# **EXPERIENCE**

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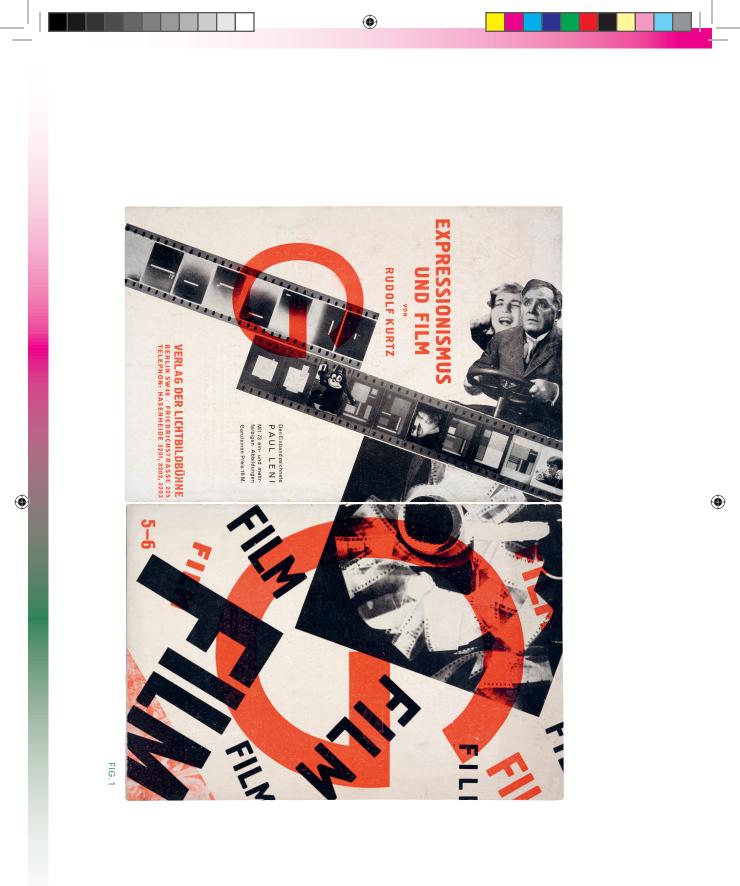
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"ES KOMMT DER NEUE INGENIEUR" (Here Comes The New Engineer), announced the young artist Werner Gräff, in the inaugural issue of the journal G: Material zur elementaren Gestaltung (G: Material for Elemental Form-Creation).<sup>1</sup> Gräff's New Engineer was to be a purveyor of a "new, magnificent technology—of tensions, of invisible movements, of remote influence, of speeds that cannot yet be imagined in the year 1922."<sup>2</sup> This prophecy was not simply a tribute to technological advancement, but a radical vision for how the world might be understood differently if mediated through mechanical expertise. Opposing the "purposeless" and "detached" art movements of Cubism, Suprematism, and Expressionism, with their problematic "tendency to redesign form subjectively" (as a 1924 contribution by Russian artist Nathan Altman put it), G's acolytes aspired to realize human experience untainted by subjectivity, through modes of visualizing and rendering that did not similarly reflect "the individualism of an anarchically divided society."3 Through the mediations of their chosen new technologies (film, photography, innovative typographic design), the so-called G-Group sought to engineer a visioning—and experiencing—process that emulated the precision, standardization, and nonsubjective universalism of a machine. In that heady first decade of the Weimar Republic, the editors

of Berlin-based G sought to understand and perfect the urgent mediating forces of their day: the mass-media apparatuses of print and film, as well as the filters of sensory perception and human comprehension, honed through lived experience. That Erlebnis, felt by a perceiving subject, and expressed through artistic means and new metropolitan realities, was a contested matter in period writings about culture and the impact of war by Siegfried Kracauer on the left and Ernst Jünger on the right, in critiques of Expressionism channeled by Weimar art critics Wilhelm Hausenstein and Franz Roh, in debates about the political commitment of neoclassicism or realism between cultural theorists Georg Lukács and Ernst Bloch after the demise of the republic, and in postwar musings by philosophers such as Martin Heidegger. G reflected and presaged these pervasive Weimar-era thematics and their reverberations, attending to the ways that technological, social, and perceptual regimes worked in concert to engineer human experience and subjectivity.

#### FIGURE 1

The cover of issue 5/6 of G, 1926, with the word "film" repeated multiple times.

#### 1

G (short for Gestaltung, or formcreation) is alternately indexed as "G [quadrat]" in reference to the appearance of a square shape- "G □"-on its title page. In 1924, the journal changed its name to G: Zeitschrift für elementare Gestaltung. This essay presents original German quotations from G as they appear in the 1986 compilation of reprints published by Marion von Hofacker, Der Kern Verlag, Munich. Translations from the journal to English are taken from the 2010-11 translation and reprint edited by Detlef Mertins and Michael W. Jennings, published under the title G: An Avant-Garde Journal of Art, Architecture, Design, and Film, 1923-1926 by Tate Publishing, London, in association with the Getty Research Institute, Los Angeles. Other translations, when not otherwise attributed, are my own. The title of Gräff's article contained the misspelling "Ingenier," which, along with similar irregularities, have been silently corrected in this text for the sake of clarity. 2

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The essay was published in the 1923 publication noting a December 1922 date of authorship. G 1 (July 1923), n.p.

Nathan Altmann, "Elemental Viewpoints," G 3 (June 1924). In Mertins and Jennings, G: An Avant-Garde Journal, 137.

Gräff reported on his editorial role in the journal in Werner Graeff. "Concerning the So-Called G Group," Art Journal 23, no. 4 (Summer 1964): 280-82. However, a year later, in a letter to the editor of Art Journal, Raoul Hausmann disputed Gräff's published recollection of the journal, particularly the extent of Gräff's role in its conception: "He followed Mr. Richter around and had no influence upon the direction of the magazine.... I would certainly not have collaborated on the magazine in which a young Bauhausstudent without any background had a leading voice," in "More on Group 'G'," Art Journal 24, no. 4 (Summer 1965): 350, 352.

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The proximate field of Gestalt experimental psychology also designated as "elemental" stimuli in the world that were to be organized as holistic meaning in the mind. Many thanks to Caroline A. Jones, whose close reading of this essay surfaced this insight.

Éva Forgács, "Definitive Space: The Many Utopias of El Lissitzky's Proun Room," in Situating El Lissitzky: Vitebsk, Berlin, Moscow, ed. Nancy Perloff and Brian Reed (Los Angeles: Getty Research Institute, 2003), 65.

See John Willett's succinct unpacking of the concept of Neue Sachlichkeit, and its translation from the German, in John Willett, Art and Politics in the Weimar Period: The New Sobriety 1917–1933 (New York: Da Capo Press, 1996), 112.

the contemporary permutations of its title topic, formulated and filtered through different disciplinary modes of understanding culture, cognition, and the slippery construct of "common sense." Like *G*, this book endeavors to operate at the intersections of the sciences and humanities, and, through its art- and design-based contributions, to create aesthetic experiences that extend the printed form. In so doing, we attempt to invest experience with the full complexity of its constitution—messy, multifold, and explained variously by its many interpreters, in strange contradictions and surprising correlations equally true to its lived apprehension. Published from 1923 to 1926, *G* was headed and edited by avant-

This volume, *Experience*, is similarly concerned with understanding

garde filmmaker Hans Richter, who collaborated with a rotating roster of attributed editors drawn from his art world peers: Austrian architect Frederick Kiesler, Russian artist and graphic designer El Lissitzky, the Germans Mies van der Rohe and Gräff, along with many others.<sup>4</sup> Though short-lived and manifesting in only five publications (including one double issue), G demonstrates that a small journal can represent a significant enterprise, focusing the principles of a collective within an object of collaborative labor. G's contributors extolled the virtues of a world wrought of expert construction, both in terms of its tangible infrastructures and its assimilation into consciousness through cultivated perceptual abilities. G envisioned a coming culture clear in function and purpose, articulated through the defining features of advanced technology, including dynamic modern design and the moving picture. Polemically asserted in the periodical's pages, such a future would require the use of "elemental" forms to reorder apprehension of the world by its human inhabitants.<sup>5</sup>

This commitment to the "elemental" was propelled by the "Anruf zur elementaren Kunst" (Call for Elementary Art) published in 1921 in *De Stijl*, another journal of the period originating in the Netherlands. That polemic was signed by artists Hans Arp, Raoul Hausmann, and László Moholy-Nagy (whose names later appeared in G, either as contributors or subjects of articles), along with the Soviet avant-gardist Ivan Puni; the authors thereby rejected the style and "arbitrariness" (Willkür) of the individually motivated artist. "Elementaren Kunst," as summarized by historian Éva Forgács, was characterized by being "anti-philosophical and anti-individualist," aspiring to "the genuine, new design work of the present, free of both beauty and usefulness."<sup>6</sup> The anti-style of these De Stijl authors was a universalism constructed of basic geometries and abstraction; it preceded the motivations of a German 1923 Neue Sachlichkeit movement, which championed the virtues of "functionalism, utility [and] absence of decorative frills" (as summarized by Weimar translator John Willett).<sup>7</sup> G reflected these desires for intentional, elementary form, with only nonfrivolous embellishment.

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I. OPENING

Accordingly, the first page of the first issue offered a typographically innovative text coauthored by Gräff and Richter, using strategic punctuation to promote a "modern form-creation (in art)," wherein art was safely ensconced in parentheses. To Richter and Gräff, creativity was desirable only insofar as it resisted the pitfalls of subjectivity, signifying, for them, an individualist psychology crucially constituted by-and, in turn, producing-experience. It was therefore incumbent upon experts to facilitate modes of seeing the world that would clarify experience and appeal to a basic interpretation of reality, not occluded by emotion or otherwise socially fragmenting. "Weariness with the old artsiness and the fact of vital human interests represent the prerequisites of any new form-creation. Our 'emotions' impede us from seeing what is truly essential for us."8 The motif of emotions clouding vision would be taken up in various ways throughout G's run, with many authors looking to technology, engineering, film, and non-expressive art as means to eliminate affect and improve sight, representation, and knowledge acquisition. In their words (and punctuation): "A subjective attitude is ruinous in all realms of life and the true cause of all catastrophes — — in art as well. The new artists act collectively."9 It was an exaggerated idea of subjectivity, understood as a turn inward to a disordered interior psyche, and disengagement from common external realities, that they opposed. The group objected to what they called the "catastrophe" of outdated, noncollective artistic expression, favoring the nonhuman mediation of experience through new technology, and its potential for offering a version of reality that might be cast as "common sense." Mediating the world through representational technology became a core strategy of this anti-individualist project.

Richter and Gräff's first essay for G, constituting an introduction to the overall project, sought to refute the "individualistic and emotional" tendencies that its authors perceived in both modern art and modern life: "We have no need for a beauty that, as a mere flourish, is pasted onto our (precisely oriented) existence-we need instead an inner order for our existence.<sup>10</sup> A manifesto "On Elemental Form-Creation" by (leading De Stijl protagonist) Theo van Doesburg appeared immediately below, refuting an antiquated relationship to form, predicated upon personal tastes: "In the decorative conception, creative activity was dependent on personal taste, whim, or intuitive assessment of the elements of the artwork. Such capricious work did not, however, meet the demands of our time: PRECISION."11 The criticism might be construed as targeting a diffuse array of artistic precedents, from the traditions of academic beaux-arts training, to the most recent avant-garde developments, from Impressionism (the "petit sensations" informing the delicate sensitivity of the trained artist), through Symbolism (an emphasis on the decadent aesthete's rarified tastes), up to the most radical Cubist reductions (which still circulated around varying simultaneous perspectives from a single point of view), and including the highly emotive canvasses

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Hans Richter and Werner Gräff, introductory essay for G1 (July 1923), n.p. 9

Ibid. Bold in the original.

10

Ibid.

Theo van Doesburg, "On Elemental Form-Creation," G 1 (July 1923), n.p.

Naum Gabo and Antoine Peysner. "Theses from the Realist Manifesto: Moscow 1920," G1 (July 1923), n.p. This translation from the English reprint of Mertins and Jennings, G: An Avant-Garde Journal retains the sentence fragment in the German original: "Als Frundzug der realen Außerung der Zeit." For the extended manifesto in its original format and language, and in translation, see Gabo: Constructions, Sculpture, Paintings, Drawings, Engravings (London: Lund Humphries; Cambridge, MA: Harvard University Press, 1957), 151-52, and insert.

#### 13

Richter and Gräff were both pioneers of abstract film. Gräff would also consult with Richter on his booklet for the 1929 *Film und Foto* exhibition in Stuttgart. Willett, *Art and Politics*, 148.

"Bereits die Zeitung wird mehr in der Senkrechten als in der Horizontalen gelesen, Film und Reklame drängen die Schrift vollends in die diktatorische Vertikale." Walter Benjamin, "Einbahnstraße." In *Gesammelte* Schriften IV, with Theodor W. Adorno and Gershom Scholem, ed. Rolf Tiedemann and Hermann Schweppenhäuser (Frankfurt: Suhrkamp, 1991), 103.

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See Maria Gough, "Contains Graphic Material: El Lissitzky and the Topography of G," in Mertins and Jennings, G: An Avant-Garde Journal, 21-51. Building on the research of Peter Nisbet, Gough suggests that Lissitzky intended to include examples of G in a proposal for an exhibition of his typo-lithography from 1923. On Lissitzky's responsibility for the nickname G, see Eckhardt Köhn, "'Nichts gegen die Illustrierte!' Benjamin, der Berliner Konstruktivismus und das avantgardistische Objekt," in Schrift Bilder. Denken: Walter Beniamin und die Künste, ed. Detlev Schöttker (Berlin: Haus am Waldsee e.V., 2004), 51; as well as Hans Richter, Köpfe und Hinterköpfe (Zürich: Verlag der Arche, 1967), 68-69.

#### I. OPENING

comprising the latest handiwork of the Expressionists. New political imperatives for social collectivizing, and new popular technologies of mechanical vision—photography, and particularly, the prolific industry of film—demanded a complete revision of the "sensing artist" model in favor of something elemental, no longer beholden to "intuitive assessment" or "individual taste."

Relentless in its repetition of like sentiments, the first issue of *G* pulled in reverberations of these premises from across the cultural sphere. Alongside Gräff's short essay under the fold of the back page ran a selection from the "Theses from the Realist Manifesto: Moscow 1920," coauthored by the revolutionary Russian artists Naum Gabo and Antoine Pevsner. From that longer manifesto statement, *G* excerpted short claims about the task of the artist to expand all aspects of modern life: expressive, spatio-temporal, and material. For *material*, think the materialism of lived, social realities, as well as the material of a *medium* in serving as a *means* for art—key period terms examined later in this text. The Realist Manifesto excerpt ended with a direct, abrupt position statement: "We reject the thousandyear-old error that sees the static as the only element of art. We affirm the cinematic as a new element of art. As an essential feature of the expression of our age."<sup>12</sup> Cinema, in this assessment, was a new "element" for addressing, expressing, and forming a social body of perceiving individuals in the new democratic republic that Germany had established. With its focus on new technologies of all types, *G* was meant to both entice and produce a more modern subject, turning citizens away from an enduring, "static" art and its associating characteristics of individual expression, intuition, and taste. G sought alternatives in the precision and order of the "essential" medium of modernity—cinema—illustrated in a filmstrip demonstration by Richter, printed as a runner across the full inner spread of the journal.<sup>13</sup> (FIG. 2)

How did the editors of *G* deploy the centuries-old medium of print in the service of a movement away from "static" expressivity, and into the arenas of the modern, form-creating, technological, and even the "cinematic"? Certainly a journal was not an obvious platform for achieving these aspirations. Cultural theorist Walter Benjamin, in colloquy with his contemporaries in the G-Group, would later refer to the "autonomous existence" of script in the "refuge" of the printed page, contrasting it with the "brutal heteronomies of economic chaos" that came when print was "dragged out" into the street and incorporated into advertisements or screen projections. The spatial arrangement of print would inflect its reception, Benjamin continued, in the short section on the "Attested Auditor of Books" (Vereidigter Bücherrevisor) in his 1928 Einbahnstraße (One-Way Street, also to be further considered in the forthcoming pages), in which he offered the examples of a newspaper's "vertical" plane and the "dictatorial perpendicular" of mass-media typography.<sup>14</sup> The reader opening a book, Benjamin suggested, was challenged to

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attend to its "archaic stillness," having experienced the bombardment of printed words, in various configurations, through everyday mass media.

*G* was calibrated to intervene in that stillness: the journal's dynamic design in its first issue included heavy lines wrapping around the folded page, in defiant refusal to bracket standard columns. Text and illustrations ran at occasional right angles, requiring the reader to physically turn the page 90 degrees, simultaneously emphasizing Benjamin's "perpendicular" and refusing its "dictatorial" qualities. (N.B.: The reader will note that a similar impulse guides certain portions of the design for this book, Experience.) One of these sideways texts, along the interior margin of the broadsheet, gave the instruction (archly adapted from Karl Marx's 11th thesis on Ludwig Feuerbach): "Art should not explain life but change it." On the exterior fold, between the two statements by Richter/Gräff and Gräff, ran a cautionary note: "Just no Eternal Truths," accompanied by what could be perceived as funerary symbolism in the icon of a crucifix overlaid by a palm frond, further emphasized by an image of a pointing hand. (FIG. 3) The reader feels invited to tear the words "Eternal Truths" along the fold. Along with its insistent call to sever any enduring premises inherited from the past, G promoted modern design for mass consumption, and new technological means at large, as key tools for tearing apart the "eternal truths" of history and its archaic subjectivities.

It was Lissitzky who designed this inaugural issue and suggested the nickname *G* for the journal.<sup>15</sup> The Russian-born artist was a founding member of the "International faction of constructivists" (with Van Doesburg and Richter), a group championing the social utility of "elementary construction" and had founded and coedited another avant-garde journal, Veshch'/Gegenstand/Objet one year after moving to Berlin in 1921.<sup>16</sup> He also participated in the first issue of *G* with an authored text, in which he described his philosophy of spatial design for his proto-installation artwork, the Proun Room, designed for the Grosse Berliner Kunstaustellung of 1923. The work, he wrote, demonstrated a "principled organization of space"; it represented a "new room" possessing an inherent "equilibrium" that "must be mobile and elemental" (so as not to be overlaid by decoration or changed by human intervention).<sup>17</sup> In his own, earlier, comparison between the creative artist and the technological engineer, Lissitzky described the term proun (an acronym for "project for the affirmation of the new") as signifying a new relationship between artist and the world, hedged upon creation rather than on the superfluous operation of pure representation. "When [the new world] needs a mirror, it has photography and the cinema."<sup>18</sup> The "creative intuition" and dynamic spatial engagements of proun production, Lissitzky held, were more complex than the traditional artistic task of creative composition or engineering functional design: "Composition is a discussion on a given plane with many variations; construction is a confirmation of the one for a given necessity. Proun

#### FIGURES 2 AND 3 (NEXT SPREAD)

Hans Richter, "Demonstration of the Materials"; "Nur keine ewige Wahrheiten" (Just no Eternal Truths) on the margin between the front and back covers. Both in G1, Berlin, July 1923.

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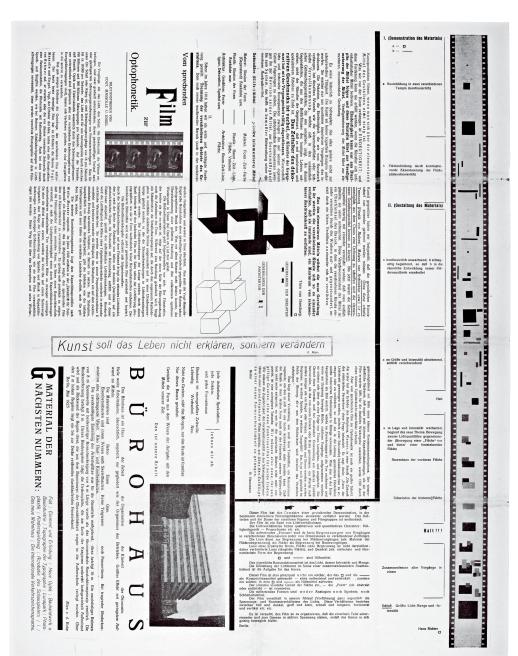
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For more information on Lissitzky and company's adaptation of the term "constructivism" see Christina Lodder, "El Lissitzky and the Export of Constructivism," in Perloff and Reed, Situating El Lissitzky, 27-46. Richter describes the group's adaptation and later rejection of the term in his short text "To Constructivism" in G 3 (June 1924): "At the congress in Düsseldorf in May 1920 the name constructivism was adopted in a broader sense by Doesburg, Lissitzky, and me, as the opposition. What is operating under that name today no longer has anything to do with elemental form-creation, our demand at the congress. At that time, the name constructivism was taken up as the watchword of those who sought rules for artistic expression and meaningful contemporary projects-they were opposed by a majority of individualists (see the report on the congress in Style 5, no. 4)." Reprinted in Mertins and Jennings, G: An Avant-Garde Journal, 174.

El Lissitzky, "Prounen Raum: Grosse Berliner Kunstausstellung," G 1 (July 1923). The paragraph continues, with original boldface and underlines: "The equilibrium that I want to create in this space must be mobile and elemental **so** that it cannot be destroyed by a telephone or normalizing office furniture, etc. <u>The room</u> is there for humans, not humans for the room. . . We no longer want the room to be a painted coffin for our living bodies." ( )

El Lissitzky, "Overcoming Art," in Between Worlds: A Sourcebook of of Central European Avant-Gardes, 1910–1930, ed. Timothy O. Benson and Éva Forgács; trans. Steven Lindberg (Los Angeles: Los Angeles County Museum of Art; Cambridge, MA, and London: The MIT Press, 2002), 186. The original essay "Preodolenie iskusstva," written in Vitebsk in 1921, was published as "Die Überwindung der Kunst," *Ringen* 10 (1922).



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#### I. OPENING

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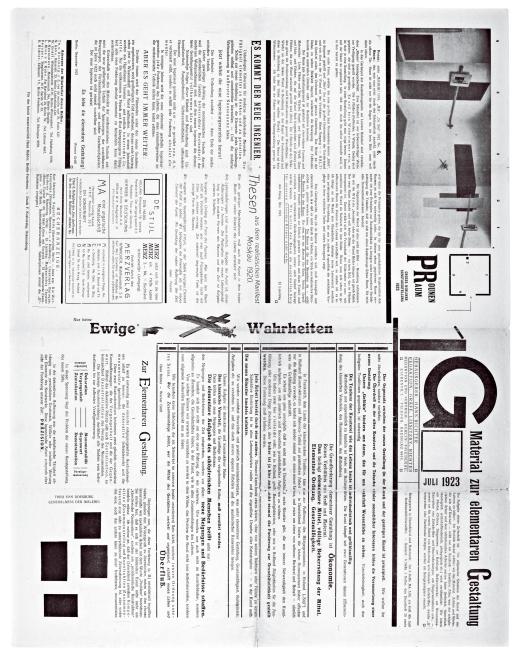


FIG. 3

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19 Ibid., 186. 20

Ibid. See also Maria Gough's extensive consideration of Lissitzky's contribution to G, as she notes the artist's regard for print design as connoted in his July 1923 statement in Merz. "The printed sheet, the everlastingness [Unendlichkeit] of the book, must be transcended. The ELECTRO-LIBRARY," in Gough, "Contains Graphic Material," 22 and 47. note 3.

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Serifs returned to the journal's typography in the March 1926 issue. For more on the "Make-Overs" in G, see Gough, "Contains Graphic Material," 43-44. 22

Graeff, "Concerning the So-Called G Group," 281.

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See ibid. and Richter's own elaboration in Hans Richter, Begegnungen von Dada bis heute Briefe, Dokumente, Erinnerungen (Cologne: Verlag M. DuMont Schauberg, 1973), 54-55. 24

"Dieses Heft ist eines der wichtigsten Zeitschriftenexemplare, die in der Weimarer Republik erschienen sind, da hier der seltene Fall vorliegt, daß unabhängig von allen kommerziellen Erwägungen die Form des Heftes absolut mit den Gestaltungsideen übereinstimmt, die in den theoretischen Beiträgen entwickelt werden." Eckhardt Köhn, "Nichts gegen die Illustrierte!" in Schöttker, Schrift Bilder, Denken, 51, Mertins and Jennings note that not all aspects of the layout were in full unison with the contributors' concepts; they cite Brigid Doherty's observation that Raoul Hausmann objected to the modernist type of his "From the Sound Film to Optophonetics" in the first issue. Mertins and Jennings, "Introduction: The G-Group and the European Avant-Garde," in Mertins and Jennings, G: An Avant-Garde Journal, 12 and 20, note 25. 25

Hans Richter, "The Badly Trained Soul," G 3 (June 1924). Emphasis added.

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has no axis perpendicular to the horizon, as the image does. It is constructed in space and brought into equilibrium, and because it is a structure, one has to walk around it, see it from below and explore it from above. The canvas has been set in motion."<sup>19</sup> Enhanced by its reduced spectrum of "purest" colors and comparisons between shades taken "from the realm of black and white" to build multidimensional structures in space, Lissitzky's proun signified motion, not stasis, as well as renunciation of the standard right angle of the picture.<sup>20</sup> Similarly, Lissitzky's designs for the layout of G's first issue implied movement, defiance of the maligned "perpendicular," and participatory navigation around the space of the printed page. It would not have escaped the attention of G's editors that the experience for the reader would in many ways be more like cinema than the operations of the conventional book.

It would seem that *G*'s producers were not satisfied to leave the print format unchallenged, and each new issue of the journal brought new experiments with the medium. The design of G changed dramatically with its third issue, from a broadsheet into a booklet format, accompanied by a typographic shift to a "modern" sans-serif font.<sup>21</sup> Gräff later recalled that "we were unable to find a printer in Berlin who had enough simple modern type on hand for a whole issue. But to our way of thinking, only modern type was 'elemental,' for it alone reveals clearly that it is constructed, whereas the customary printing types, even though constructed, imitate the character of handwriting."22 Mies personally paid the bill for this essential typography (using US dollar bills retrieved from a secret hiding place).<sup>23</sup> It is this maneuver that prompts Weimar cultural historian Eckhardt Köhn to refer to G as "one of the most important periodicals that appeared in the Weimar Republic, given its rare circumstance of a print design that absolutely matches the design ideas developed in the theoretical contributions-independent of commercial interests."24

Though the format of *G* changed throughout its run, its formal and thematic celebrations of dynamism-posited as refusals to capitulate to the threats of archaic stasis or modern-day individualism—did not. And, again and again, G published statements presenting film as a key technology for engineering a better form of consciousness. (FIG. 1) Richter explicitly looked to film as an ameliorative response to the "Badly Trained Soul" (the title of his June 1924 article for G, also sometimes translated as "The Badly Trained Sensibility"). Through cinematic address, one could critique the assumption that "feelings" were inherent, uncontrollable, and without order. "Feelings, it is said, come in one's sleep, hatch on their own, are simply there! That is wrong. Feeling is a process as precisely organized and *mechanistically exact* as thinking."<sup>25</sup> Richter offered the moving picture as a kind of mediation of the visual apparatus that could circumvent the habit of "sentimental passivity" produced by what he characterized as a still, nostalgic "postcard view":

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The film offers no "stopping points" at which one could return into memories: the viewer is—at its mercy compelled to "feel"—to go along with the rhythm breathing—heartbeat: . . . which through the up and down of the process can make clear what feeling and sensing truly is . . . a process—movement.<sup>26</sup>

Feeling and sensing were processes in motion, like a film canister unspooling before projected light, casting animated images on a screen. Propelled by the rhythm of his film, Richter's viewer would actively engage and learn new processes, garnering a greater relational understanding of position, proportion, and light—matters beyond the sentimentality of narrative.

Richter's "Badly Trained Soul" opened with a notable tribute to the Swedish avant-garde filmmaker Viking Eggeling, crediting him for "having found a creative perspective for the production of new forms [that] transcends any specialty (even that of film) and anchors the experiences of the senses in the realm of deepest knowledge." Particularly in these early avant-garde animations (see Caroline A. Jones's "Modeling" in this volume), film could be "elemental," and could regulate the senses formally, acting upon perception without appealing to the "emotions" that had been thrown into scare quotes and decried by Richter and Graff in issue 1 of G.<sup>27</sup> Film, as espoused in the practices of Richter and Eggeling, was a means of controlling or "anchoring" the potential unruliness of emotion and sensation, seeking a "mechanistically exact" structure for *feeling*. Architect Ludwig Hilberseimer's 1921 appraisal of Richter and Eggeling, published in another Berlin journal under an art section with the subheading "Bewegungskunst" (the art of movement), elaborated:

Art is the control of the means with the utmost economy. Only a real discipline of elements and their most elemental application makes it possible to build further upon it. Art is not the subjective explosion of an individual but rather organic language of the deepest significance for all humanity. . . . Art charges the individual with the task of creating a great unity from the multiplicity of sensations.<sup>28</sup>

Art effects this control through a process of unifying, Hilberseimer's article put forward, reprising much of the language from Richter and Eggeling's 1921 "Prinzipielles zur Bewegungskunst" (Principles of the Moving Arts).<sup>29</sup> There, drawing on ideas originating in another pamphlet they published in 1920, "Universalle Sprache" (Universal Language), the authors asserted that art is "a human language" made up of elemental forms, like an "alphabet," striving for a "rhythmic unification."<sup>30</sup>

To Richter, film offered the best new material means for controlling and rhythmically unifying a modern consciousness. But 26 Ibid. Punctuation here as in original. 27

Unlike the abstract shape films that would ensue in the laboratories of Heider and Simmel, described in the essay by Caroline A. Jones in this volume, Richter emphatically sought to deemphasize the "individual 'sensuous shape,' the 'form'-whether abstract or representational." In ibid. Richter distinguishes in this quote between the "sinnliche Gestalt" and "Form," the Gestalt of the title term Gestaltung indicating the result of the action gestalten translated here as "form creation." Mertins and Jennings unpack the "highly polemical term" Gestaltung, referring to a "comprehensive" scope of design and "a new postrepresentational approach to the production of culture that foregrounded formative and constructive processes ahead of the forms themselves." Mertins and Jennings, "Introduction," 5. 28

In describing art as a "means," Hilberseimer uses the term *Mittel*. *Sozialistische Monatshefte* (May 23, 1921): 467. I am indebted to the scholarship of Edward Dimendberg, who included an extended Englishtranslated excerpt of this article in his "Toward an Elemental Cinema: Film: Film Aesthetics and Practice in G," where I first encountered it, and from which this translation is taken. In Mertins and Jennings, G: An Avant-Garde Journal, 58. 29

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"Prinzipielles zur Bewegungskunst" was published in De Stijl (attributed only to Richter). Dimendberg, "Toward an Elemental Cinema," 67, note 19. However, some historians speculate that Eggeling is also an (or the) author of this text. See, for example, Jan Torsten Ahlstrand, "Berlin and the Swedish Avantgarde-GAN, Nell Walden, Viking Eggeling, Azel Olson, and Bengt Österblom," in A Cultural History of the Avant-Garde in the Nordic Countries 1900-1925, ed. Klaus Beekman (Amsterdam and New York: Rodopi, 2012), 217. 30

R. Bruce Elder, Harmony + Dissent: Film and Avant-garde Art Movements in the Early Twentieth Century (Waterloo, Ontario: Wilfrid Laurier University Press, 2008), 147.

Hans Richter, G1 (July 1923), n.p.

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Rudolf Kurtz, Expressionismus und Film (originally published Berlin, 1926). Reprint edition edited by Christian Kleining and Ulrich Johannes Bell (Berlin: Chronos, 1997), 93-94. Reproduced in translation in Michael Cowan, "Absolute Advertising: Walter Ruttmann and the Weimar Advertising Film," Cinema Journal 52, no. 4 (Summer 2013): 54. Cowan explains Walter Ruttmann's films in the context of positions on abstraction bracketing the Weimar period, from historian Wilhelm Worringer's seminal 1908 treatise juxtaposing the insularity of abstraction from the social "empathy" of representational form, to Nazi-era prohibitions against abstraction and primitivism. In the latter period, Cowan shows the legacy of the notions of "feeling" and "form" as taken up in Ruttmann's filmic evocation of the terms Formgefühl, Gefühl für Formenschönheit (feeling for the beauty of form) Schönheit der Form (beauty of form), and Kraft künstlerischer Gestaltung (power of artistic forming). Cowan, "Absolute Advertising," 72. For more on the postwar legacy of empathy in German aesthetic theory, see David Depew, "Empathy, Psychology, and Aesthetics: Reflections on a Repair Concept," in Poroi: An Interdisciplinary Journal of Rhetoric Analysis and Invention 4, no.1 (2005): 99-107.

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Hans Richter et al., "Film does not yet exist...," G 5-6 (April 1926).

Benjamin's Einbahnstraße (One-Way Street), published in 1928, was written between 1923 and 1926, the same years that G was being published. Michael Jennings postulates that it was through G that Benjamin was introduced to some of the thematic foci that would define his concerns of the 1920s and 1930s: "industrial art; architecture; photography, mass culture; and, above all, the emergence of startlingly new cultural forms in France and Russia.... The 'Copernican turn' in Benjamin's thinking in 1924 is grounded, then, not just in his newly discovered Marxism. As nearly everything he wrote in the seven years after One-Way Street indicates, the dense interminaling of an idiosyncratic historical materialism and a less (cont. on page 46)

this did not prevent him from attempting to approximate the same effects in print. Richter led the reader of *G* through a "demonstration of the materials," by printing and describing a sequence of frames from an abstract film in issue number 1. In a perpendicular passage alongside this illustration, using typographic elements to represent quadratic shapes and lines in the film, Richter explained:

 $\Box$  and ——— are aids [*Hilfsmittel*]. The true means of construction [*Konstruktionsmittel*] is light.... This film is not, in principle, the sort that uses the  $\Box$  and the ——— as compositional means [*Kompositionsmittel*].... The forms that emerge are neither analogies or symbols nor means to beauty. In its sequence of events (its screening), this film communicates very authentically the relationships of tension and contrast in the light.<sup>31</sup>

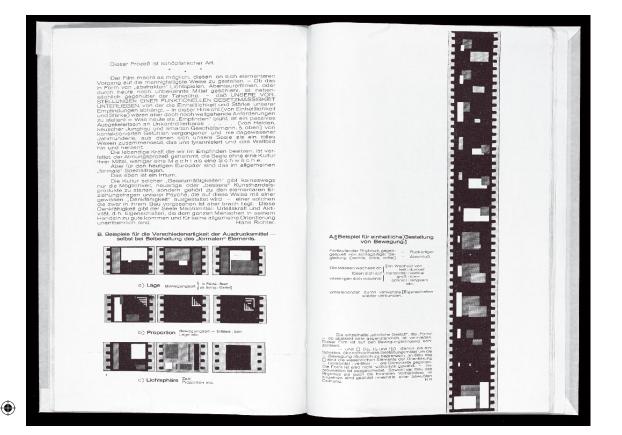
Significantly, Richter wants to excise "analogies" from his forms (a departure from Gino Severini's commitment to non-psychophysiologically perceivable "plastic analogies," as explored in David Mather's chapter that follows). Richter's film was neither intended to activate an experience of beauty through formal composition nor an opportunity to comprehend symbolic meaning, but rather an effort to generate an elemental experience of sensing itself, activated by a "sequence of events" wrought of light projected through printed celluloid.

As in his "Demonstration" in issue 1, Richter turned to the device of printing frames from his films to accompany his 1924 "Badly Trained Soul" article in the third issue of G, here illustrating Rhythmus 21 (1921) and Rhythmus 23 (1923). (FIG. 4) Richter's film excerpts, represented in G as durational linear strips, or in a grid of printed juxtapositions, contain no human subjects, no points of view, and no aspirations toward conjuring the so thoroughly misunderstood and misapplied Empfindungen (feelings or sentiments) of his critique. Critic Rudolf Kurtz's Expressionism and Film, published the same year as Richter's "Badly Trained Soul," astutely described Richter's abstract film in terms of a "rejection of the possibility for psychological comprehension."<sup>32</sup> Collectivization would not occur through appeals to emotional sensitivity; for Richter, film would produce a collective "new truth," a "strengthening of our consciousness," and the outcome of generational changes born of "a new optical outlook."<sup>33</sup> Though the print journal G could not foil the "postcard view" altogether, it could suggest filmic devices and thus attempt to refuse the indirect passivity characteristic of more traditional encounters with the printed word. The challenge that *G* took on could only be sharpened by the modern media condition that Benjamin would acknowledge in Einbahnstraße.

It is perhaps unsurprising, given his direct encounters with the G-Group, that Benjamin would have considered the implications of

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the printed page as a form of *mediation*, shaped by and constitutive of its readers' experiences, as revealed by cinema or radical typography.<sup>34</sup> Like *G*, the format of Benjamin's *Einbahnstraße* appealed to modern visuality with a cover photomontage and New Typography font.<sup>35</sup> When, in this text, Benjamin describes the print-saturated exhaustion that comes of encounters with mass media, we can imagine the corrective influence of *G* prepared to assuage these ills of the modern-day subject:

Before a contemporary finds his way clear to opening a book, his eyes have been exposed to such a blizzard of changing, colorful, conflicting letters that the chances of his penetrating the archaic stillness of the book are slight. Locust swarms of print, which already eclipse the sun of what city dwellers take for intellect, will grow thicker with each succeeding year. . . . And today the book is already, as the present mode of scholarly production demonstrates, an outdated mediation between two different filing systems. For everything that matters is to be found in the card box of the researcher who wrote it, and the scholar studying it assimilates it into his own card index.<sup>36</sup>

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#### FIGURE 4

Excerpts from *Rhythmus 21* and *Rhythmus 23* printed alongside Hans Richter's "The Badly Trained Soul" in G 3, June 1924.

idiosyncratic but so far unremarked 'G-ism' is determinative for his writing." Michael Jennings, "Walter Benjamin and the European Avant-Garde," in The Cambridge Companion to Walter Benjamin, ed. David S. Ferris (Cambridge: Cambridge University Press, 2004), 23. Benjamin was present at many G-Group meetings; his wife, Dora, also was a contributing editor. See Eiland and Jennings, Walter Benjamin: A Critical Life. (Cambridge, MA, and London: The Belknap Press of Harvard University Press, 2014), 172. Detlev Schöttker also points out that Benjamin brought Einbahnstraße with him to his next engagement with an avant-garde journal, publishing excerpts of the essay in the constructivist newspaper i10, which he joined after the close of G. D. Schöttker, Konstruktiver Fragmentarismus: Form und Rezeption der Schriften Walter Benjamins (Frankfurt: Suhrkamp Verlag, 1999), 160-61. Frederic J. Schwartz notes that László Moholy-Nagy's atelier was a common meeting place for the Gassociates, making the connection that Moholy-Nagy's typography was selected by Benjamin for the typeface for One-Way Street, although it is unclear if they met in the context of G meetings. (Schwartz, like Jennings, connects Benjamin's turn to avant-garde contemporary visual culture during this time to his position "at the margins of a circle of constructivists that included the photographers Werner Gräff and Sasha Stone [who illustrated the cover to One-Way Street], the painters El Lissitzky and Theo van Doesburg, the polymath László Moholy-Nagy, the critics Adolf Behne and Sigfried Giedion, the filmmaker Hans Richter and others.") F. Schwartz, Blind Spots: Critical Theory and the History of Art in Twentieth-Century Germany (New Haven and London: Yale University Press, 2005), 39-42 and 260, note 12. 35

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The photomontage is by photographer Sasha Stone, the typography a style, not incidentally, that Germanist art historian Frederic J. Schwartz situates in terms of its status as a complex collaboration between the New Vision-ary Bauhäusler and the burgeoning field of advertisementoriented psychotechnics. See Frederic J. Schwartz, "The Eye of the Expert: Walter Benjamin and the Avant Garde," Art History 24, no. 3 (2001): 401–44. The printed page presents its reader with layers of mediation: knowledge as filtered through the interpretation (and "filing system") of the researcher, the reification of that experience as mediated by print composition, and the final assimilation of experience through the mediated transfer of abstracted words to a scholarly index. For all of these reasons, Benjamin argued, the traditional printed word on the page of a conventional book was an "outdated" form for mediating modern life (if one to which he would remain devoted).<sup>37</sup>

And yet, in the assessment of *G*'s producers as well, modern life was only comprehensible through its mediations—whether filtered through the barrage of print, dynamic film, or any other visual technology, including the body's very apparatus of perception, a kind of medium of its own. The human senses-retinal, proprioceptive, kinesthetic, auditory, tactile, and so on-were being thoroughly researched during this period in the new field of psychology and its philosophical partner, phenomenology (the excerpt from Edmund Husserl in this volume suggests the flavor of these ponderings). As recent scholars have explored, Benjamin's writingslike *G*—were generated in a German cultural discourse in which the Latinate word *medium* had "not yet acquired a place." <sup>38</sup> The concept of technological "media" was frequently characterized instead by the German word *Mittel*, or "means" (as in the terms *Hilfsmittel*, Konstruktionsmittel, and Kompositionsmittel employed by Richter in describing the operations of film). Germanist Tobias Wilke, for example, observes that Benjamin also uses the term *Mittel* (or *Apparatur*, or Technik) to describe technological media in his well-known essay "The Work of Art in the Age of Its Technological Reproducibility," but departs from the connotation of a material apparatus or technological "means" when describing the sensory system of human perception.<sup>39</sup> Significantly, for this sensorial apparatus, Benjamin uses the word Medium (medium): "The way in which human perception is organized—the medium in which it occurs—is conditioned not only by nature but by history." 40 (Doubtless, Benjamin knew the comment by Karl Marx in 1844 that the forming of the five senses is a "labor of . . . history," marking the body through the "labor of humanized nature."<sup>41</sup>)

A historically produced consciousness, for Benjamin, is a medium that mediates the world, not through technological operations, but through the filter of experience. And, Benjamin argued, the social forces shifting the *medium* of contemporary perception in 1936 were affected by various technological *means*. Photography, for example, was the "first truly revolutionary *means* of reproduction" ("*ersten wirklich revolutionären Reproduktionsmittels*") causing the decline in peoples' ritual reverence of supposed authenticity, prefaced by the "*means* of painting (or literature)" ("*Mitteln der Malerei [bzw. der Literatur]*") used by the Dadaists—collage, "word-salad" poetry—tactics that destroyed artistic aura, evaded market standards, and confounded traditional viewing habits.<sup>42</sup> In examining

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the "decay of the aura" that art undergoes in photographic reproduction, Benjamin posited a new, technologically produced subject formed in modernity. Seen in this light, the desire to construct or control technological means, as reflected in many of the positions published in *G*, may be understood as impulsions to affect the shifting medium of individual human consciousness. Rather than deprive a viewer of an authentic encounter between subject and object, technological means promised to shape all experience through a more precise version of sensitivity, and (in its defeat of mere subjectivity) as a thoroughly collective proposition. Consequently, in 1951, Richter would expand on this 1930s debate in an article with the telling title "The Film as an Original Art Form." Here he framed the question "To what degree is the camera (film, color, sound, etc.) developed and used to *reproduce* (any object which appears before the lens) or to produce (sensations not possible in any other art medium)?"<sup>43</sup> By producing new sensations, and inflecting experience, the camera expanded the topography of reality, rather than simply replicating (or diminishing) it.

Benjamin's conjecture of human-perception-as-medium preceded his analysis of technology-as-means for altering that perception in the "Work of Art" essay. As Benjamin scholar Miriam Bratu Hansen notes, the crucial concept of aura, a hovering domain in which human perception both interprets and invests an object with animist agency (and is thus available to be altered by the technological) is already present in Benjamin's 1931 "Little History of Photography."<sup>44</sup> Hansen refers specifically to this quote by Benjamin: "There was an aura about [people represented in early photographs], a medium that endowed their gaze with fullness and security even as their gaze penetrated the medium itself."<sup>45</sup> In Hansen's compelling analysis, perception is indeed a medium for Benjamin, rather than a "means":

The aura is not an inherent property of persons or objects but pertains to the *medium* of perception, naming a particular structure of vision (though not one limited to the visual).... Aura implies a phenomenal structure that enables the manifestation of the gaze, inevitably refracted and disjunctive, and shapes its potential meanings.<sup>46</sup>

Hansen clarifies that Benjamin's use of medium is not the technological term used in "post-[Marshall] McLuhan" media theory. "Rather, it proceeds from an older philosophical usage (at the latest since [Georg Wilhelm] Hegel and [Johann Gottfried] Herder) referring to an in-between substance or agency—such as language, writing, thinking, memory—that mediates and constitutes meaning; it resonates no less with esoteric and spiritualist connotations pivoting on an embodied medium's capacity of communing with the dead."<sup>47</sup>

While embodied perception was an insulated medium, cinema was a popular *Mittel*, acting upon experiencing subjects. And certainly,

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Translation by Edmund Jephcott and Kingsley Shorter, published in Walter Benjamin, *Selected Writings, Vol. 1: 1913–1926,* ed. Marcus Bullock and Michael W. Jennings (Cambridge, MA, and London: The Belknap Press of Harvard University Press, 1996), 456. 37

In his Passagenwerk or Arcades Project, Benjamin would attempt his own solution in a radical set of images, quotes, and scrapbook fragments that he would sift and recombine for decades, in a manner similar to Berlin art historian Aby Warburg, who crafted an assembly of ever-shifting images he called the Mnemosyne Atlas, 1924–29.

Tobias Wilke, "Tacti(ca)lity Reclaimed: Benjamin's Medium, the Avant-Garde, and the Politics of the Senses," *Grey Room* 39 (Spring 2010): 39. 39

Ibid. See the translation by Jephcott et al., in *The Work of Art in the Age of Its Technological Reproducibility and Other Writings on Media*, ed. Michael W. Jennings, Brigid Doherty, and Thomas Y. Levin (Cambridge, MA, and London: The Belknap Press of Harvard University Press, 2008). 40

Benjamin, as translated in ibid., 23. 41

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Karl Marx, Economic and Philosophical Manuscripts of 1844, trans. Martin Milligan (Buffalo, NY: Prometheus Books, 1988), 108–109. 42

These translations taken from Jennings, Doherty, and Levin, The Work of Art, 24, 38. Originals in Gesammelte Schriften VII, 356, 378. 43

Hans Richter, "The Film as an Original Art Form," *College Art Journal* 10, no. 2 (Winter 1951), 157–61. Emphases in the original.

Miriam Bratu Hansen, "Benjamin's Aura," *Critical Inquiry* 34, no. 2 (Winter 2008): 336–75.

45 This translation taken from The Work of Art in the Age of Its Technological

of Art in the Age of Its Technological Reproducibility and Other Writings on Media, ed. Michael W. Jennings, Brigid Doherty, and Thomas Y. Levin (Cambridge, MA, and London: The Belknap Press of Harvard University Press, 2004), 282. Benjamin's original quote, "Es war eine Aura um sie, ein Medium, das ihrem Blick, indem er es durchdringt, die Fülle und die Sicherheit gibt," does not repeat the word "medium," but refers back to it in the second part of the sentence. Gesammelte Schriften II, 376.

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Hansen, "Benjamin's Aura," 342. Emphasis in the original.

Ibid. Wilke makes a similar analytical point in the introductory lines to his later article, opining that the "widespread conception of Benjamin as a pathbreaking forerunner-and of the artwork essay as a cornerstone of modern-day reflections on the effects and properties of 'media'is without doubt legitimate at many levels. What has been consistently overlooked, however, is a fundamental conceptual difference that separates the artwork essay from more recent accounts on the project of media theory, particularly from contemporary notions of what 'a medium' actually is." Wilke, "Tacti(ca)lity Reclaimed," 39. 48

Franz Roh, "Post-Expressionist Schema" (originally published Leipzig, 1925). As translated and reproduced in *The Weimar Republic Sourcebook*, ed. Anton Kaes, Martin Jay, and Edward Dimendberg. (Berkeley, CA, and London: University of California Press, 1994), 493. 49

Detlef Mertins and Michael W. Jennings characterize this group's objection to the emphasis placed by the Kongreß der 'Union internationaler fortschrittlicher Künstler' (Congress of the 'Union of international progressive artists') on subjectivity and individualism as a "violent" rejection. Mertins and Jennings, "Introduction," 9. 50

Tristan Tzara, "Photography from the Verso," G 3 (June 1924): 39. Translation in Mertins and Jennings, G: An Avant-Garde Journal, 141. 51

Ibid., 40. Translation in Mertins and Jennings, *G: An Avant-Garde Journal*, 141–42.

cinema was establishing itself as a high-impact political tool while Weimar-era art theory debated the efficacy of subjectivity as well as its artistic catharsis in the art movement called Expressionism. As mentioned previously, an explicit rejection of Expressionism motivated the artistic tendencies that would be subsumed under the title of *Neue Sachlichkeit*, championing a "representative," "civilized" art of "pure objectification," as forwarded by critic Franz Roh in 1925.<sup>48</sup> In a similar vein, *G* associates Richter, Gräff, Hausmann, Lissitzky, and Van Doesburg suggested the modern cultural producer should not be an expressive individual, but should see and speak with collective intent, technological adeptness, aspirational objectivity, and a new clarity of vision.<sup>49</sup> *G*'s contributors defended the *Neue Optik* of photography against detractors who objected to the premise of artistic representation produced through machine capture.

"I knew a man who made excellent portraits. The man is a Kodak. —But, you say, he lacks color and a subtlety of brushwork. That slight shiver was once a weakness and called itself sensitivity in order to prove itself. Human imperfection, it seems, has more considerable virtues than the exactness of machines."<sup>50</sup> These lines appeared in Dadaist Tristan Tzara's "Photography from the Verso," published in the third issue of G (translated from French for the journal by none other than Walter Benjamin). Just as Gräff and Richter condemned human emotions for "impeding us from seeing what is truly essential," Tzara critiques popular resistance to the camera's lack of "human imperfection" as a condition of what he describes as "the petty swindles of sensitivity."<sup>51</sup> He also rejects more traditional forms of painting on similar grounds: "For a brief moment, I followed their idiotic voices. . . . They all ended up in the production of English postcards.... Well-groomed painting in gilded frames."52 The "postcard" motif is conjured here not only as a hallmark of sentimentality, as in Richter's text that followed it in the third issue of *G*, but also as a symbol of pandering to popular taste and complicity in a commercial status quo. Contrastingly, for Tzara, photography could offer a more radically modern form of "sensitivity" in the physical substrate of light-sensitive paper:

Once everything that is called art had developed gout, the photographer lit his thousand-candle lamp, and the light-sensitive paper gradually absorbed the black of several everyday objects. He had discovered the power of a tender and untouched flash of light, which was more important than all the constellations that are placed before us as a feast for our eyes. The unique, correct, and precise mechanical distortion is fixed—smooth and pure like hair passing through a comb of light.<sup>53</sup>

Tzara credits the photographic machine with a modern, precise, and still "tender" clarity of representation through exposure to light

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(rather than through the touch of the human hand). Benjamin would later quote these lines from Tzara in his 1931 "Little History of Photography," commenting that artists who "went over from figurative art to photography not on opportunistic grounds . . . today constitute the avant-garde among their colleagues, because they are to some extent protected by their background against the greatest danger facing photography today: The touch of the commercial artist."<sup>54</sup> The sensitivity of the camera remains, for Benjamin, dependent upon the ministration of the artist.

In his 1929 book Es kommt der neue Fotograf!, Gräff revisited the prophetic spirit of his earlier text for *G*, applying the same exclamatory heralding to "the new photographer" that he did when welcoming "the new engineer" of his 1923 treatise, this time celebrating the aesthetic regime as he had the technological.<sup>55</sup> No longer compelled to advocate for the importance of the camera or the new vision, Gräff treats that accomplishment as already achievedthe photograph has solidified its position as "more powerful" than the word, he writes, with cinematic elements (including transitions between image and text) now being adopted by writers on a mass scale.<sup>56</sup> Gräff's book offers cautionary advice about how to discern and create the best modern photographic and integrated multimedia compositions, now that these same devices have overrun popular media. Gräff's photographer is thus charged with manipulating the mediating machine, and his audience with filtering the mediated image through media-savvy interpretation. Benjamin is similarly concerned with encouraging the viewer to "read" the contemporary preponderance of photographic images in his conclusion to "Little History of Photography," making reference to Moholy-Nagy's prophecy "the illiterates of the future will be ignorant of the use of the camera and the pen alike."<sup>57</sup> In Benjamin, however, the quote is distorted in favor of *Medium* over *Mittel*:

"The illiteracy of the future," someone has said, "will be ignorance not of reading or writing, but of photography." But shouldn't a photographer who cannot read his own pictures be no less accounted an illiterate? Won't inscription become the most important part of the photograph? Such are the questions in which the interval of ninety years that separate us from the age of the daguerreotype discharges its historical tension.<sup>58</sup>

Here, Benjamin's photograph is not defined by a flash of light on photo-sensitive paper, but also a composite of aspects that by necessity extend to the parerga of creator, context, interpretation, and the printed caption. His photographer is charged not only with producing pictures, but also with making them both legible and relational "texts," challenging the human medium to interpret the *Mittel* in terms of its circumstances of production.<sup>59</sup> The exactitude of Ibid. 54

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Walter Benjamin, "Little History of Photography," in *Selected Writings*, *Vol. 2: 1927–1934*, ed. Marcus Bullock and Michael W. Jennings (Cambridge, MA, and London: The Belknap Press of Harvard University Press, 1999), 523–26.

This extended photoessay, a collaboration with Richter, was included in the seminal Film und Foto exhibition. Herbert Molderings notes this work was one among a number of other modern photographic manifestos of the period that are conspicuously absent from Benjamin's contemplation, turning instead to the "sober, objective approach" of August Sander, Eugene Atget, and Karl Blossfeldt. Herbert Molderings, "Photographic History in the Spirit of Constructivism: Reflections on Walter Benjamin's 'Little History of Photography," trans. John Brogden, Art in Translation 6, no. 3 (2014): 330. First published as "Fotogeschichte aus dem Geist des Konstruktivismus-Gedanken zu Walter Benjamin's 'Kleine Geschichte der Photographie'" in Die Moderne der Fotografie, 2008. 56

Werner Gräff, Es Kommt der Neue Fotograf! (Berlin: Verlag Hermann Reckendorf F.M.B.H., 1929), 117. 57 ( )

László Moholy-Nagy, "A New Instrument of Vision," Telehor 1-2 (1936). For more on Moholy-Nagy's statement and its implications for the importance of the photographic apparatus in organizing "modern life and our perceptual experiences of it," and the "Bauhaus image" overall, see Edit Tóth, "Breuer's Furniture, Moholy-Nagy's Photographic Paradigm, and Complex Gender Expressivity at the Haus am Horn," Grey Room 50 (Winter 2013): 90-111. Moholy-Nagy's texts and photograms were not to be found in G. (Richter mentioned him only in passing in his aforementioned text "To Constructivism," namely to disparagingly observe that Moholy-Nagy, who had broken with the constructivist group and now was occasionally identified as a suprematist, "has a sensitive nose" for fashionable art.) 58

Benjamin, "Little History of Photography," 527.

<sup>52</sup> Ibid. 53

According to Benjamin, "The creative in photography is its capitulation to fashion.... In it is unmasked the posture of a photography that can endow any soup can with cosmic significance but cannot grasp a single one of the human connections in which it exists, even when this photography's most dream-laden subjects are a forerunner more of its salability than of any knowledge it might produce. But because the true face of this kind of photographic creativity is the advertisement or association, its logical counterpart is the act of unmasking or construction. As Brecht says: 'The situation is complicated by the fact that less than ever does the mere reflection of reality reveal anything about reality. A photograph of the Krupp works or the AEG tells us next to nothing about these institutions." Ibid., 526.

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"'G, die 'Zeitschrift für elementare Gestaltung,' verdankt ihre Existenz einem umfassenden Optimismus bezüglich der Mittel und Möglichkeiten unserer Zeit." Richter, Köpfe und Hinterköpfe, 67.

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https://architecture.mit.edu/disciplines/computation/lectures/computation-lectures. See, for example, Brenda Laurel, *Computers as Theatre* (Reading, MA: Addison-Wesley, 1991). the photographic *Mittel* emerges, at the end of the decade, with caveats about intertextuality, historical contingency, and the inevitability of multivalence, while the *Medium* of the experiencing subject is urged to reequip itself as a more literate and discerning consumer of such materials.

Seeking to escape the imperfect mediating devices contained within the human self, to achieve the collectivizing potential for "objective" technologically produced subjects, G looked to the mediating *Mittel* as a means for taming subjectivity while cultivating a new modern sensitivity. Mechanical means for vision, such as the camera, operated as filtering devices in an important "middle" space between the optical medium of the viewer and the world beyond. By shaping the visioning encounters that create experience, Richter and his cohort variously proposed to form a technologically mediated collective. Richter recalled that G "owed its existence to an unmitigated optimism with regard to the resources ["Mittel," in Richter's original] and opportunities of our time."<sup>60</sup> Experiencing the world through the new "means" of the period, Richter's audience was optimistically conjectured to gain something otherwise perfectly unattainable: an "unmitigated" shared encounter, a clear and precise form of Erlebnis, and a newly common sense as members of a fledgling democracy.

Analyzing the technologies that mediate experience—whether by the means of machines or the mediums of our very bodily sensorium encountering this printed page—continues to occupy scholars across academic disciplines. From Donna Haraway's 1984 manifesto calling for humans to embrace their status as cybernetic organisms with a social conscience, to "operational images" intended for nonhuman, computer interpretation (a subject of fascination for artists Harun Farocki and Trevor Paglen), to the "trackers" who embrace wearable prostheses as consumer products to regulate the self (described by anthropologist Natasha Schüll in this book), contemporary experience and its interpreters continue to wrestle with the enduring mediations of technological means.

Understanding the polemics and benefits of technological mediations seems as urgent a task as ever. A lecture series in the computation discipline group of MIT's School of Architecture at the time of this writing takes as its point of departure the quote "The computer is a medium, not a tool"—a premise drawn from early computer interface theory. The series takes on the mandate "to contemplate computational technologies as media and interrogate their mediating effects on human creative endeavors," asking, "Can mediation itself become a locus of design?"<sup>61</sup> The mediums of historical experience and perceptual assimilation of the world also endure as objects of necessary analysis. Joan W. Scott's foundational text, reprinted in this volume as "Historicizing Experience," describes the ways that our world is known and constructed through experience that

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simultaneously produces and reconstitutes subjectivity. The different ways that vision and feeling mediate the world are the subjects of neuroscientist Bevil Conway's and cultural theorist Adam Frank's contributions to *Experience*; both authors consider the availability of these means of sensing to be critically approached by aesthetic production and scientific analysis, an important undertaking in light of Bruno Latour's call to inculcate sensitivity as a political practice. Alva Noë approaches the conundrum by showing that while perception may still be seen as a type of mediation that filters a world, experience is similarly constitutive of knowledge, but delimited by agency and access to resources. And, as demonstrated in the contribution by Vittorio Gallese (invoking the work of Mark Hansen), Walter Benjamin's work continues to haunt discussions about the ways that technology can "eclipse" the mediation of "interior" (human) memory as the "privileged mode of storing experience."<sup>62</sup>

Artists also continue to serve as sensitive handlers of contemporary technologies and subjectivities, and the projects produced for Experience reflect this care and agility. As the curator for these projects, I began with the premise that the artist contributions should not document works that happened elsewhere, or operate as illustrations for the text-based works of other contributors, but exist as actual artistic works, available to be experienced through the book. In this way, I wanted to achieve parity with our invitations to scientists and humanists, who were asked to implement the practices of their fields of expertise to interpret experience on the printed page (i.e., through reports on experiments or cultural analysis). The works of art created specifically for the platform of these bound pages confront the mediation of the book format and incorporate it into their formal concepts. Some of these offerings neatly recast the book as a tool to be used in the service of an art experience. For example, Alvin Lucier's new composition Closed Book invites the reader to explore the book-object as a musical instrument possessing a range of sonic qualities. Closed Book expands on an earlier score, still unpublished (as of this writing), Rare Books (1997), dedicated to the late Elizabeth Swaim, director of special collections for Wesleyan University's Olin Library. In Rare Books, Lucier instructed the player to sonify a book that starts closed, and then opens, tapping on the right- and left-hand pages, revealing the differences in resonance ensuing from the shifting densities of pages as they are turned. In the new score, Lucier leaves the book closed, calling attention to the potentialities that are conjured within its very materiality, before cracking the spine or turning a page. Lucier has long experimented with the resonant properties of mediating technologies, as his Music for Solo Performer (1965) and I Am Sitting in a Room (1969) reveal.<sup>63</sup>

Other projects in this volume use the printed page to convey public renditions of experiences that were initially private. Renée Green's *Experience Process* imparts a long-form meditation that the 62

See Mark Hansen, Embodying Technesis: Technology Beyond Writing (Ann Arbor: University of Michigan Press, 2000), 240. 63

Notably, more recent performances of I Am Sitting in a Room used digital delay software instead of the tape recorder specified in the original score, including the performance at MIT on Saturday, September 27, 2014, as part of the public symposium "Seeing/Sounding/Sensing," presented by the Center for Art, Science & Technology (CAST) at MIT, which is available at http://arts.mit.edu/lucier. Lucier's instruction to make "versions" that can be performed in real time" in the 1964 score would suggest an interpretation pointing to updated technologies, as they are available and accessible. For publication information, see the credits on page 349 of this volume.

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Renée Green, "Other Planes of There," Yard 1, no. 1 (Fall 2004). Republished in Renée Green, Other Planes of There: Selected Writings (Durham, NC, and London: Duke University Press, 2014), 167. 65

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The public symposium "Seeing/ Sounding/Sensing" was presented by the Center for Art, Science & Technology (CAST) at MIT on September 26 and 27, 2014. artist undertook in response to the themes of our *Experience* book, including writing in her journal. (FIG. 5) The mediations of time and distance between Green's experiences and those that she shepherds for us as readers are folded poetically into her instructions to seek out the sources and implications of evocative, possibly familiar, phrases: "The mechanic unconscious." "Estruturação do self." The printed series of Green's banners designed to surround her text allude to cultural precedents and historical protagonists near to the soul of this volume (including, for example, philosopher John Dewey); they raise the question of which voices from history remain proximate, and how. This is a longstanding consideration by Green, who ruminated in a note of 2004: "We are all born into preexisting networks of meanings and actions. How is it that some are viewed as reshaping what exists and others are viewed as caught within the web of the past? To what degree do these differences in perception have to do with what is granted acceptance by those able to position themselves as spokespeople for what passes as significant? What meanings can be discerned if these questions were deeply probed?"64

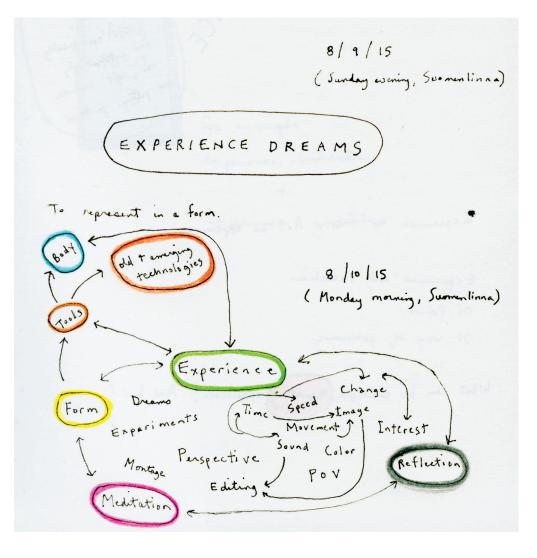
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Some artworks in this book use techniques enabled by the present-day printing press that would have been unimaginable to the radical G-Group of the 1920s, even in their ambitions to push the print medium to its absolute limit. Olafur Eliasson's contribution to the cover of the book uses a thermal ink that reveals a drawing, underneath, when exposed to heat. The ink responds to some touches and temperatures more readily than others. Experience the book, like the concept, thus changes in different ways over the course of being handled or exposed to shifting conditions of environment. Carsten Höller's infusions of synthesized human pheromones in his Smelling Zöllner Stripes literally bookends our Experience with concepts of attraction/repulsion. These multisensorial projects-haptic, tactile, and olfactory—will evade digitized versions of *Experience* that may circulate in PDF or other archival formats, even as the digital may be threaded through their production. Parasitic on, but resistant to, the present-day ubiquity of *digital* reproduction, the projects use very different types of technologies for altering and activating perception than those photo-reproductive devices that concerned Benjamin and the theorists of G. In so doing, these projects refuse to participate in the "recording society" that artist Tino Sehgal, famous for his own refusals to schematize the experience of his artworks through documentation, characterizes as a "subtype of the Experience Society" in his contribution to this volume.

A number of the artist contributors to *Experience* were presenters in the "Seeing/Sounding/Sensing" symposium that preceded this book, and their text offerings both adumbrate their artist projects for the book, and further develop their conference presentations.<sup>65</sup> Tauba Auerbach's interest in the relational nature of color is noted in her text, and is evoked in *Gradient Flip*, her overlapping bands of

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FIGURE 5 Page from Renée Green's notebook, August 9, 2015. Courtesy of the artist.



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#### FIGURE 6

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Carsten Höller and François Roche, Hypothèse de grue, 2013 ("Crane hypothesis," an allusion to Richard Kellogg Crane's 1960s theory of cellular co-transport of glucose, as well as to the mechanical "crane" devices designed by Roche to disseminate the pheromones). In this work, the compounds were distributed via a smoke machine integrated in a constructed installation, and spread in the gallery space. Metallic structure, bi-resin, fabric, polystyrene, PVC, polyurethane foam, smoke machine, timer and various substances: dimensions variable: maximum length: 196½ in. (500 cm) × base 37% in. (95 cm); maximum width: 102% in. (260 cm) × height: 90½ in. (230 cm). This documentation is from the exhibition Belle Haleine-The scent of art, Tinguely Museum, Basel, February 11-May 17, 2015.

color tracing the outer margins of these pages. When the book is open, carefully placed swatches of magenta and green are clearly discernable along the edges of the pages. But when it is closed, these inks form a carefully aligned interference pattern along the pages' long edge. Will these complementary colors blend (as they do in merging in the mid-zone), or will their minute separations by the width of a sheet of paper produce iridescent effects? Color is surfaced as an event that occurs in the contingent loci of the eye, the brain, and the configurations of things in the world (in this case, the pages of this book). Artist Tomás Saraceno's work described in this volume similarly trades in events. His text refers to the phenomenon of the "social" spider whose work is enhanced by working with others, or the events of his installation Space Time Foam (2012), in which visitors were forced into navigational collaboration as they maneuvered plastic membranes that perpetually shifted in response to the gravity of other bodies in motion. Saraceno also offers a literal centerpiece to the book with the title Social Strings. Against illustrations of ink-dipped spider webs "authored" by multiple spiders, Saraceno provides the reader with lengthy "web" strings affixed into the binding and meant for entanglement-between the reader and the book, linking ideas and text, or when used in a proximate tangle with a fellow reader's (copy of) *Experience*.

Artist Carsten Höller's work for this book also reflects social experience. Höller completed a doctorate in agricultural science at the University of Kiel, where he researched insect pheromones, and continues to work on olfactory communication and responses to pheromones in his artwork. (FIG. 6) In the famous pattern illusion on the book's endpapers, Höller has directed the printers to embed

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synthesized versions of the human endocrine compounds Estratetraenol in the front, and Androstadienone in the back. While the status of human pheromones-animal signaling systems conveyed through odor-may be contested within scientific literature, popular beliefs hold that these compounds in mammalian sweat differentially attract, dependent upon sexual orientation. The social, political, cultural, and identity-hedged realities that frame the encounter of these compounds and their contribution (or lack thereof) to attraction in "lived experience" may be hard to sense in these paper-based infusions—but mental activity fills in many gaps in human sexual attraction.<sup>66</sup> It is possible that isolating perception to its elemental aspects may draw more attention to its actual contingencies (or, that you will simply helplessly love this book). Bruno Latour attends to another humanly imperceptible phenomenon in the complex theater work about climate change, Gaïa Global Circus. An excerpt from that theatrical production closes our book, followed on the back cover by Olafur Eliasson's See-through compass, which (repeatedly) enacts the exposure of a planet, spinning on its axis, as the heat sensitive overlay of the book cover is warmed. The world is framed as a proposition both inflected by and revealed to perception through the actions of humans, who may desire to train sensitivity to durations of change consequential on a planetary scale.

What is the pursuit of aesthetics, if not a willing mediation of experience through indulgence in the sensory? In the many thoughtful experience-mediations afforded to us by the artist projects in this book, as well as its overarching design by Kimberly Varella of Content Object Design Studio, experience emerges as a complicated nexus of the perceptual, the social, the inherent, the learned, the familiar, the untenable, and the possible. If experience, for better or worse, has has become a fungible object of commercial enterprise and the art world, it is a pleasure here to confront the topic from alternative approaches—to think and learn through the problematic conditions of experience and its conveyance through a broad range of critical sensory apparatuses—extending a tradition of print-based artistic mediations of experience for present-day subjectivities.

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The medical history of gender and attraction entails an entangled narrative of physio-cultural control and normative types. For one such history about synthetic hormone treatment as a "remedy" for lesbianism, and an overview of the racial politics of midcentury endocrinology, see David Serlin, *Replaceable You: Engineering the Body in Postwar America*, particularly chapter 3, "Gladys Bentley and the Cadillac of Hormones" (Chicago and London: University of Chicago Press, 2004), 111–58.

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