Moving in Black and White:
Representing the Concrete Country House and Richter's Polarities

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Figure a. The original charcoal drawing, in *The Mies van der Rohe Archive Volume 1*

Figure b. The second charcoal drawing

Figure c. The red and green pastel drawing

Figure d. The incomplete drawing

Figures e and f. The model photographs
The Concrete Country House was a paper project, therefore it can only be understood through its representation. Although no orthographic plan drawings of the house remain, or perhaps were ever even drawn, the articulation shown in two model photographs and four perspective drawings indicate that Mies labored over its details. The drawings and manipulation of these 2D documents reveal Mies's fascination with the possibilities of "polarity," the significant term for filmmaker Hans Richter, an intimate colleague and inspiration to Mies in his early career. Rhythmus 21, a film produced in 1921 by Richter in Berlin, provides a precedent for the representational and architectural parameters of the Concrete Country House: figure-ground, dark-light, and movement-counter-movement. Mies's representations of the Concrete Country House intend to emphasize the time-based polarities imparted by Richter's Rhythmus 21 film.

Acquainted in the early 1920s, Mies and Richter nurtured a relationship throughout the decade that allowed their creative works and writing to influence each other. The two became acquainted through the encouragement of mutual friend Theo van Doesburg in 1921, and although Richter was initially not interested in meeting Mies, he soon became an strong advocate for Mies, recognizing a mutual and parallel pursuit of what Richter called a "universal language." Before the pair established the G group, they were part of the Novembergruppe, which sought to separate from Expressionism in favor of the "generally understandable expressions" of objectivity. As president of the group for two years from 1923, Mies held film screenings likely including Richter's works. The friendships and creative influences in the Berlin Avant-Garde were open-ended, especially amongst these De Stijl and International Constructivist artists, with whom Richter and Mies exhibited. Van Doesburg, in particular, shared interests with Mies and Richter. He too sought to make universal expression in his work. However, van Doesburg's drawings, described specifically later in relation to Mies's Concrete Country House, indicate an abstraction distinct from both Mies and Richter's works. The friendship "that grew from the enthusiasm of youth, of common ideas" and magazine collaboration between Mies and Richter indicates their unique affinity.

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5 von Hofacker, Marion, "Chronology" in Hans Richter: Activism, Modernism, and the Avant-Garde. 260
7 Richter, Hans. "As I remember Mies."
The most well-documented and significant collaboration between the two men was their editing of the journal *G: Material zur elementaren Gestaltung*, founded in 1923 by Richter. Collaboration on *G* magazine posited their creative endeavors on the same pages for three years. Mies’s experimental projects debuted here accompanied by his theoretical writings. In this early theory, Mies set his architecture apart from "art specialists" and described it in terms of logic and objectivity, structure and construction, having cited exact dimensions and practicalities of roof drainage. Richter also reported his approach to art as fact-based, having stated, "I want to paint completely objectively and logically."  

Both men strove toward abstraction, which is apparent in their creative work and published theory. Richter's paintings, just before the beginning of the abstract film works, had simplified to black ink illustrations (see Figure 1). In 1920, Richter and Viking Eggeling published the "Universal Language" manifesto, effectively promoting abstract art as the means for all-embracing expression through form. Mies's own abstraction is visible in the drawings for the skeletal Glass Skyscraper and implied in *G* theory: "we reject all aesthetic speculation, doctrine, and formalism." The liberation of architecture from these conditions involved favoring elementary structures and rationality by all accounts. "Zeitwille," a favorite term of Mies, was echoed by Richter in the fifth issue of *G*, explaining the fundamental interest of the Berlin Avant-Gardes: "the will of humanity is abstraction, the highest manifestation of idea, it is much more than the individual's desire."  

Mies contributed extensively to the journal during its three-year operation. Recounts by Richter in the 1960s situate Mies as the "main co-worker," having given full financial support for the last three issues, commissioning articles from fellow artists, and eventually running the magazine from his own architecture office. Richter praised Mies in a 1925 article entitled "The New Masterbuilder." Richter described Mies and many of the same phrases and ideas that the architect himself used previously, including the problems of formalism and style, using the "means of our time" for the "new building tasks," and industrialization. Richter's departures from those manifestoes, however, shed light on the artistic side of the
seemingly and overwhelmingly functionalist, pragmatic, and austere Mies. Richter explains that builders that deal only with need and one-sidedness of technical matters cannot achieve building art: the relationship between fact and form. Whereas Mies 1920s writings insinuate avoidance of anything outside of economy and construction, Richter describe his friend as the prototypical artist-engineer, with conviction for a new architectural approach that is both spiritual-artistic and matter of fact. The contradiction of Mies's engineer-like prose and covert artist attitude is most apparent in his drawings, to which Richter was immensely attracted. The manipulation of form, light, and materiality in the representations demonstrate a profound interest beyond the practical aspects of building. Furthermore, Mies's direct involvement in the artist groups Novembergruppe, Deutscher Werkbund, and De Stijl account for a strong influence from contemporary artworks.

The relationship of Richter and Mies is the basis to understand the influence of the artwork on the architecture, during their collaboration on G. Each was certainly aware of the other's undertakings through the 1920s, the period in which Mies was able to synthesize the conceptions for his experimental projects, first with the Glass Skyscraper and shortly thereafter with the Concrete Country House. Their dedication to the magazine and overlapping theories allow one to map these creatives' fostering of a close working and personal relationship.

Richter first published his ideas of polarity in De Stijl in 1921. The black-and-white illustrations that Richter created in the late 1910s had revealed to him ideas of "up/down, strong/weak, movement/counter-movement." The thesis for a language based in "identical form perception in all human beings" relied on polarity, which he also termed "contrast analogy." Polarity is the basis for form, Richter explained, and it can be a principle applied to all art compositions (including architecture). Rhythm, intensity, and position, among others, are the parameters important to achieving universal understanding.

The first executions in this approach were collaborations with the Finnish artist Viking Eggeling. In 1919, the pair produced a series of "Orchestrations," works that were important moments, fragments or snapshots, of their language. Richter produced compositions called "heavy-light", showing the asymmetrical accumulation of lines and black and white forms which interlock with each other (see Figure 2).

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17 Richter, Hans. "As I remember Mies."
18 Benson, 36
19 Hoffman, 76, 80
20 Richter, Hans. "Prinzipielles zur Bewegungskunst." De Stijl 4.7 (1921). 110
21 Richter, "Prinzipielles..." 113-118
As van Doesburg first published Richter and Eggeling's "Orchestrations," Mies concurrently designed the Glass Skyscraper.\textsuperscript{22} Begun prior to meeting Richter, this project was Mies's first step in using polarity, and it set a direction for his work.\textsuperscript{23} He drew the skyscraper as completely white and translucent (see Figure 3).\textsuperscript{24} Here the figure-ground relationship is an aspect of the representational character that approximates the architectural character. The city is dark, the building bright. Diagrammatically, the building then is the opposite of the city, the polar. Mies believed that his design did not rely on "patterns of shadow on an opaque material but by reflections and refractions of light by glass."\textsuperscript{25} However, the elevation drawings of the skyscraper demonstrate how Mies receded and advanced the surfaces of his architecture; and only through this relief of light-shadow is the elevation representation of the building comprehensible (see Figure 4).\textsuperscript{26} Other architectural polarities were also engendered: opaque-clear, matte-reflective, and especially still-moving.

Movement, or more specifically the architect's awareness of the series of vantage points from which to see the skyscraper, is intentional and related to Richter's painting and film works. Mies described the form of the building as a consequence its massive effect in the city and desire for wavering reflections.\textsuperscript{27} This description and Mies's many photographs of the model indicate he was interested in the possibilities of fluctuating perceptions of a surface. Richter's Heavy-Light (1919) series also sought such an effect. One's eye follows the "moments" of the composition across and around, comparing them and stimulated by their differences.\textsuperscript{28}

Although Mies first used polarity in his Glass Skyscraper project (1919-1922), the Concrete Country House project that debuted in \textit{G}, once Mies was familiar with Richter's work, determinedly explored the "contrast analogy" as an architectural and representational channel. When Mies translated the ideas of the Glass Skyscraper to a country house, the scope of the architecture changed. In the country, infinite space was available, unlike the restricted, urban site on Friedrichstrasse.\textsuperscript{29} This shift marked an increasingly complex figure-ground for Mies's designs and representations. The continued development of the skyscraper's polarities demonstrates an influence from Richter's theories and film.

\textsuperscript{22} See van Doesburg's "Abstracte Filmbeelding" in \textit{De Stijl} IV 5 (1921)
\textsuperscript{23} Tegethoff. 18. Mies's skyscrapers are his own precedents for the Concrete Country House
\textsuperscript{24} Mertins. 118
\textsuperscript{27} Mies. \textit{Frühlicht} 1.4 (1922). 122-124
\textsuperscript{28} Hoffman. 76
\textsuperscript{29} Tegethoff. 16
The artist published his latest polarity theory simultaneously with the Concrete Country Houses's G premiere:\(^{30}\)

The distinctive sphere of film is that of moving space, the moving surface, the moving line, moving: that means space, surface, line many times over and one after another. This space is neither architectonic nor sculptural, but rather time-based, i.e. light forms through alternation of qualities (light, dark, color). Light spaces which are not volumetric but are only spatial through sequences.

The Concrete Country House evidences a similar pursuit of temporal "alternation" and "sequences" via polarity. These architectural-filmic effects were the emphases of Mies's charcoal drawings, which are significant because they are more evocative than literal, demonstrating his goal of architecture beyond objectivity.\(^{31}\)

Analysis of the Concrete Country House's original charcoal representation primarily addresses shading, and in terms of its graphic composition. Just like in the Glass Skyscraper representation, Mies used black and white to give definition to the building. If only lines had been used, the drawings would not communicate the same architectural character. Mies was careful to articulate the volumes with black and white shading. The inconsistencies in shading consequently provide clues toward the inspiring qualities of *Rhythmus 21*, bespeaking Mies's desire for the composition to appear highly contrastive and abstract in general. For example, if the sun position was fixed, the western exterior walls should all appear as the same tone (see Figure 5). The glazed surfaces are also inconsistent. Had they accurately reflected the tones of the surrounding landscape, the drawing would not have such graphic relief, instead flat as the model photographs portray. The shadow casted by the awning behind the chimney specifically shows how Mies inverted many of the light-shadow tones of the drawing. All these instances of inconsistent shading have a parallel occurrence in the moments of *Rhythmus 21* when black and white are inversed over split-second flashes and drawn-out motions of overlapping (see Figure 6). Although Mies redrew the same vantage point three times, one can imagine that the represented surfaces, depending on viewing angle, would compensate and fluctuate in order to achieve graphic polarity, like the Glass Skyscraper.

Analysis of Mies's subsequent manipulations of his own representational artifacts involves chronology and a continued pursuit of polarity. Mies produced a second, nearly identical charcoal drawing, for an exhibition organized by Walter Richter, Hans. *De Stijl* 6.5 (May 1923). 66

30 See Sze Tsung Leong's "Representing the Almost Nothing: The Drawings of Ludwig Mies van der Rohe" in *Conventions of Architectural Drawing*... Leong explains that Mies's drawings were both illustrative and "persuasive"—he did not represent literally the visual architectural effect, instead drew it in a way to evoke the effect
Gropius (the original drawing was being exhibited in the Große Berliner Kunstaustellung). The paper texture is far coarser and affects the drawing's quality (see Figure 7). The disproportionate scale of grain from the paper on the concrete surfaces provides less clarity of the house's form; this rendition is flattened, much of the depth information provided by the perspective view is sacrificed.

The charcoal drawings also demonstrate spatial polarity, specifically in terms of distance: near and far. The drawing is nearly orthographic. Besides the unusually broad vanishing points, the second charcoal rendition enhances the effect, because several surfaces that were vanishing become strictly horizontal. Mies's composition orchestrates near and far elements atop each other, especially when the low garden wall is considered. The charcoal drawings were produced after the model was built, and the discrepancy between the two media makes apparent the iterative process of the drawings. A second terrace level, present in the model along the house edge, is displaced to directly in front of the viewer in the drawing. As the charcoal drawings suggest, movement around the Concrete Country House would have been an orchestration of lit and shaded surfaces both close and distant from the viewer. These foreshortening and overlapping manipulations liken to the movement of forms in Rhythmus 21 that "jump and slide in well-articulated time-space and planned rhythms (see Figure 8)." Much of the film's spatial effect comes from the relationship of near and far forms, which rhythmically grow closer and further from each other, implicitly making perspective. In Richter's notes for the "Universal Language" manifesto, he notes this "increasing : decreasing" is a "contrast analogy" that makes a spatial effect.

Mies's attention to persuasive, rather than literal, representations of the House's space-time effect was not limited to the charcoal drawings. The model photographs were not published in their original form, instead manually colored to give a higher contrast and articulate the complex figure-ground of building and landscape. The front-page photograph of the House in the second issue of G shows that the windows were blackened, sections of designed landscape were darkened, and the concrete whitened (see Figure 9).
Figure 9. Various surfaces were darkened before publishing this photograph. Some areas of the garden were inverted in tone.
Sometime later than the black-white renditions, Mies produced two color pastel drawings, also from the same vantage point. One portrays the house as red and the landscape green (see Figure 10). The choice of red-green corresponds to a concept of Richter, which he had developed since 1922. Red and green had an "incomparably unequal" relationship, Richter said, more than any other pair of colors, including the primaries yellow, red, and blue. Richter produced one copy of a hand-colored film, just after completing *Rhythmus 21*, that used only red and green color.40 An architect like Mies, whose structural experience in brick and detailed contemplations on concrete, would not have changed his mind to superficially swap the structural material from concrete to brick (red).41 This red-green drawing is actually consistent with the original black-white rendition of a concrete house. Tegethoff speculates that the pastel drawings were produced for a potential client to whom Mies offered his services.42 The cleanliness of shading and line-work of the red-green drawing, in comparison to the black-white drawings, supports this claim, since Mies probably preferred not to show his client the rough and abstract compositions published for the art community in G.

The other pastel drawing, which used white and grey, portrays a far less contrastive house (see Figure 11). The shading of surfaces is consistent and is accurate according to the position of the sun. Appearing more illustrative than abstract, this rendition gives the glazed surfaces a realistic character, as in the Glass Skyscraper, simultaneously transparent and reflective. Importantly, this drawing was never completed.43 The landscape wall was not fully shaded and many of the glazed surfaces lack articulation at all. Mies's dissatisfaction with this illustrative anomaly representation perhaps prematurely terminated his labor on this drawing.

The representational techniques of Mies, Richter, and van Doesburg provide a noteworthy comparison of similar interests executed in distinct ways. In the *Counter-Constructions*, van Doesburg attempts to create a singular, unified image, that actually compensates for movement and time by drawing all the planar elements as transparent (see Figure 12).44 Time and movement are fused into a highly abstract representation. In a contrary approach, Richter's film was not a summation of parts, but a "time-unity," so that an artwork is not collapsed, but actually spread across time and unified through viewing its entirety.45 Mies's

40 Hoffman. 81
41 Mies. "Bauen."
42 Tegethoff. 33
43 Drexler. 84
44 Christ. 150
45 Mertins. 126.
later. Tegethoff’s analysis however, indicates the "series of spatial effects" were actually realized in the Concrete Country House.\textsuperscript{52}

The entry sequence was designed consisting of four moments. First one is beneath the projected roof at street level, next one ascends in a vestibule, arrives at an exterior landing before the glass entry door, and finally steps into the inner foyer.\textsuperscript{53} The spatial figure-ground changes in each of these instances (covered, surrounded partially, surrounded completely, and so on). The sequence from the living room and to a terrace level is similarly complex and involves a peculiar physical movement. In that sequence, one ascends the stairs from a lower terrace, then rotates backwards, walking onto the veranda, and enters the living room. Again, in each of these steps, the house interior and landscape are exchanged, integrating one into the house’s entire narration of in-out (see Figure 14). Mies achieved using both the figure (house) and ground (landscape) for the architectural effect, what Richter also sought in his early black-white ink drawings: "a balance…of the white paper with the black spots of ink…so that the white and black were both part of the same work…leading to a definite unity."\textsuperscript{54}

The complexity of figure and ground found within both the film and architecture project confirm the possibilities of a creative approach based in elementary forms and in time. Mies’s representational technique for the House testifies to the inspiration from \textit{Rhythmus 21}'s black-white relationships. The film was also a model for the architecture itself. Mies's design involved space in general, making use of and creating harmony between interior and exterior spaces. By employing variants of sequential open-close spaces, the House design involved a fluctuating, yet unified, time-based experience. Not an object, or a single representative view, the house was, like Richter's film, a work made "indivisible" by its innate time-based experience.\textsuperscript{55} The charcoal drawings were "impossible views," but were accurate to Mies's architectural intentions.

Mies and Richter worked within especially open artistic circles in Berlin, who were also interested generally in contrast, a universal visual language, abstraction, and time-based work. The Concrete Country House must be understood in this context. Van Doesburg, for example, also produced evocative architectural representations, compensating for movement.\textsuperscript{56} The similarities

\textsuperscript{52} Neumeyer. 250
\textsuperscript{53} Tegethoff. 24. Tegethoff has written a detailed analysis of the entry situation of both the Concrete Office Building and Concrete Country House.
\textsuperscript{55} Mertins. 127
\textsuperscript{56} Mertins. 126
between the work of the filmmaker and architect pair were stronger yet than with other Berlin Avant-Gardes.

*Rhythmus 21* was an important work for Richter, as it realized his pursuit of abstract, kinetic, and polar art. It set forth a precedent for the architectural parameters of Mies's Concrete Country House, especially polarity in terms of the figure-ground. Polarity, as Richter wrote, was a means for a visual universal language. When set in time, the alternation of a form between its polar states (black-white, growing-shrinking, filling-emptying) creates movement. Polarity itself is less important than the kinetic effect it can produce. For Mies, the polarity used in his representation of the Concrete Country House gave the evocation of a four-dimensional experience that combined interior and exterior space, the intended architecture. Both the artist and architect had similar interests in objectivity, abstraction, and time and their magazine *G* was a way for the pair to promote those ideas. After *G*, both men continued to explore the ideas of their experimental works of the 1920s. Richter began his art career as a painter and completely devoted himself to film from 1925. In 1929, he shot Mies's apartment block at the Weissenhofsiedlung for his "Die Neue Wohnung" film. The relationship between the architect and filmmaker created a professional network, which perhaps Giedion knew of when he commented, "only film can make the new architecture intelligible!" Mies developed the possibilities of polarity and movement throughout his career. The Barcelona Pavilion became a fully realized paradigm for sequential and polar architecture, with surfaces that visually alternate in character through movement.

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57 Mertins. 127. "Mies articulated his own version of the new spatial order in which interior and exterior were to be interwove fluidly and dynamically…"
58 Hoffman. 88
Annotated Bibliography


Describes conceptual ideas of film and how Richter executed them formally in time.


Describes van Doesburg’s reliance on axonometric projection and its implications.


A complete biography in Mies. Provides conventional comparison of Country Houses to van Doesburg paintings.


Describes Richter’s involvement with Constructivist artists, including van Doesburg and El Lissitzky.


Detailed chronology of Richter’s development from painter to filmmaker, including work with Viking Eggeling and published theory.


Introduction to Richter's commission to film the Weissenhofsiedlung in 1929.


This first volume has full-page reproductions of the Concrete Country House documents which survive in the Museum of Modern Art Mies Archive.


A thorough investigation of Mies's social and creative development in the early 20s in Berlin. De Stijl and Richter are cited as the primary influences and professional relationships.


The debut of the Glass Skyscraper in an untitled article.


Provides all published and spoken records of Mies, including G theory.

A short essay describing the potential influence of Richter's "Filmmomente" drawings and perspective projection on Mies's Tugendhat House.


Richter admirably recounting Mies personality and influence on himself and other Berlin artists.


Richter praised Mies in this article and included illustrations of the Concrete Office Building and both Country Houses.


Reproduction with introduction by Marion von Hofacker, leading Richter scholar. The publication on which Richter and Mies collaborated closely includes their essential theories and projects.


Cited elsewhere as a memoir of sorts of the early 20s and avant-garde film.


An article outlining the origins of kinetic art, from impressionists to cubism to constructivism.


Rhythmus 21 on DVD video, accompanied by new soundtrack.


Rhythmus 21 online video, accompanied by new soundtrack.


Very detailed personal and professional biography on the architect. Includes relationship with Richter and diverse influences on Concrete Country House.


Includes in-depth analysis and speculation of the Country Houses, of which remain few plans and drawings. Indicates how the Glass Skyscrapers were an impetus for the Country Houses.