

PHOTOGRAPHY AND THE OPTICAL UNCONSCIOUS

PHOTOGRAPHY

— AND THE —

**OPTICAL
UNCONSCIOUS**

SHAWN MICHELLE SMITH AND
SHARON SLIWINSKI, EDITORS

Duke University Press | Durham and London | 2017

© 2017 Duke University Press

All rights reserved

Printed in the United States of America on acid-free paper ©

Cover design by Matthew Tauch;

interior design by Mindy Basinger Hill

Typeset in Arno Pro by Tseng Information Systems, Inc.

Library of Congress Cataloging-in-Publication Data

Names: Smith, Shawn Michelle, [date] editor. |

Sliwinski, Sharon, [date] editor.

Title: Photography and the optical unconscious /
Shawn Michelle Smith and Sharon Sliwinski, editors.

Description: Durham : Duke University Press, 2017. |

Includes bibliographical references and index.

Identifiers: LCCN 2016048393 (print)

LCCN 2016050623 (ebook)

ISBN 9780822363811 (hardcover : alk. paper)

ISBN 9780822369011 (pbk. : alk. paper)

ISBN 9780822372998 (ebook)

Subjects: LCSH: Photography—Psychological aspects. |

Psychoanalysis and art. | Photography, Artistic. |

Art, Modern—21st century.

Classification: LCC TR183.P484 2017 (print) |

LCC TR183 (ebook) | DDC 770.1—dc23

LC record available at <https://lcn.loc.gov/2016048393>

Cover art: Zoe Leonard, *100 North Nevill Street*, 2013.

Installation view, detail. Chinati Foundation, Marfa, Texas.

Photo © Fredrik Nilsen, courtesy of the artist, Galerie Gisela

Capitain, Cologne and Hauser & Wirth, New York.

Duke University Press gratefully acknowledges
the School of the Art Institute of Chicago, which provided funds
toward the publication of this book.

CONTENTS

Acknowledgments vii

INTRODUCTION

Shawn Michelle Smith and Sharon Sliwinski 1

CHAPTER ONE

Photography's Weimar-Era Proliferation and Walter Benjamin's
Optical Unconscious | *Andrés Mario Zervigón* 32

CHAPTER TWO

"A Hiding Place in Waking Dreams": David Octavius Hill,
Robert Adamson, and Walter Benjamin's
"Little History of Photography" | *Shawn Michelle Smith* 48

CHAPTER THREE

Freud: The Photographic Apparatus | *Sarah Kofman* 75

CHAPTER FOUR

"To Adopt": Freud, Photography,
and the Optical Unconscious | *Jonathan Fardy* 81

CHAPTER FIVE

The Politics of Contemplation |
Zoe Leonard and Elisabeth Lebovici 93

CHAPTER SIX

Freud, Saturn, and the Power of Hypnosis | *Mary Bergstein* 104

CHAPTER SEVEN

On the Couch | *Mignon Nixon* 134

CHAPTER EIGHT

Vision's Unseen: On Sovereignty, Race, and
the Optical Unconscious | *Mark Reinhardt* 174

CHAPTER NINE

Sligo Heads | *Kristan Horton* 223

CHAPTER TEN

Developing Historical Negatives: The Colonial Photographic
Archive as Optical Unconscious | *Gabrielle Moser* 229

CHAPTER ELEVEN

The Purloined Image | *Laura Wexler* 264

CHAPTER TWELVE

The Vancouver Carts: A Brief Mémoire | *Kelly Wood* 281

CHAPTER THIRTEEN

Vietnamese Photography and the Look
of Revolution | *Thy Phu* 286

CHAPTER FOURTEEN

Shooting in the Dark: A Note on the
Photographic Imagination | *Sharon Sliwinski* 321

CHAPTER FIFTEEN

Slow | *Terri Kapsalis* 339

Contributors 363

Index 367

ACKNOWLEDGMENTS

The idea for this book was hatched at a conference on “The Madness of Photography” in Savannah, Georgia, in 2011. During conversation in between panels we began to ask ourselves why the discourse of psychoanalysis, which had been so influential for film, had by and large failed to permeate the field of photography studies. The roving conversation eventually turned into more pointed questions: Why had the field so favored the Marxist aspects of Walter Benjamin’s work on photography while ignoring its associations with Freud? Could Benjamin’s germinative concept—the “optical unconscious”—be turned into a more potent analytic tool for exploring the psychological dimensions of the medium? The questions felt urgent enough that by the close of the conference we were committed to investigating further. The first foray consisted of a symposium that was graciously hosted by the Toronto Photography Seminar at the University of Toronto in 2013. Many of the chapters in this book were discussed and developed during this workshop and we would like to express our gratitude to the presenters and attendees—and especially the members of the Toronto Photography Seminar—for their goodwill and good thoughts on the project.

We would also like to express our appreciation to the various individuals and institutions that have granted permission to reproduce the images appearing in this book, and especially to the artists who have generously contributed their work to the project. We would like to thank the School of the Art Institute of Chicago, and especially Dean of Faculty Lisa Wainwright, as well as the Western University Ontario for supporting the production of this book. We are grateful to Ken Wissoker, Jade Brooks, and the rest of the team at Duke University Press for bringing the project to fruition with such care.

Finally, Shawn would like to thank Joe Masco for engaging and sustaining a conversation about Benjamin over the course of many years, and for the generosity of his support and enthusiasm for this book, and Sharon would like to thank Melissa Adler for teaching her how to look at the world through a different lens.

INTRODUCTION

SHAWN MICHELLE SMITH

AND SHARON SLIWINSKI

Photography mediates our experience of the world. Of this fact there can be little dispute. The technology has come to permeate almost every domain of contemporary life: images and cameras are a ubiquitous presence in our homes, hospitals, museums, schools, and war zones alike. An astonishing amount of human knowledge—of ourselves, of other people, and of the phenomenal world—is bound up with this medium. In public and private, individually and collectively, and in both productive and consumptive modes, photography has become one of the principal filters between the world and us.

What has gone relatively unexplored are the ways that photography mediates our experience and knowledge of the world in *unconscious* ways.¹ Perhaps not surprisingly, Sigmund Freud was one of the first to intuit this idea. He began using photographic processes as a metaphor for his concept of the unconscious mind as early as 1900; however, it was not until the 1930s when Walter Benjamin began writing about the medium that the profound implications of this connection started to become evident. In the course of his studies of the revolutionary changes in perception that the technology introduced, the German cultural theorist proposed that the camera revealed something he named the “optical unconscious.” And while Benjamin has subsequently become one of photography’s most important and influential thinkers, his ideas about the medium’s relationship to the unconscious have remained curiously latent.² As the interdisciplinary interest in photography continues to expand, this book seeks to broaden and reframe the significance of photography’s relationship to the unconscious, extending Benjamin’s germinative concept into a more potent critical tool.

Given Freud’s repeated use of the photographic metaphor in his theory of the mind, it seems astonishing that he never constructed an explicit theory of

unconscious perception.³ Benjamin recognized and took up this challenge, in part, by reversing the emphasis between the two central terms, highlighting the optical nature of the unconscious. He was interested in the way photography as a visual technology both affected and offered unprecedented access to this dynamic domain. Benjamin's writings on this topic unseat the fantasy of mastery that surrounds the desire to see and to know. His consideration of the optical unconscious attunes us to all that is not consciously controlled in the making, circulation, and viewing of photographs, the contingency involved in the production and consumption of images, as well as the unexamined motivations and effects of this technology's pervasive spread into wider and wider spheres of human and nonhuman activity.

Benjamin's concept also opens questions about the nature of unconscious communication. He recognized early on that photography was becoming a favored tool for everyday users to sort and process their lived experiences—a fact that has become ubiquitous in today's era of social media. The theorist helped pioneer the now commonplace idea that our image technologies facilitate and shape social relations. He was part of a lively conversation that was occurring in Germany in the 1920s and 1930s that tried to grasp the social and political significance of the explosion of new information technologies.⁴ For his part, Benjamin was particularly interested in the way the instruments of mass communication—radio, film, and photography—served as virtual and actual prostheses for human perception. A central aspect of his work involved the attempt to rethink the embodied, cognitive processes through which we engage the world around us. One of his signal contributions to this larger conversation was the idea that photography was organized by “another nature,” which is to say, he emphasized the ways this technology mediates human relations through unconscious means.

For the past thirty years, the cultural study of photography has been dominated by narratives about power and regulation and, in particular, by narratives about how photography has served as a disciplinary apparatus of the state. John Tagg and Allan Sekula have contributed exemplary work in this vein. Sekula's study of criminological and scientific systems explicitly defines photography as a technology of surveillance in the nineteenth century. During this period, police departments and other state agencies began producing archives in which bodies were transformed into images, and subsequently into types, which became the key tools of population control. Such institutional archives, as well as broader shadow archives, offer evidence of photography's repressive logic.⁵

Responding to this disciplinary model, feminist, queer, antiracist, and post-

colonial scholars have subsequently demonstrated that photography also allows for slippages and resistances, forms of double mimesis, disidentification, and double consciousness that resist official, normative strategies of categorization and containment.⁶ Elizabeth Edwards, for instance, has proposed that photographic archives contain myriad contradictions and disruptions; Robin Kelsey has explored the centrality of chance in the history of photography; Tina Campt has studied the ways black European subjects used photography to create community in diaspora; and Elspeth Brown and Thy Phu have proposed that affect profoundly shapes and organizes photographic meaning in ways that elude more rationalized processes.⁷ In concert with these studies, this book aims to pursue the unknown, the unseen, and the uncontrolled—even as we recognize the real forms of domination and coercion that photography continues to propagate.

Photography and the Optical Unconscious uses Benjamin's concept as a pivot in order to bring questions about photography and photographic processes closer to questions about the human mind and its psychological processes. We are interested in exploring how the medium engages and shapes perception and lived experience, forms of seeing and unseeing, sovereignty and agency, and time and space. We are also interested in extending one of Benjamin's central wagers: that thinking photography through the lens of the unconscious can help us grasp the revolutionary optical dynamic that permeates the domains of history and politics.⁸

Our present era, just as in Benjamin's time, is marked by war, extreme nationalism, mass dislocation, high-speed information, and an accelerated consumption cycle driven by global capital. Our contemporary moment, like Benjamin's, is also seized by dramatic technological changes in image making and circulation. The ascension of digital technologies—and the smartphone in particular, with its convergence of visual imaging and communication technologies—means that more photographs are being taken and they are circulating more widely than ever before. According to a 2013 report, more than 250 billion photographs have been uploaded to Facebook, with another 350 million being uploaded every day. This makes the social networking service the world's largest photographic repository by far.⁹ The vast majority of these images, moreover, are produced on cell phone cameras, and the sheer ubiquity of these devices has inspired new terminology such as "mobile photography" and the "fluid image."¹⁰ The time seems right to follow Benjamin's invitation to consider the new image worlds that photography has helped bring into view, as well as the unconscious dimensions of our imaged and imagined communities.

Although it is the chief subject of this book, the optical unconscious remains elusive. This concept is not something that is directly available to sight, but it nevertheless informs and influences what comes into view. By attending to this idea, one might become newly aware of previously unnoticed details and dynamics, as well as the material, social, and psychic structures that shape perception. In several of his books, the British psychoanalyst Christopher Bollas described this disavowed dimension as the “unthought known.” This refers to material that is either emotionally undigested or actively barred from consciousness.¹¹ As Bollas teaches us, this “unthought” material is, in fact, an integral part of knowledge. And indeed, it seems photography may be one of the principal means to circulate this unconscious material that remains vexingly obscure. Like latent memories, details of photographic information snap into focus and become visible in unpredictable moments. As Benjamin put it, they “flash up” in moments of danger and desire—and they can quickly fade from view unless seized in a moment of recognition.

The contributors to this volume offer a number of innovative ways of defining or elaborating the notion of the optical unconscious: attending to perceptions (chapter 8), developing latent images (chapter 10), discovering things hidden in plain sight (chapter 11), focusing on the disavowed (chapter 12), and perceiving the slow (chapter 15). Together they explore the realm of the unseen that photography paradoxically introduces as it probes the outer edges of the expansive terrain of the human imaginary.

As a means to frame and ground the subsequent chapters and artists’ portfolios, this introduction outlines the ways in which photography functions as metaphor and paradigm in the writings of Benjamin as well as Freud. It is important to emphasize that although Benjamin was deeply influenced by Freud’s writings, his sense of the optical unconscious was not coterminous with the psychoanalyst’s notion of this dimension. Freud himself constantly revised his ideas about the unconscious over the course of his long career, but as he did so he frequently returned to the metaphor of photography to elaborate his views. In other words, Benjamin was not alone in imagining that photography could help us better understand the structure and force of this other agency.

A Concept in Transition

Benjamin seemed to recognize and emphasize the medium’s proximity to the unconscious from the outset. His first published discussion of photography appeared in 1928, when he wrote “News about Flowers,” ostensibly a short

review of Karl Blossfeldt's photo book, *Originary Forms of Art*.¹² Even in this brief entrée, Benjamin seems preoccupied with the unconscious aspects of perception that the camera revealed. Marveling at Blossfeldt's enlargements of tiny pieces of plants, Benjamin declared, "A geyser of new image-worlds hisses up at points in our existence where we would least have thought them possible. . . . Only the photograph is capable of this."¹³ For Benjamin, as for many of his generation, Blossfeldt's technological innovations irrevocably shattered the boundaries of human perception. The art teacher had built a camera with unprecedented magnifying capacity, which he used to photograph plants in hitherto unseen detail. He meticulously arranged tiny part objects—twig ends, tendrils, seedpods, leaf buds—on stark backgrounds, revealing elegant architectural forms seemingly hidden in the organic world. In these enlargements Benjamin discovered a world of unconscious resemblances. In Blossfeldt's photograph of horsetail, Benjamin saw ancient Greek columns; saxifrage seemed to reveal miniature cathedral windows; a bishop's crosier appeared in fern fronds; and totem poles seemed to arise out of maple shoots (figs. 1.1 and 1.2).¹⁴ Blossfeldt's photographs revealed otherwise unseen dimensions of the visual landscape, and Benjamin would spend the better part of the next decade thinking about this "geyser of new image-worlds" that the medium exposed.

In "Little History of Photography," published three years after "News about Flowers," Benjamin boldly proclaimed, "It is another nature that speaks to the camera rather than to the eye: 'other' above all in the sense that a space informed by human consciousness gives way to a space informed by the unconscious."¹⁵ Despite being a human invention, Benjamin seems to say, photography exposes the limits of human intentionality. The theorist was keen to explore how the technological processes of photography could reveal aspects of existence that elude our conscious grasp: "It is through photography," he insisted, "that we first discover the existence of this optical unconscious, just as we discover the instinctual unconscious through psychoanalysis."¹⁶

As with many of his enduring concepts, Benjamin's definition of the optical unconscious remained vexingly protean. That said, the idea seems to have been initially sparked by technological experimentation. In "Little History," Benjamin returns to his praise of Karl Blossfeldt's close-ups and adds an allusion to Eadweard Muybridge and Étienne-Jules Marey's motion studies: "Whereas it is a commonplace that, for example, we have some idea what is involved in the act of walking (if only in general terms), we have no idea at all what happens during the fraction of a second when a person actually takes a step. Photography, with its devices of slow motion and enlargement, reveals



FIGURE I.1 *left* Karl Blossfeldt, *Equisetum hyemale*, 1898–1928. Gelatin silver print, $23\frac{7}{16} \times 9\frac{5}{16}$ inches (59.5 × 23.7 cm). Thomas Walther Collection, gift of Thomas Walther, the Museum of Modern Art. Digital image copyright the Museum of Modern Art/licensed by SCALA/Art Resource, New York.

FIGURE I.2 *above* Karl Blossfeldt, *Adiantum pedatum*, American maidenhair fern, before 1928. Young rolled-up fronds enlarged eight times. Gelatin silver print, $11\frac{5}{8} \times 9\frac{5}{16}$ inches (29.5 × 23.6 cm). Thomas Walther Collection, purchase, the Museum of Modern Art. Digital image copyright the Museum of Modern Art/licensed by SCALA/Art Resource, New York.

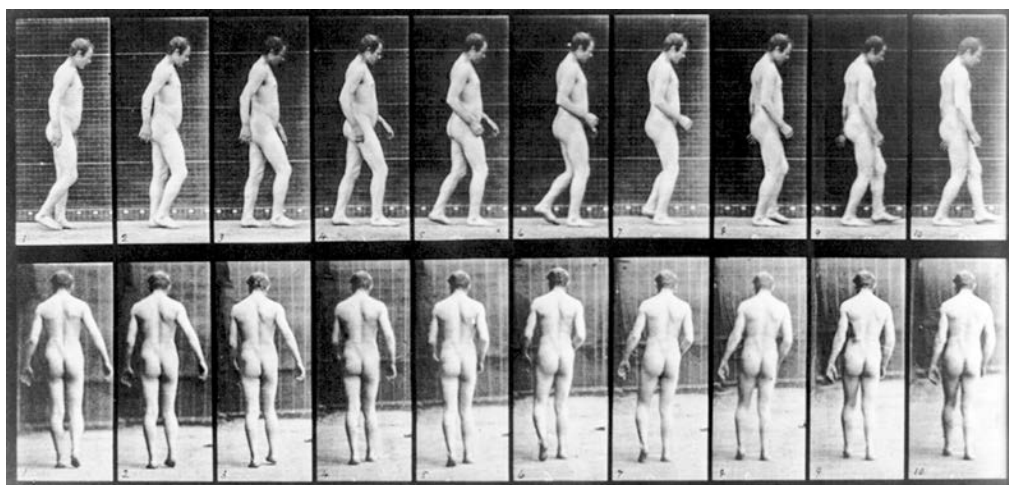


FIGURE 1.3 Eadward Muybridge, *Animal Locomotion*, Plate 443, circa 1887.
Library of Congress, Prints and Photographs Division.

the secret.”¹⁷ The camera allows us to grasp what remains otherwise imperceptible to the powers of human sight: what is either too miniscule or too rapid for the unaided human eye to see (fig. 1.3). And yet, Benjamin insists, the technology’s capacity to glimpse these alternate image worlds is merely how “we *first* discover the existence of this optical unconscious.”¹⁸ In its initial iteration, Benjamin’s sense of this domain corresponds to dimensions of the visible world that appear to be beyond the natural limits of human sight—microstructures that dwell “in the smallest things” and the deconstruction of space that slow motion affords—but which nevertheless seem to have a “secret” influence on human imagination.

As Miriam Hansen has pointed out, Benjamin’s discussion of the optical unconscious is inextricably knitted to his equally complex notion of the aura.¹⁹ Neither concept remained static in his work. Hansen traces three distinct definitions of the aura in Benjamin’s thought, and one could produce a similar trajectory of the optical unconscious. Even within the space of his “Little History,” Benjamin’s sense of the term shifts from being an inherent property of a particular object (i.e., a microscopic image world hidden in maple shoots) to an agency of perception itself. In this second iteration, the optical unconscious names a particular structure of vision (which is not limited to the visible) that endows objects with the power of the gaze. Perhaps the clearest articulation of this version of the concept arrives with Benjamin’s citation of the nineteenth-

century photographer Karl Dauthendey recalling his early experience with daguerreotypes: “We didn’t trust ourselves at first to look long at the first pictures. . . . We believed the tiny faces in the picture could see us.”²⁰ Leaning on a sense of the uncanny, here the image itself carries the powers of sight.

This second definition of the optical unconscious—as a gaze that belongs to the other, as something in excess of the spectator’s agency but which seems to show itself to the camera—was revived and expanded a few years later, in Benjamin’s well-known essay, “The Work of Art in the Age of Its Technological Reproducibility.” By the mid-1930s, Benjamin’s concentration was almost entirely absorbed by his *Arcades Project* (*Das Passagenwerk*), a sprawling cultural history of the emergence of urban culture in nineteenth-century Paris. “The Work of Art” was among a trio of essays that arose as an offshoot to this massive (and ultimately unfinished) project.

In the second, 1936 version of the “Work of Art,” Benjamin included an entire section that addressed what he describes as the “equilibrium between human beings and the apparatus.” In this section, he develops a kind of rolling definition of the optical unconscious that gathers up and builds upon all his previous insights: slow motion and close-ups open “a vast and unsuspected field of action. . . . With the close-up, space expands; with slow motion, movement is extended . . . bringing to light entirely new structures of matter.”²¹ In this third iteration, the optical unconscious is spatialized, referring, among other things, to the hidden dimensions of a place—an idea he expands in his discussions of Eugene Atget’s photographs of Paris. Benjamin also repeats his claim that the camera enables the discovery of the optical unconscious, just as psychoanalysis enabled the discovery of the instinctual unconscious. This statement is followed by a remarkable passage that deserves to be quoted in full:

Moreover, these two types of unconscious [the optical and instinctual] are intimately linked. For in most cases the diverse aspects of reality captured by the film camera lie outside the *normal* spectrum of sense impressions. Many of the deformations and stereotypes, transformations and catastrophes which can assail the optical world in films afflict the actual world in psychoses, hallucinations, and dreams. Thanks to the camera, therefore, the individual perceptions of the psychotic and the dreamer can be appropriated by collective perception. The ancient truth expressed by Heraclitus, that those who are awake have a world in common while each sleeper has a world of his own, have been invalidated by film—and less by depicting the dream world itself than by creating figures of collective dream, such as the globe-encircling Mickey Mouse.²²

In this dense passage, Benjamin's speculations begin to take an acutely political turn, although surprisingly, the pivot point is not photography's so-called indexical relationship to reality, but rather its proximity to fantasy. What matters to Benjamin here is photography's ability to capture and circulate the "deformations" and "stereotypes" that make up the psychotic's and the dreamer's perceptions. Benjamin is proposing, in other words, that "collective perception" is more akin to a shared unconscious fantasy, and, moreover, that modern technology can allow us to access these ways of seeing that are actively disavowed or otherwise unavailable to consciousness. He sees photography's political potential not in its ability to document material reality, but rather in its profound link to psychic structures. In this third iteration of the optical unconscious, therefore, Benjamin begins to elaborate a theory of mass communication that is centered on the notion of the unconscious rather than rationality or reason. Here photography becomes a key medium for the circulation of a culture's unconscious desires, fears, and structures of defense.

A Photographic View of History

As his varied articulations of the optical unconscious suggest, Benjamin's engagement with photography was more profound than the small handful of his works that directly discuss the medium might suggest. Photographic technologies also informed and inspired his critical method of writing history; indeed, his complex notion of the dialectical image as well as his discussion of "time at a standstill" are both structured by his thinking about photography.

In one striking instance, Benjamin describes the dialectical image as a kind of stereoscopic image.²³ Borrowing words from Rudolf Borchardt, he explains the "pedagogic side" of his massive compendium *The Arcades Project* in this way: "To educate the image-making medium within us, raising it to a stereoscopic and dimensional seeing into the depths of historical shadows."²⁴ This "image-making medium within us" is yet another iteration of the optical unconscious, here an internal mechanism of perception that animates and shapes our recognition. Benjamin sought to educate and harness this internal mechanism to the project of historical materialism. As Susan Buck-Morss proposes, Benjamin's collection of scraps, notes, and images of outmoded commercial forms found in the Paris arcades were meant to provide half a text—or rather half an image, to which readers would supply the other half by bringing images of their own historical moment to bear on these antiquated artifacts. Taken together, Benjamin imagined that these doubled images might crystallize, as in

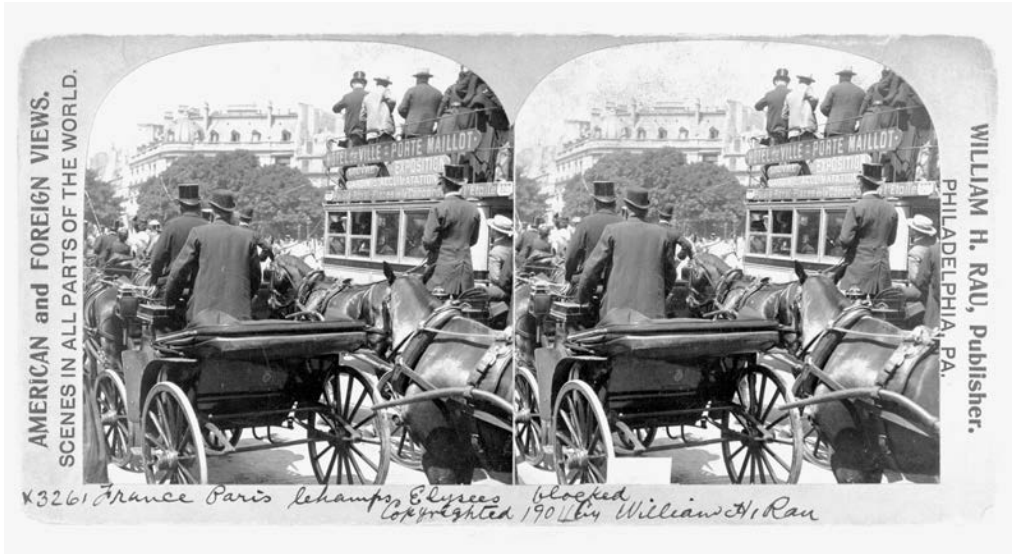


FIGURE 1.4 William Herman Rau, *Champs Elysees Blocked*, Paris, France, circa 1904. Photographic print on stereo card. Library of Congress, Prints and Photographs Division.

the stereoscope, into a single, dialectical image—a revelatory vision that would awaken the viewer by demystifying the present, enabling one to see and understand the unchanging sameness of capitalism’s purported progress. Training our unconscious perception in this way, Benjamin hoped, would awaken us from capitalism’s “dream-world.”²⁵

It is important to emphasize that the stereoscopic image, fully realized in the age of photography, is a virtual image. This image becomes visible only through the interplay of human binocular perception with the stereoscopic device, as Jonathan Crary has elaborated.²⁶ The stereoscopic image does not exist in the world, but only in the mind’s mechanically enhanced eye. It is made through the combination of three components: a viewing device (the stereoscope), a doubled image (the stereo card), and human binocular vision. The stereo card presents two slightly different images, side by side (fig. 1.4).²⁷ When placed in the viewing device, and engaged by a viewer, the two photographs of the stereo card coalesce into a single image that provides an illusion of depth. When the image snaps into focus as one gazes through the device, it also snaps into relief, revealing planes that divide the newly realized space of the image. In this way, the stereoscopic image evokes, but does not reproduce actual three-

dimensional perception: the planes recede in discrete rows, as if they are stage sets that might be rolled offscreen, and individual figures stand out from one another in too pronounced a manner, almost as if they are miniatures that have been pasted into a small diorama. Thus, the stereoscopic image provides an illusion of depth and dimension, but not an illusion of reality. It is an entirely imaginary scene that cannot be envisioned otherwise.

Benjamin borrowed the stereoscope's conflation and transformation of two images into a startling new view as the salient technique of his historical writing. His dialectical image, like the stereoscopic image, is not part of the phenomenal world, but an image that is activated by present readers gazing upon the past. Again, it is not something that is directly perceptible (nor reproducible), but only emerges in the imaginative interaction between reader and text. Benjamin aimed to invigorate readers, to create conceptual models that would galvanize the subject into an awakening: a fragment from the past, read in light of the present, triggers the "image-making medium within," effecting a dialectical image through which the subject might see the mirage of capitalism exposed.²⁸

One finds another analogy for Benjamin's historical method in the temporal disruption of photography. In his late, aphoristic essay, "On the Concept of History," Benjamin describes the work of the historical materialist as "blast[ing] open the continuum of history," perceiving a present "in which time takes a stand and has come to a standstill" — just as it does in a photograph. In this way, Benjamin's historical thinking depends not simply on "the movement of thoughts," but on "their arrest as well."²⁹ More than any other medium, photography offered Benjamin a model for his thinking about the arrest of time and thought. In the photograph, historical configurations crystallize and come into focus in the "dynamite of the split second."³⁰

Benjamin's thoughts on the temporality of the photograph remain startlingly innovative. The photograph not only stops time, Benjamin argues, but also works to project the future out of the past. The photograph is a forward-looking document, so to speak, anticipating a future viewer who will recognize in it a spark of contingency that cannot be contained to one temporal moment. As Benjamin puts it in his "Little History of Photography": "No matter how artful the photographer, no matter how carefully posed his subject, the beholder feels an irresistible urge to search such a picture for the tiny spark of contingency, of the here and now, with which reality has (so to speak) seared the subject, to find the inconspicuous spot where in the immediacy of that long-forgotten moment the future nests so eloquently that we, looking back, may

rediscover it.”³¹ Benjamin was fascinated by the contingency of photography, by those moments of chance that exceed human intentionality and the narrative of history as progress, and in those “tiny sparks of contingency,” he found not only the past, but also the future.³² Similarly, Vilém Flusser has seized upon the medium’s sense of futurity in his more recent ruminations on photography and history. Flusser describes photographs as “projections, that is, as images of the future.” Despite our persistent understanding of photographs as “copies of scenes, that is, as images of the past,” Flusser argues, they are actually visualizations that concretize images out of myriad possibilities, and in this way, they direct the future.³³

Benjamin divined the future from the past of the photograph. Over and over, photographic technologies served as a potent analogy for his radical historical project. He produced an understanding of the present through images of the past that blazed up before him, and he championed the idea that we should seize hold of this memory “as it flashes up at a moment of danger.”³⁴ Blasting open the mirage of time as linear and progressive, the historical materialist recognized in the dialectical image a historical reality laid bare.

The Latent Image

Although he rarely acknowledged it directly, Benjamin took many of his cues from Sigmund Freud, who repeatedly relied on the metaphor of photography in his own work. In this respect, the technology offered both thinkers a powerful means to conceptualize psychological processes. Freud also wrote of “the image-making medium within us,” which he posited as a complex interplay between direct sensual perceptions and latent images (memory traces and fantasies), all of which must be “processed” before becoming conscious. One of the first uses of this metaphor appears in *The Interpretation of Dreams*, published in 1900, where Freud mobilized a variety of optical devices—including a “photographic apparatus”—to figure the workings of the mind.³⁵

Where Benjamin favored the metaphor of the stereoscope, Freud initially preferred the telescope to figure his model of human perception. Both analogies hinge on a virtual image that is produced through the alignment of two or more images that are physically askew. Explaining the relationship between the inner and the external world, Freud suggests, “Everything that can be an object of our internal perception is *virtual*, like the image produced in a telescope by the passage of light-rays.”³⁶ He stresses the fact that we must actively process the perceptions that arrive from the external world. Perceptual data is captured

and filtered through our senses, and then transformed to make a virtual image. This transformation is not neutral because the information that arrives through our senses encounters unconscious interference, so to speak. For Freud, each of the psychic systems functions like “the lenses of the telescope, which cast the image.”³⁷ Psychic operations such as repression, projection, negation, or scotomization serve as evidence of the dynamic force of the unconscious. Following Freud’s own analogy, repression works like the refraction of light as it passes from one lens (or psychic system) to another, thus distorting the image perceived in the mind’s eye.³⁸

Nearly four decades after he first drew on visual models to describe the human psyche, Freud returned to the photographic analogy in *Moses and Monotheism*, which was published in English the same year he died, 1939. In the course of a discussion about the structural significance of early childhood experiences, Freud proposes that the relation of unconscious memories to conscious perception is like that of the negative to the photographic print: “It has long since become common knowledge that the experience of the first five years of childhood exert a decisive influence on our life. . . . The process may be compared to a photograph, which can be developed and made into a picture after a short or long interval.”³⁹ The powerful force of early childhood experiences remains latent and inaccessible, just as a negative can remain unprocessed for a long period of time before being made into a positive print. The photographic analogy underscores the deferred temporality that dominates psychic life. Latency—by which Freud means the way past experiences are refashioned to suit the present—is key to understanding the ways in which unconscious thoughts can exert an influence in the time afterward.⁴⁰ Put differently, Freud proposes that the past can return to haunt the present, and photography offers a prime model for how this strange deferred temporality works. The medium’s unique relation to time—its capacity to figure multiple temporal moments simultaneously—becomes a model for understanding the workings of the dynamic unconscious, which, Freud famously insisted, knows no time.⁴¹

In her evocative reading of Freud’s use of photographic analogies in *Moses and Monotheism*, the French philosopher Sarah Kofman stresses the fact that latency does not require or necessitate development: “In the psychic apparatus, the passage from negative to positive is neither necessary nor dialectical. It is possible that the development will never take place.”⁴² Many childhood experiences remain unconscious. Further, when and if development does take place, what is remembered is actually something that went unobserved in the first instance. According to Freud, latent memories are constituted by what

a child has experienced and “not understood,” and indeed, “may never be remembered.”⁴³ He speculates that some of this structural latency has to do with human development: unconscious memories correspond to experiences that a child undergoes at a time when “his psychical apparatus [i]s not yet completely receptive.”⁴⁴ These experiences nevertheless organize and direct the adult’s unconscious, including the style and structure of our perception: the way each of us “unconsciously scans” the world, observing, collecting, and scrutinizing particular phenomenal objects based upon early patterns of experience.⁴⁵

There is a direct echo here of Benjamin’s optical unconscious, which, he claims, photography can help us to grasp. The camera can capture scenes that pass too quickly, too remotely, or too obscurely for the subject to consciously perceive. By enlarging details, or by slowing down or stopping time, the camera pictures phenomena that the viewer has encountered and unconsciously registered but not consciously processed. This sense of the optical unconscious is not about making latent memory traces visible, however, but rather demonstrating the reach and complexity of unconscious perception.

Race and the Optical Unconscious

As several of the chapters in this book attest, optical understandings of race and racialized understandings of optics are latent in the writings of Benjamin and Freud. Both thinkers wrote in the shadow of Nazi imperialism and eugenics, and it is perhaps not surprising that race is at play in their thoughts about the workings of the human psyche. In the wake of European colonialism and slavery in the Americas, race served as a defining feature of modern social and psychic structures. Several twentieth-century theorists — perhaps most prominently W. E. B. Du Bois and Frantz Fanon — offer articulations of the ways race is imbricated in self-imaging, at both the conscious and unconscious levels.

Although they are not exactly in sync, Du Bois’s double consciousness and Benjamin’s optical unconscious both aim to describe visual worlds that shape the psyche. The idea of a gaze that belongs to the other, a component of Benjamin’s understanding of the optical unconscious, was also central to Du Bois’s experience of double consciousness. For Du Bois, racial consciousness was a visual dynamic, an effect of an exterior gaze, and his concept names the psychic strain that African Americans experienced living in a segregated world: “It is a peculiar sensation, this double consciousness, this sense of always looking at one’s self through the eyes of others.”⁴⁶ He described a self-understanding alienated by a colonizing gaze that one sensed, even if one did

not see it. Such an understanding of oneself through the gaze of the other was a dynamic structuring element that Du Bois strove to make visible in order to expose and resist its power.

The dynamic splitting and doubling of self and gaze also produced, for Du Bois, the revelation of “second-sight,” that is, the capacity to see the material structures of segregation and colonialism as well as the visual and psychic technologies of racial domination.⁴⁷ Indeed, Du Bois deemed himself “singularly clairvoyant” about the “souls of white folk”: “I see in and through them. . . . I see these souls undressed and from the back and side. I see the working of their entrails. I know their thoughts and they know that I know.”⁴⁸ Du Bois perceived the lens through which he was seen, he sensed others looking, and he also looked back at them with piercing eyes.

Du Bois’s insights, like those of Benjamin and Freud, were founded on longstanding visual conceptions of race produced by the convergence of scientific discourses and photographic technologies in the nineteenth century. His capacity to see the souls of white folk “undressed and from the back and side” eerily recalls (and perhaps even reverses) the gaze imposed in Joseph T. Zealy’s infamous daguerreotypes of enslaved men and women commissioned by the polygenesist Louis Agassiz in 1850 (see figs. 8.10 through 8.13 in chapter 8).⁴⁹ In Zealy’s daguerreotypes, enslaved men and women stand stripped before the camera, photographed from a variety of angles—ogled at from “the back and side.” The images render visible the radically visceral dimension of racism, that is, the way race can be optically inscribed onto the human body. In this respect, the daguerreotypes are part of a much larger American archive, a quasi-scientific set of dividing practices that, as Ta-Nehisi Coates puts it, “all land, with great violence upon the body.”⁵⁰ These images also record, as Suzanne Schneider has argued, Agassiz’s racialized sexual desire, cloaked in the discourses of scientific scrutiny, hidden in taxonomic sight.⁵¹

Zealy’s daguerreotypes are striking examples of the way modern conceptions of race were produced with the camera. Scientists devised visual typologies to define and differentiate racial groups, mapping physical characteristics they claimed to read in the body and through the photograph. In the late nineteenth century, Francis Galton, the founder of eugenics, devised a system of composite portraiture to delineate racial types, “the Jewish type” prominent among them (see fig. 4.1 in chapter 4). Working with preselected groups, Galton photographed individuals from the front and side, and overlaid exposures proportionately so that each individual’s face was equally represented in the composite image.⁵² Such techniques of visual compositing profoundly in-

fluenced the way race came to be seen. As Jonathan Fardy discusses in chapter 4, following Sander Gilman, Freud's racial anxieties come into view in one of his dreams via the mechanism of the composite image. Startlingly, a racialized composite image enables Freud to recognize that his unconscious is functioning photographically.

The photographic experiments of Agassiz and Galton fundamentally shaped modern understandings of race as visual, and their work helped generate vast photographic archives in the late nineteenth and early twentieth centuries. As Allan Sekula has argued, the archives of race scientists and criminologists consolidated the dominant ideology that people could be read and categorized visually, that exterior signs could reveal interior essences.⁵³ In the same period, photography was put into the service of colonialism; indeed the colonial archive is a particularly dense repository for this racialized gaze, as Gabrielle Moser demonstrates in chapter 10. The colonial archive also records its own uncertainties, and Moser, following Ann Stoler's work, pursues several "nonevents" in a specific colonial photographic archive, proposing that the latent details of such nonevents reveal unconscious colonial anxieties about race and power.

Writing from the colonial contexts of France, nearly five decades after Du Bois, Frantz Fanon would similarly describe his experience of a colonial gaze as a splitting, doubling, and even tripling of the self. Caught in the gaze of the other, he is forced and yet unable to heed a white child's hail: "Look, a Negro!" a child calls out at the sight of Fanon on a train in the early 1950s.⁵⁴ The encounter throws Fanon's body into view and imprisons it in the same stroke, projecting a distorted bodily image — a white fantasy of blackness — that Fanon is forced to confront but with which he cannot identify. The result of this collision is a profound psychic splitting, a crumbling of Fanon's internal sense of self: "nausea . . . an amputation, an excision, a hemorrhage."⁵⁵

According to Fatimah Tobing Rony, Fanon's central concern is this: "What does one become when one sees that one is not fully recognized as Self by the wider society but cannot fully identify as Other?"⁵⁶ For David Marriott, the question is even more formidable: "What do you do with an unconscious which appears to hate you?"⁵⁷ In Marriott's reading of Fanon, the visual dynamics of looking that animate segregated and colonized worlds also structure the very composition of the imago/ego in Lacan's famous "mirror stage."⁵⁸ According to Marriott, "The black man is already split, preoccupied, by a racist, a conscious-unconscious, imago."⁵⁹

Du Bois's second sight might serve as antidote to the devastating dynamics of psychic colonization described by Marriott. Second sight might parallel

what Rony deems “the third eye,” an appropriate form of vision for Fanon’s “triple person.”⁶⁰ It is the ability “to see the very process which creates the internal splitting, to witness the conditions which give rise to the double consciousness.”⁶¹ Du Bois’s second sight is able to see the visual dynamics that inform and are formed by racist social structures. Although he describes this critical insight in almost mystical terms as the “gift” of “the Veil,” it is also an insight he shares in *The Souls of Black Folk* as a lesson to be learned. It is a critical visual strategy not only for registering race and racism, but also for combating it—for working through the social dynamics that split and double the self.⁶²

As a number of the chapters in this book demonstrate, race and the optical unconscious both come into focus photographically in the twentieth century. Mark Reinhardt draws out the visual constructions of race subtly figured in Benjamin’s “Work of Art” essay to show how the optical unconscious of race in the United States breaches the limits of psychic sovereignty (chapter 8). Laura Wexler uncovers the colonial past registered in Roland Barthes’s famous Winter Garden Photograph (chapter 11). Thy Phu and Sharon Sliwinski both study the material, technological, and psychic limitations of photography under racialized war and violence (chapters 13 and 14). Together these chapters, along with those of Fardy and Moser (chapters 4 and 10), demonstrate how Benjamin’s thoughts about the optical unconscious, and even about modernity itself, were imbricated with colonialism and scientific racism, even if Benjamin himself did not always see it.

The Shape of the Book

Photography and the Optical Unconscious explores the revolution in human perception—and the unconscious aspects of perception in particular—that the invention of photography opened. It also investigates the wide range of image worlds that the medium has both generated and discovered. Together the essays and artists’ portfolios gathered here provide a collective and sustained investigation of photography and the optical unconscious. The book aims to be both focused and broad enough to encompass the breadth of the optical unconscious as well as to suggest new modes of engagement with photographs and texts. Some of the chapters center on works by Benjamin and Freud, others on the historical periods in which they wrote, and still others on disparate archives, images, and texts ranging from the nineteenth to the twenty-first century.

As Benjamin looked to photographs to theorize the optical unconscious,

and Freud turned to optical technologies to understand the psyche, it makes sense that this book would also explore the optical unconscious through photography, allowing photographs to do the work of revealing the unseen aspects of sight itself. Three artists' portfolios offer visual entry into thinking about the optical unconscious: Zoe Leonard's camera obscura installations, which are documented in photographs (chapter 5); Kelly Wood's images of homeless carts, which bring disavowed cultural subjects into view (chapter 12); and Kristan Horton's composite portraits, which open questions about unconscious perception and the formation of subjectivity (chapter 9).

These portfolios are included in an effort to allow photographs to communicate at least partly on their own terms. Benjamin's "tiny spark of contingency" is not something to be discovered in words, but rather in looking, and specifically by looking at photographs, visual documents that resist the creator's control, "no matter how artful the photographer, no matter how carefully posed his subject."⁶³ This book endeavors to engage the optical unconscious through images as well as words, to allow for resistance to our usual analytics and verbal modes of argumentation. Each portfolio is briefly framed by textual material that does not so much explain the body of work as provide a platform through which the images might be engaged. Leonard presents a conversation about her camerae obscurae; Wood offers an account of the motivations that inspired her photographs; and Horton has written a creative text that runs parallel to his composite portraits. None of this textual material aims to contain or restrain the meaning of the images. Rather we hope the portfolios will solicit viewers' responses, courting curiosity and surprise. The images provide a means to explore the dynamics of perception, drawing attention to the ways photographs can technologically reveal what the physical and cultural parameters of sight obscure.

To begin the conversation, Andrés Mario Zervigón situates Benjamin's thoughts on the optical unconscious in the wake of the rapid expansion of the illustrated press in 1920s Weimar Germany (chapter 1). By the 1930s, intellectuals in Germany both celebrated and condemned the proliferation of photographic images, lauding the expansion of perception offered by photographs while at the same time fearing the ways in which "photo-inflation" overwhelmed perception and understanding. In this atmosphere of both enthusiasm for and anxiety about the proliferation of photographic images, Benjamin theorized an optical unconscious that functioned parallel to the photograph itself, recording

a plethora of details and information not consciously perceived in one's environment and encounters. As Zervigón argues, "photography itself imprinted the nearly invisible phenomena that only the unconscious was prepared to perceive at the actual unfolding of such events." Articulating a new mode of perception, Benjamin also began to postulate a new understanding of the modern photographic subject who might see beyond the surface of things to their underlying structures. The photographic subject, trained precisely by the proliferation of images, might come to see and understand photographs as "dialectical images" that revealed in a flash the capitalist structures that undergird the world of commodities and images. Catalyzed by his thoughts on the optical unconscious, Benjamin began to propose a new model of the photographic subject, one that reserved and reinvented the revolutionary power of photography in the midst of the medium's accelerated proliferation.

Taking another tack on the photographic contexts in which Benjamin theorized the optical unconscious, Shawn Michelle Smith looks to the history of photography that Benjamin drew upon in formulating his ideas (chapter 2). In her discussion of Benjamin's signal essay on the medium, "Little History of Photography," she examines the photographers and images Benjamin called upon to define the photograph's "magical" qualities, especially the work of the early Scottish practitioners David Octavius Hill and Robert Adamson, who were receiving renewed attention in Germany at the time of Benjamin's writing. In other words, she understands Benjamin's thoughts on the optical unconscious as emerging within a historiography of photography. Even as Benjamin was critical of the vast commercialization of photography in the nineteenth century, and increasingly afraid of the destructive potential of the visual culture that surrounded him in 1930s Germany, he preserved an early moment in the history of the medium as both magical and revelatory. In Hill and Adamson's work from the 1840s, Benjamin saw the potential of the new technology to capture not only a moment from the past, but also a moment of futurity that called out to later viewers, and he seized upon this temporal disruption as key to photography's revolutionary optical unconscious.

While the first two chapters explore how Benjamin's theory of photography was informed by psychoanalysis, chapter 3 reverses this trajectory. Here the French philosopher Sarah Kofman examines the role that photography played in Freud's thinking about the psyche. This short chapter was initially the middle section of a book called *Camera Obscura: Of Ideology*, which was first published in French in 1973 (in English in 1998). This was Kofman's third book, and it continued her characteristically close reading of Freud's oeuvre. Here the phi-

osopher tracks the ways Freud explicitly and repeatedly used the metaphor of photography—and the photographic negative, in particular—in order to illustrate his theory of the unconscious. Just as the positive print originates from a negative (in the analog photography of Freud’s day), there is an unseen counterpart to consciousness. Kofman’s careful parsing of the metaphor puts pressure on the idea that photography is an instrument of transparency. Far from simply producing a clear-eyed copy of reality, here the photograph is something closer to phantasmagoria—a kind of illusion or dream designed to suit the needs of the ego. Kofman provides several tantalizing threads that lend support to Benjamin’s protean notion of the optical unconscious as well as his particular brand of ideological critique.

Following Kofman’s lead, Jonathan Fardy delves into some of the ways in which psychoanalysis was informed by photography (chapter 4). Fardy assesses the optics in Freud’s theory of the unconscious, proposing that Freud’s dream “R is my Uncle” is structured by “seeing photographically.” Specifically, he shows how Freud understands his dream to have visually combined, in the manner of Galton’s composite photography, the faces of two men: his friend and his uncle. Thus Freud’s analysis and understanding of his dream, and the very mechanism of the dream itself, incorporate a “photographic vision.” Fardy suggests that Freud’s dream used the technique of composite photography without recognizing it as such, or in other words, that the unconscious is itself working photographically. Building from Freud’s own associations to his dream, Fardy also encourages us to consider the unconscious as a racialized agency. He takes note that Freud’s dream, like Galton’s composites, betrays a preoccupation with “the Jewish type.” Seeing photographically, then, is a form of seeing that will always be burdened by the anxieties haunting the subject’s particular time and place.

In her interview with Elisabeth Lebovici, Zoe Leonard explains how her *camerae obscurae* explore photographic seeing without resorting to or resulting in the fixed image of a photograph (chapter 5). These images provide a way to go back to the beginning of photography, and to expand the ways in which we experience, understand, and see photography. The *camerae obscurae* provoke “questions about how we see, how we look, and what we take for granted about sight.” For Leonard these are both psychological and political questions. Like Benjamin, she proposes that “the space of the camera obscura is related to the space of the unconscious.” In the camera obscura one experiences images before they have been corrected, before they have been turned right side up by the brain, and before they have been comprehended: “The camera obscura

makes the mechanics of sight visible.” Together in a darkened room, viewers are asked to think about how we see and how we look. Understanding how we inhabit space and observe together, yet differently, is for Leonard a profoundly political experience.

Mary Bergstein considers the forces that shape collective looking in her chapter on the turn-of-the-twentieth-century visual culture in which Freud developed the theory and practice of psychoanalysis (chapter 6). Focusing on scopophilia, she discusses early theories of hysteria and the famous case of Anna O. alongside Johann Schwarzer’s Saturn film erotica. The overlap between medical themes and popular culture is striking, especially with relation to hypnosis and hysteria. Bergstein is interested in these historical resonances without trying to make a directly causal argument. She grounds science and scientific research in its historical contexts, demonstrating how psychoanalysis shared themes, gendered assumptions, and even scenes and settings with visual erotica in 1920s Vienna. Bergstein’s analysis subtly suggests that a shared optical unconscious informed the development of psychoanalytic treatment in the talking cure, as well as the scopophilia of early film erotica.

As Bergstein studies the visual culture in which Freudian psychoanalysis emerged, Mignon Nixon assesses Freudian psychoanalysis in visual culture in her essay “On the Couch” (chapter 7), first published in *October* 113 (summer 2005). Looking at film, photography by Shellburne Thurber, and archival art projects such as those of Susan Hiller, Nixon considers the analytic scene, the “frame,” namely the analyst’s office, and especially the couch, thereby making the practice of psychoanalysis visible. By focusing on the couch in the analytic scene, the artists Nixon discusses show the place the analyst inhabits, and also reveal the chair behind the couch, the place the analyst occupies, out of sight. In this way, these images reveal the blind spot in the analytic scene. Drawing out the parallels between the scene of psychoanalysis and Conceptual art further in her discussion of Silvia Kolbowski’s audiovisual installation *an inadequate history of conceptual art*, Nixon demonstrates how the Vienna Freud Museum was established in the historical context of Conceptual art and suggests that it was even modeled on similar forms and strategies. Ultimately Nixon proposes that we see the practice of psychoanalysis and remember its history in the visual terms of Conceptual art.

Mark Reinhardt’s provocative chapter explores the optical unconscious in representations ranging from the frontispiece of Hobbes’s *Leviathan* to Kara Walker’s installation *A Subtlety* in the former Domino Sugar Refinery in Brooklyn (chapter 8). Looking at pre- and postphotographic technologies of repro-

duction, as well as daguerreotypes, he reads Benjamin's optical unconscious as a subversion of sovereignty in which "side perceptions," including unauthorized views as well as nonoptical sensations, shape what is seen and understood. Decisively conjoining the optical to the unconscious in Benjamin's formulation, he examines both literal instances in which a detail in an image is not seen but may nevertheless be perceived affectively, as well as the unconscious impulses and desires that guide visual perception, especially with regard to race as a visual construct. Drawing out the visual construction of race in Benjamin's artwork essay through the figure of Mickey Mouse, Reinhardt turns to Kara Walker as the preeminent artist of the optical unconscious of race in the United States, showing how her work "invites viewers to experience the limits of psychic sovereignty." For Reinhardt, the optical unconscious not only disrupts the social contract, it also calls into question one's own fantasies of mastery, "destabilizing the contractual subject to its core." Finally he encourages us to understand "the optical unconscious as a subversion of psychic sovereignty."

Kristan Horton's *Sligo Heads* might also be said to subvert the psychic sovereignty of the subject by attending to side perceptions (chapter 9). Amalgamated images, the portraits resist the reduction of the traditional portrait and combine gestures and impressions into composites. Although we may not recognize these grotesque and haunting forms, they might represent the layered process of perception quite accurately. Our impressions build up over time, not in the discrete images we might recall, but morphing into one another. Mixing together different facets of features and personalities, Horton's portraits explore the process of perception, just as his written piece about the *Sligo Heads* traces the circuitous development of his thinking in making the work. Both the images and the essay open up the process of seeing and conceiving, refusing end points and conclusions, in an effort to communicate the fleeting and ephemeral qualities of perception.

Gabrielle Moser considers the photographic archive as the optical unconscious of British empire (chapter 10). Examining the massive Colonial Office Visual Instruction Committee's (COVIC's) archive of over 7,600 photographs made by Alfred Hugh Fisher between 1907 and 1910, she suggests that latent anxieties about the limits of imperial citizenship register through the figure of the female "coolie" in the photographic archive. Fisher's photographs were used by COVIC to create lantern slide lectures and texts for children of the colonies, instructing them in forms of imperial belonging. Focusing on photographs of female "coolies" whose liminal legal status troubled the logics of imperial citizenship, Moser models a form of archival research that follows Ann

Stoler's strategy of "developing historical negatives," finding in images of the "coolie" "alternative visions of the future," repressed meanings and uncertainties that COVIC continually sought to manage. Moser interprets the photographic archive as a repository of images in which latent meanings can be developed by the researcher in ways that are analogous to the analyst's interpretation of dream images. In her understanding, the archive becomes not simply a static repository of already developed images that cohere according to colonial ideology, but an unstable resource that, through careful analysis, might also reveal the unsettled desires and fears of colonial authority.

In another effort to expose imperial anxieties, Laura Wexler turns to Roland Barthes's famous Winter Garden Photograph to discuss what the absent image hides in plain sight (chapter 11). Scholars have long debated the existence of the Winter Garden Photograph, the impossible image that captures his mother's essence, and that Barthes, mourning her death, refuses to reproduce in *Camera Lucida*, knowing that readers would see in it only the banality of studium information. Despite his comments otherwise, Wexler discovers, through a reading of Barthes's posthumously published *Mourning Diary*, that the photograph did indeed exist, and that Barthes reproduced it for himself, and allowed a photographer to show it hanging on the wall in Barthes's study. More profoundly, Wexler suggests that Barthes may have been reticent to reproduce the photograph in *Camera Lucida* because it would tie his mother to her brother (also depicted in the image), and link them both forcibly to their father, Louis-Gustave Binger, a French colonial official in Côte d'Ivoire. Barthes's uncle, Philippe, took up his father's work, and continued the imperial project. Wexler proposes that by refusing to reproduce the photograph in *Camera Lucida*, and by keeping readers focused on his mother in his emotional writing about the image, Barthes obscures the evidence of his family's colonial past, creating a blind spot in which a troubling heritage can be hidden in plain sight.

Kelly Wood creates an archive of latent images in her Vancouver carts series (chapter 12), a collection of photographs of repurposed shopping carts used by the homeless and other economically marginalized people. The carts, found stashed on the street, not abandoned but temporarily left alone, stand in for the politics of gentrification, the problem of homelessness, and the contest over property rights, citizenship rights, and civic space. Wood's photographs of the carts also subtly consider her own role, as an artist, in the gentrification that displaces the poor and underemployed, including artists, in developing neighborhoods. Her careful exploration of such disavowed problems and people brings the collusion of cultural and economic forces into view. Conversely, the refusal

of gallery owners to see these carts, in Wood's photographs and outside their own doors, highlights a general refusal to acknowledge the ways in which galleries and developers together disenfranchise the impoverished in the process of gentrification.

Thy Phu examines limited vision in another way. In her essay on revolutionary photography in Vietnam (chapter 13), Phu provides a reinterpretation of Benjamin's thoughts on photography as a revolutionary medium. Working with oral histories and archival documents, Phu offers a detailed examination of the work of several Vietnamese socialist photographers who pictured the war with the United States. This chapter works both with and against the prevailing mode of ideological critique that has dominated photography studies (in the wake of the war in Vietnam in particular), showing how Vietnamese patriots turned to the camera precisely because of its revolutionary promise. One of Phu's intriguing findings is that the idea of disability surfaced both literally and symbolically in this body of work, through both the figure of injured bodies and the flawed quality of images. The narrative is not a uniform one, however, as later efforts to retouch the visual records suggest a conceptual shift in the unconscious optics. Taken together, these competing visions illuminate the ways photography can shape a shared fantasy of the past.

In her essay on the Bang-Bang Club, a group of four white photojournalists who documented the end of apartheid in South Africa, Sharon Sliwinski also considers the material and psychological constraints of "dark times" and the effects of such deprivations on the imagination (chapter 14). She argues that sovereign strictures and structures can be registered in these photographs, indeed, that the images demonstrate the ways the imagination can be leveled by political violence. Borrowing from Benjamin's sense of photography as mobilizing collective fantasy, Sliwinski reads the Bang-Bang Club's images not as realist documentary, but as documents that unconsciously reproduced the mentality of apartheid. This is a case in which photographs do not offer a view of reality so much as reveal how imagination and vision can be stunted by the material realities of racial violence. The Bang-Bang Club's photographs show a flattened world, which in turn teaches us something about the unconscious optics of apartheid.

To close the book, Terri Kapsalis returns to the expansive perceptual capacities of photography that Benjamin hoped would predominate in the medium (chapter 15). She explores those capacities in her essay "Slow," which is an extended meditation on James Nares's 2011 film *Street*. Nares used an ultra-high-speed camera to make *Street* six seconds at a time, producing forty min-

utes of real-time footage that he then converted into extremely slow motion and edited. The results are a hypnotic look at everyday life on the street transformed into an almost spiritual meditation. The slowness changes everything. In Benjamin's words, "Slow motion not only reveals familiar aspects of movements, but discloses quite unknown aspects within them."⁶⁴ Kapsalis shows how attentive the artist is to the perceptual reorientation of his work. She includes parts of an interview she conducted with Nares, and together they discuss the work in terms uncannily similar to Benjamin's gestures toward the optical unconscious. Nares tells her, "To the same extent that the high-speed camera reveals things which we cannot experience or which we cannot see with the natural eye, it also obscures and creates things that don't exist." The chapter, like this book, is about the ways in which technology can transform perception, and new perceptual capacities can alter the way we live our lives.

Notes

1. Generally speaking, the unconscious refers to those processes of the mind that occur outside of conscious awareness, but which nevertheless have an impact on human behavior. The term was coined by the eighteenth-century philosopher Friedrich Schelling and greatly developed by Sigmund Freud throughout his vast oeuvre. It should also be noted that contemporary neuroscientists have turned to the question of nonconscious states of mind, and, in some cases, have developed their own aggressively nonpsychoanalytic notion of the unconscious. See *The New Unconscious*, ed. Ran R. Hassin, James S. Uleman, and John A. Bargh (Oxford: Oxford University Press, 2005). Others have attempted to marry psychoanalytic notions of the unconscious with the new cognitive models. See Antonio R. Damasio, *The Feeling of What Happens: Body and Emotions in the Making of Consciousness* (San Diego: Harcourt, 1999) and Mark Solms, *The Feeling Brain: Selected Papers on Neuropsychanalysis* (London: Karnac, 2015). Contemporary media theorists who explore questions about the nonconscious ways humans intersect with technology have tended to favor these theories of the cognitive neuroscience. See N. Katherine Hayles, "The Cognitive Nonconscious: Enlarging the Mind of the Humanities," *Critical Inquiry* 42 (Summer 2016): 783–808, and Wendy Hui Kyong Chun, *Updating to Remain the Same: Habitual New Media* (Cambridge, MA: MIT Press, 2016).

2. Although it has not been systematically elaborated, a number of scholars have found ways to engage the optical unconscious in compelling ways. Most prominent among them is Rosalind E. Krauss with her book of the same name, *The Optical Unconscious* (Cambridge, MA: MIT Press, 1993), although Krauss's monograph is not focused on photography per se or on Benjamin's work. Eduardo Cadava has written extensively about Benjamin's theorizations of photography, although Cadava's primary focus is on

the link between photography and conceptions of history: *Words of Light: Theses on the Photography of History* (Princeton, NJ: Princeton University Press, 1998). Film scholars such as Miriam Bratu Hansen have productively discussed Benjamin's optical unconscious in relation to time and the medium of film: *Cinema and Experience: Siegfried Kracauer, Walter Benjamin, and Theodor Adorno* (Berkeley: University of California Press, 2011). More recent books on photography, such as Christopher Pinney's *The Coming of Photography in India* (London: British Library, 2008), and Elizabeth Abel's *Signs of the Times: The Visual Politics of Jim Crow* (Berkeley: University of California Press, 2010), broach the concept as a critical tool, even if it is not their primary focus. Mary Bergstein has approached Benjamin's insight from the other direction. In her *Mirrors of Memory* (Ithaca, NY: Cornell University Press, 2010), Bergstein outlines how visual culture, and photography in particular, fed Freud's thinking about the terrain of the human psyche. Ulrich Baer's book, *Spectral Evidence: The Photography of Trauma* (Cambridge, MA: MIT Press, 2005), offers a distinct intervention into these fields by tracing the connection between the experience of trauma and the photographic image. Much of this literature builds upon the French philosopher Sarah Kofman's chapter on Freud in *Camera Obscura: Of Ideology*, trans. Will Straw (Ithaca, NY: Cornell University Press, 1999), a groundbreaking study of the ways the metaphor of the photographic apparatus came to play a central role in Freud's oeuvre (see chapter 3, this volume). Kofman was a contemporary of Jacques Lacan, whose own use of optical diagrams and metaphors to describe the workings of the unconscious has been a subject of considerable scrutiny.

3. Christopher Bollas, "What Is Theory?," in *The Christopher Bollas Reader* (London: Routledge, 2011), 229. Subsequent psychoanalytic theorists have engaged this question in compelling ways. Apart from Bollas's work, see Darien Leader, *Stealing the Mona Lisa: What Art Stops Us from Seeing* (New York: Faber, 2002).

4. Throughout the 1920s, Benjamin pursued a relationship with the Frankfurt School, which was undertaking a sustained interrogation of mass media. Benjamin formed close friendships with the architect and film theorist Siegfried Kracauer, the philosopher Theodor Adorno, the chemist Gretel Karplus (later Gretel Adorno), the poet and playwright Bertolt Brecht, and the Latvian journalist and theater director Asja Lacis. He also became involved as a fringe member of the G-group—a circle of avant-garde artists, architects, and filmmakers, who came together in Berlin in the early 1920s to launch a journal called *G* (an abbreviation of the German word *Gestaltung*, meaning formation or construction). The members of the G-group included Ludwig Mies van der Rohe, László Moholy-Nagy, El Lissitzky, Raoul Hausmann, and Hans Richter. For more on Benjamin's work and role in this scene see the "Editors' Introduction" to Benjamin's *The Work of Art in the Age of Its Technological Reproducibility and Other Writings on Media*, ed. Michael W. Jennings, Bridgid Doherty, and Thomas Y. Levin (Cambridge, MA: Belknap, 2008).

5. Allan Sekula, "The Body and the Archive," *October* 39 (winter 1986): 3–64; John Tagg, *The Burden of Representation: Essays on Photographies and Histories* (Minneapolis:

University of Minnesota Press, 1988); John Tagg, *The Disciplinary Frame: Photographic Truths and the Capture of Meaning* (Minneapolis: University of Minnesota Press, 2008).

6. Mary Ann Doane coins the term “double mimesis” in *The Desire to Desire: The Woman’s Film of the 1940s* (Bloomington: Indiana University Press, 1987), 181. José Esteban Muñoz theorizes “disidentification” in *Disidentifications: Queers of Color and the Performance of Politics* (Minneapolis: University of Minnesota Press, 1999). W. E. B. Du Bois famously articulates “double consciousness” in *The Souls of Black Folk* (1903; reprint, New York: Library of America, 1990).

7. Elizabeth Edwards, *Raw Histories: Photographs, Anthropologies, Museums* (London: Bloomsbury, 2001); Robin Kelsey, *Photography and the Art of Chance* (Cambridge, MA: Harvard University Press, 2015); Tina M. Campt, *Image Matters: Archive, Photography, and the African Diaspora in Europe* (Durham, NC: Duke University Press, 2012); Elspeth Brown and Thy Phu, *Feeling Photography* (Durham, NC: Duke University Press, 2014).

8. Vanessa R. Schwartz, “Walter Benjamin for Historians,” *American Historical Review* 106, no. 5 (December 2001): 1721–1743.

9. On September 16, 2013, Internet.org—the global partnership formed by Facebook, Ericsson, Qualcomm, and others—released a report, “A Focus on Efficiency,” which noted that “more than 250 billion photos have been uploaded to Facebook, and more than 350 million photos are uploaded every day on average.” Internet.org has subsequently deleted this report from their online archives, but it can be viewed at <http://www.slideshare.net/FiratDemirel/facebook-ericsson-rapor>. Compare these numbers to the Library of Congress’s Prints and Photographs collection, which contains a mere 14.4 million visual images (many of which are nonphotographic).

10. Stephen Mayes describes the transformation that digital photography has wrought in terms of the difference between the “fixed image” and the “fluid image.” See his interview with Pete Brook, “Photographs Are No Longer Things, They’re Experiences,” *Wired*, November 11, 2012, <http://www.wired.com/2012/11/stephen-mayes-vii-photography/>. On the topic of photography in the digital era, see also Fred Ritchin, *After Photography* (New York: Norton, 2009).

11. See Christopher Bollas, *The Shadow of the Object: Psychoanalysis and the Unthought Known* (New York: Columbia, 1987), and *Cracking Up: The Work of Unconscious Experience* (London: Routledge, 1995).

12. Benjamin had been thinking about photography since at least 1924, when he translated Tristan Tzara’s 1922 preface to Man Ray’s photographic album for the June 1924 issue of *G: Zeitschrift für elementare Gestaltung* (*G: Magazine for Elementary Form.*)

13. Walter Benjamin, “News about Flowers” (1928), in *Walter Benjamin: Selected Writings, vol. 2, part 1, 1927–1930*, trans. Rodney Livingstone et al., ed. Michael W. Jennings, Howard Eiland, and Gary Smith (Cambridge, MA: Belknap, 1999), 156.

14. Benjamin, “News about Flowers,” 156.

15. Walter Benjamin, “Little History of Photography” (1931), in *Walter Benjamin:*

Selected Writings, vol. 2, part 2, 1931–1934, trans. Rodney Livingstone et al., ed. Michael W. Jennings, Howard Eiland, and Gary Smith (Cambridge, MA: Belknap, 1999), 507–530, 510.

16. Benjamin, “Little History of Photography,” 510–512.

17. Benjamin, “Little History of Photography,” 510.

18. Benjamin, “Little History of Photography,” 510–512, emphasis added.

19. Miriam Bratu Hansen, “Benjamin’s Aura,” *Critical Inquiry* 34 (winter 2008): 336–375.

20. Benjamin, “Little History of Photography,” 512.

21. Benjamin, “The Work of Art in the Age of Its Technological Reproducibility,” Second Version (1936), in *Walter Benjamin: Selected Writings*, vol. 3, 1931–1938, trans. Rodney Livingstone et al., ed. Michael W. Jennings, Howard Eiland, and Gary Smith (Cambridge, MA: Belknap, 2002), 117.

22. Benjamin, “The Work of Art,” 117–118, emphasis in original.

23. Susan Buck-Morss, “The Flaneur, the Sandwichman and the Whore: The Politics of Loitering,” *New German Critique* 39 (fall 1986): 99–139, 109.

24. Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Belknap, 1999), 458.

25. Buck-Morss, “The Flaneur, the Sandwichman and the Whore,” 109. See also Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (Cambridge, MA: MIT Press, 1989).

26. Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1990), 116–136.

27. Indeed, the paired images on the stereo card are often difficult to differentiate, but a close look at their distant spaces reveals a slight shift in point of view. Stereoscopic cameras mimicked the binocularity of the human eye, so that a single camera was given two lenses in order to make two slightly different views of any given scene.

28. Eli Friedlander insists that “language is the *medium* in which the dialectical image can emerge at all,” and certainly Benjamin’s *Arcades Project* is a compendium of snippets of texts. However, interested as we are here in Benjamin’s expansive thoughts on photography, we have been struck by the photographic allusions and direct photographic references that permeate Benjamin’s discussion of history, the work of the historical materialist, and the dialectical image. It is true that these ruminations occur in language, but in a language laden with photographic references. Eli Friedlander, “The Measure of the Contingent: Walter Benjamin’s Dialectical Image,” *boundary 2* 35, no. 3 (2008): 1–26, 2.

29. Walter Benjamin, “On the Concept of History” (1940), in *Walter Benjamin: Selected Writings*, vol. 4, 1938–1940, trans. Edmund Jephcott et al., ed. Howard Eiland and Michael W. Jennings (Cambridge, MA: Belknap, 2003), 389–400, 396.

30. Benjamin, “The Work of Art,” 117. See also Cadava, *Words of Light*, 59–63. As Vilém Flusser proposes, the photograph “has interrupted the stream of history”: “Photo-

graphs are dams placed in the way of the stream of history, jamming historical happenings.” Flusser, “Photography and History,” in *Writings*, trans. Erik Eisel, ed. Andreas Ströhl (Minneapolis: University of Minnesota Press, 2002), 126–131, 128. Scholars have begun to understand such disruptions of linear time as queer. Elizabeth Freeman specifically proposes that many queer historiographers take their cue from Benjamin, in part, because the theorist’s radical nonlinear temporality “suggests a potentially queer vision of how time wrinkles and folds as some minor feature of our own sexually impoverished present suddenly meets up with a richer past, or as the materials of a failed and forgotten project of the past find their uses now, in a future unimaginable in their time.” Elizabeth Freeman, “Introduction,” *GLQ* 13, nos. 2–3 (2007): 159–176, 163.

31. Benjamin, “Little History of Photography,” 510.

32. Miriam Hansen, “Benjamin, Cinema and Experience: ‘The Blue Flower in the Land of Technology,’” *New German Critique* 40 (winter 1987): 179–224, 208.

33. Vilém Flusser, “Photography and History,” 129.

34. Benjamin, “On the Concept of History,” 391.

35. Sigmund Freud, *The Interpretation of Dreams* (1900), in *The Standard Edition of the Complete Psychological Works of Sigmund Freud* [hereafter *SE*], ed. and trans. James Strachey (London: Hogarth, 1953), vol. 5, 536.

36. Freud, *The Interpretation of Dreams*, 606.

37. Freud, *The Interpretation of Dreams*, 606.

38. Freud elaborated these mechanisms of defense over the course of his oeuvre. As Martin Jay has discussed, he initially rejected the idea of scotomization as “unsuitable, for it suggests that the perception is entirely wiped out.” The term nevertheless became significant to Jacques Lacan, who wrote about it as early as 1938, and later tellingly referred to Freud’s failure to recognize the ego’s ability to scotomize as an instance of *méconnaissance*. See Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century Thought* (Los Angeles: University of California Press, 1993), 354.

39. Sigmund Freud, *Moses and Monotheism* (1939), in *SE*, vol. 23, 125–126. We have modified Strachey’s translation slightly using Katherine Jones’s edition (New York: Alfred A. Knopf, 1939), 198–199.

40. In *Moses and Monotheism*, Freud tries to bring his theory of latency to bear on historical processes (and specifically the early period of Judaism). Here latency is used in a parallel way to *nachträglichkeit* (“deferred action” or “afterwardsness”). Both terms refer to a psychic temporality in which earlier experience, impressions, and memory traces are revised at a later date in order to fit in with fresh experiences or with a new stage of development. See Jean Laplanche and J. B. Pontalis’s entry on “deferred action” in *The Language of Psychoanalysis*, trans. Donald Nicholson-Smith (New York: Norton, 1973), 111–114. Also Jean Laplanche, “Notes on Afterwardsness,” in *Essays on Otherness* (New York: Routledge, 1999), 260–265.

41. It must be noted that from 1920 onward, Freud revised his theory of the psychic apparatus. The shift is marked by a change in terminology: in his 1923 article “*Das Ich*

und Das Es" (translated into English as "The Ego and the Id"), Freud borrowed Georg Groddek's term *das Es* (literally, "the It") to designate the dynamic agency of the unconscious. In his second topographical theory of the psyche, Freud proposed a second form of unconscious: he added the idea of unconscious process to his earlier sense of unconscious contents. There is not the time or space to discuss the details of his evolving definition here, but it bears pointing out that there is a parallel to Benjamin's own changing definition of the optical unconscious. Seemingly taking his cue from Freud, Benjamin realized that photography not only pictures the unseen, but that it has a dynamic mode of organization, sorting psychically valuable experiences at an unconscious level. See Freud, "The Ego and the Id" (1923), in *SE*, vol. 19, 3–68. For a more fulsome discussion of Freud's various models of the unconscious, see Bollas, "What Is Theory?," 228–237.

42. Kofman, *Camera Obscura*, 21–28, 27. Reproduced in this book as chapter 3.

43. Freud, *Moses and Monotheism*, 126.

44. Freud, *Moses and Monotheism*, 126.

45. See Anton Ehrenzweig's theory of "unconscious scanning" in *The Hidden Order of Art: A Study in the Psychology of Artistic Imagination* (Berkeley: University of California Press, 1967), 32–46. Christopher Bollas has also greatly elaborated Freud's views about unconscious perception; see *The Evocative Object World* (London: Routledge, 2009) and *The Infinite Question* (London: Routledge, 2009).

46. Du Bois, *The Souls of Black Folk*, 8. For an extended discussion of double consciousness as visual culture, see Shawn Michelle Smith, "Envisioning Race," in *Photography on the Color Line: W. E. B. Du Bois, Race, and Visual Culture* (Durham, NC: Duke University Press, 2004), 25–42.

47. Du Bois, *The Souls of Black Folk*, 8.

48. W. E. B. Du Bois, "The Souls of White Folk" (1920), in *W. E. B. Du Bois: Writings*, ed. Nathan Huggins (New York: Library of America, 1986), 923.

Du Bois draws whiteness itself into view, unsettling the cultural privilege of its invisibility. As Richard Dyer has argued, whiteness has often remained unmarked in the visual field as the position from which unseen subjects gaze at others. Richard Dyer, "White," *Screen* 29, no. 4 (1988): 44–64, and *White* (London: Routledge, 1997). Other important studies of whiteness and visual culture include: Michael Rogin, *Blackface, White Noise: Jewish Immigrants in the Hollywood Melting Pot* (Berkeley: University of California Press, 1996); Eric Lott, *Love and Theft: Blackface Minstrelsy and the American Working Class* (New York: Oxford University Press, 1993); bell hooks, "Representations of Whiteness in the Black Imagination," *Black Looks: Race and Representation* (Boston: South End Press, 1992), 165–178; Martin A. Berger, *Sight Unseen: Whiteness and American Visual Culture* (Berkeley: University of California Press, 2005).

49. For further discussions of the daguerreotypes Joseph T. Zealy made for Louis Agassiz, see Brian Wallis, "Black Bodies, White Science: Louis Agassiz's Slave Daguerreotypes," *American Art* 9, no. 2 (summer 1995): 38–61; Lisa Gail Collins, chap-

ter 2, "Historic Retrievals: Confronting Visual Evidence and the Imaging of Truth," in *The Art of History: African American Women Artists Engage the Past* (New Brunswick, NJ: Rutgers University Press, 2002), 11–36; Molly Rogers, *Delia's Tears: Race, Science, and Photography in Nineteenth-Century America* (New Haven, CT: Yale University Press, 2010).

50. Ta-Nehisi Coates, *Between the World and Me* (New York: Spiegel and Grau, 2015), 10.

51. Suzanne Schneider, "Louis Agassiz and the American School of Ethnoeroticism: Polygenesis, Pornography, and Other 'Perfidious Influences,'" in *Pictures and Progress: Early Photography and the Making of African American Identity*, ed. Maurice O. Wallace and Shawn Michelle Smith (Durham, NC: Duke University Press, 2012), 211–243.

52. Francis Galton, Appendix A: "Composite Portraiture," in *Inquiries into Human Faculty and Its Development*, 2nd ed. (London: J. M. Dent and sons, 1907), 221–241.

53. Allan Sekula, "The Body and the Archive."

54. Frantz Fanon, *Black Skin, White Masks*, trans. Charles Lam Markmann (New York: Grove, 1967), 111. Lewis Gordon, among many others, describes this encounter as a defining moment for Fanon. See Lewis R. Gordon, *What Fanon Said: A Philosophical Introduction to His Life and Thought* (New York: Fordham University Press, 2015), 48.

55. Fanon, *Black Skin, White Masks*, 112.

56. Fatimah Tobing Rony, *The Third Eye: Race, Cinema, and Ethnographic Spectacle* (Durham, NC: Duke University Press, 1996), 6. See also Kaja Silverman, *The Threshold of the Visible World* (New York: Routledge, 1996), 27.

57. David Marriott, *On Black Men* (New York: Columbia University Press, 2000), 90.

58. Jacques Lacan, "The Mirror Stage as Formative of the Function of the I as Revealed in Psychoanalytic Experience," *Écrits: A Selection* (1966), trans. Alan Sheridan (New York: Norton, 1977), 1–7.

59. Marriott, *On Black Men*, 80. See also Stuart Hall, "The Afterlife of Frantz Fanon: Why Fanon? Why Now? Why *Black Skin, White Masks?*," in *The Fact of Blackness: Frantz Fanon and Visual Representation*, ed. Alan Read (Seattle: Bay Press, 1996), 12–37, 26–27.

60. Rony, *The Third Eye*, 4; Fanon, *Black Skin, White Masks*, 112.

61. Rony, *The Third Eye*, 4.

62. Building on Du Bois's insights, scholars in performance studies have assessed the ways in which African American performance artists have seized upon the disruptive force of the black body in the visual field as a site of insurgency. See Daphne A. Brooks, *Bodies in Dissent: Spectacular Performances of Race and Freedom, 1850–1910* (Durham: Duke University Press, 2006), and Nicole R. Fleetwood, *Troubling Vision: Performance, Visuality, and Blackness* (Chicago: University of Chicago Press, 2011).

63. Benjamin, "Little History of Photography," 510.

64. Benjamin, "The Work of Art," 117.

Optical media refers to discs that are read by a laser. This includes CD-ROMs, DVD-ROMs, and all the variations of the two formats -- CD-R, CD-RW, DVD-R, DVD+R, Blu-ray, and many others. Optical media typically does not have as fast of a seek time as hard drives (the time it takes to access information on different parts of the disk), but it has many other advantages.