artistic and intellectual evolution of the latter.

When Richter first met Mies, he and Eggeling had just received a grant from the U.F.A. studios to produce their very first abstract film. In early 1921, their film experiments must have caused a stir in Berlin’s avant-garde scene. The same year, van Doesburg, Ludwig Hilberseimer, and Adolf Behne, but also Richter and Eggeling themselves, propagated the new kinetic art of film with a series of articles appearing in De Stijl, Sozialistische Monatshefte, Freiheit and

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122 Hilberseimer cited by Richter in Richter, Begegnungen von Dada bis heute 52.
123 Ibid., 52.
124 “During three days I tried to explain to Mies, who I loved as an old friend and as a great artist and personality, the television people and Hilberseimer that it was impossible to represent architecture filmically in 6½ hours, even if one were to present Archimedes and Vasari (and Frank Lloyd Wright) in front of the camera. The most sophisticated pile of stone would not do the job and 6½ hours of Mies would amount to a cinematographic funeral.” Ibid., 52.
It is in this moment, when abstract film was on the brink of revolutionizing the conception and function of the image itself that Mies’s architectural drawings strike Richter as “concrete ‘applications’” of what he and Viking Eggeling had merely attempted theoretically since around 1918 when they started their experiments with sequential scroll drawings. Discovering the images of Mies reassured Richter that he was not the only one striving for a “Universelle Sprache” (Universal Language). Mies’s drawings convinced him in his striving for a generally intelligible system of mediation which would become “essential in equal measure for music, language, dance, architecture and drama.”

The prospect of his universal language system being applied in the built environment must have been particularly gratifying for Richter whose artistic work cannot be dissociated from his political convictions. During the 1910s, Richter had become a follower of prominent leftist intellectuals such as the anarchist Ludwig Rubiner or the socialist Franz Pfemfert, publisher of the journal Die Aktion. The political activism culminated in his participation in the short-lived Munich Räterepublik (1919). Throughout the teens the central subjects of his paintings and

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126 Richter, "Prinzipielles zur Bewegungskunst," In the same year, the Hungarian journal MA published the same article, this time however Viking Eggeling figured as author. It is therefore difficult to say who was the original author or whether the article was developed as a collaborative effort.

127 Richter’s political beliefs as they evolved during the second half of the 1910s were highly influenced by Ludwig Rubiner (publisher of the periodical Zeit-Echo and a follower of Tolstoian and Anarchist views) and the socialist Franz Pfemfert (publisher of Die Aktion). In 1914, Richter joined the circle of expressionist artists surrounding Pfemfert who played the role of the ‘patron
drawings were scenes of labor (like the figurative *Arbeiter* [Worker] series from 1912) or explicitly critical political motifs (e.g. *Kaiser Wilhelm als Befehlshaber des Todes* [Wilhelm as the Commander of Death] from 1917). For Richter the political question was also an aesthetic one. Especially abstraction subsumed the “essential human abilities slumbering in everyone” and promised “enormous broadening of the feeling of freedom of man.” At the same time, he realized that abstraction would turn into, as Hugo Ball put it, “an ornament consisting of allegories and hieroglyphs that have ceased to say anything.” How to reconcile abstraction’s promise of emancipation from the figurative world and centered subjectivity with the necessity to communicate with the social collective?

The solution consisted in abandoning the question of static form altogether and to develop a new conception of the image as a locus of interrelations, movements and time. In 1917, Richter abandons both his Cubist experiments and takes his distance from the Expressionist movement. Nonetheless, he begins a series of “Visionary Portraits,” deliberately impulsive, illegible


128 An unpublished article by the Zürich Radical Artists group republished in Raimund Meyer and Judith Hossli, eds., *Dada Global* (Zürich: Limmat Verlag, 1994), 128. It can be assumed that Richter the article had been largely authored by Richter. See Benson, "Abstraction, Autonomy, and Contradiction in the Politicization of the Art of Hans Richter," 20.

paintings produced in “a sort of auto-hypnotic trance” at twilight to deliberately render the colors indistinguishable. The effect that fascinated Richter was that the “pictures took shape before the inner rather than the outer eye.”

Not in the knowable world of visible phenomena but in a sphere of chance and immediacy art was to recover its original “incantory power” lost through “the classicism of people like Lessing, Winkelmann, and Goethe.” Richter was convinced that “we were not so firmly rooted in the knowable world as people would have us believe. We felt we were coming into contact with something different, something that surrounded and interpreted us just as we overflowed into it.” At the same time, the year 1917 also marks Richter’s decision to paint “completely objectively and logically.” For Richter, and with him a certain strain of Dadaist thinking that developed in Zürich around Richter and Eggeling, this seeming contradiction was in fact coherent with the quest for a new unity based on elementary laws that combined reason and unreason, design and chance.

Even before meeting Eggeling and starting with his film experiments, Richter had begun to recognize the notions of time and movement as possible solution to the contradiction. Already in 1916 the critic Theodor Däubler shifts the emphasis from the formal to the processual, describing Richter’s earlier Cubist oeuvre as “nothing other than rhythm in space.” These paintings created a new sense of space surpassing the spatial illusionism of perspective and even Cubism itself.

132 Ibid., 51.
Rhythm, which since his student days had been latent all along in Richter’s interest in music, evolved into a universal principle that reigned over all aspects of his work:

Rhythm refers to the metaphysical domain of belief and truth. We experience rhythm intuitively. Rhythm is inwardness. Rhythm is the power of nature. Rhythm it is that forms and animates incommunicable ideas, and through which we are bound to the elementary forces of nature.135

During this participation in the 1919 Munich Räterepublik [Munich Republic of Workers' Council], where Richter belonged to the Action Committee of Revolutionary Artists, rhythm became a tool for the transformation of society. Inspired by the Russian Revolution, the committee demanded an art that would be “in harmony with the rhythm of the newly formed life.”136 Rhythm promised the complete relief from representation (or the modernist subversion of representation). It became synonymous for a regained visceral presence which did not put the modern subject into the center of the world, but rather the subject’s body in sync with it. Art became a new, quasi-scientific, albeit mysterious vocation of engineering of resonating congruencies between the subject’s body and the animate world of technologies.137


136 Richter went to Munich to become chairman of the Aktionsausschuß revolutionärer Künstler (Action Committee of Revolutionary Artists. He stayed there during the time when Kurt Eisner was assassinated. On Richter’s political activities during that time see Hoffmann, "Hans Richter, Munich Dada, and the Munich Republic of Workers' Council," 48-71. In the reply to the “Aktionsausschuß revolutionärer Künstler Münchens: Aufruf der russischen fortschrittlichen bildenden Künstler an die deutschen Kollegen” a group of revolutionary artists, among them Richter, emphasize the pivotal role of rhythm: “For only the new creative work that began shortly before the events that shook the world can be in harmony with the rhythm of the newly formed life.” The Aktionsausschuß was the executive body for cultural policy of the People’s Commissar of Popular Enlightenment. Published in Münchner Neuste Nachrichten, April 9, 1919.

137 Henri Lefebre underlines the unknowable and unrepresentable nature of rhythm. He emphasizes the role of the body as the locus and vehicle of rhythm: “The body’s inventiveness needs no demonstration, for the body itself reveals it, and deploys it in space.” Rhythm is neither
It was also rhythm that connected Richter’s pre-cinematic experiments with sequential scroll drawings with Mies’s architecture:

What to say about rhythm in architecture? Already in Baroque churches rhythm frees itself. It is logical that architects consider and feels this depending on what they have in their heads. In Mies’s plans just like in my scrolls there is an articulation of time. The fascination I always felt for Baroque churches convinced me that architects also expressed rhythm in stone, following a musical idea.138

This articulation of time and rhythm took shape in the first series of scroll drawings Richter and Eggeling produced after 1918. Richter’s Präludium (1919) [Fig. 60] and Fuge (1920) [Fig. 61] are drawn sequences of abutted white, grey, and black entwined rectangles of various sizes that were to be transferred onto film. Other scrolls were also produced in color adding a chromatic dimension to the play of opposites. [Fig. 62, 63] Composed with geometric precision onto a strictly metered grid, the single image’s formal or chromatic composition is irrelevant because it relates to the series of images that precede and follow. Every single image is thus part of a dynamic whole of constantly shifting constellations (as Richter tries to illustrate with “Drei Momente der Komposition ‘schwer-leicht’ (Präludium”) [Fig. 64] For that reason, viewed and described as isolated and autonomous pictures the drawings attain a completely different meaning. In effect, the spectator must comprehend them as extractions of a continuous process,

organ, place or thing: “An organ does have a rhythm, but the rhythm does not have, nor is it, an organ; rather, it is an interaction. A rhythm invests places, but is not itself a place; it is not a thing, nor an aggregation of things, nor yet a simple flow.” See Lefebvre, The Production of Space, 206.

as images “thought in movement,” as snapshots of an orchestrated visual mediation in duration.

Richter’s scroll drawings still failed to produce what film could achieve, namely the “well-articulated time-spaces and planned rhythms.” What the drawings rendered obvious, however, is the critical awareness that “our capacity for optical conceptualization rested on the static spatial form of the fine arts.” Influenced by Sophie Taeuber’s sign and picture language, the teachings of the composer and musicologist Ferruccio Busoni (who Richter had already admired during his student days in Weimar and who he had later met again in Zürich), and by the musical scores of Johann Sebastian Bach, Richter attempted to transcribe into visual forms quintessentially musical “movements and counter-movements all leading to a definitive unity.”

140 It was Tzara who introduced Eggeling to Richter in 1918. Eggeling was also present in Munich during the revolt.
141 Richter quoted by Finkeldey, "Hans Richter and the Constructivist International," 96.
143 Author of the Fantasia Contrappuntistica (1910) Busoni advocated the replacement of harmonies in musical composition for a system based on contrapuntal principles similar to the basso continuo he finds in the compositions of Bach. Busoni was a figure of reference for many of the artists who were close to the G group: the painter Otto Freundlich, for instance, an early member of the Novembergruppe and a close friend of Hilberseimer and Hausmann, references Busoni’s New Musical Aesthetics (1916) when he describes correspondences between music and visual abstraction sensed by many of the members of G: “Abstraction is similar to the ‘twelve-halftone-system,’ a discipline with all kinds of impure but functional intervals. […] Our formally enslaved eye begins to throw off the shackles of exact representation in the same way as the ear will smash the assumed reign of the fix tonal values. Freundlich, "Der Raum," 106.
Yet the decisive influence on Richter was Eggeling, who had developed a quasi-scientific regime of visual montage called “Generalbaß der Malerei [“thorough-bass of painting”], a syntax of elementary shapes orchestrated according to a dynamic contrapuntal system organizing bipolar opposites in temporal progression.145 The search for synaesthetic correspondences between music and the visual arts were of course not new. Kandinsky, for instance, in his attempts to produce a “science of art” speaks of a “thorough-bass of painting” [Generalbass der Malerei] – an expression we already find in Goethe’s reflections on the relations between musical structures and color systems.146 Eggeling tried to discover, Richter notes, “what expression a form would assume under the influence of different kinds of ‘opposites’: small versus large, light versus dark, one versus many, above versus below, etc. In that he intimately combined external contrasts with analogous relations of form, which he named ‘analogies,’ he could produce an endless variety of relations among forms.”147 Form and artistic invention were rejected. What was important for Eggeling was to orchestrate nature’s “principles of organization.”148

145 The term is taken from musical theory denoting a compositional method based well-established principles and characterize for affording a high degree of interpretative freedom to the composer. The *basso continuo* can be found in most of J.S. Bach’s s compositions. Although bound to the rhythm of the bass line it afforded the player considerable interpretative freedom. It appears in seventeenth and eighteenth century musical compositions and later in the thinking of Goethe and Kandinsky thinking. The former decried that painting lacked a *Generalbaß*, i.e. an approach that was at once rule-based and creative. The latter speaks of a “thorough-bass of painting” [Generalbass der Malerei] in his attempts to produce a reasoned method of composing forms and colors, a “science of art.”

146 See Holger Wilmersmeier, Deutsche Avantgarde und Film - Die Filmmatinee 'Der absolute Film (Münster: 1994), 33-36.

147 Richter, Köpfe und Hinterköpfe

Eggeling’s insights resulted in a play of contrasts and correspondences, forcing the observer to adjust his perceptive habits in order to discover an inner coherence in rhythmic sequences. Richter himself points out, that “we did not imagine painting static images anymore, rather a kind of kinetic painting.” Based on this discovery of rhythmic contrapuntal montage of dynamic elements Richter could then go on and formulate a radical new definition of film. “By film I mean visual rhythm, realized photographically; imaginative material coming from the elementary laws of sensory perception.”

Universal language

When Richter discovers Mies’s architectural drawings he discerns “a new language which seemed to connect our generation.” One can assume that the choice of words was far from accidental. For Richter, especially in 1921, speaking of “new language” meant something particular. At the time they first met, he had been preoccupied with developing a new system of visual communication whose fundamental outlines he and Eggeling first demonstrated in an eight-page pamphlet entitled “Universelle Sprache” (1920). [Fig. 65] Summing up two years of experiments with sequential drawings that Richter and Eggeling had conducted since meeting in Zürich in 1918, where both were close to the Dada circle, the now lost pamphlet drew up the contours of a notational system of visual communication based on the carefully calculated

149 Hans Richter, "Von der statischen zur dynamischen Form," Plastique, no. 2 (1937), 12.
interplay of contrasts and analogies.\textsuperscript{151} The drawings, accompanied by brief and at times cryptic annotations, not only resemble the shapes in Richter and Eggeling’s later films, the entire pamphlet can be regarded as a conceptual blueprint for the \textit{G} project. In order to comprehend why Mies’s renderings resonated with Richter we thus need to understand what this new “universal language” actually meant, how it relates to cinema, and what Mies could have found appealing for his own architectural design?

The first thing that can be said is that Richter and Eggeling were not the only artists preoccupied with developing a universally intelligible language. The desire to find a perfect language capable of establishing or re-establishing a direct link between the subject and things had been present in sixteenth and seventeenth century philosophy.\textsuperscript{152} During the interwar years Constructivists celebrated universally applicable methods of rationalization and organization. Moholy-Nagy spoke of the necessity for a “standard language of optical expression,”\textsuperscript{153} communication designers like Otto Neurath and Gerd Arntz develop visual isotypes for the comprehension of complex quantitative phenomena, and the choreographer Rudolf von Laban tried to capture dynamic body movements with “Labanotations.”

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\item \textsuperscript{152} See Paolo Rossi, \textit{Logic and the Art of Memory: The Quest for a Universal Language} (Chicago: University of Chicago Press, 2000).
\item \textsuperscript{153} László Moholy-Nagy, "Vom Pigment zum Licht," \textit{Telehor}, no. 1/2 (1936), 119.
\end{itemize}
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What distinguishes Richter and Eggeling’s “Universal Language” was that it did not try to expand the range of phenomena to be represented or to condense the complex reality to fit existing regimes of understanding. Instead they intended to let emerge a different kind of language, a kind of “meta-language” that instead of representing or communicating reality was to help emerge a new reality.\textsuperscript{154} Richter himself described their intentions as follows:

This pamphlet elaborated our thesis that abstracted forms offered the possibility of a language above and beyond all language frontiers. The basis of such language would lie in the identical form of perception in all human beings and would offer the promise of a universal art as it has never existed before. With careful analysis of the elements, one should be able to rebuild man’s vision into a spiritual language in which the simplest as well as the most complicated, emotions as well as thoughts, objects as well as ideas, would find a form.\textsuperscript{155}

Inspired by the life-philosophical thinking of Henri Bergson (who Eggeling cites as one of his principle influences) this new language was to produce, embody and render visible phenomena that eluded causal-analytical thinking and existing regimes of representation. In “Prinzipielles zur Bewegungskunst” (1921) Richter gives his fragmentary and cryptic annotations from the “Universelle Sprache” pamphlet a more coherent form. Here he clarifies that the “pictured drawings present principle instances of processes that are thought in motion.”\textsuperscript{156} They were meant as preliminary images waiting to be realized in film.” Kinetic art no longer focuses on the isolated object but on “pure relations of forms to each other.” Time enters the picture and prompts a fundamental rethinking of the Kantian separation of time and space – which, in turn, has consequences on a myriad of epistemological and ontological assumptions that are constitutive of what we habitually refer to as subject and object.

\textsuperscript{154} Elder, "Hans Richter and Viking Eggeling: The Dream of Universal Language and the Birth of the Absolute Film," 33.


\textsuperscript{156} Richter, "Prinzipielles zur Bewegungskunst," 119.
Richter knew too well that simply by placing the object, no matter how disfigured, estranged or abstracted, in ever new constellations merely obscured the conventional chains of signification but did not change the system of the language itself. Only the complete purging of the natural, mimetic object could rid the observer off his or her habitual ways of seeing and conceptualizing. By establishing a syntax of contrasting elementary shapes, Richter and Eggeling displace the site of signification from the aesthetically pleasing, symbolically charged or empathy-prone object to the dynamic-constructive relations of what they called “contrast-analogies.”

Meaning is still tied to vision, but a vision that happens in time and in movement. The “time problem,” as Richter calls it, becomes central for the new art.

Polarity and rhythm become the “general principle of life.” All notions of transcendental subjectivity, discreet form, or linear narrative are replaced with what Richter calls a single “infinite, multiple form” producing “clarity in multiplicity.” Tension and release at the place of formal analogy and analysis would generate meaning that is “elementary-magical.” According to Richter such paradoxical assertions were fully complimentary with his conception of the modern age: “Our scientific and technological age had forgotten that its contingence constituted an essential principle of life and of experience, and that reason with all its consequences was inseparable from unreason with all its consequences.”

Language, the way Richter understand it, is thus not simply a system for the transmission of words, forms and narratives. As an alternative to a conventional language that conveys content, narrative and meaning, Richter and Eggeling imagine a “spiritual language” that opens

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158 Richter, "Prinzipielles zur Bewegungskunst," 110.
159 Richter, Dada: Art and Anti-Art, 65; first published in 1964
the possibility for high rates of contingency. Language becomes a perceptive practice of grasping “elementary-magical” meaning that already resides in things and is inherent to matter.

“Universelle Sprache” shows certain parallels with Walter Benjamin’s almost simultaneous foray into the philosophy of language.¹⁶⁰ In his 1916 essay “Über Sprache überhaupt und über die Sprache des Menschen” Benjamin expands the concept of language to “every expression of human mental life.” No longer limited to a linguistic dimension, one can discern for instance a language of technology, of music, of sculpture, and of justice.¹⁶¹ In addition, Benjamin rejects the idea of language as simply an instrumental vehicle for the transmission of textual or verbal information. He argues that language “is by no means the expression of everything that we could – theoretically – express through it, but is the immediate expression of everything which communicates itself in it [der unmittelbare Ausdruck dessen, was sich in ihr mitteilt].”¹⁶² What Benjamin calls “mental being” [geistige Wesen] hence resides in language. Rather than serving as a vehicle for the transport of information or meaning (Mitteilung as Benjamin calls it), language in fact communicates “the mental being corresponding to it.”¹⁶³ The subject is no longer in the role of the active agent who ‘names’ the

¹⁶⁰ In fact, even on a biographical level the reference to Benjamin might very well make sense. Not only did Benjamin contribute in 1924 a translation of a Tzara article to G, he might very well have met Richter via their common acquaintance Hugo Ball, during the latter stay in Zürich in the late 1910s.


¹⁶³ Benjamin, "On Language as Such and on the Language of Man," 63.
passive, inanimate world. Instead, what precedes the subject’s utterance is the “call” [Anruf] coming from the thing or object.

The belief in the existence of a “universal” meta-language that sustains Richter and Eggeling’s experiments also exists in Benjamin’s thinking in the form of a “universal naming.” In what he calls the “name” is materialized the universal law of language. Language expresses itself purely “where it speaks in name.” In Richter and Eggeling’s plan for a universal language it is the “elementary” graphic entity that opens up the passage to an immanent totality. Like Benjamin, the founders of G have dissociated language from the question of form, content and meaning. It is through the right organization of the relations between the “elementary” means, Richter writes in the editorial of G’s first issue that “new life and abundance” can emerge.

With “[e]very expression of human mental life” potentially functioning as a kind of language, the task of the designer changes: rather than altering content and form or inventing new systems of communication, he has to awaken the languages that lie preconfigured yet remain slumbering in the object-world. What had to change was not the ‘content’ of the pictures but vision itself. The sequences of drawings produced by Richter and Eggeling are part of the intention to “rebuilt man’s vision” at its base, uncorrupted by existing words, concepts and memories.

Until the present day, the comprehension of Richter and Eggeling’s ideas has been complicated by the fact that, as Richter would later write in G, “the capacity of our optical

164 Ibid., 65.
166 Benjamin, "On Language as Such and on the Language of Man," 62.
conceptualization rested on the static spatial form of the fine arts.” The problem was that the images “had to be liberated from the static form of painting.” The abstract series of drawings they published are therefore not to be understood as still images that ‘represent’ something, i.e. that they provide the analyzing observer with information about form and symbolic meaning. Instead, the drawings were to activate what Richter calls an “inner sense” of form. The relational, dynamic forms can no longer be comprehended through analysis and identification but can only grasped intuitively by a bodily observer who searches for correspondences ‘emitted’ by the things. The drawings we see are hence always double: on the one hand, they function as empirically visible phenomenon that denote contrapuntal relations between contrasting shapes; on the other hand, perceived in time these images produce analogies leading to a higher “rhythmic unity.” It is the task of the artist to engage with a still unknown meta-language. At the same time, it is challenge of the observer to learn, as Behne repeats, “to see temporal sequences as unity and as a new dimension.”

The same apparent contradiction is at the heart of Richter and Eggeling’s conceptual practice. On the one hand, the rebuilding of vision was to be achieved by working “completely objectively and logically,” on the other hand, their experiments were to produce unforeseeable events and chance encounters. Intellect and intuition, order and chaos, rational abstraction and ecstatic plenitude lose their antonymous meaning and become complementary. This formal contradiction would resolve and turn into analogies once the individual would learn to grasp the

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167 Richter, "Dimension t. Bei 25 Meter in der Sekunde geht es nicht mehr um das schöne Bild."
168 Richter, "Von der statischen zur dynamischen Form," 16.
171 Richter quoted in Hoffmann, "Hans Richter: Constructivist Filmmaker,"
whole of a time-based process. The aim was to achieve, as Richter puts it, “clarity of multiplicity, meaningful relations of contrasts in analogies (polar synthesis).”

With their “universal language” Richter and Eggeling continue the lesson of Dada’s radical critique of the exhausted regimes of representation and signification into a Constructivist direction. Their sequential drawings of elementary shapes demonstrate what could emerge once the debris of signs and images has been cleared. Contrary to other avant-garde artists who turned towards abstraction in their quest to lay bare a supposed universal essence (a strategy which was often tantamount to the desire to do away once and for all with the image’s capacity of mediation), Richter and Eggeling understand abstraction as a necessary passage towards an unpredictable and immanent plenitude. By precluding all analogies and memories with objects or images, the abstract shapes trigger a play of tension and resolution that can no longer be grasped with a causal-analytical gaze and instead becomes, as Richter puts it, “elementary-magical.”

In that sense, by embracing the chaotic forces of nature as its elementary principles, they give their experiments – which are at once artistic, philosophical and political – a direction completely different from the various propositions made by avant-garde artists of release and escape from the chaos of modern life.

One could make the case that some of basic ideas developed in “Universelle Sprache” reappear in Mies’s few writings of early 1920s. In “Baukunst und Zeitwille” (1924) he speaks of the “chaos of jumbled-up forces” as the precondition of all architectural production in a situation

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173 This shift becomes possible by foregrounding certain terms that seem to directly be taken from Bergson’s life-philosophy: intuition, zones of indetermination, continuous creation, duration and immanence are all central terms in Bergson’s writing which, as we know, had a great in influence on Eggeling.
when a veritable Baukunst was not yet possible. And Hilberseimer, who was friends with both Richter and Mies, repeats this same idea when he writes in 1923: “In “Bauen” (1923), the very article that would clarify the position of G as writes in his letter to Jakstein, Mies appears to define architecture the same way Benjamin had defined language. Just like Benjamin insists on the fact that “all language communicates itself” rather than some kind of content or message, Mies asserts Bauen should be nothing else than Bauen. Architecture is hence an autonomous and autopoietic discipline and not a vehicle that communicates extraneous ideas or images.

All the attributes of the new Universelle Sprache Richter discerns in Mies’s architecture. In a 1925 article Richter celebrates Mies the very first “Baumeister,” the master-builder who has freed himself from the formal, historical, and technical constraints of the architect or engineer. According to Richter it is Mies who overcomes the “reigning mechanical attitude” and who accomplishes “a new spirituality.” Mies’s architecture is the first to account for the fact that man has radically changed “in a stream of motion, sounds, and light that did not exist twenty years ago.” Just like the single elements or image in Richter and Eggeling’s drawings and film only make sense in relation to those preceding and succeeding it, the building is always “an organic product of creative and elementary Gestaltung of all moments of construction

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175 Benjamin, "On Language as Such and on the Language of Man," 63

176 Mies van der Rohe, "Bauen,"

177 Hans Richter, "Der neue Baumeister," Qualität 4, no. 1/2 (1925), 7.

178 Ibid., 8.
Baumomente].” His architecture, instead of presenting a rational solution to functional problem, is “a fact that confirms the presence of the creative” [Vorhandensein des Schöpferischen].

The critical reactions Richter and Eggeling’s experiments provoked point into two directions. First, film is regarded as the solution to the issues raised by the introduction of kinetic art. It opens up “a new basis for visualization and has solved the problem of movement in the most radical way through the help of a new means, film.” The new medium has added “a new dimension to the optical consciousness of today’s man where the unified appearance [Gestalt] of things emerges as the constant change of its form.” Film becomes the quintessential means for the process of what Richter calls “creative forming” [schöpferische Gestaltung] by making the observer’s perceptive faculties resonate with the “elementary material.” For the first time, the critic Alfred Kemeny, one of the most outspoken advocates of Constructivism, argues “time is used as a real – and not an illusory – element in visual arts.”

179 Ibid., 5.
180 Ibid., 9.
181 Hans Richter, "Film," De Stijl 5, no. 6 (1922), 92.
182 Richter, "Zur Stärkung unseres Bewusstseins!," 108.
183 Richter, "Die schlecht trainierte Seele," 44. Translated as Richter, "The Film as an Original Art Form," 15. “Still without a well-defined aesthetics, it does not understand that creative form (schöpferische Gestaltung) is the control of material in accordance with the way we perceive things. Not knowing how our faculties function, film does not realize that this is where its job really lies. By film I mean visual rhythm, realized photographically; imaginative material coming from the elementary laws of sensory perception.”
Secondly, critics, especially those who would later develop affiliations with the G group, saw in Richter and Eggeling’s experiments a confirmation for modern art’s spatial and architectural penchant. For Ludwig Hilberseimer kinetic art is evidence for “the path towards a new dynamic architecture.”185 Adolf Behne, who already in his 1919 work *Die Wiederkehr der Kunst* had identified what he calls “Architektonik“ as a hidden, original drive towards unity underlying all the arts,186 interprets all of art history as a linear development towards an even greater realization of a “spatio-temporal whole” resulting in film.187 Liberated from the constraints of the causal “laws of movement” film eventually becomes visible in an “ideal space.”188 Kemeny argues that the contrapuntal light plays giving “rise to entirely new, specific spatial functions of light moving in space: the most elementary version of this unity of space, time and matter.”189 Richter himself notes that “the sphere intrinsic to film is ‘moving’ space.”190 Although he argues against the idea that this new time-based “light-space” is architectural, his *Rhythm* films in fact resemble ground plans and evoke three-dimensionality through the superimposition of various planar surfaces.

Accordingly, Mies scholars repeatedly emphasize the apparent dichotomy between chaos and order in his architecture. According to Tafuri and Dal Co, Mies’s architecture holds the urban disorder “at arm’s length” refusing dialogue.191 And Dal Co interprets the elementary rationality of Miesian buildings even as a protection against and not as a precondition for the

185 Hilberseimer, "Bewegungskunst," 466.
186 Behne, *Die Wiederkehr der Kunst*
187 Behne, "Der Film und die Bildkunst," 378.
188 Behne, "Der Film als Kunstwerk," 1117.
189 Kemeny, "Die abstrakte Gestaltung im Suprematismus bis heute," 482
190 Richter, "Film,” 65.
potential for events to happen. In other words, the irreconcilable elements in his architecture are not read along the lines of the “Universelle Sprache” but according to the very regime of vision and comprehension Richter and Eggeling tried to combat.

*Visual analogies versus sensuous reading*

Although we have no archival documents of Mies’s reaction to encountering Richter, it is safe to assume that the conceptual outlines of the “universal language” developed by Richter and Eggeling resonated with the architect. Mies’s dedicated participation in the journal *G*, which can be regarded as an elaboration of the ideas put forward in the *Universelle Sprache* pamphlet, points a fundamental congeniality. And at the time they first met Mies had already been susceptible to Richter’s blend of a transcendental-materialistic theory of language and life-philosophical fragments through his wife Ada Bruhn and his acquaintance with the Dadaists Hannah Höch and Raoul Hausmann. Mies found himself being part of a group of artists who interrogated the dominance of empiricist perception and positivist thinking. And according to the editorial statement Richter and Graeff publish in the *G*’s first issue the task was completely open-ended since the objective was to investigate what “elementary Gestaltung, principles, the collective, task etc. actually meant.” In the years 1921 to 1924 Mies suddenly appears as a central figure of an artistic and intellectual movement that sought access to a life-world made of movements, processes and duration.

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192 Dal Co, “La culture de Mies considérée à travers ses notes et ses lectures,” 89.
All the more it is surprising that architectural scholars who have commented on Mies pivotal work during the period 1921-1924 employ the very methodological approaches Mies and his peers tried to supercede. Take for example the interpretations in Mies scholarship of Brick Country House plan (1923/24). Ever since Alfred H. Barr (who perpetuates the association of Mies with Dutch Neo-Plasticism first evoked by van Doesburg himself by exhibiting Mies’s work alongside his own at the Galerie de l’Effort Moderne in 1923) famously juxtaposed the famous plan with Theo van Doesburg’s Rhythm of a Russian Dance (1918), architectural historians have not grown tired of stressing the formal analogies between Mies’s architectural plan and Neo-Plasticist abstract painting.\(^{194}\) [Fig. 66] Arthur Drexler, for instance, writes:

His [van Doesburg’s] 1918 painting, called *Rhythm of a Russian Dance*, organized vertical and horizontal lines in a staccato rhythm forcing the observer’s eyes towards the edge of the canvas. The plan of Mies’ brick country house bears a startling resemblance to this painting. Axial walls extend indefinitely into the landscape; three disappear outside the limits of the drawing. The roof is an independent plane beneath which walls seem merely to be passing on their way to the horizon. Interior spaces become a fluid medium channeled between planes entirely independent of each other.\(^{195}\)

Although both images appear to function in completely different ways (van Doesburg’s painting affects visual perception whereas Mies’s plan incites the imagination of walls and landscapes), the formal resemblance maintains painting’s conceptual sway on architecture. Schulze adds a biographic dimension to the same argument:

\(^{194}\) Barr, *Cubism and Abstract Art*, 157. In fact, Barr’s image composition appears like a literal visualization of a written argument put forward nine years prior by Henry Russel Hitchcock who discusses Mies’s ferro-concrete country house project hinting at “a certain parallel to the contemporary studies of the men of *de Stijl* in the way the plan is opened up so that exterior and interior flow together.” Henry Russell Hitchcock, *Modern Architecture: Romanticism and Reintegration* (New York: Payson & Clarke, 1929), 191. And already as early as 1925 the analogy between Mies and De Stijl was evoked through the juxtaposition of illustrations. See Tegethoff, *Die Villen und Landhausprojekte*, 50-51.

[The Brick Country House plan] resembles a de Stijl painting [...]. In the painting [Rhythm of a Russian Dance] lean, straight bars of color, all the same width, rectilinearly disposed and asymmetrically organized, activate movement not only among themselves but in the spaces that flow restlessly through and around them in labyrinthine fashion. It is easy to imagine that Mies, who was familiar with van Doesburg’s work, might associate this configuration with a floor plan, the more so since the edges of the pastel areas of color, where flush with the long and short edges of the dark bars, could bring to mind glass partitions.196

Again it is suggested that architecture draws inspiration from painting. Lately, the validity of such interpretations has been questioned, without however interrogating the method of formal analogy as such. Ulrich Müller, for example, criticizes the repeated analogy with Rhythm of a Russian Dance instead of highlighting the formal similarities points to the formal dissimilarities when he argues that the “orthogonally placed stripes, held in black or in primary colors” as well as the vertical segmentation of the background, which is white in the center and grey on the sides of van Doesburg’s painting contrasts with the Brick Country House’s monochromatic planarity.197

Formal analogy, as Schulze put it bluntly, makes it “easy to imagine.” Regardless of possible factual inconsistencies and the problem of comparing different media, historians, by juxtaposing painting and plan, continue to suggest that Mies was ‘influenced’ by van Doesburg or Mondrian. This method for the production of art historical meaning engages the reader/observer in an exercise of comparative formal viewing in order to confirm the arguments advanced in the accompanying text – a method brought to perfection by Wölfflin, who not only extensively employed numerous image pairings in his Kunstwissenschaftliche Grundbegriffe but

197 Müller, Raum, Bewegung und Zeit im Werk von Walter Gropius und Ludwig Mies van der Rohe. 87.
also instituted the use of double slide projections for his lectures. The immanence of the image even overpowers the hermeneutic text-based argument with its “flash-like evidence” [blitzähnliche Evidenz] as Heinrich von Helmholtz called it. The seeming facility with which the empowered subject leaps back and forth between the written text and the homologous imagery obscures a calculated set of complex intermedial processes.

More recent speculations about the genealogy of Mies’s architecture of the early 1920s have made the analogy with abstract film. Bruno Reichlin invokes affinities between the Brick

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198 A blatant example for way architectural historian use of formal analogies in order to underline a historical claim can be found in Neumeyer (1987). In his quest to constructs the seamless lineage Schinkel-Mies he juxtaposes Schinkel’s wooden pergola drawing from 1826 and a photograph of the Neue Nationalgalerie by David L. Hirsch from 1962. The evidence is highly arbitrary: first, because it applies to countless other examples and, secondly, because it ignores the medial conditions of the representation’s apparatic premise (drawing versus photography). See Neumeyer, Mies van der Rohe: Das kunstlose Wort. See also the criticism of this method: Georgiadis, "Mies' preußische Gefangenschaft," 84-87.

199 Ironically, the methodological imperative of dual, comparative vision was flawed from the onset. Barr’s original page of illustrations actually contained a third image. The photographic view of the front façade of Gropius’s Professor’s House (1925/26) at Dessau, which completes the implied metamorphosis from painting to architecture, was simply omitted. In fact, the illustrations in Cubism and Abstract Art lack the dialectic rigor imposed by Wölfflin. The number of images Barr chooses to put on single or double pages varies. In addition, he prints numerous illustrations of film sequences. On a double page Barr juxtaposes film sequences by Eggeling, Richter, Léger and Man Ray. While appearing like original reproductions of celluloid strips the sequences have in fact been manipulated. In addition, Barr’s conscious rupture with the format of double projection might have been due his interest in film. Since the mid-1920s Barr was very much aware of the development of the cinematographic experiments of Hans Richter, Fernand Léger and Man Ray. In 1928 Barr publishes a critique of an experimental film called Hands produced in Germany by an American filmmaker named Stella Simon. Barr underlines that the film “avoids tricky devices such as double exposure and out of focus shots, but reveals the natural properties of photography as such, including the kinetic elements of cinema. […] Complex compositions which are like suprematist pictures or constructive reliefs, produce pictorial effects.” However, despite this familiarity with these works Barr did not grant the avant-garde film work an autonomous status but discussed them with respect to their formal affinities with painterly works or photography. Alfred H. Barr, Jr, “Za grantsei: Ruki [Abroad: Hands],” Sovetskoe kino, no.1, February 1928, 26-27. Cited in Sybil Gordon Kantor, Alfred H. Barr, Jr. and the Intellectual Origins of the Museum of Modern Art (Cambridge, Mass.: MIT Press, 2002), 175-77.
Country House plan and the abstract films of Richter.\textsuperscript{200} He illustrates his argument by juxtaposing the Brick Country House plan and a detail from his \textit{Präludium} drawing. Moreover, Reichlin includes Richter’s drawing “Filmmomente” which originally appeared on the cover of \textit{De Stijl} in 1923. The problem with Reichlin’s visual argument is that he treats Richter’s drawings as conventional still images although they are the products of a sustained critique of the dominance of the still image. Insinuating formal resemblances ignore the very specificity of the cinematic image Richter and Eggeling had painstakingly tried to elaborate. They also fail to account for what was at the very heart of the G movement, namely the questioning of the still image’s sway on how the world is imagined, understood and eventually designed.

This reigning hylomorphism, the fixation on form and matter, continues to impose a certain method of knowing and communicating architecture. Even the comments made by those involved did little to incite historians to question their methodological a priori. Mies himself adamantly refuted the parallel with van Doesburg as “absolute nonsense.”\textsuperscript{201} Hilberseimer, a close friend of Mies and one of the protagonist in various Berlin avant-garde groups in the early 1920s, also argues against this equation of painting and architecture: “There is, however, a great and distinctive difference in the work of these artists. Mondrian’s paintings are self-contained works of art. Mies van der Rohe’s plans are only a notation of his space concept.”\textsuperscript{202} Georg Schmidt, an art historian and former student of Eggeling who was both an early connoisseur of absolute film\textsuperscript{203} and an advocate of \textit{Neues Bauen} (Mies invited him to give a lecture at the

\textsuperscript{200} Reichlin, "Vermutungen zu einer Genealogie und Inspirationsquellen,” 53-61.
\textsuperscript{201} Blake, "A Conversation with Mies," 101.
\textsuperscript{203} Schmidt participated in 1929 alongside Richter, Eisenstein, and Balázs in the founding meeting of the League of Independent Film at La Sarraz. He was also responsible for the very
Bauhaus in 1931\textsuperscript{204}) emphatically denounced the comparison with Mondrian whose art is "proportion – proportion at an ultimate degree of purity, strictness and spirituality. Proportion of surface, line, of contrast and color. [...] Proportion – not rhythm! Because rhythm is movement and temporal juxtaposition. Mondrian, by contrast, searches for absolute statics, perfect simultaneity."\textsuperscript{205}

In 1925, right after the $G$ had reached its conceptual maturity with the publication of the third issue, Richter publishes an article in the journal \textit{Qualität} in which he singles out Mies as a new type of architect. He is the "\textit{neue Baumeister}" who has freed himself of all formal, historical and technical preconceptions. Rejecting both the Wilhelminian \textit{Gründerzeit} style and "ultramodern" functionalist architecture as "different declinations" of the same conception of architecture, Richter identifies Mies as the only builder whose work responds to a need "to perform the buildings of time [\textit{Bauten der Zeit}]."\textsuperscript{206} His work, rather than being the result of functional considerations or "occasional inspirations," radically affirms the present by producing "a body that it [the present] demands."\textsuperscript{207} Architecture is hence not considered as a detached

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first retrospective of Eggeling’s work in 1941. See Georg Schmidt, "Der internationale Kongress für den unabhängigen Film in La Sarraz," \textit{Das Neue Frankfurt}, no. 10 (1929), 207.


\textsuperscript{206} "Ebenso wie wir heutiger Maschinen bedürfen um die technischen Aufgaben des Tages bewältigen zu können, so brauchen wir auch heutige Baukunst, um die Bauten der Zeit aufzuführen." Richter, "Der neue Baumeister," 3.

\textsuperscript{207} Ibid., 8.
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Richter applies this new definition of architecture to Mies’s images (he generously illustrates the article with the rendering of the Bürohaus, Landhaus in Backstein (plan and elevation), and Landhaus in Beton. Apparently, Richter is wary of a ‘false’ reading of Mies’s images. He accompanies the illustration of the Brick Country House plan with captions that warn the viewer that “the plan can be read sensuously” and that it is not a “mathematical abstraction. [Dieser Grundriss ist sinnlich lesbar, ist keine mathematische Abstraktion]” In other words, the plan is not to perceived as a conventional architectural image that, by way of projection, allows for a translation from two-dimensional to three-dimensional space. In Richter’s interpretation Mies’s images do not accommodate the analytical-scientific gaze but demand a corporeal apperception.

Yet what does “sensuous” reading mean? What alternative visuality does Richter refer to? In a review of Carl Linfert’s article “Die Grundlagen der Architekturzeichnung” (1931) it is Walter Benjamin, another member of the G group, who points to the “marginal” character of architectural drawing. Not only does it differ fundamentally from the material reality of architecture, it is also distinct from depictions of buildings “using purely painterly means.”

208 Ibid., 8.
209 Ibid., 7.
Architectural drawings do not “re-produce architecture,” Benjamin writes, but “produce” images of buildings that are closer to dreams than they are to a planned reality.  

Benjamin writes:

There are various indications that confirm the existence of this [imaginary] world [Vorstellungswelt], the most important one being that such architecture is not primarily ‘seen,’ but rather is imagined as an objective entity and is sensed by those who approach or even enter it as a surrounding space [Umraum] sui generis – that is, without the distancing effect of the edge of the image space [Bildraum]. Thus, what is crucial in the consideration of architecture [Architekturbetrachtung] is not seeing but the apprehension [Durchspüren] of structures. The objective effect [Einwirkung] of the buildings on the imaginative being [vorstellungsmässige Sein] of the viewer is more important than their ‘being seen.’ In short, the most essential characteristic of the architectural drawing is that ‘it does not take a pictorial detour.’

One could argue that Benjamin develops the same argument evoked by Richter in the captions accompanying the Brick Country House plan. Architectural vision is distinct from other forms of vision, especially those associated with painting: while the former is objectively sensed and tactually apprehended, the latter is subjectively “seen” and analytically understood.

Architectural drawings do not represent objects or spaces inside a ‘framed’ picture but convey the practice of a sensuous “architectural vision” [Architekturbetrachtung] that is immediate and immersive. Benjamin goes as far as saying that “seeing” is detrimental to seizing architecture. In fact, architecture no longer needs pictures. By contrast, architectural drawings are described as

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212 Ibid., 670. The original text reads as follows: „Es gibt vielerlei Anzeichen für ihr Vorhandensein. Das wichtigste ist, daß die Architektur gar nicht in erster Linie „gesehen“ wurde, sondern als objektiver Bestand vorgestellt und von dem der Architektur sich Nährenden oder gar in sie Eintretenden als ein Umraum sui generis ohne den distanzierenden Rand des Bildraums gespürt wurde. Also kommt es bei der Architekturbetrachtung nicht auf das Sehen an, sondern auf das Durchspüren von Strukturen an. Die objective Einwirkung der Bauten auf das vorstellungsmäßige Sein des Betrachters ist wichtiger als ihr „gesehen werden.“ Mit einem Wort: die wesentliche Eigenschaft der Architekturzeichnung ist „keinen Bildumweg zu kennen.“ See Benjamin, "Strenge Kunstwissenschaft: Zum ersten Bande der 'Kunstwissenschaftlichen Forschungen'," 368.
animate entities that “act on” (Benjamin uses the term “Einwirkung”) the viewer’s “being.” The drawing is thus regarded neither as a representation of existing or imagined buildings nor as a prescription for construction. Rather it is seen as a medium that yields contingent sensory events between an animate object world and an embodied observer.

Then again, the Brick Country House image cannot be considered a technical drawing produced for the eye of the trained architect or engineer. As Tegethoff has shown, plan and elevation do not match. This lack of technical precision had probably to do with the fact that drawings were made to be displayed at exhibitions (paired up, the lost drawings were shown at the Große Berliner Kunstausstellung in 1924 and at the exhibition Typen neuer Baukunst held in Mannheim in 1925). They were to impress the visitor and not to convey precise information to the engineer or builder. Mies was conscious that architecture is contingent upon perception and that perception itself is always historically conditioned. In a 1924 piece entitled “Baukunst und Zeitwille!” [Building Art and the Will of an Epoch!] he writes that “our historical schooling has dulled our perception of these things, that is why we always confuse effect with cause.”213 It was hence not sufficient for an architect to imagine and draw a picture which, through standardized projective procedures would become a three-dimensional entity. He had to take into account the changed perception of the audience/user.

For Richter there was no doubt that Mies’s drawings were part of the same “universal language” he and Eggeling were developing. “In the plans of Mies,” he writes, “just like in my scroll paintings, there is an articulation in time.”214 Just as the lines and squares (“□ and ——”)
that the spectator sees in Richter’s films are not to be identified as representational forms, analogies or symbols, Mies’s centrifugal arrangement of perpendicular lines are not to be read as actual walls (as Drexler, Schulze and others do) but as “supports” for “the actual means of construction.” In other words, Mies’s plan cannot be ‘read’ as a conventional image but rather as a frozen frame that incites the viewer to intuit a sphere of intensities that lies beyond formal representation.

The comparison between Mies’s plan and van Doesburg’s painting is not problematic per se. What is problematic are conclusions based on formal analogies between still images, especially since such approaches ignore the critical stance towards formal analysis and quantitative vision that sustained the G project. The images shown on the pages of G are

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216 There are two notable exceptions. Robin Evans takes Mies’s refutation of the comparison with De Stijl painting serious: “Certainly his plans do sometimes look like a composition by Van Doesburg, but this likeness is visible only in these abstract documents. No such semblance would strike a person wandering around the [Barcelona] pavilion […].” Evans, "Mies van der Rohe's Paradoxical Symmetries," 253. Secondly, Peter Eisenman, in his attempt at a “textual analysis” of Mies’s architecture, detects in the comparison between the Brick Country House plan and van Doesburg’s painting two different attitudes towards space: “The first indication in Mies’s work of textual notation is found in the Brick Country House. This project begins to explore the limits of the independence of the object from the subject and how these limits can be articulated. It is concerned with a first order of textuality, the reduction of symbolic objects to mere objects, i.e. objects without the traditional narrative of man. With the Brick Country House, Mies begins to deploy the elements of architecture as textual counters. The first of these is the wall. Here the walls speak to the fact that there is no space in the house. The walls do not define space; rather, they define their own condition of being – that is, their capacity to support and their capacity to divide. Traditionally, walls are read as the perimeter of space: they either contain, enclose, or exclude space. But the walls in the Brick Country House are merely object presences, divisions where there is no space to divide or where the space has been removed and only surfaces exist. Van Doesburg’s Rhythm of a Russian Dance, which is often cited as the original model for the Brick Country House, in fact does not reflect such an attitude toward space. It utilizes no such absence of space; in it space is active as a ground.” Yet, despite Eisenman’s attempt to displace the discussion onto the level of textual analysis (as opposed to formal or symbolic analysis), he does not question the image and the mode of its reading as such. Peter Eisenman, "miMISes READING: does not mean A THING," Mies Reconsidered: His Career, Legacy, and Disciples (Chicago: Art Institute of Chicago, 1986), 88.
compromises owned to the structural constraints of the medium. That is why they require captions as Richter’s annotations show.217 The acknowledgement of a new universal, post-Euclidean, topological space, where “tensions, invisible motions, action-at-a-distance, and speed”218 were important, led to the realization that the architectural object – like film – could be time-based, formless, and moving. The avowal of an architectural object that cannot be fixed or suspended for the sake of comparative, quantitative analysis, poses a threat to art history as a discipline whose own methodological premises (the comparative, formal juxtaposition) and medial support (the printed, reproduced still photograph) relies on stilled images. Despite the emergence of a new visual paradigm (cinema) art history perpetuates the sway of an older paradigm for modern architecture.219

On the textual level, there were of course attempts to describe the animate and formless quality of Miesian space with attributes like “flowing”220 or “floating.”221 Already his 1927 Paul

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217 Richter includes captions to forestall a false reception of the image. He hence puts into practice what Benjamin would later famously argue in his Artwork essay: “For the first time, captions have become obligatory. And it is clear that they have an altogether different character than the title of a painting. The directives which the captions give to those looking at pictures in illustrated magazines soon become even more explicit and more imperative in the film where the meaning of each single picture appears to be prescribed by the sequence of all preceding ones.”Benjamin, "The Work of Art in the Age of Mechanical Reproduction," 226.

218 Werner Gräff, "Es kommt der neue Ingenieur," G: Material zur elementaren Gestaltung, no. 1 (1923)

219 Hubert Damisch, "La plus petite différence," Mies van der Rohe: sa carrière, son héritage et ses disciples (Paris: Centre Georges Pompidou, 1988), 16. Summarizing the conventional analogies with the formal language of the avant-garde, Damisch cautions that these parallels might be deceiving and that they rather serve the purpose of establishing and reinforcing art historical method of producing meaning.

220 Philip Johnson might have been the first to introduce the metaphor of a fluid and flowing character of Mies’s space: “Instead of forming a closed volume, these independent walls, joint only by panes of glass, create a new ambiguous sensation of space. Indoors and outdoors are no longer easily defined; they flow into each other. The concept of an architecture of flowing space, channeled by free-standing planes, plays an important role in Mies’s later development and reaches its supreme expression in the Barcelona Pavilion of 1929.” Johnson, Mies van der Rohe,
Westheim describes the Brick Country House plan cinematically when he speaks of an “intertwined spatial sequence” [ineinander greifende Raumfolge].²²² A more sophisticated reading is presented by Robin Evans who in his interrogation of modern architecture’s obscured liaison with Euclidean projection praises Mies for finding “more fruitful and indirect derivations from modern painting” than most of his avant-garde colleagues. Evans argues that in Mies’s work “the appearance of fragmentation was either expurgated or sublimated”²²³ by superimposing an underlying classical conception of architectural space with antidotal effects of exaggerated “material and visual ambiguities.”²²⁴ In other words, Evans claims that the conceptual basis of Mies’s architecture remains a derivative of the projective paradigm (hence painting), with the difference that he succeeded more than his contemporaries in disguising the actual foundations of his constructions. The projective, Euclidean foundation thus remained unaltered albeit obfuscated through the suspension of the viewer in a dazzling yet fully controlled mis-en-abîme of ambiguous transparencies and reflections. Evans’s argument is based on the assumption that Mies necessarily had to accept the heritage of Cubist painting, either in an “expurgated” or “sublimated” form, because it was the sole available visual model for architectural production. What Evans’ argument leaves aside, though, is the fundamental impact new media technologies such as cinema which, for the first time, produced time-based forms.

30. See also Hilberseimer, Mies van der Rohe, 41; Wolf Tegethoff, "Die Entwicklung der Raumauffassung im Werk Mies van der Rohes," Daidalos, no. 13 (1984), 114.
222 Westheim, "Mies van der Rohe - Entwicklung eines Architekten,” 57, 58.
223 Evans, The Projective Cast, 67.
224 Ibid., 353.
Barr, Westheim, and Hilberseimer all perform remarkable interpretative balancing acts to contain the threat that the dissolution of centered, immobilized and monocular vision posed not only to the conception of the images and objects studied, but also to architectural history’s own methodological a priori. Despite the introduction of time into the picture, projective, ocularcentric vision remains privileged. The possible emergence of a Bergsonian world of material immanence, contingency and sensuous implication of the body is still excluded. The perpetuation of the idealist illusions of autonomy, centeredness and instrumental control had therefore as its inevitable corollary the unchallenged persistence of the classical heritage of projective drawing in modern architecture. The visual analogies made by Barr and his followers only reinforce what Richter himself had challenged: the habitual privileging of the discrete, recognizable thing over the conception of the object as a dynamic, time-based process.

**Mies and Eggeling**

*A conversation between architecture and film that (never) continued*

While the existing literature on Mies frequently acknowledges his link with Richter the role of the Swedish-born artist Viking Eggeling (1880-1925) is rarely discussed. This is rather surprising because it was Eggeling who can be considered as the actual source for the ideas and inspirations that sustained both the experiments with abstract film and the journal *G*. Mies scholarship, if mentioned at all, treats the creator of *Diagonal Symphonie* like a marginal figure: Fritz Neumeyer simply lists Eggeling as one of the members of the *G* group\(^{225}\); Johnson compares the plans for the curvilinear plan for Mies’s *Glashochhaus* with “certain abstract film

\(^{225}\) Neumeyer, *Mies van der Rohe: Das kunstlose Wort*, 44
designs of Viking Eggeling.” 226; Schulze only refers to Eggeling indirectly via a discussion of van Doesburg.227 Detlef Mertins presents the most comprehensive attempt to situate Mies in Berlin’s avant-garde at the time yet, concerning the role of abstract, focuses his attention on Richter rather than on Eggeling.228

Amongst the historical master narratives of modern architecture, only the works of Reyner Banham and Manfredo Tafuri make brief mention of pioneer of abstract film.229 In Theory and Design in the First Machine Age Banham makes an offhand remark about the fact that the

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226 Johnson, Mies van der Rohe, 26. “The prismatic plan of the first is rather Expressionistic in its oblique angles, whereas the second plan has a free curvilinear form of astonishing originality. The form bears some resemblance to certain abstract film designs of Viking Eggeling and to the biomorphic shapes of the painter Jean (Hans) Arp.”


228 Mertins, "Architectures of Becoming: Mies van der Rohe and the Avant-Garde," 107-33. Mertins incorrectly identifies Eggeling as one of the founders of G. There is no evidence that sustains this argument. Richter himself would later emphasize that, though figuring prominently in the pages of G and exerting a direct influence on some of the journal’s main collaborators, Eggeling never participated directly in G. See Sers, Sur Dada: Essai sur l'expérience dadaïste de l'image -Entretiens avec Hans Richter, 215.

229 Mies scholarship sometimes mentions en passant the name of Eggeling. Fritz Neumeyer evokes the name Eggeling among the list of members of the G group but he does not elaborate any further. It is equally surprising that Neumeyer repeatedly refers to Hans Richter without mentioning the crucial influence of Eggeling on Richter’s intellectual and artistic development, especially with respect to his film experiments and the founding of G. See Neumeyer, Mies van der Rohe: Das kunstlose Wort, 44; Johnson compares the plans for the curvilinear plan for Mies’s Glashochhaus with Eggeling’s films: “The prismatic plan of the first is rather Expressionistic in its oblique angles, whereas the second plan has a free curvilinear form of astonishing originality. The form bears some resemblance to certain abstract film designs of Viking Eggeling and to the biomorphic shapes of the painter Jean (Hans) Arp.” Johnson, Mies van der Rohe, 26; Müller mentions Eggeling together with Richter as giving the highest priority to the question of time and space. Müller, Raum, Bewegung und Zeit im Werk von Walter Gropius und Ludwig Mies van der Rohe, 4; Schulze (1985) only refers to Eggeling indirectly via a discussion on van Doesburg. Cohen (1994) does not mention Eggeling at all. Cohen, Mies van der Rohe.
“abstraction and ‘space-time’ qualities [of Richter and Eggeling’s films] would obviously appeal” due to popularity of the “space-time” theme amongst the avant-gardes.\textsuperscript{230}

As already mentioned, Tafuri and Dal Co argue that Mies’s architecture assumed the lesson of $G$. But they also insist that the “conversation” between Mies and the avant-garde did not “follow the course taken in the films by Walter Ruttmann” (who after producing his abstract \textit{Opus} light-plays would return to figurative films\textsuperscript{231}) and that it ended with $G$ and his designs for the two country house in brick and concrete. When Tafuri and Dal Co elucidate the specific effect of Mies’s glass skyscraper designs they draw the analogy with Eggeling’s abstract films as being “constructed of deformations and isolations,” an effect which, they argue, differs from the avant-garde technique of “distortion.” While the latter still constitutes a form of “dialogue,” both the architecture of Mies and the films of Eggeling refuse all “dialogue” between subject, object and image. The formerly empowered observer fails to “penetrate” the architectural object with his projective, analyzing, and identifying gaze. Incapable of entering into a dialogue, of imposing a symbolic language, the subject is forced to become a bystander, an awe-struck witness of sublime processes of non-organic life. All that is left for architecture is to act as “a mediation on

\textsuperscript{230} Banham, \textit{Theory and Design in the First Machine Age}, 187.

\textsuperscript{231} In fact, Ruttmann, who was one of the pioneers of abstract film with his \textit{Opus} film, ceased his experiments with “absolute” film and began to make realist works such as \textit{Berlin – Die Sinfonie der Großstadt} (1927). “Art is no longer abstraction but a statement!” he writes in 1928. See Walter Ruttmann, "Die 'absolute' Mode," \textit{Film-Kurier}, no. 30 (1928). Quoted in Jeanpaul Goergen, \textit{Walter Ruttmann: eine Dokumentation} (Berlin: Freunde der Deutschen Kinemathek, 1989), 82. In a similar way, after his \textit{Rhythm} films Richter turned his back on abstraction and produced with \textit{Vormittagsspuk} (1927), \textit{Inflation} (1928), Rensymphonie (1928) and \textit{Die Neue Wohnung} (1930) a number of figurative films. By the late 1920s abstraction was no longer perceived as a progressive gesture but, on the contrary as “an aesthetic escape from the obligating reality” as Béla Balázs writes in 1930. Béla Balázs, \textit{Der Geist des Films} (Frankfurt a.M.: Suhrkamp, 2001 [1930]), 201.
the impossibility of dialogue,” while at the same time Eggeling’s *Diagonal Symphony* (1921-25) opens up the possibility for a new kind of language.232

Numerous of his contemporaries emphasized the fact that it was Eggeling who played a central role. Richter himself acknowledged his own secondary role when he writes that Eggeling “set up a whole syntax of form, when I was just starting the ABC.”233 In the third issue of *G* Richter credits Eggeling for having “discovered the fundamental principle of Gestaltung in the synthesis of forces of attraction and repulsion and the behavior of contrasts and analogies.”234 By transferring his drawings onto film Eggeling not only invented the “the first rule-based modern art work especially regarding the aspect of time,”235 he also discovered a “creative aspect [schöpferischen Gesichtspunkt] for Gestaltung that exceed all specialization (also that of film) and anchors the experiences of the senses in a zone of deep knowledge.”236 In other words, it was Eggeling who realized that the experiments with film were first and foremost of an epistemic nature. Hilberseimer described Richter as Eggeling’s “assistant.”237

As member of the Novembergruppe and the International Faction of Constructivists238 Eggeling was a central figure amongst the circle of artists who regularly met in the studio spaces

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232 Ibid., 132.
233 Richter, "Die schlecht trainierte Seele," 44.
234 Ibid., 44.
235 “[...] das erste Werk gesetzmäßigen Aufbaus der modernen Kunst, insbesondere die Zeit betreffend [...]”. Ibid.44.
236 “Die Tat E’s einen schöpferischen Gesichtspunkt für die Gestaltung gefunden zu haben, geht über jede Spezialität (auch die des Films) hinaus und verankert die Erfahrung der Sinne im Gebiet tiefsten Wissens.” Ibid., 44.
238 Eggeling belongs to the signatories of a manifesto at the first international *Kongress der fortschrittlichen Künstler* (Congress of Progressive Artists) held in 1922 in Düsseldorf. Hans
Buchholz, whose famous abstract studio-apartment had been a central meeting place for a cross-section of Berlin’s avant-garde (including Mies\(^{240}\)), singled out Eggeling for having “brought up the kinetic theme” and introduced Bergsonian ideas during their debates.\(^{241}\) The fact that Eggeling is rarely discussed has certainly to do with the fact, although having been pivotal for \(G\), he never became directly involved in the publication of the journal. A dispute between Richter and Eggeling ended their collaboration abruptly before the first issue was published. Moreover, it was Eggeling’s premature death in 1925 that cut short his career.

Although Eggeling never actively participated in the \(G\) project, there is evidence that he and Mies knew each other. The most obvious evidence is a brief essay Mies contributes to the catalogue accompanying the first postwar exhibition of Eggeling’s work in 1950. Here, not

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239 There also might have existed a connection with Dora and Walter Benjamin, who were acquainted via Charlotte Wolff with Eggeling’s assistant, the former Bauhaus student Ré Soupault (born Meta Erna Niemeyer). Soupault was the wife of Philippe Soupault, the writer of cinematic poems and contributor to \(G\). See Hein, ed., *Film als Film: 1910 bis heute*, 26.


without an air of pathos Mies, describes Eggeling “as one of those solitary great men who
Lionardo had in mind when he said: ‘The one who is bound to a star never turns around.’”242

In Mies’s correspondences we find an exchange of letters between him and Eggeling dated
February and April of 1924, the period just prior to the publication of third issue of G.
Apparently, Mies had lent an unknown amount of money to Eggeling, who lived in extreme
poverty at the time. In the letter Mies announces to Eggeling that he had been forced “to sell all
my papers, so that now I have to ask you, if you cannot get the amount in some other way, to do
the same.”243 In his reply three days later Eggeling asks for an extension for a loan and describes
his situation as desperate because the “return of his paper [sic] is not sufficient to rid myself of
Neu-Babelsberg. Nonetheless, I still own the cinematographic animation film – my only
possibility to work – selling it would mean the complete end of my work.”244 What exactly is
meant by “the papers” or “Neu-Babelsberg” is not clear. Possibly, Eggeling refers to the UFA
film studio located at Potsdam Neu-Babelsberg where he and Richter conducted their film
experiments. The film Eggeling speaks of is either his unfinished and lost Horizontal-Vertikal
Orchester or Diagonal Symphonie.

Nordenfalk (Stockholm: Nationalmuseum, 1950), 11. Mies was not the only one impressed by
Eggeling’s uncompromising resolve. Tristan Tzara, after seeing Eggeling lecture at a Dada soiree
in Zürich in 1919, remarked that Eggeling’s idea of a new form of painting was an attempt to
“relie le mur à la mer” (to attempt the impossible). Tzara quoted in Jeanpaul Goergen, "Viking
Eggeling's Kinorphism: Zürich Dada and the Film," Dada Zürich: A Clown's Game from

243 Mies in a letter to Eggeling, dated February 12, 1924 in Mies van der Rohe: Research Papers,
Documents and Tape Recordings Related to Mies van der Rohe and the Establishment of the

244 Eggeling in a letter to Mies, dated February 15, 1924 in Ibid. “Meine augenblickliche
Situation ist geradezu verzweifelt; denn der Ertrag meiner Papier reicht nicht aus, um mich von
Neu-Babelsberg zu befreien. Immerhin besitze ich noch den kinematografischen Trickfilm –
meine einzige Arbeitsmöglichkeit – ihn zu verkaufen würde ein völliges Abriegeln meiner Arbeit
bedeuten.”
What we nonetheless learn from the letter is that Mies had granted some form of financial assistance to Eggeling, possibly for the completion of Eggeling’s film *Diagonal Symphonie*, which was first shown in public at the famous *Film-Matinee* on May 3, 1925 – an event organized by the UFA’s division for *Kulturfilme* and the *Novembergruppe*, at a time when Mies acted as the group’s chairman. The fact that Mies was in the position to lend money confirms Richter’s assertion that it had been Mies who had single-handedly financed the costly third issue of *G* which was published in June 1924. But because Eggeling had not been directly involved in the production of *G* it is unlikely that the loan was related to the journal. More likely, Mies and Eggeling discussed either a private loan or a support for the latter’s film experiments.

Further archival proof of Mies’s acquaintance with Eggeling is a letter addressed by Mies to the German ministry of science, art and education. Shortly after Eggeling’s death in 1925, Mies, in this function as of the head of the *Novembergruppe*, asks for the studio-apartment of Eggeling to be given to Erna Niemeyer, a former Bauhaus student who assisted Eggeling in the production of *Diagonal Symphonie* (Niemeyer would later become the wife of Hans Richter and, after that, of Philippe Soupault).

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245 See Wilmersmeier, Deutsche Avantgarde und Film - Die Filmmatinee 'Der absolute Film'; Helga Kliemann, *Die Novembergruppe* (Berlin: Kunstverein Berlin, 1969), 43.

246 According to Richter, Mies kept a large amount of American dollars in his studio. He used some of that money to finance the third issue of *G*. See Richter, *Begegnungen von Dada bis heute*, 54.

Eggeling’s painstaking efforts to transfer his scroll drawings onto film culminated in a single seven minutes and twenty seconds long abstract movie entitled *Diagonal Symphonie*. The film was first screened in private in 1924 in Berlin before a small group of Berlin artists and intellectuals (among them Moholy-Nagy, Buchholz, Lissitzky, Behne, Kallai, Graeff). In May 1925 the film featured in the program of the legendary film matinee *Der absolute Film* held at the UFA cinema at Kurfürstendamm, which also included films by Richter, Hirschfeld-Mack, Ruttmann, Léger/Murphy and Picabia/Clair.

The preparatory work had begun years before. Already during Eggeling’s stay in Zürich in 1919, where he frequented members of Zürich Dada, he had started to experiment with sequential drawings. The Dadaist Marcel Janco reported later how Eggeling showed him a series of his drawings arranged in the form of a flipbook:

> […] promising me a surprise, he took a thick notebook out of his pocket […] He very skillfully flipped through 40-60 pages of the book in quick succession; the large format paper was bent in an arc and his index finger was thus deftly able to let each drawing flip on top the next. It was like pictures chasing each other, which overlapped in one single miraculous movement, as happens in cinema. Purely abstract forms appeared, grew larger, and then disappeared in a marvelous rhythm.

It was this “miraculous movement” that Eggeling attempted to generate through conceptual clarity and scientific rigor. *Diagonal Symphonie* was the latest manifestation of his life-long

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248 See Hein, ed., *Film als Film: 1910 bis heute*, 8-9. On Eggeling’s life and work see Louise O’Konor, *Viking Eggeling 1880-1925: Artist and Film-maker, Life and Work* (Stockholm: Almqvist & Wiksell, 1971). Because the original film has been lost the version of *Diagonal Symphonie* at hand today has been reconstructed under the supervision of Hans Richter from original film rolls in his possession.


quest to find a new “universal language.” With cinema the unprecedented opportunity had arisen for artists to ‘shape’ the experience of movement and duration, a completely new experience that could transcend the opposition of time and space that, since Lessing, had formed the basis of all classical aesthetics.

*Diagonal Symphonie* is composed along diagonal vectors, S-shaped curves, rectangles and undulating lines that rhythmically appear, grow and form larger shapes and then suddenly vanish – only to re-emerge and start anew.\(^{251}\) Eggeling transforms this musical paradigm into a calculated system of formal visual antinomies such as high/low, straight/curved, closed/open, large/small and so on. [Fig. 68] Both the frequency of their emergence and the ways the shapes transform are calculated with such precision that it is impossible for the spectator to recognize or imagine familiar objects or images. Systematically, Eggeling frustrates all attempts from the side of the viewer to associate what he or she perceives with stored inventories of meaningful forms and pictures. The film is devoid of “history, narrative, event,”\(^{252}\) neither does Eggeling’s film allow for “stopping points,” as Richter writes in *G*, which would have allowed the spectator to “reverse the directions of memories; one is at the film’s mercy – forced to feel – to go along in the rhythm – breathing – heart beat [...].”\(^{253}\)

On the other hand, the calculated composition of *Diagonal Symphonie* never allows the viewer to ‘lose’ himself in the purely visual pleasure of gazing at an informal, aleatory spectacle.

\(^{251}\) The existing version of *Diagonal Symphonie* has a length of 139 meters. According to the *Zensurkatalog* (censorship catalogue), the original version was 149 meters long. See *Jahrbuch der Filminindustrie 1923-1925*, vol. 2 (Berlin: Lichtbild-Bühne, 1925), 526.

\(^{252}\) Kurtz, *Expressionismus und Film*, 92.

\(^{253}\) Richter, "Die schlecht trainierte Seele," 45.
of emerging shapes (like, for instance, the synaesthetic light spectacles popular at the time).\textsuperscript{254} In short, Eggeling carefully circumvents the scope of conventional cinematographic aesthetics. Instead he suspends the viewer in a precise rhythm of movement and growth that is at once technical and organic. That way he lets emerge film’s elementary ‘presence’ or ‘materiality,’ i.e. time and movement. The very moment the film spectator fails to project an existing ‘reading’ onto the film, vestiges of lost artistic agency and the outlines of a new “universal language” starts to emerge. The critic Willi Wolfradt discerned a “changing succession of arabesques writing”\textsuperscript{255} and Adolf Behne states that the spectator sees “letters” but is not supposed to contemplate its “forms.” The only signification these sign have, Behne argues, is motion itself.\textsuperscript{256}

To better understand the paradigmatic novelty of abstract film it suffices to make a comparison with abstract painting. At first sight, both appear similar if not identical. In practice, however, the perceptual experience is antithetical. The absence of narrative or representational clues in abstract painting prompts the viewer to engage in a potentially liberating, overtly ambiguous play with perception. The opposite is true for abstract film: as Lorettaann Gascard has pointed out, it “responds twice to the kinetic urge – with the technical answer offered by cinema

\textsuperscript{254} One might be tempted to situate Eggeling’s work in the context of alternative practices of abstract animate light-plays, often built on musical models (the \textit{rythme coloré} by Henri Survage, the popular light spectacles of Alexandre Scriabine, Vladimir Baranoff-Rossiné, Alexander László or the light-music experiments by Kurt Schwerdtfeger and Ludwig Hirschfeld-Mack). I would argue that Eggeling’s work, by painstakingly suspending the viewer in-between the different perceptual regimes, proposes an elementary type of cinema. Léopold [Henri Survage] Sturzwage, "Le rythme coloré,” \textit{Les Soirées de Paris}, no. 27 (1914); Lista, "Empreintes sonores et métaphores tactiles," Sara Selwood, "Farblichtmusik und abstrakter Film,” \textit{Vom Klang der Bilder. Die Musik in der Kunst des 20. Jahrhunderts}, ed. Karin von Maur (München: Prestel, 1985), 414-16

\textsuperscript{255} Willi Wolfradt, "Der absolute Film,” \textit{Das Kunstblatt}, no. 6 (1925), 197.

\textsuperscript{256} Adolf Behne, "Vom absoluten Film," \textit{Die Glocke} 11, no. 19 (1925), 603.
and the aesthetic answer offered by the extreme ambiguity of non-representationalism."257 By adding cinematic movement to the image the original aesthetic function of non-objective still images – the subjective freedom of interpretation – is reversed. Taken in by the rhythm of the cinematic apparatus, the subject, after previously having been stripped of the capacity to objectivize the world, now is barred from reflecting his own condition as a subject. The viewer is deprived of both the meaningful objective world and of his/her own subjectivity. Abstract film takes over and allows the subject to visually/bodily experience a non-causal play of difference and repetition, of change without development.

"Diagonal Symphonie" as cinematic space

In issue 5/6 of G Richter publishes on an entire page a drawing by Eggeling entitled “Übergang vom Organischen zum Anorganischen” [Passage from the Organic to the Anorganic]. [Fig. 69] The drawing depicts rectangular forms and orthogonal lines contrasting with swirling, organic lines. “Here absolute film was create in 1917/18,” Richter writes in the captions of the image that recalls Mies’s plans for the Tugendhat House. The drawing anticipates a new idea of space that would fully emerge in Eggeling’s film Diagonal Symphonie. Unlike Richter’s Rhythmus 21 film [Fig. 70], which invokes framed window motifs and an illusionary spatial depth, Eggeling’s visual ‘symphony’ avoids all allusions conventional codes of spatial representation. The rhythmic interplay of shapes that appear and transform along a diagonal axis neither suggest depth nor migrate past the limits of the screen.258

258 Yet it is precisely the suggestion of an imaginary space beyond the limits of the screen that film studies have identified as the precondition for the production of cinematic space. According to the so-called “apparatus theory,” narrative cinema reinscribes the spatial codes of Quattrocento painting and their underlying ideology into the production of filmic space. For
Because *Diagonal Symphonie* does not imply an off-screen space, the movements the spectator sees on the screen are relieved from the obligation to mask the spatial and temporal disjunctions characteristic of a narrative film conventions. The spectator can finally experience the elementary ‘materiality’ of film itself: movement and time. Eggeling’s film therefore completely dissociates cinema from the pictorial conventions of painting. André Bazin had already pointed to the difference between picture frame and film screen to underline this fundamental difference:

> The outer edges of the screen are not, as the technical jargon would seem to imply, the frame of the film image. They are the edges of a piece of masking that shows only a portion of reality. The picture frame polarizes space inwards. On the contrary, what the screen shows us seems to be part of something prolonged indefinitely into the universe.259

It was precisely this spatial dimension that was the impetus behind Eggeling’s film experiments. Early on, Eggeling recognized what Bazin would later analyze, namely that framed still image and film image produced two different spaces. In fact, Eggeling’s attempts to transcend the spatial limitations of the film screen were not restricted to the space of the movie theatre. He intended to project his films against the sky creating atmospheric light-plays that

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were prolonged indefinitely so that urban space and cinematic film would merge into one immersive, dynamic experience.\textsuperscript{260}

Eggeling was not the first to imagine the transformation of the urban environment itself into a boundless ‘screen.’ Already in the streets of post-revolutionary Paris Étienne-Gaspard Robertson (1763-1837) projected with magic lantern phantasmagorias onto columns of smoke or back-projected \textit{fantômes artificiels} creating the illusion of movement – a spectacle that was popular because images would become ‘alive’ by gaining a dynamic, plastic corporeality.\textsuperscript{261}

Similar ideas for the substitution of solid buildings with the ephemeral image of architecture in space resurfaced in the works of Eggeling’s contemporaries. The satirical writer Salomo Friedlaender, a key influence on Dadaists, imagined media technologies such as radio, cinema and telephone to extend into space. In his science fiction story \textit{Fata Morgana Maschine} (1920), for instance, he describes how a certain “Professor Pschorr” invents a stereoscopic film projector capable of generating three-dimensional architecture in space.\textsuperscript{262}

\textsuperscript{260} O’Konor, \textit{Viking Eggeling 1880-1925: Artist and Film-maker, Life and Work}, 52.

\textsuperscript{261} Eggeling might have very well taken the inspiration from Philippe Jacques de Loutherbourg’s “\textit{Eidophusikon},” an illusory peep-show theater that opened in 1781 in London. On a translucent screen it presented a movable scenery, transparent paintings and simulations of sunsets and fog to an audience sitting inside a darkened auditorium. De Loutherbourg had a great influence on nineteenth century attempts in theatre design to endow the pictorial stage with motion and light. He is also the precursor for Jacques-Mandé Daguerre inventing the diorama where an immobile observer becomes incorporated into a predetermined temporal unfolding of optical experience. See Friedberg, \textit{Window Shopping: Cinema and the Postmodern}, 23; Birgit Verwiebe, "Schinkel's Perspective Optical Views: Between Painting and Theater," \textit{Karl Friedrich Schinkel 1781-1841: The Drama of Architecture} (Chicago: 1994), 36. On Robertson see Étienne-Gaspard Robertson, \textit{Mémoires récréatifs, scientifiques et anecdotiques d'un physicien-aéronaute} (Langres: Clima, 1985), 201; Arnheim, \textit{Film as Art}, 167; Jens Ruchartz, \textit{Licht und Wahrheit} (München: Fink, 2003), 135.

\textsuperscript{262} Friedlander writes: “For many years Professor Pschorr has been preoccupied with one of the most interesting problems of film: his idea was to achieve the optical reproduction of nature, art, and fantasy through a stereoscopic projection apparatus that would place its three-dimensional constructs into space without the aid of a projection screen. Up to this point, film and other forms
environmental cinema are imagined in Scheerbart’s *Lesabendio* (1913) or Naum Gabo’s project for light-projections onto Berlin’s nocturnal sky (1928). Richter takes the idea literally and produces advertisement films which he projected onto the sidewalk in front of a shop window. Raoul Hausmann, who in 1923 co-authored with Eggeling the “Second Presentist Declaration,” pays direct tribute to Friedlaender by imagining entirely new worlds produced by media technologies: in his 1921 article *PRÉsentismus* Hausmann speaks of “electrical and scientific painting” in the form of light and sound waves which at night transform the sky into “gigantic luminous dramas” and during the day would “resound in the atmosphere.”

of photography had been pursued only in a one-eyed fashion. Pschorr used stereoscopic double lenses everywhere and, eventually, indeed achieved three-dimensional constructs that were detached from the surface of the projection screen. […] Ever since this moment, film has become all-powerful in the world; but only through optical means. […] Pschorr rents out every desired landscape to innkeepers. Surrounding Kulick’s Hotel zur Wehmut these days is the Vierwaldstätter Lake. Herr v. Ohnehin enjoys his purely optical spouse. Mullack the proletarian resides in a purely optical palace, and billionaires protect their castles through their optical conversion into shacks. Not too long ago, a doppelgänger factory was established… In the not too distant future, there will be whole cities made of light; entirely different constellations not only in the planetarium, but everywhere in nature as well.”


265 Hausmann, "PRÉsentismus: gegen den Puffkeismus der teutschen Seele," 1-7. Eggeling had also been aware of the concept of “Präsentismus.“ It would reappear in an essay co-published with Hausmann. Viking Eggeling and Raoul Hausmann, "Zweite präsentistische Deklaration - Gerichtet an die internationalen Konstruktivisten," *MA* 8, no. 5-6 (1923). Hausmann pays homage to Friedlaender by using the term “Präsentismus” which the latter had employed in his seminal essay *Präsentismus: Rede des Erdkaisers an die Menschheit* (1913).
Moholy-Nagy imagined in 1923 a scroll film magic lantern that, mounted on a vehicle, was to project an image that “stands in the air.”\textsuperscript{266} Although he acknowledges that such an apparatus does not exist yet but he maintains that its invention would be “the greatest accomplishment ever.”\textsuperscript{267} His idea for the creation of three-dimensional images in urban space, which started out as a business venture, would later resurface in his propositions for “light-plays in open space” \[“\text{lichtspiele im freien raum}”\] and for “projection on clouds, gaseous screens through which, for example one can walk.” Later Moholy-Nagy would even imagine a “\text{städte-lichtspiel}” [city-light-play]: from airplanes and airships the spectators would look down on the illuminated city offering “a spectacle of gigantic Illuminations, full of movements and continuous transformations of illuminated areas which offer new experiences and new joys of life.”\textsuperscript{268}

\textit{“Kinarch”: abstract cinema and architecture}

The recurrent analogies used by the first critics of abstract film were dance, music, and architecture. The very first comments on abstract film, published in 1916 by the theatre critic


\textsuperscript{267} Moholy-Nagy in a letter to Christoph Spengemann (1923), cited in Ibid., 104.

\textsuperscript{268} See László Moholy-Nagy, "Brief an to František Kalivoda," \textit{Telehor} (1936); Reprinted in Richard Kostelanetz, \textit{Moholy-Nagy} (New York: Praeger, 1970) 37-42; 155-59. The idea of a ‘spatialized’ filmic image liberated from the flat screen resurfaced in the thinking of Moholy-Nagy’s acquaintances in Berlin. Hans Richter made small advertisement films for a florist called Köschel. Richter set up a projector on the windowsill of his top-floor apartment and projected a trick film onto the sidewalk – the effect was stunning: people stopped and finally had to be moved by the police. Eggeling wanted to project films against the sky. Later, Naum Gabo proposed a “light design” for the square in front of Berlin’s Brandenburg Gate. By the late 1920s not artists were illuminating the night skies but advertisement messages were thrown against the firmament. See Hoffmann, "Hans Richter, Munich Dada, and the Munich Republic of Workers' Council," 81. See also Wolfgang Schivelbusch, \textit{Licht Schein und Wahn} (Berlin: Ernst & Sohn, 1992).
Bernhard Diebold, three years before the first actual films reached completion, identify as film’s vocation the creation of abstract movements in the form of dancing ornaments. In 1919, Diebold witnesses the first screening of animated, abstract film experiments undertaken by Walter Ruttmann, who like Richter had studied architecture before turning towards film. He speaks of “animated painting” whose “artistic vision” he considers being closer to that of musicians and dancers than to the “spatially fixed, timeless vision of painters.” Unlike traditional painting though, Ruttmann’s rhythmically pulsating transformations of organic forms integrate the chaos of “optical-spatial appearances” into a temporal sequence similar to that of musical orchestrations. “Augenmusik” [eye-music], as Diebold calls Ruttmann’s film Lichtspiel Opus I (1919-21), overcomes what painting, even the futurist works, cannot achieve: “[…] this entire impossibility of fixing a temporal sequence of events or association in spatial juxtaposition.” Only with the advent of the medium film art finally finds, as Diebold puts it, a “release from space into time.” For Diebold, this fundamental shift causes the

269 Bernhard Diebold, "Expressionismus und Film," Neue Züricher Zeitung, no. 1453 (1916). Diebold had been the theatre critic of the Frankfurter Zeitung and hence during the 1920s the colleague of Siegfried Kracauer. He was present during the private screening of Walter Ruttmann’s first film Lichtspiel Opus I (1919-21). Ruttmann’s twelve minute long film was first shown publicly on April 27, 1921 in the Marmorhaus in Berlin. See Heribert Gehr and Christine Kopf, "Eine neue Kunst - Bernhard Diebold und die Filmavantgarde in Frankfurt 1921-1932," Lebende Bilder einer Stadt: Kino und Kunst in Frankfurt am Main, eds. Hilmar Hoffmann and Walter Schobert (Frankfurt a.M.: Deutsches Filmmuseum, 1995), 118-41.


271 Ibid.

272 Ibid.

273 Ibid. The difference between Eggeling and Ruttmann becomes apparent in the invocation of a homology between architecture and film. What both artists, who undertook their experiments around the same period yet independent of each other, have in common is the shift of focus from, as Ruttmann writes already in 1919/20, the “reduction of an (real or formal) event into a moment” to a “temporal development of form.” Yet, the difference between the two lies in
emergence a new artist he calls the “Kinarch”\textsuperscript{274} – an abbreviated composite of the terms “cinema” and “architect” that suggests a new form of art as well as a new type of artist produced by the fusion of the film and architecture.

The idea that the filmmaker operates like an architect resurfaces in the first critical responses to Eggeling’s abstract films. Many of the reactions came from artists, architects or critics who were eager to expand the idea of architecture. Van Doesburg, who most likely saw sequences of the unfinished and lost *Horizontal-Vertikal Orchester*\textsuperscript{275} [Fig. 71] during his brief visit to Berlin between late 1920 and early 1921 (the same period when he meets Mies for the first time), points to the affinities with the work of *De Stijl* artists. He stresses the films’ “beeldende bepaaldheid” (which can be best translated as a ‘new concreteness’ that incites both the construction of concrete objects and the creation of immaterial images).\textsuperscript{276} By 1921, Adolf Behne praised Eggeling’s filmic experiments as a new “Bewegungskunst”\textsuperscript{277} [motion art] that finally provides “special, new, and unique artistic means” for the “materialization of the kinetic the production of what one can consider a time-based object: Ruttmann’s *Opus* films show the dissolution of solid geometric forms into a rhythmic flow of organic shapes whereas Eggeling’s light-play appears like a systematic orchestration of contrasting shapes and movements. Ruttmann’s film follows a ‘dramatic’ trajectory which, as he writes, begins as a “boisterous chaos of light and dark elements, until somehow, through the victorious intensification of light, balance and conclusion is achieved.” By contrast, Eggeling’s *Diagonal Symphonie* avoids with great precision any association with narrative or figurative associations with what might already exist on the side of the spectator. It is this rigorous, potentially endless play of dynamic forms devoid of culminating in potentially meaningful moments of formal petrification or culminating crescendos that constitutes the film’s constructive character. Walter Ruttmann, "Malerei mit Zeit [1919/20]," *Film als Film, 1910 bis heute*, ed. Birgit Hein (Stuttgart: Hatje, 1977), 63.

\textsuperscript{274} Diebold, "Eine neue Kunst - Augenmusik des Films,"

\textsuperscript{275} For descriptions of this lost first work of Eggeling see O’Kon, *Viking Eggeling 1880-1925: Artist and Film-maker, Life and Work*, 46-51.

\textsuperscript{276} Doesburg, "Abstracte Filmbeelding," 56.

\textsuperscript{277} Behne, "Bewegungskunst," 2.
artwork.” For Behne, Eggeling’s film is a step forwards a cinema which no longer records “movements in the sense of changes of place, that take place in a natural space,” but instead depicts “pure, disinterested laws of movement in an ideal space.”

The concerted effort by artists and critics associated with G to propagate and theorize the new “motion art” was completed by the architect and city planner Ludwig Hilberseimer, a friend of Mies. In “Bewegungskunst” Hilberseimer reflects about movement in art as a means for attaining elementary forms through abstraction. Starting his argument with a reference to Archipenko, whose relational sculpture “paved the way to a dynamic architecture,” via a reference to the painter Otto Freundlich who attempted the creation of a “new language, a new identity of word and image,” Hilberseimer concludes with an emphatic appraisal of Eggeling and Richter’s film experiments. In their work, Hilberseimer discerns themes that were central to his own architectural thinking: “The abstract forms, like music, avoid all analogies or memories of natural objects, find tension and resolution in themselves. Because all material comparisons and memories become obsolete, they are elementary-magical.”

In absolute film Hilberseimer recognizes the conceptual outlines of a purely technical language that refuses all processes of signification based on mimetic references. Abstract film’s pure light rhythms prompt the emergence of “a deeply meaningful organic language for all of

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278 Behne, "Der Film als Kunstwerk," 1117. The proximity between Eggeling and Behne is further attested by the fact that it was Behne who pronounced the introductory remarks at the first screening of Diagonal Symphonie in 1924.
279 Ibid., 1117.
280 Hilberseimer, "Bewegungskunst," 466. The article appears a year later in the Soviet film journal Film-Fot. Hilberseimer, "Dynamic Painting - Objectless Cinema (Dinamicheskaia zhivopis' - bespremetnyi kinematograf),"
281 Hilberseimer, "Bewegungskunst," 466.
282 Ibid., 467.
humanity” that holds the “principles of constructions of our own nature.” Hilberseimer describes the abstract shapes in Eggeling and Richter’s films as “elementary-magical” permitting access to a pre-linguistic, rhythmic *Urgrund*, to a non-contingent substratum of being, to “a language which resonates in an elementary way since the beginning of our existence, whose rhythm we continuously inhabit.” The dynamic and polar organization of the parallel lines and geometrical shapes in Eggeling’s *Diagonal Symphonie*, just like Hilberseimer’s abstract building silhouettes in his *Hochhausstadt* (1924), function as hieroglyphs of an ancient language in the sense that they are at the same time pictorial and architectural. They no longer reference an ‘outside’ reality in mimetic terms but transcribe a purely rational and unmediated state of things. They are the harbingers of a meaningful “universal language” that can only be grasped in time and motion.

Ernst Kallai, who attended the first screening of *Diagonal Symphonie* in November 1924, stresses the film’s play of “polar and analogous relations” as well as the element of time, which

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283 Ibid., 467.
284 Ibid., 468.
285 On Hilberseimer’s understanding of abstraction see Michael K. Hays, *Modernism and the Posthumanist Subject* (Cambridge, Mass.: MIT Press, 1992), 266. It is ironic that Hays, while illustrating his insightful analysis of Hilberseimer’s written and architectural work with stills from Richter’s *Rhythm 21* and *Ghosts before Breakfast*, never refers to these films in the text.
286 According to Christine N. Brinckmann, Eggeling knew Worringer’s work *Abstraction and Empathy* well. Here, Worringer makes the clear spatial differentiation between the empathetic drive, which is conditioned by a “pantheistic relationship of trust between man and the exterior phenomena,” and the drive towards abstraction, which is interpreted as “the consequence of a great inner turmoil” that has as a consequence a “remarkable spiritual fear of space [geistige Raumscheu].” In the case of Eggeling, one could however argue against Worringer’s this antinomy between abstraction and empathy is transcended. See Wilhelm Worringer, *Abstraktion und Einfühlung* (Amsterdam: Verlag der Kunst, 1996 [1908]). Quoted in Christine N. Brinckmann, "'Abstraktion und 'Einfühlung' im frühen deutschen Avantgardefilm," *Die Perfektionierung des Scheins: Das Kino der Weimarer Republik im Kontext der Künste*, ed. Harro Segeberg (München: Fink, 2000), 116.
can “be experienced immediately through the spatial-optical process of motion.” Kallai adds a third quality when he highlights “the analogy with architecture” and the “architectural character” of the film’s strict composition. For Kallai, the “curved, pulsating organic of film calls up a classical-baroque past.” And the anonymous author of the Bauhaus journal writes in 1929 that “his [Eggeling’s] will to achieve the strictest law of construction [Baugesetz] is apparent.”

Soon the consequences for the question of space were highlighted. The critic Karel Teige identified abstract film as the beginning of a spatial cinema that transcends the limitations of the screen. He describes the cinematic image as neither an Albertian window to nor a mirror of the real but as the first step towards transforming the lived reality “into electro-poetic tensions.” Teige’s attempt to capture the aesthetics of the new medium film turns out as a panoply of contemporary ideas: he mentions the Bergsonian notion of “durée,” includes the term “photogénie” of the cinematic object (that was central in writings of the French film theorists Jean Epstein and Louis Delluc), alludes to synaesthetic “poetic film with odors and sounds, a film-tactilism, film-radio, and optophonetic interplanetary acoustics” propagated by the techno-fantasies of Scheerbart and Hausmann. According to Teige, painting and literature have become irrelevant compared to the “light-delirium which produces modern images.” Abstract film announces the type of artist that perfectly fits the fusion of life and technology as propagated in the pages of G: the “scientist-poet” for whom “film, radiography and Luna Park”

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287 Ernó Kállai, "Konstruktivismus," Jahrbuch der jungen Kunst 5 (1924), 380
289 Teige, "Zur Ästhetik des Filmes," 64.
290 Ibid., 63.
are the proper media. Eventually, Teige’s reflections on aesthetics culminate in stressing the importance of the built environment:

We are waiting for spatial dramas […], the drama of objects in movement, object we see behind window displays and in department stores, the life of mechanical serial production in factories, the visual drama of the modern, aggressive and blinding street, the clouding of the eye on the boulevards. The simultaneous cinema with a projection dome and a large number of projection-apparatuses.

Teige’s demand for “spatial dramas” was not a technological pipe dream but a reflection of developments in cinema and architecture. One only had to think of the attempts to integrate film projections into exhibition and stage designs (e.g. Kiesler’s *City in Space*, 1925; Gropius’ *Totaltheater*, 1927; or Erwin Piscator’s use of film for his stage productions), extended cinema (e.g. Abel Gance’s multi-screen *Napoleon*, 1927), the transformation of the building façade into a screen (e.g. Vesnin’s *Pravda* headquarter, 1923; Oskar Nitzchke’s *Maison de la Publicité*, 1934; Mallet-Stephens *Palace de l’électricité*, 1937), or the transformation of the entire urban environment into one light spectacle (e.g. *Berlin im Licht*, 1928). Teige imagines the “Constructivist metropolis” as the site of poetic creation where “delirious film, the world, the visible world of objects and the enchanting world of dreams, life in movement” merge into one holistic experience.

**Eidodynamics: Eggeling’s Bergsonism**

A decisive influence on Eggeling’s intellectual and artist development during the 1910s, the period when he abandoned traditional painting in order to concentrate completely on

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291 Ibid., 65.
292 Ibid., 63. The idea of projecting moving images onto dome structures had been patented by the Mariano Fortuny in 1906.
293 Ibid., 65.
preparatory studies for film, was the philosophy of Henri Bergson. His notebook contains an entire section entitled “Film” which is filled with citations from Bergson’s *L’évolution créatrice* (1907; translated into German in 1912). The fact that Eggeling knew Bergson’s work well is not surprising given the extraordinary popularity the French philosopher enjoyed since the turn of the century. Especially in Germany, Bergson’s vitalism resonated with an audience already receptive to *Lebensphilosophie* which was less a coherent school of philosophical thought and more a heterogeneous assemblage of holistic ideas and practices that criticized abstract rationality and positivistic thinking. Emphasizing the organic wholeness of livid experience and the centrality of the body, it responded to the threat of ever accelerating processes of modernization and the intrusion of technology and industry into all spheres of life.

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294 One can assume that Eggeling came into contact with Bergson’s ideas during his stay in Paris from 1911 to 1915. The blending of life-philosophical idea with debates on cinema could have happened during Eggeling’s lengthy stays during the 1910s at the famous Mount Verita Lebensreform colony at Ancona. At Ancona Eggeling met the author Yvan Goll, one of the principle advocates of film as art amongst German literary circles. In 1920, Goll published the article entitled *Das Kinodram* where he states emphatically that “the basis of all future art is the cinema.” During 1918 Goll helped Eggeling with first preliminary works for the latter’s abstract film (probably *Horizontal-vertikales Orchester*) cutting geometrical forms and mounting them onto the celluloid support. According to Claire Goll, the two also discussed the foundations of abstract film which Goll still called “Kinomalerei” [cinema-painting]. See Andreas Kramer, "'Basis aller neuen kommenden Kunst ist das Kino': Yvan Goll und das Medium Film," *Yvan Goll - Claire Goll: Texts and Contexts*, eds. Eric Robertson and Robert Vilain (Amsterdam: Rodopi, 1997), 83-95.


Eggeling referred to his film experiments as “Eidodynamics” – an expression he takes from Bergson.²⁹⁷ The Greek term *Eidos*, which means form, shape, figure, image, or *Gestalt*,²⁹⁸ appears in the fourth chapter of *Creative Evolution* under the heading “Le mécanisme cinématographique de la pensée et l’illusion mécanistique.” For Bergson *eidos* denotes a “view” or “moment,” “the stable view taken of the instability of things.”²⁹⁹ The term epitomizes the central aspects of Bergsonian critique of analytic, positivist thinking and the regimes of time and space that sustain it. For Bergson, modern sciences and traditional metaphysics transform life’s incessant becoming into a sequence of frozen snapshots.³⁰⁰ Our mind replaces what Bergson calls “particular movement” through the reconstitution of an “abstract and simple” movement. That way, he concludes, “the mechanism of our ordinary knowledge is of a cinematographical kind.”³⁰¹ As an alternative to movement as a quantifiable sequence of still images, Bergson

²⁹⁷ See the review of Eggeling’s first screening by Paul F. Schmidt. He writes: “Insiders already knew for years about the long and tenacious effort Viking Eggeling spent on his art film (he calls it ‘Eidodynamics’). Now it has been completed; on November 5th it was shown for the first time in Berlin in front of an invited audience. The film was introduced by the Reichskunstwart [imperial state commissioner for the arts] and commented by Adolf Behne. Now we know that it is possible to create film as art. Eggeling has abstracted the principle of film, light and movement, from the imitation of nature and rendered it independent. He has transformed the rhythm of the sequences of movement into clear forms that relate to narrative film like Cubist painting relates to the photography of nature. […] The effect of his abstract film is extraordinary, best compared with modern music or Schlemmer’s ballet. For today’s eyes the jerky changes in rhythm still seem strange; just like the abundance of alternating form sequences whose meaning one can only grasp musically, but not through the ear but through the eye: an inevitable synaesthesia our senses still have to get used to.” Paul F. Schmidt, "Eggelings Kunstfilm," *Das Kunstblatt*, no. 12 (1924), 381.

²⁹⁸ The term *eidos* is used by Aristotle and refers to ‘form’ (in the sense, for instance, of a construction plan for a house). It stands in opposition to matter.

²⁹⁹ Bergson, *Creative Evolution*, 315


³⁰¹ Bergson, *Creative Evolution*, 305
brings up a movement that incessantly, as he puts it, “slips through the interval.” 302 This ‘unrepresentable’ movement is associated with the temporal dimension of “duration” (durée) and a receptive practice he calls “intuition.” What Bergson is hence concerned with is the reconciliation of the concept of time and the experience of time. While Cartesian science observes and quantifies objects as successive sequences of ‘snapshots,’ experiential time is an endlessly flowing process, experienced as duration and apprehended by bodily intuition. It was intuition, the faculty that could emulate the élan vital, which provided an alternative to the dominance of thought that functioned like a cinematographic apparatus.

Bergson’s philosophy inspired artists who were eager to imagine alternatives to the dominance of positivistic sciences. 303 Paradoxically, it was also used as a justification by those who rejected the new medium of cinema. As Jimena Canales points out, “few intellectual programs had as much impact on philosophy and art as Bergson’s critique of the cinematographic method. Rebel artists, ranging from Rodin to the Italian Futurists, stubbornly refused to employ cinematographic views – sometimes by explicitly referring to Bergson.” 304

302 Ibid., 308.
303 Bergson’s ideas are already present in earlier texts that emerged amongst the members of the Sturm group which would later have an influence on Dadaists. Hausmann, who knew Eggeling well, had read Bergson’s book on laughter in 1915. In “Präsentismus: Rede des Erdkaisers an die Menschheit,” a seminal essay for the Dada movement published in 1913 in the journal Der Sturm, Salomo Friedländer draws on Bergson’s concept of the élan vital to emphasis the anthropocentric delusion of modern thought. Benson, Raoul Hausmann and Berlin Dada, 194. Salomo Friedlaender, "Präsentismus. Rede des Erdkaisers an die Menschen," Der Sturm 3, no. 144/145 (1913)
304 Canales points out how artists emulated Bergson’s take on cinema: “If anything, by virtue of their rebelliousness and their taste for shock-effects, the futurists and the avant-garde only refined the ‘rules’ for portraying motion which Bergson fought against. Seurat continued painting the horse in the classic style as late as 1891; Baudelaire, famously, sided with Delacroix and his unphotographic portrayal of horses; Duchamp rebelled against snapshot instantaneity and showed movement through the use of sketch-like consecutive figures.” Jimena Canales, "Movement before Cinematography: The High-Speed Qualities of Sentiment," Journal of Visual
Eggeling, by contrast, enthusiastically embraced Bergson’s key ideas on time, movement, image, and knowledge. Contrary to Bergson, he identified cinema as the solution and not as the problem.

Eggeling’s ‘incorrect’ reception of Bergson thereby anticipated what only later would be expressed, for instance, in Arnold Hauser’s *The Social History of Art* (1951). Hauser labeled the period of the early twentieth century as the “film age” characterized by a “new concept of time” that simultaneously emerged in Bergson’s philosophy and in the new medium cinema:

The new concept of time, whose basic element is simultaneity and whose nature consists in the spatialization of the temporal element, is expressed in no other genre so impressively as in this youngest art, which dates from the same period as Bergson’s philosophy. The agreement between the technical method of the film and the characteristics of the new concept of time is so complete that one has the feeling that the time categories of modern art altogether must have arisen from the spirit of cinematic form, and one is inclined to consider the film itself as the stylistically most representative, though qualitatively perhaps not the most fertile genre of contemporary art.  

For Hauser, despite his definition of the “film age” as a blend of Bergsonian vitalism and cinema, the fundamental impact duration was to have on space was not yet evident. Although the space produced by film “loses its static quality, its serene passivity and now becomes dynamic” and is even “fluid, unlimited, unfinished” he still uses architectural metaphors like “room” that connote a homogeneous space: “In the temporal medium of a film we move in a way that is otherwise peculiar to space, completely free to chose a direction, proceeding from one phase of time into another, just as one goes from one room to another, disconnecting the individual stages in the development of events and grouping them, generally speaking, according to the principles

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of spatial order.” By contrast, in Eggeling’s cinematic work – contrary to Richter’s *Rhythm* film – all associations with classical architectural space have vanished. The spectator no longer projects himself into an imaginary “room.” A film like *Diagonal Symphonie* demonstrates that cinema *is* the identity of image and movement, an endless flow of indivisible ‘blocks’ of time, an apparatus for the production of ‘temporal forms.’

In his *Cinema* books Gilles Deleuze later rehabilitates Bergsonian thinking by correcting Bergson’s own “rather overhasty critique of the cinema.” While Bergson ‘falsely’ associates cinema with a movement that is recomposed of static instances, Deleuze nonetheless credits Bergson for having been instrumental in challenging the Cartesian opposition of movement and image through his discovery of the “movement-image” and the “time-image.” Deleuze is interested in cinema precisely because it is the privileged site for comprehending the connections between images and thought. Cinema, for the first time, puts movement and temporality in relation to the image. “What is specific to the image,” Deleuze writes, “as soon as it is creative, is to make perceptible, to make visible, relationships of time which cannot be seen in the represented object […]” Bergson allows Deleuze to comprehend cinema as a moving picture of duration, a temporal form that renders visible and ‘legible’ not what is “inside” the picture but the intervals and intensities between different images.

Deleuze resuscitates Bergson not only in order to critique the dominant Cartesian hold on Western thinking but, more importantly, in order to expose the modernist avant-garde’s own fascination with motion and space at the expense of time. Especially through the practice of

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306 Ibid., 153.
308 Ibid.
309 Deleuze, *Cinema 2: The Time-Image*, xii.
montage, the avant-garde of the twenties perpetuated a modern science’s mechanistic idea of progress, reducing time to a sequence of sections, or, as Deleuze calls it, “any instant-whatever.” Deleuze discovers in Bergson’s thinking “the primacy of the heterogeneous time of temporal difference over the spatialized time of metricalation with its quantitative segments and instants.”

Once we understand that modern scientific thinking subordinates time to the representation of a certain kind of movement and, as a corollary, a certain kind of space, we begin to understand the fundamental consequences of the introduction of an ‘alternative’ temporal regime of duration. Therefore, if metric, quantifiable time is nothing but space in disguise, duration (which is virtual and “a multiplicity of succession, fusion, heterogeneity”) opposes this space (which is actual and “a multiplicity of exteriority, simultaneity, juxtaposition”). In other words, the question of time, opened up by Bergson and elaborated further by Deleuze and his idea of “time-image,” entails the possibility of a new space.

Unlike many of his avant-garde peers, who subscribed to Bergson’s vitalist ideas and his critique of cinema, Eggeling realized early on, decades before Deleuze, that life-philosophical ideas and cinema were in fact complementary. Louis O’Konor, who to date presented the only sustained examination of Eggeling’s work, argues that he employed la méthode cinématographique: “It seems more than likely that Bergson’s ideas have had great significance for Eggeling’s film experiments. We may say that the film Diagonal Symphony is enacted entirely in time, and from the extensive quotations in Eggeling’s notes it is evident that

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311 Boundas has aptly described duration in the following way: “Duration divides itself constantly, but as it divides itself changes its nature, because it is an intensive manifold and, as such, it cannot be decomposed into instants. […] It is, therefore, always incomplete, heterogeneous and a continuous emergence of novelty.” Ibid., 92-93.

312 Ibid., 92.
Bergson’s ideas […] have played a role for the conception of this film. In his films the forms are generated in the past and pervading each other; this is what produces continuity. This is the current flow, ‘*la durée*’ in Bergson’s philosophy.”

There is little doubt that Mies had a strong interest in questions of *Lebensphilosophie*. In his personal book collection one finds works of Wilhelm Dilthey, Hans Driesch, Ludwig Klages, and Henri Bergson. In his rare written statements a life-philosophical rhetoric is clearly discernible. What triggered this interest is not clear, yet given the fact that Mies’s acquaintance with his first client, Alois Riehl, the Neo-Kantian professor of philosophy, might have made Mies susceptible to philosophical debates at the time. Moreover, his early experience at Dresden-Hellerau, where his future wife Ada Bruhn studied at Jaques-Dalcroze’s eurhythmics school in 1911 and 1912, certainly familiarized Mies with the life-philosophical questions that sustained the reform project. Certainly, his acquaintance with Eggeling, Richter, Hausmann and other figures surrounding the journal *G* familiarized Mies with certain philosophical debates.

For an architect like Mies and his quest to respond to the ‘threat’ of a formalist constructivism without renouncing on the emancipatory potential of both technology and subjectivity, Bergson’s biocentric philosophy of life must have struck a chord – especially since it continued the intellectual trajectory already defined by the German *Lebensreform* movements.

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314 In Mies’s personal book collection we find Dilthey’s *Das Erlebnis und die Dichtung: Lessing, Goethe, Novalis, Hölderlin* (1913 edition), Driesch’s *Philosophie des Organischen* (1921) and *Ordnungslehre* (1923), as well as Klages’ *Persönlichkeit* (1927). See Mies van der Rohe Collection. Special Collections Room, University of Illinois, Chicago.
315 Throughout the journal *G* one can find traces of a specifically Bergsonian language: Richter, for instance, credits Eggeling in the third issue of *G* for having found a “creative aspect [schöpferischen Gesichtspunkt] for Gestaltung that exceed all specialization (also that of film) and anchors the experiences of the senses in a zone of deep knowledge.”
Mies had been familiar with. In a section entitled “Development of Animal Life,” part of the second chapter of *Creative Evolution* that deals with questions of biological evolution, we find the only two passages underlined by Mies:

This love, in which some have seen the great mystery of life, may possibly deliver us life’s secret. It shows us each generation leaning over the generation that shall follow. It allows us a glimpse of the fact that the living being is above all a thoroughfare, and that the essence of life is in the movement by which life is transmitted.

[…]

Absorbed in the form it is about to take, it falls into a partial sleep, in which it as to take the greatest possible advantage of its immediate environment with the least possible trouble. Accordingly, the fact by which life goes forward to the creation of a new form, and the act by which this form is shaped, are two different and often antagonistic movements. The first is continuous with the second, but cannot continue with it without being drawn aside from its direction, as would happen to a man leaping, if, in order to clear the obstacle, he had to turn his eye from it and look at himself all the while.316

Bergson’s conception of life as a “thoroughfare” become clearer in the context of the general argument he makes in this section. Bergson opposes two approaches to grasp the world: on the one hand, the scientific, calculating approach; on the other hand, what he calls “evolution of life.”317 The “radical finalism” of modern science inevitably arrives at erroneous results because it “represents the whole of the living world as a construction” that is based on a supposed “perfect adequacy between the object made and the work making it.”318 In the “evolution of life,” by contrast, even the most perfect work exhibits a striking “disproportion […] between the work and the result” because “it is at the mercy of the material which is has to

317 Ibid., 126-27.
318 Ibid., 127.
assume.” In short, any attempt from the side of an architect to give a final form to a material object must always fail because such an attempt ignores the irremediable “discordance” between human reason and life. The lesson Mies is likely to have taken from Bergson is to accept this “discordance” and the necessity to conceive of the object as inherently mobile, incomplete, and always as being in a state of becoming. “Life in general,” Bergson writes a few sentences before Mies’s annotations, “is mobility itself; particular manifestations of life accept this mobility reluctantly, and constantly lag behind.” Bergson points to the human shortcoming of treating dynamic material phenomena, like “eddies of dust raised by the wind,” that “counterfeit immobility” as a “thing” rather than as a progress.” Too easily we forget, Bergson reminds the reader, that the “very permanence of their form is only the outline of a movement.”

For Mies, who repeatedly denounced the threat of “makeshift constructivist formalism,” Bergson’s fundamental rethinking of the object as a dynamic entity must have resonated. Mies

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319 Ibid.

320 Ibid., 128. It is interesting to note that the German edition of Creative Evolution consulted by Mies employs the word “Einzeldarstellungen” for “manifestation,” a term which can be translated as “single image” or “isolated image.” The term connotes the idea of an incomplete snapshot that only makes sense in association with other images that proceed or succeed it.

321 Once again the German translation carries particular connotations. “Outlines” appears in the German version as “Nachzeichnung” which implies a temporal meaning as “afterimage” (that is close to the effect of persistence of vision, the basic perceptual effect all cinematographic forms of representations are based on) as well as the act of retracing an original. In German the passage reads as follows: “Wie vom Wind aufgejagte Staubwirbel drehen sich die Lebewesen um sich selbst, in der Schwebe gehalten vom großen Odem des Lebens. So also sind sie verhältnismäßig starr, ja ahmen das Unbewegliche so vortrefflich nach, daß wir die eher als Dinge denn als Fortschritte behandeln; ganzvergessend, daß diese ihre beharrende Form selbst nicht anderes als die Nachzeichnung einer Bewegung ist. Zuweilen indes und in flüchtiger Erscheinung verleiblicht sich vor unserem Auge der unsichtbare Odem, der die Wesen trägt.” See Henri Bergson, Schöpferische Entwicklung (Zürich: Coron, 1969 [1912]), 153.

shares Bergson’s suspicion of the visual representation of things as form. “I don’t see any difference between dynamic and strict form,” Mies writes in 1923 with reference to the “strict forms” of Gropius and the “curves” of Häring. In a 1927 letter to Walter Riezler, chief editor of the Werkbund journal Die Form, Mies suggests to change the journal’s name: “I am not against form but against form as goal. […] form as goal always leads to formalism.” Mies concludes his letter with a quasi Bergsonian statement that can be read as Mies’s understanding of form: “Only life intensity has form intensity [Nur Lebensintensität hat Formintensität].” What I would like to argue is that through his contacts with Eggeling and his experiments with “Eidodynamics,” Mies was aware of the technology of cinema as a media technology and a model of experience that was able to overcome this split.

The White Luminous Wall as Screen

Lichtraum/Spielraum

It is likely that Mies and Eggeling met at Erich Buchholz’s studio apartment Herkulesufer 15 which was located only a few hundred meters away from Mies’s apartment. [Fig. 72] What is for certain is that both knew the space. Buchholz’s apartment is noteworthy because it can be

323 Letter of Mies to Werner Jakstein dated 14 November, 1923. Ibid.
324 Mies in a letter to Walter Riezler published in Die Form, no. 2, 1927.
325 Buchholz’s daughter singles out Mies for having been one of the artists who attended the gatherings at her father’s “image-space.” Other names mentioned are: László Moholy-Nagy, Arthur Segal, Viking Eggeling, Richard Huelsenbeck, Raoul Hausmann, László Péri, Hannah Höch, Max und Bruno Taut, Ludwig Hilberseimer and Adolf Behne. Mo Buchholz, "Erinnerungen an Germendorf," in Buchholz and Roters, eds., Erich Buchholz, 11. The same information can be found in the biographical appendix in Heckmanns, ed., Erich Buchholz, 212. Erich Buchholz would later recall: “Many knew the room very well: Hülsenbeck, Schwitters, Hausmann, Höch, Segal, Behne, Moholy, Peri, Lissitzky, Kemeny, Kallai… Behne introduced the architects Oud and Döcker.” Buchholz, "Ein farbiger Raum. 1922," 626.
considered as “the first abstractly designed three-dimensional space in art history.”\(^{326}\) It hence appears to predate El Lissitzky’s *Prounenraum* (shown at the *Große Berliner Kunstausstellung* in 1923)\(^ {327}\) and Vilmos Huszar and Gerrit Rietveld’s *Spatial Color Composition for an Exhibition* (1923).

Judging from the later reconstruction and the few photographs that exist, Buchholz’s ‘image-spaces’ was designed as a montage of monochrome fields of colors and materials with wall surfaces alternating between smooth sections painted blue and coarse sections painted green, contrasting with the red furniture, the grey floor, the white door and golden shimmer of a glass wall. Relief elements in basic geometric shape and painted with primary colors jutted out from one of the walls. Superimposed planes of colored glass plates protruded into the space.

At once work of art and laboratory, Buchholz’s cinematic environment inspired debates about plastic design, the effects of superimposed, transparent materials, abstract film and the problem of the kinetic, the psycho-physiological basis of visual perception, physics of light etc.\(^ {328}\) The apartment served as an experimental device which translated into art scientific and

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\(^ {327}\) Buchholz had strong reservations concerning Constructivism’s amalgamation between artistic work and political-revolutionary mission. He implicitly accused El Lissitzky for having taken the credit for being the inventor of the first space-installation, which in turn would be hailed as a Constructivist masterpiece. Buchholz writes that Lissitzky knew his installation room at Herkulesufer, the “first of its kind” as he underlines. See Erich Buchholz, "Begegnungen mit osteuropäischen Künstlern," *Avantgarde Osteuropa 1910 1930* (Berlin: Akademie der Künste, 1967), 26. Regarding the tensions between Buchholz and El Lissitzky and the accusation of forgery see the letter of Lissitzky to Buchholz in Buchholz and Roters, eds., *Erich Buchholz*, 110-12.

para-scientific concepts concerning the physiology of the eye, the psychology of space perception and the role of light amidst these processes. As Buchholz recalls, his studio space served as the inspirational backdrop for “intense discussions” between the artists that met here:

Walls, sculptures, relief gave occasion for all sorts of discussions. There was also Eggeling who brought up the kinetic theme.

Apart from discussions about space and architecture, there were questions such as: to what extend does space, with its strict partitioning, fix the dweller; questions about space-vibrations emitted by the observer, of light… on one occasion there were discussions about the physiology of the eye […]. The subject of light’s interference came up.

Eggeling seemed to have played a crucial role for framing the discussions that circled around the subjects of light, movement and haptic perception. Moholy-Nagy’s conviction that a truly new art would grow out of the “kinetic relationships of projected light” were reinforced by light phenomena he discovered in Buchholz space. The Herkulesufer space embodied the future art Moholy outlined in *Malerei, Fotografie, Film* (1925) which he imagines to produce

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332 As already mentioned, the window was situated axially opposite from the door. It leads into a corridor that stood perpendicular to it. When you opened the door a wonderful play of interpenetrating rectangles appeared on the adjacent wall. And Moholy, who I had made aware of this delicacy, has made these things the theme in a few of his images.Buchholz, "Ein farbiger Raum. 1922,"
“color-bundles and color-volumes that float freely in space and interpenetrate each other without a projective screen.”

Buchholz’s work of the early 1920s suggests parallels with the architecture of Mies. On a formal level, Buchholz’s Kreuz mit weissem Quadrat (1922) [Fig. 73] or his design for a “Kiosk with light-elements” (1923) [Fig. 74] exhibit a similar centrifugal/centripetal organization of orthogonal lines around an empty center that is characteristic of Mies’s plans for the Brick Country House or Kröller-Müller Villa project (1912-13). For a performance of Strindberg’s “Schwanenweiß” in Dresden in 1920, Buchholz designed a dynamic-kinetic stage set consisting of a colored monochromatic “screens” that seem to anticipate Mies’s predilection for superimposing planes in for example the Glasraum or the Barcelona Pavilion. [Fig. 75] By layering and rotating these screens, a kinetic play of light reflection and transparencies was set in motion, relentlessly creating new spatial. The “screens” were neither supposed to function as displays for images, nor were they meant as space dividing partitions. Instead, these “Gleitebenen” [gliding planes], as Buchholz called them, generated luminous fields that, through

333 Moholy-Nagy, Malerei, Photographie, Film, 19-20. In 1923, Moholy draws the sketch for a mobile apparatus that was to project moving advertisement images on house walls and on the floor, yet eventually against fog and clouds. He imagines his apparatus a first step towards generating a projected that “stands in the air.” Moholy acknowledges that such an apparatus does not exist yet but he maintains that its invention would be “the greatest accomplishment ever.” His idea for the creation of three-dimensional images in urban space, which started out as a business venture, would later resurface in his propositions for “light-plays in open space” [“lichtspiele im freien raum”] and for “projection on clouds, gaseous screens through which, for example one can walk.” Later Moholy would even imagine a “städtisch-lichtspiel” [city-light-play]: from airplanes and airships the spectators would look down on the illuminated city offering “a spectacle of gigantic Illuminations, full of movements and continuous transformations of illuminated areas which offer new experiences and new joys of life.” See Moholy-Nagy, "Brief an to František Kalivoda," ; Reprinted in Kostelanetz, Moholy-Nagy, 37-42; 155-59.

334 Buchholz points out that the stage hands that had helped moving the screens were Dalcroze dance students from Hellerau. See Buchholz, "Das bewegliche Bühnenbild," ["The Dynamic Stagescene," 1920] in Heckmanns, ed., Erich Buchholz, 50.
incessant movement, created a dynamic and permeable light-space.\textsuperscript{335} Though made of glass planes did not heighten the visibility; on the contrary, through their animate, “medial” quality,\textsuperscript{336} the glass planes were to render the onstage actors ‘invisible’: “I managed,” Buchholz notes, “through the construction of a light-bridge across the stage frame – and also through hanging light elements –, to fully floodlight the actor, so that temporarily only the voice, the word was audible.”\textsuperscript{337} Here light no longer functions as an invisible agent for the illumination of figures and objects onstage. On the contrary, it effaces visible reality perceived as deceptive.

Buchholz himself locates the conceptual origin for the architectural works he creates during the early 1920s in his childhood experience of playing with optical toys. The projected light emitted by a magic lantern, a projection device that had been popular throughout the nineteenth century, served as the original experience that sparked Buchholz’s interest in locating architecture at the nexus of light, space and bodily perception.\textsuperscript{338} Young Buchholz’s experience with the pre-cinematic gadget is remarkable because it identifies the source of artistic creation in the playful, unencumbered interaction with an outdated optical toy. It was not the image’s

\textsuperscript{335} Heckmanns, “Zum Werk von Erich Buchholz,” 26.
\textsuperscript{336} According to Buchholz, glass transformed “aesthetic” space into a medial space (the lack of capitalization is kept in accordance with the original typoscript): “it is no coincidence that from the beginning i had been interested in glass, which, as a unique medium, modifies light in a most perfect form, so that light itself acts as a medium: the physical moment of light refraction inside the body (prism), permitting the ‘insight’ into its creative condition triggered by light dispersion of unprecedented richness, the incomparable moment of mirroring that creates both a separating and a binding wall with the absolute. the living substance man, freed, assailed with possibilities offered in abundance by the earth, only has taken the first step. […] while this unconsciously medial quality, the fact that it jumps at us [uns Anspringende], is already fascinating, it becomes today, bypassing the magic quality of the Gothic window, the rising architectural object itself [zum aufsteigenden Baukörper selbst].” Erich Buchholz, "Glas," \textit{Glasplastiken und Hinterglasbilder von Erich Buchholz}, ed. Jenaer Glaswerk Schott (Mainz: 1964)
\textsuperscript{337} Heckmanns, ed., \textit{Erich Buchholz}, 50.
\textsuperscript{338} Buchholz, "Glas,"
capacity to give a verisimilitudinous representation of the real or an imaginary narrative that thrilled young Buchholz. What mystified him were the kaleidoscopic light movements as they incessantly generated new, unforeseeable spatial constellations.

The visual model for the production of space is no longer the camera obscura or one of its variants but the kaleidoscope; which, rather than centering the subject inside a homogenous Cartesian space, dissolves subjectivity in an incessant play of lights and forms. But in contrast to Expressionist architecture’s celebration of the “dissolution” of concrete reality in vertiginous crystalline spectacles (e.g. Paul Scheerbart and Bruno Taut both proclaim the kaleidoscope as the optical model for architecture to imitate), for Buchholz the kaleidoscopic experience of playing with refracting magic lantern light projections opened up to a new ‘constructive’ reality:

In those days, light, its meaning, its essence, the infinite possibility of play that it offered, seemed a perfect demonstration, all-embracing, structurally absolutely plausible [sic]. […] My insight had not so much been caused by this lantern, rather the lantern had sensitized me: light playing at the whim of my fingertip. Unfortunately film did not then exist. Attempts to photograph the processes were total failure: the photograph was still closely attached to the frozen object.339

Seeing “light playing at the whim of [his] fingertip” exemplifies a medial practice which no longer favors the eye at the expense of the body. A counter-model to a detached spectator, Buchholz appears more like an immersed, playful examiner who “grabs” for the immaterial light

339 Erich Buchholz, "lichtkabinett," Erich Buchholz, eds. Mo Buchholz and Eberhard Roters (Berlin: Ars Nicolai, 1993) 83. One is reminded of the well-known passage from Remembrance of Things Past (1913) in which Marcel Proust recounts the childhood experience of seeing luminous images of Merovingian horsemen and castles projected onto the walls of his bedroom. The “opaqueness of my walls” was substituted by “an impalpable iridescence, supernatural phenomena of many colors, in which legends were depicted as on a shifting and transitory window.” For Proust this “intrusion of mystery and beauty” produced an “anesthetic effect of habit being destroyed” and the sensation of intense melancholy. Marcel Proust, Remembrance of Things Past (New York: Vintage, 1982), 10-11.
in order to explore the endless variations of the intercepted animated images playing at his fingertips.

Unlike the Lissitzky’s *Prounenraum* with its calculated effects of sublimation, Buchholz intends to prompt what he calls a “tension-triggering impulse” (*spannungsauslösende Impuls*), a concept that also appears at the time in Moholy’s work as “light-space tensions,” or Karel Teige’s critical writing on abstract film.³⁴⁰ The surprise at discovering the light-play is an example for this intuitive activation of the subject who is not supposed to be spell-bound by a reifying spectacle. Guided by a “thinking eye”³⁴¹ the space has as vocation to stimulate “thought-flashes” [*Geistesblitze*] in the subject – an idea that recalls Benjamin’s “dialectical image” in past and present intersect “flash-like.”³⁴² For Buchholz, and this is the principle difference with Lissitzky, the status of the image had radically changed. Images no longer represent an outside imaginary, figurative reality, nor the absence of this reality. For Buchholz, as he states in 1922, “all images are interlocked with immediate life.”³⁴³ Images regulate “moments of equilibrium.”³⁴⁴ All idealist and metaphysical pretenses have given way to an environmental model that regards subjectivity as an immersive state of creative mediality within dynamic,


³⁴⁴ Ibid., 73.
heterogeneous fields. Architecture, deprived of solidity and form, becomes the practice of constructing sustainable moment of suspension, permitting the subject to steer the ceaseless flow of events.

Here, the subject is no longer what Jonathan Crary has called an “observer-consumer,” a figure born in the nineteenth century who tried to counterbalance the alienating experience of modern life through reifying practices of mass entertainment, but an immersed player who, by consuming the new technologies, ‘innervates’ them. Buchholz was aware of the danger Constructivism’s, Dadaism’s and Expressionism’s critique of subjectivity entailed. While he also wanted to sublate the “emotional” and the “psychological,” he at the same time was concerned about safeguarding what he calls the “substance of being” – the pre-linguistic, quasi-mythical, unfathomable foundation of human existence that lie slumbering in technology. Young Buchholz’s hand exploring the light playing at his fingertips is emblematic for a new conception of subjectivity, where the body no longer is a means for executing an instrumental will for the shaping, organization and representation of the world. In Buchholz’s case the hand serves as an experimental interface between body and technology, the site where new forms of sensuous subjectivity can emerge.

The persistence of a form of subjectivity that combines bodily immanence and rational consciousness, immersion and proactive agency, resurfaces in Moholy-Nagy’s writing as the demand for a kind of ‘split’ observer who, as he notes, “maintains control and at the same time […] continues to participate in the optic events.” Both Buchholz and Moholy-Nagy agree that the artist’s objective had to be the detection and construction of “the newly emergent time-

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346 Moholy-Nagy, Malerei, Photographie, Film, 18.
instances.” Space remains only a variable or vector of temporal constellations. To arrive at a
lasting and sustained image or shape meant putting “optical duration into a state of
equilibrium.”

What is crucial for Buchholz’s conception of space are “moments of play” when the
processes of finding perpetually new constellations between light and acting body reach a
dynamic equilibrium. In these moments space transforms into a “room-for-play” [Spielraum]:

Exemplary in what is present: moments of play in light-space [Lichtraum]:
mirroring-moments that oscillate between 100% and lower degrees depending on
the material (Formica lamination; frosted glass) and alter the single moment; the
space itself is suspended, becomes room-for-play [Spielraum].

The task of the designer changes: rather than constructing a finished and fixed object, he or
she, in order for space to become “Spielraum,” has to orchestrate a constellation of various
elements and materials (preferably glass with various degrees of transparency) in such a way that
the user himself or herself is incited to enter into the constructive play.

Walter Benjamin was interested in the ways playing children develop a distinct
relationship with the world of technology. Contrary to adults, Benjamin, argues, children interact
with technology spontaneously and without inhibition. Play opens a utopian dimension that

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347 Ibid., 18. See Edward Dimendberg, "Transfiguring the Urban Gray: László Moholy-Nagy's
Film Scenario 'Dynamic of the Metropolis'," Camera Obscura, Camera Lucida: Essays in Honor
of Annette Michelson, eds. Richard Allen and Malcolm Turvey (Amsterdam: Amsterdam

348 Buchholz, "lichtkabinett," 84. Alternatively, instead of translating Lichtraum and Spielraum
as “light-space” or “play-space” one could also place the emphasis on the notion of a delineated
“room,” thus using the expressions “room-for-light” and “room-for-play.” In addition, this
translation pertains more closely to another connotation the term Spielraum conveys, namely that
of leeway or tolerance between two moving, mechanical elements.

349 An interest in Spiel is already evident in Benjamin’s earlier writings. In his 1928 book report
on children’s toys Benjamin distinguishes between the toy as object-for-play [Spielzeug] and the
can undermine capitalism’s usurpation of technology for its own ideology of progress. It consequently resuscitates for Benjamin, as Miriam Hansen points out, “an alternative mode of aesthetics on a par with modern, collective experience, an aesthetics that could counteract, at the level of sense perception, the political consequences of the failed – that is capitalist and imperialist, destructive and self-destructive – reception of technology.”\footnote{See Miriam Bratu Hansen, "Room-for-Play: Benjamin's Gamble with Cinema," October, no. 109 (2004), 6.} Play becomes the lever for undoing an alternative potential of a “second technology”\footnote{Miriam Hansen points to the temporal aspects that differentiate first technology – magic procedures that make maximum use of human beings culminating in human sacrifice – from second technology – that involves human beings as little as possible. The key difference he discerns in their respective temporalities that he finds embodied in two German proverbs: first technology relates to the temporality of \textit{Ein für allemal} [once and for all] where actions are final and irreparable; the second technology relates to the temporality of \textit{Einmal ist keinmal} [once and for all] where actions do not entail final repercussions but resemble endlessly repeatable testing procedures. The latter proverb is typically employed by playing children for the re-launching of a stalled game. Second technology, mimesis and play thus share a temporal dimension that is neither linear not final, but circular and endlessly provisional. See Walter Benjamin, "Das Kunstwerk im Zeitalter seiner mechanischen Reproduzierbarkeit," Gesammelte Schriften 433. Hansen, "Room-for-Play: Benjamin's Gamble with Cinema," 17-18.} that would be capable of, as Benjamin writes, “liberating human beings from drudgery.” Suddenly, he continues, the individual “sees his scope for play [\textit{Spielraum}], his field of action, immeasurably expanded.” This alternative reception of technology not only expands the field of action but, in addition, opens up an entirely new and unknown space where the subject “does not yet know his way around.”\footnote{Benjamin, \textit{Selected Writings}, vol. 3, 124.}

Through the figure of the playing child Benjamin develops an attitude vis-a-vis technology that differs from association of Marxism and critical theory of technology with a destructive and alienating modernity. Far from being the agent of the modern subject’s instrumental and calculating control over nature, technology permits, Benjamin writes, “the mastery [...] of the relation between nature and man.” Technology is the means through which this relation is established and maintained. Play is the practice that displaces the locus of human actions to the hitherto unheeded in-between space of mediation. When a child plays it does not employ the technological tools it has at its disposal in order to project a particular, premeditated idea as form or shape onto inanimate matter. Rather, through play the child imagines forms of reciprocal interactions between man and nature and ceaselessly tries to reconcile the precarious interaction between the subject’s exigencies and the world’s limitations and possibilities.

Benjamin calls this interaction with technology “creative innervation” – a term that stresses the neuro-physiological, visceral character of visual perception as well as its productive dimension. He posits innervation as an alternative to the objectifying, scientific gaze (that systematically excludes what is contingent and not quantifiable, let alone creative), to the threat of collective anaesthetics (the numbing of the senses through the flawed reception of technology) and to aestheticizing forms of contemplative perception (which require distance and the

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353 The invocation of the playing child for opening up an alternative take on technology can also be found in the writings of certain figures of Berlin art scene who had close associations with Buchholz. The art historian and critic Adolf Behne, for instance, writes in 1919 for the occasion of an exhibition on Yefim Golyscheff’s work: “[...] we must first return to the degree zero, to the site of silence, all the way down to the play instinct [Spieltrieb] of the child, before we can rise again.” Adolf Behne, “Jefim Golyscheff,” *Der Cicerone*, vol.11, no.22, 1919, 724-25.

deliberate disregard for the body). Innervation is hence a mimetic practice that incorporates the world of technology and nature into the human physis.

The example Benjamin uses in the second version of the Artwork essay to illustrate the connections between second technology’s utopian dimension, play and innervation is reminiscent of young Buchholz’s hand reaching out for the light rays emitted by the magic lantern:

This second technology is a system in which the mastery of elementary social forces is a precondition for playing [Spiel] with natural forces. Just as the child who is learning to grasp stretches out his hand for the moon as it would for a ball, so humanity, in its efforts at innervation, sets its sights as much on presently still utopian goals as on goals within reach.

He is not the first to use the image of the child grabbing for the moon. Ever since Ernst Mach has described this gesture in his work Analyse der Empfindungen, it began to resurface

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355 The child’s play is not the only practice which serves as an example for his theory of innervation. For him Surrealism, yoga, the use of hashish have in common with a child’s behavior this concept of innervation. On Benjamin’s conception of innervation see Miriam Hansen, "Benjamin and Cinema: Not a One-Way Street," Critical Inquiry 25, no. 2 (1999), 306-43.


357 The invocation of the playing child for opening up an alternative take on technology can also be found in the writings of certain figures of Berlin art scene who had close associations with Buchholz. The art historian and critic Adolf Behne, for instance, writes in 1919 for the occasion of an exhibition on Yefim Golyscheff’s work: “[…] we must first return to the degree zero, to the site of silence, all the way down to the play instinct [Spieltrieb] of the child, before we can rise again.” Adolf Behne, “Jefim Golyscheff,” Der Cicerone, vol.11, no.22, 1919, 724-25. I would like to thank Evan Robbers for providing a true-to-life demonstration.

358 Ernst Mach, Analyse der Empfindungen (Jena: 1922), 35.
in the writings of numerous architects and artists: Walter Gropius, in his notes for a lecture on “Baukunde” held at the Bauhaus during the winter semester of 1921-1922, interprets the child’s gesture of reaching for the moon as evidence for the still undeveloped perceptive faculties, a deficiency which would later be resolved through a schooling of the senses. He argues that the child’s vision is still limited to the haptic, i.e. only capable of grasping planar surfaces, and still has to learn to perceive a “depth of field” (*Tiefenausdehnung*). In the same vein, Theo van Doesburg argues that “a child, having as yet no experience of space, reaches for distant things, e.g., the moon.” For Benjamin, by contrast, the child’s gesture is not the evidence for certain underdeveloped cognition but an example of play as a practice of mimetic appropriation of an ‘incorrectly’ perceived object. While Gropius and van Doesburg believe that the child commits a cognitive error due to its developmental shortcomings, Benjamin argues that the child exhibits an untainted capacity to innervate the world. The child reaching for the moon (or young Buchholz “grabbing” for the light beam) illustrates for Benjamin a different understanding of mimesis.

When the child grasps for the moon it experiences a moment of mimesis that has little to do with visual similitude; instead, the child, by putting itself in a constellation with arcane correspondences, salvages ancient rites over into its own present. Mimesis is hence not the

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359 “Small child reaches for the moon. Haptic sense. Impenetrable materiality, but now conclusion about the depth of field. [...] the eye only reveals planes.” Walter Gropius, “MS Raumkunde” Bauhaus-Archive Berlin, quoted in Müller, Raum, Bewegung und Zeit im Werk von Walter Gropius und Ludwig Mies van der Rohe, 43. Later, in 1947, Gropius uses this image of the child trying to catch the moon again: “Similarly, a baby in the cradle, seeing the moon for the first time in his life, tries to catch it; what is at first a mere reflected image on the retina assumes, I later life, symbolic meaning by experience.” Gropius, *Scope of Total Architecture* 22.

360 “A child, having as yet no experience of space, reaches for distant things, e.g., the moon. Only gradually does the child sense (by grasping, running, etc.) that certain things are near, others distant. Thus it will learn which objects are ‘close to’ and which ‘far away’ and will itself come to experience space and its relationship to him (the child).” Theo van Doesburg, *Principles of Neo-Plastic Art*, trans. Janet Seligman (London: Lund Humphries, 1969), 10.
visible “copy” of a real but the “Ur-phenomenon of all artistic activity,” 361 the successful prolongation of the equilibrium between the tendencies of semblance and play constitutive for every artistic event. It relates back to ancient practices that were concerned with establishing “non-sensuous similarities” [unsinnliche Ähnlichkeiten], “magic correspondences and analogies” – like the reading of the stars, dances or hieroglyphs that in former times have always unconsciously permeated men’s lives. 362 The reading of the stars, dances, runes and hieroglyphs were such ancient practices capable of eliciting correspondences that conjured up a “cosmic figure of being” [kosmische Seinsgestalt]. When the child grasps for the moon (or, for that matter, young Buchholz for the magic lanterns colored light rays) it experiences a moment of mimesis that has little to do with visual resemblance; instead, the child, by putting itself in a constellation with arcane correspondences, salvages these ancient rites over into its own present.

Benjamin extends this theory of mimesis to film. While the widely known first version of the Artwork essay emphasizes technology’s destructive effects on arts potential revolutionary potential, the essay’s ‘Ur-version’ introduces an understanding of technology that relates directly to the human physis. Here technology works on two levels: first, it endows the collective with a new body that still has to be appropriated and trained; secondly, it provides the media through

361 Benjamin, "Das Kunstwerk im Zeitalter seiner mechanischen Reproduzierbarkeit [second version]," 368.
which appropriation and training take place.\textsuperscript{363} The “bodily collective” is both agent and object of a reestablished interaction with human nature. And amongst the technologies at hand (film being one, architecture another) cinema is singled out as the most advanced for the production and mediation of the collective body. As “the play form of second nature”\textsuperscript{364} cinema resuscitates lost correspondences with nature. An entirely different space arises:

> What is lost in the withering of semblance [\textit{Schein}], or decay of the aura, in works of art is matched by a huge gain in room-for-play [\textit{Spiel-Raum}]. This space for play is widest in film. In film, the element of semblance has been entirely displaced by the element of play.\textsuperscript{365}

> What is essential about film is hence not its mimetic capacity, understood as the capacity to copy, reflect or give “semblance” [\textit{Schein}] to an outside reality; rather it is film’s ability to allow “play,” i.e. to open up a ‘virtual’ space in which a sort of collective subject is incited to experiment with new modes of playful “innervation.”

> The political dimension of film has hence little to do with the idea of simply employing the right iconographic or narrative content in order to educate and activate the masses. Instead, film, in Benjamin’s anthropological-materialist understanding, is seen as an aggregate that enables the unleashing of playful innervations connecting symbolic registers and individual corporeality, “image-space” [\textit{Bildraum}] and “body-space” [\textit{Leibraum}]. According to Benjamin, the

\begin{footnotes}
\textsuperscript{363} Hansen, "Room-for-Play: Benjamin's Gamble with Cinema," 16-17.

\textsuperscript{364} GS 1, 1045. “Spielform der zweiten Natur.“ Taking into account Benjamin’s explicit association of architecture with film one could make the same argument for the former. As a technology, architecture might precede film yet regarding its role for the generation and mediation of a “collective body” both are structurally akin.

\textsuperscript{365} “Was mit der Verkümmerung des Scheins, dem Verfall der Aura in den Werken der Kunst einhergeht, ist ein ungeheurer Gewinn an Spiel-Raum. Der weiteste Spielraum hat sich im Film eröffnet. In ihm ist das Scheinmoment ganz und gar zugunsten des Spielmomentes zurückgetreten.“ Benjamin, "Das Kunstwerk im Zeitalter seiner mechanischen Reproduzierbarkeit [second version]," 369. SW 3, 127
\end{footnotes}
revolutionary Spielraum emerges once Bildraum and Leibraum overlap: “Only when in technology body and image space so interpenetrate that all revolutionary tension becomes bodily collective innervation, and all the bodily innervations of the collective become revolutionary discharge, has reality transcended itself to the extent demanded by the Communist Manifesto.”

In Benjamin’s thinking the notion of Spielraum is not exclusive to film. Elsewhere, in his descriptions of the “porous” architecture of Naples he employs the term again:

Building and action interpenetrate in the courtyards, arcades, and stairways. In everything, one preserves the room-for-play [Spielraum] to become a theatre of new, unforeseen constellations. The stamp of definitive is avoided. No situation appears intended for ever, no figure asserts it ‘thus and not otherwise.’ [so und nicht anders] This is how architecture, the most binding part of the communal rhythm, comes into being here.

What I would like to suggest here is that Buchholz’s abstract studio space is one of the first consciously designed “Spielraum” in the sense developed by Benjamin. His space is supposed to generate, like cinema, unpredictable constellations of “communal rhythm” in order to safeguard was what he calls the “substance of being” – the pre-linguistic, quasi-mythical foundation of human existence – an undertaking was precisely the objective of the life-reform project Hellerau and which could provide a conceptual template for a reconsideration of Mies’s architecture.

With Kracauer in the Glasraum

There is no archival evidence that proves that Mies was amongst the spectators who attended the performances of Orpheus and Eurydice in 1912 or 1913 at Hellerau. Nonetheless,

for an ambitious twenty-six year old architect, it would have seemed self-evident to be present to experience this unprecedented space ‘in operation’ – especially since both his future wife Ada Bruhn and his friend Mary Wigman were performing onstage. The most literal parallel is apparent in Mies’s repeated use of semi-translucent textiles as both a visual boundary and a space-generating means to filter, disperse and animate natural or artificial light. At the 1927 Woman’s Fashion [Mode der Dame] exhibition in Berlin, for instance, Mies and Lilly Reich create the “Café Samt und Seide” [Velvet and Silk Café]. Similarly, at the Tugendhat House he installs translucent silver-grey curtains that generate a kaleidoscopic play of lights and shadows.  

According to Sergius Ruegenberg, who worked for Mies as a draftsman during the 1920s, the living room at the office/apartment at Am Karlsbad 24 in Berlin was completely lined with white or beige silk. Despite the scarcity of space in Mies’s apartment, he still insisted that the room had to be kept empty at all times. Ruegenberg remembers how Mies’s young daughters would use the empty space as a playroom, leaving incomprehensible scribbles on the immaculate white surfaces. And during meetings of the Zehner-Ring held at Am Karlsbad, Mies had to endure the “terrible jokes” made by his colleagues about his “feminine environment.” We do not know precisely what year Mies first installed the silk lining. Ruegenberg’s account of the meetings of the Zehner Ring imply that it happened between 1924 and 1926. It is likewise

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369 Interview with Sergius Ruegenberg in “Mies van der Rohe – Research Papers”, CCA.
370 Wigman remembers that at times, because of a lack of space, Mies even slept in the bathroom. Interview with Mary Wigman, conducted by Ludwig Glaeser, recorded on 13.9 1972, Mies van der Rohe Archive.
possible that the silk lining was installed well before. Mies, who had moved in Am Karlsbad 24 in 1915, had sublet parts of the apartment to the writer Rudolf Borchardt between 1917 and 1919 while Mies served in the army. Acquaintances of Borchardt who visited the apartement said it left a “white, luminous” [weißen lichten] impression.\(^{372}\) The “whiteness and the ruffled fabrics” [das Weiss und die gerafften Stoffe] provided a “beautiful backdrop for images of groups and figures” [schöner Bildhintergrund für Gruppen und Figuren] – a comment that might suggest that the wall lining had already been in place.\(^{373}\)

In addition to the incorporation of transluscent textiles into his design, Mies’s use of glass prompts parallels with the Festsaal. Ever since he started to experiment with glass as the material for the Friedrichstraße high-rise and the Glashochhaus projects of the early 1920s, the production of “rich interplay of light reflections”\(^{374}\) had become a conspicuous theme in his design work. In 1927, Mies was provided the opportunity to use the new building material for an exhibition space for the Association of German Mirrorglass Producers at the Werkbund exhibition “Die Wohnung” in Stuttgart. The Glasraum, as it was called, was composed as a sequence of spaces separated by glass panels made of clear, grey, and opaque glass. [Fig. 76] While the floor was covered with shiny linoleum of different colors (white, black, red), the false ceiling was made of a strips of white, sewn together fabric which filtered and diffused light producing a shadowless light-space. Because of the ambiguous experiential quality produced by the Glasraum, Mies’s scholars like Tegethoff, argue that the glass room exposes the rationality of structure yet at the same time has a transcendental, dazzling effect on the visitor – an

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argument which is surprising since in the glass space there is no supporting structure visible. Dziewior interprets the space as “a three-dimensional, walkable, abstract-constructivist painting” and hence situates the space’s ambiguity in the context of a homology between painting and architecture.

What I want to argue is that Mies’s glass space is neither a rational derivative of Expressionism’s elevation of the crystal to a metaphor for social utopias nor a variation of a walk-in picture like Lissitzky’s Prounenraum. For Mies, glass was first and foremost a material with immanent visual qualities that offered the possibility to fundamentally question the visual regimes architecture is contingent upon. If there exists a space that could be considered a precursor to Mies’s work of the late 1920s – the Glasraum, the Barcelona Pavilion (1929), the Tugendhat House (1929-30), but also his unrealized glass skyscraper projects and the Adam Department Store (1928-29) – it is the pulsating light-room Festsaal. Like the performance space at Hellerau, the Glasraum functions as an active environment which completely upsets the representational regime and redefines notions of modern subjectivity and objecthood.

The critic who, without being aware of the biographic connection Mies had with Hellerau, sensed the Glasraum’s novelty was the trained architect and future film theorist Siegfried Kracauer. In his capacity as cultural critic for the Frankfurter Zeitung, Kracauer reported from

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376 Yilmaz Dziewior, Mies van der Rohe - Blick durch den Spiegel (Köln: Walther König, 2005), 40.
377 Kracauer (1889-1966), his biography and intellectual interests, epitomizes the question of the relation between architecture and cinema. Having studied architecture under Theodor Fischer in Munich, Kracauer worked for numerous architects during the 1910s but considered his occupation a “bread-winner job” [Brotheruf]. In 1921 he eventually left the profession for good in order to become a full time member of the Frankfurter Zeitung’s editorial staff and then, from the 1930s onwards, the celebrated theorist of film.
the 1927 Werkbund exhibition at Stuttgart. In his article Kracauer distinguishes between three types of architecture. First, he dismisses the displays of lavishly ornamented bourgeois interiors and the stucco pathos of Wilhelminian façades as anachronistic. Secondly, he discusses the functional architecture of Neues Bauen constructed on the occasion of the exhibition at Weissenhof. While remaining skeptical as to the capacity of functional modernism to express inner meaning, Kracauer nonetheless acknowledges that due to their emphatic sobriety these houses are the “perfect mirror” of the existing social system, “residues, in other words, events [Fügungen], constructed in a timely manner, of elements cleansed of bad abundance.” He makes it clear that “the building skeletons are no ends in themselves but the necessary passage towards a plenitude, which does not need any representations [Abzüge] anymore and today can only be attested negatively through mourning.”

378 In his review of the 1927 Werkbund exhibition Die Wohnung in Stuttgart, Kracauer characterizes the functionalism of the Neues Bauen, with its emphasis on flexibility and matter-of-factness, as an hitherto unprecedented architectural expression of the material and existential life realities of Weimar Germany’s new salaried masses. Still, Kracauer argues that Neues Bauen is limited to function as a mirror incapable of “directly expressing what is human” but “the human being of today’s economic system who has to be aesthetic if he wants to be honest.” All that architecture can do is to denounce all historicizing exuberance as anachronistic and to “conform to the state of things” while awaiting the arrival of “new life forms” (the attitude of the modern individual who waits as a strategy of dealing with modernity horror vacui he already develops in his article Die Wartenden in 1922). Kracauer, "Das Neue Bauen. Zur Stuttgarter Werkbund Ausstellung 'Die Wohnung'.", 2. See also Kracauer, "Those Who Wait," ; Gerwin Zohnen, "Schmugglerpfad: Siegfried Kracauer, Architekt und Schriftsteller," Siegfried Kracauer: Neue Interpretationen, eds. Michael Kessler and Thomas Y. Levin (Tübingen: Stauffenberg, 1990).

The question as to whether modern architecture can be the “germ” for “new life-forms”\textsuperscript{380} (a term he takes from Mies’s opening speech) Kracauer leaves open – only to then, in the final section of his article, introduce a third type of architecture exemplified by the \textit{Glasraum}:

In the indoor section of the exhibition one finds a strange room, rationally conceived \textit{[erdacher Raum]} by Mies van der Rohe and Lilly Reich. Its walls are assembled with milky and dark-colored glass plates. A glass box, transparent; the neighboring rooms penetrate its inside. Every device and every movement inside of it, magically project shadows onto the wall, bodiless silhouettes that float through the air and merge with the glass room’s mirror images. The incantation of this intangible, crystal specter \textit{[Kristallspuk]}, which changes in the manner of a kaleidoscope just like light-reflexes, shows that the new house is not the final fulfillment.\textsuperscript{381}

While having a rational basis in common with \textit{Neues Bauen}, the experience of the delirious glass space differs fundamentally from the austere matter-of-factness of functionalist modern architecture. For Kracauer, the distinction is a visual difference and a difference of the visual

\textsuperscript{380} Ibid., 2. “Rationalisierung und Typisierung sagte Mies van der Rohe in seiner Eröffnungsansprache, seien nur Mittel zum Zweck; in Wahrheit gehe es um die Darstellung neuer Lebensformen.” The idea that architecture can only anticipate and prepare yet never construct “new life forms” repeatedly surfaces in Mies’s writing. See Mies van der Rohe, “Notes” (1927/28), in Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, 269. “Von einer neuen Baukunst wird erst dann die Rede sein können, wenn neue Lebensformen sich gebildet haben.”

In the Mies Archive we find one more document that mentions the name of Kracauer. In his function as member of the executive committee of the \textit{German League of Independent Film} Mies received a letter from the local Munich branch of the league. In the letter addressed to Mies the author proposes “the founding of a cheap, weekly or monthly publication supervised by Krakauer [sic] and published by Reckendorf.” See Mies van der Rohe: Research Papers, Documents and Tape Recordings Related to Mies van der Rohe and the Establishment of the Museum of Modern Art's Mies van der Rohe Archive, compiled by Ludwig Glaeser.

\textsuperscript{381} Kracauer, "Das Neue Bauen. Zur Stuttgarter Werkbund Ausstellung 'Die Wohnung'." The original text reads as follows: “In der Hallenausstellung befindet sich ein merkwürdiger von Mies van der Rohe und Lilly Reich erdachter Raum. Seine Wände sind aus milchigen und dunkelfarbenen Glasplatten zusammengesetzt. Ein Glaskasten durchscheinend, die Nachbarräume dringen herein. Jedes Gerät und jede Bewegung in ihnen zaubert Schattenspiele auf die Wand, körperlose Silhouetten, die durch die Luft schweben und sich mit den Spiegelbildern aus dem Glasraum selber vermischen. Die Beschwörung dieses ungreifbaren gläsernen Spuks, der sich kaleidoskopartig wandelt wie die Lichtreflexe, ist ein Zeichen dafür, daß das neue Wohnhaus nicht die letzte Erfüllung bedeutet.”
regime on which all architecture is contingent upon. The unadorned façades and open plans of the showcased buildings at Weissenhof are the response to the modern subject’s rejection of certain images and, at the same time, the desire for other types of images: “Explicitly, the façades refuse to have a face, to be perceived as a closed picture from a fixed point of view; because human beings who move at a speed of one hundred kilometers rightfully do not possess a desire for such images.”

Neues Bauen thus expresses the same mobile and fragmenting visuality as Neues Sehen [New Vision] in the visual arts. Yet, for Kracauer, this visual sobriety and the renunciation of signification cannot be the “final fulfillment.”

The Glasraum, by contrast, opens the threshold to a completely different regime of visuality. Mies’s room plunges the visitor into an ethereal environment of sensory plenitude and bodily astonishment, of dematerialized light reflections and optical apparitions. By describing Mies’s space as a supernatural spectacle, Kracauer discerns the same qualities he previously had only found in the haphazard surface phenomena of Weimar’s urban culture; its fairs, shopping arcades, and amusement parks. Kracauer was drawn to sites like the circus, which impressed him

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as a “gigantic canvas that shines electrically,” a “concrete fata morgana;”\textsuperscript{384} or the “Café Wunderland” in Berlin with its “colorful panoramas” and “erotic phantasmagoria.”\textsuperscript{385}

Kracauer’s description is reminiscent of August Endell’s 1908 description of the city as an “Augenwunder” [eye wonder], a realm where “effects of space and motion, combined with the mist of air and light, turn the big city into an inscrutable colorful fairytale.”\textsuperscript{386} The entire urban space transforms into a moving light play. Formerly solid things transform into “completely different entities [\textit{Gebilde}] adhering to different laws and new forms of beauty.”\textsuperscript{387} The street becomes “a sea of layers of mist and shadows” in which the colored lights generate ever new constellations.\textsuperscript{388} Yet while Endell celebrates the city as a dematerialized spectacle, Kracauer’s sociological gaze focuses in on what he calls “spatial images” [\textit{Raumbilder}] where “the dreams of a society” become visible, exposing “the basis of social reality.”\textsuperscript{389} For Kracauer, the \textit{Glasraum} is such a \textit{Raumbild} with the difference that it has been ‘consciously’ designed. In contrast to the arbitrary urban spectacle described by Endell and Kracauer’s coincidental and fleeting discoveries, Mies reconciles modern technology with the “time-magic”\textsuperscript{390} [\textit{Zeitzauber}]

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\begin{enumerate}
\item Endell, "Die Schönheit der großen Stadt," 116.
\item Ibid., 103.
\item Ibid., 109.
\item In 1930 Kracauer writes in a piece entitled \textit{Über Arbeitsnachweise}: “Spatial images (\textit{Raumbilder}) that are the dreams of a society. Wherever the hieroglyphics of these images can be deciphered, one finds the basis of social reality.” Siegfried Kracauer, "Über Arbeitsnachweise: Konstruktion eines Raumes [1930]," \textit{Der verbotene Blick} (Leipzig: Reclam, 1992), 32.
\item See Zahlen, "Schmugglerpfad: Siegfried Kracauer, Architekt und Schriftsteller,
\end{enumerate}
\end{footnotesize}
Kracauer had tried to track down in the surface phenomena of modern urban culture and, later, in film.

Mies’s glass room does not frame views and does not lend itself to be captured in photographs—neither from the point of view of the static observer nor from that of a mobile viewer. Under the spell of the room’s “Kristallspuk,” it is the status of both object and subject that changes. Objects appear in ever-changing constellations as “magic” images on the glass membranes. Like in the Parisian arcades described by Benjamin, where the direction of the gaze has been reversed and the commodities stare back at the observer, the furniture, the plants, and Wilhelm Lehmbrück’s sculpture gain a life of their own. The same is true for the modern subject. In Mies’s space he/she no longer occupies a stable viewing position, nor is this position multiplied to become a dynamic sequence of framed views. Instead the observers enter into a play or dance in which they simultaneously project and perceive images of themselves reflected in the various layers of glass. The “new life forms,” Mies spoke of, announce themselves in the form of “bodiless silhouettes,” as Kracauer writes, that will “only put on flesh once man rises from the glass.”

Lightwalls and silhouettes

It would take until 1929 and the design for the Barcelona Pavilion for the lesson of Hellerau to reemerge fully in Mies’s work. Right in the middle of the pavilion, the visitor found a double-partitioned wall made of frosted glass. [Fig. 77] The slim box contained numerous light

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391 Hilberseimer would later comment that the Tugendhat House does not lend itself to be photographed. The same holds true for the Glausraum. Hilberseimer, "Die Bewohner des Hauses Tugendhat äußern sich," 438.

392 Kracauer, "Das Neue Bauen. Zur Stuttgarter Werkbund Ausstellung 'Die Wohnung'." “Sie werden erst Fleisch ansetzen, wenn der Mensch aus dem Glas steigt.”
bulbs and was to serve as the space’s only artificial light source. [Fig. 78] In his analysis of the pavilion, Robin Evans has expressed his “surprise” at discovering the opaque, light-emitting wall which seemed to have been largely ignored by Mies scholarship. The reason for this omission has certainly to do with the fact that the opalescent glass wall, despite its ‘central’ position (it is the only vertical element that transverses the building’s plan), does not did not take part in the paradox simultaneities of transparencies and reflections, of material immanence and immaterial transcendence – which, if we follow the interpretation of the most Mies scholars, make the pavilion an emblematic expression of modernity.

Yet, it was precisely the light wall that was of crucial importance for Mies. According to his employee Sergius Ruegenberg, Mies had insisted for it to function as the room’s only artificial light source. Ruegenberg, who was present during the construction and inauguration of the pavilion, described the luminous box’s effect as follows:

We realized that the people who were in front of it [the light wall] stood or moved like silhouettes in space, which psychologically was very unpleasant. […] After the German colonies’ inauguration, the guests, the Spaniards, who had not known about it beforehand, did not find it appropriate. After that [the illumination of the wall] was not repeated. But overall it is interesting that [Mies] had approached the problem as he did, and in such a radical way.

393 Evans, "Mies van der Rohe's Paradoxical Symmetries," 256.

394 “Uns fiel auf, dass nämlich die Menschen, die davor waren, als Silhouetten im Raum standen oder sich bewegten, was sehr unangenehm psychologisch war, und daraufhin ist es natürlich nach der Einweihung der deutschen Kolonien, die Gäste und so, die Spanier, die haben das nicht gewusst und die fanden das nicht günstig und es ist nicht wiederholt worden nachher. Aber interessant war überhaupt, dass er dies Problem so angefasst hat und so radikal auch gemacht hat."

What was so “radical” about Mies’s light box that caused psychological distress? One could argue that the pavilion’s nocturnal appearance pushed to an extreme, a feeling of strangeness or unease that the space produced also during the day. This had to do with the stark contrast the pavilion emphasized with its immediate context. For a visitor it must have been unsettling to discover Mies’s empty space amidst heterotopic displays of industrially produced goods, simulations of exotic places, and optical and locomotive spectacles typical for a World Exposition. By stepping into the German pavilion devoid of all merchandise or gadgets, the anticipation to indulge in this celebration of commodity fetishism and phantasmagoria was thwarted. Instead the visitor had to cope with a “strange intangible materiality,” as a critic writes in 1929, prompted by the changing light effects of transparencies and reflections produced by the interplay of glass, chrome, polished marble, and water.\footnote{Justus Bier, "Mies van der Rohes Reichspavillon in Barcelona," \textit{Die Form} 4, no. 16 (1929), 423. In his description of the different types of glass utilized by Mies Bier mentions the light partition. But by referring to it as a “mouse-gray mirror glass” Bier fails to grasp the partition’s function as a light source. “Schon in diesen Glaswänden kommt die Farbe zu Wort. Ist die vordere Wand noch aus großen, farblosen Spiegelglasscheiben gefügt, so ist für die hintere Wand mausgraues Spiegelglas und für die Wand am Wasserhof olivgrünes Spiegelglas in hohen Scheiben verwendet, Wände, die raumbestimmend wirken ohne abzuschließen, von einer eigentümlichen ungreifbaren Materialität.”} And the distractive “play of light reflections”\footnote{Ludwig Mies van der Rohe, “Hochhausprojekt für Bahnhof Friedrichstrasse in Berlin,” \textit{Frühlicht}, no.1, 1922, 122.} was precisely what, despite its “strangeness,” allowed for a transition from the outside cacophony of sounds and movements.

At night, however, this sensation of strangeness would amplify to sheer psychological unease. The transition from the nocturnal fairground, which at dusk transformed into an animated light spectacle produced by 850 colored floodlights and fifty illuminated fountains,\footnote{See Neumann, "The Barcelona Pavilion," 392.} to the pavilion with its bare white light wall was perceived by visitors as a complete rupture. The
light wall’s steady white glow, rather than illuminating or animating the interior, plunged the entire space into an eerie darkness. Here, light no longer acted as an invisible agent that illuminated a scene to present the world of objects to the gaze of the subject. Instead, the luminous object radiated light towards the visitor thereby thwarting all attempts of empathy, projection and objectification. And not only did the light wall change the status of the object, the subject also perceived other visitors as faceless “silhouettes.”

Contrary to the 1927 Stuttgart Glasraum, where the visitor is lead along a prescribed path to taste the controlled thrills of disembodiment and vertigo, the Barcelona Pavilion is organized around the light box which functions like an unspeakable, unrepresentable center. This non-reflective, light-emitting field hovering amidst a perceptive play-room of light refractions and contrasting materialities pulls in and pushes back the animate life that spins into action around it. Yet it remains self-sufficient, immaculate, incommensurate with the visitors’ desire to lose and find themselves in and through space. With the light panel Mies had, to use Malevich’s words, shattered the sun and pulled the unprepared visitors into the dark, away from the reifying yet reassuring pleasures of illumination and projection and into a sphere of pure amazement where the “light is in us.”

398 Interestingly, August Endell also speaks of “shadows” in his impressionistic description of the urban environment. The effect of illuminated store windows he describes as follows: “Colored light emerges in the dense bustle from the long row of stores, making human beings appear like black shadows. The houses seem to float in the air and underneath them, like coming from torn open jaws, the glistening flood of light pours out.” Endell, "Die Schönheit der großen Stadt," 116.

During the daytime the pavilion’s paradoxes still allow the visitor to enter into a play with conflicting perceptual and conceptual regimes. At nightfall, however, the visitor has to become conscious of the fact that inside the pavilion his or her conventional perceptive faculties to reveal architecture’s formal or material properties fail. The glowing light wall hence does not produce a spatial impression that is completely distinct from the pavilions daytime countenance; rather, electrical light helps to reveal the new spatial quality inherent in the material glass. One could argue that the obscurity that surrounds the bright luminous box at night is already tangible in the daytime interplay of reflective glass, polished onyx, glistening water, and mirroring chrome. Light no longer illuminates things but becomes a property of the thing itself. Faced with this intangible, unfathomable luminous glow the visitor is summoned – and here lies both the uncanny and critical dimension of the pavilion – to question not what but the way one sees, represents and deals with the world of objects and images, and vice-versa how the system of commodity exchange celebrated at the Barcelona Fair holds a sway over the subject’s identity.

The eerie effect of the pavilion was certainly not unpremeditated. In his earlier drawings for the Glashochhaus Mies already includes small black figures and dark monochromatic outlines of conventional buildings. In the photographs he uses for the Friedrichstraße collages the passersby appear as dark blurred shadows. Later, Mies includes black silhouettes in his competition drawing for the redesign of the interior of the Neue Wache War Memorial Project (1930). [Fig. 79] Photographs taken at the interior of the Neue Nationalgalerie tend to depict visitors and sculptures as obscured figures against a radiant white backdrop. [Fig. 80] Kracauer seeing “bodiless silhouettes” emerging in the Glasraum perfectly fits Ruegenberg’s comments. Interestingly, these silhouettes are reminiscent of the first animation films produced during the mid-twenties by Lotte Reiniger. Using the technique of silhouette animation Reininger produces
Die Abenteuer des Prinz Achmet [The Adventures of Prince Achmed] in 1926 in flat, black figures seem pasted onto a luminous white backdrop.\footnote{It was Walter Ruttmann, who was charged with creating the animation effects. He used a trick table whose top was made of frosted glass and lit from below and onto which the silhouette figures were placed and then filmed with a camera hanging above vertically. See Esther Leslie, Hollywood Flatlands (London: Verso, 2002), 49.} [Fig. 81] She achieves this effect with a trick table whose frosted, back-lit glass table resembles the luminous white wall inside the Barcelona Pavilion.\footnote{Mies might have known Reininger already during the early 1920s. She was married to Carl Koch, director of the Berlin Institut für Kulturforschung, who had collaborated with Moholy-Nagy at the Bauhaus on the early versions of Dynamik der Groß-Stadt. Koch’s name also appears on the advertisement for a film projection event during the famous Bauhauswoche on August 18, 1923. The leaflet announced: “Carl Koch: Educational film and films from the Ufa Kulturfilm unit: Microscopic, slow motion and accelerated motion films.” [Carl Koch: Erziehungsfilm und Filme der Ufa-Kulturabteilung: Mikroskopische, Zeitlupen- und Zeitrafferaufnahmen.] It here at the Bauhaus exhibition that Mies presented the glass model for his curvilinear-plan high-rise next to a wooden model of his office building. See Hoormann, Lichtspiele: Zur Medienreflexion der Avantgarde in der Weimarer Republik, 271.}

Blown up to the scale of the city the light wall already appeared in the Mies’s projects for a Bank and Office Building Project (1928) and the Adam Department Store project in Berlin (1928-29). [Fig. 82] As a monolithic prism glowing inside the city’s fabric, the glass façade of the latter project was “neither wall nor window but something completely new,” as a contemporary critic remarked.\footnote{Curt Gravenkamp, "Mies van der Rohe: Glashaus in Berlin," Das Kunstblatt 14, no. 4 (1930), 111. Gravenkamp credits Mies for employing glass neither as a “colored material” (as in Gothic architecture) nor as a mirror (like in Baroque architecture) but for its “clear and translucent substantiality.” The material character of glass becomes particularly visible in its nighttime countenance when the material’s “most tender qualities” come to the fore.}

\textit{Tugendhat cinema}

The Barcelona Pavilion was not the only project in which Mies employed luminous surfaces made of frosted glass. In the Tugendhat House (1929-30) we discover the same
electrically lit partition wall. 403 [Fig. 83] Tucked away behind the semi-circular palisander screen it stood perpendicular and at a distance from the vast window surface. Unfortunately, we possess no photographic documents that give a nocturnal impression of the space illuminated by the light wall. The nighttime shots, produced in 1931 by the Atelier de Sandalo, were taken with strong additional spotlights and therefore give little indication concerning the original light situation. Yet we know through Daniela Hammer-Tugendhat recollections that the wall’s effect was contrary to the reactions reported by Ruegenberg. In fact, the partition’s “mild light” was praised by her parents and their invitees who liked to sit in front of it at night. 404 If Mies’s “radical” architectural innovation at Barcelona culminated in the glowing glass box’s uncanny effect, one might wonder why the same element in the Tugendhat House provoked the opposite effect. Was it a pure coincidence that the same object, in one case, pushed to a palpable and unbearable extreme the feeling of strangeness and alienation and, in the other case, eased the visitor’s passage into a new sphere of being? The opposite reactions can neither be explained by a difference in material (both combine the same large glass surfaces, onyx walls, chrome-clad pillars) nor by the spatial arrangement. What I would like to argue is that Mies’s architecture engages critically with different perceptual dispositions of its visitors. In the case of the Barcelona Pavilion, the white glow presents an unbearable threat to a visitor of the World’s Fair expecting to indulge in reifying displays of spectacles and commodities; in the case of the

403 It is not clear whether the frosted glass partition was a double-layered light box or a single layered light wall. Certain published floor plans depict the wall as a single line. Only the final version indicates two parallel lines suggesting a hollow space between two planar glass surfaces. See the different versions of the plan printed in Wolf Tegethoff, "Ein Wohnhaus der Moderne im Spannungsfeld seiner Zeit," Ludwig Mies van der Rohe: das Haus Tugendhat, eds. Daniela Hammer-Tugendhat and Wolf Tegethoff (Wien: Springer, 1998), 44-100.

Tugendhat House, the de-subjectifying effect of the luminous wall resonated with visitor’s delight in playing with lights and movements.

The Tugendhat House provoked a controversy that was staged in the pages of the Werkbund journal *Die Form*. On the one hand, the journal’s editor Walter Riezler emphatically praised Mies’s architecture for having liberated modern architecture from its unique fixation on functional rationality. By dissolving all boundaries and refusing to be captured as a whole, Mies’s dynamic architecture concretized as in the realm of architecture what Riezler previously had observed in cinema or advertisement. For the occasion of the exhibition *Film und Foto* (1929) in Stuttgart, Riezler publishes an article entitled “‘Form’, Foto und Film” in which he praises the abstract films of Eggeling and Ruttmann for “letting grow forms freely in space and light,” hence preparing the ground for a future film that was to produce “rich, new forms” and the “rich world of realities.” Moreover, two years prior, writing about illuminated and luminous façades, Riezler identifies the “living, moving power of light” as the “actual reality” of the nocturnal city: “a veritable delirium of light, which cannot be matched by any imagined splendor of old fairytales, will illuminate the metropolis of the future.” Future architecture, Riezler claims, “stands at the service of light.” It will no longer function as a “spatial-corporeal entity” but as an “apparition of bodiless surfaces.” In the Tugendhat House these new time-

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405 Walter Riezler, "'Form', Foto und Film," *Die Form*, no. 14 (1929), 368-69. The fact that Riezler put the term “form” in quotation marks might have very well been a consequence of the debate that was staged in the pages of *Die Form*. In 1927 Mies reacts fervently to an article entitled “Über die Form in der Architektur” published by Riezler the same year. He stresses his opposition against “form as the goal” and instead points to “life-intensity” (*Lebensintensität*) and “true life” as the prerequisites for any form to emerge. Ludwig Mies van der Rohe, "Über die Form in der Architektur," *Die Form* 2, no. 2 (1927)

and light-based forms become detached from their commercial context and hidden apparatic supports. In combination with its rational, technological foundation, the modern architecture becomes imbued with a collective “Geistigkeit” of “new kind,” with “the ‘spirit of technology’ – but not in the sense of an often deplored close attachment to a purpose, but in the sense of a new freedom of life.” For Riezler the building is a first step into “a completely new world-picture” [völlig neues Weltbild]. And indeed, Riezler describes the visitor’s experience of the space as a passage from one visual regime to another, from an architecture that serves as a frame into a static world to an architecture that animates the world and renders the differentiation between real and representation redundant:

The way the house welcomes the visitor […] has little in common with older architecture. Not only is the entrance door not emphasized, what is more is that it lies half hidden behind the round glass wall of the stairway; hence the eye does not fall on it but on the seemingly deliberately framed picture of the town castle beyond the house. One looks through the house – and thereby one has from the beginning the impression of a house, which is not an enclosed volume and hence does not contain any delimited rooms. From the beginning one is immediately put in a mood that the main space of house, the living room in the lower floor demands. […] It is a space which has neither a basic form that can instantly be grasped in its entirety nor a definite boundary. Through the huge panes of glass (which are retractable through motor force) it opens towards the free nature and is itself still organized through free-standing walls. Everything static, resting becomes second to the dynamics of these intertwined volumes whose rhythm

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408 Riezler interprets the Tugendhat House as the architectural manifestation of the “general world-feeling” as it had previously become manifest in music, painting and philosophy. “Der Raum ist, wenn man so will, „atonal“ oder „polytonal“ im Sinne der modernen Musik wie auch der Malerei, und daher Ausdruck eines allgemeinen Weltgefühls, in dem sich wie in der Philosophie ein völlig neues Weltbild ankündigt.“ Ibid., 328.
becomes only resolved outside by becoming unified with the universal space of nature [Allraum der Natur].”\footnote{Ibid., 328. “

Two issues later, the Marxist critic Roger Ginsburger responded to Riezler’s emphatic praise of Mies’s architecture imbued by a new technological Geist by arguing that the experience of Mies’s montage of sparkling, luxurious materials triggers a same feeling of “astonishment” [Staunen] or “light-headedness” [Benommensein] we feel when entering a church or a palace.\footnote{Roger Ginsburger, "Zweckhaftigkeit und geistige Haltung," \textit{Die Form} 6, no. 11 (1931), 433. \footnote{Ibid., 433.}

I understand the astonishment that one feels when one enters the relatively low building from the side of the street, walks through an almost inconspicuous door and descends a not very monumental staircase to suddenly see a very large room, which appears even bigger than it is in reality, to realize that the outer walls are made of glass, and moreover to perceive the sparkle of chrome-nickel and the polished onyx wall […].\footnote{Ibid., 433.}

Ironically, the dizzying and animating effect produced by the space prompt two contrasting conclusions: Riezler takes the space’s boundlessness as evidence for the possibility of a resolution of rhythm in the form of an “Allraum,” Ginsberger criticizes the “immoral luxury” and interprets the spectacle of lights and materials as a phantasmagia. In other words, the threat to the centered subjectity that the Tugendhat space poses is sublimated by both the idealist (Riezler) or the materialist (Ginsburger) interpretation.

\footnote{Nonetheless, Grete Tugendhat contradicted Riezler regarding this fusion with nature. According to Grete Tugendhat, “the space was fully closed and rests in itself – the glass wall, in this sense, functions as a boundary.” Grete Tugendhat, "Die Bewohner des Hauses Tugendhat äußern sich," \textit{Die Form} 6, no. 11 (1931), 438. Later, referring to the Farnsworth House, Mies would use repeat Riezler’s observations: “Nature has its own life to lead, too. We should avoid disturbing it with the colour of our houses and interior decorations. Yet we should endeavour to merge Nature, house and man in a higher unity. If you regard Nature through the glass walls of the Farnsworth House, it is given a deeper significance than if you are standing outside. In the first case more of Nature is expressed – it becomes part of a greater whole.” Mies van der Rohe cited in Christian Norberg-Schulz, “Ein Gespräch mit Mies van der Rohe,” In: \textit{Baukunst und Werkform}, vol.11, no.11, November 1958, 615-16.}
Yet there exists a third interpretation, which does not regard the Tugendhat as a passage into a unifying "Allraum," nor as a deceptive surface spectacle that hides the truth. Rather, the passage into and through the Tugendhat recalls the perceptive aesthetics of modern sites of visual mass entertainment. The sensation of dizziness and transgression echoes the very same feeling of vertigo nineteenth visitors reported after visiting the panorama, the pre-cinematic medium of nineteenth century mass entertainment. While I do not argue that Mies intentionally tried to imitate the structure of a panorama, the parallels between the Tugendhat House and the circular panorama are nonetheless as striking as the ways in which Mies subverts them.

Like a traditional panorama, which organizes the visitor’s passage between two images – the outside reality and the illusionist picture of reality on the inside – the experiential path into the Tugendhat House is bracketed by two views. On one side, the framed picture of Brno welcomes the visitor and renders the house itself ‘invisible’ (one looks “through the house,” as Riezler put it). On the other side, the repeated view over the landscape, this time however as a boundless panoramic vista. And like in a panorama, the passage between these two views is characterized by an abrupt change of visibility: after finding the hidden entrance visitors enter a tight vestibule walled with frosted glass that cuts off all visual connection to the outside. The visual enjoyment of the veduta is abruptly superseded by a sensation of

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412 Tom Gunning argues that “astonishment,” as a particularly modern mode of perception, characterizes early cinema aesthetics and modes of exhibition. See Gunning, "The Cinema of Attraction: Early Film, Its Spectator and the Avant-Garde;"

413 What is for certain is that in one of the photographs of the Glashochhaus Mies positions the Marine Panorama building in the background. For a more detailed discussion see chapter 3.

spatial vacuity. Here the visitor is not confronted with an absence of light but rather with a light that comes ‘from nowhere.’

At the same time, Mies subverts the codified passage. The vestibule is not a dark tunnel like in a traditional panorama but a light-filled passage. It is not a blinding darkness that amplifies the anticipation of the visual sensation to come. Rather a different type of light – the same diffuse, immaterializing light that first impressed the audience at Dresden-Hellerau – prepares the visitors for what lies ahead. And unlike the panorama where the liberation from the picture frame and the delightful immersion in the frozen 360 degree illusion of the real has as its corollary the immobilization and invisibility of the spectator’s body, the Tugendhat House engages the visitor with an animate image of the environment.415 The visitor also finds himself ‘inside’ an hyperreal image, but this time the image is moving.

Movements and lights penetrate the interior, refract on the chrome-coated cruxiform pillars and the polished onyx, and scintillate as moving shadows on the translucent silk curtains produced by the weeping willow. In this space of interpenetrations where, as Riezler put it, “everything static, resting becomes second to the dynamics of these intertwined volumes whose rhythm becomes only resolved outside by becoming unified with the universal space of nature [Allraum der Natur],”416 the ambulant visitor is ceaselessly incited to engage actively with the

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415 See Oettermann, The Panorama: History of a Mass Medium, 18. The stationary panorama, as it was first presented in 1789 by Robert Barker, was soon followed forms of moving panoramas and early forms of motion picture spectacles. They all account for the perceptual changes caused by the experience of steam ship and train travel: the immobilization of a modern spectator who passively consumes at first boundless and then moving images.

416 Riezler, "Das Haus Tugendhat in Brünn," 328. “Alles Statische, in sich Ruhende tritt zurück hinter der Dynamik dieser ineinander gleitenden Raumeite, deren Rhythmus seine Lösung erst im Freien, im Einswerden mit dem Allraum der Natur findet.” By contrast, Grete Tugendhat contradicted Riezler regarding this fusion with nature. According to Grete Tugendhat, “the space
play of aleatory movement and light that unfolds around him. Contrary to the highly controlled spectatorship produced by the panorama, the Tugendhat House transforms the different materials into active ‘cinematic’ agents that stimulate and resonate with the visitor’s intuitions.

Barry Bergdoll has aptly described the Tugendhat’s interior as “a kaleidoscope of changing reflections and light effects.” He thereby invokes the analogy to a second optical device that is emblematic of nineteenth century visuality. Patented by David Brewster in 1817, the kaleidoscope is a visual and philosophical toy that provided the viewer with a purely optical delight of seeing the random movement of changing abstract patterns and forms. Unlike the “complex, dialectical nature” of panoramic vision which, as Roland Barthes argues, not only provides the subject with the bliss of elevated views but also “gives us a world to read” and allows the viewer to “transcend sensation and to see things in their structure,” the kaleidoscope dissolves this very readability into a vertiginous blurring of movement, colors and shapes. The panorama is an optical media that produces illusory objects and representations out

was fully closed and rests in itself – the glass wall, in this sense, functions as a boundary.” Tugendhat, "Die Bewohner des Hauses Tugendhat äußern sich,” 438.

Later, with respect to the Farnsworth House, Mies would use repeat Riezler’s observations: “Nature has its own life to lead, too. We should avoid disturbing it with the colour of our houses and interior decorations. Yet we should endeavor to merge Nature, house and man in a higher unity. If you regard Nature through the glass walls of the Farnsworth House, it is given a deeper significance than if you are standing outside. In the first case more of Nature is expressed – it becomes part of a greater whole.” Mies van der Rohe cited in Christian Norberg-Schulz, “Ein Gespräch mit Mies van der Rohe,” In: Baukunst und Werkform, vol.11, no.11, November 1958, 615-16.

419 Ibid., 9.
of the multitude of sensations. The kaleidoscope, by contrast, abstracts and animates objects and
turns them into sensations.420

Does the Tugendhat House thus allow for the combination of the two seemingly
irreconcilable visual regimes of modernity? As far-fetched as this analogy between architecture
and nineteenth century visual media might seem, as commonplace the reference or even the
incorporation of (pre-)cinematic devices had been among architects of the Berlin avant-garde.
Hans Poelzig, for instance, proposed to construct the gigantic Thermenpalast (1927/28), an
artificial beach environment situated inside circular edifice with a twelve meter high panoramic
painting simulating a natural landscape. Walter Gropius wanted to install numerous projectors
inside the Totaltheater transforming the oval inside walls into an immersive screen. And it was
Bruno Taut who in his famous 1914 Glashaus sent the pavilion’s visitors on a controlled
sensational journey into a crystalline world which “climaxed,”421 right before the exit, in front of
a large milk-glass wall. With the help of a hidden kaleidoscopic apparatus moving colored
images were back-projected onto the large glass screen.422 What ultimately achieved the

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420 On this contradictory nature of the visual experience of metropolitan life in the nineteenth

421 The official exhibition catalogue of the 1914 Werkbund show uses this term to describe the

422 Taut’s incorporation of the kaleidoscope into his architectural design in 1914 evokes parallels
with Henri Bergson’s mentioning of the pre-cinematic toy in his work L’évolution créatrice,
originally published in 1907 and translated into German in 1912. In this book Bergson criticized
the concept of form for being dependent on conception of reality as a sequence of solidified and
immobilized snapshots. Not only is “the mechanism of our ordinary knowledge is of a
cinematographical kind,” what is more is that this “cinematographical character of our
redemptive liberation from the constraints of matter and form and created the “indescribable
delightful atmosphere,” as a contemporary critic described the interior of the Glashaus, was
finally not the material glass itself. Taut had realized that the light-plays generated by the
kaleidoscope could surpass the mesmerizing effect of glass alone. The visitor’s desire to be
deceived becomes for Taut the precept for architectural design: “the radiating sliding
[straßlendes Geschiebe] of intensive colors […] dissolves the wall in an architectonic play of
forms.” And it is not only the material glass alone that achieves the transformation of the wall,
formerly load-bearing and space-delineating, into a screen. It is the hidden cinematographic
support that produces phantasmagorias of architectural space.

Through this incorporation of the cinematic apparatus into architecture, Poelzig, Gropius
and Taut intentionally produce the very same spectatorial effects that can be traced back to
nineteenth century optical toys and sites of visual entertainment. As Jonathan Crary has shown,
the function of these media was to assist the subject in the quest to adjust his/her perceptive
faculties to the processes of modernization. By controlling the observer’s perception, these
media allowed the subject to regain an imaginary unity in the face of an external world
undergoing profound urban and social transformations. The corollary was the transformation of
the engaged participant into an awe-struck and isolated observer, an ideal consumer of
commodities and images.

knowledge of things is due to the kaleidoscopic character of our adaptation to them.” The
kaleidoscope is consequently not the model one should attempt to emulate; on the contrary,
Bergson envisions a conception of form as being in a perpetual state of change and becoming, an
idea that would later resurface in Mies’s writings. See Bergson, Creative Evolution, 302-06.

Felix Linke, "Die neue Architektur," Sozialistische Monatshefte 20, no. 18 (1914), 1133.
Bruno Taut, "Zum Neuen Theaterbau," Das Hohe Ufer, no. 8 (1919), 206.
Crary, "Géricault, the Panorama, and the Sites of Reality in the Early Nineteenth Century," 5-25.
It is from this perspective that one can identify the critical potential of Miesian architecture. The psychological unease unleashed by the luminous glass wall inside the Barcelona Pavilion is nothing but the self-realization of having become this very consumer of magical objects, or what Adorno calls the “dreamer [who] encounters his own image impotently, as if it were a miracle.” Yet, Adorno reminds us, phantasmagoria are “infected from the outset with the seeds of its own destruction. Inside the illusion dwells disillusionment.” Unlike Taut, who sustains the illusion by augmenting the spectacle of distraction, Mies’s glass and light architecture confronts the viewer/visitor with elementary ‘material’ devoid of all hidden devices.

At the Tugendhat House, this critical dimension that was perceived by the visitors as a threat of becoming conscious of their own impotence as consumers of phantasmagoric commodities, was replaced by the delight of playing with the intensities of moving lights, of freely blending and oscillating between panoramic views and kaleidoscopic visions. The “mild light” of the luminous wall is proof for the emergence of a space where light no longer sustains a form of binary thinking that opposes illusion and disillusionment, image and reality. The Tugendhat light partition signals the advent of what Mies since the early 1920s had repeatedly referred to (certainly for lack of more precise words) “life,” an overarching wholeness capable

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427 Ibid., 94.
428 In his reaction to Riezler’s reflections on form Mies publishes a response in which he dismisses all attempts to resolve the question through binary opposites. Instead Mies repeatedly emphasizes the notion of “life” as an alternative. Mies writes: “Only life intensity has form intensity. […] Real form presupposes real life. Not a past life or an imagined life. […] For us, life is what is decisive, in all its abundance, its spiritual and real connections.” See Mies van der Rohe, “Über die Form in der Architektur,” 59. In the unpublished manuscript Mies continues: “That’s why the distinction between classic and gothic as frivolous as the question constructivist or functionalist. We are neither antiquity nor middle ages, and life is neither static nor dynamic, but it encompasses both.” See Neumeyer, *Mies van der Rohe: Das kunstlose Wort*, 318.
of substituting for the dominant dualistic structure of modern thought. At the Tugendhat House all allusions to antithetical contexts have been replaced by an animated “Allraum” which renders the very idea of critical distance, and with it the Cartesian universe based on the dichotomy between empowered, autonomous subjects and inert, solid objects, redundant. The revolutionary “intoxication” and “moral exhibitionism” that, if we follow Benjamin, living in the glasshouse entailed, has perhaps less to do with transparency, the gaze and the question of who sees whom, and more to do with the delight in being in the presence of the ‘living’ object that is the luminous glass wall.

What Mies likely had first experienced in the Festsaal at Hellerau, subsequently theorized during the early 1920s in the pages of G – Material zur elementaren Gestaltung and then applied practically in the Stuttgart Glasraum, the Adam Department Store project, and the Barcelona Pavilion, namely the ‘materialization’ of light and its liberation from being the invisible agent for producing a universe split between the seeing subject and innate objects, finds its holistic expression in the Tugendhat House. It is here where the lesson of the avant-garde films of

429 Fritz Neumeyer has argued that it was through Mies’s encounter with the philosopher Romano Guardini in 1927 and the latter’s attempt to systematize the thinking in polar opposites as a legitimization for the existence of an prevailing wholeness that Mies changed his discourses in the late 1920s. Neumeyer even goes as far as to imply a direct influence of Guardini and his philosophy on Mies’s designs for the Barcelona Pavilion and the Tugendhat House. Leaving aside the question whether a direct transposition between philosophy and architecture is possible, such an argument certainly overlooks the fundamental importance the organization of bipolar opposites had already played in the dynamic contrapuntal system which served as the basis for the film experiments of Eggeling and Richter and which were already apparent in Mies’s discourses and designs of the early 1920s. See Neumeyer, Mies van der Rohe: Das kunstlose Wort, 250-55.

430 We should remember that it was precisely this critical distance which is underlined in the seminal essays by Quetglas, Hays and Tafuri as the fundamental attribute of Miesian space. See José Quetglas, "Fear of Glass," Architectureproduction, eds. Beatriz Colomina and Michael K. Hays (New York: Princeton Architectural Press, 1988); Hays, "Critical Architecture: Between Culture and Form," Tafuri, "The Stage as 'Virtual City': From Fuchs to the Totaltheater," 95-112.
Richter or Eggeling reemerges in its architectural manifestation. Unlike other architects at the time who expressed modernism’s underlying desire for a “fin des images” (Jacques Rancière) by banning all imagery from the walls of their buildings (one only has to think of Bruno Taut’s early rejection of the hanging of framed pictures as “barbarian non-culture”431), it is Mies’s architecture that establishes a new relationship between images and space. Riezler captures this difference well in a 1931 article entitled “Bild und Bau” [Image and Building], where he argues that those who have “lost faith in the ‘easel paintings’” and who “expect salvation from the ‘wall’” will have to rethink once they discover paintings of Kandinsky and prints of Picasso in the exhibition houses designed by Mies and Lilly Reich for the Berliner Bauausstellung (1931). Those framed pictures are not perceived as “dissonance” but as a “natural thing.”432

Riezler makes the same observation at the Lange House in Krefeld where not only pictures can lead “a life of their own” but also where the wall acquires a new meaning.433 It was precisely this inherently contingent and sensual “life” of the image that modern artists and architects tried to control through abstraction or by simply banning the image. What had been labeled as a fight against the deceptive illusionism had possibly more to do with the uneasiness in the face of the image’s intrinsically animate and mediating nature, no matter if figurative or abstract. While many of the modernist artists and architects were striving to resolve once and for all the

431 Taut writes in 1920: “But inside a room it [the image] cannot by no means be mounted next to furniture and thousands of everyday objects. And the beautifully treated wall, painted in bright color and ordered plastically rejects everything mounted. Moreover, it is a barbarian un-culture [barbarische Unkultur] to surround the everyday life with images. The eye becomes dull, and if it does not become dull, it is the spirit that is sucked away and is occupied against its will. The picture, i.e. the autonomous artwork which is not connected with the space, is not supposed to hang and is not allowed to be exposed to anyone’s gaze.” Bruno Taut, "Bildschreine," Das Werk - Schweizerische Zeitschrift für Baukunst/ Gewerbe/ Malerei und Plastik (1920), 156.
432 Walter Riezler, "Bild und Bau," Die Form 6, no. 8 (1931), 277.
433 Ibid.277.
image/architecture dialectics, it is Mies’s work that does the opposite: it sustains the interplay of the two, allowing for contingency and room-for-play for unpredictable events to happen.

In order to understand this difference it is helpful to approach the visible elements in Mies’s architecture – the glass walls, marble and wood partitions, but also certain artworks – not as framed pictures that represent a certain reality but as frameless “masks” [cache] to use a term introduced by the film theorist André Bazin. In his reflections on the distinction between painting and cinema Bazin writes:

In other words, the frame of a painting encloses a space that is oriented so to speak in a different direction. In contrast to natural space in which our active experience occurs and bordering its outer limits, it offers a space of orientation of which is inwards, a contemplative area opening solely onto the interior of the painting. The outer edges of the screen are not, as the technical jargon would seem to imply, the frame of the film image. They are the edges of a piece of masking [cache] that shows only a portion of reality. The picture frame polarizes space inwards. On the contrary, what the screen shows us seem to be part of something prolonged indefinitely into the universe. A frame is centripetal, the screen centrifugal.434

The various overlapping planes in Mies’s architecture function like film screens. They do not function as an imaginary window into a reality, no matter whether figurative or abstract, that invites contemplation but rather point beyond themselves towards the “Allraum” evoked by Riezler.

When Fritz Tugendhat would later say that he found it impossible to hang paintings in his house’s main living space, he was referring to the inwardness of painting Bazin spoke of.435 Interestingly, Tugendhat reacted against this ‘rejection’ by installing a “huge screen” in front of the panorama window onto which self-made films were thrown by a 16 mm cinematographic

434 Bazin, What is Cinema?, 166.
435 Fritz Tugendhat, "Die Bewohner des Hauses Tugendhat äußern sich," Die Form 6, no. 11 (1931), 438.
projector called by the “Lokomotive” which was situated hidden in a small room located next to the staircase. That way the frameless scene that appeared during daylight on the panoramic window was transformed at night into moving image projections.⁴³⁶ One might interpret this incorporation of the cinematographic device as a regression because it is architecture itself that, rather than functioning as the object of vision, becomes an image-generating media that does not require the incorporation of cinematographic apparatus.

Grete Tugendhat would later recall Ludwig Hilberseimer saying that photographs cannot give an impression of the house.⁴³⁷ [Fig. 88] Nor can film, I would like to add, at least not in the conventional understanding of the term. The space is neither a movie stage set nor does it function like a movie camera capturing views and scenes. What the Tugendhat House embodies, however, is the lesson of what I call cinema precisely because the space does not function as a “machine of representation.”⁴³⁸ It is not a projection chamber that produces images permitting the subject to move and be moved. Rather, I would argue that the space resembles a “media machine”⁴³⁹ that relieves the subject from his or her own subjectivity and opens up the possibility for events and new life-forms to emerge. The Tugendhat hence appears like a

⁴³⁶ Daniela Hammer-Tugendhat, the daughter of Fritz Tugendhat, remembers later: “My father was an amateur filmmaker, he also experimented with color photography. […] In the living room space one can find on the left of the entrance a door leading to a small room whose function was revealed by my mother at the occasion of the international conference on the conservation of the house in 1969. Here the ‘Lokomotive,’ a 16 mm film projector, was located. A huge screen was installed in front of the glass window and ready was the movie theatre.” Hammer-Tugendhat, "Leben im Haus Tugendhat," 21.


⁴³⁸ Karl Sierek calls the Tugendhat House a “machine of representation” of already existing pictures. Sierek, "Vorschrift und Nachträglichkeit - zur Rhetorik von Bauen und Film," 116.

⁴³⁹ See Barbara Marie Stafford, Devices of Wonder: From the World in a Box to Images on a Screen (Los Angeles: Getty, 2001).
rationally conceived Spielraum whose contingent rhythms resonate with the visitor’s body and incite playful acts of innervation. Modernity, as Jean-Francois Lyotard has argued, is “a way of shaping a sequence of moments in such a way that it accepts a high rate of contingency.” In that sense Mies’s spaces, perceived through the lens of cinema, open up new avenues of thinking about modernism.

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Filmkämpfer von außen.

Wie Mies Van der Rohe zum Film kommt? — Keine schwer zu beantwortende Frage: Als Mensch, der zu den geistigen Dingen der Zeit Stellung nimmt, befaßt er sich selbstverständlich auch mit Fragen des Films. Und gerade, weil er kein Zünftiger ist, verdienen seine Äußerungen besondere Beachtung.

Mies Van der Rohe, der Architekt, gehört zu denen, die durch den Werkbund einer neuen Auffassung des Baustils zum Durchbruch verhelfen. Seit ein paar Monaten ist er am Bauhaus in Dessau als Leiter tätig. Dort führt er die von Walter Gropius begonnene Tradition der Traditionslosigkeit fort.

Fig. 1
Deutsche Liga für unabhängigen Film
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- Fesselung der künstlerischen Gestaltung durch offene und verkoppte Zensur!

**Für**
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Für die Zentrale:

Fig. 2
Fig. 3
VERBANDSHAUS DER DEUTSCHEN BUCHDRUCKER

VERWALTUNGS-GEBAUDE FAHRSTUHL

40

Fig. 8
Fig. 16
Abb. 2. EIFFELTURM (1889)
Pfeilerinnere
An Stelle eines massiven Turmes ein offenes Gerüst auf geringe Dicke konduziert. In ununterbrochen wechselnden Versuchsdrahten dringt die Landschaft ein.

Fig. 19

Fig. 20
DE STIJL
MAANDBLAD VOOR NIEUWE KUNST, WETENSCHAP EN KULTUUR. REDACTIE: THEO VAN DOESBURG. ABONNEMENT BINNENLAND F.S., BUITENLAND F.100 PER JAARGANG. ADRES VAN REDACTIE EN ADMINISTRATIE: UTRECHTSCH JAAGPAD 17 LEIDEN (HOLLAND).
6e JAARGANG 1929 No. 6

HANS RICHTER
FILMOMENT
87

Fig. 29
Fig. 30
Fig. 34

Fig. 35
Fig. 45
Fig. 48

Fig. 49
Fig. 50
Abb. 49: Versuch der Analyse einer freien Linie

(D) \rightarrow e_n \rightarrow e \rightarrow f \rightarrow \beta \rightarrow \ldots \rightarrow \varphi_n \rightarrow \lambda \rightarrow \ldots \rightarrow \beta

Vgl. dazu Ablenkungen S. 79 und 83.
Fig. 52

Fig. 53
Fig. 58

Fig. 59
**DER ABSOLUTE FILM**

EINMALIGE FILMMATINEE  
veranstaltet von der  
NOVEMBERGRUPPE  
in Gemeinschaft mit der  
KULTURABTEILUNG DER UFA

**PROGRAMM**

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<tr>
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| Erste Acte                           | Scénario de Francis Picabia  
adapté et réalisé par René Clair |

Fig. 67
Fig. 70
Fig. 81

Fig. 82