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Abstract

Between the 1880s and the 1980s, typography mutated from an entirely manual, craft-based practice to a comprehensively mechanized, then a fully digitized one. With the arrival of Apple's Macintosh computer in 1984, the graphic design profession found itself in the midst of a deep transformation of its tools, techniques, and division of labor. Throughout the 1990s, graphic designers experimented with the boundaries of legibility, questioning the accepted standards of professional practice. Partially in response to the alarmed criticisms of a modernist establishment, boundary-pushing graphic designers increasingly turned to radical theory in an attempt to grasp — and ultimately to transform — their social role. This "postmodern" or "deconstructionist" turn was both ambitious in its goals and ambivalent in its results: as early as the mid-1990s, typographical experiments informed by cultural and linguistic theory had begun to surface in mainstream advertising campaigns. This dissertation begins with an account of the central role played by modernism in the development of the design disciplines. Stepping beyond that canonical narrative, it then re-situates graphic design in a history of rationalization, automation, and deskilling. As this study concludes, the period's frantic visual styles and frequently overstretched theoretical expositions can be reinterpreted as attempts to grasp deep and ongoing transformations in the experience of capitalist work.

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Table of Contents

9 Introduction: The Tower and the Plant

12 Design, Printing, and the Idea of the "Type"

16 Chapter Overview and Method

24 Chapter 1. The Machine Aesthetic and the New Man

25 Designers and the Division of Labor

30 Re-appropriating the Machine

36 Bauhaus Foundations

50 Bauhaus Contradictions

55 Bauhaus Afterlives

59 Postwar Modernism

67 Anti-Establishment Critiques

74 Chapter 2. Uses of Theory: Design and Deconstruction in the United States

77 Early Postmodernism

79 Meggs and the Macintosh

81 Cranbrook and *Emigre*

88 The "New Discourse" and the "New Economy"

93 Backlash and Intensification

98 Two Models of Critical Practice

106 Theory as a Decentering of Practice

109 Late Capitalism and the Misadventures of “French Theory”

115 Constraint, Routine, Hierarchy

117 Chapter 3. “New Work for New Men”: A Labor History of Typography

119 Typography in Design History

123 The Printer and the Press

132 “Hot Metal” and the International Typographical Union

147 “Strike-On” and Strikebreaking

154 Race, Gender, and Photocomposition

161 The Print Worker and the Graphic Designer

164 Chapter 4. Looking for Work: A Reinterpretation

169 Neutrality as Domination: Toward a New Theory

185 The “First Things First Manifesto 2000”

195 Elliott Earls’s *Catfish*

203 “Vernaculars of Capitalism”

207 Conclusion

208 The Tower, or Typography and Communication

216 The Plant, or Typography in Production

220 Bibliography

List of Illustrations

Introduction

11 fig. 1: Chicago *Tribune* Tower competition entries from Howells and Hood, Meyer and Gropius (1922).
fig. 2: Projects from Judith DiMaio and Lebbeus Woods, *Late Entries to the Chicago Tribune Tower Competition* (1980).

Chapter 1

47 fig. 1: Peter Keler, Bauhaus Cradle (1922).
49 fig. 2: Walter Gropius, Dessau Bauhaus workshop wing (ca. 1927).
60 fig. 3: Josef Müller–Brockmann, “Musica Viva” poster (1959).
62 fig. 4: Jan Tschichold, Prospectus covers for *Die Neue Typographie* (1928) and *The Pelican History of Art* (1947).
69 fig. 5: Robert Venturi, Vanna Venturi house (1962–64).

Chapter 2

78 fig. 1: Wolfgang Weingart, “Circular Composition 3” (1963).
79 fig. 2: April Greiman, insert for *Design Quarterly* #133 (1986).
89 fig. 3: Katherine McCoy, poster for the Cranbrook Graduate Design Program (1989).
104 fig. 4: Rudy Vanderlans, spread from *Emigre* #34 (1995).

Chapter 3

128 fig. 1: Punch and matrix. Illustrator unknown, plate from Theodore DeVinne’s from *The Invention of Printing* (1876).
131 fig. 2: Engraving of New York *Tribune* editor Whitelaw Reid and inventor Ottmar Mergenthaler (ca. 1886).
144 fig. 3: New York *Tribune*, p. 6 (March 25, 1900).
152 fig. 4: Chicago *Tribune* front page (November 3, 1948).
156 fig. 5: AlphaComp advertisement from *U&LC* magazine (1977).

Chapter 4

182 fig. 1: David Carson, Nike Europe advertisement (1996).
183 fig. 2: David Carson, *Raygun* magazine spread (1994).
184 fig. 3: Massimo Vignelli, “Unigrid” for the US National Parks Service (1977).
190 fig. 4: Tibor Kalman, United Colors of Benetton advertisement (1992).
198 fig. 5: Elliott Earls, stills from *Catfish* (2001).

Introduction: The Tower and the Plant

In 1922, the Chicago *Tribune* invited architects from around the world to submit designs for a new office building. The competition, in which 260 entrants competed for $100,000 in awards, remains a centerpiece of design history, in large part because it produced a portfolio that captures a wide variety of new directions in architecture.[1] Among them, a proposal by Adolf Meyer and Bauhaus founder Walter Gropius exemplifies an emphatically modern approach that would not gain significant footholds in the Chicago skyline until mid-century. Meyer and Gropius's minimally-embellished, asymmetrical bundle of rectilinear forms was modeled to extend and echo the utilitarian lines of the newspaper's existing printing plant. This proposal, however, was pushed aside in favor of one submitted by the American architects John Mead Howells and Raymond Hood, which fused the modern skyscraper to the Gothic cathedral, complete with structurally-redundant flying buttresses. [Figure 1] This decision was emblematic of the initial resistance to aesthetic *modernism* in the United States, despite the country's status as a harbinger of the experience of *modernity* for many European artists and intellectuals. Chicago had staged an elaborate spectacle of this resistance 30 years earlier when it staged the World's Columbian Exposition in an idealized (and almost entirely temporary) neoclassical city — built on the periphery of a metropolis deemed too smoky and sludge-choked for international dignitaries.[2] Taken together, the eclectic visions for the *Tribune* tower capture a pivotal moment of negotiation between the traditional imagery of power, beauty, or order and new questions posed

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[1] Katherine Solomonson, *The Chicago Tribune Tower Competition: Skyscraper Design and Cultural Change in the 1920s* (Chicago: University of Chicago Press, 2003).

[2] Arnold Lewis, *An Early Encounter with Tomorrow: Europeans, Chicago's Loop, and the World's Columbian Exposition* (Urbana and Chicago: University of Illinois Press, 1997), 24–45.

by "the machine": that alien agglomeration of human labor and knowledge which the architect Frank Lloyd Wright had recently described as "the modern Sphinx — whose riddle the artist must solve."[3]

This dissertation begins by filling out the story of the "machine aesthetic" in modern design. As we will see, conflicting appeals to tradition, nature, and mechanization were central to debates not just in design, but also in established national economies and revolutionary political movements. The existing *Tribune* tower and the many sketches of what it may have become are canonical objects in this story, representing a relatively small group of "great men" who trafficked in the big, influential ideas of their day. In its second half, this dissertation pivots to a linked but largely unacknowledged cast of working people. This will set us on a trajectory that leads directly through the unassuming structure behind the tower. The squat *Tribune* printing plant is the one constant of the divergent proposals, and even of many of the postmodern "Late Entries" commissioned by the architects Stanley Tigerman and Stuart Cohen in 1980. [Figure 2] In the late 1940s, the plant was the site of a labor conflict that would have deep ramifications for the bargaining position of American unions, the reputation of the news media, and the history of communications technology. As we will see, strike-breaking measures taken during the 1947–49 Chicago Printer's Strike included technical innovations that would, in time, contribute to a transformation of the practice of graphic design. This study thus moves from the tower to the plant: from exalted reflections on technology and industry in the abstract to the concrete relations of power that prevail in what Marx called "the hidden abode of production."[4]

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[3] Frank Lloyd Wright, "The Art and Craft of the Machine," in *The Industrial Design Reader*, ed. Carma Gorman (New York: Allworth Press, 2003), 55.

[4] Karl Marx, *Capital: A Critique of Political Economy* volume 1, trans. Ben Fowkes (Harmondsworth: Penguin Books, 1976), 279.

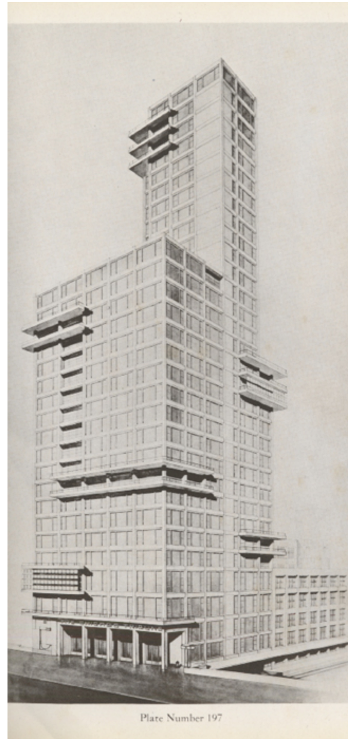
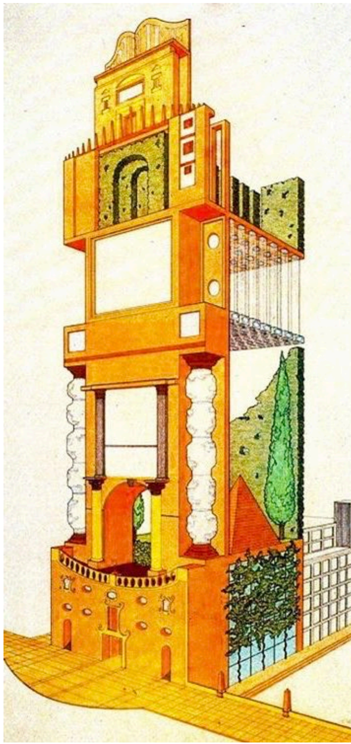


Figure 1: Chicago *Tribune* Tower competition entries from Howells and Hood (left), Meyer and Gropius (right), 1922.



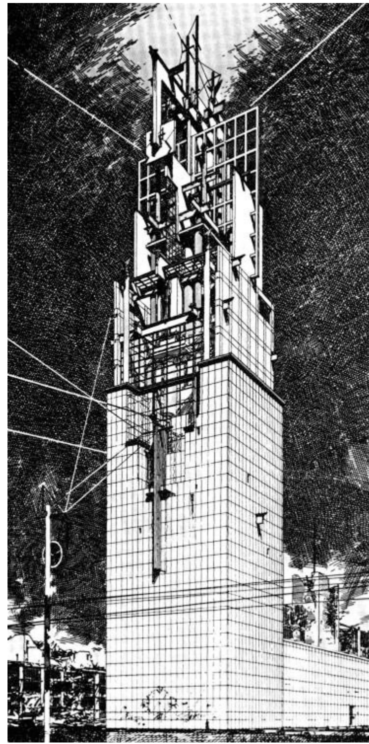


Figure 2: Projects from Judith DiMaio (left) and Lebbeus Woods (right), *Late Entries to the Chicago Tribune Tower Competition,* 1980.

Design, Printing, and the Idea of the "Type"

As recently as the last decades of the twentieth century, the circulation of written texts depended upon the labor of typesetters. Working initially with metal type blocks, then photographic negatives, and finally digital codes, typesetters rewrote everything from book manuscripts to magazine articles and advertisements. As they worked to reconstitute these texts in a printable format, they made discerning judgments on spacing and hyphenation, which depended upon strict visual and grammatical conventions. Most were also trained as proofreaders. In short, typesetters did much of the work that now occurs (however opaquely) in the background of the digital communications media that we use today; the Microsoft Word document in which I am now typing is one obvious example.

Typography is defined as the practice of printing with standardized, interchangeable characters — in contradistinction to its predecessor *xylography*, which uses a single uninterrupted relief surface like a plank of wood. An impressive early realization of the typographical method dates from eleventh-century China, where standardized printing blocks made of clay and glue were stored in large, rotating discs.[5] Historians of printing have concluded that the sheer number of characters in the Chinese written language must have rendered the system too unwieldy; it remains unclear whether Johannes Gutenberg was aware of these experiments when, in 1439, he perfected his own system of movable type using small blocks of foundry metal.[6] These blocks came to be called "sorts," so named because they were sorted into compartmentalized cases when not in use. The "upper case" held the *majuscule* letters that had

[5] Philip B. Meggs and Alston W. Purvis, *Meggs' History of Graphic Design*, 5th edition (New York: Wiley & Sons, Inc., 2011), 45.

[6] Ibid., 72–73.

descended from chiseled public inscriptions; the "lower case" held the *miniscules* that had first taken shape in handwriting.[7] The typographically-printed book, in combination with early broadsheets and newsletters, played important roles in the expansion of literacy, the Protestant Reformation, the rise of "the nationalist idea" and of the "bourgeois public sphere"; it was also one of the most complex and complete early examples of the standardized commodity.[8]

Given its deep imbrication in both language and capitalism in the West, the history of typography also evokes a history of fantasies and anxieties: about difference and homogeneity, the original and the copy, or traditional craftwork and "labor-saving" technology. Some of these tensions survive today in the very words with which we think inscription and communication. Anyone filling out an official document, for example, knows to verify their identity with a signature: a singular, often illegible mark of individuality. Otherwise, one is instructed to "print": that is, to write in standardized letterforms. We thus draw each letter to approximate its "type," unless we "type" (verb) — that is, *write with types*, as was first made possible for non-specialists by the typewriter. Prior to the emergence of typographical printing, it was common enough to misspell words; the advent of the phrase "typographical error," however, implies an extra step — or a third party — inserted between writing and reading.[9]

Amid the industrial revolution and the rise of mass reproduction, entire pages became "types." Arranging thousands of sorts into a single page composite was slow, tedious work

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[7] Ibid., 31, 48–51.

[8] Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso Books, 2006); Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge: MIT Press, 1991).

[9] Online Etymology Dictionary, s.v. "Typo," *Online Etymology Dictionary*, https://www.etymonline.com/word/typo/.

compared to the increasingly automated presses of the later nineteenth century. Metal casts of typeset pages provided an expedient, allowing multiple copies of a page to be printed simultaneously. These cast copies were named “stereotypes”; “clichés” is the onomatopoetic equivalent in French, evoking the clicking and slipping of the press mechanism.[10] And stereotypes could also be pictures. Cheap, sensationalist publications of the nineteenth century, for example, frequently resorted to stock portraits: not images of particular individuals, but of noble or criminal “types” that were re-used in varying contexts.[11]

As historian of technology David Allan Grier has documented, the present-day term “computer” is the stump of a phrase that began to fall out of use in the 1950s.[12] Such machines were initially called “electronic computers” to distinguish them from the human variety — who worked out calculations with pen, paper, and slide rule, often in large groups in factory-like conditions. The word “printer” has undergone similar shifts: in contemporary usage, it more likely refers to a piece of office equipment than a type of worker. Unlike the departed human computers, however, printers still exist as living agents in the production process. Well into the twentieth century, such workers understood their profession in the unified craft terms of the pre-capitalist world. Printing was not just an “art” but “the art preservative of all arts” — and thus, at least in part, the grounds of possibility for culture as such. Continuing advances in efficiency and productivity, however, have progressively whittled away the printer’s purview, which once embraced editing, publishing, and much of what we now call graphic design. More recently, the

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[10] Online Etymology Dictionary, s.v. “Cliché,” https://www.etymonline.com/word/cliche/.

[11] Gerry Beegan, “The Mechanization of the Image: Facsimile, Photography, and Fragmentation in Nineteenth-Century Wood Engraving,” *Journal of Design History* 8, No. 4 (1995).

[12] David Alan Grier, *When Computers Were Human* (Princeton: Princeton University Press, 2013).

idea of the printer seems to have undergone a further mutation. In the midst of this century's intensification of decentralized, algorithm-driven work, the "3D printer" briefly became a central fixation for the specter of "disruptive" technology. In their actual mechanics, however, these machines bear little resemblance to *printing* as I have been describing it. The name "printer" seems to fit because it implies a miniaturized and self-contained manufacturing process: one not guided by the embodied knowledge and skill of a craftsperson, but instead defined by a capacity to produce without any human intervention at all. In short, because typography took shape in the mass-production mechanism of the printing press, it has always been implicated in the thorny subject of "automation" — and thereby, as we will see, in the intertwined dynamics of overwork, underemployment, and runaway production.

During the late nineteenth century — just, in fact, as the first mechanized typesetting systems were being introduced — new aesthetic movements were taking shape across industrialized Europe, where the visual style of public power and personal refinement had long been defined by the classical tradition. That hegemony had recently been challenged by the Gothic Revival and Arts and Crafts movements, which sought to recover the dignity of the handicrafts and of local structural and ornamental idioms. However, movements for a machine-like "New Sobriety" or a spiritualized purity of form quickly followed in the 1910s and 1920s. Peter Behrens, a German architect regarded as one of the first "corporate identity" designers, was a proponent of an approach referred to as *Typisierung*, or "type-making."[13] Limiting objects of daily use to a handful of standard forms promised a rationalization of the chaos of the market. At the same time, such efforts offered modern people a single, all-encompassing "style" — to

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[13] Frederic J. Schwartz, "Commodity Signs: Peter Behrens, the AEG, and the Trademark," *Journal of Design History* 9, no. 3 (1996): 166.

mirror, without direct mimicry, the perceived consistency of classical architecture and art. This position was broadly influential, and it was soon echoed by such luminaries of early modernism as the Austrian anti-ornamentalist Adolf Loos and the austere French architect and planner Le Corbusier.

In the later twentieth century, approaches that favored abstraction and standardization came under increasing fire. In graphic design, this produced a disorienting collision between two distinct senses of "type-making." Industrial rationalization had yielded streamlined production methods in typesetting and typeface design, which ironically contributed to an *anti*-rationalist turn against modernist style. Digital typography lessened designers' dependence on repetitive templates: while the old division of labor had required an overall plan whose details were normally executed by typesetters and other print specialists, the new software allowed designers to work more "empirically."[14] A new interest in the specificity of text-image relationships yielded new experiments in authorship. "Style," in this context, increasingly came to mean the signature of an individual creator rather than a general characteristic of an epoch or a people. These experiments were accompanied by heated polemics against received hierarchies and taxonomies, as well as new models of practice that rejected design as an activity of mere harmonious sorting. As we will see, throughout the 1990s these arguments became increasingly reliant upon *theory*.

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[14] Chuck Byrne and Martha Witte, "A Brave New World: Understanding Deconstruction," in Heller, Steven and Rick Poynor, eds. *Looking Closer: Critical Writings on Graphic Design* (New York: Allworth Press, 1994), 118.

Chapter Overview and Method

This study is meant to lay the groundwork for a Marxian reinterpretation of both the history of typographical labor and the contemporary practice of graphic design. However, it does not proceed by first providing an account of a given body of theory and then "applying" that theory to a collection of inert materials. To approach the history of typography and design is to stumble into a conversation already saturated with theoretical terminology, self-reflexive critique, and explicit political position-taking. I have approached this imbrication of theory, history, and cultural practice by means of a roughly symmetrical, two-part approach.

The first half of this study (chapters one and two) surveys the origins, rise, and fall of modernism in the design professions. As we will see, describing the visual and spatial strategies of twentieth-century designers quickly becomes inseparable from an analysis of the work done by concepts like *alienation*, *tradition*, *authority*, and *revolution*. Chapter one opens with a depiction of early design theory and practice as a response to the emerging industrial capitalist division of labor. In the decades that bridged the turn of the century, such responses ran the gamut between anti-industrialism and machine-worship. At Germany's Bauhaus school between 1919 and 1933, these approaches merged, producing new hybrids as well as new conflicts; in the postwar years, the purified rationalism of the "International Style" rose to prominence as the face of corporate capitalism. This chapter ends by surveying a series of critiques of modernism that first emerged in 1960s architecture: here, critical practice began to hint at a broad theoretical reinterpretation of the design disciplines.

Chapter two traces that theoretical turn into the postmodern graphic design discourse of the 1980s and 1990s. I stage a series of close readings of critical essays by practicing designers and design educators which, as we will see, themselves drew on live debates across the arts and

the academic humanities. For postmodernist graphic designers, dissonant typographical strategies promised to expose the power-knowledge formations lurking behind the perfected surfaces of modernist design. In the their most ambitious visions, the postmodernists saw these new critical practices as a means of both social and *self*-transformation. These efforts, however, produced uneven results; as was the case with modernism, utopian longings were quickly overpowered by a growing demand for commercial differentiation. Chapter two closes by noting a series of aporias in this theoretical discourse — all of which, I argue, arise from the attempt to theorize individual agency without addressing the structural constraints of capitalist modernity.

The critical re-reading of postmodern design theory that closes the first half of this study motivates a turn to an alternative historical archive and a new theoretical approach in the second half (chapters three and four). Chapter three retraces the steps of chapter one between the late nineteenth century and the late twentieth, uncovering resonances between the antinomies of the "machine aesthetic" and the labor history of typography. The source material for this chapter is more heterogenous that those that precede it. Essays and manifestoes by artists and designers in the first half are here supplanted by the voices of workers, organizers, bosses, and investors; sources include union archives, activist and mainstream periodicals, and worker poetry. This material lends specificity to the idea of "the" machine by offering detailed accounts of changing typographical techniques and technologies.

Chapter four opens by re-situating the experimental graphic design practices of the 1980s and 1990s. Where the first half of this study approaches graphic designers through disciplinary debates between modernists and postmodernists, the second half emphasizes the under-acknowledged continuity between the work of graphic designers and the outmoded forms of typographical labor covered in chapter three. In parallel with chapter two's account of

postmodern design theory, here I offer an overview of alternative theoretical resources. But rather than simply positing the authority of these approaches, which are largely Marxian, I recall the narrative established so far to argue for the theory's plausibility. This puts us in a position to re-read the aesthetic and critical strategies of postmodernism from a standpoint other than (yet supplemental to) the professed positions of the designers themselves. As I attempt to demonstrate, the practices in question only ever had a tenuous connection to the theory from which they purportedly drew inspiration. This is not, however, simply an exercise in "debunking": the significance of the practice does not collapse if we take away a theoretical foundation that was not, as I argue, all that foundational. Instead, I reinterpret both the theory and the practice in light of something else entirely: the ever-present, but seldom acknowledged, question of *work* and its heteronomous organization in capitalism.

As we will see, foregrounding labor and capital is not simply a matter of accurate historical interpretation. In a brief conclusion, I draw the analysis up to the present, as issues of working conditions, technological transformation, and the nature of capitalism begin to reappear in the design discourse. This endpoint brings the study full-circle: back to designers confronting the question of work — given the prevailing constraints and imperatives of capitalism — that motivated new formal and theoretical departures a century and a half ago.

In large part, this study is a critique of the uses of theory. Particularly in the design disciplines, as we will see, theory is often deployed arbitrarily: assertions made on its authority can be vague and casual, or overstated and dogmatic, or even all of these at once. Having become intimately familiar with that set of mistakes in the course of this research, I have done my best to avoid them myself. For this reason, my focus will remain on the voices of printers and designers for the majority of this study. While my goal is to provide a reinterpretation of this

material, I always begin by taking the actors at their word. I work immanently from specific practices and self-understandings to *arrive* at the necessity of an altered historical and theoretical perspective. This means that the texts and objects we encounter will sometimes play shifting roles. Phillip Meggs's influential *A History of Graphic Design*, for example, is an important secondary source for chapter one's account of modern design history. Then in chapter two, the book steps into the foreground, becoming itself a protagonist: first published in 1984, it arrived alongside both the turn to theory in design education and the digital revolution in practice. In chapter three, *A History of Graphic Design*'s narrative — along with its emphases and elisions — briefly reappears as an orienting object of critique, motivating a search for under-explored historical roots. In chapter four and the conclusion, finally, I extend the timeline covered in Meggs's book, but on new theoretical footing.

The mutual conditioning of historical forces, aesthetic practices, and theoretical interpretations implicit in this study is also reflected in its structure. Chapter one describes how the *historical* situation of industrial capitalism influenced a series of *aesthetic* innovations, which established the modernist tradition in twentieth-century design. Chapter two surveys late-century critiques of that tradition, with an emphasis on the *theoretical* innovations that gave those critiques their force. Moving into the second half of the dissertation, I argue that the ambiguities and inconsistencies of that body of theory again raise problems of *historical* understanding; chapter three thus re-grounds the narrative in a history of typographical labor. This changed historical perspective, finally, becomes the basis of chapter four's reinterpretation of the *aesthetic* departures of the 1990s. This reinterpretation both enlists and establishes the necessity of new *theoretical* frameworks centered on the realities of capitalist work.

I would like to append one final note on the scope of chapters one and three, both of

which cover more than a century. This, I believe, calls for some justification. In the case of chapter one, we are dealing with an ongoing conversation among authoritative figures in the design disciplines. While I have certainly made decisions about what to include, the modernist design discourse is already fairly circumscribed, both in its range of participants and in its subject matter. With the exception of an address by the sociologist C. Wright Mills — though even this originates from the central design conference of the 1950s — each of these texts are firmly established in the canon of modernist design. That canonical discourse, in turn, is already organized around a preoccupation with industrial society and its institutions.

In chapter three, it is possible to tell a coherent story of the mechanization and automation of typography in a single chapter for two reasons. First, the account can be geographically limited without sacrificing much detail. The majority of the most pivotal typesetting inventions were developed and first brought to market in the United States. The countervailing force against these technologies was also quite unitary: the International Typographical Union (which stretched into Canada but was most active in the U.S.) developed a national strategy on automation, though regional locals enjoyed wide latitude in their negotiations.[15] Further, the development of typographical technology between the 1880s and the 1980s paints a strikingly tidy picture even without this U.S.-centric scope: in the space of almost exactly 100 years, typesetting mutated from an entirely manual process to a mechanized, then a digitized one. In this case, the unitary character of the chapter's material arises from an economic tendency. Firms that adopt more productive machinery or more stringent regimes of workforce discipline — and in the case of typographic technology, it was always both — have a

[15] Harry Kelber and Carl Schlesinger, *Union Printers and Controlled Automation* (New York: Free Press, 1967).

competitive advantage. If that advantage is great enough, it becomes imperative for competing firms to catch up by adopting the same or similar methods. The laws of competition then generalize that technology or process until it becomes the new standard.

All of these justifications, in fact, draw their force from the constraints and imperatives of capitalism itself. While this dissertation aims to make novel contributions to design and printing history, it is here that I also hope to make an intervention into cultural and communication studies more generally. The implicit argument of the odd chapters is that *capital is a context*: not an immediate, empirical context but a mediated, abstract, and epochal one. And if capitalism is a context, then capitalist crisis is too. For this reason, the Arts and Crafts movement's pessimistic account of technology, the political polarization of avant-garde artists in interwar Europe, or the anti-colonial and ecological protests of young designers in the late 1960s can feel more contemporary than the "new discourse" of just a few decades ago.

"Out of Sorts" describes the abandonment of typography's material origins, as manually-manipulated printing blocks were displaced by mechanization, automation, and ultimately a kind of "dematerialization" into code. Today, the individual letterform is infinitely malleable, yet it cannot be touched; its onscreen image is the obscure product of countless lines of text, written in a language that the great majority of designers cannot read. This technical shift is just one of a series of destabilizing transformations that the work of typography has undergone in the last century and a half. As we will see, the graphic design discourse has accordingly been marked by a struggle to understand the agency of cultural production, of the effects of texts and images in public. Designers have also made continual, and often vexed, attempts to map out the relationship between art and commerce — an effort that is often frustrated by the diffuse and mediated causality that obtains in capitalist society. Apart from its technical reference-point,

then, “Out of Sorts” describes a sense of disorientation: an agitated, anxious struggle to regain one’s bearings, or else a dizzy embrace of becoming unmoored.

Chapter 1

The Machine Aesthetic and the New Man

> Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. … And just as they seem to be occupied with revolutionizing themselves and things, creating something that did not exist before, precisely in such epochs of revolutionary crisis they anxiously conjure up the spirits of the past to their service, borrowing from them names, battle slogans, and costumes in order to present this new scene in world history in time-honored disguise and borrowed language. … The social revolution of the nineteenth century cannot take its poetry from the past but only from the future.[1]
>
> — Karl Marx, "The Eighteenth Brumaire of Louis Bonaparte" (1852)

> Wasn't it noticed at the time how many people returned from the front in silence? Not richer but poorer in communicable experience? … [N]ever has experience been contradicted more thoroughly: strategic experience has been contravened by positional warfare; economic experience, by the inflation; physical experience, by hunger; moral experiences, by the ruling powers. A generation that had gone to school in horse-drawn carriages now stood in the open air, amid a landscape in which nothing was the same except the clouds and, at its center, in a force field of destructive torrents and explosions, the tiny, fragile human body.[2]
>
> — Walter Benjamin, "Experience and Poverty" (1933)

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[1] Karl Marx, "The Eighteenth Brumaire of Louis Bonaparte," in *The Marx-Engels* Reader, second edition, ed. Robert Tucker (New York: W.W. Norton, 1978), 595.

[2] Walter Benjamin, "Experience and Poverty," in *Selected Writings*, volume 2, ed. Michael W. Jennings, Howard Eiland, and Gary Smith, trans. Rodney Livingstone. (Harvard University Press, 2004), 731–732.

This chapter introduces the canonical practitioners, institutions, and debates of modern design history. I begin with the Arts & Crafts movement in the late nineteenth century and then survey the European avant-garde currents of the early twentieth. The focus then shifts to a more detailed chronology of Germany's Bauhaus school, where craft skills and post-Cubist experimentation gradually came into contact with industrial methods of production. Next, I trace the afterlives of the Bauhaus, particularly in corporate and institutional contexts in the postwar United States. In closing, I consider some of the anti-modernist polemics that developed as immanent critiques of the design professions in the 1960s and 1970s.

From the perspective of design historiography, none of the individuals, institutions, or texts covered here are eccentric inclusions. I follow the lead of the field's literature in tracing formal influences between individuals and programmatic divergences among movements. The focus of this chapter, however, is not the formal analysis of designed objects but rather the development of mutually-conditioning discourses on civilization, rationality, and "the machine," which came to define modernism in design. Specifically, I will draw out the centrality of capitalism as both a condition of possibility for the field and a central preoccupation of early practitioners, critics, and theorists.

Designers and the Division of Labor

Less a singular craft than a unifying, planning capacity which directs the work of several other crafts, the architecture profession has a long pre-modern history. But it was only with the advent of capitalism that the production of relatively simple items — pins, chairs, printed pages — came to be carried out on a scale that required an architect-like figure. As the industrial design historian Adrian Forty has documented, the designer emerged with the capitalist division of

labor; the rise of the design professions, in turn, catalyzed further divisions and fragmentations of work.[3]

For Forty, the eighteenth-century ceramics business of Josiah Wedgwood provides one origin story. There, the British entrepreneur introduced a new role into the production of tableware: that of the "modeller."[4] Mediating production and marketing, the modellers were hired from outside the trade; as academically-trained artists, they were more dependably in touch with bourgeois taste than the average craftsperson. Wedgwood envisioned standardized commodities whose production could be planned out as a rigid series of straightforward tasks, in which there was little occasion for variation between workers. The goal, as he described it at the time, was to make "such *Machines* of the *Men* as cannot err."[5] Modellers brought with them the contemporaneous vogue for Neoclassicism — whose simplified geometry and restrained ornament provided an ideal opportunity to streamline production. The central goal of more standardized products, in turn, was driven by a sales innovation: Wedgwood envisioned customers placing orders after perusing samples in a small but glamorous London showroom that held no stock. Though it precedes "industrialization" proper, the Wedgwood example provides three elements that will be central to the emergence of modern design: standardized mass production, the erosion of trade knowledge, and a commercial instrumentalization of practices from the fine arts.[6]

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[3] Adrian Forty, *Objects of Desire: Design and Society since 1750* (London: Thames & Hudson, 2005).

[4] Ibid., 24–26.

[5] Ibid., 33.

[6] Another of Forty's examples—the design of patterns for the 18th century textile-printing industry—also introduces issues of piece-work, freelancing, and intellectual property.

As critical historians from Karl Marx to Harry Braverman and David Noble have argued, the progress of capitalism's division of labor entails a gradual transfer of control and planning from the factory floor to management.[7] But the resulting degradation and cheapening of work was noticed almost from the beginning: notably by Wedgwood's contemporary Adam Smith. In the opening chapter to *The Wealth of Nations*, Smith explains the production process in a new type of pin factory.[8] Here, the capitalist has not simply gathered formerly-independent artisans to practice their trade side-by-side — instead, he has exploded the pin-making process into a line along which each laborer only cuts, sharpens, or polishes. In the craft paradigm, the design process is inseparable from the act of making each individual pin, and the overall plan might change over time as the craftsperson develops a feeling for the material. But in the pin factory, this function is abstracted out: the design is a template for tasks that become, as a result, less open-ended and more narrowly quantifiable. Smith notes the miraculous extension of productivity in this improved and rationalized work-process. Near the end of *The Wealth of Nations*, however, he worries that the "great body of the people" might increasingly fill their days repeating the same handful of tasks.

> The man whose whole life is spent performing a few simple operations, of which the effects too are, perhaps, always the same … has no occasion to exert his understanding, or to exercise his invention…. He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become.[9]

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[7] Harry Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (New York: NYU Press, 1998); David Noble, *Forces of Production: A Social History of Industrial Automation* (London: Routledge, 2017).

[8] Adam Smith, *The Wealth of Nations*, ed. Edwin Cannan (New York: Bantam Books, 2003). 10–11.

[9] Ibid., 987.

The same image reappears in the work of the philosopher and critic John Ruskin in the mid-1850s. In his tome *The Stones of Venice,* Ruskin laments the plight of factory workers who can no longer produce anything full and whole; they live, instead, on a meager ration of intelligence that "exhausts itself in making the point of a pin."[10] For Ruskin, the "division of labor" is more accurately the division of the laborers themselves: these abundant pins of the new factory system, he writes, are polished with mere "crumbs" of human capacities.[11]

The Stones of Venice elaborates a theory of aesthetics and labor that would become central to the British Arts and Crafts movement: an early confrontation with industrial capitalism that called for the reform of everyday objects and spaces. Ruskin was an aristocratic aesthete who enjoyed extensive travel in his youth, and who continually returned to sketching and ruminating upon medieval cathedrals across Europe. In his writings, such structures stand in for a lost unity of art, labor, and life in the pre-capitalist world. Opposing the dominant neoclassical mold in the arts — which sought a model for harmony and order in Greek and Roman architecture — Ruskin celebrates the maligned "savageness" of the Gothic style.[12] From the imperfections and inconsistencies of Gothic ornament, he extrapolates an image of freely laboring subjects, necessarily opposed to the slave order of the classical world. This ideal of working experience is also the opposite of what Marx had first described as "alienated labor" a decade earlier: it is, instead, a process open to error and change, melding the artistic and the practical, and oriented toward the genuine good of the community. The nobility of physical

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[10] John Ruskin, "The Nature of Gothic," in *The Industrial Design Reader*, ed. Carma Gorman (New York: Allworth Press, 2003), 16.

[11] Ibid.

[12] John Ruskin, *The Stones of Venice*, ed. J.G. Links (New York: Da Capo, 1960), 160–161.

ungainliness, when combined with a sense of higher purpose, also reflects Ruskin's Christian socialist view of the human soul.

A similarly privileged poet and artist, William Morris became a designer in the process of outfitting his rambling "Red House" in the English countryside.[13] Here, the influence of Ruskin met Morris's own horror at the state of English furniture manufacture, where substandard materials, shoddy construction, and deceptive veneers dominated. Morris founded a decorative arts firm that produced furniture, textiles, wallpapers, and glass. Morris, Marshall, Faulkner & Co. kept skilled craftspeople employed at higher-than-average wages, and its products were defined by the three pillars of the Gothic Revival: fitness for purpose, honesty of construction, and truth to materials.[14] He campaigned to protect historic buildings, wrote extensive critiques of the factory system, and became a founding member of the UK Socialist League. As Morris became an increasingly convinced anti-capitalist, his early revulsion to machine production as a consumer was supplemented by an adoption of the standpoint of the producers.

> To give people pleasure in the things they must perforce *use*, that is one great office of decoration; to give people pleasure in the things they must perforce *make*, that is the other use of it. …[W]ithout these [decorative] arts, our rest would be vacant and uninteresting, our labor mere endurance, mere wearing away of body and mind.[15]

Because workers have a direct interest in improving the conditions of their own labor, Morris argued in 1877, they are well-positioned to educate consumers on the economic order that shortchanges both sides of the equation. In this way, as art historian Lauren

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[13] David Raizman, *History of Modern Design: Graphics and Products since the Industrial Revolution* (London: Laurence King Publishing, 2003), 82–84.

[14] Ibid., 81–82.

[15] William Morris, "The Lesser Arts," in *The Industrial Design Reader*, ed. Carma Gorman (New York: Allworth Press, 2003), 35.

Weingarden has argued, “craft values [were to] facilitate the process of disalienation,” opening the possibility for “a peaceful revolution from capitalism to socialism.”[16] This position, however, was fraught with contradiction. Morris’ own workshops did not significantly challenge the emerging division between designer and producer, and Morris’s celebrity may in fact have entrenched it. On the other hand, the firm’s high aesthetic standards and rejection of automatic machinery made its products quite expensive: as he later lamented, the revolutionary found himself stuck “ministering to the swinish luxury of the rich.”[17]

Re-appropriating the Machine

Morris died in 1896, and by the early twentieth century Arts and Crafts ideas had become widely influential. There were, however, many “Arts and Crafts ideas,” some more or less irreconcilable — and these tensions could only intensify in a context of accelerating industrial transformation. Organizations and enterprises supporting the renewal of craft sprung up across the UK, Europe, and beyond. The Weiner Werkstätte was founded in Austria in 1903, and the German Werkbund followed in 1907. At the Werkbund in particular — which would go on to produce some of the leading figures of the Bauhaus — furious debates arose over the politics of industrialism and standardization.[18] In Prussia, the subtle nationalism of Ruskin and Morris’s turn to local tradition

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[16] Lauren Weingarden, “Aesthetics Politicized: William Morris to the Bauhaus,” *Journal of Architectural Education* 38, No. 3 (Spring, 1985): 9.

[17] Robin Kinross, *Modern Typography: An Essay in Critical History*, second edition (London: Hyphen Press, 2010), 45.

[18] John Maciuika, “Wilhelmine precedents for the Bauhaus: Hermann Muthesius, the Prussian state, and the German Werkbund.” In *Bauhaus Culture*, ed. Kathleen James-Chakraborty (Minneapolis: University of Minnesota Press, 2006), 3–6.

was also amplified into an official policy for trade dominance. State documents of the period report upon the success of production reform in England, while stripping out the socialist commitments of the small craft communes that were its primary laboratories.[19] As we will see in chapter three, the same dynamic played out in the realm of print: Morris's workshop methods and socio-political criticism were internationally influential, but his more narrowly aesthetic prescriptions for book form were also adapted by large commercial publishers, particularly in the United States.

The architect Frank Lloyd Wright's "Prairie Style" was itself an adaptation of Ruskin and Morris to the landscape of the US. In place of the former's Gothic themes, Wright drew formal inspiration from the flatness of the plains, incorporating local materials and, occasionally, abstracted pre-Columbian motifs. But in his 1901 essay "The Art and Craft of the Machine," Wright presents a delicate refutation of Morris's anti-industrialism. Though Morris correctly grasped the dispossession and ugliness of the early industrial period, Wright argues, the machine he rejected had in the meantime grown into something more sophisticated, if no less alien. The machine now appears, he writes, as a "modern Sphinx," whose "ethics" remain too obscure to be adequately grasped by sociological theories; the meaning of its riddle, rather, can only be grasped through "experience."[20] In this way, Wright maintains Morris's account of the designer's privileged role in making the social knowable. It is the designer's vocation, as Wright begins the essay, to "[work] out in stubborn materials a feeling for the beautiful."[21] An attunement to new

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[19] Ibid., 6–13.

[20] Wright, "The Art and Craft of the Machine," 55–56.

[21] Ibid., 55.

aesthetic possibilities, he continues, may yet open an unexpected path to Morris's *political* desiderata.

Wright argues that machinery must be grasped as "intellect mastering the drudgery of the earth."[22] The machine, then — as human thought objectified — must itself be mastered and re-appropriated to humanistic ends. For Wright, it is in the nature of machinery to ease the burden of work and to extend leisure: the printing press is thus the paradigmatic machine of the new art. From the standpoint of a future in which art appropriates technology, labor-intensive ornamental practices would appear as so much "meaningless torture" inflicted upon workers and materials alike.[23] But in present circumstances, entire production mechanisms are invented just to (poorly) approximate dead styles.

In his embrace of an art adequate to the modern present, which necessitates a rejection of historicism in ornament, Wright comes close to a point that Austrian architect Adolf Loos would make more forcefully in 1910. Loos's infamous proto-modernist essay "Ornament and Crime" is best-known for its depiction of an "aristocratic" and unsentimental modernity, which he contrasts to caricatures of tattooed "degenerates" and savage "Papuans."[24] It has been roundly criticized as among the worst examples of modernism's Eurocentric and puritanical tendencies. However, the essay's naïve reading of the designer's economic agency has received less attention. In ornamental crafts, Loos sees a waste not only of time and energy but — reversing Ruskin — also a waste of human potential. Loos does not frame this as a question of labor politics; in fact, it

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[22] Ibid., 57.

[23] Ibid., 59.

[24] Adolf Loos, "Ornament and Crime," in *Programs and Manifestoes on 20th-Century Architecture*, ed. Ulrich Conrads (Cambridge: MIT Press, 1975), 19–21.

may not be political at all. The solution he offers to the problem of directionless, wasteful production is for artists to refuse to design ornament — which will allow workers to work less — which will bring down production costs — eventually producing an overall improvement in quality of life consonant with modern advances.[25] Wright, too, has little to say about political or social power: only that the machine (with the artist's encouragement) will "surely and swiftly, *by its own momentum*, undo the mischief it has made" — driving off the "usurping vulgarians" in the process.[26] Though Ruskin and Morris each made genuine contributions to socialist thought, the more durable influence of Arts and Crafts on subsequent designers was the idea that progressive social change could be achieved, at least in part, through more conscious and purposeful market exchanges.

At the periphery of industrializing Europe, the nexus of art, labor, and machinery gave rise to broadly similar visual innovations, even within drastically opposed political imaginaries. In 1909, Filippo Tommaso Marinetti published the "Manifesto of Futurism" in the Paris newspaper *Le Figaro*. This act of publication — occurring in what was then the center of the European art world — would be the first of a series of artistic outrages which deftly exploited the expanding sphere of print media. It was also the first manifesto issued by a group of artists, and for decades it set the tone for avant-garde collectives that presented themselves as revolutionary grouplets — complete with purges and splits. The manifesto is remembered for its celebration of danger and speed, its scorn for history and femininity, and its delirious Romantic style. In the context of the documents we have so far considered, it stands diametrically opposed the writings

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[25] Ibid., 21–22.

[26] Wright, "Art and Craft of the Machine," 56. My italics.

of Ruskin and Morris. The inversion, in fact, is so precise that the image of the industrial juggernaut uprooting and flattening the pre-capitalist world is strikingly similar:

> It is from Italy that we launch through the world this violently upsetting, incendiary manifesto of ours. With it, today, we establish *Futurism* because we want to free this land from its smelly gangrene of professors, archaeologists, ciceroni, and antiquarians. For too long Italy has been a dealer in secondhand clothes. We mean to free her from the numberless museums that cover her like so many graveyards.[27]

The Futurist manifesto calls for the physical destruction of the very artistic heritage that had so edified Ruskin. But unlike Wright, Marinetti's celebration of the machine is not predicated on a humanistic reconciliation with technology. "Glorify[ing] war" and rejecting all "utilitarian cowardice," the manifesto instead presents a mechanically-enhanced retrieval of the state of nature. Its central image — the motorcar — is described as running on gunfire, and it frequently blurs with imagery of wild beasts, drunken rages, and sexual oblivion. If this machine is a "sphinx," it has no secrets to tell: one either rides it or falls under its claws — and the preface opens with a wreck.[28] The youthful Marinetti ends the manifesto promising that the movement's founders will themselves be thrown beneath the wheels by a new generation of Futurists before they reach the age of forty.

Trading the image of the factory for that of the car, the machine depicted in the "Manifesto of Futurism" has little to do with labor: where workers are glimpsed at all, it is in the form of riotous, undifferentiated crowds. The manifesto's infatuation with militarism and domination prefigured the group's later integration into the Italian Fascist party: one of Marinetti's celebrated collage poems, for example, depicts an attack on a socialist meeting.

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[27] F.T. Marinetti, "The Founding and Manifesto of Futurism," in *Futurist Manifestos*, ed. Umbro Apollonio (London: Thames and Hudson, 1973), 22.

[28] Ibid., 20.

Nonetheless, a communist offshoot of Futurism arose in pre-revolutionary Russia, where a visiting Marinetti lectured in 1914.[29] The Futurist movement fed into Suprematism, Kazimir Malevich's attempt to extend (like the concurrent Neoplasticist and DeStijl schools in the Netherlands) post-Cubist pictorial experimentation beyond any representational function. Many Suprematists later joined the Constructivists, who proposed to put the abstract language of the new painting to direct social use in the revolutionary project.[30] In the interim, the destruction of history desired by the Futurists had come to pass. In the wake of a world war and a revolution — and with civil war looming on the horizon — Russian artists experienced the overthrow of the Tsar as a break not only with history but, as Boris Groys has argued, with the order of nature itself.[31] The 1922 Constructivist Manifesto echoes Wright, but this time from the explicit standpoint of a political vanguard. It modifies the Futurists by declaring war on traditional art, while pledging only a conditional allegiance to the machine: Constructivists would be both technology's "first fighting and punitive force" and its "last slave-workers."[32]

> PREVIOUSLY — Engineers relaxed with art
> NOW — Artists relax with technology
> WHAT'S NEEDED — IS NO REST

Attempts to conceptualize or work through the meeting of art and machinery conditioned a number of divergent aesthetic and political responses during the late nineteenth and early

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[29] Meggs and Purvis, *History of Graphic Design,* 298.

[30] Ibid., 298–301.

[31] Boris Groys, *The Total Art of Stalinism: Avant-garde, Aesthetic Dictatorship, and Beyond* (New York: Verso Books, 2011).

[32] Aleksandr Rodchenko, Varvara Stepanova, and Aleksei Gan, "Who We Are: Manifesto of the Constructivist Group," in *Graphic Design Theory: Readings from the Field*, ed. Helen Armstrong (New York: Princeton Architectural Press, 2009), 23.

twentieth centuries. Yet each of the strands outlined above had some part to play at Germany's influential Bauhaus school. To give an accurate account of the trajectory of modernism — and thus of the design professions themselves — it is necessary to detail the Bauhaus's institutional history and its foundational conflicts. This will also necessitate a closer look at the sociopolitical context of interwar Germany, where frequent economic and political crises continually deferred and reframed the question of production.

Bauhaus Foundations

The canonical status of the Bauhaus is undeniable, which has made it an object of both praise and scorn. As its admirers argue, the school synthesized novel aesthetic and technological developments into an approach whose longevity has proved its enduring relevance. To its detractors, the Bauhaus represents the origin-myth of "objective" design, whose apparent universalism conceals a narrow European provinciality. Prior to the question of the Bauhaus's legacy, indeed, is the question of its context. The lifespan of the Bauhaus is coextensive with that of the German Weimar Republic, and the history of the school makes little sense in abstraction from the particular pressures of interwar capitalism.

The Weimar period begins with the German Revolution of 1918–1919, which deposed Kaiser Wilhelm II and brought World War I to a halt. With Berlin still engulfed in political unrest, a new constitution was announced from Weimar on August 11, 1919.[33] The young republic was founded by the Social-Democratic Party (SPD) in a coalition with the moderate

[33] Eric Weitz, *Weimar Germany: Promise and Tragedy* (Princeton: Princeton University Press, 2007), 32.

Democratic and Catholic Center Parties.[34] Responding to significant pressure from the extra-parliamentary left, the SPD went on to win several measures now taken for granted as the baseline for liberal democracy: they extended voting rights and gender equality, and they guaranteed legal protections for unions and an eight-hour working day.[35] Nominally socialist, the SPD framed post-capitalist society as a compelling but distant goal: one that could only be reached after a long period of peace and recovery.[36] This, in turn, relied upon restarting the capitalist economy. But that economy, already burdened by harsh postwar reparations agreements, then proceeded to lurch from one disorienting crisis to the next. Wartime debt produced inflation, which spiraled into hyperinflation by 1923. The economy was stabilized the following year, but mostly on the backs of the workers: high unemployment and deteriorating working conditions were necessary side-effects of a five-year boom.[37] During this period, cities spent massive sums — often lent by American banks — on new housing developments (many of which employed modernist architects and designers).[38] Such links to U.S. finance, however, meant that the Depression of 1929 had a direct and devastating effect on Germany's economy.[39]

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[34] Ibid., 84.

[35] Ibid.

[36] Ibid., 85.

[37] Ibid., 103.

[38] Adelheid von Saldern, "The Workers' Movement and Cultural Patterns on Urban Housing Estates and in Rural Settlements in Germany and Austria during the 1920s," *Social History* 15, no. 3 (October 1990); Susan R. Henderson, *Building Culture: Ernst May and the New Frankfurt Initiative, 1926–1931*, ed. Frank J. Coppa, Studies in Modern European History, (New York: Peter Lang Publishing, 2013).

[39] Harold James, "Municipal Finance in the Weimar Republic," in *The State and Social Change in Germany, 1880–1980*, ed. W. Robert Lee and Eve Rosenhaft (New York: Berg, 1990).

By 1932, a third of the national population was unemployed, and the legitimacy of the republic was seriously in question.[40] The Weimar period ends in 1933 with Hitler's consolidation of dictatorial powers, the banning of the SPD, and the final closure of the Bauhaus.

The origins of the Weimar-era right can be traced to paramilitaries like the *Freikorps*, populated by nationalist veterans. But its more respectable wing extended from the traditional classes of the countryside to the large capitalists of the cities. Prominent figures in parliament, the churches, and the courts shared a resolve to overturn the gains of the revolution.[41] Respected military officers secretly funneled arms and training to paramilitaries.[42] The right was broadly united by the *Dolchstosslegende*, or "stab-in-the-back myth," which held that the German army had not been defeated abroad, but rather undermined at home by Jews, the left, and other "degenerates" — all of whom were to blame for Germany's humiliating terms of surrender.[43] Such groups were depicted as parasites in a discourse that increasingly resorted to a language of racial hygiene.[44]

To the left were the communists, whose opposition to World War I had provoked a traumatizing split with the pro-war SPD. Throughout the unrest of 1918–1919, their aim was to push the social-democratic revolution toward a more fundamental upheaval: the German contribution to an international revolution, of which the Russian revolution would be but the first

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[40] Weitz, *Weimar Germany,* 122.

[41] Ibid., 82, 365–366.

[42] Ibid. 114–116.

[43] Ibid. 95–98.

[44] Ibid. 98.

successful act.[45] The left's base of power was in massive street demonstrations, as well as widespread strikes and mutinies. From occupied factories and armories, workers' and soldiers' councils proposed an immediate socialization of productive relations; they largely rejected invitations to enter government and negotiate with the representatives of property and power.[46] For communist theorists like Rosa Luxemburg, World War I represented the ultimate — and, potentially, the final — catastrophe of Western capitalism. Gesturing mockingly at the grand promises of "our lofty European civilization," Luxemburg depicted the wartime crisis as a crossroads: the alternatives were now "socialism or barbarism."[47]

The SPD's support for the war made them many enemies on the left, while their signature on the peace treaty cemented the hostility of the right.[48] Taking fire (sometimes literally) from both sides, the SPD ordered a crackdown: a move which, given the conservatism of the institutions of law and order, was destined to fall much harder on the left.[49] In early 1919, the SPD dispatched *Freikorps* units to put down a communist uprising.[50] The paramilitaries then launched a brutal campaign of repression against strikers and militants, culminating in the

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[45] Pierre Broué, *The German Revolution, 1917–1923*, ed. Ian Birchall and Brian Pearce, trans. John Archer, Historical Materialism Book Series (Leiden: Brill, 2005).

[46] Weitz, *Weimar Germany*, 90–91.

[47] Rosa Luxemburg, "The Crisis of German Social Democracy (The Junius Pamphlet)," Marxists.org, 1915, accessed March 1, 2022, https://www.marxists.org/archive/luxemburg/1915/junius/

[48] Weitz, *Weimar Germany*, 31–32, 37. The parties of the right had resigned ahead of the signing of the 1919 Treaty of Versailles, so they could claim with some truth that it was the socialists who had betrayed them.

[49] Ibid., 82, 99-101

[50] Ibid., 30–31, 97. In Eastern Europe, Freikorps divisions were also implicated in antisemitic pogroms. Ibid., 38.

assassination of Luxemburg and fellow communist leader Karl Liebknecht.[51] In a bid to establish stability, in short, the governing social democrats wiped out their erstwhile comrades on the left, while empowering a radicalized right that had no intention of returning the favor.[52]

During the Weimar years, an unbroken mood of crisis translated to continuing appeals from both ends of the political spectrum: those who desired a complete break with capitalism, even in this more "democratic" guise, and those who wished to violently reassert pre-democratic hierarchies and exclusions (or far worse).[53] For most of the 1920s, decisive and stable victories for the right, left, or center were elusive; communists and fascists alike alternated between electoral politics and street confrontations.[54] In the 1928 election alone, 41 separate parties participated, with 14 of those achieving some level of representation in the Reichstag.[55] Accelerating political fragmentation, combined with the unprocessed trauma of the war, left many with the impression of a social world in which everything was up for grabs. For many

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[51] Ibid., 97–99.

[52] "The old elites and the Social Democrats … ran toward one another and embraced, but only temporarily. Once the sense of panic had passed, once officers, civilian officials, and capitalists felt the balance of power shifting in their direction, they would look for other allies, which they found, ultimately, in the Nazi Party. The Social Democratic unwillingness, in the winter of 1918–19, to break the powers of their longtime adversaries would come back to haunt them from 1933 to 1945, the twelve long years of the Third Reich." Ibid., 28.

[53] Here, the National Socialists should be distinguished from mainstream conservatives. Nazis often positioned themselves as a "New Right" opposed not just to the republic, but to the old order as well. Contemporaneous photomontages by John Heartfield skewered the Nazis' attempts at anti-aristocratic and even anti-capitalist messaging.

[54] Ibid., 101.

[55] Ibid., 104.

historians and theorists, this provides some explanation for the interwar period's experimentation and innovation, which extended well beyond questions of economic or political organization.[56]

During this time, the Bauhaus took three different forms: it was first a multidisciplinary art and craft school in Weimar (1919–1925), then a production-oriented "Institute of Design" in Dessau (1925–1932), and finally a private architecture school in Berlin (1932–1933). Over the course of its brief and turbulent life, interpretations of the institution's politics varied widely. Under Walter Gropius, the eclectic experimentation of the Weimar period gave way to a more practical footing in Dessau. During the final, crisis-wracked years in Dessau and then Berlin, the Bauhaus swung from an overt engagement with Marxism under Hannes Meyer to an attempted coexistence with National Socialism under Ludwig Mies van der Rohe. But even as some Bauhaus designers acquiesced to right-wing pressure, their embrace of geometric abstraction and machine rationalism met passionate resistance. Flat roofs, bare industrial materials, and sans-serif typography were read by nationalist commentators as irredeemably un-German and internationalist — or, in less restrained language, as inherently "Jewish" and "cultural-Bolshevist."

The Bauhaus was chased across three cities by a metastasizing fascist movement, and the last options for negotiation evaporated in spring 1933 when the Gestapo seized the Berlin campus. A century since its founding, the legend of the Bauhaus remains overshadowed by the circumstances of its closure. Due to its long struggle with threats from the right, the school is often remembered as a left-leaning and progressive project, destroyed by an enemy that was always external. However, a closer look at the political alignments of Bauhaus professors and

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[56] Ibid., 39, 361–364.

students (collectively, *Bauhäuslers*) reveals a much messier picture — itself characteristic of the ideological chaos that reigned in the Weimar years.

Although the Bauhaus quickly became synonymous with rootless internationalism in Germany, wartime nationalism played an important role in the school's founding. When the Belgian architect Henry van de Velde, director of the Weimar School of Arts and Crafts, was forced to resign amid mounting anti-foreigner sentiment in 1914, he named the young architect Walter Gropius as a potential successor.[57] Weimar's Academy of Fine Art also had their eye on Gropius, who had recently distinguished himself with the Fagus factory in Alfeld: the first building wrapped in a multi-story "curtain wall" of glass and steel.[58] While still an officer at the front, Gropius drew up plans for a new type of school, and he received approval for a merger of the two institutions in 1919.[59]

Given the Bauhaus's later reputation for machinelike abstraction, Gropius's introductory "Program" of 1919 is a rather jarring document. On the cover, where one might expect a bold composition of abstract forms, we instead find Lyonel Feininger's ragged woodcut of a cathedral rising into a turbulent sky, beset by shafts of light.[60] Such was the international influence of British Arts and Crafts. "Architects, sculptors, and painters," Gropius's introduction booms, "we all must return to the crafts!"

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[57] Magdalena Droste, *Bauhaus 1919–1933* (Köln: Taschen, 2015), 16.

[58] Ibid., 16–17.

[59] Typical of the Bauhaus's vaunted minimalism, its name was whittled out of the much more cumbersome "State School of Building [*Staatliches Bauhaus*] in Weimar, United former Grand-Ducal Saxon Academy of Fine Art and former Grand-Ducal Saxon School of Arts and Crafts." Ibid., 17.

[60] Ibid., 17–18.

> For art is not a "profession." … Let us then create a new guild of craftsmen without the class distinctions that raise an arrogant wall between craftsman and artist! Together let us desire, conceive, and create the new structure of the future … which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith.[61]

The Bauhaus's pedagogical sequence maintained the categories of medieval guilds: students were "apprentices" working under "masters" rather than professors; those who passed the initial coursework became "journeymen" eligible for paid work in the workshops. Many later became "young masters" — junior teachers — themselves.[62]

At the Bauhaus, each apprentice worked with two masters: a "master of craft" (a skilled artisan) and a "master of form" (an avant-garde painter). This was a dialectical education aimed at bringing a hybrid type of producer into being, and here the Bauhaus mission was particularly successful. This new producer, the modern designer, would go on to transform the profession of architecture and to usher in wholly new specializations in the furniture, textile, printing, and advertising industries. It is emblematic of the Bauhaus's contradictory legacy, however, that this occurred not through a revolutionary transformation of class relations, but rather through the invention of new professional distinctions.

Qualified masters of craft could be difficult to find, but the criteria for masters of form were much less straightforward: Gropius wrote of a "duty … to enlist powerful, famous personalities wherever possible, even if we do not yet fully understand them."[63] They were drawn from an international cohort of expressionist painters: the U.S.-born Feininger was among

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[61] Walter Gropius, "Program of the Staatliche Bauhaus in Weimar," in *The Industrial Design Reader*, ed. Carma Gorman (New York: Allworth Press, 2003), 98.

[62] Droste, *Bauhaus 1919–1933*, 22.

[63] Ibid.

the first hired, and the Swiss painter Paul Klee followed in 1920. Wassily Kandinsky joined the following year. Already a renowned painter and theorist, Kandinsky had recently left the Soviet Union after his idiosyncratic spirituality came into conflict with the materialist emphases of post-revolutionary art.[64] But it was the Swiss painter Johannes Itten, creator of the Bauhaus's influential foundation course (*Vorkurs*), who wielded the strongest initial influence on the school's pedagogy.

Though they differed in important respects, each of these men shared a search for "cosmic unity," which was thought to be accessible through the exploration of basic forms.[65] Itten's interpretation of this theme, however, dipped the furthest into the territory of magic. His teaching ranged across botanical studies, color theory, art history, and mysticism; classes opened with movement and breathing exercises.[66] A disciple of the Mazdaznan sect, Itten kept his head shaved and wore a monk-like outfit; his most devoted students wore matching robes.[67] The sect practiced strict sexual and dietary discipline, and briefly convinced the school's canteen to expressly serve what one visitor described as "uncooked mush in garlic."[68] Itten's focus on the awakening of individual potentials would later come into conflict with the Bauhaus's emphasis on mass production. And, like the pottery workshop master Gerhard Marcks, Itten's anti-

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[64] Ibid., 66

[65] Ibid., 65

[66] Ibid., 24–31.

[67] Ibid., 31–32.

[68] Nikil Saval, "How the Bauhaus Redefined What Design Could Do for Society," *New York Times,* February 4, 2019, https://www.nytimes.com/2019/02/04/t-magazine/bauhaus-school-architecture-history.html

industrialism was linked to right-wing myths of national, racial community.[69] As former Bauhaus Archive curator Magdalena Droste summarizes, Bauhaus culture was constituted in a volatile mix of "highly contradictory ideas."

> At the beginning, German nationalists and anti-Jewish students tried to gain the upper hand. Messianic visionaries … were allowed to speak and Itten and [George] Muche to canvass for their vegetarian Mazdaznan beliefs. Anarchist, socialist, conservationist, life-reformist, and esoteric schools of thought all found support at the Bauhaus.[70]

Admission to the Bauhaus reflected Weimar's progress on equality of access to education and training. But while women actually outnumbered men in the first class of students, they were immediately segregated into a weaving workshop (later home to the Bauhaus's only female master, Gunta Stölzl).[71] Gropius publicly affirmed gender equality, but privately commented that the masters should not undertake unnecessary "experiments" with "the fairer sex."[72] As Droste points out, this was one of the Bauhaus's deepest ironies. Textile production drew on deep traditions of craft knowledge, even as it prepared apprentices for one of Germany's most heavily mechanized industries.[73] Far from a marginal adjunct to the "real," male world of architecture, the activity of the weaving workshop established a clear model for the more industrial focus of the Dessau period. Anni Albers's textile designs are particularly sharp specimens of Bauhaus abstraction — in which grid systems reveal, upon closer inspection, dynamic asymmetries and

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[69] In one essay, Itten argued that "the white race represented the highest level of civilization." Droste, *Bauhaus 1919–1933*, 32, 68.

[70] Ibid., 50.

[71] Ibid., 72; Elizabeth Otto, *Haunted Bauhaus: Occult Spirituality, Gender Fluidity, Queer Identities, and Radical Politics,* (MIT Press, 2019), 99.

[72] Ibid., 40.

[73] Ibid., 72.

unexpected rhythms. Among her most innovative efforts was a fabric designed for a trade school auditorium, which reflected light on one side while absorbing sound on the other.[74] While some women eventually moved beyond the weaving workshop, inflated admissions standards kept their numbers hovering around a third of the student body.[75]

Dance, theater, and sports at the Bauhaus were co-ed, and sexual morality was generally relaxed and bohemian. As Bauhaus historian Elizabeth Otto has documented, feminist critique and queer expression were also common, though these currents mostly flew under the radar of official production.[76] Right-wing pressure on the school's existence was fueled, in part, by provincial shock at the non-traditional lifestyles and androgynous dress of the apprentices. Fittingly, many of these objections crystallized around a single design project. In 1922, apprentice Peter Keler produced a baby cradle using the elementary forms that had become *de rigeur* in Kandinsky's courses. The suspended platform on rockers was formed from three interlocking shapes: a yellow triangle, a red rectangle, and a blue circle. [Figure 1] When the crib appeared in the Bauhaus's inaugural exhibition of 1923, news began to spread that it had been a gift for a pregnant apprentice. A contemporaneous newspaper editorial seized upon this apparent celebration of a "fallen girl" as "evidence for the destructive methods of teaching and education practiced at the Bauhaus."[77]

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[74] Ibid., 184.

[75] Otto, *Haunted Bauhaus*, 100.

[76] Ibid., 10, 137–138. Though Berlin was known for the innovative early research into gender and its embodiment at Magnus Hirschfeld's *Institut für Sexualwissenschaft*, sexual minorities remained criminalized during the Weimar period.

[77] *Bauhaus: Modell und Mythos,* directed by Niels Bolbrinker and Kerstin Stutterheim (Arte Edition / Absolut Medien, 2009), DVD.

Figure 1: Peter Keler, Bauhaus Cradle, 1922.

Aside from their origins in Bauhaus coursework, the basic shapes of Keler's cradle also reflected a turn toward design for mass production. The 1923 exhibition had opened at the height of Germany's postwar inflation, and many of its displays were explicitly framed as solutions to housing and materials shortages. The school's own finances, meanwhile, were in dire shape: the staging of the exhibition itself was a stipulation in a loan agreement.[78] Motivated, in part, by the need to raise funds, Gropius began pushing a more industrial focus. This move precipitated the departure of Itten, and the *Vorkurs* was divided between the recently-arrived Hungarian painter László Moholy-Nagy and the young master Josef Albers.[79] Gropius had, in the meantime, revised the school's motto: "A Unity of Art and Handicraft" became "Art and Technology—a New Unity." As theatre director Oskar Schlemmer had remarked a few years earlier, the

[78] Droste, *Bauhaus 1919–1933*, 105.

[79] Ibid., 46, 140.

dominant spirit of the Bauhaus was by then split between “Indian cult” and “Americanism”: the latter a shorthand for a fascination with assembly lines and automation.[80]

After a right-wing electoral victory in 1924, the Bauhaus’s funding was immediately slashed in half. In response, the masters preemptively closed the school and weighed their options. Among many offers for a new location, Gropius chose the manufacturing center of Dessau, which was home to large factories for IG Farben and the engineering firm Junkers. Just as importantly, the ruling coalition of liberals and social democrats in Dessau was receptive to Gropius’s plans for standardized developments of workers’ housing.[81] Relocating also provided an opportunity to build a new campus from scratch. [Figure 2] Gropius planned discrete structures for workshops, studios, apartments, and offices, all of which were linked by a floor that gathered collective activities: meals, performances, and intricately-conceptualized parties. The structure literalized pedagogical ideals of transparency, openness, and collaboration. Gazing at the giant glass-and-steel wall that ran the length of the workshop wing, the art theorist Rudolf Arnheim marveled at the structure’s blunt statement of its own construction: “no screw is concealed, no decorative chasing hides the material being worked. It is very tempting to see this architectural honesty as moral, too.”[82]

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[80] Quoted in Ibid., 101.

[81] Ibid., 120.

[82] Quoted in Ibid., 122.

Figure 2: Walter Gropius, Dessau Bauhaus workshop wing, ca. 1927.

Bauhaus pedagogy and production underwent several important transformations in Dessau. Bauhaus GmbH, a retail business for the products of the workshops, was founded in 1925. The workshops also formed partnerships with manufacturers: young master Marcel Breuer's tubular steel chairs, for example, were adapted as lightweight seating for the nearby Junkers aviation factory. Though "building" — *Bau* — had always been planned as the school's spiritual center, it was only in 1927 that an architecture department was founded. By this time, the old guild categories were mostly dropped: apprentices became students.[83] The school was now on the same institutional footing as traditional art and technical academies.

At Weimar, the rudiments of the mature graphic style of the Bauhaus were scattered across the workshops and even the city; it was only at Dessau that the approach became more systematic. The *Vorkurs,* as we have seen, acclimated students to the use of elementary shapes and colors, an influence that blended readily with samplings of Dutch De Stijl and Russian Constructivism. De Stijl founder Theo van Doesburg even set up a competing course in Weimar,

[83] The original Weimar professors usually retain the title "master" in the historical literature of the Dessau period and after. I follow that convention here.

where he took to heckling Itten for his undisciplined “expressionist jam.”[84] Later, Joost Schmidt’s short-lived “free sculpture” workshop staged experimental studio photographs, some of which found their way into Bauhaus publications.[85] Moholy-Nagy — technically the master of the metals workshop — then began to fuse photography and print production with a hybrid practice he called “typo-photo.” As a student in Weimar, Herbert Bayer had first merged geometric lettering with planes of color in the mural-painting workshop. At Dessau, he took charge of the new advertising workshop, which combined the resources of the photography, sculpture, and art-printing workshops and added typesetting equipment.[86] Printing workshops had survived in varying incarnations because they were consistent moneymakers for the school. At Dessau, portfolios of art prints gave way to a book series, an intermittent journal, and assorted advertising and marketing materials.[87] The workshop doubled as a public relations center for the Bauhaus’s expanding catalog of products.

Bauhaus Contradictions

The Bauhaus was on relatively secure footing in 1928 when Gropius, worn down by political conflict and frequently called away from campus for architectural commissions, announced his intention to step down.[88] He chose Hannes Meyer, head of the new architecture department, as

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[84] Ibid., 54.

[85] Ibid., 156.

[86] Ibid., 135, 148.

[87] Ibid., 137–139, 180.

[88] Éva Forgács, “Between the Town and the Gown: On Hannes Meyer’s Dismissal from the Bauhaus,” *Journal of Design History* 23, no. 3 (2010).

his successor. To some *Bauhäuslers* this seemed an odd choice: Meyer was an outspoken critic of what he saw as the school's vague (and bourgeois) rhetoric of spiritual revolution. He planned to replace this "bogus-advertising-theatricalness"[89] with a new, "functional-collectivist-constructive" direction.[90] The Bauhaus would now be oriented toward "necessities" rather than "luxuries," centering the needs of the working class.[91] Design problems would take their cues less from formal exercises directed by painters, and more from current research in the natural and social sciences. Bayer and Moholy-Nagy — whom Meyer once called a "painting journalist" — soon resigned.[92]

Departing from the Bauhaus's official position that it was engaged in "objective, entirely non-political cultural work," Meyer was open in his communist sympathies.[93] Aiming for a "proletarianized" Bauhaus, where atomized individuals were united into cooperative teams, he rearranged the class schedule to more closely approximate an industrial workday.[94] A growing body of communist students understood the Marxist worldview to be the only consistent outcome of a Bauhaus education.[95] Trade union facilities and workers' housing completed under

[89] Droste, *Bauhaus 1919–1933*, 170.

[90] Ibid., 166.

[91] As Droste perceptively argues in the case of the German Trades Union building, however, Meyer-era Bauhaus projects never completely evaded his own diagnosis of formalism. Ibid., 195–196.

[92] Ibid., 60.

[93] So reads a 1924 letter of protest from the Bauhaus masters, announcing the Weimar campus's closing. Quoted in Ibid., 113.

[94] Ibid., 171, 196.

[95] Ibid., 198.

Meyer, after all, had clear precedents in projects initiated by Gropius — who once defended his own generous master's quarters by saying, "what we today consider luxury will tomorrow be the norm!"[96] Kandinsky and Josef Albers, meanwhile, had begun sending alarming reports of student radicalization to the Democratic mayor Fritz Hesse.[97]

Meyer's political sympathies naturally attracted controversy. Bauhaus students were overheard singing communist anthems at a 1930 party, which produced a feeding frenzy in the right-wing press. Later, it came to light that Meyer had donated to a student group's fundraising effort for a communist-led miner's strike.[98] Attempting to stem the formation of a full-fledged "communist cell" at the Bauhaus, the masters dismissed 20 in a move that made Meyer himself a target of the students' ire.[99] Mayor Hesse, however, was as intent on removing Meyer as he was on winning his impending reelection.[100] When it became apparent that no amount of protest would reverse the decision, Meyer boarded a train for Moscow with a "Red Bauhaus Brigade" of his closest students.[101] Stalinist design policy, however, would prove hostile to Meyer, who rounded out the rest of his career as a city planner in Mexico.[102] His directorship was all but

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[96] Quoted in Ibid., 130.

[97] Ibid., 189.

[98] Ibid., 199.

[99] Ibid.

[100] Forgács, "Between the Town and the Gown," 267.

[101] Otto, *Haunted Bauhaus*, 187.

[102] Saval, "Bauhaus Redefined."

erased for decades as Bauhaus alumni, led by Gropius, worked to actively suppress his contributions.[103]

Gropius had meanwhile contacted the talented and rigorously apolitical architect Ludwig Mies van der Rohe. Though Mies's Bauhaus directorship is mostly remembered for his efforts to keep the school open, his first act as director was to shut it down. Bauhaus students had called a strike to protest the underhanded manner of Meyer's dismissal, and a communist student paper published searing accusations against Gropius and Kandinsky in particular.[104] When the masters demanded the names of its authors, they were met with silence. Backed by Hesse, Mies responded with a police raid targeting Meyer's remaining foreign students, who were then expelled.[105] Others, like the Croatian graphic designer Ivana Tomljenović — producer of the only known experimental film made at Dessau — quit in solidarity.[106]

The next month, all students who had survived the purge were ordered to reapply. New enrollees were required to sign a revised constitution that affirmed a more purely aesthetic program of study, ended shared governance by students and professors, and banned smoking.[107] In an attempt to reduce expenditures, Mies increased tuition even as he slashed support for the workshops that had provided advanced students with a wage.[108] But the onset of a global depression in 1929, followed by a substantial electoral breakthrough for the Nazis in 1930,

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[103] Droste, *Bauhaus 1919–1933*, 166.

[104] Ibid., 204.

[105] Ibid.

[106] Otto, *Haunted Bauhaus*, 180–184.

[107] Droste, *Bauhaus 1919–1933*, 204.

[108] Ibid., 206.

signaled the beginning of the end for the Dessau Bauhaus. Local National Socialists circulated a flyer ahead of the 1931 elections demanding a cessation of the school's funding; the cover of a protest against frivolous spending was belied by an accompanying demand for the campus's immediate demolition.[109] The Nazis later converted the complex into a home economics school for women.[110]

During the Bauhaus's last days in Weimar, Social-Democratic and Communist politicians had been united in attempts to defend the school. But this time, the SPD abstained in the final vote.[111] Mies rented a vacant telephone factory in Berlin, and the Bauhaus began its final incarnation as a small private school. Writing from Dessau in late 1931, one student reported that only a few of his colleagues did not identify as communists; a year later in Berlin, he noted that this balance had completely flipped.[112] The anticommunist contingent grew to include a number of Nazi Party members, including the professor Friedrich Engemann. Weaving director Gunta Stölzl — a socialist married to a Jew — had already been forced out following a campaign of personal harassment that included swastika graffiti.[113]

None of this stopped the Gestapo from locking down the Berlin campus for three months in 1933. During this time, the remaining *Bauhäuslers* attempted to convince the party of the value of their work.[114] Students wrote personal letters to propaganda minister Joseph Goebbels;

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[109] Ibid., 226–227.

[110] Otto, *Haunted Bauhaus*, 192–194.

[111] Droste, *Bauhaus 1919–1933*, 113, 200.

[112] Ibid, 208.

[113] Otto, *Haunted Bauhaus*, 191.

[114] Droste, *Bauhaus 1919–1933*, 234.

among Mies's many entreaties, he argued that the Bauhaus's closure would by now affect "people with almost exclusively nationalist beliefs."[115] In the end, the state canceled its obligations to pay professor salaries and presented a list of demands — including the dismissal of the relatively conservative Kandinsky — that Mies rejected. With an informal vote and a champagne toast, the Bauhaus closed for good on July 19, 1933.

Bauhaus Afterlives

The Bauhaus inspires enduring interest due in part to the striking personal trajectories of its many alumni. *Bauhäuslers* with Jewish heritage or leftist affiliations had begun to emigrate even before the school's closure, but its final end accelerated the globalization of modernist forms and concepts. Anni and Josef Albers landed at Black Mountain College in North Carolina, where they taught alongside John Cage, Merce Cunningham, and Elaine and Willem de Kooning. Moholy-Nagy continued his work at Chicago's "New Bauhaus," later the IIT Institute of Design, thanks to the funding of the industrialist (and Bauhaus admirer) Walter Paepke. In West Germany, Bauhaus alumnus Max Bill co-founded another successor institution at Ulm in 1953. Co-founder Inge Aicher-Scholl dedicated the Ulm School of Design to the memory of her siblings Sophie and Hans Scholl, executed ten years earlier for their work with the resistance group White Rose.

During the war, Bauhaus graphic designer Moses Bahelfer forged identification papers for the French Resistance, while photographer Irena Blühová published underground newspapers

[115] Ibid., 235.

from Nazi-occupied Czechoslovakia.[116] But there were also many who never got out. In 1932, photographer Gertrud Arndt captured a forlorn image of weaver Otti Berger in the raking light of the abandoned Dessau canteen.[117] Berger later fled Germany, but was recaptured and killed at Auschwitz, where her former classmate Fritz Ertl — now a Waffen-SS officer — had designed barracks, gas chambers, and crematoria.[118] The coexistence of such extremes should make it clear that the Bauhaus was less a singular political project than a microcosm of the social forces then tearing German society to shreds. Across the careers of three prominent Bauhaus masters, one glimpses an incongruous montage of political impulses.

One of the most controversial projects of the Weimar period was the *Monument to the March Dead*: a memorial for workers killed during the right-wing Kapp Putsch in 1920.[119] Commissioned by a local trade union syndicate, the jagged concrete bolt was a project of Gropius's architecture studio, built with the assistance of the Bauhaus workshops. Thirteen years later, Gropius was compiling an exhaustive proposal for the German Reichsbank, which spliced the open geometry of the Bauhaus complex to the bombastic, hulking style increasingly demanded by Hitler himself.[120] Though Gropius was a finalist, opportunities in Germany were drying up, and he quietly emigrated to England in 1934. As historian Jonathan Petropolous has

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[116] Darran Anderson, "How the Bauhaus Kept the Nazis at Bay, Until It Couldn't," *Bloomberg CityLab,* March 11, 2019, https://www.bloomberg.com/news/articles/2019-03-11/100-years-later-how-the-bauhaus-resisted-nazi-germany

[117] Otto, *Haunted Bauhaus*, 190–191, 194.

[118] Ibid., 199.

[119] Saval, "Bauhaus Redefined."

[120] Jonathan Petropoulos, *Artists under Hitler: Collaboration and Survival in Nazi Germany* (New Haven: Yale University Press, 2014), 74-77.

documented, however, Gropius hesitated to burn bridges. In 1936, he formally requested the party's permission to accept a position at Harvard, in a letter that argued for the propaganda value of his appointment.[121] That same year, Nazis demolished the *Monument to the March Dead.*[122] Though Gropius spent the remainder of his career obscuring the details of his Berlin years, he also worked diligently to secure visas for endangered architects and designers still in Germany.[123]

In 1926, Mies designed a monument to the communist leaders Rosa Luxemburg and Karl Leibknecht: an uneven block of rough brick evoking the walls against which countless such militants were shot in the unrest of 1919.[124] Luxemburg and Liebknecht were, as we have seen, victims of the SPD's haphazard policy of appeasing the far right, only to be betrayed in turn: a pattern which repeated itself, in miniature, in Mies's own Bauhaus directorship. Mies would later join Gropius as a finalist for the Reichsbank competition in 1933; a submission for the Third Reich's pavilion at the Brussels World's Fair followed in 1935. As architecture critic Tom Dyckhoff has suggested, it is easy to picture Mies's hesitation as he added a stone eagle and swastika flags to his sketches — though less for their content than for their status as external, decorative embellishments. In 1937 he emigrated to the US, having realized, as Dyckhoff writes, that

> his future patron would be no government, no political system, but the economic system that was emerging triumphant in the U.S. Modernism, the International

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[121] Ibid.

[122] Saval, "Bauhaus Redefined."

[123] Petropoulos, *Artists under Hitler,* 86.

[124] Saval, "Bauhaus Redefined."

> Style, would succeed as the landscape not of communism, bolshevism or nazism, but of international capitalism.[125]

The case of graphic designer Herbert Bayer, as recently documented by historian and curator Patrick Rössler, reveals an exceptionally high degree of collaboration by a *Bauhäusler* with no known Nazi sympathies.[126] After leaving the Bauhaus in 1928, Bayer established a successful advertising practice in Berlin. Despite the danger faced by his many Jewish friends (including his estranged wife Irene Hecht), he stayed on well after the Nazi takeover. Bayer contributed design and illustration to three prominent efforts of Nazi propaganda; in his work on the 1934 exhibition *German People, German Work*, he was joined by Gropius and Mies.[127] But even Bayer's 1936 pamphlet for the Hitler Youth provided insufficient cover for his association with the Bauhaus; he fled the next year after one of his paintings was included in the Nazi-sponsored *Degenerate Art* exhibition.[128] During the 1940s and 1950s, Bayer would play a central role in the consolidation of corporate modernism in the United States. He joined New Bauhaus patron Walter Paepke in founding the International Design Conference in Aspen (IDCA): a meeting-ground for design and corporate management which would establish the model for the modern design conference.

The political zig-zags of these former masters were not unheard-of in a period of capitalist crisis met by rising challenges from the left and the right. However, the shifting

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[125] Tom Dyckhoff, "Mies and the Nazis," *The Guardian*, November 29, 2002, https://www.theguardian.com/artanddesign/2002/nov/30/architecture.artsfeatures

[126] Anja Neidhardt, "Herbert Bayer and the Ethics of Design," *Fictional Journal* no.2: "Propaganda" (April 2017), https://www.fictional-journal.com/herbert-bayer-ethics-design/

[127] Petropoulos, *Artists under Hitler,* 78.

[128] Neidhardt, "Herbert Bayer and the Ethics of Design."

commitments of its most prominent alumni underline the ambiguity of design's politics of form. The Bauhaus is remembered in design history as a kind of utopia, but one founded under the sign of barbarism. The Bauhaus idea convinced a number of influential designers that their practice held an inherent life-reforming potential: one which could be actualized above or beyond the existing relations of social power. But because the *Bauhäuslers* nonetheless remained entangled in those relations, they frequently stumbled into affirming or even intensifying them. The modernist approaches developed at the Bauhaus showed themselves equally adaptable to socialism, fascism, and capitalism. That they became the face of the latter owes more to the contingencies of a failed socialist revolution — and a successful fascist counterrevolution — than to any timeless political essence embedded in those forms.

Postwar Modernism

As modernist design was becoming codified at the Bauhaus during the 1920s, designers like El Lissitzky in the USSR, Theo van Doesburg in the Netherlands, and Jan Tschichold in Germany aided an international cross-pollination of the new visual approaches. Through traveling lectures and collaborative publications, regional variants began to blend into something resembling an "international style." Tschichold in particular worked to square the experiments of the international avant-garde with the constraints of advertising and commercial printing. But in 1933, Tschichold was arrested for promoting "un-German" and "cultural Bolshevik" aesthetics.[129] He escaped to Switzerland, which would grow into a center for postwar modernism. Swiss graphic design of this period was characterized by sober sans-serif type and straightforward, usually colorless photographs. In many cases, designers dispensed with

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[129] Meggs and Purvis, *History of Graphic Design,* 323.

representative imagery altogether—as in Josef Müller-Brockmann's abstract concert posters, whose spatial divisions evoked the bare mathematical facts of the music itself. [Figure 3] Such "neutrality" was framed as an alternative to the fascist and communist political propaganda of World War II, as well as the manipulative capitalist advertising emanating from the United States.[130]

Figure 3: Josef Müller–Brockmann, "Musica Viva" poster, 1959.

In 1946, an early protest against "the modern" — as both typographical style and social form — arose from unexpected quarters. As a visitor to the 1923 Bauhaus exhibition, the young calligrapher Tschichold had immediately become a convert. Through his persuasive writing, which put its own design concepts to work directly in the organization of the page, Tschichold

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[130] Ibid., 356.

became the chief theorist of the "New Typography": a tense, asymmetrical, undecorated approach that he considered adequate to the unsentimental severity of the modern age.[131] After his escape from Nazi Germany, however, Tschichold questioned the extent to which his earlier positions implicated him in the calamity of National Socialism. His earlier writing had, after all, gleefully encouraged the eradication of "degenerate typefaces and arrangements" — reflecting, as he wrote in retrospect, a blind faith in standardized technology and a "German bent for the absolute."[132] However, his Swiss colleagues mostly carried on as if a deep irrationality within the modern had not very recently been unmasked.[133] In his late career, as Tschichold engaged in debates on the meaning of modernity and modernism, he also abandoned his own widely-influential typographic approach, even returning to center-axis layouts set in classical serif typefaces. [Figure 4]

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[131] Ibid., 319–323.

[132] Quoted in Ibid., 321, 323.

[133] Robin Kinross, *Modern Typography*, 129.

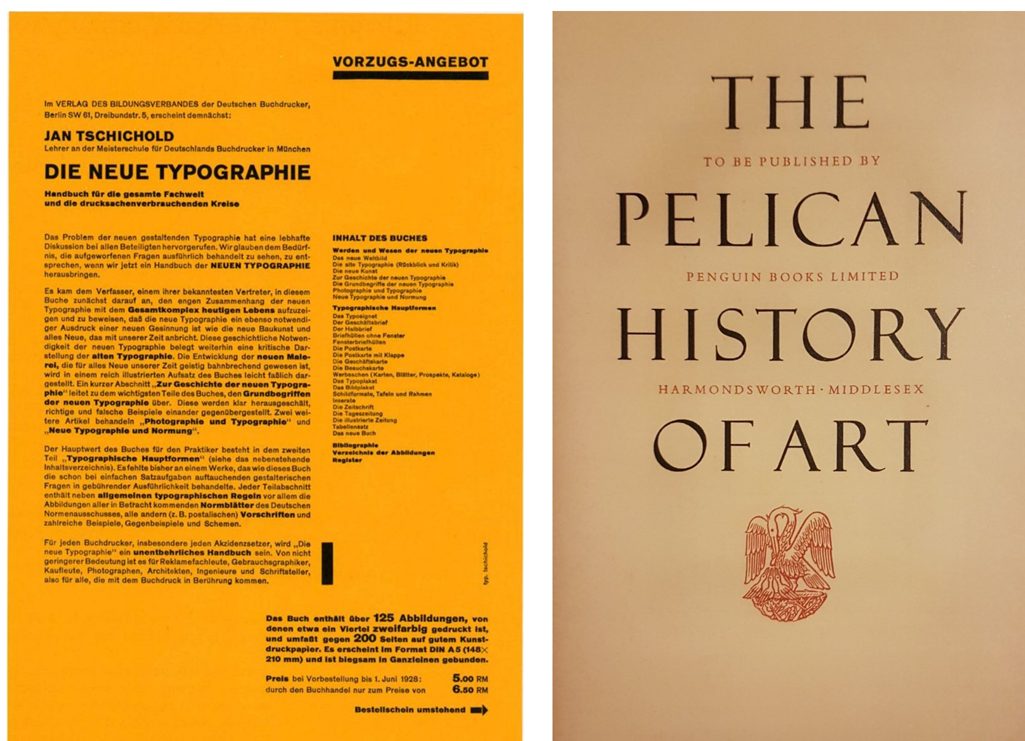

Figure 4: Jan Tschichold, Prospectus covers for *Die Neue Typographie*, 1928 (left) and *The Pelican History of Art,* 1947 (right).

Modernism, which began as a critical engagement with the emergent qualities of materials and labor, was increasingly becoming a visual shorthand for industrial efficiency. Modernist designers continued to debate their responsibilities to a public that was sometimes described as composed of "workers," but which was more likely to be conceptualized as a mass market. In the postwar United States, as opposed to Switzerland and West Germany, modernist designers explicitly strove for universal objectivity and market dominance at once. A central figure here was Container Corporation of America (CCA) president Walter Paepke. High-profile CCA advertising campaigns of the 1940s and 1950s eschewed overt sales messages, depicting instead the war effort, the history of the 48 states, or the "Great Ideas of Western Man" in a modern visual idiom.[134] Paepke's contacts in the worlds of business and the arts were extensive;

[134] Meggs and Purvis, *History of Graphic Design,* 342–343, 345–347

as benefactor of Chicago's "New Bauhaus" and founder of the International Design Conference in Aspen (IDCA), as we have seen, he was able to secure employment for former Bauhaus masters Moholy-Nagy and Bayer. A founding vision of his Aspen conference was that design — no longer simply a link to production — now deserved its own seat alongside management.[135] Paepke believed that design could improve market competition between large firms tied to uniform machinery and wage agreements; internally, it could even be put to work on "problems" like worker morale.[136] As modernist design became a more well-known and cohesive global phenomenon, the experience of the worker in capitalist production progressively faded from the critical agenda. This also meant, however, that modernist design could later become a stable target for critiques of the direction that postwar development was taking.

Inspired by the bold variations of product and advertising design at the Italian office machines firm Olivetti, IBM hired the architect Elliot Noyes to undertake a program of "total design" — covering everything from typewriter casings and packaging to the company's own office and factory buildings.[137] Modernist architects also fanned out into the growing US suburbs, preaching a toned-down variant of Futurism that praised the forward-thinking non-conformism of Cold War America. As *Architectural Forum* publisher Howard Myers writes in the introduction to George Nelson and Henry Wright's 1945 book *Tomorrow's House*, since "our way of life is undergoing great changes,"

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[135] For its first three years, the IDCA ran under an unchanging title: "Design as a Function of Management." Wim De Wit, "Claiming Room for Creativity: The Corporate Designer and IDCA," in *Design for the Corporate World 1950–1975*, ed. Wim De Wit (London: Lund Humphries, 2017), 23.

[136] Ibid., 24, 27.

[137] Ibid., 24.

> it follows that we should not let sentimental ties with the past stand in the way of getting the best house present-day technology and design can produce. … [T]omorrow's house… frees the plan — and therefore the family — from the arbitrary concepts which have gotten in the way of gracious living these many years. … [E]very architect should read [this book] if only to stiffen his backbone when he tells the client, "You cannot walk backwards into the future!"[138]

Icons of "good design" in the U.S., like the husband-and-wife duo of Charles and Ray Eames or the utopian modernist R. Buckminster Fuller, had been military contractors: the concept for the Eames's molded-plywood chairs originated in lightweight wooden splints for the front, while Fuller's plans for prefabricated, autonomous housing units grew out of shelter prototypes for rapid deployments.

In contrast to the Constructivists, who claimed to have abandoned easel painting for the engineering of a new society, corporate modernists depicted themselves as artists whose "canvases" happened to be the technocratic institutions of advanced capitalism.[139] In the words of sociologist C. Wright Mills, the humble "helpmate of the salesman, the Air Brush Boy" had grown seemingly overnight into a "generalissimo" of an anxiously overproductive society.[140] But as he argued at the 1958 International Design Conference in Aspen, this newfound position of power was often not what it seemed. In an address entitled "Man in the Middle: The Designer," Mills depicts designer as a type of "cultural workman" whose most valued product is less the tangible object than the propaganda of innovation in which such commodities were increasingly

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[138] Howard Myers, "Foreword," in George Nelson and Henry Wright, *Tomorrow's House: A Complete Guide for the Home-Builder* (New York: Simon and Schuster, 1946), ii.

[139] De Wit, "Claiming Room for Creativity," 16.

[140] C. Wright Mills, "Man in the Middle: The Designer," in *Power, Politics and People: The Collected Essays of C. Wright Mills*, ed. Irving Horowitz (New York: Ballantine Books, 1967), 382.

being packaged.[141] For Mills, the absurdity of postwar American consumerism was most clearly demonstrated in policies of planned obsolescence. Among their many deleterious effects, such policies were also a humiliation for designers whose self-image depended upon crafting objective (or even "timeless") solutions. A designer in the IDCA audience may have studied with former Bauhaus masters in Ulm or Chicago, and learned to place himself in a lineage of avant-garde artists; like IBM graphic designer Paul Rand, he may have picked up a knack for quoting Hegel while describing his graphic approach. But the masterworks of such designers had to be periodically restyled to keep the machinery of sales in motion. Mills speaks of the "crippling frustration" and "guilt" that haunts designers attempting to hone a craft while caught in the gears of gigantic, impersonal forces.[142] Indeed, as the architectural historian Wim de Wit has documented, these very complaints were frequently (if less caustically) voiced among the *generalissimos* of corporate design at IDCA meetings throughout the mid-1950s.[143]

Contrasting this portrait of compromise and failure are what Mills refers to as "craftsmanlike values." But rather than defining these in advance, and then proceeding to describe the ways that monopoly capitalism undermines and distorts them, Mills only spells them out at the end.

> I have of course been describing the role of the designer at what I hope is its worst. … The autonomy of all types of cultural workmen has in our time been declining. … I am aware of the great diversity among designers and the enormous difficulty any designer now faces in trying to escape the trap of the maniacs of production and distribution. The problem of the designer can be solved only by

[141] Ibid., 378.

[142] Ibid., 374.

[143] De Wit, "Claiming Room for Creativity," 16, 33–35.

radical consideration of fundamental values.[144]

Mills's "values of craftsmanship" are as follows. First, craftspeople are aware—unlike the factory cogs identified as far back as Adam Smith—of their activity's total plan and its broader purpose. Second, in the ideal design process "plan and performance are unified," allowing for spontaneity and change.[145] Third, this process is a learning process: the material works reciprocally on the craftsperson, and in developing the material, craftspeople develop themselves. Fourth, designers experience "no split of work and play, of work and culture" — like Morris, Mills depicts craft as "restful" work.[146] Fifth and finally, the designer's autonomy depends upon an engaged and discerning public: a scaled-up version of the tiny communities to which the appreciation of "serious music" and "serious novels" is constrained.[147] Taken together with the rest of the essay's critique, Mills thus reworks Morris's theory as a confrontation with a more comprehensive form of capitalist domination. Here, the designer is not thought to step outside of alienated conditions of production, nor even to offer the consumer glimpses of pre- or post-capitalist ways of being. Instead, the promise of meaningful work felt in the act of design is deployed *critically*: as a way to probe and evaluate the social limitations it encounters. As Mills writes, the problems of designers — properly grasped — "are among the key problems of the overdeveloped society."[148]

Despite the critiques of figures both inside and outside of the profession, modernist

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[144] Mills, "Man in the Middle," 382–383.

[145] Ibid., 384.

[146] Ibid., 385.

[147] Ibid.

[148] Ibid., 374

design continued its ascent in corporate and institutional environments into the 1960s. For all that, it still retained a certain utopian mystique: some corporations even framed their support of modernizing design initiatives as efforts, in and of themselves, to "give back" to society.[149] As the architectural critic Reyner Banham argued, the 1953 United Nations complex in New York City offered a preview of contradictions that would grow more pronounced in the following decade. The shapes of the complex's three main buildings—gently sloping, strongly vertical, transparent and unadorned—spelled out a message of "liberal social amelioration, institutionalized caring for the oppressed and underprivileged, and progress through technology."[150] But in its actual dealings,

> the UN has all too often served as an instrument of Big Power politics and of grinding bureaucratic routinism… and the architectural style which it canonized has seemed all too often to serve the same less-than-humane-purposes, as the great conglomerate corporations and bureaucracies of the world imitated its glass-tower style in their own headquarters….[151]

Anti-Establishment Critiques

In graphic design, too, American corporations had adopted a uniform of minimalist spatial organization, primary colors, and geometric typefaces. Alongside this increasingly predictable approach, Pop Art and psychedelia nurtured new sensibilities among designers not primarily engaged in work for the conglomerates. During the late 1960s and 1970s, this often took the form of a retrospective embrace of communicative modes that had been overtaken by what one

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[149] De Wit, "Claiming Room for Creativity," 27.

[150] Reyner Banham, *Theory and Design in the First Machine Age*, second edition (Cambridge: MIT Press, 1980), 9.

[151] Ibid.

critic later called "the stylistic self-censorship" of the modernists.[152] American designers and illustrators like those of the Pushpin Group rediscovered the eccentric advertising type of the early industrial era; psychedelic poster artists like Stanley Mouse and Wes Wilson directly copied themes from Art Nouveau, European modernism's estranged Romantic parent. Graphic designers began to sprinkle pages with clashing vintages of ornament, or to force cluttered layouts into ironized neoclassical symmetry.[153] For such designers, eclecticism, historicism, and kitsch ceased to be interpreted as insults.

Parallel critiques emerged in architecture, though here they were accompanied by more explicit theoretical arguments. This current was given particularly cogent form in the built projects and critical writing of Robert Venturi. In 1964, Venturi completed work on a small house for his mother, which would become a flashpoint in the questioning of the modernist "International Style." [Figure 5] From the front elevation, the house had an elemental shape: a low-slung rectangle with a peaked roof and a tall chimney rising symmetrically from the center. There was, however, a pane of glass in the center of the apparent chimney; behind this window, an absurd staircase wrapped around the actual chimney, made a stop in the upstairs bedroom, and then disappeared into the ceiling. Betraying the "form-follows-function" tenet of modernist architecture — a modified Arts and Crafts concept, rendered into a slogan by Louis Sullivan — the structure reveled in the deception of its façade-like exterior.

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[152] Barbara Glauber, "Introduction," in *Lift and Separate: Graphic Design and the Quote/Unquote Vernacular*, ed. Barbara Glauber (New York: The Herb Lubalin Study Center, 1993), 5.

[153] Robert Venturi, Denise Scott Brown, and Steven Izenour, *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form* (Cambridge: MIT Press), 1977.

Figure 5: Robert Venturi, Vanna Venturi house, 1962–64.

Here, Venturi was not simply thumbing his nose at modernism, but calling some of its bluffs: in many of Ludwig Mies van der Rohe's mid-century skyscrapers, for example, the metal grid that clads the exterior is a façade that merely *symbolizes* or *cites* structural function, while the actual structural members are quietly tucked behind the corners.[154] Venturi's 1966 book *Complexity and Contradiction in Architecture* explores this theme in greater detail, compiling a range of examples from architectural history in which buildings engage in awkward negotiations with the particularities of their site, or seem to acknowledge internal conflicts between competing visual vocabularies. The "postmodern" departure represented by this book is perhaps best illustrated in its introduction: rather than couching his argument in an appeal to historical or technical necessity, Venturi simply declares, "I like complexity and contradiction in architecture." With his partner Denise Scott-Brown and student Steven Izenour, Venturi published *Learning from Las Vegas* in 1972.[155] Here, the group compiled the results of an

[154] Prominent examples include Chicago's Lakeshore Drive apartments and New York City's Seagram Building.

[155] Ibid.

expedition surveying the Las Vegas strip, along with other manifestations of commercial roadside architecture. The book develops the idea of communication as an often-repressed *function* of architecture, and here it challenged the limits of modernist "functionalism." *Learning from Las Vegas*, however, could also be read as a deeply modernist project: like Wright or the Futurists, Venturi and his research partners were side-stepping an entrenched professional ideology in order to investigate the real, un-idealized conditions in which modern people live.

Arguments on the constraints and possibilities of design practice often broke along generational lines; in the United States, such debates could also reflect tensions between a modernist New York establishment and smaller California upstarts. Both such forms of antagonism were in evidence at the 1970 International Design Conference in Aspen. That year, the IDCA board had settled on the theme of "Environment by Design": a title that made space for emerging ecological perspectives, while also being general enough to fit anything that related to contexts or systems. In addition to the usual design celebrities, invited guests included the French *Utopie* group (which included Jean Baudrillard); a delegation of Black and Latino students from Chicago; and a handful of West Coast environmentalist collectives.[156] A large contingent of Berkeley students — some of whom simply crashed — also arrived by bus. The resulting chaos, as documented in a short film by Claudia Weill and Eli Noyes (son of Elliot Noyes, IBM design director and then-president of the IDCA), nearly derailed the conference for good.[157]

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[156] Alice Twemlow, "A Guaranteed Communications Failure: Consensus Meets Conflict at the International Design Conference in Aspen, 1970," in *The Aspen Complex*, ed. Martin Beck (Berlin: Sternberg Press, 2013), 116–118.

[157] *IDCA 1970*, directed by Eli Noyes and Claudia Weill (1970), 22 min. https://vimeo.com/59495003/.

At the annual meeting of the American Institute of Architects, which was running concurrently with the IDCA in Boston, protesting students captured the podium during the presidential address. In May 1968, demonstrators had shut down the Milan Trienniale in protest of its Malthusian organizing theme of "World Population Explosion," forcing the resignation of the entire executive committee.[158] Four years earlier, an anti-commercial manifesto was drafted and signed at a meeting of the British Society of Industrial Artists.[159] IDCA organizers sensed that a "student problem" could present itself at that summer's meeting. But as the industrial design historian Alice Twemlow has documented, board minutes reflect that the question was resolved with a vague commitment to give the students a "desk somewhere."[160] Throughout the proceedings that followed, environmentalists implored architects and designers to reject purely commercial projects. Baudrillard, on the other hand, penned a statement denouncing the bourgeois utopianism of the conference, which confused the preservation of nature with the "second nature" of a commodified society attempting to save itself.[161] At the end of the conference, the outsiders pushed through a vote on a series of resolutions. These included:

> an end to the US war in Vietnam; a moratorium on extractive industries pending environmental impact regulation; recognition of land claims by Native Americans; an end to the persecution of Blacks, Mexican-Americans, women, and homosexuals; the legalization of abortion; [and] a new economy based on need rather than profit….[162]

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[158] Twemlow, "Communications Failure," 117–118.

[159] The "First Things First" manifesto of 1964, as well as its 1999 successor "First Things First 2000," will be a centerpiece of chapter four.

[160] IDCA meeting minutes, quoted in Twemlow, "Communications Failure," 115.

[161] The French Group, "The Environmental Witch-Hunt (1970)," *Mute*, July 9, 2008, https://www.metamute.org/editorial/articles/environmental-witch-hunt

[162] De Wit, "Claiming Room for Creativity," 59.

At a crowded party, Noyes and Weill capture board member Saul Bass — best known for his corporate identities and Hollywood title sequences — cornered by angry students. “Why do we have to assess capitalism?” he demands, “We’re just trying to stage a conference!”[163]

The disturbances at the 1970 IDCA were of two types. There were pointed speeches and programmatic enunciations, such as the resolutions, which could be neatly filed into the conference’s usual public documentation. But as Twemlow points out, such official interventions were often closely tied to *formal* critiques of the design conference as a genre. The media art group Ant Farm erected temporary inflatable structures on the grounds, in which unofficial meetings were held; at an unscheduled gathering in the main tent, attendees were encouraged to give away their nametags, then navigate the crowd in order to “find themselves.”[164] Absurdist theater and open-ended “happenings” shared the stage with traditional panels, throwing into question the expected hierarchy of speaker and audience. When the dust settled, five-year director Elliot Noyes proposed to dissolve the organization, but was the only one to vote in favor.[165] As Twemlow notes, under new leadership the IDCA explicitly planned the 1971 conference around a “carnival” atmosphere, which included a number of official sessions on drugs, sexual politics, and nature. The board even attempted to use Noyes and Weill’s film as promotional material.[166]

During the 1980s and 1990s, polemics about the institutions and ends of the design disciplines would become more widespread. However, as these interventions intensified, they

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[163] Ibid., 56.

[164] Twemlow, “Communications Failure,” 118; *IDCA 1970.*

[165] Ibid.

[166] Twemlow, “Communications Failure,” 123; *IDCA 1970.*

also slid progressively closer to the pole of “formal” critique: a critique of modernist professional culture, of neat and tidy categories, and of default communicative configurations. In the late twentieth-century debates, the site of contestation would more often be the formal repertoire of modernism than any detailed analysis of the power relations in which the profession was embedded. This, however, did not mean that the tone of the debates would become correspondingly muted. Rather, what came to be called postmodernist style was accompanied by furious denunciations of modernist practitioners in a discourse that politicized aesthetics. To borrow the terminology of sociologists Luc Boltanski and Eve Chiapello, which will be described in fuller detail in chapter four, the 1970 IDCA witnessed both “social” and “artistic” critiques, which were often linked. In chapter two, we will observe how the latter came to overtake — and even to stand in for — the former.

Chapter 2

Uses of Theory: Design and Deconstruction in the United States

> [T]here was no mistaking the appeal with which [poststructuralism's] associated linguistic gestures spread endemically across a rigidifying pragmatic heartland. … [A]cademia's contribution to a nation always wanting to get things done as with a hammer and saw, rather than by invoking intellect, was to provide 'reading' to dislodge *interpretation*, *rewriting* to take the place of *conceptualization*, and the handy toughness profiled in any announced *deconstruction* to easily trump weak-willed *critique* and the fragile mentalism of *insight*. [1]
>
> — Robert Hullot-Kentor, *Things Beyond Resemblance*

> Americans, it would seem, do not take kindly to things being impossible; there was a need to shift into action, or at least into injunctions to action (crucial to the academic world), to aestheticize the tension in order to reveal its traces in all the "texts" of contemporary culture, or to solemnly dramatize it, so as to produce the impression of a historical moment and an imminent future — these, it seems, were the American methods of dealing with what is *impossible* in theory. [2]
>
> — François Cusset, *French Theory*

[1] Robert Hullot-Kentor, *Things Beyond Resemblance: Collected Essays on Theodor W. Adorno*, (New York: Columbia University Press, 2006), 2.

[2] François Cusset, *French Theory: How Foucault, Derrida, Deleuze, & Co. Transformed the Intellectual Life of the United States* (Minneapolis: University of Minnesota Press, 2008), 286.

Chapter one traced the rise and fall of the modernist "machine aesthetic" in twentieth century art and design. In this chapter, the focus narrows to graphic design in the United States, though the cast of characters remains international. This chapter centers on a constellation of critical essays from the 1990s, in which the theoretical claims of postmodernism and deconstruction were fought out. As we will see, all sides of these debates produced extreme appraisals of new practices and theories, treating them as an absolute and destructive break with the past. These new approaches also arrived just as new technologies were beginning to overhaul graphic design's tools, materials, and work processes. Particularly in their positive appraisals of the personal computer, postmodernist practitioner-theorists often replayed narratives of technological progress and revolution that we first saw in Futurism and Constructivism.

Indeed, even as they rejected the corporate-modernist establishment, the postmodernists inherited key aspects of their self-understanding: in particular, a tendency to bracket questions of their economic role and to style themselves as independent artists and intellectuals. However, this became increasingly difficult to square with the daily realities of commercial graphic design, particularly amidst the exploding image culture of the late twentieth century. With the progressive rationalization of graphic design's tools — the evolution from letterpress composition to photographic reproduction, and finally to digital systems — the concern with manual labor that animated William Morris at the dawn of modern design thinking had grown increasingly remote from the professional discourse. Accordingly, as we will see, a nagging ambiguity regarding graphic design's status as *work*, which often surfaces in discussions of agency or autonomy, can be detected in much of the critical writing of the period. As I will attempt to illustrate, this ambiguity was a symptom of the discourse's continuing inability to account for capitalism as a context for, and a constraint upon, the practices of design.

In the space of a few years in the mid-1980s, a number of overlapping intellectual, technical, and institutional changes transformed the graphic design profession. By the 1990s a turn toward *theory,* which had begun in post-graduate design education during the previous decade, began to make inroads into the mainstream of the profession. During this time, concepts like "deconstruction" or "post-structuralism" had often been applied to typography and composition in ways that required little familiarity with the theories in question. Grids — here reframed as tools of authoritarian rationality — were parodied, skewed, or thrown aside entirely; designers arranged texts into ambiguous formations and produced typefaces that intentionally thwarted legibility. As postmodernists increasingly questioned the surface style of mainstream professional practice, some deepened the critique in probing essays that attempted to unmask the underlying ideologies of modernism. The new visual strategies were theorized as attempts to confront a homogenizing, abstract mode of address with "vernacular" particularity; to kill off "the Author" by designing indeterminacy into the reading experience; or simply to enrich mundane commercial messaging with unruly and unpredictable affects. The stage seemed to be set for a broad-based reconsideration of the field.

This chapter surveys the rise of critical theory and critical practice in late-twentieth century graphic design, and then considers the uneven results of those efforts. I first trace the origins of new machinery and new theory, particularly as the two collided in the pages of the independent journal *Emigre* and the studios of the Cranbrook Academy of Art. This confluence of technological and theoretical disruption produced volatile results — particularly, as we will see, given experimental graphic design's ambiguous relationship to the capital and the market. The bulk of this chapter consists of close readings of the critical debates of the 1990s. In conclusion, I take stock of this brief but intense period of debate in light of what the intellectual

historian François Cusset has called “the American invention of French Theory.”[3]

Early Postmodernism

In concert with contemporaneous developments in the arts and academia, though operating at a slight lag, graphic designers had begun to question the dominant standards of modernism beginning in the late 1960s. Pop Art, countercultural publishing, and the beginnings of postmodernism in architecture each represented unexplored possibilities. These developments, in turn, encouraged a reevaluation of pictorial and lettering traditions outside of mainstream modernism.

Early stirrings of a break with modernism in graphic design began in the heart of modernist typography in the late 1960s, at the Basel School of Design in Switzerland. Working alongside luminaries of the bold, minimalist “Swiss International Style” like Armin Hofmann and Emil Ruder, the young German designer Wolfgang Weingart turned his studios into an experimental laboratory. Rather than breaking off under the light of neglected techniques and traditions, however, Weingart began with an immanent critique of Swiss modernism’s own tools and conventions. As a trained typesetter, Weingart took the particularity of print’s technical processes as the starting point for his experiments. In the Basel print shop, he set pages of bent metal type rules and overlapped spare sans-serif letterforms until they merged into abstract shapes. Metal sorts were locked into the press in chance arrangements or upside-down, so that only the uneven rectangles of their bases printed. [Figure 1] Later, as design production shifted to a photographic basis, Weingart creatively misused the large-format reproduction camera: type was overexposed until it blurred at the edges, and halftone patterns were enlarged and

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[3] Ibid, *passim*.

purposefully mis-aligned to produce unwieldy *Moiré* patterns. “Accelerated by the social unrest of our generation,” Weingart later explained, “the force behind Swiss typography and its philosophy of reduction was losing its international hold.”[4]

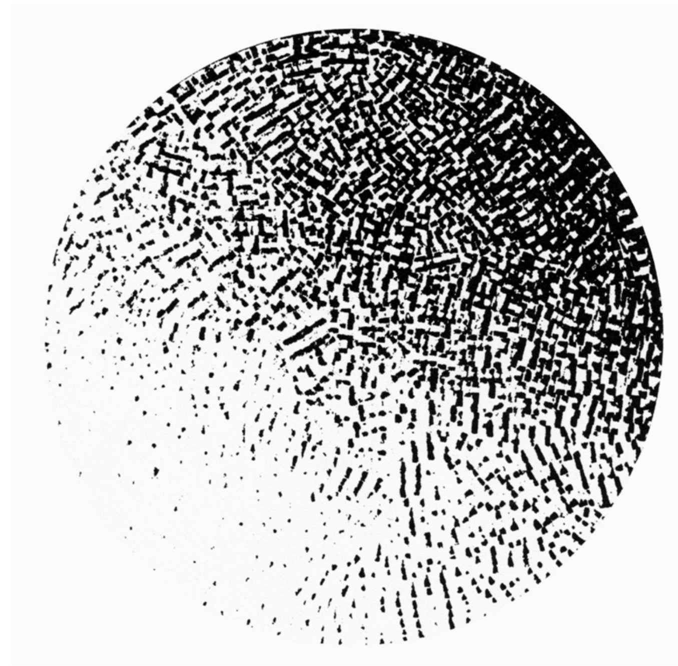

Figure 1: Wolfgang Weingart, “Circular Composition 3,” 1963.

Though he did not intend to found a style, Weingart’s experiments caught the attention of an increasingly robust and international graphic design press. Among the young designers that traveled to Switzerland to work with Weingart was April Greiman, who returned to the United States to become one one of the foremost exponents of what was variously called “Swiss punk,” “new wave,” or “postmodern” design. Greiman approached new digital tools in a spirit similar to that of Weingart’s activities in the print shop. Her work during the mid-1980s was characterized

[4] Wolfgang Weingart, “My Way to Typography,” in *Graphic Design Theory: Readings from the field*, ed. Helen Armstrong (New York: Princeton Architectural Press, 2009), 78.

by a curiosity about the peculiarities of low-resolution monitors and printers, such as their choppy rendering of curves or continuous-tone images. During the transition to digital design, Greiman pushed the boundaries of the personal computer's defaults and limitations, improvising with manual workarounds where necessary. [Figure 2]

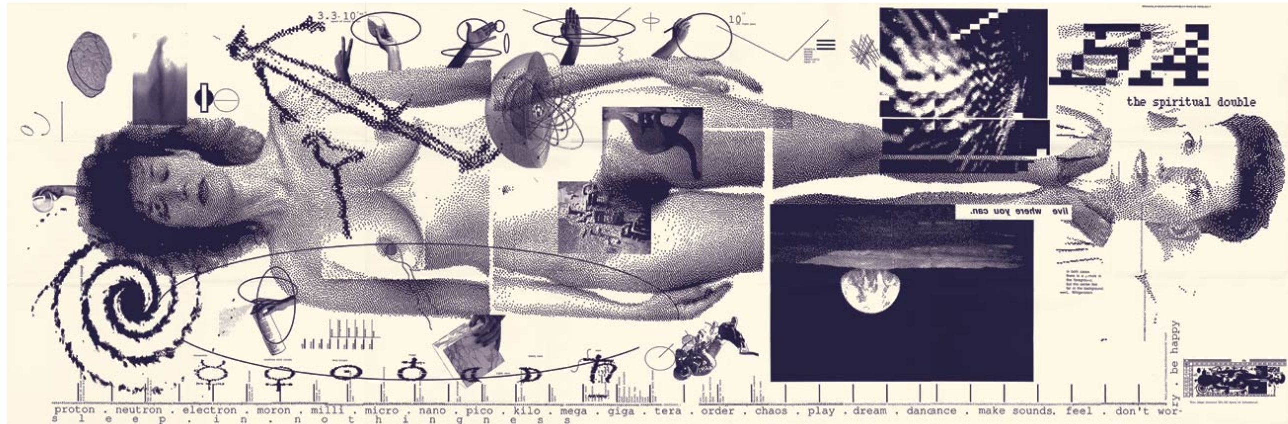

Figure 2: April Greiman, insert for *Design Quarterly* #133, 1986.

Meggs and the Macintosh

In 1984, Apple released the Macintosh computer, which prominently featured programs for basic typesetting and drawing. The Aldus and Adobe companies were also founded early in the decade, and both immediately began developing software aimed at improving the Macintosh's capacities for what was then called "desktop publishing." Adobe's PostScript software, which enabled the high-resolution output of digital typography, was licensed for use with Apple printers in 1985; the same year, Aldus released PageMaker, a digital layout software designed to mediate between the Macintosh environment and PostScript output. PageMaker was quickly joined by the Adobe programs Illustrator (1987) and Photoshop (1988), which significantly increased the Macintosh's capabilities for precision drafting, illustration, and photo manipulation. By the beginning of the 1990s, this hardware and software had transformed the

technical basis of the graphic design profession. As we will see in chapter three, these shifts also fundamentally disrupted the adjacent industries of typesetting, imaging, and printing.

The mid-1980s was a period of self-clarification and critical debate in graphic design. In 1983, Philip Meggs published the field's first in-depth history textbook, *A History of Graphic Design*. Now in its sixth edition, the book remains a central text in design education.[5] Meggs's history begins with cave paintings and early pictographic systems; from Lascaux to Roman inscriptions to early forms of coinage, he identifies aspects of present-day design practice in activities traditionally categorized as art, writing, or even statecraft. Graphic design in its contemporary incarnation, as a distinct role in the social division of labor, does not come into focus until Meggs's account of the nineteenth century, when urbanization and industrial capitalism produced new needs for mass communication and product differentiation. The bulk of the book then establishes a genealogy of modernism, which culminates in the corporate rationalism of the 1960s and 1970s. Final chapters cover counterculture, protest, and the first stirrings of postmodernism. Meggs's book provided a ready-at-hand catalog of the profession's history at a time in which the few available university courses on the subject relied on cumbersome slide shows. It lent the profession a sense of coherence and continuity, even as its final chapters showed that the boundaries and stakes of the practice were being rethought. During the late 1980s, new debates on theory and ideology found their most fertile ground in graduate design programs and experimental journals.

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[5] Meggs died in 2002; three posthumous editions of the book were overseen by the design historian Alston Purvis.

Cranbrook and *Emigre*

In the United States, the two central institutions for the propagation of new ideas and debates were the graduate design program at the Cranbrook Academy of Art and the experimental journal *Emigre*. In the mid-1980s, both were sites for critical forays into postmodern and post-structuralist theory. In parallel, both distinguished themselves as early adopters of the Macintosh computer. Incidentally, both were also led by collaborative husband-and-wife teams: Katherine and Michael McCoy at Cranbrook and Zuzanna Licko and Rudy VanderLans at *Emigre*. Despite important differences, all of these figures modelled careers that blurred work with life, theory with practice, and professional accomplishment with threats of subversion. The challenges to established practice that resulted from these volatile hybrids, in turn, made Cranbrook and *Emigre* the twin lightning-rods of a modernist backlash.

In 1924 the Detroit newspaper magnate George C. Booth invited the Finnish architect Eliel Saarinen to master-plan a new campus on the grounds of his summer home in Bloomfield Hills, Michigan. Booth was an admirer of the Arts and Crafts movement and a former coppersmith; Saarinen had recently relocated to the United States after placing second in the Chicago *Tribune* Tower Competition. In a manner recalling the Dessau period of the Bauhaus, craft workshops opened first, which began producing materials for the new buildings. The Cranbrook Academy of Art was formally founded in 1932, with Saarinen as its director; the American furniture designer Charles Eames was named Director of Design in 1939. During the 1930s, as the Bauhaus entered its terminal crisis and its faculty and alumni went into exile, Cranbrook developed its own approach to the "primary course." Here, introductions to disparate practices and materials would not aim for an overarching methodology but were rather oriented — like Itten's original *Vorkurs* — toward each student developing an individualized "attitude"

toward structure, purpose, and material.[6] Cranbrook faculty prided themselves on taking a more permissive and eclectic route than their counterparts in Germany, and this ethos is reflected in Saarinen's idyllic campus, which blends aspects of the Neoclassical, Prairie, and International Styles.

In 1971, Katherine McCoy took over the directorship of "2D Design" at Cranbrook. McCoy was an established designer in the tradition of modernist corporate communications. Having started her career at the institutional identity firm Unimark, McCoy worked in-house for the Chrysler Corporation before moving on to a career in Detroit advertising. McCoy and her husband Michael McCoy, who oversaw the "3D" department in industrial and product design, acted as co-directors for the graduate program as a whole, and often integrated pedagogy and practice via commissions for their studio McCoy and McCoy. In addition to highly speculative experimental projects, Cranbrook students worked with clients and guest critics from Philips, Knoll, Formica, the NYNEX telephone corporation, and Apple.[7]

In the 1970s, theory at Cranbrook was mainly driven by the 3D Design department's attempts to define a "product semantics."[8] Since the heyday of West Germany's Ulm School, minimalist casings for household electronics had caught on in the broader marketplace. Cranbrook designers, however, believed that new possibilities opened by the miniaturization of

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[6] In Cranbrook publications — and throughout the broader postmodern design discourse — "the" Bauhaus is positioned as a rigidly unified project. The space I devote to the aesthetic, political, and pedagogical conflicts at the school in chapter one challenges this version of events.

[7] Katherine and Michael McCoy, "Acknowledgments," *Cranbrook Design: The New Discourse* (New York: Rizzoli International Publications, 1990), 4; Hugh Addersley-Williams, "The Mannerists of Microelectronics," in Ibid., 23.

[8] Ibid., 20.

electronic components remained underexplored.[9] The "pretend functionalism" of post-Bauhaus design was challenged in favor of strategies that would allow the commodity to speak for itself.[10] Appliances were designed to evoke the concept of their obscure mechanics, or to emphasize their particular place in the everyday "rituals" of the consumer. While both departments eventually moved on from semantic design, this period introduced two important elements for graphic designers in search of new approaches: the terminology of specifically *linguistic* theory and the idea of *meaning* as a material or medium, to be handled as self-reflexively as paper or ink.

Under the McCoys, Cranbrook had no academic coursework. Students and professors were encouraged to contribute to research bibliographies, but discussions of history and theory took place almost entirely in the context of individual advising or group critiques.[11] In the mid-1980s, however, a new wave of theory crested. This time, the initiative came from the students themselves, and reflected the influence of contemporary art practices rather than the concerns of product design. A complex of new intellectual frameworks — described collectively as "postmodern," "literary," or "French" theory — migrated into the design studios via informal discussions and "studio romances," particularly with students from the photography department.[12] As participants later described it, these new topics arrived in an ahistorical jumble. McCoy herself initially resisted what she described as a "theory-of-the-week club":

> structuralism, post-structuralism, deconstruction, phenomenology, critical theory, reception theory, hermeneutics, lettrism, Venturi vernacularism, post-modern art

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[9] Niels Diffrient, "Grounds for Discovery," in Ibid., 12.

[10] Addersley-Williams, "Mannerists of Microelectronics." 21.

[11] Katherine McCoy, "Reputations: Katherine McCoy," interview by Rick Poynor, *Eye* no.16 (1995): 12.

[12] Ibid., 13.

> theory … gradually the ideas were sifted through, assimilated, and the most applicable began to emerge.[13]

Structuralism, then, arrived alongside its own dismantling; semiotic maps competed with emphases on bodily sensation; and samplings of complex theoretical traditions overlapped with texts that had already reworked the latter into discipline-specific analyses — which sometimes carried theory even further from the concerns of design practice. All of these sources were quickly sorted and "assimilated" with an eye to how they could be put to practical use. The result was a sprawling but hesitant reinterpretation of graphic design, which contemporaneous Cranbrook publications referred to as "The New Discourse."[14] Reflecting the lack of an overarching research program, even this central concept was variously interpreted: while "discourse" most often referred to a new culture of theory and criticism in graphic design, it could also describe something that the formal experiments themselves enacted.[15] This latter definition — closer to Mikhail Bakhtin's concept of "the dialogical" — grasped the intertextuality of vernacular and design-historical references. According to McCoy, some Cranbrook designers succeeded in effacing their own role by creating work that appeared to "spring directly from our popular culture," thus facilitating an unmediated "dialogue between the piece and its audience."[16] Theories of signification and circulation emboldened longer-standing claims that texts should have the immediacy of images, that images could be decoded or "read,"

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[13] Ibid.

[14] Hugh Aldersey-Williams et al., *Cranbrook Design.*

[15] "Discourse," however, rarely had the critical valence of the term as it appears in Derrida or Foucault; it was less a construction of power-knowledge than a sign of a discipline growing into maturity.

[16] Rudy VanderLans and Zuzana Licko, *Emigre: Graphic Design into the Digital Realm* (New York: Wiley Publishers, 1993), 16.

and that a design could "speak" to and about itself. Again, this rethinking of practice gained traction just as the media and work-processes of graphic design were undergoing a dramatic shift. In the mid-1980s Cranbrook was enlisted in an outreach effort by Apple, who installed a roomful of donated hardware and software and provided introductory training.[17]

Emigre was founded in 1984 in Berkeley, California, by a small group of recent Dutch immigrants working in the American culture industries. Though it was originally planned to showcase the work of artists from the Netherlands, the magazine's theme soon expanded to one of cultural displacement more generally. The format and editorial approach of this "Magazine that Ignores Boundaries" shifted from issue to issue, with one constant being a portrait series celebrating "the greatest expatriates of all time."[18] With the 1986 departures of co-founders Mark Susan and Menno Meyjes (following the success of the latter's screenplay for *The Color Purple*), designer Rudy VanderLans took on the additional roles of publisher and editor.

VanderLans' editorial strategy was largely hands-off; interviews were printed word-for-word even if they meandered or took up most of an issue, and he dutifully published even graphic commissions he would later describe as "hideous."[19] The first ten issues of the magazine fit under the general heading of the postmodern, "new wave" style that was then mostly localized to the West Coast. Sharply-juxtaposed photographs, blunt shapes with torn edges, exaggerated

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[17] The program, called the "Apple / Design School Consortium" donated the lab and offered a few days of seminars to get it running. Glenn Suokko, interview by Rudy VanderLans, *Emigre* no.11 (1989): 8.

[18] The first issue's tagline was "(A Magazine for Exiles)"; this modernist-heavy list included "Lord Byron, Paul Gauguin, Vincent van Gogh, David Hockney, Christopher Isherwood, James Joyce, Piet Mondriaan, Vladimir Nabokov, Ezra Pound, Arthur Rimbaud, George Sand, [and] Gertrude Stein," as announced in a 1984 letter to advertisers. VanderLans and Licko, *Digital Realm,* 16.

[19] Ibid., 70.

halftone patterns and off-kilter type arrangements reflected manual composition and the influence of punk. Such unruly gestures, however, were carefully orchestrated to unfold cohesively across articles or entire issues, and a sensitive and dynamic use of the negative space of the page reflected VanderLans' rigorous Dutch training. Despite the eclectic themes and analogue production methods of its first years, *Emigre* would become most widely-known as a site for experimentation with new digital tools for graphic design. An early foray into Macintosh-based typesetting was successfully printed for number eight (1987); thereafter, an increasing reliance on the personal computer coincided with a gradual shift to graphic design as content. This move was cemented by special issues on Cranbrook (#10, 1988) and on the Macintosh itself (#11, 1989) — issues which were accompanied by a sudden uptick in theoretical language and scholarly citations.

VanderLans' wife, the Slovakian type designer Zuzanna Licko, had in the meantime mastered some of the earliest tools for digital font production, and her distinctive bitmap fonts began appearing in number three. Licko's practice was in some ways a counterpoint to the magazine's later reputation for anarchic rule-breaking. Her approach had some kinship with that of Greiman, but also harkened back to the Arts and Crafts edict of "truth to materials": the Macintosh's low-resolution grid of pixels provided an intrinsic set of constraints which, she argued, could be thoughtfully engaged to illuminate the "essence of the digital medium" itself.[20] During the first years of *Emigre*, the pair had developed ties with many of the central desktop publishing companies in Silicon Valley. After an introduction to early type design software via the Berkeley Macintosh Users Group, Licko edited screen fonts for Adobe Systems during the

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[20] Ibid., 34.

mid-1980s.[21] The pair also produced illustrations for *MacWeek* and *MacWorld* magazines, as well as Apple itself. These magazines, eager to adjust their own production methods to demonstrate the Macintosh's publishing capabilities, offered free instruction in computer illustration; soon, VanderLans was producing layout templates for *MacWeek* using "bug-ridden beta versions of various page makeup programs."[22]

Emigre would play host to an eclectic range of new graphic approaches, as well as lively debates on their meaning. As we will see, one of the central issues at stake in both the new visual approaches and their critical justification was that of *autonomy*. Graphic designers saw in new technologies and work arrangements an opportunity to express and to assert themselves — and perhaps even to free the practice from its service-oriented role in the market. In a 1993 monograph, Licko describes the digital revolution as a potential re-convergence of the roles of designer, printer, and publisher, which had been forced apart by industrial specialization, while VanderLans notes that the Macintosh brilliantly doubles as a tool for billing and accounting.[23] In parallel to *Emigre*'s founding, VanderLans and Licko launched Emigre Fonts, one of the first digital font "foundries." The magazine, the font distributor, and the pair's design firm (Emigre Graphics) overlapped so often that they were at times indistinguishable. Critical essays in the magazine often served double-duty as type specimens to advertise new offerings, while cryptic, isolated pages occasionally reveal themselves to be advertisements for Emigre Graphics's design services. Particularly in the case of *Emigre*, the theme of autonomy was most often interpreted in plucky, entrepreneurial terms. VanderLans affirmed that *Emigre*'s "curiosity" about form was

[21] Ibid., 18, 32.

[22] Ibid., 26.

[23] Ibid., 23, 77.

continuous with that of the modernist avant-garde, but clarified that their project did not require the historical justification of "a world war and resulting social reform."[24] The operative context, instead, was a new dynamism in the business environment:

> Ours is a battle fought against rapidly changing technologies in the midst of a graphic design "industry" that, since the days of Dada, has become fiercely competitive, in a world inundated with visual stimuli.[25]

Despite their well-rehearsed criticisms of "grand narratives," postmodern designers often presented new digital tools as integral to a millenarian historical overcoming of hierarchy and structure *as such*. A theoretical gestalt that suggested multiplicity and polysemy seemed confirmed by novel technologies which — despite their sometimes steep learning curves — promised new modes of expression and reduced barriers to entry. Such visions would turn out to be very compatible with libertarian exuberance that greeted the commercial Internet and its attendant "New Economy" late in the century.

The "New Discourse" and the "New Economy"

Graphic designers in the orbit of Cranbrook and *Emigre* not only pushed the aesthetic and communicative capacities of new technologies, but increasingly began to explain these innovations in philosophical and political terms. By the early 1990s, *Emigre* was regularly publishing critical writing by practitioner-theorists who attempted to apply the lessons of theory to the changes overtaking the profession. A central line of critique sought to expose the ideologies lurking beneath corporate modernism's smooth surfaces: "objectivity" and "neutrality" in graphic composition, for example, were unmasked either as culturally-contingent

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[24] Ibid., 78.

[25] Ibid.

signifiers, outright lies, or conscious techniques of exclusion and domination. By contrast, the theoretical and practical interventions of the postmodernists emphasized multiplicity, ambiguity, and eclecticism. Again, this basic similarity of approach was understood in divergent and sometimes contradictory ways. In some accounts, the new strategies were a metacommentary on graphic design itself, as was the case in parodic or destructive treatments of the grid.[26] Other interventions were quasi-functionalist: dense pile-ups of messages, for example, were theorized as preparing new reading practices for a coming age of information — or even as practical dethronements of univocal, one-way authorship. [Figure 3]

Figure 3: Katherine McCoy, poster for the Cranbrook Graduate Design Program, 1989.

[26] Jack H. Williamson, "The Grid: History, Use, and Meaning," *Design Issues* 3, no. 2 (Autumn, 1986): 24–26.

The word "postmodernism" initially described a relaxation of modernism's disciplined austerity, either through a curious dismantling of its methods or a playful promiscuity with other formal traditions. But in the 1990s, the "new discourse" began to emphasize disruption and disobedience in a more combative, even morally righteous tone. A half-decade after the twin arrivals of technology and theory at Cranbrook, Katherine McCoy described the motivations of this new "American design expression":

> This work has an intellectual rigor that demands effort of the audience, but also rewards the audience with content and participation. The audience must make individual interpretations in graphic design that "decenter" the message. Designs provoke a range of interpretations, based on Deconstruction's contention that meaning is inherently unstable and that objectivity is an impossibility, a myth promulgated to control the audience. … By authoring additional content and a self-conscious critique of the message, [graphic designers] are adopting roles associated with both art and literature.[27]

A "deconstructionist" interpretation might have demonstrated that modernist design's status *as a language* undermines its own claims to universality. McCoy's analysis, however, goes on to make further assertions, some of which are contradictory. She describes the "objectivity" of modernist design as an "impossibility" and a "myth," but also as something that dependably functions to guarantee unitary and stable readings. "Messages," in other words, are not always-already "decentered" due to the varied subject-positions of readers, or by virtue of the inherent slippages of signification itself. Rather, texts must be *decentered* and *destabilized* by agents that McCoy portrays as self-conscious and self-expressive — that is, as transparent to themselves. Despite the echoes of Roland Barthes' analysis of the "death of the author," here the "birth of the reader" requires the intervention of professional expertise. The deconstructionist designer, in fact, appears here as a new type of author, whose job it is to *construct* a condition of

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[27] Katherine McCoy, "American Graphic Design Expression," *Design Quarterly* no. 148 (1990): 16.

epistemic instability and play. Where such contingency has not been designed into the structure of a message, McCoy argues, the author's words retain the authority of convention; interpretation grinds to a halt and the reader is kept unfree. The deconstructive specialist — who bestows "rewards" in exchange for the reader's "work" — thus represents less an overturning of authorial authority than a more benevolent form of it. As is evident here, practitioner-theorists wrote themselves into theory in imaginative ways. However, in many cases, threats of disruption and disobedience sit uncomfortably with an apparent desire to preserve or even augment the professional standing of graphic design. McCoy envisioned designers increasingly taking on "roles associated with both art and literature"[28] even as they ascended into a "higher level in the business hierarchy."[29]

The image of the designer as an agent with the power to imprison or liberate the reader was a constant theme of the "New Discourse," and this vision likely derived some of its potency from the newfound confidence of the profession after Meggs and the Macintosh. A newly-consolidated understanding of historical precedents and a tightening grip on the production process lent graphic design a new sense of coherence and power. It is perhaps unsurprising, then, that analyses of power relations in the new critical discourse were largely confined to analyses of form: designers would be judged on the basis of the "values" (closed/open, authoritarian/participatory) that could be read off the surface of their compositions. The constrained conditions in which designers routinely work — such as those highlighted by C. Wright Mills thirty-five years earlier — would receive far less attention.

Creators of disruptive form increasingly leaned on radical theory to explain themselves;

[28] Ibid., 16.

[29] McCoy, "Reputations," 16.

at the same time, their explanations are characterized by a pervasive silence on the status of design as a form of *work*, subject to capitalist constraints. This pattern was not at all confined to the privileged isolation of the graduate programs. In 1994, for example, *Emigre* published a letter from a white South African designer thanking Emigre Fonts for giving him the tools to decolonize his practice.[30] Jan Erasmus's letter emphasizes modernist design's "rationalist" roots in the intellectual traditions of Europe and of Christianity, and argues for the importance of the more "African" values of "intuitiveness," "roughness," and "holism."[31] The brief letter's points of reference shift continually — from the legacy of apartheid to deconstructionist theory to unexplained categories like "morfic fields" and "quantum esthetics."[32] But despite the apparent incongruity of these ideas, Erasmus would go on to apply many of them in branding and advertising. Their influence can be felt, for example, in the typeface he designed for the South African casual dining chain Nando's as it went global in the early 2000s: relaxed, unsystematic, and drawn from the local vernacular.[33]

In the 1990s, corporate modernism in fact was under attack from two distinct directions, though in practice they often blurred into a single zeitgeist. On one side, the graphic designers'

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[30] "Letters," *Emigre* no. 30 (1994), n. pag.

[31] The postmodernists often failed to fully "deconstruct" the binary thinking for which they criticized modernism. It was more common for a critic to simply invert the hierarchy between two given terms. Despite his intentions, then, Erasmus often replays colonial stereotypes: Europe is hopelessly fragmented by science and rationality, while "Africa has always been a holistic country [sic]," he writes, "in the same sense as the Far Eastern countries." Ibid.

[32] Ibid.

[33] In 2016, a design consultancy altered the Nando's typeface as part of a "brand refresh." The design team included both a traditional sign painter (Marks Salimu) and a semiotician (David Panos). "New Nando's Global Visual Identity System," Sunshinegun website, accessed March 1, 2022, http://www.sunshinegun.co.za/projects/nandos/

turn to theory was an attempt to understand the ideological effects of their practices. Here, the skewering of modernist standards was framed as a radical project, explicitly aimed at defamiliarizing language and subverting the authority of entrenched interests. On the other side, however, "deconstructed" or "distressed" style was becoming increasingly attractive to the advertising industry. Large capitalist enterprises were outgrowing their extant image as Fordist assembly-lines of standardized common sense. As the cultural critic Thomas Frank noted in 1995, a sampling of then-current television slogans reflected a new ethos of intuitive rebellion against convention:

> Break the rules. Stand apart. Keep your head. Go with your heart. [Vanderbilt Perfume][34] … Sometimes You Gotta Break the Rules [Burger King] … The Rules Have Changed [Dodge] … There's no one way to do it. [Levi's] … This is different. Different is good. [Arby's] … The Line Has Been Crossed: The Revolutionary New Supra [Toyota].[35]

Backlash and Intensification

For their part, modernist graphic designers often played into the expected stereotypes: loudly lamenting the destruction of "universal" cultural monuments at the hands of these new barbarians. One of the foremost critics was Massimo Vignelli, a member of the New York modernist establishment who had been trained in Milan, Italy under the influence of the Swiss International Style. Vignelli had been the architect of several large-scale identity campaigns in the modernist idiom, from the American Airlines logo to the New York City subway map. Such projects represented, to Vignelli, the true vocation of a designer: rational and harmonious

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[34] Thomas Frank, "Dark Age: Why Johnny Can't Dissent," In *Commodify Your Dissent: Salvos from the Baffler*, ed. Thomas Frank and Matt Weiland (New York: W.W. Norton, 1997), 31.

[35] Ibid., 41.

ordering as a "fight" against "trivia, kitsch, and all norms of subculture."[36]Accordingly, his attacks on postmodernism and deconstruction frequently resorted to a rhetoric of contamination: the new strategies were a "disease" and a form of "pollution"[37]; *Emigre* in particular represented "an aberration of culture" and "a national calamity."[38] In the face of prodigious digital experimentation by type designers like Licko, Vignelli famously argued that only six historical typefaces were worth using — all of which were designed by dead white men, half of them in a previous century.[39] Figures like Vignelli thus made ideal villains for designers who had been following the highly-publicized "canon wars" in the academic humanities. Citing authoritative texts in cultural studies and poststructuralist theory, the postmodernists pledged to subvert established structures of communication and hierarchies of taste.

A major flashpoint in these debates was the 1994 publication of an essay by Steven Heller, an art director at the *New York Times Book Review* and a prolific historical journalist in the design press. Heller's terse critique "Cult of the Ugly" stages a broad attack on deconstruction, with targets that include *Emigre* and, more frequently, Cranbrook — whose

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[36] Vignelli's position, like that of many of the modernists, was in fact more complex than such a soundbyte suggests: "Post-Modernism should be regarded at best as a critical evaluation of the issues of Modernism. … However, the lack of a profound ideology eventually brought Post-Modernism to its terminal stage." Massimo Vignelli, "Long Live Modernism," AIGA, accessed August 24, 2019, https://www.aiga.org/inspiration-massimo-vignelli-long-live-modernism

[37] Quoted in *Helvetica*, directed by Gary Hustwit (Veer and Swiss Dots Productions, 2007), DVD.

[38] Quoted in Richard Hollis, *Graphic Design: A Concise History* (London: Thames & Hudson, 2001), 15.

[39] Vignelli's "canon" of six included Garamond (1532), Bodoni (1788), Century Expanded (1900), Futura (1930), Times New Roman (1931), and Helvetica (1957); beyond these, he allowed Caslon (1722), Baskerville (1757), Optima (1955), and Univers (1957). Massimo Vignelli, *The Vignelli Canon* (Zurich: Lars Müller Publishers, 2019), 54.

student publication *Output* Heller picks apart at length. Heller singles out graduate design programs which, he argues, offer “freedom from professional responsibility”[40] while encouraging “the self-indulgence that informs some of the worst experimental fine art.”[41] While postmodernism had begun as an understandable revolt “against grand Eurocentric narratives in favor of multiplicity,”[42] Heller writes, it was already in the process of being reduced to a shallow fad.

> As in most artistic revolutions, the previous generation was attacked, while the generations before were curiously rehabilitated. The visual hallmarks of this rebellion, however, were inevitably reduced to stylistic mannerisms which forced even more radical experimentation. Extremism gave rise to fashionable ugliness as a form of nihilistic expression.[43]

While “Cult of the Ugly” often repeats the criticisms of establishment modernists like Vignelli, it was not a straightforward rejection of experimentation or even of “ugly” form. Heller, who began his design career working for underground publications like *Screw* in the late 1960s, in fact affirms what he calls “*critical* ugliness.”[44] For everyone from the Futurists and Dadaists to the U.S. counterculture, he argues, discordant aesthetics were often a “weapon” used to upset “complacency” and to establish alternative “reading and viewing patterns.”[45] To Heller, however, deconstruction seems isolated to graduate students and other marginal actors who bear

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[40] Steven Heller, “Cult of the Ugly,” in *Looking Closer: Critical Writings on Graphic Design*, ed. Michael Beirut et al. (New York: Allworth Press, 1994), 155.

[41] Ibid., 159

[42] Ibid., 156.

[43] Ibid., 156–157.

[44] Ibid., 157. My italics.

[45] Ibid., 156–159.

only a superficial similarity to the "communication rebels of the past."[46] What the former lack, he continues, is an authentic connection to some broader social and cultural "upheaval."[47] In such a situation, the "stylistic mannerisms" of this rebellion-without-a-cause are likely to catch on far from Cranbrook and *Emigre* and to circulate independently of their original intent, however dubious.[48] A nihilistic arms race of rule-breaking for its own sake might then undermine the hard-won continuity of the profession.[49]

Partly in response to the criticism of figures like Heller, theoretical arguments began to appear with increasing frequency in *Emigre*.[50] At a time of dire pronouncements and glib citations, Cranbrook alumnus (and current director of the Cranbrook Art Museum) Andrew Blauvelt emerged as one of the more careful readers of cultural and reception studies. In a 1994 response to "Cult of the Ugly," Blauvelt calls attention to Heller's "politics of tastemaking" which, he argues, amounts to a "defense of conventional (mainstream) professional practice with clearly definable limits."[51] Blauvelt calls attention to Heller's use of value-laden descriptive terms: "harmony" and "beauty," for example, are arrayed against "chaos" and "ugliness" without

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[46] Ibid., 156.

[47] Ibid.

[48] Ibid., 159.

[49] Ibid.

[50] In 1990, design critic Rick Poynor founded the British magazine *Eye*, which kept a close record of the new developments without committing as wholeheartedly. Whereas *Emigre* was scarcely edited and its format changed frequently, *Eye* was both more organized and more sober. The two magazines published many of the same practitioner-critics; together they staked out a middle ground between trade publications like *Print* or *Communication Arts* and academic journals like *Visible Language* or *Design Issues*.

[51] Andrew Blauvelt, "The Cult(ivation) of Discrimination," *Emigre* no. 31 (1994): n. pag.

further elaboration.[52] However, Blauvelt argues, a new interest in "methodology" and in design's contexts of circulation seem more pressing to the designers in question than either beauty or ugliness.[53] In Heller's view, theory provides thin cover for visual gestures that are in fact "driven by instinct."[54] While Blauvelt acknowledges such *post hoc* justifications of unmediated expression, he also reframes theory as something that can operate prior to practice. In fact, Blauvelt argues, the profession itself rests on an unexamined "theory" that renders "arbitrary" rules opaque and objective.

> Ironically, the keys to understanding this condition are to be found in the realm of the theoretical — a space where a critical, reflexive approach can expose these rules not as given or "natural," but rather as constructed and alterable. ... There is a … set of theories about how graphic design is allowed to exist in society; we all know its outcome: it's the professional practice of graphic design. We take this definition of practice for granted ... it precedes [us].[55]

During the postmodern turn, theory was often treated as a source of practical instruction or of a hazy, "atmospheric" sort of inspiration. But Blauvelt consistently turned the question of theory into one of ideology: theory was a means to highlight the unseen ways in which the field is structured in advance. While this intervention was highly clarifying, it moved the debate to theoretical terrain on which the establishment was ill-equipped to respond.

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[52] Heller, "Cult of the Ugly," *passim.*

[53] Blauvelt, "Cult(ivation) of Discrimination," n. pag.

[54] Heller, "Cult of the Ugly," 155.

[55] Blauvelt, "Cult(ivation) of Discrimination," n. pag.

Two Models of Critical Practice

A fitting, though indirect, response to the issues raised by Blauvelt would appear the same year in a critique by British designer, critic, and publisher Robin Kinross. That essay, in turn, would provoke a forceful counter-critique by Anne Burdick and Louise Sandhaus: both graphic design educators who, like Blauvelt, have since branched out as curators and historians of the practice. At stake in this exchange are two models of practice guided by theory. For Kinross, graphic designers make knowledge production — and thus, for him, historical progress — possible. Burdick and Sandhaus, on the other hand, advocate practices that destabilize and disrupt knowledge, which they understand to be a function of power.

Kinross, an editorial and book designer, founded the Hyphen Press in 1980.[56] Hyphen specialized in works of typographical history, with an emphasis on left-wing modernists underrepresented in the graphic design canon. In 1994, Kinross published the pamphlet *Fellow Readers: Notes on Multiplied Language* as a companion volume to a reprinting of his book *Modern Typography: An Essay in Critical History*.[57] Though *Fellow Readers* takes its name from Benedict Anderson's account of the role of print capitalism in the rise of national consciousness, its approach is best described as Habermasian.[58] The historical roots of printing, Kinross argues, are intertwined with those of an "incomplete" Enlightenment; contemporary typography, as a practice of inscription and reproduction, thus remains bound up in ongoing

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[56] Hyphen published more than 30 volumes, as well as a music series, before folding in 2017.

[57] Robin Kinross, "Fellow Readers," in *Unjustified Texts*, second edition (London: Hyphen Press, 2002) 334–366.

[58] "[F]ellow-readers, to whom [vernacular speakers] were connected through print, formed, in their secular, particular, visible invisibility, the embryo of the nationally-imagined community." Benedict Anderson, *Imagined Communities*; quoted in Kinross, "Fellow Readers," 346.

processes of "secularization" and "social emancipation."[59] Kinross understands typography as unique among the crafts for its inherent tendency to demystify its own tools and methods. The invention of movable type, he argues, inaugurates a history of "printing made conscious … explaining its own secrets with its own means of multiplying texts and images."[60] Understanding this role, however, is not simply a matter of historical clarity for the graphic designer or typographer. In the interest of enabling flexible, transparent agreements on the norms of visual communication, Kinross advocates for a broad public awareness of typography, including regular columns on typographic criticism in mainstream newspapers.[61] Without explicitly citing it, Kinross thus implicitly returns to the problem of audience laid out C. Wright Mills's IDCA address.

Despite his emphasis on the craft of typography, Kinross conceptualizes social and political progress as consequences of the circulation of ideas. It is as an unabashed expert in a field he believes to be inherently self-demystifying that Kinross builds his case against theoretical obscurantism. *Fellow Readers* opens with a satirical précis of deconstructionist design's "mish-mash of the obvious and the absurd."[62]

> We know the world only through the medium of language. Meaning is arbitrary: without "natural" foundation. Meaning is unstable and has to be made by the reader. Each reader will read differently. To impose a single text on readers is authoritarian and oppressive. Designers should make texts visually ambiguous and difficult to fathom, as a way to respect the rights of readers.[63]

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[59] Ibid., 350.

[60] Ibid.

[61] Ibid., 357–360.

[62] Ibid., 335.

[63] Ibid.

Kinross points out a selective reading of semiotics among theory-curious graphic designers. Ferdinand de Saussure's insight into the "arbitrary" link between sign and signifier, he argues, has been generously interpreted to mean that a solitary designer can "arbitrarily" intervene in the operation of signs already "established in a linguistic community."[64] This interpretation of arbitrariness is self-serving, Kinross argues, but the problems do not end there. When designers neglect the social dimension of language that is central even to Saussurean semiotics, they effectively proclaim "that there is no such thing as community, or society — as Margaret Thatcher notoriously formulated it, at around the same time."[65]

In its attempt to "act out the indeterminacy of reading" in print, Kinross argues, deconstructionism enacts the very authoritarianism that it ascribes to modernist style.[66] A page of continuous, minimally-differentiated text leaves room for the private interpretation of concepts and arguments; a text that has been "deconstructed" in advance, on the other hand, forces the reader to negotiate "a designer's muddle or vanity, frozen at the point at which the digital description was turned into material."[67] Such gestures, he argues, backhandedly impose contrasts and hierarchies of their own. "Far from giving freedom of interpretation to the reader," he concludes, the deconstructed page "imposes the designer's reading of the text onto the rest of us."[68]

Stepping back from his polemic in the pamphlet's final pages, Kinross makes a more

[64] Ibid., 337.

[65] Ibid., 338.

[66] Ibid., 344–345.

[67] Ibid., 345.

[68] Ibid.

"minimal" case: that one need not "believe in any golden age of the eighteenth century" to reject "power and self-interest" as the only possible motives for human action.[69] Anne Burdick and Louise Sandhaus's response, from the pages of *Emigre*, picks up just at this point. Their co-authored essay "Know Questions Asked" is an interrogation of the power relations embedded in everyday practice. Throughout, Burdick and Sandhaus play Foucault to Kinross's Habermas, riff on Derridean puns, and make frequent analogies to feminist discourses of gendered work. Whereas Kinross, they suggest, depicts the graphic designer as a kind of handmaiden serving the traditionally masculine sphere of public debate, Burdick and Sandhaus encourage practices aimed at "exposing the seams that sew authority and knowledge together."[70]

> As seamstresses who stitch together form and content, creating the garment in which content is clothed, graphic designers have insight into the contrivance of appearance, the patterns of knowledge. Why set ourselves to expose and undermine the means of authority, pointing to ourselves in the process? Because seamless appearances allow authority (which legitimates knowledge) to seem "natural" in a world whose power relations are out of balance, leaving few dangling threads with which one could unravel and expose what is a constructed get-up, the emperor's new clothes.[71]

Similar to McCoy's interpretation of objectivity and its deconstruction above, Burdick and Sandhaus describe "seamless" design as a cover for the manipulations of authority. In the process, they argue, such seamless approaches also suppress an acknowledgment of design's role in knowledge production. Burdick and Sandhaus advocate for an increased "awareness of design" as a "facilitator of ideas," and here they are close Kinross's vision of typographical form as a subject of civic debate. However, that quickly snowballs into larger claims: an elision of the

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[69] Ibid., 360.

[70] Burdick and Sandhaus, "Know Questions Asked," 53.

[71] Ibid.

designer's role, they argue, also blocks an understanding of "how and why we know what we know."[72] Burdick and Sandhaus thus invert Kinross' argument by insisting on strategies that make the designer as visible — rather than as invisible — as possible. "Disruptive" typography that "refus[es] to recede into the background" is a means of exposing "the designer's role in shaping what constitutes knowledge."[73]

"Know Questions Asked" begins as a book review and expands into a manifesto, yet it continually undermines itself with fragmented exposition and an overwhelming suspicion of certainty. Though they are clearly engaged in an argument with Kinross, Sandhaus and Burdick frequently apologize for truth claims, and encourage readers "not to pursue a correct final reading" of disputed texts and terms.[74] The authority, as it were, of their critique of textual authority rests on a questionable citation of Barthes; elsewhere they defer to Toni Morrison on the subject of marginality.[75] But soon after emphasizing that Morrison is a Nobel-prizewinning author, they also inveigh against "this special thing called literature" — a chimera of the "formal education system" whose "distinction" is only meaningful in contrast to "publications like the *National Enquirer*."[76] As if anticipating these moves, *Fellow Readers* warns that "absolute relativism" quickly becomes "logically incoherent."[77]

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[72] Ibid.

[73] Ibid., 58.

[74] Ibid., 54.

[75] "[T]he healthy sign is that which does not attempt to mask its presence as a sign, doesn't pass itself off as natural, transparent. The cloak of neutrality is, for [Barthes], authoritarian and therefore unhealthy. It's the disease of power and control." Ibid., 58.

[76] Ibid., 60.

[77] Kinross, *Fellow Readers*, 360.

Like Kinross, Burdick and Sandhaus state at the outset that their interests are broadly socio-political rather than formal. Within the first few pages, however, they drop a close critical reading of Kinross's overt textual argument in order to interrogate the implicit, formal argument of its typographical style: what, they ask, does "Robin Kinross, as designer, [have] to say for himself?"[78] Their answer is that he presents a visual argument in which the "seams" and "smudges" have been removed from view, thus betraying an ideology of typography as a neutral "technology for the multiplication of knowledge."[79] Embodying this line of critique, Burdick and Sandhaus's essay is designed as a literal representation of its argument: the coauthored text confines itself to the margins, abandoning the remainder of the page to citations and to images of Kinross' pamphlet: voices of "centered" authority.[80] Even the clarity of this binary visual metaphor is itself undermined: snippets of email correspondence, devised by the authors as a "seam-ripping device," interrupt and digress throughout the text.[81] [Figure 4]

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[78] Burdick and Sandhaus, "Know Questions Asked," 56.

[79] Ibid., 54, 58.

[80] *Emigre* publisher and designer Rudy VanderLans is given shared credit for the essay's authorship on its title page.

[81] Ibid., 53.

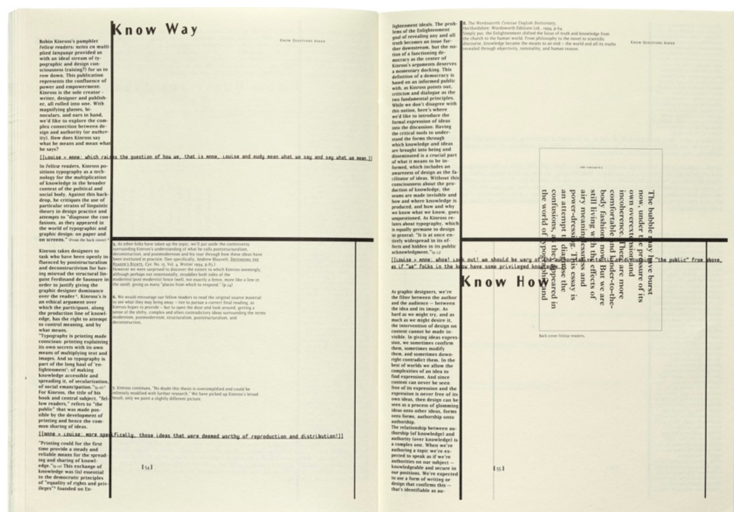

Figure 4: Rudy Vanderlans, spread from *Emigre* #34, 1995.

In one such aside, Burdick tells the story of Felix Janssens, a designer she met in the Netherlands. While working on a book about a local politician, Janssens had stumbled onto a corrupt relationship between the Dutch political establishment and the large national newspaper that was funding the project. Concerned, he had attempted to make this discovery evident "through the selection and juxtaposition of certain photographs that lent themselves to a critical reading"; however, the effect was "incredibly subtle" even to a reader looking for it.[82] As Burdick continues,

> He was employed by a newspaper whose livelihood depended on their image of objective authority. In no way did they want to incriminate themselves and undermine that authority. … If Felix were to publish an essay … or attempt to share what he had learned with a general audience, he might compromise his position as a professional dependent upon the authorities that be for his livelihood. What to do? Where to do it?[83]

"Through our jobs," Burdick reflects toward the end of the essay, "graphic designers get to peek

[82] Ibid., 58.

[83] Ibid.

and poke around the insides of authority."[84] But what follows from that knowledge is unclear, and Janssens's predicament is left hanging.

Kinross concludes his essay with a celebration of the designer-client relationship, arguing that no communicative task is so meaningless that it should be treated as a blank canvas for designers to freely "exercise their talents."[85] *Fellow Readers* situates designers in both an abstract history of ideas and a concrete set of productive relationships, all of which Kinross treats affirmatively: his parting advice to designers is that they "keep their heads down" and know their place as the arc of the moral universe makes its slow progress through the printed word.[86] Kinross' reclamation of Enlightenment thought enables penetrating insights into the mystifications of the "new discourse," but seemingly at the cost of ignoring the economic absurdity of much design work. Burdick and Sandhaus, on the other hand, are clearly aware that someone paid to design a piece of corporate propaganda is no *Encyclopédiste*. They rightly approach the institutions and relationships of design practice with critical suspicion: theirs is a social world shot through with power, deception, and the numb violence of common sense. However, their critique is so unspecific and boundless that it finally turns on itself: "Is this questioning ironically invalidated," they ask themselves, "because it takes place in (an elite?) published forum?!"[87] Despite their many calls for disobedience and disruption, they hesitate in the face of endangered "livelihoods": the analysis breaks off when the elusive figure of "authority" briefly materializes in the person of an employer. In both essays, then, a broad scope

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[84] Ibid., 60.

[85] Kinross, Robin. "Fellow Readers," 343.

[86] Ibid.

[87] Burdick and Sandhaus, "Know Questions Asked," 56.

of social action is claimed — yet it is simultaneously restricted to what the designer does on billable time. Despite opposed intentions, the two essays converge on social constraints that are beyond the reach of designers *qua* designers.

Theory as a Decentering of Practice

As we saw above, it was Blauvelt who most convincingly turned the discussion of *theory* into a consideration of the underlying *ideology* of the profession. Rather than citing theory to legitimate designers' self-expression, he used it to identify impersonal mediations and barriers. In 1994 and 1995, he published a two-part essay entitled "In and Around: Cultures of Design and the Design of Cultures."[88] Here Blauvelt starkly de-emphasizes individual designers' agency, concentrating instead on the social context that precedes practice. Identifying broad processes of circulation and negotiation whereby cultural codes are appropriated and recontextualized, Blauvelt describes graphic designers as mere moments in a potentially endless circuit of signification. The subjects of the account are, instead, discrete semiotic communities: the "corporate," "subcultural," "urban," and "elite" spheres.[89]

This idea of a broad context of circulation, in which designers hold no privileged position, is underlined in an essay Blauvelt published the following year. Here he is especially concerned with the persistence of claims to personal expression: even as postmodern designers celebrated the death of the author, he argues, they may also have been eyeing the "power

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[88] Andrew Blauvelt, "In and Around: Cultures of Design and the Design of Cultures Part I," *Emigre* no. 32 (1994): 7–14; "In and Around: Cultures of Design and the Design of Cultures Part II," *Emigre* no. 33 (1995): 2–23.

[89] Blauvelt, Andrew. "In and Around…II," 21.

vacuum" left in "his" place.[90] In postmodern design, then, an undertheorized celebration of "the opacity of the designer" replaces equally undertheorized assumptions about "the transparency of the text."[91] The essay, "Desperately Seeking David, or, Reading *Ray Gun*, Obliquely," centers on a critique of the self-taught design *auteur* David Carson, whose music and youth-culture magazine design popularized deconstruction as style, if not as theory. The specificity of this target, however, blunts Blauvelt's own point. On one hand, he argues that the context of pervasive circulation makes authorial invention impossible; designers must learn to live in a condition of "repetition with a difference."[92] On the other hand, Blauvelt accuses Carson of co-opting gestures that had originated at Cranbrook and in *Emigre* — and thus, implicitly, of subverting the primary, privileged meaning of those signifiers — in a crass bid for commercial success. Blauvelt then imputes the frustrations of aesthetic invention to a social condition in which designers are forced to differentiate "nearly identical products."[93]

> The sign of these times conforms to the logic of a system in which the representation is more important than the actual thing. It is a time characterized by this splitting of the sign and its referent. It's about the multiplicity of meanings generated not only by designers but also actively constructed by readers. It's about the inability to close down interpretation. It's the kind of fuzzy logic that allows virtually anything to sell basically everything.[94]

The essay's climax introduces several terms for the first time, while the subject they address becomes elusive: no longer Carson himself, but a "time," a "system," or a "logic" that are either

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[90] Andrew Blauvelt, "Desperately Seeking David, or, Reading Ray Gun, Obliquely," *Emigre* no. 38 (1996): 61.

[91] Ibid.

[92] Ibid., 62.

[93] Ibid.

[94] Ibid., 62–63.

perennial conditions of semiosis or historically-specific symptoms of capitalism.

The overlapping aporias of each of these essays, I can now assert, suggest a path not taken: one that would have allowed for the mediation of practice by the *real abstractions* of capital. Such an approach would have gone beyond a narrow critique of modernism's visual habits to demonstrate the ways that individual practice can become constrained by social forces which are, in turn, sustained by constrained forms of practice.[95] Capital's mediations operate — not unlike language in many of these accounts — on a society-wide level of abstraction, which places it beyond the reach of individual intervention. An approach that began from the specificity of this social form may have helped to explain why historical progress could, for Kinross, be plausibly depicted as an abstract process of the intellect. Yet, at the same time, it could have sustained and deepened Burdick and Sandhaus' suspicions of the power relations embedded in everyday work. Such an approach may, in turn, have nudged Blauvelt's insights about the constructedness and alterability of the social world out of the misty "realm of theory" in which all things are possible — returning attention to the determinate constraints of production and exchange that his later essays glancingly recognize. An approach that situated design practice in the history of capitalism might, finally, have offered a conception of historical specificity capable of steering between the ostensibly timeless categories of semiotics and a professional historiography often limited by biographical contingency.

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[95] Throughout this chapter, but here in particular, I am indebted to the late Moishe Postone, to whose work I will return in chapter four. Moishe Postone, *Time, Labor, and Social Domination: A Reinterpretation of Marx's Critical Theory* (Cambridge: Cambridge University Press), 1995.

Late Capitalism and the Misadventures of “French Theory”

Intellectual historian François Cusset’s 2003 book *French Theory: How Foucault, Deleuze, Derrida, and Co. transformed the Intellectual Life of the United States* provides a context for the collision of post-structuralism and late capitalism embodied in this “new discourse.” Cusset reconceptualizes “French theory” as “an American invention,” born from the particular exigencies of the moment — from “tempest in a teapot” battles over the jurisdictions of literature departments to a broadly-felt need to push back against the Reagan revolution in an indirect, “cultural” register. Cusset traces the changes that the work of Foucault, Deleuze, Derrida, and Baudrillard had to undergo to even be legible as a single “corpus,” which they were not thought to constitute in France.[96] As these theorists caught on in the burgeoning field of comparative literature, for example, their work was selectively translated and published in a way that exaggerated the literary nature of their interventions — indeed, as we have seen, the terms “French theory” and “literary theory” were basically interchangeable in graphic design’s postmodern turn.

More importantly, Cusset argues, French theory had to undergo extensive processing to be “put to work” at all. He notes the irony, for example, that Derrida — as the least *overtly* political writer of the group, particularly up until the 1990s — was often the most “politicized” in critical writing in the United States.[97] Assimilating Derrida to a straightforward left politics, as Cusset writes, was a difficult task since deconstruction “problematizes normative polarities” and distrusts clear, particularly binary, oppositions. For interpreters like Stuart Hall, theory had to be

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[96] “American admirers and French opponents [alike] tend to group them into a school of thought and a coherent movement.” Cusset, *French Theory*, 8.

[97] Ibid., 126.

tempered by political goals and deployed provisionally, else it become a mere gaze into the abyss — or what Hall called "the endless sliding of the signifier."[98] While Derrida's exegetes at Yale, for example, wished to "deconstruct politics," more practically-oriented readers wished to "politicize deconstruction" — to craft, that is, a "deconstructive" politics.[99] One way forward, which had a particular resonance in a country in which questions of difference and assimilation have long been central, was to bring the suspicion of objectivity to bear on a more concrete matter: to begin from the proposition that "objectivity is synonymous with the 'subjectivity of the white male.'"[100] Thus, Cusset writes, was the "notorious referent" recovered from the "paralyzing epistemic balancing act" of deconstruction.[101] These mutations of French theory, Cusset argues, were often motivated as much by opportunist careerism as genuine appropriation and development. But while putting theory "to work" in this way sometimes misrepresented its authors' intentions, he writes, it also produced novel approaches to the politics of difference. Cusset closes the book arguing that, whatever its excesses and mis-readings, the "American invention" provides a more productive point of departure for global politics in the twenty-first century than do the liberal universalists of France who cleared Foucault, Deleuze, Derrida, and Baudrillard from the national stage.

For Cusset, however, the most enduring blindspot of French theory in the United States

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[98] "At the risk of theoretical eclecticism, I am inclined to prefer being 'right but not rigorous' to being 'rigorous but wrong.'" Stuart Hall, "Signification, Representation, Ideology: Althusser and the Post-Structuralist Debates," *Critical Studies in Mass Communication* 2, no. 2 (June 1985): 91–114.

[99] Cusset, *French Theory*, 126.

[100] Ibid., 131.

[101] Ibid., 131, 126.

was a “denial of market forces, of capital and its strategies.”[102] Many U.S. scholars, he argues, found the French theorists attractive “precisely because of their distance from classical Marxism, or because of what was even seen as their anti-Marxism.”[103] Çussset maintains, on the contrary, that if the “French theorists” had anything in common it was their connection to Marxism. Their position was thus rarely pro- or anti-, but rather consisted of an ongoing “confrontation with” and “reinterpretation of” a tradition that had played an important role in their respective intellectual formations. In contrast — and particularly in American cultural studies — Çussset argues that the uptake of French theory often meant meticulous attention to

> symbolic discriminations without analyzing the culture industry as a whole, with its endless ability to absorb negativity, exploit margins, swallow and recycle criticism, and gradually shift from mass promotion to a more timely marketing of differences — as it precisely chose to do around the end of the 1980s.[104]

There were neglected resources in Deleuze and Foucault in particular, Cusset argues, for understanding the process whereby “the enemy” is absorbed “for the purpose of turning its energy to profit.”[105]

In literary studies, Cusset writes, “theory” often became “what ‘woman’ was to Baroque poetry — a source of inspiration, a site for the invention of a language, and a license for expression.”[106] Fidelity to the theoretical texts, in turn, became increasingly “atmospheric” — yet, it seems, no less compelling — as French theory made its way into undergraduate courses,

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[102] Ibid., xv.

[103] Ibid.

[104] Ibid., xvi.

[105] Ibid., 45.

[106] Ibid., 103.

artist statements, and finally popular culture: a sort of climax was reached in 1999, when the cover of Baudrillard's *Simulacra and Simulation* made a cameo in the opening scene of the first *Matrix* film. In these later iterations, despite some comical telephone-game interpretations of the texts, Cusset notes that a genuine "need for theory" often asserts itself. For contemporary artists in the 1980s, "caught between a caste of moralizing critical ideologues and the destabilizing magic spells of the financial world," Baudrillard seemed to provide a basis for breaking with both modernism and the art market.[107] For undergraduate students in the 1990s, Foucault provided hints of self-styling in an interregnum between identities: "a form of opposition to the prior world of the family, and to the external world of professionalization."[108]

Many of the graphic designers under consideration here first came into contact with theory in graduate school: as we have seen, at Cranbrook the students even initiated its arrival. As Steven Heller ruefully noted in "Cult of the Ugly," post-graduate programs in design are a respite from the demands of the professional world; in contradistinction to undergraduate training, they are often also a designer's first sustained opportunity to pursue ideas that have no obvious or immediate use-value. In a broader sense, professionals who fell under the sway of theory were like the postmodern artists Cusset cites: attempting to navigate a field in the midst of a commercially-driven transformation, with a sense that the practical and theoretical lessons of the previous generation had become obsolete. But despite the fact that the meaning, conditions, and constraints of *work* were central concerns for the "new discourse," the critical literature evinces an almost spotless avoidance of the specifically capitalist formation of that work.

It is certainly no great mystery that graphic designers in search of intellectual inspiration

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[107] Ibid., 235.

[108] Ibid., 224.

did not opt to tackle Marx's critique of political economy — particularly during a decade of widespread "End of History" triumphalism. But if such an approach was unlikely to appear practicable given the dominant tone of the American humanities in the 1990s, it seems that this was twice as unlikely at an institution like Cranbrook, where the "freedom of the reader" appears to have taken preference over clarity on the politics of theory. In response to one critic's questioning of "upper middle-class graduate students in the Midwest" reading Baudrillard, Cranbrook co-director Katherine McCoy argued that "the Marxist element in literary theory" could simply be discarded for something more culturally appropriate.[109]

> I think probably a lot of those ideas are fairly workable without that particular brand of late century European intellectuals' Marxism. I think these ideas bend fairly well to an American social-democratic populace. It can be anti-authoritarian, but in an American popular ethic, or better yet, a frontier individualist ethic, as opposed to the European late Marxist ethic.[110]

These practitioner-theorists' reluctance to adopt a "Marxist ethic" is particularly evident in the suppressed insights of critics like Burdick and Sandhaus, who haltingly acknowledged that the designer is a worker "dependent upon the authorities that be for his livelihood."[111]

A clearer path to approaching the conditions of labor seems to have been a curiously *modernist* optimism about emerging technologies — and a corresponding faith that a creative practice wedded to such technologies could intervene directly in social consciousness. Indeed, in the theoretical writing of postmodernist graphic designers, early socialist demands for the richness and fullness of work often seem to resurface. Such demands, however, just as often

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[109] Quoted in Rudy VanderLans, "3 Days at Cranbrook," *Emigre* no. 19 (1991): n. pag.

[110] Ibid.

[111] Burdick and Sandhaus, "Know Questions Asked," 58.

appear unproblematically welded to capitalist practice. Echoes of avant-garde ambitions are also in evidence: new practices of critical reading were to mingle with non-linear hybrids of writing and image-making. A new social role for artistic expression would be forged — but by the sheer will of the designers themselves, not as one effect of a broader political transformation. I am not arguing, however, that these contradictions simply arose from misreadings or theoretical miscalculations; rather, they should be seen as conflicts with the boundaries of a practice that is thoroughly formed and deformed by the needs of capital.

Writing in 1990, *Emigre* publisher Rudy VanderLans vividly captured the era's contradictory sense of possibility:

> In a sense, everything can be learned on the job, even critical thinking, exploration, introspection, offset printing, intellectual development, bookkeeping, French literary criticism, programming, [and] contract writing.... It can all be learned as you slowly develop into the all-around professional you're supposed to be.[112]

For the optimistic, *the job* was identified as a site of nearly limitless human potential. However, the day-to-day demands of working life caught up with many of the short-lived movement's practitioner-theorists. As VanderLans admits in *Emigre*'s final issue in 2005, his activities as a designer and publisher had left him little time or patience for theory.

> [Venturi's *Learning from Las Vegas*] spurs me to finally read Barthes and Derrida and some of the others. After several tries, I realize I'm ill prepared for the philosophical complexity. I cannot bear to read through them. It doesn't matter. Many of the theories had filtered through to our own thinking.[113]

VanderLans concludes with a rumor from Cranbrook that he was relieved to hear: the graduate

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[112] Kali Nikitas, "Interview," interviewed by Rudy VanderLans, *Emigre* no. 31 (1994): n. pag.

[113] Rudy VanderLans, "Sixty-Nine Short Stories," *Emigre* no. 69 (2005): 39.

students, already feeling stifled by theory, were now reading Charles Bukowski instead.[114] The energy behind the theoretical adventure began to ebb just as the design styles associated with deconstruction were starting to turn up in big-budget advertising campaigns.

Constraint, Routine, Hierarchy

The first half of this study has traced the gradual formation of modernism in the international design disciplines and the brief but intense postmodern response within U.S. graphic design more specifically. As I have demonstrated, capitalist technological development and the ends of production were among the foundational concerns of modern design; however, the more radical insights of this line of thinking had faded by the postwar period. We have also seen that postmodern critics preserved many of the affirmative aspects of modernism, further obscuring the role of capitalism in modernity and its imaginaries. The postmodernists consistently attacked three aspects of modernist practice: its *constraint*, its *routine*, and its *hierarchy*. These themes, as I will argue in the following chapters, resonated so profoundly because they evoked much more than a particular style: for over than a century and a half, constraint, routine, and hierarchy had also been key terms for industrial struggle and anti-capitalist critique. In chapter three, we will retrace the history laid out in chapter one from the vantage point of the U.S. printing trades, which will reveal surprising resonances with the discourses of the "machine aesthetic." In the second half of this study, manifestoes on modernism or postmodernism will give way to the structural continuities and contrasts of the industrializing and deindustrializing — or "Fordist" and "post-Fordist" — regimes of capital accumulation. By chapter four, we will have established

[114] Ibid.

a basis from which to re-read key texts and images of postmodernism and deconstruction as, at least in part, attempts to come to grips with an epochal shift in the history of capitalist work.

Chapter 3

"New Work for New Men": A Labor History of Typography

> If every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus, which, says the poet, "of their own accord entered the assembly of the Gods"; if, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves.[1]
>
> — Aristotle, *Politics*

> For the worker, machine production has … meant a heavy, almost deadly loss in the value of experience…. That [something] is "modern" is by no means the same thing as saying that it has value or even that it is good; much more is it evil. But since we are unable to manage without machine production, we must accept its products simply as facts, without worshipping them on account of their origins.[2]
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> — Typographer Jan Tschichold (1946)

[1] Aristotle, *Politics*, Bk. I: Ch. 3, lines 32–37.

[2] Quoted in Kinross, *Modern Typography,* 130.

The first chapter of this study traced the rise and fall of the “machine aesthetic” in modernist art and design: a self-reflexive discourse which played a constitutive role in the development of the design professions. In chapter two, we saw how critiques of modernist style became connected to theoretical and political arguments in the graphic design discourse of the 1980s and 1990s. As I also argued, however, there were substantial continuities between the mechanized utopias of early-century high modernism and the digital dreams of late-century postmodernism. In chapter one, we also saw how *the experience of work* — which remained a foundational concern between the late nineteenth century and World War II — tended to fade from view with the postwar market success of modernism. In chapter two, I also demonstrated that the postmodern discourse continually ran up against its own limitations around the question of labor: a topic that seemed centrally important, even as it remained curiously undertheorized. I concluded the first half of this study arguing that an inability to account for the imperatives and constraints of capitalism contributed to the short and inconclusive lifespan of the “New Discourse.”

This chapter returns to the broad historical frame of the first, retracing our steps between the 1880s and the 1990s. But whereas chapter one laid out a primarily *intellectual* history of artists and designers coming to grips with social, political, and economic change, this chapter offers a more narrowly *material* history of the techniques and technologies that would later converge in the personal computer. This shift in emphasis is meant to correct for the increasingly abstract concept of technology (or of “the” machine) that we have so far encountered — which has been applied to phenomena as varied as manual printing presses and digital software.

In attending to key moments of technological transition, this chapter foregrounds the historical agency of print workers, both as organizers and as intellectuals. This effort to clarify the concrete labor of design across time should then allow us to revisit the question of labor —

which remained unresolved in chapter two — in the final chapter. Here, I begin with an overview of technical shifts in typesetting, type design, and printing between the Gutenberg era and the late nineteenth century. Next, I offer a detailed account of the launch of the Linotype — the first commercially-viable typesetting machine — at the New York *Tribune* in the mid-1880s. This is followed by a close look at an early threat to the Linotype process at the Chicago *Tribune* in the late 1940s. Finally, I consider print workers' experiences of the photomechanical and digital processes that replaced the Linotype.

Typography in Design History

Typography is necessarily an interdisciplinary subject, partially but not fully covered by the historiographies of design and of printing. This chapter pivots toward the latter: the historical archive mobilized here concerns print technologies and typographical labor, specifically as these developed in the United States. By way of transition, I will first highlight the role played by typography in the narrative traced in the previous chapters. In graphic design, a familiarity with the means of typographical printing played an important role in craft revivals, formal departures, and future-oriented projections alike. As we have seen, for example, both Jan Tschichold and Wolfgang Weingart — key figures in the codification and undoing, respectively, of the modernist typographical style — were steeped in letterpress methods and made this knowledge an integral part of their theory and practice.

Late in his career, William Morris himself became a printer. Having encountered the work of small presses that channeled his own Arts and Crafts ideals into book form, Morris was inspired to found the Kelmscott Press in 1891.[3] Kelmscott books — such as a lavish 1892 edition

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[3] Meggs and Purvis, *History of Graphic Design*, 181.

of John Ruskin's "The Nature of Gothic" — were deployed as practical critiques of the commercial publishing industry's pulpy, high-volume output. As in Morris's earlier ventures, however, Kelmscott's engravers, typesetters, and bookbinders remained well-treated technicians who executed the designer's vision; the complexity of the undertaking even necessitated a handful of modernizing shortcuts.[4] Frank Lloyd Wright's programmatic departure from Morris, in turn, started from just this point: Wright chose the printing press as his symbol for a new era of machine-assisted creativity and leisure, which promised to sweep away anachronistic and labor-intensive practices of decoration.

Meanwhile, a small group of American commercial artists — whose usual province was advertising illustration and lettering — had fallen "under the Arts & Crafts spell"; they emerged on the other side as freelance specialists in book typography.[5] Figures like Bruce Rogers and Frederic Goudy successfully sold Morris' aesthetic revival of the book to large U.S. publishing houses, while mostly ignoring his indictments of industrial capitalism. During the 1920s, Goudy's student W.A. Dwiggins was responsible for popularizing the phrase "graphic designer" in the Anglophone world: a neologism meant to describe a new position, stripped of artisanal connotations, in print's division of labor.[6] The workshops of Rogers, Goudy, and Dwiggins were

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[4] Morris utilized photographic enlargers to study medieval type specimens; the ornate frames, illustrations, and initials of Kelmscott books were designed for modular interchangeability. Ibid., 181–185.

[5] Kinross, *Modern Typography*, 60.

[6] Meggs and Purvis, *History of Graphic Design*, 186. While Dwiggins is widely considered to have coined the term, Paul Shaw has unearthed earlier usages of "graphic design" in art school course catalogs of the early 1920s; it is mostly used, however, to describe something closer to illustration or decoration. Paul Shaw, "'Graphic Design': A Brief Terminological History," Shaw website, accessed March 1, 2022, https://www.paulshawletterdesign.com/2014/06/graphic-design-a-brief-terminological-history

characterized by a clarified managerial role for the designer, a more rationalized division of labor below, and an embrace of new "labor-saving" production technologies.[7] Graphic designers thus emerged as industrial analogues to the "modellers" in Josiah Wedgwood's eighteenth-century pottery works.

In Europe, meanwhile, modernist designers were synthesizing compositional lessons from the avant-garde departures of Futurism and Constructivism, among others. One theme that united these disparate movements was a desire to alter the experience of reading by exploding the inherent limitations of letterpress printing's metal grid. In both of these movements, as in László Moholy-Nagy's "Typophoto" experiments at the Bauhaus, photomechanical techniques promised a way out. From the Soviet Union, the former Suprematist painter El Lissitzky argued that new hybrid forms of text and image raised epistemological as well as technical questions. In a 1926 essay, Lissitzky sketches a timeline of comparative developments in transportation and communication: if the wheel roughly corresponds to writing and the horse-drawn carriage to Gutenberg's press, he asks, what innovations could be considered analogous to the motorcar or the airplane?[8] On the basis of this developmental narrative, Lissitzky urges a continual revolution in the form of the book, which he describes as progressively transforming the human sensorium — resulting in a "perpetual sharpening of the optic nerve."[9] Lissitzky reads the earliest attempts at photomechanically-reproduced typography as signs of a broader historical tendency toward

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[7] Kinross, *Modern Typography*, 60.

[8] El Lissitzky, "Our Book," in *Graphic Design Theory: Readings from the Field*, ed. Helen Armstrong (New York: Princeton Architectural Press, 2009), 26.

[9] Ibid, 30.

lightness and mobility: "cumbersome masses of material are being supplanted by released energies."[10]

> [A new method of typesetting] involves a machine that transfers the composed type-matter onto a film, and a printing machine that copies the negative onto sensitive paper. Thus the enormous weight of type and the bucket of ink disappear….[11]

Such processes of "dematerialization" might culminate, as he cryptically wrote in 1923, in a final transcendence of print itself: "the electro-library."[12]

As we have seen, Jan Tschichold began raising objections to modernism early in the postwar period. In a 1946 debate, he reminds his professional peers that their bold expressions of modern rationality increasingly rely on the alienated toil of anonymous workers. Echoing Ruskin on the pin factory, Tschichold mourns the devaluation of the hard-won "experience" of the typesetters, whose ever-more constrained routines constitute the underside of the modernist designer's enlarged "scope for play."[13] What the modernists regarded as a perfected "machine," Tschichold reminded them, was actually a human-machine complex in which the former was all too often obscured.

Lissitzky's predictions, however, proved startlingly accurate: in the 1960s, metal type indeed began to be supplanted by photographic media — in systems that, during the 1970s, were increasingly directed by "electro-libraries" of "dematerialized" data. By the end of the 1980s, these convergences and displacements had merged writing and image-making into a single

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[10] Ibid., 26.

[11] Ibid.

[12] Ibid.; *Merz* no. 4 (1923).

[13] Quoted in Kinross, *Modern Typography*, 129.

interface. The century-long metamorphosis from Gutenberg's press to graphic design software thus seems to confirm the progress narratives of the machine aesthetic — delivering on such promises as the easing of strenuous work, the increased circulation of information and ideas, and the birth of unforeseen forms of expression. None of this occurred, however, in the communist future of humanized technology that Lissitzky assumed. Instead, these transformations were largely driven by inter-firm competition among print capitalists — particularly, as we will see, American newspaper publishers.

While modernism's trajectory from utopia to the market is a familiar theme in design history, parallels in the history of the printing trades have received less attention. Here, the initial promise of technological innovations — to end, in Frank Lloyd Wright's words, the "meaningless torture" of repetitive and inefficient labor — soon gave way to the sobering reality of cheapened experience against which Tschichold warned. The contours of twentieth-century print technologies would be shaped in large part by struggles over automation and unemployment. The "released energies" of print's dematerialization often took the form of outmoded workers.

The Printer and the Press

Despite the ubiquity of the organizing narratives of a "machine age" and a "machine aesthetic" that we traced in chapter one, graphic design historiography has given scant attention to the technological transformations specific to print production itself. Meggs's *A History of Graphic Design*, for one, offers only the briefest hints of the social dislocations that accompanied the mechanization of typesetting. One reads, for example, that the first steam press in England was operated in a secret location to guard against sabotage, or that vaguely-defined "strikes and

violence" greeted the first installations of typesetting machines in the United States.[14] Otherwise, such histories tend to treat innovations in print technology as a politically neutral process of technical refinement. But the new machines and methods did not result from any such placid "evolution": these innovations were, rather, materially supported by employers who aimed to speed up production, capture control over the work process, and even break strikes.

The growing coherence and confidence of the graphic design profession is accompanied historically by the gradual fragmentation and decline of the printing trades.[15] Originally, the job description of "printing" had encompassed a set of knowledges that extended far beyond the point of contact between ink and paper. Early printers were often also type-founders, publishers, and booksellers.[16] Even as the craft became more specialized, printing still included typesetting and page composition, and even extended into a role in writing. According to union typesetter and historian Henry Rosemont, newspaper printers in the mid-nineteenth century relied on a broad but informal education in "language, history, geography and other subjects," which enabled them to produce entire articles from telegrams consisting of little more than the relevant nouns, verbs, and modifiers.[17]

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[14] Meggs and Purvis, *History of Graphic Design*, 151, 153.

[15] This chapter focuses on the emergence of typesetting as a distinct specialization within printing, and its later melding with graphic design practice. There is a longer story to tell, however, about the *aesthetic deskilling* of printers as they became service providers for graphic design and advertising around the turn of the century. See David Jury, *Graphic Design Before Graphic Designers: The Printer as Designer and Craftsman 1700–1914* (London: Thames & Hudson, 2012).

[16] Lucien Febvre and Henri-Jean Martin, *The Coming of the Book: The Impact of Printing, 1450–1800* (London: Verso, 2010), 128–166.

[17] "For years after the telegraph was invented… [m]essages were sent to the newspapers in 'skeleton form'; a good compositor… could set a thousand ems [single sorts] of type from 25 words of telegraphic copy." Henry Rosemont, *American Labor's First Strike: Articles on*

Print workers thus held a strategic position in the circulation of public speech, which — absent other media — was simply not possible without them. They often took advantage of this position to educate themselves and to advocate for the interests of their trade. In addition to their obligatory literacy, they had access to the press as an organizing tool: both of which were extreme rarities for manufacturing workers of the era. Journeyman printers became the first group of workers to go on strike in the United States, within a year of the Declaration of Independence.[18] Print workers would go on to play prominent roles in revolutionary movements around the world during the next two centuries: both Marx's rival Pierre-Joseph Proudhon and the Haymarket martyr Albert Parsons were trained typesetters.[19]

The printed book was, if not the first, then certainly the clearest early example of the world of standardized, mass-produced commodities to come. And as with any other commodity, competing firms needed either "labor-saving" innovations or intensified worker discipline — though often both — to edge out their rivals. More efficient inventions often rendered the work less taxing and dangerous, but the primary motivation for their adoption was the reduction of labor *costs,* which resulted in layoffs or slashed hours. Print workers often found themselves in the paradoxical position of fighting technologies that promised to ease the burden of their labor. Rosemont offers the example of a more efficient ink roller, invented in 1814 and vigorously resisted by the printing trade. The existing standard was a more rudimentary instrument that

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Benjamin Franklin, the 1786 Philadelphia Journeymen's Strike, Early Printers' Unions in the U.S., and Their Legacy (Chicago: Charles H. Kerr Press, 2006), 86–87.

[18] Ibid., 9–47.

[19] Régis Debray. "Socialism: A Life-Cycle," *New Left Review* no. 46 (2007); Rosemont, *First Strike*, 95–97.

required periodic soakings in animal urine to keep it from hardening.[20] Printers worked in consistently squalid, poorly-ventilated shops that contributed to lower-than-average life expectancies, but such conditions were clearly preferable to unemployment.[21]

Though Johannes Gutenberg's fifteenth-century contraption — a modified wine press — had scarcely changed in the intervening years, the first decades of the nineteenth century brought transformations far beyond the humble roller. New technologies fundamentally changed not only the shape of the machine, but the entire work process that fed and maintained it. The press's wooden screw mechanism was replaced in 1800 by Lord Stanhope's cast-iron construction, which dramatically decreased the machine's reliance on muscular force.[22] Then in 1814, Friedrich Koenig's steam press removed human operators from the task of making impressions altogether.[23] By the middle of the century, the Renaissance craft of printing had been transformed, both by mechanization and by concentrated ownership. The head of a printing shop was no longer necessarily a master printer, but anyone with the capital necessary to acquire materials and labor. It became increasingly uncommon for a trained printer to also be an editor and publisher; typesetting, meanwhile, emerged as a distinct niche in a new detailed division of labor. Specializations even arose within typeface design itself: with the spread of literacy, the intensification of urbanism, and increased competition among new producers, typography forked into separate book and advertising applications.

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[20] Ibid., 57–58.

[21] Ibid., 85.

[22] Ibid., 140.

[23] On November 29, 1814, *Times* of London manager John Walter II, who had hired Koenig, triumphantly declared to his idled pressroom that "the *Times* is already printed—by steam," rather than men. Meggs and Purvis, *History of Graphic Design*, 151.

The most difficult problems facing the invention of the printing press had surrounded the techniques of metallurgy. The entire mechanism of the press depended upon the precise standardization of “sorts,” or individual pieces of type. This was not just a matter of visual harmony between letterforms: if, for example, one sort was slightly taller than those on either side of it, the latter pieces would not make contact with the ink roller and paper. Gutenberg’s breakthrough depended upon perfecting three separate alloys.[24] [Figure 1] The production of type began by transferring a drawn letter to a metal “punch” — or master — by means of carving and filing. The punch was then pressed into a second piece, the “matrix,” to form a negative impression of the master design. Matrices were then filled with molten metal to form sorts. This meant that the alloy used for the punch had to be harder than that used for the matrix, but the latter had to have a higher boiling point than the metal used for sorts. Finally, this last material needed to be relatively cheap, yet also able to withstand rough handling and repeated impressions. As long as the process of type foundry remained this exacting and expensive — and as long as typography was relegated to books or to the occasional public announcements of a monarch — there was relatively little variation among typefaces.

[24] Meggs and Purvis, *History of Graphic Design*, 72–73

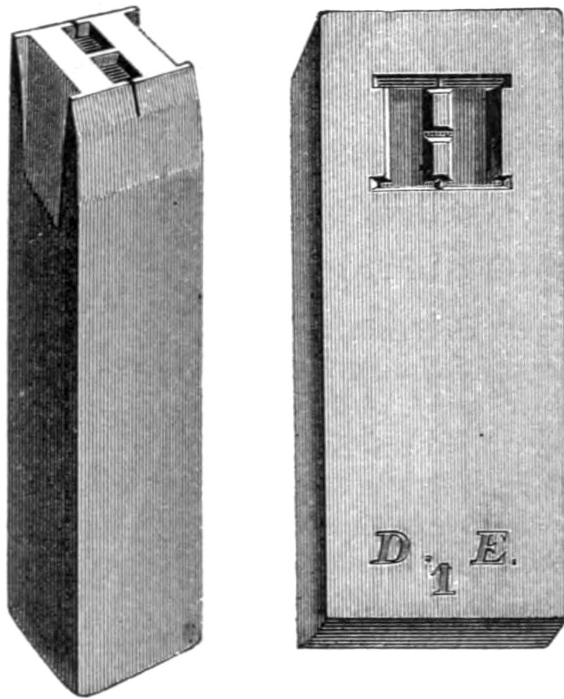

Figure 1: Punch and matrix. Illustrator unknown, plate from Theodore DeVinne's from *The Invention of Printing*, 1876.

In the early nineteenth century, new technologies simplified type *production*, while at the same time enabling more complex and varied type *design*. Beginning in the late 1820s, wood proved a more versatile medium for advertising applications: at larger sizes, metal type was heavy, expensive, and prone to breakage.[25] Skipping the interceding step of metal foundry also meant that alternate characters and customizations could be more readily produced.[26] Liberated

[25] The first wood-type manufacturer, Darius Wells of New York, published his first catalogue in 1828; in 1880 the Hamilton Holly Wood Type Company introduced further refinements to the process and acquired most of its American competitors by the end of the century. Hamilton Museum website, "What is Wood Type?" accessed March 1, 2022, *http://woodtype.org/about/what-is-wood-type*

[26] Wood type also became a weapon in the colorful "battle on the signboards" that pitted letterpress printers against lithographers, the latter of whom could reproduce an artist's lettering on oiled stone plates without the interceding step of setting type. Meggs and Purvis, *History of Graphic Design*, 167–168.

from the constraints of metal book type, wood poster type took on unforeseen eccentricities, particularly after William Leavenworth's invention of the Pantograph in 1834.[27] Operating similarly to a key duplicator, the latter machine translated the movements of a stylus to a router which shaped a block of wood. The scale of this reproduction could also be adjusted, which meant that large and intricate designs could be reproduced at fine sizes. The insertion of a technician and a machine into the space formerly occupied by a skilled punchcutter, in turn, opened the field of type design to non-specialists: given a few specific limitations, the process could turn any outline drawing into a printable sort.

The processes of industrial innovation and competition that had produced these changes were, of course, also playing out in the broader economy: increasingly ornamented and expressive typography aided in the differentiation of factory-produced commodities on poster hoardings and market shelves alike. Wood type was more likely to be found in the "jobbing" print shops, which produced *display* materials (posters, handbills). With the exception of headlines, documents with large amounts of *running text* (newspapers, books) were normally set in metal.[28]

The popular press, a world of running text, also transformed as it expanded in the later nineteenth century. By 1851, Richard Hoe's mammoth, steam-driven rotary presses were producing at eight times the rate of the 1814 Stanhopes.[29] But as late as the 1880s, every word and line still had to be painstakingly assembled from tiny metal sorts by a human compositor. After each *forme* of composed sorts was printed, it then had to be carefully disassembled — each

[27] Ibid., 150.

[28] Ibid., 134–135.

[29] Ibid., 140.

sort cleaned and reshuffled into cases separating alphanumeric characters, punctuation marks, spaces, and ornaments. In the plants of book and periodical publishers, armies of typesetters constituted an obstinately manual bottleneck in an otherwise mechanically rationalized production process. These workers were rigorously trained and often militantly organized.

Research and development of Koenig's steam press had been directly funded by the *Times* of London. Throughout the 1880s, newspapers sunk research and development money into similar efforts in the area of mechanized typesetting. One particularly spectacular early failure was the Paige Compositor, a machine made up of more than 18,000 parts, which helped to bankrupt its primary investor, Mark Twain.[30] As Twain is said to have boasted shortly before the invention proved unfeasible, the Paige could "work like six men and do everything but drink, swear, and go out on strike."[31] The drive to mechanize was given extra impetus by the presence of trade unions like the International Typographical Union (ITU), which was active in every strategic printing center in the United States, as well as many in Canada.

In 1886 Ottmar Mergenthaler, a German engineer working under contract with the New York *Tribune,* presented the first working model of the Linotype machine. [Figure 2] Like manual typesetters, Linotype operators rendered articles and manuscripts printable using small pieces of molded metal. Here, however, each such piece carried a negative impression of its character: it was a *matrix* rather than a *sort*. Linotype operators worked while seated at a keyboard that was arranged by character frequency: the first string of keys read "ETAOIN"

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[30] "By 1887 Twain had invested a total of $50,000…. He bought the rights to the machine outright in 1889, and within a few more years, the machine, among a series of bad speculations, bankrupted him." Frank Romano, *History of the Phototypesetting Era*, (San Luis Obispo: Graphic Communication Institute, 2014), 32.

[31] Harry Kelber and Carl Schlesinger, *Union Printers and Controlled Automation* (New York: Free Press, 1967), 3.

rather than "QWERTY."[32] The operator typed a line of matrices into place and then engaged a spacing mechanism which, in one step, justified the line and sealed the channel into which the matrices had been set. Molten metal then filled the channel, forming a single line in positive relief. After cooling, each "line o' type" was stacked into columns and locked into page *formes* for the press. The matrices, which never left the apparatus, were automatically re-sorted between castings; the lines, after printing, were melted and recycled back into the process.[33]

Figure 2: Engraving of New York *Tribune* editor Whitelaw Reid (left) and inventor Ottmar Mergenthaler (right), ca. 1886.

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[32] The full name given to this keyboard layout was "ETAOIN SHRDLU." This string of characters became an in-joke in the printing world because compositors would run their fingers down the first two columns to indicate that there was an error in the line; these defective lines, however, occasionally found their way into print.

[33] L.W. Wallis, *A Concise Chronology of Typesetting Developments* (London: Lund Humphries, 1988), v.

Outstripping even Twain's boosterish claims, each Linotype machine was estimated to be capable of replacing seven to eight highly trained typesetters.[34] While the machine was a large and risky investment, it did eventually deliver on promises of labor-cost savings. As it became more broadly adopted in the industry, the Linotype also contributed to a dramatic enlargement of the size and circulation of the periodical press. During the crucial last decade of the nineteenth century, Mergenthaler Linotype Company representatives and ITU members alike attempted to forecast and actively shape the future of the typographical trade. Such competing visions are apparent in contemporaneous articles from the machine-typeset New York *Tribune* and the manually-typeset *Typographical Journal,* a newsletter for union printers.

"Hot Metal" and the International Typographical Union

The New York *Tribune*'s public unveiling of the Linotype in a front-page story on March 19, 1889 accurately captures the epochal significance of the machine.[35] Throughout the 1890s, however, the *Tribune* would have little to say about the employment crisis caused by this disruption of the printing trades. The ITU publication *Typographical Journal*, on the other hand, regularly reported on the changes wrought by machine composition during this period. However, the response of union compositors to the Linotype was not univocally one of resistance or of dismissal. Rather, the coverage of the *Tribune* and the *Journal* can be said to differ along the lines of quantitative versus qualitative emphasis. While the *Tribune* trumpeted reductions in labor time and expansions of productivity and profit, the *Journal* called attention to the changing experience of the labor process and the altered aesthetics of the printed page. Taken together,

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[34] Meggs and Purvis, *History of Graphic Design,* 141.

[35] "The Linotype," *New York Tribune*, March 19, 1889.

both publications evince an interest in the status of human agency as the knowledge and labor of the typesetter were progressively captured in machinery.

The New York *Tribune* had financed the Linotype's invention and application, experimenting with prototypes on the job for years before going public with the new technology. The newspaper was thus materially invested in the machine's viability, and this went beyond the initial productivity advantage it gave the *Tribune* over other newspapers. Return on this investment ultimately depended upon the widespread adoption — across and even beyond the newspaper industry — of a standardized system, with all of its attendant demand for proprietary equipment and services. The front-page *Tribune* article of March 19 begins as a general unveiling of the machine, but ends as an advertisement for the Mergenthaler Linotype Company, noting "its office in Room 76 of the *Tribune* Building." It closes with an explicit address to peer newspapers, arguing that "an enterprising editor can as well afford to neglect" the Linotype as to do without devices such as the steam press, which had revolutionized the volume of printing earlier in the century.

The article repeatedly frames the Linotype in a narrative of technological progress. Within this broader frame, it also emphasizes the arduous process of the machine's development. The promotional nature of the article makes it necessary to present the Linotype as a perfected piece of machinery. At the time of the article's publication, the machines had been in use at the *Tribune* for three years. The article goes into great detail to describe the many technical problems encountered by its early iterations. Metal alloys had to be continually revised as machine parts — including the matrices themselves — repeatedly broke during the composition process. In addition to the stoppages such breakdowns caused, the spacing and clarity of the finished product initially left much to be desired. Angry letters from subscribers poured in, as

> [the *Tribune*'s] oldest friends protested against the strain on their eyes and nerves… [Meanwhile, the hand-compositors] left at the [type] cases ridiculed the whole contrivance and predicted its speedy consignment to the scrap-heap.[36]

Among several such examples of breakdown and refinement, the article makes a jocular reference to the many compositors "poisoned by fumes from the casting pots" until a system of chimneys was devised. There is repeated reference to resistance on the part of workers and to the difficulty of "training compositors to [do] a duty which they naturally regarded with aversion," but the author concludes that the workers were eventually won over by the opportunity to remain "comfortably seated," in contrast to the customary standing posture demanded by the type-case.[37]

Because the Linotype was explicitly developed to reduce working hours, initial coverage of the machine often describes its workings in terms of the human actions and capabilities it was designed to replace. For example, the "unveiling" article criticizes the "Alden" machine, an earlier attempt at automated composition, for being no less fallible than a human compositor. The Alden is said to have been "designed merely to duplicate by machinery the motions of the compositor's hands, and, *like them*, it broke down under the severe test of morning newspaper work."[38] Though a sub-heading of the "Linotype" article announces the advent of "A Machine Almost Human in Its Action," the article also hints at its capacity to outstrip human capabilities.[39] The Linotype's system for automatically redistributing matrices receives special emphasis in this connection: in the words of the *Tribune*, it is here that "the machine displays

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[36] "The Linotype," 20.

[37] Ibid., 20.

[38] Ibid. My emphasis.

[39] Ibid., 13.

almost more than human intelligence."[40]

> [a]n operator intrusted [sic] to perform such a task by hand would first pick out the different sorts, then carefully compare them with the tubes [holding each character], and finally use dexterity in placing them where they belonged. Not so the machine.[41]

In the movement from "almost human … action" to "almost more than human intelligence," the article describes machine composition as surpassing the mere mimicry of human dexterity to account for the *cognitive* labors involved.

Approaching its conclusion, the *Tribune* article emphasizes the savings accrued by machine typesetting, particularly in labor costs. With fewer than fifty men (Linotype operators, foremen, machinists and the few remaining manual typesetters), "the *Tribune* accomplishes what under other conditions would require the services of over 100 men; and nothing stronger can be said in favor of the machine than this."[42] The Linotype, in short, would increase the output of daily papers while reducing labor costs. But the *Tribune* and other newspapers' eventual acceptance of union-trained typesetters' control of the machines hinged on a range of skills that went beyond those which the machine could replace.

The *Tribune* would continue to report on the Linotype throughout the 1890s, but not at the level of detail evinced above. *Tribune* articles on the Mergenthaler Linotype Company were frequent as the company expanded, engaged in intellectual property battles with competitors, and ultimately consumed some of them. Additionally, the *Tribune* ran brief reports on the spread of the Linotype to other American newspapers. However, the paper had little to say about the

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[40] Ibid.

[41] Ibid.

[42] Ibid., 20.

employment crisis among hand-compositors that was unfolding in the background. The only reportage on the changed experience of work took the form of brief notes reporting the competitive speed records of individual Linotype operators.

As might be expected, the perspective of union typesetters toward the machine was not as sanguine as that of the business that stood to profit most from its widespread adoption. The ITU organ *Typographical Journal*, like the *Tribune*, published first-person boasts of records for machine typesetting, and it also covered the introduction of Linotypes into printing offices across the country, albeit in markedly more anxious detail. Articles in the *Journal* are characterized by an attention to the changing qualities of work that contrasts strongly with the *Tribune*'s emphasis on quantitative reductions in labor costs.

In *Journal* articles of the early 1890s, union typesetters often published reassuring screeds on the impracticality of machine composition. A February 1891 article argues that the machines are "overrated," and little more than "toys for unpractical managers" — that is, for print capitalists with no practical background in the trade.[43] The author goes on to point out that, while a few Linotype operators' productivity had greatly increased with the new process, the latter also introduced new labor and material costs that erased its economic advantage over hand composition. Like many articles that would follow it, the article points to defects in grammar, typographical form, and faithful reproduction evinced in papers that had made the switch, calling particular attention to the disastrous print quality of the post-Linotype Boston *Herald*. The author argues that the new "toys" were mistakenly thought by managers to be a replacement for the linguistic and typographical skills of hand-compositors, but that these skills—and thus the workers who possessed them—would in time prove irreplaceable.

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[43] "The Typesetting Machine," *Typographical Journal*, February 2, 1891, 4.

An article published the next month, however, summarizes a report filed by union delegates after witnessing the "improved" model in action.[44] Whereas the previous article blames the Linotype for diminishing literary and typographical standards, the latter opens by arguing that

> this machine was capable of some excellent work, considered from a mechanical stand-point, and produced lines perfect in spacing and with a clear face…. In the above particulars it was thought to be a complete success.[45]

The report includes an analysis of a time trial conducted at the New York *Herald*, in which an "expert" Linotype operator was measured against "a practical [i.e., hand] compositor" who was a beginner on the machine.[46] As the article notes, the "expert" initially far surpassed the compositor in speed, "but fell short on cleanness and accuracy."[47] Over a period of six weeks, the former hand-compositor approached the speed of the "expert," yet the latter showed little improvement from the standpoint of accuracy or craft. On this basis, the report concludes that, though the machine was poised to revolutionize typesetting, there was no "need of a panic in typographical circles."[48] The delegates recommend, instead, that union compositors should

> stand ready to operate the machines, and … unions should in no way discourage their use, but should insist that their members be employed, guaranteeing that there should be painstaking and honest application in the work.[49]

The delegates' report argues that fighting the machines amounted to a "foolish effort to stand in

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[44] "Type-Setting Machines," *Typographical Journal*, March 2, 1891, 1.

[45] Ibid.

[46] Ibid.

[47] Ibid.

[48] Ibid.

[49] Ibid.

the way of mechanical improvement" and to "retard the progress of inventions which seek to save labor and increase productive power." However, it also argues that the journeyman printer's traditional sensitivities to language and form would not be made redundant by the introduction of machine composition. By accepting the new role of automation in the trade, union typesetters would not only put themselves in a better position to struggle for control of the work process — they would additionally be better placed to uphold traditional standards of quality.

Beyond this, however, the delegates also remark on the difficulty workers experienced with the speed and complexity of machine composition.

> The testimony of the operators is that the work is far more taxing than hand work, and, so far as their experience goes, eight hours is fully enough to constitute a day's work, if, in fact, it is not too long.[50]

The suggested decrease in working hours would not just benefit the individual compositor, but the trade as a whole. The introduction of the Linotype brought with it a form of labor discipline that required increased output from a smaller number of full-time compositors. Throughout the 1890s, ITU locals would push for a shorter workday in order to insure that unemployment could be kept to a minimum. This effort, in turn, placed the ITU at the forefront of the struggle for the 8-hour day in the United States.[51]

In a June 1894 *Journal* article, a compositor from Boston contrasts the results achieved by machine composition at two local dailies: the *Herald* and the *Globe*.[52] The author reports that the *Herald* received letters of complaint regarding the readability of the paper soon after the shift

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[50] Ibid.

[51] Kelber and Schlesinger, *Union Printers*, 14–16.

[52] "What the Linotypes are Doing," *Typographical Journal*, June 1, 1894, 3.

to machine composition, and that "the howls of the most unassuming were loud and long."[53] The *Globe*, on the other hand, maintained and even improved its typographical quality. The secret, the author concludes, was that the latter newspaper set no quotas on the amount of copy produced, while the former operated according to a piece-work system, in which labor was measured as "with a yardstick."[54] The blame for the *Herald*'s decline in quality, in other words, lay not simply with the machines themselves but with this new style of labor discipline.

> [The men] forgot everything in the shape of good spacing … knowing full well that unless a certain average was reached at the end of their apprenticeship they would again find themselves … plying their former vocation. A man with such a state of conditions constantly kept before him can not be expected to consider for a moment good workmanship, and can not be blamed for the quality of the production of his machine by the readers of this paper ….[55]

The Boston compositor also responds to rumors of up to 5,000 ems (single sorts) per hour being composed in competitive bouts between operators, arguing that "no office can produce more than … 3,000 ems per hour … and present a readable paper to its patrons."[56] As with earlier *Journal* articles, the report from Boston details the compositors' irreplaceable training in matters of legibility and typographical form. Here, however, the argument goes further, emphasizing the public utility of this training; for this author, the indignant letters to the *Herald* prove that "good workmanship must be applied to the key-board in order to get the results that a progressive people demand."[57] The Boston compositor thus reframes the notion of "progress" to

[53] Ibid.

[54] Ibid.

[55] Ibid.

[56] Ibid.

[57] Ibid.

include not just the quantitative expansion of productivity and profit, but also the qualitative dimensions of both production (working conditions) and consumption (the reading experience).

It is notable that, throughout his comparison of the two newspapers, the Boston compositor makes no mention of the number of men employed in each office. If the speed-ups in printing offices reflected the imperative to reduce the workforce in order to offset new material costs and expand profit, a more relaxed rhythm of production would translate to the work being divided among a larger number of employees. The ITU, however, was losing ground fast in the struggle against unemployment. An article published earlier in 1894 reports on "the havoc created by the machines" with a city-by-city tally of offices utilizing Linotypes.[58] According to the reports of 70 union locals, 2,071 employees had already been displaced, with the numbers still rising as of press time. In New York alone, 212 had lost positions in newspaper printing, in addition to 96 in the jobbing offices. While 185 locals reported no machines in use in their respective cities, others such as Boston saw slight increases in employment, "due in almost every instance to an enlargement of the papers."[59]

Ultimately, such enlargements — measured both in copies and in page counts — would spread, leading to a stabilization of the trade under a new technological paradigm. But union compositors were aware that if such a state of affairs were to materialize at all, it would do so only after an extended "lean period."[60] In a November 1896 *Journal* article entitled "Evolution

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[58] "Machines and Their Effect," *Typographical Journal*, January 15, 1894, 3.

[59] Ibid. Fifty-two locals did not respond in time for the report. Additionally, some cities with large immigrant populations appear more than once in the *Journal*'s tally. For example, no Hebrew papers in New York were yet typeset by machine, while ten English newspapers and four job printing offices were.

[60] Skopeo, "Evolution of the Printing Press," *Typographical Journal*, November 16, 1896, 381–384.

of the Printing Press," an author identified as "Skopeo" describes the revolutions occurring in the trade due to the introduction of the Linotype. Skopeo acknowledges that frequent assessments added to union dues — though they offer only "scant relief to the unemployed" — are for the employed "a forcible reminder that the amount of suffering is untold."[61] Despite the hopeful ring of its title, terms like "evolution," "revolution," and "progress" are charged with ambivalence throughout the article. For Skopeo the "march of progress" points the way toward a better future for the trade as a whole, even as it simultaneously set in motion "a crushing revolution."[62] While he cites "natural laws of political economy" which dictate that increased production creates a "multiplication of the demand, necessarily increasing the number of hands," Skopeo admits that there is a class of compositors for whom this "law of political economy … has no bearing."[63] Certain hand-compositors — particularly older or more narrowly-trained ones — would thus be sacrificed to "the latter-day wizard [named] Progress."[64] It was too late for most such compositors to be trained on the new processes or to move laterally into more specialized fields such as the hand-composition of advertisements and announcements in the jobbing offices.

As we have seen, the advent of the Linotype was accompanied by attempts to conceptualize the agency of the worker in relation to the power of the machine, with notable slippages between the two. Whereas the *Tribune*'s unveiling of the Linotype tends to emphasize the machine's approximation of human thought and action, articles by union compositors describe the machine as a force that molds the will of its human operator. But as the Boston

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[61] Ibid., 381.

[62] Ibid., 382.

[63] Ibid., 381.

[64] Ibid., 382.

compositor emphasizes, the culprit was less the machine itself than the form of labor discipline which accompanied it. Skopeo, however, sees even the latter to hold positive potentials, both for the typographical craft as a whole and for the individual compositors' quality of life. Skopeo even argues that machine composition, which "demands a clear brain," was contributing to a decline in drunkenness among compositors.[65] In this way, the machine itself possesses "a tendency to elevate printers in general to that position in daily life to which their intelligence entitles them."[66]

Skopeo notes that while the Linotypes were "seemingly provided with brains," the modern newspapers they produced were far from being the "thing[s] of beauty" they might yet become.[67] The machine compositor, drawing on the history of his craft and the new potentials unlocked by technological progress, would soon be in a position to extend the art of printing — "the art preservative of arts."[68] Skopeo closes with a reflection on the mixed blessing of technological progress:

> There is yet an unending domain for taste, and brain, and cultivation, combined with accuracy of hand and eye. The chosen are few at present as regards this field, but in years to come the volume will be unending. I fain could wish that the men of the present had the opportunity the future will afford; but that is too much to look for now unless they are young.[69]

The *Tribune*'s 1889 unveiling of the Linotype made no mention of union compositors, and the crisis the latter faced over the next decade barely registered in the pages of the

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[65] Ibid.

[66] Ibid., 382.

[67] Ibid., 381.

[68] Ibid.

[69] Ibid., 383–384.

newspaper. By 1900, however, the ITU had signed a contract with the *Tribune*. The union would go on to establish jurisdiction over Linotype composition in major printing cities during the early twentieth century, managing the transition through a combination of retraining, shorter workdays, and early retirements. A March 25, 1900 *Tribune* article on the history of printing opens with a glowing endorsement of the New York local — an institution whose "objects are in every way worthy and [whose] movements have always been characterized by moderation and good sense."[70] The article begins as a preview of an ITU exposition celebrating 100 years of printing. It provides historical sketches of notable achievements in printing technology, with an emphasis on the *Tribune*'s pioneering efforts at automation. Because the article opens with an emphasis on the "philanthropic" activities supported by the union's exposition — notably including funds for "the relief of members who are out of work and … members too old to meet the competition of their younger fellows" — the balance of the article is characterized by careful framings of the relationship between technological progress and employment.[71] At many points, the article reads as a defense of technology, implicitly responding to generations of resistant print workers:

> The inventions of electrotyping, photo-engraving, fast printing machinery, and type casting and typesetting did put many men out of work in their beginning, but they have cheapened work, have increased the number of buyers of printing, and produced new occupations and given better wages to workmen.

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[70] "'Big Six's' Big Exposition," *New York Tribune*, March 25, 1900, 6.

[71] Ibid.

"BIG SIX'S" BIG EXPOSITION.

EVERYTHING RELATING TO PRINTING TO BE SHOWN AT THE GRAND CENTRAL PALACE.

MONEY TO BE RAISED FOR THE CHARITY FUNDS.

The mammoth Printing Exposition and Fair under the auspices of Typographical Union No. 6 will be opened in the Grand Central Palace, Lexington-ave. and Forty-third-st., on May 2, to run until June 2. This will be the first exposition of the kind ever held. Marcus Nathan, who has successfully directed several expositions has the general management of this one, the proceeds from which are to be used in furthering the benevolent features of the organization, such as the Hospital Fund, the Burial Fund, the relief of members who are out of work and the paying of money weekly to members too old to meet the competition of their younger fellows. These last are placed on the superannuated list established by that body some years ago, and are not liable for dues or assessments.

"Bix Six" maintains beds in four hospitals for its members who are sick and without relatives, and as a part of the International Typographical Union it contributes to the maintenance of a home for old, infirm or consumptive printers in Colorado Springs, the financial foundation of which was laid by the late George W. Childs and the late Anthony Drexel. It has

standing. But they nobly stood together and maintained the organization, and have ever since been affectionately known by their fellow members as the "Old Guard."

This demoralized state of affairs finally became so bad that both employers and the craft became sick of it—the craft because they were as a general rule getting so little remuneration for their labor; the fair employers because there was no uniform price for composition upon which they could safely estimate for work, and so found themselves at the mercy of every cutthroat employer who chose to take advantage of the situation. The hour being ripe, the man appeared.

In 1883 the union had the good fortune to elect as president John R. O'Donnell. Under his able leadership it rapidly grew in numbers, and before the end of the year a uniform scale for the book and job trade was placed in the market and successfully carried, and Big Six was out of its Slough of Despond.

VARIOUS LINES OF PHILANTHROPY.

Since that time, owing to its generally wise and conservative policy, the course of the union has been onward and upward. It has grown to a membership of nearly six thousand, and as it has grown in numbers it has broadened in its aims and objects. It has now under its administration a burial fund, a hospital fund, a monument fund and an out of work fund. In addition to this, it has rented a farm at Bound Brook, where it is the intention to give those out of work and the superannuated an opportunity to become self-supporting outside of the printing business by teaching them farming.

In the last seven years Big Six has paid out an average of $37,000 each year for the sick and indigent members. Of this $259,000 total, $3,000 came from the entertainments given by Big Six, and the other $256,000 came from the dues and assessments of its members.

The organization maintains beds in St. Mary's Hospital, Brooklyn; St. Catharine's Hospital, Brooklyn; St. Vincent's Hospital, New-York, and Presbyterian Hospital, New-York; and also often finds it necessary to maintain patients in the Eye and Ear Infirmary, New-York; the Seton Hospital, Spuyten Duyvil, N. Y., and the Home for Incurables, New-York.

It pays over $7,000 per annum to the Childs-Drexel Home in Colorado Springs, Col., and at the present writing has about fifty members (consumptives) in the Home.

Among the benefits lately achieved for its members by No. 6 and the International Typographical Union, the greatest one is the nine hour day for

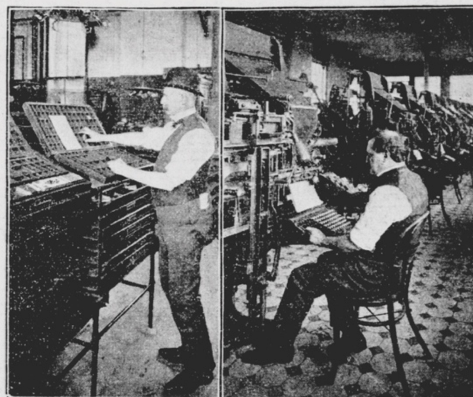
unprofitable because they are slow and of small size. Beginning in 1850 with 19x24 and 24x38 sheets, the size of book paper and of book printing presses has steadily increased until sheets of 40x60 inches are not uncommon. The hand press then in us cost about $225; the small Adams and cylinder from $1,000 to $1,500. Serviceable machines of large size now cost from $2,500 to $6,000. If a rotary or a web press be selected, the buyer must pay from $12,000 to $25,000.

The price then paid to piece compositors on book work was 23 to 25 cents a thousand ems. Time hands earned $9 a week. An extra valuable hand $10. The foreman of thirty or forty men was seldom paid more than $12 a week.

BEGINNING OF ILLUSTRATION.

Book printing had little benefit from kindred arts. Electrotyping was known, but was put aside as expensive; the process most used was stereotyping in plaster. Stereotyping in plaster was always unsatisfactory to book printers, for it could not fairly reproduce a woodcut. The art of electrotyping, first put to practical use by Professor Mapes in 1841, became an established business in 1853, and

best set forth in figures. Ordinary news paper sold for nine cents in 1850 (and at twenty cents in 1863) can now be had for three cents. It has been less than two cents. Yet fine hand made papers, made both here and abroad, that then had no market of importance, now find buyers at from thirty to eighty cents a pound. Printing machinery, on the contrary, has advanced enormously. The old form of hand press, better made now than it ever was, sells at about the same rate it did fifty years ago, but the hand press is no longer a factor in the production of books. The machinery required for printing modern books and newspapers costs from $1,500 to $25,000; printing inks are much cheaper and much better. The wages of ordinary workmen have doubled, and of expert workmen have trebled. Notwithstanding this advance in cost of labor and presses the price of books has practically decreased; nor are there as many men out of employment now in proportion to the employed as there were fifty years ago. The inventions of electrotyping, photo-engraving, fast printing machinery, and type casting and typesetting did put many men out of work in their beginning, but they have cheapened work, have increased the number of buyers of printing, and produced new occupations and given better wages to workmen. Complainers against invention may take courage. The more complex the machine



THE OLD AND THE NEW TYPESETTER.

The change from hand typesetting to doing this work on a machine took place in the Tribune composing room, where these photographs were taken.

Figure 3: New York *Tribune*, p. 6, March 25, 1900.

The article's central illustration compares photographs of "The Old and the New Typesetter" with the caption, "The change from hand typesetting to doing this work on a machine took place in the *Tribune* composing-room."[72] [Figure 3] Among the article's many mentions of labor unrest following the introduction of new technologies, it is noted that the engraving of illustrations by photographic processes is the only example of an invention that "seems to have destroyed the livelihood of a *meritorious* class of workmen."[73] Though the artistic interpretation of illustrations has become an art "as dead as the art of alchemy," a few wood-engravers remain on hand to correct the imperfections of photographic processes.[74] The

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[72] Ibid.

[73] Ibid. My emphasis.

[74] Ibid.

article similarly addresses workers' reactions to development of labor-saving processes in transferring type to the page.

> There was a great outcry by many workmen against the invention of stereotyping and electrotyping and the development of printing machines. … [But] far from driving men out of work, the new processes have made *new work for new men*. … [On] hand presses the daily newspaper of our time would be impossible.[75]

The position ultimately taken by the unions is reiterated here: adaptation to the new technology will leave some behind in order to take advantage of long-term gains. If the *Tribune*'s article on the New York exhibition presents a unity of interests between capital, labor, and machine, a corresponding editorial in the *Typographical Journal* makes much the same point.[76] Reporting on the New York exposition, the author graciously thanks the sponsors — which, naturally, include the Mergenthaler Linotype Company — and commends the *Tribune*'s pride of place in the development of labor-saving technology. No mention is made of the hand-compositors. Rather, the author writes of an increasing "demand … for superior ability," while "mediocrity must go to the rear."[77] In this celebration of the technological revolution that left thousands of compositors behind, a progressive century is presaged:

> The chief product of the printer during the twentieth century will be the newspaper, which will continue to advance the brotherhood of man, to work a greater revolution in society than its predecessor in the nineteenth century, and, finally, having become the organized institution for diffusing knowledge, it will instill into the people that wisdom in matters political, scientific, social and religious which will make the century the golden age of the world.[78]

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[75] Ibid.

[76] J.E. Jennings, "The New York Printing Exposition," *Typographical Journal*, May 1, 1900, 361.

[77] Ibid., 362.

[78] Ibid.

As we have seen, *Typographical Journal* articles tend to emphasize the historical inheritance of the trade and the long-term strategy of the union. If, early in the decade, compositors were encouraged to dismiss the Linotype as a fad, later articles argue that compositors should claim a place in the direction the trade was taking as machines became increasingly prevalent. As later articles increasingly emphasize, the professional skills and sensibilities of union compositors would continue to be in demand as long as newspapers — and their publics — appreciated the importance of proper literary and typographical form. The implied subject and audience, in other words, is most often the typographical trade as a cohesive unit across time. Even in cases where the permanently out-of-work compositors are discussed directly, as in Skopeo's article, they register almost as phantoms. The worker left behind by technological progress appears in statistics and in accounts of rising assessments levied on those who could find employment, but the hand-compositor rarely speaks for himself. One interesting exception, however, appears in a brief *Typographical Journal* article of August 1900, which republishes a letter that originally appeared in the Jackson *Whig*. A one-sentence introduction ominously describes the letter as having been "found in the bedroom of a printer who had lost his job on account of the introduction of Mergenthaler Linotype machines."[79] The letter reads, in part:

> Brother Printers: I write unto you, brethren, that ye may know the fate of one who has gone before, and who has fallen a victim of the monster (Mergenthaler). … Look not upon it when it is in operation, for its conscience is seared with molten lead, and after you are gone it moves along just the same, and careth not at all whether you fill your stomach with angel's food or corn cobs. … Today we spring up like grass and the rains fall … and we grow fat and think that shall ever last. But tomorrow this monster cometh to town, and we wither before him … and from hunger we get so thin we blow away, while the monster stands proudly in its

[79] "The Linotype Has Come to Town," *Typographical Journal*, August 15, 1900, 154.

> accustomed place, feeding on hot lead, space bands, reprint, editorial, etc., and looks wise."[80]

As we have seen throughout both the *Tribune* and the *Journal*'s coverage of the Linotype, a slippage between human agency and the will of the machine again manifests itself in the ghostly letter. Here the machine appears as something both more than and less than human. Standing like a man "in its accustomed place" — that is, the workplace, the former site of the laborer's dignity — the monster not only eats its fill, but looks "proud" and "wise" as it does so. Not just the body but the very livelihood of the worker — and not just his mind but his moral sense as well — have been rendered superfluous.

"Strike-On" and Strikebreaking

As the popular press grew during the beginning of the century, typesetting employment first stabilized and then expanded. Having hitched their fortunes to mechanized typesetting, the ITU grew in tandem, and the dreaded Linotype was gradually incorporated into the mythology of the printer's craft. However, technological as well as political threats to the union continued to appear. First, the invention of "teletypesetting" technology enabled Linotypes to be driven like player pianos; encoded tape was poised to replace human operators.[81] Second, proliferating experiments with photomechanical typesetting sought to replace the cumbersome "hot metal" process with what were called "cold type" processes. The prospect of typography with a photochemical basis, in turn, threatened to make typesetting more readily compatible with letterpress printing's longtime competitor, lithographic printing.

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[80] Ibid.

[81] Teletypesetting evolved from Morse code and the stock ticker; it would go on to form the basis for early computing memory. See Romano, *History of the Phototypesetting Era.*

Like many other such innovations, efforts at moving beyond hot metal were piloted by newspapers. A series of new inventions — referred to in the business as "strike-on" technologies — combined standard "QWERTY" typewriter keyboards with new counting and spacing mechanisms. Existing clerical workers, needing no knowledge of the Linotype's eccentric keyboard or metal-foundry controls, could be quickly put to work as replacement typesetters. The new typewriters, however, were in many ways *less* efficient than Linotypes. In early strike-on processes, each line had to be typed twice (that is, after the text's author had written or typed it out in the first place). The first round of typing calculated the total space occupied by the characters, and the second distributed the remainder of that measurement among the gaps between words to produce a justified line.[82] During ITU strikes in San Antonio, Texas in 1945 and in St. Petersburg, Florida in 1946, publishers invested in justifying typewriters and, in the words of one print historian, simply "hired women to work on them."[83] Operators of Varityper and Underwood Electric typewriters successfully broke the ITU strike at the *St. Petersburg Times*. These cases did not escape the notice of newspaper publishers in larger, union-dominated cities.

The immediate postwar years had seen a massive strike wave in the US, prompting a Republican-dominated Congress to pass *The Labor Management Relations Act of 1947* — known in labor circles as the "Taft–Hartley Slave Labor Act." Passed with bipartisan support over a veto by president Truman, the act stripped organized labor of many of the bargaining rights it had won over the preceding decades, threatening to end "closed shop" practices altogether. Unions could now be held financially liable for losses resulting from "secondary

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[82] Romano, *History of the Phototypesetting Era*, 25–32.

[83] Ibid., 25.

boycotts" as well as wildcat and solidarity strikes. The Chicago Typographical Union's contract with the Chicago Newspaper Publisher's Association (CNPA) was set to expire soon after the passage of Taft-Hartley, and the publishers leaned heavily on the new rules in initial negotiations. The resulting Chicago Printer's Strike — a citywide pressroom shutdown that lasted from November 1947 to September 1949 — targeted not just the major city papers, but the emerging Taft-Hartley order itself.

The newspapers represented by the Publishers' Association included Robert McCormick's *Tribune,* William Randolph Hearst's *Herald-American*, and Marshall Fields's *Sun and Times,* as well as smaller papers like the *Daily News*, the *Journal of Commerce,* and the black-owned *Defender*. During the strike, the *Tribune* put its clerical staff to work on the new typewriters, whose output was later "pasted up" as right-reading paper layouts — as opposed to being "locked up" in countless pieces of backward-reading metal.[84] This collaged result was then photographically transferred to zinc plates: a process normally reserved for reproducing line illustrations or halftone photographs. Some display type was composed onsite, while the bulk of the advertising work was surreptitiously brought in from jobbing printers.

In addition to these technical strategies, the publishers folded new provisions of Taft-Hartley into their existing contract procedures. It had long been the publishers' policy to keep as many of the print-related unions on different negotiation timelines as possible. The photoengravers' union decided against a strike while their pre-Taft-Hartley contract was still in effect, electing to cross the picket line. At the same time, Taft-Hartley's effective outlawing of "secondary" strikes and boycotts meant that striking newspaper employees could not interfere with the work being farmed out to the jobbing shops. Under the new rules — which remain in

[84] Ibid., 43.

effect today — a worker is only permitted to undertake an industrial action against his or her immediate employer. In March of 1948, an additional 1,500 ITU members from 40 commercial shops were locked out amid widening contract disputes.[85]

Tribune management, taking notes from the *St. Petersburg Times* strike, improvised a new work process that temporarily disrupted the established hierarchies of the office and printing plant. In a lionizing biography of *Tribune* publisher Robert McCormick, Richard Smith describes the event in language that is at once militaristic and carnivalesque:

> Fresh from a reconnaissance mission to San Antonio, [*Tribune* news editor Stewart] Owen had joined forces with Pauline Ferber, head of the paper's stenographic department, to launch the whimsically titled Manhattan Project, a crash course secretly administered to twenty crack typists. Tripled in size and renamed Operation Musk Ox, the program came to be supplemented with copyreaders, who were taught the intricacies of an alternative method of setting headlines called Fotoype, and with students from Northwestern, hired to set classified ads. On the night of November 24, 1947, as clattering typesetting machines in the composing room fell silent, Operation Musk Ox went into overdrive. Long wooden tables, hastily crafted in the *Tribune*'s carpentry shop, were set up in the fourth-floor newsroom. A ragtag force of stenographers, secretaries, and typists drafted from throughout Tribune Tower worked ten- or twelve-hour shifts at their VariTypers. The sound was deafening. To McCormick's relief, twenty-three unions stayed on the job, their loyalty exceeded only by their versatility. In the crunch, executives demonstrated hidden proletarian talents. Production bosses pushed carts of metal. Artists dropped their brushes and pencils for scissors and paste pots.[86]

As Smith tells it, this quasi-utopian disruption of the newspaper's division of labor gradually settled into a smooth process. The paper, he writes, shed its initially "haphazard appearance" and surpassed projections of size and circulation.[87] During the first month of the strike, 47 different

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[85] "From Local Unions: News and Comments," *Typographical Journal*, April 1948, 288.

[86] Richard Smith, *The Colonel: The Life and Legend of Robert R. McCormick, 1880–1955* (Evanston: Northwestern University Press, 2003), 471.

[87] Ibid.

regional newspapers sent representatives to Chicago to observe the process of publishing a newspaper without Linotype machines and without a union.

Writing in a union paper five weeks into the strike, typesetter and ITU historian Henry Rosemont reported a very different set of conditions. The *Tribune* had to make extreme and, in some cases, unworkable adjustments to article and advertising deadlines — yet they were regularly “12 to 72 hours late with the so-called news.”[88] An unusual number of papers were returned unsold, and executives apparently looked the other way as newsboys trashed the leftover copies at the end of their shifts. As Rosemont writes,

> Dents in the circulation of the paper, which are estimated at between 12 and 28 per cent … result partly from public sympathy with our strike, partly from disgust at the appearance of the “ersatz” newspapers, and partly from uncertain and tardy delivery.[89]

The experimental methods had yielded a lopsided work process: both faster and slower, at specific steps, than the established sequence of production. On the night of November 2, 1948, these irregularities conspired with misleading early vote counts and the Republican-dominated paper’s outspoken wish to see Truman defeated.[90] The “Dewey Defeats Truman” front page of November 3 is widely known for its erroneous headline, but just below that something else stands out: each column is set in awkwardly-spaced typewriter text. Toward the top of the far-right column, five lines were even pasted in upside-down. [Figure 4]

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[88] “From Local Unions: News and comments,” *Typographical Journal*, December 1947, 302.

[89] Ibid.

[90] Romano, *History of the Phototypesetting Era*, 43.

Chicago Daily Tribune
THE WORLD'S GREATEST NEWSPAPER

DEWEY DEFEATS TRUMAN

G. O. P. Sweep Indicated in State; Boyle Leads in City

REPUBLICAN TICKET AHEAD OF 1944 VOTE

Tops Coghlan in Hot Race for Attorney

RECORD CITY VOTE SEEN IN LATE TALLIES

BULLETINS ON ELECTIONS

Early Count Gives G.O.P. Senate Edge

PUTS G.O.P. BACK IN THE WHITE HOUSE

Figure 4: Chicago *Tribune* front page of November 3, 1948.

After nearly two years in the streets, the typesetters ended their strike in September 1949, having won most of their demands and preserving many pre-Taft-Hartley, "closed shop" rules. But while the "strike-on" typesetting method was discontinued in the affected papers, the episode had strongly hinted at the possibility that wisely-deployed typesetting innovations could outmaneuver print workers' unions. As ITU historians Harry Kelber and Carl Schlesinger wrote, newspapers across the country would later launch "a campaign of psychological warfare" in the form of regular articles on new techniques.[91] These articles luridly tallied up the number of new machines on order, while exaggerating their typographic quality and ease of use. Many also reported on the sums that US newspapers were collectively sinking into research and

[91] Kelber and Schlesinger, *Union Printers*, 40.

development; in the late 1940s alone, the American Newspaper Publishers Association set aside $280,000 to fund new photographic and electronic inventions.[92]

The ITU was able to keep these challenges at bay throughout the mid-twentieth century as it grew into one of the most powerful representatives of the American “labor aristocracy.” New contracts forbade machines like the teletypesetter, even though this meant that print-ready stories from the wire services had to be retyped from scratch by an ITU member on the premises.[93] It was only in 1964 that the New York City local signed a contract allowing Linotypes to be run on “outside tape” — on the condition, however, that employers paid 100% of the profits deriving from the new machinery into the union’s “automation fund.”[94] While this price was prohibitively steep for many firms, it opened the door to similar agreements on phototypesetting and, eventually, on computer systems as well. During the 1970s, the ITU began to draw down in exchange for the job and pension security of existing members.[95] In the meantime, the new machines had already crept into areas of the industry with lower union density.

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[92] Ibid.

[93] “This practice—called ‘reproduction’ by the union, and ‘bogus’ by everyone else—may have been the most maddening expense publishers dealt with.” Romano, *History of the Phototypesetting Era*, 44.

[94] Kelber and Schlesinger, *Union Printers*, 224–226.

[95] Michael Neuschatz, “As the Ink Fades,” interview by Dakota Brown, *Jacobin*, September 18, 2017, accessed March 1, 2022, https://www.jacobinmag.com/2017/09/typesetting-union-technology-automation-printing

Race, Gender, and Photocomposition

The next frontier in printing technology was the convergence of offset lithographic printing and photomechanical typesetting. Lithographic printing plates, in contradistinction to lock-ups of letterpress relief sorts, are flat sheets of metal whose printing surfaces are activated through a chemical process. As this method was refined in the 1960s, it allowed for the precise registration of multiple overlapping colors; it thus became widely used in popular magazines and product packaging. Typesetting by means of photographic technology had an obvious advantage here over metal or wood, which had to be laboriously assembled and printed before it could be photographically transferred. During the 1960s and 1970s, new phototypesetting patents were filed at a rate too chaotic to enumerate.[96]

Consonant with El Lissitzky's predictions, phototypography provided several efficiencies. While the precise alignment of typographic film required expensive machines (as well as their maintenance), the medium itself was lightweight, compact, and relatively cheap. And as in the earlier shift to wood type for display applications, removing metal foundry from the equation invited more adventurous and ephemeral designs. As phototypography became the new industry standard, in fact, the separate streams of metal "running" type and wood "display" type re-converged on film. Whereas each metal or wood typeface was produced in a fixed range of sizes (fonts), in phototypography changes in scale were a simple matter of adjusting a lens.[97] It

[96] The recent documentary *Graphic Means* (2016), which I will discuss at some length in the conclusion, offers a very detailed and practical overview of this period. See also Romano, *Phototypesetting Era*.

[97] In some cases, however, this reliance on magnification precipitated a drop in overall quality. Many metal fonts had been crafted specifically for the size at which they would be reproduced, incorporating small adjustments that corrected for the optical needs of very small or very large letters. See Meggs and Purvis, *History of Graphic Design,* 392–393.

is also with photo-based composition processes that, for the first time, standardized characters could be set with negative *leading* or *kerning*; that is, they could overlap vertically or horizontally in a way that was impossible when each character occupied a separate metal or wood sort. The disjointed effects of postmodern typography were thus prefigured in the work of 1970s designers who collaborated closely with phototypesetters. As we have seen, adventurous designers who had access to the new machines themselves — like Wolfgang Weingart in the studios at Basle — also creatively misused the machine's potential for distortion and overexposure.

Electronic typewriters, in the meantime, had seen a series of technical improvements since the Chicago printers' strike of the late 1940s. Though in a less direct way, such QWERTY-based technologies continued to threaten Linotype operators. Beginning with IBM's midcentury electric typewriters — many of which, incidentally, had been designed by former IDCA president Elliot Noyes — office machines began to introduce a wider array of typefaces and formatting options. Machines like the AlphaComp offered a miniaturized phototypesetting system that made it possible for a company to produce its own forms, catalogs, newsletters and other documents "in-house." A two-page advertisement for the AlphaComp from 1977 reads, "These two people have one thing in common. They're both typesetters." [Figure 5]

> They both set beautiful type. The big difference between them is that he has years of professional experience behind him, and yet she — after only a couple hours instruction — can match him word for word with the AlphaComp. … Like it or not, the new technology in typography is with us and the industry is undergoing a complete changeover….

Figure 5: AlphaComp advertisement from *U&LC* magazine vol. 4 no. 4, 1977.

Occupying the entirety of the opposite page is a stark photograph of two models. On the left, a middle-aged man in a tie and a lab coat stands with crossed arms and a knitted brow, bearing two different measuring sticks. On the right and slightly in front stands a much younger woman, with a more open expression and a shirt unbuttoned to the navel; she holds a notepad at the ready. Echoing the strikebreaking effort at the Chicago *Tribune*, the advertisement promises to replace expensive typesetting specialists with existing low-wage clerical employees. Accordingly, the depiction of the secretary is doubly-coded as “cheap.” The ITU had no precedent for organizing office workers, and their automation strategy did not recognize phototypesetters as fellow “printers” in any case.[98]

In terms of the politics of labor, phototypesetting and offset lithographic technologies were deeply ambivalent phenomena: they promised novel aesthetic possibilities for designers on one hand and lucrative cost-cutting opportunities for managers on the other. To complicate the

[98] Sam Solomon, “Offsetting Queer Literary Labor,” *GLQ: A Journal of Lesbian and Gay Studies* 24, nos. 2–3 (June 2018): 239–266.

picture further, the move away from “hot metal” also provided new countercultural movements the means to affordably disseminate their ideas, and even to circumvent censorship. In the late 1960s and 1970s, an emerging underground press recorded a broad-based rejection not only of bourgeois American life and its gender roles, but also of the state socialism of the Soviet Bloc and the increasingly business-friendly practices of mainstream unions.[99] A central node for radical publishing in this time was the Detroit Printing Co-op, which was in operation throughout the 1970s.

The Co-op, launched by Fredy and Lorraine Perlman in 1970, printed several important works in the anarchist and dissident Marxist traditions. They are perhaps best-known for translating and publishing the first (and for decades, the only) English translation of Guy Debord’s *Society of the Spectacle*. The Perlmans and their extended network of comrades took particular interest in the emergence of groups like the League of Revolutionary Black Workers, who acted both within and against the white-dominated unions of Detroit industry. The Co-op donated labor to and shared materials with the independent publishing project Black Star after Detroit ITU members refused to typeset the same materials.[100] Perlman was not trained as a designer, a printer, or a typesetter, but he developed a unique approach to color separations and typesetting, which he began to see as a craft-based overcoming of divided and alienated labor. His improvised process made use of alternating fonts, typed out on a borrowed IBM Selectric Composer and combined with found photographs using darkroom techniques. A rickety secondhand offset press, shared by the collective, provided final output. With some slight

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[99] Geoff Kaplan, *Power to the People: The Graphic Design of the Radical Press and the Rise of the Counter-Culture, 1964–1974* (Chicago: University of Chicago Press, 2012).

[100] Danielle Aubert, “The Politics of the Joy of Printing in Detroit,” *Counter Signals* no.1 (Fall 2016 / Winter 2017): 49.

updates, in other words, Perlman was working in a very similar manner to the Chicago *Tribune* strikebreakers of the late 1940s — but this time in the service of black radical labor texts that ITU members refused to touch.

In the commercial typesetting business, meanwhile — descendants of the nineteenth-century "jobbing" shops — phototypesetting had been connected to mainframe computers. Like the clerical workers alluded to in the AlphaComp advertisement, this segment of the trade was thoroughly "feminized" — and almost uniformly non-union. Working among these hybrid typesetter-programmers was Karen Brodine, a lesbian socialist-feminist organizer, poet, and publisher who supported herself with typesetting work from the mid-1970s to the mid-1980s. As one of the first wave of digital (but pre-Macintosh) typesetters, Brodine programmed page layouts in cramped conditions for low pay, and without the benefit of union representation. The posthumous poetry collection *Woman Sitting at the Machine, Thinking* documents her daily rhythms, which include frequent clashes with management. As literary scholar Sam Solomon has argued, they also develop her passing thoughts at the keyboard into sharp insights on the nature of her work.[101] The poems reveal a remarkable grasp of both the conventions of the printed page and the potentials of electronic communication: potentials Brodine understood to be fettered by the profit-motive and the petty hierarchies of the workplace.

> she thinks about everything at once without making a mistake.
> no one has figured out how to keep her from doing this thinking
> while her hands and nerves also perform every delicate complex
> function of the work. this is not automatic or deadening.
> try it sometime. make your hands move quickly on the keys
> fast as you can, while you are thinking about:
> the layers, fossils. the idea that this machine she controls

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[101] Solomon, *Offsetting Queer Literary Labor*, 243–245.

> is simply layers of human workhours frozen in steel, tangled
> in tiny circuits, blinking out through lights like hot, red eyes[102]

Particularly in comparison to contemporaneous writing by graphic designers, Brodine's work poems are striking for their reflection on the history embedded in the means of her work. The keyboard and monitor constitute neither the timeless instrument of the Arts and Crafts practitioner nor the fearsome monster glimpsed by the anonymous 1900 compositor. In focusing her attention on the "dead labor" of previous generations, Brodine locates herself in a set of historical tensions that are at once personal and political, aesthetic and instrumental, quantitative and qualitative. In so doing, she embodies the approach outlined by C. Wright Mills forty years earlier: attuning the body and mind to a craft, not as a means of escape but in order to probe the social limits and constraints of capitalist work.

One result of the creeping dominance of phototypesetting in non-union workplaces was that capital-intensive union papers like the *New York Times* were among last to leave "hot metal" behind. The final night of Linotype composition at the paper — July 1, 1978 — is memorialized in the documentary *Farewell Etaoin Shrdlu*, directed by ITU proofreader David Loeb Weiss.[103] Among the film's interviewees is a compositor who reflects on his 26 years in the industry:

> [T]hat's six years apprenticeship, 20 years journeyman. And these are words that aren't just tossed around. … All the knowledge I've acquired over these 26 years is all locked up in a little box now called a computer. And I think probably most jobs are gonna end up the same way.[104]

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[102] Karen Brodine, *Woman Sitting at the Machine, Thinking* (Seattle: Red Letter Press, 1990), 3.

[103] "Etaoin Shrdlu" was a string of letters punched into the machine to indicate a typing error. *Farewell Etaoin Shrdlu: An Age-Old Printing Process Gives Way to Modern Technology*, directed by David Loeb Weiss (The New York Times Company, 1980), 29 min. https://vimeo.com/127605643.

[104] Ibid.

Once more, the newspaper industry had led the way in automation, and again the ITU had attempted to offer training in the new processes or to encourage early retirements. In the earlier transformation, the work lost to Linotype composition was compensated by a gradual but decisive expansion of print production. This time, however, the further rationalization of typesetting destroyed older forms of work while narrowing the number of jobs in the new lines. As El Lissitzky had predicted, metal gave way to film and paper; the material footprint of typography was shrinking. But as long as each text needed to be retyped to be typeset, labor-time savings were minimal. The widespread adoption of teletypesetting technology, however, allowed the storage and transmission of coded texts and, eventually, their formatting directions as well. By the 1980s, computer systems were beginning to dissolve typesetting into "word processing." A centuries-old gap separating writing and printing was beginning to close; this gap had been the very ground on which the typesetting industry stood.

In chapter two, we saw how three key events in the mid-1980s set the stage for the "New Discourse" of the 1990s. These were the publication of Phillip Meggs's *A History of Graphic Design* in 1983, the arrival of the Apple Macintosh personal computer in 1984, and the contemporaneous turn to theory in design education. To this historical matrix we can now add the demise of the International Typographical Union in 1986: the same year that new Macintosh software made high-resolution digital typography directly printable. The ITU was, at this time, the oldest continuously-running union in U.S. history.[105]

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[105] At this time, what was left of a few remaining ITU locals was either absorbed into the Communications Workers of America or the Teamsters Union.

The Print Worker and the Graphic Designer

From the perspective of graphic designers in the 1970s, print production involved a complex and opaque hierarchy of work processes; a planned design was never fully visible until it had been printed. Designers could only approximate typographical treatments; directions on spacing, size, and weight were then handed off to phototypesetting shops to interpret and execute in detail. Designers also passed along notes on color density or taped in photocopies to roughly indicate image placement; separate groups of prepress specialists then followed these directions, "stripping" together disparate negatives to create camera-ready printing masters. But despite the many hands through which such work passed, much of the period's professional graphic design left the impression that it was the product a singular, detached mind. The phototypesetting era was also the heyday of corporate modernism.

Though there was still a high degree of churn in new machines and processes, this division of labor held stable until the late 1980s. The subsequent digital revolution represented a centralization of typesetting capacities formerly bound up in massive metal-founding operations, delicate apparatuses of type on film, or astronomically expensive, room-filling computers — to say nothing of the specialized workers that knew these machines, nor of the infrastructures of apprenticeship and training that such knowledge presupposed. Tasks that had once been contracted out with some combination of strict direction and trust were, in the Macintosh era, now fully in the hands of the individual designer — from the smallest details of individual letterforms to the organization of entire books. Macintosh software would soon add image-editing capacities with no existing analogue, which in turn put pressure on commercial photographers and illustrators.

By the 1990s, design technology had reached a height of modernized seamlessness,

which ironically contributed to the decline of *modernism*'s hegemony in graphic design. Whereas modernist design could often, as Jan Tschichold warned, efface the labor of its varied producers, postmodernist graphic designers now performed virtuoso solos of multivocality. New graphic design software made effects like layering and distortion even easier than photomechanical media. As we have seen, these effects were quickly put to use in visual polemics against clarity and everything it was thought to represent. In graduate schools and experimental magazines, "deconstruction" and "post-structuralism" named practices that required a surer grasp of computer commands than any theoretical works these words may have evoked. On the other hand, a mostly unproblematic embrace of market-driven technological progress meant that postmodern practitioner-writers showed little interest in the political economy of print, which was shifting beneath their own feet. When, in 1997, *Emigre* published a rare acknowledgment that entire industries had been collapsing right next door, it was with a heavy dose of schadenfreude:

> [M]any of the printers who have gone out of business over the last quarter century deserved their fate. The grassroots of the printing trade is, after all, notoriously conservative, protectionist, and sexist.[106]

While, as we have seen, typesetting and printing (like most American trades) tended toward a narrowly white male membership and self-image, the heaviest losses in the industry from the 1980s forward would have been suffered by the non-unionized workforce of the "cold" type shops. Compared to the membership of the ITU, these workers were disproportionately women and people of color.[107]

As I will argue in chapter four, there is a significant slippage between the concepts of

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[106] Alan Marshall, "Decay and Renewal in Typeface Markets," *Emigre* no. 42 (1997): 20.

[107] Neuschatz, "As the Ink Fades."

"modernity" and "modernism" in design history. This ambiguity lies at the heart of many of modernist design's impasses — but in important ways, it also slipped unnoticed into the postmodernist critique. The demolition of modernist style became confused with aging criticisms of industrial capitalism. In this way, a more fluid, volatile, and unpredictable form of *deindustrializing* capitalism found apt expression in the very surfaces of 1980s and 1990s consumer culture. For print workers, meanwhile, "modernization" had meant deskilling, speedup, and loss of shop-floor control. As graphic designers celebrated the death of modernist routine and constraint, print workers were being "freed" from their deskilled and divided labor — along with the wage that labor once secured. From either perspective, it was evident that the old certainties were disintegrating.

The first successful test of a Linotype machine occurred in 1886. In 1986, the ITU — which had spent decades fighting to prolong that machine's lifespan — finally dissolved. The century in between strongly evokes what Joseph Schumpeter described as capitalism's tendency toward "creative destruction." Disruptive machines and novel forms of work sprung up almost overnight, only to be rendered obsolete in their turn; once the brake provided by ITU contracts was removed, this process could accelerate unabated. Despite the postmodernists' lack of interest in the ongoing violence of deindustrialization, however, visual polemics and critical essays of the 1990s are in fact riddled with themes of alienation and autonomy at work. In chapter four, I will offer a reinterpretation of the period grounded in the history of capital, labor, and technology that I have established here.

Chapter 4

Looking for Work: A Reinterpretation

> It is safest to grasp the concept of the postmodern as an attempt to think the present historically in an age that has forgotten how to think historically in the first place.[1]
>
> — Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism*

> "You're an electronic technician,
> not a typesetter. You're lucky
> to be shut out of the union."
>
> I know that typesetters
> grow more capillaries
> in our fingertips
> from all that use.
>
> here's a test: cut my fingers
> and see if I bleed more.[2]
>
> — Karen Brodine, *Woman Sitting at the Machine, Thinking*

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[1] Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991), ix.

[2] Brodine, *Woman Sitting at the Machine, Thinking*, 10.

Throughout this study, I have attempted to recapitulate the canonical history of graphic design while teasing out an alternative genealogy. No one could deny that the canon, encompassing everything from avant-garde models of practice and pedagogy to case studies of successful commercial projects, continues to inform the field to this day. As we have seen, however, lesser-known conflicts over the meaning and ends of modern work have also played a constitutive role — as much in the field's critical discourse as in the developmental trajectories of its tools and techniques. But where typesetters and other print workers are acknowledged at all in works of design historiography, they tend to fade from view once graphic design — fragmenting and unifying aspects of illustration, printing, and advertising — emerges as a recognizable profession in the early twentieth century. In such accounts, print workers constitute a mere background or prehistory to graphic design proper. It is, in fact, only recently that organizations like the International Typographical Union have begun to appear in reappraisals of graphic design history. Notably, this rediscovery has been led not by professional historians, but by a new generation of practicing designers — a point to which I will return in the conclusion.

As we saw in chapter three, union typesetters played an important role in maintaining, passing down, and in some cases even *enforcing* typographical standards. These efforts, though they often took the obscure form of contract negotiations or work stoppages, would go on to shape graphic design practice with a force that has mostly gone unacknowledged. As ITU member and union historian Carl Schlesinger wrote in his dirge to the Linotype era,

> Computers and cathode tubes replaced us,
> But, by God, they'll not erase us!
> 'Cause we taught them everything they know.[3]

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[3] *Linotype: The Film*, directed by Douglas Wilson (Onpaperwings Production, 2012), 1 hr., 16 min. DVD.

In this sense alone, the history of typesetting is a natural extension of the history of graphic design. Yet while typesetting has almost entirely disappeared as a distinct job, the subsequent development of the graphic design profession demonstrates that this work was not, in fact, simply "automated" out of existence.[4] Rather, since the late twentieth century, the job description of the graphic designer has expanded to include tasks once carried out by the earliest printers — albeit in increasingly simplified and indirect digital forms.

Having connected these two streams of typographical history, we can observe curious parallels even at the level of loose juxtaposition. Like the typesetters of the nineteenth century, graphic designers of the early Macintosh era found themselves in a decisive position in the dissemination of the printed word. Also like their counterparts, the designers engaged in extensive self-education and self-publishing. Both groups enjoyed access to a scarce medium of communication, which allowed them to write themselves into the salient socio-technical debates of their day. In both cases, the medium of print seems to have invited a strong self-reflexivity about the power of language, albeit one that was expressed in diametrically opposed ways. Print workers celebrated their trade as "the art preservative of all arts": an Enlightenment imaginary of expanding access and civic debate. In contrast, postmodern designers' typographic vandalism targeted precisely that unobtrusive, "neutral" typography on which such Enlightenment

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A recording of Schlesinger's song "Farewell, Etaoin Shrdlu" (not to be confused with the 1980 documentary of the same name) is included in this more recent documentary's soundtrack.

[4] There are still a relatively small number of businesses that offer typesetting services to large presses. But because these workers use the same software and hardware that graphic designers do, they can be seen more as an internal specialization within book design.

conceptions rested.[5] All the same, both imagined themselves as agents of progress. At their most optimistic, the graphic designers even conceptualized their labor in terms not far removed from the ideal of the journeyman printer. A facility with design was portable and flexible; it required both concrete skill and literate sensitivity. Both vocations thus promised to form the worker into a well-rounded human being possessing a range of irreplaceable — even unquantifiable — capacities.[6]

The graphic design discourse of the late twentieth century was also periodically seized by anxieties about the profession's ability to maintain its coherence in the face of technological change. The software that repackaged the knowledge and skill of the printing trades seemed at first to deliver a new autonomy to graphic designers. But because these technologies were off-the-shelf consumer products from Apple and Adobe, their emergence also threatened to undermine credentialed designers' monopoly on the medium. Paralleling the specters of the non-union Linotype operator of the 1880s and the feminized "cold type" worker of the 1970s was the shadowy figure of the "desktop publisher" in the design discourse of the 1990s: a mere machine-operator from outside the established apprenticeship and/or educational structure who was willing to work for reduced fees.

By the 1990s, graphic designers occupied an unfamiliar position in a revolutionized division of labor. Struggling to understand the scope of their agency, as we have seen, they turned to *theory* — and the theory that was ready at hand seemed to describe a post-industrial,

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[5] One of Burdick and Sandhaus's main criticisms of Kinross was that the design of his pamphlet treated typography as a mere "technology for the multiplication of knowledge." Burdick and Sandhaus, "Know Questions Asked," 58.

[6] As Rudy VanderLans put it in 1994, everything from literary theory to contract writing "can … be learned as you slowly develop into the all-around professional you're supposed to be." Quoted in Nakitas, "Interview," n. pag.

even “post-structural” social reality that rendered all established frames of reference obsolete. Debates over deconstruction helped to diversify graphic design’s visual vocabulary and lent an updated, postmodern self-image to the profession. However, this reconceptualization ultimately proved inadequate to the task of grasping the field’s own conditions of possibility. Despite continued anxieties about the future of work, the bare fact of design as labor almost never surfaces in the inquiries of the “New Discourse.”

This brings us to what may seem the most obvious continuity between the typesetters and the graphic designers, though it has been the most difficult to derive from the professional literature itself: as workers for hire, both were subject to capitalist constraints and imperatives. Indeed, as the designers gradually gained control over the disparate activities of the declining printing trades, their role lost much of its long-standing *managerial* or *directorial* character. Typesetting and layout were digitally “liberated” from the grasp of the old specialists; at the same time, this reconfiguration brought design practice closer to the point of production than it had been in several decades. The counterpart to my claim that print workers should be included in graphic design history is thus that graphic design constitutes an under-explored subject of labor history.

In this chapter I revisit the postmodern discourse and practice that I first surveyed in chapter two. This time, my interest is not in evaluating these texts as successful or unsuccessful interpretations of critical and cultural theory, nor of the categories of the “modern” and the “postmodern.” Rather, I approach them as attempts by designers to think (or to feel) their way through a transformed world of work *without the aid of concepts adequate to that situation*. To introduce this chapter, I first offer a brief account of what it might look like to reinterpret graphic design history from a critical perspective grounded in the specificity of capitalist work. I argue

that this change in perspective has the potential to connect the study of design to under-utilized analytic resources: particularly those of Marxian critical theory.

The balance of the chapter centers on close readings of two texts that I regard as "ends" of the postmodern experiment. First, I consider the "First Things First Manifesto 2000," an anti-commercial statement signed by many of the leading lights of the 1990s debates. As we will see, the manifesto initially seemed to radicalize extant critiques of the profession by directly confronting the constraints of the market. I argue, however, that this critique quickly turned into its opposite: namely, an affirmation of design's inherent power and autonomy. I then consider *Catfish*, a 2002 multimedia project by graphic designer turned performance artist and filmmaker Elliot Earls. The little that has been written about *Catfish* correctly interprets it as an apotheosis of postmodern efforts take up "roles associated with both art and literature" — which, at least implicitly, entail an abandonment of the demands of professional service.[7] As I argue, however, such interpretations neglect the omnipresent themes of alienated labor and frustrated recognition that shape *Catfish* at both the formal and textual levels.

Neutrality as Domination: Toward a New Theory

The first half of this study presented an interpretation of the modernist "machine aesthetic" that foregrounded the changing economic and technical realities of design practice. From William Morris's attempts to revive guild production to El Lissitzky's forecasts of an electronically-revolutionized experience of reading, we have seen a range of socialist visions for the future of printed communication. "The production of new typefaces is only a necessity under capitalism,"

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[7] McCoy, "American Graphic Design Expression," 16.

Jan Tschichold wrote in 1931. “Where advertising is transformed into scientific communication (in socialism) the typeface nonsense is pointless.”[8] But as Tschichold himself began to realize in the postwar period, scientific rationalization and industrial standardization by themselves had failed to produce a more rational or equitable world. On the contrary, he argued, such developments were implicated in novel forms of destruction and impoverishment. The union and radical typesetters we encountered in chapter three also negotiated the contradictory promises of print technologies, which they saw as tools for personal expression, public enlightenment, or committed struggle — even as new machines and processes frequently threatened these workers’ very status as employees.

The crisscrossing perspectives of journeyman printers and design professionals, modernists and postmodernists, bosses, strikebreakers, and union members all converge on set of linked questions: Do new technologies of production represent elaborations, or even novel inventions, of human capacities? Or do they merely objectify historically-contingent capitalist imperatives? And even if the latter is true, could these technologies yet be harnessed or subverted, as Frank Lloyd Wright argued, to humanistic ends? The dialectic of autonomy and heteronomy embedded in modern machinery has, of course, also been a central concern for critical theorists in the Marxian tradition. However, there is no established path connecting that tradition to the transformations of late twentieth-century typography. Apart from a few exceptions outlined below, such theorists have had little to say about the printing trades or the design professions; on the other hand, as we have seen, the “New Discourse” either ignored or outright rejected analyses that foregrounded capitalism as a determinate context and condition of

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[8] Letter to Josef Albers, December 8, 1931. Quoted in Christopher Burke, *Active Literature: Jan Tschichold and New Typography* (London: Hyphen Press, 2008), __.

possibility. All the same, Marxian theory can be shown to dovetail with the intentions of the postmodernists in perhaps unexpected ways. Common to both is a founding preoccupation with the relationship between domination and "neutrality."

In his 2007 essay "Socialism: A Life-Cycle," the French New Left journalist and philosopher Regis Debray proposes a "mediological" reinterpretation of the international workers' movement. Across an array of conflicting factions and national contexts, he observes the persistent role played by print, which he argues was formative for socialist imaginaries and practices. Debray's narrative then takes a more pessimistic turn as he correlates the receding of revolutionary possibilities in the postwar era with a shift away from media with a primarily textual basis — that is, toward increasingly visual and audiovisual communication. In a provocative but underdeveloped formulation, Debray concludes that "photocomposition [or phototypesetting] destroyed the last cultural bases of the workers' movement."[9] Photomechanical reproduction signals the decline of what Debray terms the "graphosphere," which was embodied in the interlocking counter-institutions of the political party, the party newspaper, and the revolutionary classroom (which often met in a print shop).[10] Coinciding with a contemporaneous turn in critical theory toward ideology and spectacle, our own age of the "videosphere" is characterized by the rising dominance of the image.

In light of the narrative I traced in chapter three, there is a certain literal truth — at least for the history of typography — to Debray's periodization. As hot metal was replaced by cold type, and in turn "dematerialized" into digital code, the mechanisms of typesetting progressively incorporated each of the media that are often said to have "killed" print: first film, then the

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[9] Debray, "Socialism: A Life-Cycle," 5–28.

[10] Ibid., 7–8, 16–18.

cathode-ray (television) tube, and finally computer memory. As we have seen, these technologies were often strategically deployed to undermine print workers' control over the production process; taken together, they tended toward the obsolescence of the typesetter as such. These innovations culminated in the unceremonious end, at least in the U.S., of organized labor's role in the history of typography. Among the workers who replaced the typesetters was a vanguard of boundary-pushing (yet politically indeterminate) graphic designers, united in part around an obscure desire to complete the transubstantiation of text into image. As we have seen, however, simpler and less capital-intensive methods of reproduction also created openings for dissident currents such as those that converged at the Detroit Printing Co-op, which issued challenges to both conservative union politics and state socialism.

At stake here are two distinct approaches to the politics of technology within Marxian thought. On one side lies a more skeptical position, which emphasizes the formative influences of management control, inter-firm competition, and the general imperative of capital accumulation. Such forces, as Marx argues in volume one of *Capital*, both shape the labor process and subvert ideal models of human reason or invention. In an early chapter, Marx draws a memorable contrast between human and animal production:

> [A] bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality.[11]

Several chapters later, however, this trans-historical appraisal of human inventive *capacity* collides with the modern *actuality* of deskilling and fragmentation.[12] As capital progressively subsumes the labor process, workers lose any ability to envision — much less play an active role

[11] Marx, *Capital* vol. 1, 7

[12] See in particular chapter 15, "Machinery and Large-Scale Industry." Ibid., 492–639.

in — the overall plan. With the advent of large-scale industry, the worker falls even below the status of the bee, becoming a tool wielded by a tool. As we first saw in the case of Josiah Wedgwood's ceramics factory, the creative and inventive aspect of production thereby becomes an attribute of management.

Marx and Engels's more accessible and exhortative "Communist Manifesto" has been a source of a second, more optimistic interpretation. Within this current of thought, the emphasis is not on the economic and political forces that shape technology, but rather on the novel social realities produced — often inadvertently — in the process of profit-driven technological change.[13] A great deal of the Manifesto is devoted, in fact, to the "revolutionary" historical role played by the *bourgeoisie* in their struggle with the remnants of the feudal order. But Marx and Engels go on to liken this new ruling class to an inept "sorcerer" who has called into being gigantic forces that quickly escape his control.[14] Among the glut of new machines and commodities there appears an increasingly global working class, among which traditional distinctions (of nation, generation, and gender) have begun to lose their saliency. In this accidental emergence of a potentially universal opposition, Marx and Engels write, one sees the system "produc[ing], above all, its own gravediggers."[15]

The Manifesto's section on the proletariat contains a vivid description of the factory

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[13] Langdon Winner has argued that both of these tendencies must be kept in mind. He offers the concept of technological "momentum" to explain how emerging technologies are initially socially constructed, though they can become technologically determinant over time. Langdon Winner, "Do Artifacts Have Politics?" in *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (Chicago: University of Chicago Press, 1986), 19–22.

[14] Karl Marx and Friedrich Engels, "The Manifesto of the Communist Party," in *The Marx-Engels Reader*, ed. Robert Tucker (New York: W.W. Norton, 1978), 478.

[15] Ibid., 483.

system's demotion of the worker to a mere "appendage of the machine."[16] More abstractly and influentially, however, Marx and Engels describe a revolutionary conjuncture in the emerging conflict between the "means" and "relations" of production.[17] New productive forces (means) have grown incompatible with the bourgeois institutions of private property, the market, and class division (relations). Capital accumulation, they write, has awakened capacities that formerly "slumbered in the lap of social labour" — but now science, technology, and the proletariat itself strain against capitalist relations as so many "fetters," threatening a dialectical reversal of the entire logic.[18] The exhortations of the *Manifesto* hinge on a powerful sense of historical necessity, which pushes the proletariat into the foreground and at the same time identifies this class with the future of science and industry. In contrast to the more developed analysis in *Capital*, here Marx and Engels do not dwell on the specifically capitalist nature of heavy industry and its attendant work-discipline. In the subsequent history of Marxism, this opened the door to a tradition of neutral or even unproblematically positive portrayals of industrial mechanization and proletarian labor — particularly after the first large-scale communist revolution was won in barely-industrialized Russia. Like many in the Bolshevik Party and later the Comintern, Vladimir Lenin confessed a deep fascination with Henry Ford's assembly-lines and Frederick Taylor's time and motion studies.[19]

The clearest example of this tendency in design history is naturally found in Soviet Constructivism. But it can also be linked to the labor discipline of machine typesetting via the

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[16] Ibid., 479.

[17] Ibid., 477–478.

[18] Ibid., 477.

[19] Braverman, *Labor and Monopoly Capital*, 8–9.

writings of another Marxist militant and theorist, Antonio Gramsci. In the segment on "Americanism and Fordism" in his prison notebooks, Gramsci takes stock of the dynamism of U.S. industry, which he explains largely as a function of the New World's abandonment of Europe's pre-modern aristocracy.[20] Recalling the Futurist Manifesto (with the important caveat that the Futurists were by now politically aligned with Gramsci's fascist jailors), he describes capitalism as a force that renders such "pensioners of economic history" obsolete.[21] And like Lenin, Gramsci argues for the communist significance of Taylor and Ford. Even Ford's company towns, with their temperance efforts and surveillance of employees' sexual morality, are worthy of consideration, as these were ambitious efforts to construct a new man. Gramsci sees highly routinized and rationalized work as an indispensable part of building a socialist means of production; even the "mechanization" of the worker, he argues, could be interpreted as salutary. His prime example of this potential is the machine typesetter. Gramsci admired Linotype operators for their ability to dissociate from any "intellectual interest" in the texts on which they worked.[22] In the midst of this labor, he writes,

> the brain of the worker, far from being mummified, reaches a state of complete freedom. The only thing that is completely "mechanized" is the physical gesture; the memory of the trade, reduced to simple gestures and repeated at an intense rhythm, "nestles" in the muscular and nervous centres and leaves the brain free and unencumbered for other occupations.[23]

Rather than becoming machine-like (or corpse-like), the worker's mind attains a state of freedom

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[20] Antonio Gramsci, "Americanism and Fordism," in *The Antonio Gramsci Reader*, ed. David Forgacs (New York: NYU Press, 2000), 275–299.

[21] Ibid., 278.

[22] Ibid., 295.

[23] Ibid.

in distraction. In such a state, Gramsci writes, the typesetters' thoughts were perhaps *more* likely to drift in a "nonconformist" direction.[24]

Though this passage may strike a contemporary reader as excessively optimistic, we have already encountered similar statements from print workers themselves. The ITU journalist "Skopeo," who bleakly recorded the "crushing revolution" inaugurated by the Linotype, also argued that the machine was rendering his fellow tradesmen cleaner, more dignified — and less drunk.[25] The work poems of Karen Brodine, too, could be read as both an elaboration and a revision of Gramsci's position. "Woman Sitting at the Machine, Thinking" re-performs the "mechanized gestures" that allowed typesetters to seamlessly reproduce their texts — yet Brodine also slips obtrusive thoughts of sex and strikes into the indifferent lines of the language-commodity, measured out in work-hours. Though new typesetting mechanisms sometimes appear charged with utopian possibility, they are never depicted as neutral: Brodine always keeps the formative antagonism of production partially in view.

In the work of the late social theorist Moishe Postone, we find a critique of neutrality that implicates large swathes of the Marxist tradition itself. Postone's critique builds on New Left re-readings of Marx, launched by the rediscovery and translation of Marx's early manuscripts between the late 1950s and the early 1970s, as well as a desire to deepen critiques of state socialism. In an early methodological essay from 1978, Postone turned in particular to the *Grundrisse*.[26] Read alongside neglected aspects of *Capital*, he argued, a different picture of

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[24] Ibid., 296.

[25] Skopeo, "Evolution of the Printing Press," 382.

[26] Moishe Postone, "Necessity, Labor, and Time: A Reinterpretation of the Marxian Critique of Capitalism" *Social Research* 45, no. 4 (Winter 1978): 739–788.

Marx's project emerges. For one thing, Marx comes across as a consistent critic of proletarian labor, which went beyond advocacy for better pay or safer working conditions. In contrast, what Postone terms "traditional Marxism" is defined by a critique of capitalist *distribution* and a curious silence on capitalist *production* — which was, after all, Marx's main object.[27] Postone concludes that the Marxian vision of a post-capitalist society would not just be one that has toppled the ruling class; rather, it would be one defined by the absence of a population dedicated to fragmented and alienated work. If the abolition of the bourgeoisie is a sufficient condition, then, the self-abolition of the proletariat is the necessary one.

The dissident Hungarian Marxist Georg Lukács was a forerunner to Postone in the study of reification. And not unlike Gramsci, Lukács envisioned workers, always treated like objects at work, thereby becoming conscious of their destiny as subjects of history. However, Lukács was less convinced that a worker's consciousness could emerge unscathed from the highly fragmented work processes of industrial capitalism. Despite its title, a great deal of Lukács's influential essay "Reification and the Consciousness of the Proletariat" concerns not factory hands, but rather professionals and ideological intermediaries.[28] For Lukács, the problem of reification extends far beyond the factory floor, embracing with particular intensity the "creative" and "intellectual" heights of the social division of labor. Instead of a physical machine, he writes, such professionals confront "the general socio-economic premises of the capitalist economy" as a motive mechanism that dictates the pace and direction of their work.[29]

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[27] Ibid., 739.

[28] Georg Lukács, "Reification and the Consciousness of the Proletariat," in *History and Class Consciousness: Studies in Marxist Dialectics* (Cambridge: MIT Press, 1968), 98–100.

[29] Ibid., 98.

The mind of Gramsci's typesetter finds a higher freedom as her absentminded gestures perform "the memory of the trade" — but here, the body remains unencumbered while *the interiority of the worker is put to work*.[30] The economic mechanism, Lukács argues, even comes to depend upon such workers reconciling their values of "conscientiousness" or "responsibility" with the constraints and imperatives of their job description.[31] Lukács generally identifies this figure as a capitalist "bureaucrat"; his description, however, fittingly captures C. Wright Mills's portrait of the mid-century corporate designer: an ironic "generalissimo" of absurdity and waste, whose status as an *object* of economic calculation conflicts with his professional self-image as the *subject* of industrial dynamism.[32]

More recently, this putting-to-work of the worker's interiority has become a salient issue for theorists of post-Fordist labor. In their book *The New Spirit of Capitalism,* sociologists Luc Boltanski and Eve Chiapello argue that anti-capitalist thought has historically linked two lines of attack.[33] The "artistic" critique, most visible in bohemian circles, traditionally emphasizes individual autonomy and the invention of alternative living arrangements. The corresponding "social" critique, most clearly seen in the classical labor movement, is centered on solidarity in a common struggle for security and dignity. According to Boltanski and Chiapello, these once-fused demands began to drift apart during the mid-twentieth century: the division became especially salient in the friction between students, workers, and established socialist parties in the global revolts of 1968. This separation reached such a degree in subsequent decades that themes

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[30] Gramsci, "Americanism and Fordism," 295.

[31] Lukács, "Reification and the Consciousness of the Proletariat," 99.

[32] Mills, "Man in the Middle," 382.

[33] Eve Chiapello and Luc Boltanski, *The New Spirit of Capitalism*. (London: Verso, 2005).

of "artistic" rebellion began to appear further and further afield from revolutionary undertakings. During the 1990s, as they document, a series of books by management theorists foregrounded the role of individual self-expression in a new corporate culture for the twenty-first century: one defined by disruptive innovation, individual mobility, and flattened hierarchies. The *flexibility* demanded by this "New Spirit of Capitalism," however, was most palpably felt in the area of employment, which was becoming increasingly "lean," provisional, and precarious. The authors argue that post-Fordist work, with its ballooning service sector and its intensified and individualized marketing mechanisms, requires greater inputs of personality and affect — thus effacing the boundary between work and play — even as the contract ceases to provide what it once promised. Just at this time, neoliberal reforms were curtailing the power of unions and rolling back long-term job security.[34] As we saw in chapter two, the American cultural critic and historian Thomas Frank was just noticing the curious coexistence of large-scale corporate marketing campaigns and celebrations of difference, rebellion, and rule-breaking.

The poet and literary theorist Jasper Bernes takes up Boltanski and Chiapello's schema in *The Work of Art in the Age of Deindustrialization*: a book that synthesizes themes in the art and poetry of the 1960s and 1970s with accounts of contemporaneous working conditions characterized by deskilling and service work.[35] In particular, Bernes attends to the anti-hierarchical appeal of the idea of "participation"; in giving form to this demand, new aesthetic practices rendered the "artistic critique" of workplace hierarchies more broadly available to thought. Artists and poets thus articulated radical critiques of work and its organization, with the

[34] Ibid., 155.

[35] Jasper Bernes, *The Work of Art in the Age of Deindustrialization* (Stanford: Stanford University Press, 2017).

unintended effect of providing "key terms and coordinates" for what would later become the dominant ideology of the post-Fordist workplace.[36]

Postmodernism in graphic design occupies a space between these two accounts. Often exhibiting traits of poets and business consultants at once, postmodernist designers constituted an important link in the intensification and recuperation of the "artistic critique." Postmodernism, as we have seen, encouraged practices that renounced power, either by a flirtation with mass aesthetics or via new theories that emphasized audience participation. But in the same measure, it also emboldened new claims to authorship and authority. The new directions often seemed to revel in the commercially-driven dismantling of anything static or secure. But they also reflected a critical curiosity about the labor of design. In the critical writing and critical practice of the 1990s, two conflicting desiderata with regard to labor can be detected. On one hand, designers wanted recognition for their ubiquitous but often unappreciated work. On the other hand — yet often in the same breath — they hoped to transform that work into more meaningful and self-directed activity. As the plainspoken designer and critic Jeffery Keedy put it, designers deserved more credit for their thankless efforts to "mak[e] crappy products look interesting."[37] Beneath much of the period's jargon, in other words, lay implicit critiques of the social needs that design is constrained to serve.

The designer's self-assertion against modernist "neutrality," as we have seen, did not always rely upon (nor, indeed, did it even clearly articulate) a grand philosophical mission. Seeking out roles, in Katherine McCoy's words, "associated with both art and literature" often

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[36] Ibid., 9.

[37] Jeff Keedy, "Greasing the Wheels of Capitalism with Style and Taste, or, The 'Professionalization' of Graphic Design," *Emigre* no. 43 (1997): 45–46.

simply meant escaping the job's more mundane tasks. As I will argue, many of the visual transgressions of deconstruction can be reinterpreted as expressions of dissatisfaction and disobedience at work. What united the motley collection of deconstructionist strategies was, above all, an ostentatious *shirking* of the service-oriented tasks of professional practice. And we could similarly reinterpret the new theories of reception. In the desire to free viewers from their presuppositions — to engage them in the contingent and collaborative work of participatory meaning-making — the postmodernists strove for a form of address that did not function according to the rules of profit-oriented discourse. We might also hear, between the lines of these strained constructions of "audience" or "public," the simple wish that amid the hail of consumer messaging, a viewer would stop and really take notice of a designer's work.

Many of these dispositions seem to collide in the career of one of the least theoretically-inclined or academically-aligned of the deconstructionists, David Carson. As we saw in chapter two, Carson was one of the most commercially successful of the movement. In the mid-1990s, for example, he was hired by Nike to design an ad campaign that ran in 12 languages for global markets. In one example, we can see the irreverent spirit of the artistic critique merging with sales messages through the medium of "deconstructed" typography. [Figure 1] On a plain white ground reminiscent of midcentury modernist advertising, the copywriter has highlighted the main selling point of the Nike Air Structure II: its stability. But as the text proceeds, it gradually shifts into a mode of ironic overkill, repeating some variant of the word "stable" in every sentence. Carson's typesetting, in a decidedly unstable font built out of spare parts from historical serif types, reinforces the sentiment. The font size increases jerkily, while its irregular spacing causes lines to double and overlap, crowding awkwardly into the bottom-right corner — all of which serves to amplify the copywriter's increasingly exasperated tone: "IT'S STABLE, OK? NOW

WILL YOU RELAX? Relax."

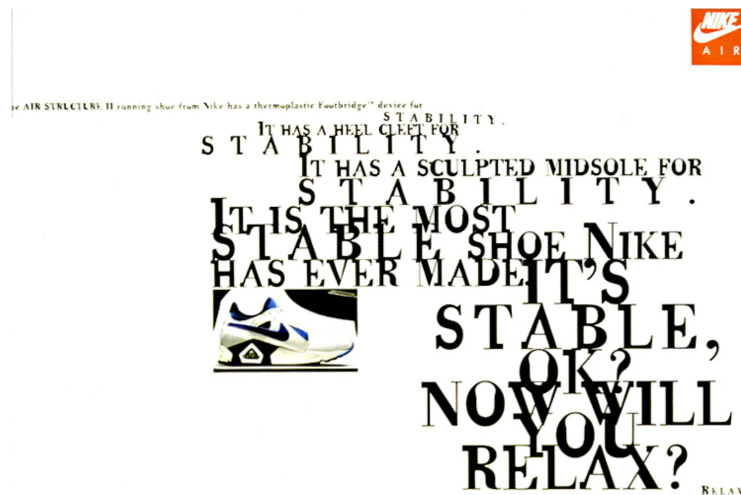

Figure 1: David Carson, Nike Europe advertisement, 1996.

As art director of *Raygun* magazine, Carson frequently subverted conventions of typographical communication. One of his best-known stunts was initiated when he was given an article on the singer Bryan Ferry to lay out; as he read over it, he grew increasingly bored and even disgusted by the poor quality of the writing. In response, he decided to print the entire article in a "dingbat" font consisting of abstract symbols.[38] [Figure 2] Though Carson's practical critique of the article may recall theoretical debates on the designer's role as a guardian of "the rights of the reader," this was above all an assertion of Carson's own taste. But we might go further and notice how this gesture highlighted his own position at a choke-point in the magazine's line of production. We could even say that the Bryan Ferry episode flirts at sabotage or a strike. (Carson, however, only flirted: the full, readable text was quietly slipped into the back

[38] An interview with Carson on this episode appears in the documentary *Helvetica*, which will be covered in the conclusion. *Helvetica*, directed by Gary Hustwit (Veer and Swiss Dots Productions, 2007), DVD.

pages of the issue.)

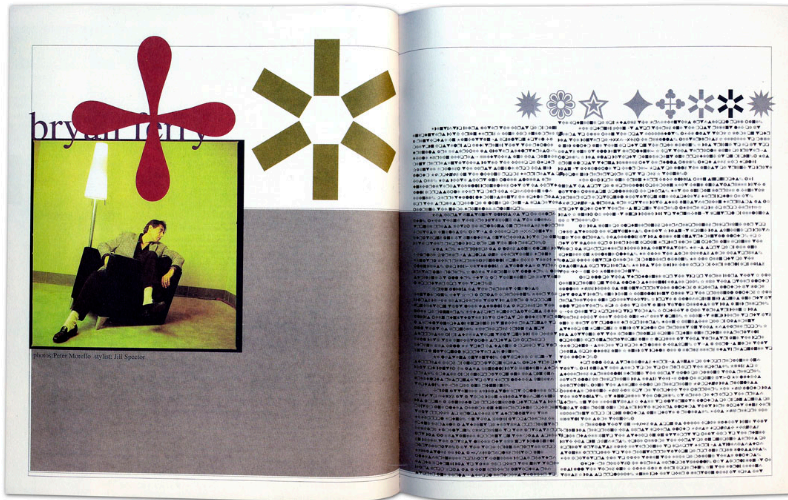

Figure 2: David Carson, *Raygun* magazine spread, 1994.

Viewed from a perspective of alienated labor, unexpected meanings surface even in the most seemingly straightforward modernist design. Under the influence of the International Style in typography, as we have seen, restrained grids and color schemes became *de rigeur* among U.S. designers, who by these means lent the public image of sprawling monopolies and national institutions an air of coherence and stability. Designers at offices like the international corporate identity firm Unimark made the institutional "standards manual" a mainstay of the graphic design profession in the 1960s and 1970s. Among Unimark's most visible projects was the "Unigrid": a design system for brochures of varying dimensions available at the hundreds of sites overseen by the U.S. National Park Service. [Figure 3] Among younger designers, the Unigrid would later become an icon of modernism's stodgy authoritarianism. But in the context of this study's history of typographical labor, we can see that the Unigrid was a tool of authority in a quite literal way: in the pre-digital age, such rigid templates were necessary for organizing and

directing the work of subordinate graphic designers, typesetters and other print specialists. The Unigrid's head designer, Massimo Vignelli, would later become one of the most vocal old-guard critics of postmodernism; among the young designers who passed through the Unimark offices in the 1970s was Katherine McCoy, who would go on to oversee the twin arrivals of deconstruction and the personal computer at Cranbroook.

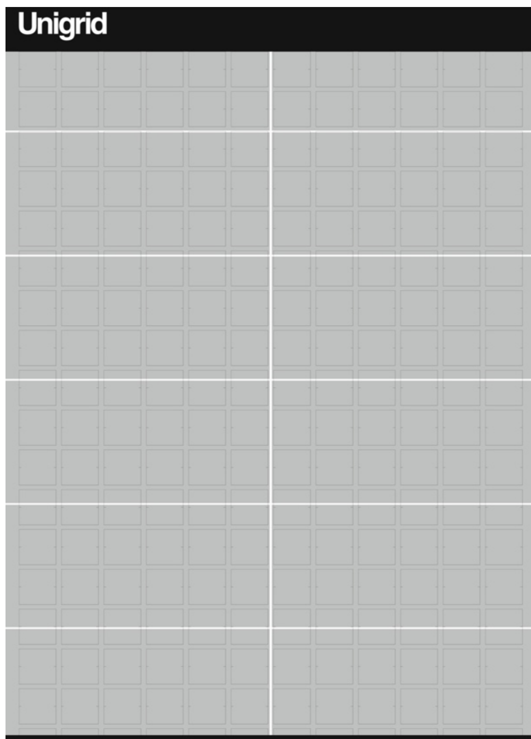

Figure 3: Massimo Vignelli, "Unigrid" for the US National Parks Service, 1977.

In the 1990s, deconstructionist graphic design literalized postmodern themes of difference and bricolage, along with a more diffuse desire to overturn all authoritative "structures." Postmodernist designers rightly pointed out that modernism's purportedly universal and objective forms were a thin alibi for the domination and exclusion that characterized the modern world. But an important ambiguity arose here: critiques of *modernity* were mostly

assimilated into critiques of *modernism*. As a result, debates on the politics of style tended to crowd out any sense of concrete social context. In art and literature, modernism had been an intellectual and aesthetic reflection on the experience of modernity; but though modernist design often shared modern art's air of contemplative abstraction, it also lacked its critical distance. Instead, modernist design fed directly back into the everyday experience of the modern world: from the grand spaces of its institutions and the perfected surfaces of its commodities to the very shapes of the words that publicized both.

Despite its best intentions, the postmodernist critique tended to reinforce the strength of this visual rhyme. But the end of modernism's hegemony did not signal the end of modernity: the postmodernist attack on the image of a rigidified and one-dimensional society, in fact, echoed the supersession of Fordist capitalism already in progress. By the end of the 1990s, however, the persistence of capitalist constraints and imperatives had become increasingly difficult to ignore. Between 1999 and 2001, graphic designers made halting attempts to come to terms with the field's "commercialized" or "commodified" status. The resulting debates are characterized by a sudden disappearance of many of the concepts that had animated the postmodern era.

The "First Things First Manifesto 2000"

The 1990s had been profitable years for anti-modernist styling, as visual strategies once framed by earnest citations of Barthes and Derrida found their way into big-budget advertising campaigns. As Cranbrook alumnus and frequent *Emigre* contributor Andrew Blauvelt would later remark, it was likely not a coincidence that "the proliferation of design styles corresponded with the increase of the number of brands and the demand for product segmentation in the

marketplace."[39] Design commentators in the late 1990s expressed disbelief that experiments originating at the margins of the profession had so quickly become "the stuff of sneaker, soft drink, and bank ads."[40] But like the lingering utopian reputation of modernism before it, postmodernism retained an aura of subversiveness in professional circles. As the design critic Rick Poynor argued in 1999, postmodern designers were still clinging to the idea that "formal innovations are somehow able to effect progressive change in the nature and content of the message communicated."[41] But no one, he wrote, seemed able to explain how or why that was the case anymore.

While this provocation raised valid questions about the agency of design and designers, no such explanation would be forthcoming. Alongside the market success of the postmodern turn of the 1990s, the brief flowering of critical writing that initially accompanied it had slowed to a halt. The design discourse, as Poynor lamented, now had little to offer "beyond the unremarkable news that design really can help to make your business more competitive."[42] To anyone outside the profession, Poynor's puzzlement would likely have seemed puzzling. Graphic design was by that time firmly established as a means of differentiating and promoting commodities. But for practitioners who had built the "new discourse" of the 1980s and 1990s, the commercial visibility of these graphic approaches called for a reevaluation of priorities and even a redrawing of boundaries. Though the profession had historically been produced part and parcel with the

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[39] Andrew Blauvelt, "Towards Critical Autonomy, or Can Graphic Design Save Itself?" *Emigre* no. 64 (2003): 39.

[40] Rick Poynor, "First Things First Revisited," *Emigre* no. 51 (1999): 3.

[41] Ibid.

[42] Ibid.

advertising industry, critical energy would now be focused on breaking, or at least disavowing, that link.[43]

A notable attempt to distance graphic design from its commercial applications was the "First Things First Manifesto 2000" (hereafter "FTF 2000"), published in 1999 by *Adbusters* magazine, with a coordinated release in several design magazines across the U.S. and Europe.[44] I reproduce it here in full:

> The First Things First Manifesto 2000
>
> We, the undersigned, are graphic designers, art directors and visual communicators who have been raised in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative, effective and desirable use of our talents. Many design teachers and mentors promote this belief; the market rewards it; a tide of books and publications reinforces it.
>
> Encouraged in this direction, designers then apply their skill and imagination to sell dog biscuits, designer coffee, diamonds, detergents, hair gel, cigarettes, credit cards, sneakers, butt toners, light beer and heavy-duty recreational vehicles. Commercial work has always paid the bills, but many graphic designers have now let it become, in large measure, what graphic designers do. This, in turn, is how the world perceives design. The profession's time and energy is used up manufacturing demand for things that are inessential at best.
>
> Many of us have grown increasingly uncomfortable with this view of design. Designers who devote their efforts primarily to advertising, marketing and brand development are supporting, and implicitly endorsing, a mental environment so saturated with commercial messages that it is changing the very way citizen-consumers speak, think, feel, respond

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[43] David Jury has documented the alliance between the emerging professions of graphic design and advertising in the late nineteenth century. This alliance, he argues, contributed to the aesthetic deskilling of printers, who became increasingly subservient to designers. David Jury, *Graphic Design Before Graphic Designers: The Printer as Designer and Craftsman 1700–1914* (London: Thames & Hudson, 2012).

[44] In August 1999, "FTF 2000" was simultaneously published by *Emigre* and *AIGA Journal* in the US, *Eye* and *Blueprint* in the UK, and *Items* in the Netherlands. Republications followed in *Communication Arts* and *Print* (US), *I.D* and *Creative Review* (UK), *Form* (Germany), *Idea* (Japan), *Deleatur* (Czech), and *Visuelt* (Norway). *Adbusters* also published a web form that allowed individuals around the world to add their names. Rick Poynor, "First Things Next" in *Obey the Giant: Life in the Image World* (Basel: Birkhäuser, 2001), 142.

> and interact. To some extent we are all helping draft a reductive and immeasurably harmful code of public discourse.
>
> There are pursuits more worthy of our problem-solving skills. Unprecedented environmental, social and cultural crises demand our attention. Many cultural interventions, social marketing campaigns, books, magazines, exhibitions, educational tools, television programs, films, charitable causes and other information design projects urgently require our expertise and help.
>
> We propose a reversal of priorities in favor of more useful, lasting and democratic forms of communication—a mindshift away from product marketing and toward the exploration and production of a new kind of meaning. The scope of debate is shrinking; it must expand. Consumerism is running uncontested; it must be challenged by other perspectives expressed, in part, through the visual languages and resources of design.
>
> In 1964, 22 visual communicators signed the original call for our skills to be put to worthwhile use. With the explosive growth of global commercial culture, their message has only grown more urgent. Today, we renew their manifesto in expectation that no more decades will pass before it is taken to heart.[45]

Upon its publication, the manifesto carried the signatures of thirty-three prominent figures in the field; an open call for signatures later added hundreds more. A majority of the original signatories had made their reputations in the debates on postmodernism. A few familiar examples from previous chapters include *Emigre* publishers Rudy Vanderlans and Zuzana Licko, as well as frequent *Emigre* contributors Jeffery Keedy and Andrew Blauvelt. Both of the latter were Cranbrook graduate students in the mid-1980s during fellow signatory Katherine McCoy's co-directorship. Other signatories, like Ken Garland and Tibor Kalman, had long worked at the uneasy intersection of advertising and activism.

Garland, for example, worked primarily for British nonprofits and socialist causes, which included a career-long relationship with the Campaign for Nuclear Disarmament. At a 1964 meeting of the Society of Industrial Artists in London, he had also hastily written and declaimed the *first* "First Things First," on which the 1999 manifesto is closely modeled:

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[45] Barnbrook, Jonathan, et al. "First Things First Manifesto 2000," *Emigre* no. 51 (1999): cover.

> In common with an increasing number of the general public, we have reached a saturation point at which the high pitched scream of consumer selling is no more than sheer noise. We think that there are other things more worth using our skill and experience on.[46]

Tibor Kalman immigrated from Hungary with his family at age seven, and never attended design school. He briefly studied journalism in the late 1960s, but soon dropped out to join a delegation to Cuba with Students for a Democratic Society.[47] After returning to the U.S., he built a reputation as a self-taught outsider to the American design scene. Beginning in the mid-1980s, Kalman fashioned many of his commissions into battlegrounds in the "culture wars" over the representation of race, gender, and sexuality. His Benetton collaborations with Olivero Toscani, for example, banked on vivid provocations: most notoriously, a full-bleed photograph — hand-illuminated in the style of a religious icon — of David Kirby, a dying AIDS activist.[48] [Figure 4] After *Adbusters* unearthed and republished the 1964 manifesto, Kalman encouraged the magazine's editors to update it for the new century. However, he died a few months before "FTF 2000" was published. The inside cover of *Emigre*'s "FTF 2000" issue carries a parting quip by Kalman: "Consumption is a treatable disease."[49]

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[46] The original "First Things First" was simultaneously published in *Design*, *The Architects' Journal*, *The SIA Journal*, *Ark*, *Modern Publicity*, and *The Guardian* in spring 1964.

[47] John Hockenberry, "Design Notebook: The Splendid Rage of Tibor Kalman," *New York Times*, Dec. 3, 1998, accessed March 1, 2022, https://www.nytimes.com/1998/12/03/garden/design-notebook-the-splendid-rage-of-tibor-kalman.html/.

[48] Tibor Kalman, "Photography, Morality, and Benetton," *in Tibor Kalman: Perverse Optimist*, ed. Peter Hall and Michael Beirut (New York: Princeton Architectural Press, 2000), 302–303.

[49] *Emigre* no. 51, (1999): n. pag.

Figure 4: Tibor Kalman, United Colors of Benetton advertisement, 1992.

"FTF 2000" thus carried the moral authority of Kalman's controversial but widely-respected career and the imprimatur of Garland's idealistic 1960s manifesto. But the new manifesto's resonance also depended upon a convergence of present-tense events reaching far beyond the bounds of the profession. A month after its publication, the manifesto's call seemed to find an echo in the civil disobedience and rioting that confronted the World Trade Organization in Seattle: a series of actions that rendered "globalization" a topic of mainstream discussion. On the heels of Seattle, Naomi Klein published *No Logo: Taking Aim at the Brand Bullies*, a book that attempted to connect environmental degradation, employment crises, and skyrocketing inequality to consumerism and its image culture. Klein would later add her own signature to "FTF 2000." A widening spotlight on the ravages of global capitalism lent the manifesto a sense of political urgency; the stage thus seemed to be set for a broad reconsideration of the kind of world that design participates in making.

Though any contestation of unaccountable power would seem amenable to the mission of the postmodernists, "FTF 2000" in fact represents a sudden and unacknowledged about-face

from the central debates of the 1990s. In the manifesto's strident anti-consumerism, the earlier relativism of taste gives way to a clear cultural hierarchy: authors, documentarians, and philanthropists appear as obviously preferable clients to light beer and butt-toner salesmen. The earlier polemic against rationality or neutrality in communication also abruptly disappears. Here, instead, "the market" represents an irrational and thus corrosive element, while clients that represent stable institutions of "culture" or "society" promise a more unmediated relationship to the common good, and thus to "first things."[50] Finally, where the more theoretically rigorous postmodernist critiques had attempted to relativize the agency of the designer in view of larger systems and institutions, "FTF 2000" positions design as a practice uniquely capable of outstripping these constraints.[51]

Indeed, despite the alarming language of global "crisis" in which it is framed, "FTF 2000" seems particularly anxious to intervene in "how the world perceives design."[52] This is underlined in a pair of accompanying essays by the design critic Rick Poynor which reframe design as an almost elemental force, prior to commerce and even outside of history. Design, he argues, is "a universal human life-skill" which could yet spark "new forms of social interaction" and give voice to repressed "values and ways of feeling."[53] Poynor even anthropomorphizes the practice, lending it moral attributes: echoing an earlier statement by Garland, he warns against

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[50] "First Things First Manifesto 2000," cover.

[51] For an example of the former, see Andrew Blauvelt, "In and Around: Cultures of Design and the Design of Cultures Part I," *Emigre* no. 32 (1994); "In and Around: Cultures of Design and the Design of Cultures Part II," *Emigre* no. 33 (1995).

[52] "First Things First Manifesto 2000," cover.

[53] Poynor, "First Things Next." 141–142.

design neglecting "*its responsibility* to struggle for a better life for all."[54] This inflation of design's autonomy and power even entails a corresponding inflation of the autonomy and power of its practitioners. For Poynor, it is "*no exaggeration* to say that designers are engaged in *nothing less* than the manufacture of contemporary reality."[55] Such reality-fabricating power is capable, to recall the words of "FTF 2000," of either distorting "the very way citizen-consumers speak, think, feel, respond and interact" or enabling "the exploration and production of a new kind of meaning."[56]

The manifesto met harsh criticism in the design press. One letter to *Emigre* called it "sneering and puritanical,"[57] while an article in *Design Week* blasted "FTF 2000" for its "unimaginative Seventies college campus Marxism."[58] But it was also criticized from the left. Signatory Jan van Toorn — a Dutch designer well-versed in Marxist theory — cautiously endorsed it, even as he questioned the naiveté it displayed toward design's role in "the circulation of material and symbolic commodities."[59] The most sustained critique, however, was a more personal one. In "A Manifesto with Ten Footnotes," Michael Beirut — then president of the American Institute of Graphic Arts — published a graphic dissection of the manifesto's text. At the center of Beirut's critique is the wry observation that the manifesto's list of projects "more worthy of [designers'] problem-solving skills" clearly evokes the high-profile nonprofit client

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[54] Poynor, "First Things First Revisited," 2. My italics.

[55] Ibid. My italics.

[56] "First Things First Manifesto 2000," cover.

[57] Design Agenda, quoted in Poynor, "First Things Next." 146.

[58] Tim Rich, quoted in Ibid., 144.

[59] Quoted in Ibid., 149.

work in which many "FTF 2000" signatories were already engaged. Hearing this particular group swear off dog biscuit packaging, Beirut jeers, is like "watching a group of eunuchs take a vow of chastity."[60]

Despite this volley of colorful insults, the "FTF 2000" debate was a short-lived one. To borrow Lukács's terms, the manifesto identified a "mechanism" that seemed to determine and direct the work that designers perform in society. But it shied away from any structural demands that would address that core condition — deferring, instead, to each signatory's individual sense of responsible and conscientious professionalism. The manifesto's vague pledge therefore left a great deal of room for interpretation. When Poynor interviewed several "FTF 2000" signatories two years after its publication, he noted a broad range of responses, many of which sound so subtle as to be imperceptible. Former Cranbrook co-director Katherine McCoy, for example, argued that nothing fundamental needed to change; designers, however, could still add "self-authored content" that would lend commercial projects "cultural, social and humanistic connotations."[61] Milton Glaser — the late pop-influenced designer of the "I Love NY" logo — advocated a reorientation away from corporate clients through a subtle campaign of peer pressure: an absence of social consciousness, he argued, could gradually be made to seem "unprofessional."[62] In short order, the manifesto's most unapologetic critic, Michael Beirut,

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[60] Michael Beirut, "A Manifesto with Ten Footnotes," in *Looking Closer 4: Critical Writings on Graphic Design*, volume 4, ed. Michael Bierut, William Drenttel, and Steven Heller (New York: Allworth Press, 2002), 27.

[61] Quoted in Poynor, "First Things First Revisited," 149. My italics.

[62] Quoted in Ibid. "I Love NY", in fact, clearly illustrates the difficulty of drawing a clear line between "commercial work" and civic or social concerns. The campaign to remake and rebrand New York City after its 1975 brush with bankruptcy involved stripping public assets to create a "favorable environment" for business, tourism, and the ultra-wealthy. See David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2007), 45–47.

came around and signed himself. By his own account, the very existence of a debate had changed his mind: by challenging designers to "think," he later wrote, the manifesto had "elevated the profession," bringing it closer to disciplinary maturity.[63] Much as the ostensibly subversive postmodern experiments had lost their sting by the mid-1990s, the impact of the manifesto was absorbed into a narrative of professional excellence and uplift within a couple of years.

Motivated as they may have been by a desire for social change, both manifestos remain well within the horizon of the political status quo. The 1964 "FTF," for example, attacked the advertising industry for "contribut[ing] little or nothing to our national prosperity": a statement that is, in addition, likely inaccurate.[64] To his credit, Poynor acknowledges that the original manifesto stopped short of questioning "the underlying political and economic system."[65] But "FTF 2000" follows in its predecessor's footsteps here. Both the manifesto and the responses it invited attempt to force a social critique — again recalling Lukács — into the limits of a professional ethics. Recalling Cusset's *French Theory*, we might also notice the softening and hedging that a potentially destabilizing critique had to undergo in order to be "put to work." The arena for intervention narrows to a designer's choice of clients or employers, while the idea of design as a neutral — or even an inherently good — force in the world promises them a reconciliation that could occur entirely *at work,* in the absence of broader struggle. At the same time, treating advertising as a perilous distortion of design's otherwise unproblematic "power" allowed designers to acknowledge the catastrophes of late capitalism while neatly shifting the

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[63] Michael Beirut, "A Manifesto with Ten Footnotes," 27.

[64] Ken Garland et. al., "First Things First," Design Is History, accessed March 1, 2022, http://www.designishistory.com/1960/first-things-first/

[65] Poynor, "First Things First Revisited," 3.

blame to an adjacent — indeed, an overlapping — profession. Advertising thus became the "supplement" against which graphic design could be defined as an autonomous discipline with a critical culture and a history of its own.

Elliott Earls's *Catfish*

In the early 1990s, as the postmodernism debate spilled out into the professional press, many originators of the new discourse had already tired of linguistic categories.[66] As we saw in chapter two, a number of Cranbrook students were beginning to find more to work with in the visceral poetry of Charles Bukowski or the Beats. Some of the most influential student projects of this period — particularly those of Laurie and P. Scott Makela, the husband-and-wife team who would take over the program's directorship in 1996 — attune themselves to bodily sensation and intensity over abstract taxonomies. The capacities of the Apple Macintosh, in the meantime, had expanded into 3D modeling, sound and video editing, and basic interactivity. Such a context offered new platforms even as it imparted greater license to pursue individual meaning and pleasure in work, predictions of the author's "death" notwithstanding.

Having recently been fired from his first design job at a well-regarded modernist studio in New York, the young designer Elliott Earls encountered a copy of *Emigre*, which quickly led him to Cranbrook.[67] As a Cranbrook graduate student, Earls embarked on a personal exploration that wandered across the full range of analog and digital media; in the process, he built a small archive of his own cryptic lettering, illustration, photography, and aphorisms. A method began to

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[66] Byrne and DeWitte, "Brave New World."

[67] Rick Poynor, "A Designer and a One-Man Band," *Eye* no. 45 (Autumn 2002), accessed March 1, 2022, http://www.eyemagazine.com/feature/article/a-designer-and-a-one-man-band

take shape that departed significantly from any existing standard of mastery for a designer. In a 1995 essay for *Emigre*, he celebrated "the very value of misinterpretation" and advised his readers to "read the manual once and then throw it out."[68] Instead of technical skill or theoretical depth, Earls emphasizes self-mastery, personal responsibility, and multitasking: his eclectic inspirations include Ayn Rand, Malcolm X, Harold Bloom, and the futurist business consultant Alvin Toffler.[69]

After Cranbrook, Earls was hired by Elektra Records and, again, was promptly fired.[70] His own account of the dispute strongly recalls David Carson's act of soft sabotage at *Raygun*: tapped to work on *The Eagles' Greatest Hits*, Earls could not bring himself to turn in a cover concept that did not overtly parody the band.[71] Unemployed, Earls vowed to pursue, in his words, work that reflected "core values regardless of its effect on my ability to pursue a viable career as a designer."[72] The interactive CD-ROM *Eye Sling Shot Lions* followed: a swirl of typeface designs, sketches, video shorts, and original music that attracted the notice of design critics.

Earls launched a series of multimedia performances based on this corpus, which attracted a modicum of support from fine arts institutions — but never enough to provide any

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[68] Elliott Earls, "WD-40, or The Importance of *David Holzman's Diary*" *Emigre* no. 35, 1995. n. pag.

[69] Ibid.; Poynor, "A Designer and a One-Man Band"

[70] Ibid.

[71] Ibid.

[72] Elliott Earls, "The Story of Throwing Apples at the Sun," The Website of Elliott Earls, January 28, 2015, accessed March 1, 2022, https://www.elliottearls.com/2015/01/28/the-story-of-throwing-apples-at-the-sun/

sustainability.[73] Like many boundary-pushing designers before him, Earls's only "escape" was a reintegration: he returned to Cranbrook in 2002, where he remains as the director of the graduate graphic design program. Earls's next major project, the 2001 DVD *Catfish*, was filmed in Cranbrook's mansions, bucolic fields, and cluttered studios. *Catfish* carries graphic design practice far into the territory of art; at the same time, it is also saturated with references to labor.[74] Throughout the film, Earls juggles power tools and musical instruments; when he is not depicted laboring in one way or another, he is seen dejectedly contemplating his failures. Just before the film's main act he can be heard saying — in an exaggerated working-man's drawl — "I was so close I could taste it."

Catfish remixes Earls' still, moving, and interactive works, including elements that reach back to his time as a student. The centerpiece of the film is a live performance in which Earls uses handmade props to trigger events in the interactive pieces. In this translation of a work of digital programming into a live performance — which thus requires the bodily presence of both the artist and his audience — immaterial or barely-perceptible actions are amplified and exaggerated. At one point, what may have been a single mouse click is re-performed as hard labor: Earls heaves a sledgehammer and strikes a log conspicuously rigged with wires, which triggers an animation that simply says, "This hammer is painfully heavy." Later, Earls trips an effects pedal and ricochet sound effects announce a pop-up window containing animated lines of code — surrounded, further, by arrows that describe inputs and outputs. The windows fade in and out to keep whatever they are describing at least partially visible, but in many cases the simple stage effects are all but obliterated by layers of evidence and explanation. [Figure 5] In

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[73] Ibid.

[74] *Catfish,* directed by Elliott Earls (Emigre, Inc., 2002), DVD.

contrast to the consumer software from which these elements originate, no piece of Earls's "onstage hardware" works quietly behind the scenes. Everything must perform and everything demands to be recognized: a precise inversion of the seamless, half-conscious work of Gramsci's typesetters.

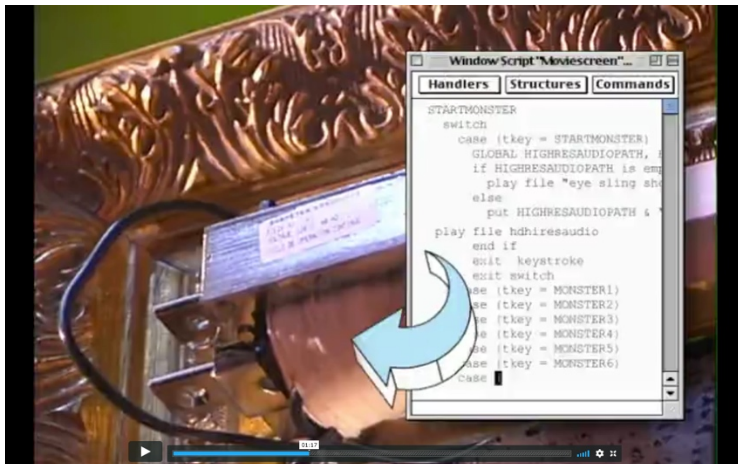

Figure 5: Elliott Earls, stills from *Catfish*, 2001.

Despite the "one-man band" conceit of the performance, *Catfish*'s final credit roll goes on for some time. Aside from a handful of supporting actors, Earls lists himself on nearly every line. He is *Catfish*'s director, producer and funder; its sound designer, who also plays every

instrument heard in the soundtrack; the programmer of all of its "on-stage hardware" and the DVD interface itself; and the stylist for both makeup and wardrobe. In both form and content, action and production, Earls frenetically switches roles. This leaves the impression of a "subject wanting too much and trying too hard" — or, a character type that Sianne Ngai has identified as "the zany."[75] Among Ngai's new aesthetic categories, it is zaniness, she argues, that speaks most directly to the performance of post-Fordist work.

> Zaniness is the only aesthetic category in our contemporary repertoire explicitly about [the] politically ambiguous intersection between … acting and service, playing and laboring. Intensely affective and physical, it is an aesthetic of action in the presence of an audience that bridges popular and avant-garde practice across a wide range of media.[76]

Zaniness, for Ngai, often involves an excessive caricature of work, but one that does not consistently register as humorous — one, indeed, that often taps a deep but unexplained vein of rage. The zaniness of the post-Fordist graphic designer was already evident in *Emigre* publisher Rudy VanderLans' praise of the "all-around professional" who balances a dizzying stack of utterly contradictory hats, from the calculating contract-writer to the sensitive literary analyst.[77] By the end of the century, graphic designers were not only responsible for the typographical and pre-press tasks that, as we have seen, had recently been assimilated to their practice; their purview now also encroached on the history of cinema and music, to say nothing of the extensive tasks of self-management demanded of freelancers. What VanderLans initially left unsaid, Earls makes palpable: what Ngai calls the "stressed-out, even desperate" effort to hold so many tasks

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[75] Sianne Ngai, *Our Aesthetic Categories: Zany, cute, interesting* (Cambridge: Harvard University Press, 2015). 189, 185.

[76] Ibid., 182.

[77] Rudy VanderLans, quoted in Nikitas, "Interview," n. pag.

and personalities together.[78]

If any graphic designer has approached, in Katherine McCoy's words, "roles associated with both art and literature," it is Earls. But in *Catfish* this achievement rings with ambivalence: the film itself cannot seem to decide whether it is a free-standing work of art or an extremely complicated design portfolio.[79] Adding to this ambivalence is Earls's frequent citation of modernist Great Men, whom he greets with a consistent mixture of reverence and resentment. In the middle of the performance, Earls suddenly picks a fight with Henry Miller:

> I think he's stolen my life — it's my life he's leading!
> Stumbling around with French people,
> and eating roots with the natives —
> Those roots he eats are my roots! My family roots! […]
> I spy him engaged in the usual drunken debauchery and call him out:
> "Hey Henry… put down the oranges of Heironymous Bosch and let's
> fight to the death like caged animals!"

In *Catfish*, even the quiet labor of studying one's precedents is staged as a precarious struggle. Earls meets the art historian Ernst Gömbrich, who berates him for not "risking enough" while forcing him to contemplate the antifascist photomontages of the German Dadaist John Heartfield. In keeping with Earls's manual-trashing ethos, there is no trace in the Gömbrich character of the art historian's theories of perception or representation; rather, his lines are delivered like a half-remembered college lecture recovered from a dream. ("Fear is the dragon of the soul," he booms, "It must be vanquished!") Later, Gömbrich helps Earls self-administer a genetic experiment that will either help him grow as an artist or kill him. In a *Frankenstein*-like scene, Earls lies stripped and prone under a machine designed to "prospect" his "junk DNA."

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[78] Ngai, *Our Aesthetic Categories*, 185.

[79] While the cover of *Catfish* announces itself as a film, the project's publisher describes it as a "designer monograph." Rudy VanderLans, "*Catfish* [liner notes]," *Emigre* no. 62 (2002): 5.

Auteur and *bricoleur* at once, Earls attempts to engineer the new by tinkering with the neglected and possibly nonfunctional building-blocks of his interior being. Here, any hope for the new seems to lie not in past visions of social transformation, but in mining the self for something unique.

With *Catfish*, Earls has made the leap into that longed-for utopia in which "the power of design" is redirected toward ends of the designer's own choosing. There is no client or boss in the wings asking him to make the type clearer or the logo bigger, which grants him the freedom to explore personal obsessions and myths. But among Earls's grand archetypes, the designer himself stands out sharply as an anxiously bored professional: a worker bound by an opaque social imperative to innovate and differentiate. The myths are not just personal but also, and unavoidably, social. Earls's hard-won aesthetic freedom thus inadvertently casts a harsh light on a more fundamental unfreedom.

In the case of "First Things First 2000," an attempt to grasp and respond to an antagonistic social reality immediately fragmented into the ethical discernments of (implicitly competing) designer-entrepreneurs. In *Catfish*, conversely, an effort to develop an idiosyncratic inner language taps into the broader social phenomenon of alienated work — exposing, in turn, the field's unwillingness to grapple with this basic feature of modern life. *Catfish* presents *an interiority put to work* — and its protagonist labors under conditions shared by the film's primary audience. The postmodern graphic designer works at difference, so that the client's business can expand, so that the designer can keep working: in short, so that things can stay comfortably the same. The new continually recedes into the given.

Graphic design has long been haunted by dreams of autonomy. But across its history, ruptures of resistant practice, independent critique, or political contestation are routinely

domesticated. In the "new discourse," as we have seen, autonomy could either mean freedom from the social constraints of capitalism or enhanced professional authority in the given state of things. Social criticism always sat uncomfortably with an unwillingness to treat design as, itself, constituted by antagonistic social forces. In the worst cases, this ambiguity allowed designers to shore up their own professional dignity using the language of liberation. As Jeffery Keedy bombastically declared in 1997, for example, "the marginalization of design has been an essential component in the advancement of western culture."[80]

The critical design discourse was built by full-time designers, many of whom balanced their work responsibilities with teaching and publishing projects. They attempted, often through sheer will, to reinvent themselves as theorists and critics. But as long as designers are at work, they are constrained by social forces over which they have little control *qua* designers. In a curious (and no doubt accidental) fidelity to Marx, critical designers have struggled to change their practice without first understanding it, treating graphic design's commodity condition as "an extremely obvious, trivial thing."[81] Critical practice thus continually posits new ground without being able to measure its distance from what already exists.

The anti-consumerism of "FTF 2000" was already an anachronistic critique in the 1990s, amid widespread job insecurity and stagnating wages (even if these conditions were not — yet — widely felt among graphic designers). In the resulting debates, the "explosion" of "global

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[80] Keedy, "Greasing the Wheels," 45.

[81] See the eleventh thesis in Karl Marx, "Theses on Feuerbach," *The Marx-Engels Reader,* second edition (New York: W.W. Norton, 1978), 145. The opening of Marx's commentary on commodity fetishism reads: "A commodity appears at first sight an extremely obvious, trivial thing. But its analysis brings out that it is a very strange thing, abounding in metaphysical subtleties and theological niceties." Karl Marx, *Capital: A Critique of Political Economy* vol. 1 (London: Penguin Books, 1976), 163.

commercial culture" was treated as a result of simple greed — of bad habits on the part of producers and consumers alike. Yet as the intervening decades of financial catastrophe have illustrated, the commodity condition is more than a set of conventions that one can, with some effort, adopt or discard. Rather, commodity production forms a global context in which designers are implicated simply by being productive subjects whose labor defines their lives. This condition is now so general that it can easily fail to register as something particular. But things have been, and yet could be, otherwise. Clarifying this point, as I have been trying to argue, is what theory is for.

"Vernaculars of Capitalism"

In an opening salvo of the debates over deconstruction, Steven Heller questioned whether the new rash of self-consciously "ugly" design corresponded to any genuine social "upheaval."[82] Heller contrasted the new "deconstructionist" impulse to Futurism, Dada, and the counterculture: that is, to historical ruptures that could be attributed to artists, youth, or the Left. The late twentieth century, however, saw an upheaval in the nature of capitalist modernity itself, which was most clearly perceived in changing conditions and expectations of work. As Boltanski, Chiapello, and Bernes have demonstrated, this upheaval relied upon dispositions first nurtured by revolutionaries and artists; however, the "artistic critique" had by the 1990s become isolated from any fundamental questioning of capitalist work.

In critical writing and visual deconstruction, the postmodernists' attack on modernism was consistently a rejection of constraint, routine, and hierarchy. Postmodernist designers thus drew — mostly, it seems, unknowingly — on the resources of a critique that originally had the

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[82] Heller, "Cult of the Ugly," 54.

capitalist organization of work in its sights. Insofar as this critique became an affirmation of the profession and of technological progress, the postmodernists became proponents of their own reassuring "master narrative" of capitalist development. For this reason, they readily inherited the mantle of the universal modernizers that they claimed to have buried.

In 1995, just as the "New Discourse" — in my telling — began to run up against its limits, the architectural historian Carol Willis published a reinterpretation of early U.S. skyscraper design. Her comparative study *Form Follows Finance* analyzes the growth-oriented imperatives of commercial land use and the reactive constraints of local zoning law, which took divergent paths in New York and Chicago.[83] These impersonal forces, she argues, contributed as much to the two cities' signature architectural styles as did the competing New York and Chicago "schools" of architects. "Vernaculars of capitalism," the central concept of Willis's book, names an attempt to correct for a tendency in design history to defer to practitioners, whose (often retrospectively-developed) "philosophies" are often treated as the last word.[84] Willis does not ignore the stated intentions and concrete activities of the architects, but she situates their voices in a nexus of shared economic and political constraints.

Just at this time, Moishe Postone was at work on a series of incisive critiques of contemporary theory. Taking on thinkers as diverse as Jürgen Habermas, Jacques Derrida, David Harvey, and Daniel Bell, Postone elaborated a series of overlapping aporias in their divergent accounts of social continuity and change. The theorists who departed from a Marxist framework, Postone argues, often display a surer grasp of transformations that are not narrowly economic;

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[83] Carol Willis, *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago* (New York: Princeton Architectural Press, 1995).

[84] Ibid., 7–8.

such accounts, however, often have little to offer in terms of structural *explanation*. The Marxists, on the other hand, are capable of producing sweeping accounts of capitalism as a distinct, global form of life — yet they also tend to ignore many salient cultural shifts, or else wave them away as ideology. One obstacle for the Marxists, Postone observes, is the continuing pull of an explanatory framework that emphasizes a contradiction between the means and relations of production. The more salient contradiction, he argues, is now to be found in the "growing disparity between what is and what could be."[85] Tracing this "lived disparity," he writes, would allow for an investigation of "sensibilities, needs, and imaginaries that go beyond considerations of distribution, of direct material interests."[86]

The worldview of traditional Marxism, Postone argues, took shape as a kind of negative image of late nineteenth-century capitalism, with its frequent crises and anarchic overproduction. Traditional Marxists thus — understandably, in retrospect — gravitated toward visions of planning, centralization, and rationalization. In the new social theories of the 1980s and 1990s, Postone saw something similar taking shape:

> Today a variety of approaches exist whose critiques remain fixated on the concentrated [and] rationalized … modes of integration that characterized twentieth-century state-interventionist capitalism, that is, on what we can now see was another secular phase of capitalist development. If such approaches simply welcome the weakening of the older forms of integration without taking cognizance of the newer, more abstract, and global forms of domination … they may also find themselves celebrating as emancipatory what is probably one dimension of a more complex process of global restructuring.[87]

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[85] Moishe Postone, "Theorizing the Contemporary World: Robert Brenner, Giovanni Arrighi, David Harvey," in *Political Economy and Global Capitalism: The 21st century, present and future*, ed. Robert Albritton, Bob Jessop, and Richard Westra (London and New York: Anthem Press, 2007), 17.

[86] Ibid.

[87] Moishe Postone, "Political Theory and Historical Analysis," in *Habermas and the Public Sphere*, ed. Craig Calhoun. (Cambridge: MIT press, 1992), 176.

Like old generals "planning to win the previous war," Postone argues, social theorists are continually in danger of backing into an opposed — yet complementary — mode of appearance of the same underlying logic.[88] In closing I would like to argue that, insofar as these modes of appearance manifest themselves in cultural production, they are likely appear as "vernaculars of capitalism": as variations on a theme, that is, whose particularity is historical rather than regional. A full accounting of the postmodern turn in design history might then involve an investigation of the logic of capital in a moment of transition between its "Apollonian" and its "Dionysian" moments.

The deconstructionist impulse in graphic design provides a striking example of what Postone describes as postmodernism's "premature post-capitalism."[89] Insofar as postmodern approaches misrecognized their (still capitalist) context, Postone argues, they provided legitimating cover for capitalism in its emerging post-Fordist form. However, he continues, postmodern cultural production also frequently disclosed insights into "possibilities generated, but unrealized" by capitalism.[90] For their part, postmodernist graphic designers seem to have intuited that the arc of capitalist technology called something into question about the meaning of work and the ends of production. In overstating the scope of their own agency, however, they failed to account for the continuity of social domination in changed conditions of accumulation. Capital, along with the social necessity of the profession itself, was rendered *neutral* — and thus placed beyond the grasp of an otherwise far-reaching critique.

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[88] Ibid.

[89] Postone, "Theorizing the Contemporary World," 22.

[90] Ibid.

Conclusion

It has been the aim of this dissertation to establish the groundwork for a reinterpretation of the history of typography and the contemporary practice of graphic design. I have presented the results of this inquiry in two parts. In part one, I traced the trajectory of the machine aesthetic in modern design history. As we saw from the beginning, the story of modernism's rise was not just the story of an emerging visual style. Avant-garde demolitions of existing conventions of representation and composition reflected an impatience with the slow passing of premodern tradition, or else mimicked the bourgeois order's self-destruction after World War I. The subsequent embrace of more elementary, standardized, "typical" forms took place alongside visions of social transformation of a communist, state-capitalist, or even fascist bent. "Modernism," in short, named a self-reflexivity about form that was conditioned by the theoretical inquiries and political challenges of its time. In this context, the later emergence of postmodernism was marked by familiar gestures: in particular, a scorched-earth rejection of convention and a fascination with new technologies in their most brutal or awkward first manifestations. But as some early critics of the movement intimated, these visual innovations seemed to have floated free of the earlier movements' sense of revolutionary ambition. In the digital convergence of once-distinct specializations and media, many postmodernists even argued that it was possible to overcome the fragmentation and alienation of work *without ever leaving work*.

In part two, we left behind the vaunted promises of mechanization to attend to the actual relations of power that modern machinery embodies and lays bare in the labor process. Here we encountered an element that often went missing in abstract discussions of a "machine age" —

that is, the workers themselves, whose life, limb, and expertise have hardened over time into the "dead labor" of fixed capital. As we saw in the end, contemporary graphic designers have at least as much in common with these outmoded print workers as they do with the canonical figures that dominate their professional training and self-image. Design history's parade of avant-garde painters, studio entrepreneurs, and advertising executives provides models of decisiveness, iconoclasm, and autonomy. Approaching graphic design through a genealogy of its tools and techniques, on the other hand, brings out those aspects of the practice that are repetitive, constrained, and unfree. In close readings of aesthetic practices that were called postmodernist, I drew out an excess that was not fully explainable in terms of period style or even the stated intentions of the makers. This was revealed as the persistent but undertheorized problem of alienated labor.

The Tower, or Typography and Communication

It would be reasonable to expect a cultural studies dissertation on typography and society to hinge on an argument about the ideological effects of graphic design. What I have attempted, instead, is a reconstruction and reinterpretation of an ongoing conversation among graphic designers about the nature of their own social role. While there is undoubtedly more to discover about the ways that specific visual gestures circulate and function in specific environments, the "public" addressed by graphic design *as such* remains extremely underspecified; among seeing people, at least, it potentially includes everyone. To the extent that we can conceive of a "public" for the quotidian output of graphic designers at all, it would likely be an inattentive, even an involuntary one. Someone who briefly glances at an advertisement is simply not engaging in the same kind of looking that occurs in a gallery. For a significant branch of modernist designers, indeed, successful typesetting was typesetting that rendered itself transparent: a given

arrangement of words was not a thing to be looked *at*, but rather *through*.[1]

The problem of the public has remained a stubborn puzzle at the heart of the design discourse. Among the many obstacles to the autonomy of the designer enumerated by C. Wright Mills, his final and perhaps thorniest point was that the designer lacks an engaged, discerning, and self-conscious audience.[2] In their efforts to raise design to the status of an art, the postmodernists intensified the search for this audience; as an apotheosis of these efforts, Elliott Earls's performance works set out chairs in anticipation of its arrival. And as we saw in chapter two, Anne Burdick and Louise Sandhaus's staunch anti-modernism and Robin Kinross's caustic anti-postmodernism both left open a hopeful space for this audience. Both essays imagined the technics of typographical practice as a condition of life that non-practitioners might someday find worthy of recognition and even contestation. This audience, however, has remained elusive. The only place in this study that we encountered anything like it, in fact, was in the angry letters to newspaper editors where experimental production processes had rendered the daily news illegible. Here, typography and typographers suddenly became visible and even vital.

While I have not directly addressed the question of this phantom public, the persistence of the issue in the design discourse has shaped my approach. On one hand, I have treated designers' statements regarding their practice's direct effects on non-designers with skeptical caution, whether the nature of those effects was assumed to be authoritarian or egalitarian. On the other hand, I have tried to bring out what designers seem to be saying *to each other*, whether directly in written arguments or indirectly in visual form: *these* exchanges, I believe, can be

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[1] See Beatrice Warde, "The Crystal Goblet or Printing Should Be Invisible," in *Looking Closer 3: Classic Writings on Graphic Design,* ed. Michael Beirut, Jessica Helfland, Steven Heller and Rick Poynor (New York: Allworth Press, 1999).

[2] Mills, "Man in the Middle," 385–386.

tracked with a great deal more confidence. Attending to this aspect of the discourse led me, in chapter four, to conclude that postmodernist graphic designers spent a significant amount of time and energy talking about (gesturing toward, picking at) the conditions and potentials of their own work. In the 1980s and 1990s, graphic designers experienced unforeseen mutations of labor and technology against a backdrop of capitalist retrenchment and rapidly disappearing workers' institutions. In graphic design, postmodernism thus often played the role of a labor politics that was not fully aware of itself as a labor politics — in an era that was losing its grip on how to think about work.

In the twenty-first century, however, the question of audience already seems to be shifting. Graphic designers, as we have seen, were early adopters of the personal computer. Miniaturized and nearly ubiquitous today, computers are no longer confined to desktops; in the process we have all become, to some degree, "desktop publishers." A facility with text and image — now instantly publishable via global networks — today forms an aspect of general technological literacy. This view is clearly expressed at the end of Gary Hustwit's 2007 documentary *Helvetica*: in the closing scene, an urban mass approaches the camera in slow-motion as the design critic Rick Poynor describes graphic design's open-ended process of "democratization."[3]

Helvetica concerns the history of the eponymous Swiss modern typeface, designed by Max Miedinger and Eduard Hoffmann in 1957; it is also, centrally, about the history of the *interpretation* of that typeface, and of modernism in design more generally. The documentary dramatizes many important scenes of this dissertation. The late Massimo Vignelli continues to rail against "that disease that was called postmodernism"; David Carson casually re-enacts the

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[3] Hustwit, *Helvetica*.

moment he decided to deface the Bryan Ferry article. As a frequent interviewee, Poynor repeats positions that we last heard in his roundup of professional reactions to the "First Things First Manifesto 2000." Graphic designers, he says here, define the very "communications framework" that mediates people's knowledge of the world; they are "the people … putting their wires into our heads." In *Helvetica*'s interviews with leading figures of both modernism and postmodernism, shared assumptions about power of design and designers come across strongly: appraisals of Helvetica emphasize its role in the maintenance of ideologies as varied as socialism, nationalism, democracy, neoliberalism, and fascism.

Helvetica was the first film of what would become Hustwit's "Design Trilogy"; the product design documentary *Objectified* (2009) was followed by *Urbanized* (2011) on contemporary architecture and planning. Likely reflecting, at once, both a widening audience of design connoisseurs and postmodern capitalism's "long tail" of niche marketing, these films were soon joined by a number of new design documentaries. Single-subject "monographs" on the graphic designer Milton Glaser (2009), the architect Rem Koolhaas (2016), and the product designer Dieter Rams (2018, again directed by Hustwit) are recent additions. Since 2017, Netflix has produced 14 episodes of the series *Abstract: The Art of Design*, each of which profiles the work of a living designer. Joining these are a number of recent documentaries that deal specifically with the history of typography, including *Typeface* (2009), *Sign Painters* (2013), *Linotype: The Film* (2012), *Pressing On: The Letterpress Film* (2016) and *Graphic Means: A History of Graphic Design Production* (2016).

This new crop of design documentaries tends toward light entertainment: snappily-edited witticisms by talking heads, bright instrumental pop scores, and tasteful, contemplative shots of commodities and machinery are hallmarks of the genre. But beyond their subject matter, what

unites the recent typography-themed documentaries is a strong undercurrent of melancholy. In each of these films, a curiosity about outmoded machines and manual techniques sooner or later breaks through to themes of unemployment, deindustrialization, and decline. It seems no coincidence that, in contrast to *Helvetica*, all of these films were produced since the 2008 financial crisis; it is as if our own moment of intensifying "disruptions" in work and life draws attention to others like it.

Linotype and *Graphic Means* were both directed by practicing graphic designers, and both present particularly interesting cases in the context of this study. In contrast to *Helvetica*'s fascination with famous personalities, both take a more archaeological approach to the formation of the field's tools and techniques. Douglas Wilson's *Linotype* covers the era of hot metal typography, from the first experiments with mechanical typesetting in the late nineteenth century to the obsolescence of the Linotype in the 1970s. Approaching from the perspective of the cold type industry, Briar Levit's *Graphic Means* concentrates on the brief but chaotic period of technological change between the late 1960s and the late 1980s. While both documentaries quite elegantly organize a complex history of typographical contraptions and changing work-processes, however, both run into problems that are symptomatic of the design discourse's continued reluctance to acknowledge capitalism as a context.

Linotype stirringly evokes the lost world of hot metal through humanizing portraits of the workers who kept that world running.[4] Interviews feature antique Linotype collectors, retired operators, and a surprising range of present-day hobbyists and specialists. Industry experts and historians exhaustively describe the machine's development and the Mergenthaler Linotype Company's market strategies. Present and former operators, meanwhile, capture the more

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[4] Douglas, *Linotype*: *The Film*.

ineffable aspects of the process: in one evocative montage, several operators mimic a sequence of the machine's clicks, whirrs, and bumps from memory. The late Carl Schlesinger, a former *New York Times* typesetter and the narrator of the 1978 documentary *Farewell Etaoin Shrdlu*, pops up frequently to unpack mechanical or historical details. Wilson also includes footage of Schlesinger singing and tap dancing, and indulges him as he tells a long-winded story about the time he met Marilyn Monroe in the *Times* composing room. A casual viewer would never know that Schlesinger was also an active member of the longest consecutively-running union in U.S. history, or that he coauthored an important book on that union's automation strategy.[5] Despite all its fastidious detail, in fact, *Linotype* manages to bracket the ITU's existence altogether.

Linotype and *Graphic Means* draw on many of the same archival sources, from Mergenthaler Company promotional films to instructional materials produced by the ITU itself. In particular, both make extensive use of footage from *Farewell Etaoin Shrdlu*, including the pivotal interview with a union compositor that we first encountered in chapter three:

> [T]hat's six years apprenticeship, 20 years journeyman. And these are words that aren't just tossed around. … All the knowledge I've acquired over these 26 years is all locked up in a little box now called a computer.[6]

Wilson makes a cut here. But Levit lets him finish: "And I think probably most jobs are gonna end up the same way."[7]

Briar Levit's *Graphic Means* is, in itself, an impressive work of design that clearly organizes and condenses the chaotic jumble of machines that bridged the hot metal and digital

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[5] Kelber and Schlesinger, *Union Printers.*

[6] Weiss, *Farewell Etaoin Shrdlu.*

[7] Ibid.

eras.[8] Again, expert talking heads take turns explaining market conditions and technical specifications, while former practitioners capture fleeting details like the odd, unstable consistency of paste-up wax. In contrast to *Linotype, Graphic Means* does explain the centrality of the ITU to the Linotype paradigm. Levit even takes this a step further by addressing not just the union's existence but also the heavily gendered division that arose between the ITU-controlled hot metal shops and the "open" cold type shops. The film, whose press kit proudly advertises an all-woman crew, reads as a feminist response or bookend to the narrative offered by *Linotype*.[9]

In one scene, former phototypesetter Patty Gable describes her designation at work as a half-timer: not a worker who is present for half the usual workday, but one whose pay is precisely half that of her male counterparts — a calculation that was explicitly printed out on her pay stubs. Levit intercuts such scenes with unblushingly sexist industrial films (recalling the tone of the AlphaComp advertisement we saw in chapter three), which handily underlines the point. Quite incongruously, however, the employers of these workers are treated quite sympathetically; one even seems to be speaking as a feminist when he says that "the women" did equally admirable work for half the wages.[10] The ITU, on the other hand, is portrayed as little more than a vehicle for male privilege. Union members (who were not uniformly male) never speak for themselves in *Graphic Means*; where they appear in *Linotype*, they are never identified as such.

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[8] *Graphic Means: A History of Graphic Design Production*, directed by Briar Levit (2016), DVD.

[9] *Graphic Means* press kit, accessed March 1, 2022, *https://www.graphicmeans.com/press*

[10] While women held leadership positions in some ITU locals, and cold type shops were far from uniformly staffed by women, the divide was pronounced enough that cold type shop workers were colloquially referred to as "girls" *en masse.* Romano, *History of the Phototypesetting Era*, 41.

Linotype's elision of the ITU may have resulted from time constraints, or even a (likely not unfounded) assumption that such subjects would not be of interest for the film's assumed audience. But the absence of the union story also causes narrative problems. For example, while phototypesetting equipment is shown in use as early as the 1960s, we do not see the *Times* retiring its Linotypes until the end of the next decade. When — again, in footage from *Farewell Etaoin Shrdlu* — the *Times* typesetters abandon the hot metal composing-room for new workspaces, they are not depicted taking up rudimentary phototypesetting equipment, but rather the first generation of computers and digital word processing systems. This apparent anachronism makes little sense without an understanding of the union's control over the adoption of technology at large printing plants in industrial cities.

The contradictions of *Graphic Means* are less narrative than political. Like Wilson, as we have seen, Levit gravitates toward the cathartically mournful final moments of hot metal composition at the *Times*. But *Graphic Means* misses the unique opportunity it had to tell a parallel story about the passing of the cold type world. Apart from a bonus scene in which one typesetter mentions missing the "camaraderie" of the type shop, the vulnerability of non-unionized women to the next wave of automation is never addressed.[11] Because *Graphic Means* is, in the end, much more fascinated with technology than labor, its ending almost reads as a celebration of the three male entrepreneurs — Aldus's Paul Brainerd, Adobe's John Warnock, and Apple's Steve Jobs — that helped to render these workers redundant. As the film itself has already regretfully informed us, "most jobs are gonna end up the same way."

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[11] Levit, *Graphic Means.*

The Plant, or Typography in Production

Sometime during the final months of writing this dissertation, I picked up a 2018 issue of the radical print journal *Counter-Signals.* As I flipped through it, something stopped me short: I found myself staring at a book cover that read,

1986

The Dissolution of the International Typographical Union

Zuzana Licko & Rudy VanderLans[12]

Had I somehow missed an entire book linking the ITU to *Emigre* magazine? As it turns out, the book does not exist; I had landed on the final page of a "possible syllabus" proposed by designer and educator Chris Lee. The project, as its brief preamble explains, was inspired by Lee's first experience teaching graphic design history, his frustration with the available literature, and his wish to chart anarchist and decolonial paths through the material. While several of its listings are real titles, Lee's reconceptualization had necessitated the partial invention of a usable past: in this case, one in which the link between deindustrialization and deconstruction was immediately apparent to the historical actors themselves.

In the present century, questions of labor that have long evaded the attention of the design discourse are violently reasserting themselves. For designers, the autonomy promised by the personal computer has shown its underside in the abandonment of stable employment relationships. The graphic designer and theorist Silvio Lorusso has recently given the confused

[12] Chris Lee, "Strike and Riot: A possible syllabus," *Counter-Signals* no. 2 (Fall 2017 / Winter 2018): 178.

class position of these subjects a name: the "entreprecariat."[13] With the continued refinement and expansion of computer networks, meanwhile, texts and images are now almost infinitely reproducible — and the "electro-libraries" predicted by El Lissitzky have taken on unfathomable dimensions. Typographical specialists, however, are somehow still necessary: words and pictures must be arranged and rearranged not for the brute fact of printability, but purely in order to prime attention and facilitate competition. The world that confronts us, in short, is not the one promised by the various progress narratives of modern technology. This is not a world in which machines have freed people from work; rather, in spite all of its technological riches, it is a world characterized by a severe mal-distribution of work and the means of subsistence that work is supposed to guarantee.

Indeed, many of the most celebrated "innovations" of recent years have been smartphone applications that facilitate short-term, low-wage, benefit-less contracts. And at the time of this writing, the apps have begun to make inroads into the design professions. Gig-economy startups like Fiverr promise to connect clients one-to-one with media professionals, including graphic designers, who compete for the lowest bid. Templating apps like Canva allow users to choose from a library of pre-made prototype layouts, which have become increasingly important in differentiating the visual narratives of online brands on social media. In the contemporary design press, articles on the encroachment of these new labor markets, or others on a potential role for artificial intelligence in the automation of layout decisions, recall the mix of anxiety and reassurance that characterized early coverage of the Linotype 130 years ago.[14] *Eye on Design*, an

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[13] Silvio Lorusso, *Entreprecariat: Everyone is an entrepreneur. Nobody is safe.* (Eindhoven: Onomatopee, 2019).

[14] Sacha Greif, "What kind of logo do you get for $5?" AIGA, accessed August 10, 2019. https://dev.aiga.org/why-you-should-pay-more-than-5-dollars-for-logos; Jason Tselentis,

organ of the American Institute of Graphic Arts, recently asked its readership if graphic designers needed a union more than they needed a professional networking organization.[15]

I conclude with an argument that also defines a future research program. As I hope to have demonstrated, design history presents a compelling lens through which to understand the transformations of work, its organization, and its subjects in contemporary capitalism. Designers are not exemplary because the specific conditions of their work are widely shared, nor are they of interest because they are particularly oppressed. However, it seems to me that Mills's hypothesis still rings true: the conflicts with which designers struggle echo "the key problems of the overdeveloped society."[16] Anticipating contemporary theories of the neoliberal subject, designers have long been encouraged to view their life experiences and work history as a "portfolio of enterprises."[17] Indeed, each of the designers considered here can be understood as forerunners of the blurring of life, leisure, art, and work that are said to characterize the post-Fordist world. "Play becomes party," announced the Bauhaus mystic and *Vorkurs* founder Johannes Itten; "party becomes work; work becomes play."[18] As intermediaries between the art world, the business world, and the popular language of social change, designers map the fault-

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"When Websites Design Themselves," *Wired, a*ccessed March 1, 2022. https://www.wired.com/story/when-websites-design-themselves/

[15] Perrin Drumm, "Can We Design a More Perfect Union?" *AIGA Eye on Design*, June 19, 2018, https://eyeondesign.aiga.org/can-we-design-a-more-perfect-design-union/

[16] Mills, "Man in the Middle," 374.

[17] Wendy Brown, "Booked #3: What Exactly Is Neoliberalism?" interview by Timothy Shenk, *Dissent*, April 2, 2015. https://www.dissentmagazine.org/blog/booked-3-what-exactly-is-neoliberalism-wendy-brown-undoing-the-demos

[18] Droste, *Bauhaus 1919–1933*, 68.

lines between the promises of technology, the allure of the “artistic critique,” and the perennial degradation of work in advanced capitalism.

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