



A FEMINIST HISTORY OF
THE SOCIAL PHOTO

**GLITCHY
VISION**

AMANDA K. GREENE

GLITCHY VISION

GLITCHY VISION

A FEMINIST HISTORY OF
THE SOCIAL PHOTO

AMANDA K. GREENE

THE MIT PRESS
CAMBRIDGE, MASSACHUSETTS
LONDON, ENGLAND

© 2024 Massachusetts Institute of Technology

All rights reserved. No part of this book may be used to train artificial intelligence systems or reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

This publication has been supported by the MIT Press Grant Program for Diverse Voices.

The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Arnhem Pro and Frank New by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data is available.

ISBN: 978-0-262-55082-6

CONTENTS

FALSE STARTS (vii)

1 GLITCH: HISTORY, PHOTOGRAPHY, FEMINISM (1)

2 REAL TIME: VILE BODIES, TABLOIDS, MELANCHOLIA (29)

3 ALGORITHMIC FILTERS: LEE MILLER, GLAMOUR, DISABILITY (67)

4 SOUSVEILLANCE: MASS-OBSERVATION, SUBJECTIVE CAMERAS,
SITUATED KNOWLEDGE (115)

LOOSE ENDS (155)

ACKNOWLEDGMENTS (173)

NOTES (177)

BIBLIOGRAPHY (191)

INDEX (205)

FALSE STARTS

This book is not just about glitches but also is itself a product of them. Its story is one of false starts, interruptions, and redirections; frictions created through detours between and within times.

BETWEEN TIME

One of the earliest notes I can find describing this project calls it, with concise optimism, “a prequel to literary critic N. Katherine Hayles’s *How We Became Posthuman*.” Hayles’s canonical work examines how the era of cybernetics starting in the 1940s led to understandings of the human as a computing machine. In her account, an older paradigm of presence/absence was discarded in favor of pattern/noise during this period. As a result, understandings of the human body were rewired in ways that frequently devalued its flesh and physicality. At the time I wrote this simple summary, I had wanted to consider the break between the human and posthuman that Hayles documented as uneven and messy—much as the divide between modernism and postmodernism that occurred around the same time. Instead of seeing the birth of digital computing as a singular origin point, I wondered how the booming and quickly evolving analog visual media ecology of the 1930s might have set the stage for the post-human revolution. How was this earlier period impacting imaginations and perceptions of the human body before digital technologies arrived? British late modernist culture seemed like an ideal place to look for these fragile and frayed connections across crisis given its place at the cusp of postmodernism. More important, due to the prevalence of bodies imperfectly interfacing with new media in the art and theory of the period, this era’s cultural artifacts promised to provide a portrait of pre-posthuman technogenesis in process.

History, however, frequently resists progress narratives. It was not so easy to hold onto a continuous evolutionary trajectory from Sigmund Freud's troubled 1930s prosthetic gods to Hayles's post-1945 posthumanism and onto twenty-first-century iterations of the digital cyborg. My chosen texts thwarted these efforts at multiple turns. The specters and bodies that haunt them (from the soldiers assaulted by the modern war machine to the thousands murdered in Nazi camps and the British civilian population caught in the expanded battlefield of total war) rebelled against the progressive timeline a prequel implies. Instead of providing a clear view of the past from the outside, these texts kept summoning my own blurry, glitchy, situated vision. They refused to let me forget that I was necessarily reading them through the warped lens of my own era, navigating their meanings through its particular structures of feeling. Their resistances suggested alternative ways of looking at history that embraced discontinuity over causality, and that linked past and present together in generative instants of encounter.

The liminal temporality the project and I were inextricably stuck in began to crystallize as I realized that whenever I described my research, I relied on examples and analogies from digital social media rather than confining my explanations to the early twentieth century. I finally came to terms with the fact that this rhetorical move wasn't just a useful translational trick to make my research appear more relevant but instead a crucial part of how I was reading the past. Acknowledging this began with the incorporation of digital studies scholars into asides and footnotes, but soon evolved into a much messier, tangled web. Moreover, as time passed, I became aware that this process of reading the past was altering my lived perception of twenty-first-century technogenesis in ways that I couldn't quite name.

WITHIN TIME

Another problem with timelines is that the present is as precarious as the past; the supposed "end point" of any history is a moving target as opposed to a stable vantage. The last decade in the United States has been one of cultural and social upheaval, spanning political polarization, the

racial reckoning of the Black Lives Matter movement, the public health crisis of the COVID-19 pandemic, and the epidemic of mental illness that has accompanied it. This is not a place to rehash all of these monumental happenings, but what is worth noting is that through all of it, social media has come to play a protagonist role at a level that I did not anticipate when I began this work a decade ago. Discussions are now taking place about the potentially negative impact of social media on individuals and society as a whole with a profound sense of urgency. For example, while TikTok did not yet exist when I started this book, as I finish it now, state governments are working to instate bans on it due to the privacy, political, and mental health risks it might pose. Each year social media appears more central to any serious consideration of the future of society and the individuals within it.

Over these turbulent years, as a researcher I have tried to straddle the poles of techno-optimism and technopessimism that have accompanied social media's increasing influence. Adjacent to this project, the majority of my work has involved engaging with content that individuals produce online, and speaking with them about their experiences sharing and consuming materials on social media. Through these interactions, I have heard about the ways in which its "toxicity" has caused them deep harm and also how, especially for those inhabiting marginalized identities, its opportunities for learning, self-expression, and community building have positively impacted their day-to-day lives. Just as this book does not lie solely in the past or present but rather in the oscillations between them, it is therefore bound up in the dynamism of social media's positive and negative technogenetic impacts. These ambivalent energies do not simply neutralize one another or meet in a middle zone but instead constantly negotiate one another in continual movement. Media history has continually provided me an anchor, if not stillness, in the middle of this disruptive fray.

GLITCH: HISTORY, PHOTOGRAPHY, FEMINISM

In 1929, US model and photographer Lee Miller accidentally turned on a light. Recognizing her mistake, she quickly quenched the surge of electricity that illuminated the Parisian darkroom where she stood and where a number of photographic negatives were being developed. While little more than an instantaneous flicker, this deviation from the established photographic development process remained indelibly marked on the bodies of the photographic negatives. Miller's inadvertent overexposure led to a partial reversal of the tone of the images such that previously light areas appeared black and dark areas now emerged as brilliantly white. Stark lines apparated into previously imperceptible points of tonal contrast, while strange luminous halos erased fleshy textures that had crisscrossed the negative.

The result that Miller achieved through her accident, termed "pseudo-solarization" or the "Sabattier effect," was not actually a new discovery. Indeed, almost since the invention of photography, it was a problem that practitioners encountered while trying to develop images in unpredictable lighting. In these earlier cases, pseudo-solarization was seen as an error to be avoided as opposed to a potential technique that could be used to produce new visual possibilities. In 1929, however, this apparent glitch in photographic development was approached differently because of Miller's own keen eye and that of her collaborator, Man Ray, as well as their place at the heart of an experimental culture of surrealism during this interwar era.



1.1

Solarized portrait (thought to be
Méret Oppenheim), 1932 © Lee Miller
Archives, England, 2023. All rights
reserved. leemiller.co.uk.

After the darkroom incident, both Miller and Man Ray embraced pseudo-solarization as an artistic tool and incorporated it into their surrealist praxis. Their use of the effect was particularly powerful in how it reshaped the contours and textures of the photographed human body. They mobilized the technique to suggest new imaginations of how the body interfaced with the external environments in which it was immersed, reinforcing some boundaries while dissolving others. In this way, pseudo-solarization was not only produced through a processual glitch in the photographic development process; it visually manifested as evocative glitches in the finished image. It undermined the supposed indexicality of the medium, rupturing the real by inverting normal tones and fracturing the composition with dark cuts. In surrealist aesthetics, “the cloisonne of the solarized print” became a visual emblem of a “cleavage in reality,” revealing rips in both the fabric of everyday life and the human form.¹

Wait.

“Glitch” is not a word that Miller would have used to describe her darkroom misstep. My terminology here is blatantly anachronistic given that the first recorded usage of glitch wasn’t until 1962. In a book about the Mercury space program, astronaut John Glenn glancingly mentioned that a “term we adopted to describe some of our problems was ‘glitch.’ Literally, a glitch is a spike or change in voltage in an electrical circuit. . . . Normally, these changes in voltage are protected by fuses. A glitch, however, is such a minute change in voltage that no fuse could protect against it.”² Soon after, an article in *Life* magazine cited Glenn and popularized the word further, defining glitch to its larger readership as “a spaceman’s word for irritating disturbances.”³ Still, it was not until even later, during the explosion of digital culture in the past couple of decades, that glitch has trickled into common speech.

Glitch might colloquially be understood as a malfunction or technological failure. Yet as glitch artist Rosa Menkman explains, “While failure is a phenomenon to overcome, the glitch is a phenomenon that will be incorporated into new processes.”⁴ Glitches are particular and peculiar forms of “error.” They are small enough to slip through protective safeguards, which means the systems they disrupt can readjust and move

forward with often imperceptible differences. In the face of glitch, the machine momentarily stalls in ways that allow the workings of the machine (and frequently also the connection between human users and the machine) to become visible. Crucially, though, the disruption is not a destruction. Miller's mistake did not ruin the photographic negatives entirely; it just redirected them and, accordingly, the trajectory of her aesthetic production.

Through artistic experimentation, theorizations, and colloquial usage in recent years, glitch has accumulated a heterogeneous assemblage of key characteristics. In spite of the wide variation in definitions, its generatively disruptive nature is a consistent feature. These disruptions are often temporal, as cultural theorist Lauren Berlant articulates when she notes that "a glitch is an interruption within a transition, a troubled transmission."⁵ Glitches stall or undermine the "natural" forward rhythm of time, placing obstacles in the way of fluid plottings of narrative, history, and technological change. Thus to quote curator, art historian, and author Legacy Russell, "The glitch is a tool—it is socio-cultural malware" that can interrupt both normative narratives about technological progress and the normative usage of technologies themselves.⁶

Glitches are particularly helpful in re-placing materiality within abstract fantasies of technological progress in digital culture by revealing the "thinginess" of familiar technologies that usually recede into the background. In performance studies scholar Rebecca Schneider's words, "A glitch is an interruption of materiality into the fantasy of immaterial flow. Glitch occurs in the form of an impasse or stall that challenges the fantasy of real-time immediate access, forcing hesitation or force-quit, if only for a moment."⁷ As Schneider suggests, the glitch is also defined by an insistence on materiality that places it in a longer tradition of feminist approaches to technology that "resist the easy dissolution or dematerialization of the body."⁸ Glitches happen at the intersections of technologies and human bodies, drawing attention to the corporeal malfunctioning of both parties through a viscerally felt temporal pause.

Extending this premise, glitchiness has become a descriptor not just of technologies but also of bodies. Nonnormative bodies create or reveal glitches in sociotechnical structures of meaning making built on

assumptions of white, cisgender, able-bodied heterosexuality. In Russell's account, these bodies are themselves triumphantly glitchy because of their disruptive power: "Glitched bodies—those that do not align with the canon of white cisgender heteronormativity—pose a threat to the social order. . . . [T]hey cannot be programmed."⁹ In addition to Russell, other scholars such as Andrew Brooks and Jenny Sundén have named queerness glitchy, pointing to trans identity as a preeminent glitch in the machinery of normative (binary) gender performance. Likewise, disability studies researchers have argued that "crip" bodies glitchily trouble able-bodied capitalist efficiencies, curative progress narratives, and technologies designed with ableist assumptions. Ato Quayson emphasizes how disability "short circuits" aesthetic responses, and Elizabeth Ellcessor explains that "disability is a glitch in the system, revealing the system's failures."¹⁰ Black bodies, too, in sociologist Ruha Benjamin's account, create glitches in technologies such as algorithms, belying the systemic social biases behind them and thereby "illuminating underlying flaws in a corrupted system."¹¹ Inflecting human and technological bodies, glitches reveal the ways in which the status quo and normative visions of the future are not working. Simultaneously, their brief pauses allow glimpses of other directions and alternative futures to become imaginable.

Reading Miller's "discovery" and later experimentation with pseudo-solarization through the lens of glitchiness places her work and this surrealist technique in an unconventional historical lineage. It links her to digital artists such as Menkman who create glitch art through a number of different digital file processing techniques like compression, transcoding, and the creation of new file formats. Through this aesthetic praxis, Menkman at once theorizes and demonstrates glitchiness as "a conceptual orientation and a technique . . . forcing the viewer to consider the computer as no longer just a device of standardization but instead as a technology that functions within a social reality." Such experiments allow viewers to make conscious contact with the media technologies that permeate everyday experience but tend to recede into invisibility. Glitchy approaches instead "take interest in the failure of media to disappear."¹² Glitchiness is not just a technical error or even a particular artistic artifact but rather an orientation toward human-media



interactions that makes the connective tissue, and the contingency of those connections, visible.

In spite of its anachronism, placing Miller's interwar photography in dialogue with glitch artists is not too much of a reach. After all, "glitch" as a term did not first arise as a digitally specific concept and has no reason to be confined to a particular medium; its initial usage as a "change in an electric circuit" actually makes it almost uncannily aligned with her darkroom accident. Nevertheless, looking at history through familiar keywords of our present moment, like glitch, can bring us closer to understanding the past on our own terms in ways that animate its relevance in the present. In addition to highlighting Miller's art as involved in interrogating photographic technics (in contrast to the usual critical emphasis on psychoanalysis), locating the glitch in this interwar moment suggests that the history of photography and the aesthetic negotiations of the interface between technology and the body in this era might have a lot to say about digital culture today.

1.2

"voided" from *A Vernacular of File Formats*, QuickTime Animation codec least quality, 2010 © Rosa Menkman.

*Go back.
Start again.*

Whether or not this serendipitous “origin story” of surrealistic pseudo-solarization in the Parisian darkroom is true or not is beside the point (though it is how Miller herself reportedly told it). I begin here because it offers a preliminary model of how anachronistic vocabularies can be strategically used to read the past in ways that entangle digital culture, photography, history, and bodies. As will be addressed in more detail later, this experimental method drives *Glitchy Vision*’s approach to “doing” feminist media history.

Additionally this anecdote neatly constellates three foundational points that are at the heart of this book’s larger project:

1. The glitch is a feminist tool that excels in revealing the unsettled borders of bodies as they interface with technologies and other external forces. As is clear in the case of the solarized image, glitches tend to make the skins of bodies and technologies materially evident at their sites of contact.¹³ Although the glitchy subject is in some ways a cousin to feminist theorist Donna Haraway’s cyborg, glitches illuminate borders and interfaces as opposed to primarily representing the indeterminant blending and intermixing of human and machine. Crucially, glitches don’t just expose new technologies’ contours but also reveal the “edges and seams” of the human body as it evolves through quotidian contact with these technologies.
2. Photography is much more than the photographic image. It is an assemblage of many devices, techniques, materials, and actors. In the case of Miller’s anecdote, it includes both her and Man Ray, electricity, the chemical bath in the darkroom, the photographic negatives, the camera that created the negatives, the photographed subjects, the venues where future solarized images circulated, the individuals consuming those images, and more. Most crucially, though, the photograph is social.¹⁴ While photographic glitches span a wide range of locations, they almost always point to some disruption of relational dynamics. Glitches in photographic media cultures are therefore not

just registered on the individual level but are instead most potent in considering forms of “human being-with-others.”¹⁵

3. Finally, the interwar era when Miller was working was primed to use and negotiate the power of glitchiness. Artists recognized and amplified glitches in new technological processes that were binding bodies and worlds together in order to make them appear more palpable. This emphasis on glitch in interwar culture is a consequence of the many ways in which technologies were literally entangled with new forms of human vulnerability during the world wars as well as concurrent investments in how new technologies might protect that body and the body politic. Nazi fascism was notorious for its desire to merge human and machine in a superhuman “hardening of the body.”¹⁶ As a result, artists and philosophers theorized the failings of this techno-body, and generated alternative models of how humans and machines might come together and coevolve. Sigmund Freud’s famous discussion in *Civilization and Its Discontents*, which directly responds to dominant fantasies in the era about the technologically enhanced human, powerfully captures a more awkward and messy understanding of human-technology coevolution that is latent throughout interwar culture. “Man,” he writes, “has become a kind of prosthetic God. When he puts on all his auxiliary organs he is truly magnificent; but those organs have not grown on to him and they still give him much trouble at times.”¹⁷ In spite of being well before the word “glitch” entered the scene, Freud’s intervention here might be read as one of “glitching” the prosthetic god fantasy that proliferated through fascist thought by highlighting the body behind the prosthesis and pausing with this incomplete, troubled transition from ordinary human to deity.

Stop.

Skip.

Start over.

The ways in which technologies and humans shape one another over time is referred to as technogenesis. While a somewhat jargony word, we

are familiar with the idea of technogenesis in the form of bold forecasts about the ways in which new media will either impoverish or enrich the human beyond recognition. Either “Google is making us stupid” or [*insert Silicon Valley slogan here*].¹⁸ Nevertheless, actual traces of these technogenetic transformations in everyday life can be elusive. Like the evolutionary effects of natural selection, the revolutions that dominate theories of media, startup sales pitches, and popular op-eds rarely occur within a single human lifetime (if they occur at all). Yet as we know from living in our current twenty-first-century moment of rapid media transformations, technogenesis is still keenly felt in medias res. Our ways of experiencing the world, interacting with others, and simply being human are continually shaped by submersion in digital, socially mediated environments.¹⁹ Moreover, even if the actual impacts of new media on the everyday are more subtle than most bombastic postulations would lead us to believe, our cultural beliefs about technogenesis are still consequential in their own right; they shape the human futures we can envision, both those we fear and those we strive toward.

Underlying all the fantasies and nightmares about how technology changes the human is the prickly truth that this process is much glitchier than is usually acknowledged. The quotidian experience of technogenesis is fraught with imperfect couplings, incomplete transitions, and repeated misfirings. *Glitchy Vision* focuses on how, as opposed to refashioning the human sensorium overnight, technogenesis occurs gradually and haltingly as “technologies mediate the material rhythms of embodied life” on a daily basis.²⁰ It also takes the stance that technogenesis is deeply relational, and thus happens both in interfaces between bodies and technologies and through technologically mediated connections with others. This book tells a story that emphasizes how the intimate links between humans and machines are continually short-circuiting as we adapt to one another, and suggests that these almost imperceptible glitches accrete into meaningful transformations of the human experience that we can recognize in retrospect.

It is challenging to articulate the consequential ways in which these small sociotechnical glitches manifest in everyday life while you are yourself caught in the middle of those evolving, malfunctioning circuits. This is where media history can help. *Glitchy Vision* focuses on interwar

Europe's photographic media cultures as a lens to better understand the coevolution of humans and machines as a glitchy process and surface glitches in our everyday encounters with visual social media. It particularly centers the era's "picture press" and innovations associated with it (spanning camera devices, photo reproduction techniques, illustrated magazine layouts, photographic retouching, etc.) as a deeply resonant *premediation* of our social media-infused world today.²¹

This book concentrates on how particular technologies clustered around the 1930s picture press alter circuits between bodies and media by shifting habits and imaginaries on an everyday basis. The evolution of these circuits is sometimes missed in accounts of technogenesis that jump too quickly over the body's awkward assimilation of new sensory capacities. Thus looking at encounters where these connections between bodies and machines are clearly fraught with glitches and failing to coalesce into new norms makes them materially visible. This mode of media history offers a glimpse not only of the past but how such connections shape human experience and interpersonal interactions as they manifest in photographic social media today as well. Particularly in the current moment in which new technologies often quickly become obsolete, it is important to look for technogenesis not just in these technologies themselves but also in the small shifts in the circuits that connect bodies and media, in the glitchy, everyday interactions that gradually change what it means to be human.

In order to undertake this glitch-centric reading, *Glitchy Vision* relies on a novel, feminist approach to media history. Its feminist orientation is, on the one hand, located in its archive. I focus on somewhat "minor" feminized texts and cultural artifacts that (although they were incredibly popular and well-known in their day) have yet to be taken sufficiently seriously in theorizing human-technology coevolution or understanding technology in the interwar period. Concretely, one chapter explores Evelyn Waugh's best-selling novel *Vile Bodies* (1930), and methods of transmitting and reproducing photographs for the tabloid press. Another examines Miller's surrealist photography and war journalism for *British Vogue* alongside the era's photo-retouching techniques and production of glamorous celebrity images. A final chapter revolves around the women's day diaries that were part of the British Mass-Observation (M-O)

movement's experiment to create an "anthropology of ourselves," placing this unusual archive of life writing in dialogue with the development of compact range finder cameras like the Leica II. Selecting these objects of analysis is an ideological choice to affirm perspectives that have not been centered in media theory thus far. But it is also a strategic decision as I believe these popular, underexamined artifacts offer opportunities to tell new narratives about modernity and modern culture. Moreover, they supply a prime view into the social media space we inhabit now, which is often similarly, deceptively mundane, but nevertheless clearly has important consequences.

The book takes a feminist orientation by embracing glitchiness as a method of seeing critically and narrating history too. Drawing on Haraway's classic tenet of "situated knowledge," *Glitchy Vision* demonstrates ways of doing media history that embrace the inevitable distortions that define views of the past from the vantage of the present.²² Similar to the way "glitch" was deployed at the opening of this chapter, each subsequent chapter uses other keywords from the digital present ("real time," "algorithmic filters," and "sousveillance") as tools to anachronistically surface more covert visions of the past and connect them back to the present moment. Such anachronism defamiliarizes these concepts, divorcing them from the particularities of the latest digital technology, and instead foregrounding how they impact and interact with human experience. This mode of media archaeology privileges a palimpsest of dynamic relational encounters between critic and archive, technology and the body, the body and history. Using glitch as the basis of feminist media history can illuminate the everyday encounters between human bodies and technological "skins" that leave indelible traces on both not just in the 1930s but also today.

CONTEXTS

Understanding Technogenesis

According to N. Katherine Hayles, "Technogenesis, or the co-evolution of humans and technics is virtually as old as the human species," and theories about technogenesis have circulated nearly as long.²³ In spite

of this extensive history, understandings of technogenesis are far from homogeneous. The prosthetic trope that Freud invokes in his discussion of prosthetic gods, though, is one dominant model for technogenesis in media studies. Media theorist Marshall McLuhan's *Understanding Media: Extensions of Man* popularized this figure in 1964 by characterizing all media as expansive forms of prosthesis due to the ways they extend human communication and perception beyond its embodied limits. Often the prosthetic model is profoundly optimistic because of its emphasis on how new innovations enhance human capacities. Still, prosthetic technogenesis also has its dangers given the potential of the prosthetic device to subordinate (as opposed to complement) the human. Philosopher Slavoj Žižek warns of an "apocalyptic process" that "will reach its zero point when prostheses no longer merely supplement the human body but in a way supplant it."²⁴ And even McLuhan's original theorization suggests that equal and opposite "autoamputations" occur as humans transfer capacities to technologies such that those capacities atrophy in their own bodies and cultural infrastructures.

Posthumanism is a related conceptualization of technogenesis that contests the apparent oversimplicity of the prosthetic trope along with the binaries it upholds between human and machine. Hayles, for example, situates her influential explanation of "how we became posthuman" in direct opposition to prosthesis, elaborating that "becoming posthuman means much more than having prosthetic devices grafted onto one's body."²⁵ Instead of focusing on a particular technology as an isolated added limb, Hayles considers the holistic transformation of human subjects within their sociotechnical contexts. Feminist philosopher Rosi Braidotti posits the posthuman as a progressive figure that provides a means of moving past assumptions about the "natural" human, which have long been imbricated in an understanding of the autonomous, white, male, able-bodied, liberal subject.²⁶

The cyborg strikes an uneasy middle ground between prosthetic and the posthuman views of technogenesis. Prominently theorized as a feminist icon by Haraway, the cyborg complicates the interface of human and machine by unraveling the binaries that cut boundaries between these two categories in the first place.²⁷ As communication researcher Anne Balsamo paraphrases it, "Because the cyborg embodies both 'natures'

simultaneously, the resulting hybrid is neither purely human nor purely machine.”²⁸ It blends technology and flesh together into a new composite being that obliterates the opposition between “natural” human body and new technologies, while still holding them in tension.

Although *Glitchy Vision*'s approach to technogenesis doesn't neatly fit any of these models, it is most closely aligned with the prosthetic because of the divides it upholds between human and machine. In spite of appearing to be the least progressive and maybe even an old-fashioned option, this model suits the project's goal to keep both human and technological skins visible where they touch. It is only by preserving some sense of separateness that we can see the places where they fail to fit together. Still, drawing on a disability studies perspective, I take a more complex understanding of prosthesis rooted in the ways prostheses facilitate relationships between bodies and their environments as opposed to being static objects that are just “grafted” onto the body.²⁹ The prosthetic trope also has special relevance to the interwar context beyond Freud, which I will detail later in this chapter.

Media studies scholar Shane Denson's recent *Discorrelated Images* offers the closest approximation of the glitchy portrait of technogenesis I am describing, in which human and machine are inextricably connected but failing to “grow on” one another. In his take, “discorrelation” between the perceptual modes of human subjectivity and the way images are presented in our current digital environment creates a kind of glitch: “processed on the fly in an interval that is inaccessible to human perception, the images that populate our world are themselves ‘discorrelated’ from human subjectivity—no longer tuned to frequencies of human sensory access.”³⁰ Denson argues that the aesthetics of glitchiness in contemporary cinema are traces of this mismatch between technologies and human bodies that help train our perception for a new post-human world.

Glitchy Vision is similarly invested in how human experience changes through everyday interactions with media technologies that don't fit quite right, are not “tuned to frequencies” we are used to, and therefore are riddled with glitches that preserve rifts between humans and machines. Unlike Denson, however, I do not understand this as a stage along the way to eventually becoming posthuman but rather as the perpetual status of

technogenesis for the individuals who are living it. There is no arrival at the cyborg or posthuman subject, just feedback loops that push humans and machines to grow in response to their continual errors. Much like the minute tears in muscle fibers that accumulate into increased strength or a cut that is reopened so many times it becomes a scar, these glitches in the circuits between humans and technologies are small rips in the fabric of normative experience that transform us as they accrete. The nature of the glitches, technologies, and bodies involved may shift over time, yet they never reach glitchless synthesis.

Another defining feature of my approach is that I focus on how technogenetic glitches show up not just in human physiology but also in cultural objects, imaginaries, and what cultural theorist Raymond Williams famously termed “structures of feeling.”³¹ These glitches exist not just in the camera’s ability to see things the eye never could see but in how a whole network of mediated encounters changes how we experience the everyday too. Given an understanding that “aesthetics tracks the feelings some bodies feel in the presence of other bodies,” I treat technogenesis as a process that happens in aesthetic encounters between bodies and bodies, bodies and technologies.³² Although aesthetics has some conventional connotations related to the disinterested observation of art, a more relational and embodied view of aesthetics has been revived in recent media studies scholarship. Media theorist Patrick Jagoda’s *Network Aesthetics*, for example, insists that aesthetic interactions are “configurations of experience that create new modes of sense perception.”³³ By creating “new modes of sense perception,” new aesthetic experiences alter the human body and its capacities. Furthermore, aesthetics tracks shifts in how the human is imagined at a fundamental level. As disability studies scholar Tobin Siebers explains, aesthetics “defines the process by which human beings . . . imagine their feelings, forms, and futures in radically different ways, and by which they bestow upon these new feelings, forms, and futures real appearances in the world.”³⁴ *Glitchy Vision* thus locates technogenesis (and media history along with it) not in the media object or human physiology but instead in the aesthetic encounters between visual media technologies and embodied subjects, and the messily evolving circuits of communication and representation that scaffold these encounters on an everyday basis.

Fleshy Photography

Photographic technogenesis has its own set of specificities that makes this aesthetic approach particularly salient. On the one hand, visual technologies are seen as extensions of our visual senses, which have long been associated with knowledge and reason in Western philosophy.³⁵ As a result, visual media innovations are viewed as having an especially strong influence on how humans look at, know, and interact with the world. According to critics like Jonathan Crary, they create new kinds of seeing subjects that are particular to the new fields of vision they establish.³⁶ These historically contingent habits of seeing are integral to both what is seen and who is doing the seeing.

But even within the category of “the visual,” there is something special about the way photography bridges technology and the body. Photography is repeatedly described as a “carnal medium” or referred to with skin-related metaphors. For instance, literary critic Elizabeth Abel writes that photography is “a medium whose special relationship to touch is often noted and whose surface is often figured as a second skin,” philosopher Roland Barthes calls photographs “a skin I share with anyone who has been photographed,” and visual culture scholar Alix Beeston describes them as “representational skins that are permeable interfaces between outside and inside, between viewer and viewed.”³⁷ Photography is therefore especially laden with traces of encounters between technological and human skins, the interfaces where technogenetic glitches can be sighted.

As noted earlier, though, photography is much more than the photographic image. It is a complex network of various devices, processes of capture, development, circulation, and reproduction, and human subjects, actors, and readers. As Beeston argues, “The overemphasis on the isolated image and its moment of exposure in photography studies has ‘diverted attention from the longer term modes of thoughtful effort that go into making photographs,’ the ‘acts of attention and accumulation’ that compose photograph’s ‘editorial phases.’”³⁸ Taking this broader view, it becomes clear that photography has a special role in social life as it consistently mediates relationships between people and representations of reality. Art theorist Ariella Azoulay explains this pervasive penetration

of photography into everyday interactions by suggesting how temporally expansive the medium is.³⁹ While the “event photographed” may be confined to a discrete instant, photography initiates a cascade of “events of photography” in a multitude of subsequent interactions. Especially in eras where photographic images are almost constantly created and circulated (like the 1930s and today), the ceaseless multiplication of these events means we live in and connect with others through the thickening fog of photography.

As photographs have become key elements of digital social media, their social importance has come even more clearly into focus. Critics writing about digital visual social media refer to an era of “ubiquitous photography” and a world in which the basic “unit of communication” in social interactions is the “social photo.”⁴⁰ The seeming omnipresence of cameras in our current moment, in sociologist Martin Hand’s words, “changes what can be, and is, seen, recorded, discussed, and remembered.”⁴¹ These changes, I would argue, are part of how photography technogenetically changes the basic experience of everyday life, and in turn, what it is to be human in that environment. Aligning with this assessment, social media researcher Nathan Jurgenson explains that photographic technogenesis is especially pronounced in this social media age: “Media have always been something living and embodied, and the camera made social is a particularly potent enmeshing of human and machine. The social photo makes more explicit than ever how we are made of and by images, just as much as they are made of and by us.”⁴² Building from this premise, *Glitchy Vision* concentrates on unraveling this enmeshing just enough to glimpse the ceaseless, short-circuiting interactions through which humans and photographic media cultures remake one another over and over again.

Some critics who say we have entered an era of *postphotography* might challenge the relevance of 1930s analog photographs in our digital world.⁴³ Art historian William Mitchell’s much-referenced *The Reconfigured Eye*, for example, contends that digital images only belong in the history of photography insofar as they “replace” analog photography like analog photography “replaced” painting over a century earlier. But taking the photograph as a constellation of production and circulation techniques, meetings of humans and technologies, and a form of being-with-others

diminishes the salience of this stance. The particularities of the digital versus the analog image pale in comparison to the similarities between what photographs look like and the functions they serve in everyday life. Additionally, some arguments about postphotography hinge on oversimplifications of what photography looked like and how it was used in the past. Diligent historians have undermined many frequently cited differences between analog and digital photographs. For instance, art curator Mia Fineman's investigation of photo manipulation before photoshop dispels myths that photographs were ever an untouched index of reality by emphasizing the facility with which early photographers altered images.⁴⁴ And the following chapters will elaborate myriad other ways in which the 1930s social photo bears striking resemblances to phenomena we encounter online today.

Interwar Modernity

Interwar Europe is arguably the birthplace of ubiquitous photography. As methods of processing and printing photographs improved during this period, the demand for photographic media like illustrated magazines exploded and photographs increasingly filled the everyday field of vision. As new technological developments made cameras more portable, photographic devices and images began to show up everywhere. The history of this particular moment—when a deluge of images inundated everyday human experience on an unprecedented scale—can help us grapple with the impact of twenty-first-century visual social media even more than a general history of photography.⁴⁵

Claims about modernism as an origin point of “new media” mean that scholars have already gravitated toward the interwar period as a privileged historical site. Among the most prominent of these is media theorist Lev Manovich, who succinctly pinpoints the 1920s as the “key decade” in the history of media in a mere sentence of explanation:

Between the second part of the 1910s and the end of the 1920s, all key modern visual communication techniques were developed: photo and film montage, collage, classical film language, surrealism, the use of sex appeal in advertisement, modern graphic design, modern typography.⁴⁶

However cursory this justification may be, Manovich is not alone in labeling the interwar moment the genesis of new media. Modernist scholar David Trotter, for example, terms 1927–1930 Britain the “first media age.” He backs up this assertion by arguing that this phase of media development was radically novel because it reached unprecedented numbers of people in unprecedentedly pervasive ways. Due to its overwhelmingly rapid expansion, “it began to seem that the hold mass media maintained over the public mind had become a stranglehold.”⁴⁷ In his estimation, the seemingly unbridled influx of media into everyday life during these years added forms of connectivity and interaction faster than the human could comfortably adapt. Although these media forms were different than the digital cinema that Denson discusses in *Discorrelated Images*, the overall impression of human inability to keep up with technology is similar.

Negotiations of the uncomfortable interaction between the body and this technological environment were prominently featured in much of the period’s art, and frequently characterized by an experimentally glitchy aesthetic. For instance, literary critic Sara Danius’s reading of high modernist novels as aesthetic considerations of new “technologies of perception” culminates in the claim that “the modernist moment bears witness to a transition from *prosthesis* to *aisthesis*.”⁴⁸ Modernism is centered in this uncomfortable transition—beyond this multitude of new technologies seeming like mere tools, but also before they have been completely integrated into an evolved human sensorium—without ever reaching an end point. Freud’s discussion of prosthetic gods exemplifies this narrative in which a fantasized transition from prosthesis to aisthesis is perpetually stalling and never actually comes to pass.

While glitchy aesthetics can be found throughout modernist art, it is particularly striking in the period termed “late modernism,” which spans the 1930s and early 1940s. Modernist scholar Tyrus Miller argues that late modernist art and culture differ from canonical high modernism in the way they are shaped by the era’s fraught politics as well as subjects’ strained negotiations of their increasingly mediated and mechanized environment.⁴⁹ The fraying connections in these interwar texts make the feedback loop between human and media unusually visible. Caught within multiple technological, social, and political crises, late modernist novels frequently formally fail to fit together or seem on the verge of

disintegration; likewise, their characters barely hold human shape as they are seized by the tense pull of these clashing forces, and configured as contingent, broken, or malfunctioning. Moreover, there is no mistaking these characters as fully posthuman given the texts' unyielding insistence on human vulnerability and mortality.

Crucially, the deformation of bodies by technology was not just metaphor but instead an all-too-real feature of this historical moment. The obsession with the vulnerability of what critical theorist Walter Benjamin terms the "tiny, fragile human body" in the art and theory of the period was in large part connected to the amplification of bodily vulnerability in the wake of the devastating influenza pandemic and mass violence of the Great War, not to mention the looming shadow of a second conflict that promised to inflict harm beyond the battlefield.⁵⁰ The infiltration of the invisible influenza virus into the population laid bare an existential contingency in the human condition. As literary critic Elizabeth Outka narrates it, the pandemic helped push a "new body-centered vision" in modernist writing that tried to "face bodies that are wild, unpredictable, and dangerous."⁵¹ Likewise, shell shock was a legacy of World War I that reshaped visions of the body by challenging Cartesian dualities between body and mind. In the medical field, grappling with this traumatic phenomenon helped catalyze rich new conceptualizations of the body as a system maintaining equilibrium within itself and in relation to the external world.⁵² Additionally, a huge number of veterans returned with visible physical disabilities that made the human body's potential fragility more present in everyday life for the entire population.

At the same time, new scientific innovations were rapidly trying to address this influx of disabled individuals through cutting-edge prosthetics. Modernist scholar Tim Armstrong argues that the visibility of actual prosthetics in the years after World War I was a precondition to the "prosthetic modernism" that "celebrated the mechanized body or the body attached to a machine."⁵³ This awareness of bodily vulnerability spurred an obsession with the power of the body's ecstatic communion with the machine beyond simply helping wounded bodies recuperate capacities they had lost. Fantasies about technological relationships that could transform the body into a weapon and shield, prophylactically hardening and reinforcing its surface, proliferated at this time.⁵⁴ As many critics have noted,

these dreams about the prosthetically enhanced and protected human have clear political implications.⁵⁵ Fascism latched onto visions of the perfected technohuman and the technologically enabled weaponized body politic, while also strategically using new media technologies to visualize them in the form of the “mass ornament” and other mechanized aesthetic spectacles.⁵⁶ As Nazism embraced this vision of artificial impenetrable completeness, it also strove to purge any trace of vulnerability or irregularity. The ways in which the interwar era’s art lingers in the transitions between “prosthesis and aisthesis” is thus bound up in clear ethical stakes around shaping what future humans could (and should) look like.

TACTICS

Media Archaeology

Glitchy Vision has methodological kinship with approaches to media history that refuse neat causalities or progress narratives.⁵⁷ “Media archaeology” is one moniker for such methods that work in nonlinear, creative, and multidisciplinary ways as opposed to searching for what Menkman terms a “noiseless channel” between past and present.⁵⁸ Jussi Parikka, a contemporary leader in the field who has written a number of books explaining this approach, defines it as follows: “Media archaeology rummages textual, visual, and auditory archives as well as collections of artifacts, emphasizing both the discursive and material manifestations of culture.”⁵⁹ He further elaborates that media archaeology has been particularly successful at investigating alternative histories by focusing on imaginary, failed, or forgotten technologies of the past.⁶⁰ While its sheer variety and experimentalism make it hard to synthesize, media archaeology generally forges its unconventional histories through attention to the minute details of technological artifacts. It pursues insights into discourse and culture in both the past and present through an emphasis on media technologies’ material specificities.

Despite its apparent expansiveness, media archaeology has not been particularly conducive to feminist analysis. Dominated by male critics and some overt strains of technofetishism, it sometimes entails the

unfortunate reproduction of a “boys and their toys” paradigm.⁶¹ One of the few exceptions to this rule, Chrissy Thompson and Mark A. Wood’s “A Media Archaeology of the Creepshot,” acknowledges this tension between feminism and media archaeology. Taking Friedrich Kittler as a founding father of the field, they explain that his “renowned sexism and techno-determinism” makes this method on the surface “incongruous” with a feminist agenda. Still, they defend the coherence of media archaeology with feminist media studies by stressing its recent divergence from this founding voice.⁶² Nonetheless, even scholars deeply embedded in the field, like Parikka, have acknowledged that media archaeology can be rightly criticized to some extent as a “boy’s club.”⁶³

While accepting the validity of this critique, Parikka has also gently rebutted it by naming a number of female critics and artists who he believes are doing media archaeology.⁶⁴ Still, as feminist theorists Jör-gen Skågeby and Lina Rahm counter in their article “What Is Feminist Media Archaeology?,” being done by women and being feminist are not synonymous. They argue that feminist media archaeology has yet to be developed, and propose that such a method would need to negotiate the opposing tenets of feminist technoscience (which rejects media archaeology’s purported technodeterminism) and media archaeology (which rejects feminist technoscience’s purported overemphasis on social contexts over technological specificity). This method, they synthesize, would require taking a multidisciplinary approach that embraces “improper histories”: “both addressing improper objects of research and doing historiography improperly.”⁶⁵

Make It Feminist

This book accepts Skågeby and Rahm’s challenge to develop a feminist media archaeology, but jettisons the benign “improper” in favor of “glitchy”: “both addressing *glitchy* objects of research and *glitching* historiography.” *Glitchy Vision* adopts many core media archaeological tenets such as foregrounding nonlinear histories and engaging in disciplinary nomadism. It also shares a media archaeological emphasis on technical specificity. Throughout my analysis of 1930s photographic media cultures, I am attentive to the material histories that scaffold interwar photographic

media cultures, taking deep dives on innovations like wirephotos and halftones, photo-retouching techniques, and compact range finder cameras. Additionally, like other works of media archaeology, *Glitchy Vision* embraces alternative histories of technology. But unlike Parikka and most other media archaeologists, I turn to technologies and media objects that were actually incredibly popular in their time yet have not been given their due attention as serious theoretical resources because of their feminized status.⁶⁶

In addition to centering this project on a “glitchy” archive, I put a feminist spin on media archaeology by mobilizing “glitchy vision” as a critical mode (“glitching historiography”). Feminist technoscience offers a trove of resources that articulate the value of partial and distorted modes of seeing as critical tools. “Standpoint theory” was developed in the early 1990s to suggest the untenability of objective knowledge making and assumptions about a “natural” gaze. Feminist philosopher Sandra Harding asserts that attending to multiple coexisting ways in which knowledge is made about the world from a variety of “standpoints” does not undermine engagement with understandings and reality, but is a mode of cultivating “deep objectivity” or “feminist objectivity.” Haraway canonically explains that “feminist objectivity” is borne out of “situated knowledge”: a mode of seeing that lambasts false notions of objective clear-sightedness and maintains that all vision is actively shaped by the seer. Situated knowledge proposes the power of the “partial perspective” as an antidote to the “conquering gaze from nowhere . . . the eye that fucks the world.”⁶⁷ I call these partial perspectives glitchy because they are aberrations from the smooth functioning of supposedly objective perception that re-place the body in the act of seeing. These glitchy visions act as tools, as “socio-cultural malware,” to disrupt hegemonic discourses and cohesive histories of progress.⁶⁸

I operationalize the glitchiness of situated knowledge into a media historical method by anchoring my analysis of the interwar era in “born-digital terms” that are native to my understanding and experience of media environments.⁶⁹ In addition to feminist technoscience, this strategy is inspired by Benjamin’s philosophy of history, and in particular, his perspective that “actuality requires standing at once within and against one’s time, grasping the ‘temporal core’ of the present in terms other than those supplied by the period about itself . . . and above all in

diametrical opposition to developments taken for granted in the name of ‘progress.’”⁷⁰ I channel Benjamin’s notion of “standing at once within and against one’s time” as a form of situated knowledge in which the distorted view of the past from my present moment can open slits of access into the sociotechnical formations of the past. Using digitally native terms to approach the 1930s intensifies the glitchiness of the media historical exercise, especially as we understand that glitches are “errors [that] manifest as off the mark in some way—either too soon or too late, anachronistic in the present, or launched somehow in the wrong place at the wrong time or the wrong time at the wrong place.”⁷¹ Situated perspectives are vulnerable and inherently relational perspectives that can meet media history on its own vulnerable, relational terms.⁷²

My tactic of using keywords from the present to read the past has resonances with what has been termed “strategic presentism” in recent scholarly conversations. Yet *Glitchy Vision* offers its own take on this mode of historiography by explicitly articulating the particular lens of the present on which it relies. The keyword approach anchors this lens to something concrete versus the implicit “partisan knowledges” that researchers Elaine Freedgood and Michael Sanders caution against, while also serving as a pointed tool to unsettle temporal stability and deeply entrenched narratives about technology, the human, and society.⁷³ Moreover, I want to stress that this exercise has no pretension to “reveal” direct parallels or neat correspondences between past and present, but instead aims to draw out insights through the frictions and distortions that emerge from their meeting. By examining the interwar era from the intentionally skewed, anachronistic perspective of the present, *Glitchy Vision* develops a feminist media archaeological method that privileges the tenuous, malfunctioning circuits between human bodies and burgeoning new media cultures as opposed to the developmental trajectories of particular technological objects.

PREVIEWS

To summarize, each chapter of *Glitchy Vision* utilizes a born-digital keyword—real time, algorithmic filters, and sousveillance—as a warped

lens through which to encounter the past. It locates each of these terms within different, underexamined 1930s artifacts that are ambiguously strung across mass culture, cultural critique, and avant-garde art: Waugh's best-selling novel *Vile Bodies* (1930) and photographic reproductions for the tabloid press, Miller's war photography for *British Vogue* and glamorous photo-retouching techniques, and the M-O movement's surrealist anthropology and compact range finder cameras like the Leica II. Although each of the three keywords are usually understood as digital phenomena, these readings help show the ways in which they actually preexist (and will outlive) the particular technologies we associate them with today.

The title and structure of each chapter follow a consistent formula in order to help solidify "glitchy vision" as a method of feminist media history. Each chapter is named based on the keyword of interest that structures my gaze back at the past. Following the colon is a list that includes: the cultural object or artist of analysis, primary technology being discussed, and glitch in the interface between that technology and the human body that the chapter strives to illuminate. The nature, location, and impact of these glitches varies significantly throughout the book, spanning glitches in temporality, bodily form, and testimonial accounting.

The bulk of each of these chapters is located in 1930s photographic media cultures. Yet this historical account is bookended by shorter narratives from the present. The opening of each chapter defines the digital keyword at its center, and provides context into how it has been addressed in recent popular writings and digital studies scholarship. It also supplies some initial justification to suggest how a concept that is usually associated solely with digital culture might be meaningfully transported into predigital times. The closing portion of each chapter returns to the present again in order to more directly reflect on how the 1930s can offer insights into visual social media today.

Chapter 2, "Real Time: Vile Bodies, Tabloids, Melancholia," focuses on how new photographic media cultures create affective glitches in the usual structures of feeling that bind humans to the present and others. It argues that Britain's 1930s tabloid ecosystem, driven by innovations in wirephotos and halftoning, engendered a form of *real-time* circulation and reading. The chapter combines a theoretical examination of real time in digital culture with a history of technological developments in

the British tabloid press. It then traces this understanding of 1930s real time into Waugh's *Vile Bodies*—an experimental text caught between novel and tabloid supplement that almost uncannily resembles our contemporary social media networked culture. By locating observed and documented violence at the center of this satiric and seemingly frivolous text, *Vile Bodies* highlights this photographic media culture's profound ethical impact on how subjects are positioned to respond to the pain of others in and out of wartime. This real-time readership creates a form of melancholy—a psychic “energy glitch” in the words of critical theorist Eugenie Brinkema—that interferes with subjects' ability to transmit and receive feeling in everyday life.⁷⁴

The dialogue between digital studies and this tabloid temporality offers a new, nuanced view of real time as a relational triangulation of media, readers, and their environment instead of a particular speed. Real time leads to glitches in individuals' affective response to historical events and the pain of others beyond simply being numbed by a steady stream of mediated violence. While the focus of most explorations of real time's ethical implications emphasize speed and acceleration, melancholia might better describe the structures of feeling that discourage action in the present and suggest the future is already foreclosed. This chapter adds complexity to discussions about contemporary social media sadness, pointing to the ways in which mundane habits of media readership melancholically dislocate individuals from accessing the present both on- and offline.

The third chapter, “Algorithmic Filters: Lee Miller, Glamour, Disability,” moves to a fleshier form of glitch. It turns to the unusually diverse work of model/photographer/journalist Miller to elaborate on the visceral nature of human-media circuits within the late modern visual media environment. It draws on the notion of the *algorithmic filter*, which has become a ubiquitous means of “treating” photographs before their circulation on digital social media. It argues that 1930s glamour photography—at the moment of its emergence—was defined by a similar set of automatic algorithmic processes that were performed by hand instead of code. As Miller not only had her likeness repeatedly processed by the glamour filter but was also an adept user of these techniques, she is ideally positioned to illuminate the impacts of these new mass-produced norms at the interface

of the human and the technological. Her surrealist art highlights the way in which the filter acts as a shield that protects flesh against feeling. In this work, she repeatedly turns glamour's algorithmic protocols against themselves in service of a powerful, arresting disability aesthetic as opposed to armored, bodily perfection. Her documentation of postwar Germany for *British Vogue* pushes this critique even further. She ruthlessly applies the glamour filter in photographs of Nazi corpses, implicating these technical norms in the "aesthetics of human disqualification" and violence against real bodies.⁷⁵

This chapter presents a more ambivalent view of glitchy transmissions across media and bodies than the preceding one. While glamour's protocols trouble the transmission of feeling much like the patterns of real time explicated in the preceding chapter, Miller in turn uses surrealist art and a disability aesthetic to place glitches within glamour's perfecting algorithm, letting visceral encounters with the human body's contingency slip into sight. In the context of digital culture, this approach can help reveal the deeper consequences of filtering on social media in terms of defining what the human body can and should be. Current trends in which individuals get plastic surgery in order to look like their filtered selfies are not just a case of vanity, and young girls' diminished self-esteem is not the only detrimental consequence of these trends. Instead, the normalization of filtering and its inevitable failure to actually grow on living, contingent bodies threatens to make those bodies unlivable and deepen the scope of their aesthetic disqualification.

The fourth chapter, "Sousveillance: Mass-Observation, Subjective Cameras, Situated Knowledge," takes a more reparative view of new media ecosystems. It looks at how human-technology cooperation can introduce glitches in standard modes of testimonial and knowledge production by identifying a feminist version of sousveillance embedded within the M-O movement. Sousveillance (the inverse of surveillance) is increasingly important in digital media studies and popular discourse alike. In its typical usage, sousveillance idealizes the inevitably democratizing potential of a technologically enhanced gaze from below that can monitor abuses in power from above. This includes, for example, citizen journalism and the use of cell phone cameras to reveal incidents of police violence. Reading sousveillance in a predigital environment, however, suggests that its most

progressive power is in the archiving of embodied situated knowledge. I argue that M-O, an ambitious surrealist anthropology project founded in 1937, can be read as a predigital iteration of sousveillance because of the way it affirmed individuals as “subjective cameras” in order to contest top-down, mass-mediated consensus with ground-level viewpoints. Much as digital sousveillance was enabled by wearable camera innovations in the 1990s, M-O was entangled with its own era’s innovative technologies. These included range finder camera designs that gave photographers a new mobility and immersion in photographed environments, and deepened the intimacies between camera and body. The feminist sousveillance embedded in the movement’s extensive collection of women’s day diaries disrupts totalitarian attempts to enforce consensus not by creating a new totalizing gaze in the opposite direction but rather by capturing the contingent corporeality of the seeing subject. As they recalcitrantly resist consensus or total mobilization, these “archives of feeling” preserved within M-O’s larger project are glitches that briefly stall totalitarian fantasies of complete, disembodied sight in the moment and retrospect.⁷⁶

This reading of sousveillance as requiring the collaboration of both the embodied human and technologies of image capture goes against dominant understandings of the term that focus on the power and serendipity of the video or photographic record of an event while ignoring the place of the person operating the camera. Overlooking the body behind the camera also means often ignoring the pervasive, discriminatory differences in how the camera’s technological “proof” of an event is dealt with based on the recorder’s own positionality. Foregrounding the human responsible for the record opens up a broader range of activities, such as social media narratives, personal reflections, and tactics of communication in the face of algorithmic biases, as politically potent sousveillant acts.

As is evident from this introduction, *Glitchy Vision* is fundamentally invested in how its history of the interwar era can provide insights into the technogenetic transformations of our current and future media environments. Accordingly, the final chapter, “Loose Ends,” more directly addresses how feminist media history can enhance the way we read and tell histories of the present. By meditating on the lessons in looking that the book has unearthed, and bringing them into a larger conversation

about the present and future of visual social media and digital culture more broadly, the conclusion consolidates the project's intervention in dialogue with new work in feminist data science, digital studies, and communications. It reflects on how photography can give us insight into digital culture, looking beyond a narrow definition of visual culture to engage with a contemporary context where human-technology interaction is increasingly defined by the "data gaze" more than the "camera eye." The conclusion also returns to each of the keywords discussed in the body chapters in light of emergent data analytic phenomena in order to suggest ways of reading glitchiness in new generations of technologies and technological imaginaries.

Media from different moments are intertwined in Gordian knots. Their relationship is not simply one of progress but also erratic dialogues that move simultaneously backward and forward in time. By meeting media history on these knotted terms, *Glitchy Vision* provides space to explore the tangles between bodies and technologies that mark their complex coevolutions across the past, present, and future. It can teach us to see the dynamic ways in which we ourselves weave and are woven into these histories every single day.

BIBLIOGRAPHY

- Abel, Elizabeth. "Skin, Flesh, and the Affective Wrinkles of Civil Rights Photography." *Qui Parle: Critical Humanities and Social Sciences* 20, no. 2 (2012): 35–69.
- Abidin, Crystal. "Aren't These Just Young, Rich Women Doing Vain Things Online?: Influencer Selfies as Subversive Frivolity." *Social Media + Society* 2, no. 2 (2016).
- Abidin, Crystal. "Grief Hypejacking: Influencers, #ThoughtsAndPrayers, and the Commodification of Grief on Instagram." *Information Society* 38, no. 3 (2022): 174–187.
- Ahmed, Sara. *The Cultural Politics of Emotion*. Edinburgh: Edinburgh University Press, 2014.
- Ali, Mir Adnan, and Steve Mann. "The Inevitability of the Transition from a Surveillance-Society to a Veillance-Society: Moral and Economic Grounding for Sousveillance." In *Technology and Society (ISTAS), 2013 IEEE International Symposium*. Piscataway, NJ: IEEE, 2013.
- Allen, Brooke. "Vile Bodies: A Futurist Fantasy." *Twentieth Century Literature* 40, no. 3 (1994): 318–328.
- Alper, Meryl. "War on Instagram: Framing Conflict Photojournalism with Mobile Photography Apps." *New Media and Society* 16, no. 8 (2014): 1233–1248.
- Anderson, Chris. "The End of Theory: The Data Deluge Makes the Scientific Method Obsolete." *Wired*, June 3, 2008. <https://www.wired.com/2008/06/pb-theory>.
- Armstrong, Tim. *Modernism, Technology, and the Body: A Cultural Study*. Cambridge: Cambridge University Press, 1998.
- Azoulay, Ariella. *Civil Imagination: A Political Ontology of Photography*. New York: Verso Books, 2015.
- Badalge, Keshia Naurana. "Our Phones Make Us Feel like Activists, but They're Actually Turning Us into Bystanders." *Quartz*, May 25, 2017, <https://qz.com/991167/our-phones-make-us-feel-like-social-media-activists-but-theyre-actually-turning-us-into-bystanders>.
- Bakhshi, Saeideh, David A. Shamma, Lyndon Kennedy, and Eric Gilbert. "Why We Filter Our Photos and How It Impacts Engagement." *Proceedings of the Ninth International AAAI Conference on Web and Social Media* 9, no. 1 (2015): 12–21.
- Balsamo, Anne. *Technologies of the Gendered Body: Reading Cyborg Women*. Durham, NC: Duke University Press, 1996.

- Barthes, Roland. *Camera Lucida* (1980). Translated by Richard Howard. London: Vintage, 2000.
- Baughan, Amanda, Mingrui Ray Zhang, Raveena Rao, Kai Lukoff, Anastasia Schaadhardt, Lisa D. Butler, and Alexis Hiniker. "I Don't Even Remember What I Read': How Design Influences Dissociation on Social Media." In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*, edited by Simone Barbosa, Cliff Lampe, Caroline Appert, David A. Shamma, Steven Drucker, Julie Williamson, and Koji Yatani. New York: Association for Computing Machinery, 2022.
- Beer, David. *The Data Gaze*. London: Sage, 2019.
- Beeston, Alix. *In and Out of Sight: Modernist Writing and the Photographic Unseen*. Oxford: Oxford University Press, 2018.
- Behar, Katherine. *Bigger than You: Big Data and Obesity*. Brooklyn: punctum books, 2016.
- Behar, Ruth. *The Vulnerable Observer: Anthropology That Breaks Your Heart*. Boston: Beacon Press, 1997.
- Benedeck, Thomas. "History of the Medical Treatment of Gonorrhoea." *Antimicrobe: Infectious Disease and Antimicrobial Agents*. Accessed January 29, 2019. <http://www.antimicrobe.org/ho4c.files/history/Gonorrhoea.asp>.
- Benjamin, Ruha. *Race after Technology: Abolitionist Tools for the New Jim Code*. Oxford: Oxford University Press, 2020.
- Benjamin, Walter. "The Storyteller." In *Illuminations: Essays and Reflections*, translated by Harry Zohn. New York: Schocken Books, 1969.
- Benjamin, Walter. *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*. Cambridge, MA: Harvard University Press, 2008.
- Benson, Richard. *The Printed Picture*. New York: Museum of Modern Art, 2008.
- Berlant, Lauren. "The Commons: Infrastructures for Troubling Times." *Environment and Planning D: Society and Space* 34, no. 3 (2016): 393–419.
- Berry, David. "Messianic Media: Notes on the Real-Time Stream." *Stunlaw* (blog), September 12, 2011. <https://stunlaw.blogspot.com/2011/09/messianic-media-notes-on-real-time.html>.
- Bingham, Adrian. *Family Newspapers?: Sex, Private Life, and the British Popular Press 1918–1978*. Oxford: Oxford University Press, 2009.
- Bingham, Adrian. *Gender, Modernity, and the Popular Press in Interwar Britain*. Oxford: Clarendon, 2004.
- Bingham, Adrian, and Martin Conboy. *Tabloid Century: The Popular Press in Britain, 1896 to the Present*. Bern, Switz.: Peter Lang, 2015.
- Boer, Maartje, Gonneke W. J. M. Stevens, Catrin Finkenauer, Margaretha E. de Looze, and Regina J. J. M. van den Eijnden. "Social Media Use Intensity, Social Media Use

- Problems, and Mental Health among Adolescents: Investigating Directionality and Mediating Processes.” *Computers in Human Behavior* 116 (2021): 106645.
- Bolter, David, J., and Richard A. Grusin. *Remediation: Understanding New Media*. Cambridge, MA: MIT Press, 2000.
- Bourke, Joanna. *The Story of Pain: From Prayer to Painkillers*. Oxford: Oxford University Press, 2014.
- boyd, danah, and Kate Crawford. “Critical Questions for Big Data: Provocations for a Cultural, Technological, and Scholarly Phenomenon.” *Information, Communication and Society* 15, no. 5 (2012): 662–679.
- Bradshaw, Elizabeth A. “This Is What a Police State Looks Like: Sousveillance, Direct Action and the Anti-Corporate Globalization Movement.” *Critical Criminology* 21, no. 4 (2013): 447–461.
- Braidotti, Rosi. *The Posthuman*. Cambridge, UK: Polity, 2013.
- Brighton, Dionne. “The ‘Reality’ of TikTok’s Bold Glamour Filter Proves We Have a Major Problem on Our Hands—Here’s Why.” *Marie Claire*, March 3, 2023. <https://www.marieclaire.co.uk/beauty/tiktok-bold-glamour-filter>.
- Brinkema, Eugenie. *The Forms of the Affects*. Durham, NC: Duke University Press: 2014.
- Broadly Staff. “I Got Surgery to Look Like My Selfie Filters. *Vice*, December 6, 2018. <https://www.vice.com/en/article/mby5by/cosmetic-plastic-surgery-social-media-seflies>.
- Brown, Judith. *Glamour in Six Dimensions: Modernism and the Radiance of Form*. Ithaca, NY: Cornell University Press, 2009.
- Browne, Simone. *Dark Matters: On the Surveillance of Blackness*. Durham, NC: Duke University Press, 2015.
- Bruns, Axel. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. Bern, Switz.: Peter Lang, 2008.
- Buck-Morss, Susan. “Aesthetics and Anaesthetics: Walter Benjamin’s Artwork Essay Reconsidered.” *October* 62 (1992): 3–41.
- Burke, Carolyn. *Lee Miller: A Life*. New York: Knopf, 2010.
- Burstein, Jessica. *Cold Modernism: Literature, Fashion*. University Park: Penn State University Press, 2012.
- Butler, Lisa D. “The Dissociations of Everyday Life.” *Journal of Trauma and Dissociation* 5, no. 2 (2004): 1–11.
- Buzard, James. “Mass-Observation, Modernism, and Auto-Ethnography.” *Modernism/Modernity* 4, no. 3 (1997): 93–122.
- Carr, Nicholas. “Is Google Making Us Stupid?” *Atlantic*, July–August 2008. <https://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868>.

- Caws, Mary Ann. *The Art of Interference: Stressed Readings in Verbal and Visual Texts*. Cambridge, UK: Polity, 1989.
- Centers for Disease Control and Prevention. *Youth Risk Behavior Survey: Data Summary and Trends Report, 2011–2021*. Accessed February 2, 2024. https://www.cdc.gov/healthyyouth/data/yrebs/pdf/YRBS_Data-Summary-Trends_Report2023_508.pdf.
- Cheney-Lippold, John. *We Are Data*. New York: NYU Press, 2017.
- Cheng, Anne Anlin. *Second Skin: Josephine Baker and the Modern Surface*. Oxford: Oxford University Press, 2010.
- Chetty, Naganna, and Sreejith Alathur. "Hate Speech Review in the Context of Online Social Networks." *Aggression and Violent Behavior* 40 (2018): 108–118.
- Chun, Wendy Hui Kyong. *Programmed Visions: Software and Memory*. Cambridge, MA: MIT Press, 2011.
- Chun, Wendy Hui Kyong. *Updating to Remain the Same: Habitual New Media*. Cambridge, MA: MIT Press, 2016.
- Clayton, Eleanor. "Lee Miller's *Le Baiser*." In *Lee Miller's Surrealist Eye: New Insights*, edited by Lynn Hilditch. Cambridge, UK: Cambridge Scholars Publishing, 2022.
- Cocteau, Jean. *Le Sang d'un poète*. Performed by Enrique Rivero and Lee Miller. Produced by Charles de Noailles. 1929. <https://archive.org/details/JeanCocteauLeSangDunPote1930>.
- Coleman, Rebecca. "Making, Managing and Experiencing 'the Now': Digital Media and the Compression and Pacing of 'Real-Time.'" *New Media and Society* 22, no. 9 (2020): 1680–1698.
- Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge, MA: MIT Press, 1992.
- Curzon, Lucy Dane. "Replacing Modernism: Visual Culture and National Identity in Britain, 1930–1960." PhD diss., University of Rochester, 2005.
- Cvetkovich, Ann. *An Archive of Feelings*. Durham, NC: Duke University Press, 2003.
- Danius, Sara. *The Senses of Modernism: Technology, Perception, and Aesthetics*. Ithaca, NY: Cornell University Press, 2002.
- Davis, Frederick C. "Push the Button Retouching." In *Photo-Era: An Illustrated Monthly of Photography and the Allied Arts*. Vol. 45. Boston: Wilfred A. French, 1920.
- Davis, Thomas S. *The Extinct Scene: Late Modernism and Everyday Life*. New York: Columbia University Press, 2015.
- Deleuze, Gilles. *Francis Bacon: The Logic of Sensation*. Translated by Daniel W. Smith. London: Continuum, 2003.
- Deleuze, Gilles. "Postscript on the Societies of Control." *October* 59 (1992): 3–7.
- Denson, Shane. *Discorrelated Images*. Durham, NC: Duke University Press, 2020.

- “Diana Mosley, Hitler’s Angel, Dies Unrepentant in Paris.” *The Guardian*, August 13, 2003. <https://www.theguardian.com/politics/2003/aug/13/obituaries.uk>.
- D’Ignazio, Catherine, and Lauren F. Klein. *Data Feminism*. Cambridge, MA: MIT Press, 2020.
- Ducharme, Jamie. “People Are Getting Surgery to Look Like Snapchat Filters, Doctors Warn.” *Time*, August 15, 2018. <https://time.com/5357262/snapchat-plastic-surgery>.
- Duffy, Enda. *The Speed Handbook: Velocity, Pleasure, Modernism*. Durham, NC: Duke University Press, 2009.
- Eichhorn, Kate. *The Archival Turn in Feminism: Outrage in Order*. Philadelphia: Temple University Press, 2013.
- Elias, Ana Sofia, and Rosalind Gill. “Beauty Surveillance: The Digital Self-Monitoring Cultures of Neoliberalism.” *European Journal of Cultural Studies* 21, no. 1 (2018): 59–77.
- Eliot, T. S. *Four Quartets*. New York: Houghton Mifflin Harcourt, 1943.
- Ellcessor, Elizabeth. “A Glitch in the Tower: Academia, Disability, and Digital Humanities.” In *The Routledge Companion to Media Studies and Digital Humanities*, edited by Jentery Sayers. Oxfordshire, UK: Routledge, 2018.
- Esty, Jed. *A Shrinking Island*. Princeton, NJ: Princeton University Press, 2009.
- Eubanks, Virginia. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. New York: St. Martin’s Press, 2018.
- Ewen, Stuart. *All Consuming Images: The Politics of Style in Contemporary Culture*. New York: Basic Books, 1999.
- Faragher, Megan. “Snoop-Women with Notebooks: Naomi Mitchison, Mass Observation, and the Gender of Domestic Intelligence.” *Space Between* 13 (2017). https://scalar.usc.edu/works/the-space-between-literature-and-culture-1914-1945/vol13_2017_faragher.
- Fendler, Lynn. “The Upside of Presentism.” *Paedagogica Historica* 44, no. 6 (2008): 677–690.
- Ferguson, Roderick A. *Aberrations in Black: Toward a Queer of Color Critique*. Minneapolis: University of Minnesota Press, 2004.
- Fineman, Mia. *Faking It: Manipulated Photography before Photoshop*. New York: Metropolitan Museum of Art, 2012.
- Foster, Hal. “Prosthetic Gods.” *Modernism/Modernity* 4, no. 2 (1997): 5–38.
- Frazier, Darnella. “1 year anniversary.” Instagram post, May 25, 2021. https://www.instagram.com/p/CPT5_oIBlie.
- Freedgood, Elaine, and Michael Sanders. “Response: Strategic Presentism or Partisan Knowledges?” *Victorian Studies* 59, no. 1 (2016): 117–121.

- Freud, Sigmund. *Civilization and Its Discontents*. Translated by James Strachey. New York: W. W. Norton, 1962.
- Freud, Sigmund. "Mourning and Melancholia." Translated by Joan Riviere. In *Freud: General Psychological Theory*, edited by Phillip Rieff. New York: Touchstone, 1991.
- Fried, Michael. *Absorption and Theatricality: Painting and Beholder in the Age of Diderot*. Berkeley: University of California Press, 1980.
- Gallagher, Jean. *The World Wars through the Female Gaze*. Carbondale: Southern Illinois University Press, 1998.
- Gandy, Oscar H., Jr. "Exploring Identity and Identification in Cyberspace." *Notre Dame Journal of Law, Ethics and Public Policy* 14, no. 2 (2000): 1085–1111.
- Garcia, Angela. "The Elegiac Addict: History, Chronicity, and the Melancholi Subject." *Cultural Anthropology* 23, no. 4 (2008): 718–746.
- Geroulanos, Stefanos, and Todd Meyers. *The Human Body in the Age of Catastrophe: Brittleness, Integration, Science, and the Great War*. Chicago: University of Chicago Press, 2018.
- Gibson, Margaret. "Automatic and Automated Mourning: Messengers of Death and Messages from the Dead." *Continuum* 29, no. 3 (2015): 339–353.
- Girls' Attitudes Survey 2019*. London: Girlguiding, 2019. <https://www.girlguiding.org.uk/globalassets/docs-and-resources/research-and-campaigns/girls-attitudes-survey-2019.pdf>.
- Gitelman, Lisa. *Always Already New: Media, History, and the Data of Culture*. Cambridge, MA: MIT Press, 2006.
- Glenn, Cerise L. "Activism or 'Slacktivism'?: Digital Media and Organizing for Social Change." *Communication Teacher* 29, no. 2 (2015): 81–85.
- Glenn, John, Scott Carpenter, Alan Shepard, Virgil Grissom, Gordon Cooper, Donald Slayton, and Walter Schirra. *Into Orbit*. London: Cassell, 1962.
- Goode, Luke. "Social News, Citizen Journalism and Democracy." *New Media and Society* 11, no. 8 (2019): 1287–1305.
- Gottlieb, Julie V. "Body Fascism in Britain: Building the Blackshirt in the Inter-War Period." *Contemporary European History* (2011): 111–136.
- Gottlieb, Julie V. *"Guilty Women," Foreign Policy, and Appeasement in Inter-War Britain*. New York: Springer, 2016.
- Gottlieb, Julie V. "The Marketing of Megalomania: Celebrity, Consumption and the Development of Political Technology in the British Union of Fascists." *Journal of Contemporary History* 41, no. 1 (2006): 35–55.
- Gregg, Melissa. "Inside the Data Spectacle." *Television and New Media* 16, no. 1 (2015): 37–51.

- Grusin, Richard. "Premediation." *Criticism* 46, no. 1 (2004): 17–39.
- Hall, Rachel. "Terror and the Female Grotesque." In *Feminist Surveillance Studies*, edited by Rachel E. Dubrofsky and Shoshana Magnet. Durham, NC: Duke University Press, 2015.
- Hand, Martin. *Ubiquitous Photography*. Cambridge, UK: Polity, 2012.
- Hansen, Mark. *Embodiment Technesis: Technology beyond Writing*. Ann Arbor: University of Michigan Press, 2000.
- Hansen, Miriam. *Cinema and Experience: Siegfried Kracauer, Walter Benjamin, and Theodor W. Adorno*. Berkeley: University of California Press, 2012.
- Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." In *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 2013.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." In *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 2013.
- Haworth-Booth, Mark. *The Art of Lee Miller*. New Haven, CT: Yale University Press, 2007.
- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 2008.
- Hayles, N. Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. Chicago: University of Chicago Press, 2012.
- Heidegger, Martin. *Being and Time*. Translated by John Macquarrie and Edward Robinson. New York: Harper and Row, 1962.
- Hermann, John. "The Rise of Selfie Surgery." *BuzzFeed*, October 9, 2013. https://www.buzzfeed.com/jwherrman/the-rise-of-selfie-surgery?utm_term=.fi1EQgBr5j#.qkMp1RD4Vj.
- Highmore, Ben. *Everyday Life and Cultural Theory: An Introduction*. London: Routledge, 2002.
- Hornby, Louise. *Still Modernism: Photography, Literature, Film*. Oxford: Oxford University Press, 2017.
- Hu, Tung-Hui. "Real-Time/Zero Time," *Discourse* 34, no. 2 (2012): 163–184.
- Huebner, Daniel R. "Anachronism: The Queer Pragmatics of Understanding the Past in the Present." *American Sociologist* 52, no. 4 (2017): 740–761.
- Huhtamo, Erkki, and Jussi Parikka, eds. *Media Archaeology: Approaches, Applications, and Implications*. Berkeley: University of California Press, 2011.
- Humphreys, Lee. *The Qualified Self: Social Media and the Accounting of Everyday Life*. Cambridge, MA: MIT Press, 2018.

- Huurdeman, Anton A. *The Worldwide History of Telecommunications*. Hoboken, NJ: John Wiley and Sons, 2003.
- Hynes, Samuel. *A War Imagined: The First World War and English Culture*. London: Bodley Head, 1990.
- "In the Society News of the Passing Hour!" *Tatler*, October 3, 1928.
- Ivins, William Mills. *Prints and Visual Communication*. Cambridge, MA: MIT Press, 1969.
- Jaffe, Aaron. *Modernism and the Culture of Celebrity*. Cambridge: Cambridge University Press, 2005.
- Jagoda, Patrick. *Network Aesthetics*. Chicago: University of Chicago Press, 2016.
- Jain, Sarah S. "The Prosthetic Imagination: Enabling and Disabling the Prosthesis Trope." *Science, Technology, and Human Values* 24, no. 1 (1999): 31–54.
- Jane, Emma A. "'Your a Ugly, Whorish, Slut': Understanding E-Bile." *Feminist Media Studies* 14, no. 4 (2014): 531–546.
- Jay, Martin. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. Berkeley: University of California Press, 1994.
- Jeffrey, Tom. "Mass-Observation: A Short History." Mass-Observation Archive occasional paper, no. 10, 1978, University of Sussex Library.
- Jennings, Humphrey, and Charles Madge. *May the Twelfth: Mass-Observation Day Surveys 1937*. London: Faber and Faber, 1937.
- Johnson, Robert. *A Complete Treatise on the Art of Retouching Photographic Negatives: And Clear Directions on How to Finish and Colour Photographs*. 5th ed. London: Marion and Company, 1901. Digitized by Getty Research Institute for archive.org, https://archive.org/details/complete-treatise-oojohn_o.
- Johnston, Patricia A. *Real Fantasies: Edward Steichen's Advertising Photography*. Berkeley: University of California Press, 1997.
- Jurgenson, Nathan. *The Social Photo: On Photography and Social Media*. New York: Verso Books, 2019.
- Kafer, Alison. *Feminist, Queer, Crip*. Bloomington: Indiana University Press, 2013.
- Kaun, Anne. "Archiving Protest Digitally: The Temporal Regime of Immediation." *International Journal of Communication* 10 (2016): 5395–5408.
- Kenner, Hugh. *Mechanic Muse*. Oxford: Oxford University Press, 1987.
- Kracauer, Siegfried. "The Mass Ornament." In *The Mass Ornament and Other Essays*, translated and edited by Thomas Y. Levin. Cambridge, MA: Harvard University Press, 1995.
- Kracauer, Siegfried. "Photography." In *The Mass Ornament and Other Essays*, translated and edited by Thomas Y. Levin. Cambridge, MA: Harvard University Press, 1995.

- Krauss, Rosalind. "The Photographic Conditions of Surrealism." *October* 19 (1981): 3–34.
- Krauss, Rosalind E., Jane Livingston, and Dawn Ades. *L'amour Fou: Photography and Surrealism*. New York: Abbeville Press, 1985.
- Kuhlberg, Jill A., Irene Headen, Ellis A. Ballard, and Donald Martin Jr. "Advancing Community Engaged Approaches to Identifying Structural Drivers of Racial Bias in Health Diagnostic Algorithms." Data for Black Lives, May 31, 2020. <https://d4bl.org/reports/89-advancing-community-engaged-approaches-to-identifying-structural-drivers-of-racial-bias-in-health-diagnostic-algorithms>.
- Kumanyika, Chenjerai. "Livestreaming in the Black Lives Matter Network." *DIY Utopia: Cultural Imagination and the Remaking of the Possible* (2016): 169–188.
- Langhamer, Claire. "An Archive of Feeling? Mass Observation and the Mid-Century Moment." *Insights* 9, no. 4 (2016): 1–10.
- Lightricks Ltd. "Facetune AI Photo/Video Editor." Google Play, January 25, 2024. https://play.google.com/store/apps/details?id=com.lightricks.facetune.free&hl=en_US&gl=US.
- Lim, Seongtaek, Sang Yun Cha, Chala Park, Inseong Lee, and Jinwoo Kim. "Getting Closer and Experiencing Together: Antecedents and Consequences of Psychological Distance in Social Media-Enhanced Real-Time Streaming Video." *Computers in Human Behavior* 28, no. 4 (2012): 1365–1378.
- Linkof, Ryan. "The Public Eye: Celebrity and Photojournalism in the Making of the British Tabloids, 1904–1938." PhD diss., University of Southern California, 2011. Lorde, Audre. *The Master's Tools Will Never Dismantle the Master's House*. London: Penguin UK, 2018.
- Loss, Archie. "Vile Bodies, Vorticism, and Italian Futurism." *Journal of Modern Literature* (1992): 155–164.
- Lovink, Geert. *Sad by Design*. London: Pluto Press, 2019.
- Lupi, Giorgia. "Data Humanism, the Revolution Will Be Visualized." Medium, February 1, 2017. <https://medium.com/@giorgialupi/data-humanism-the-revolution-will-be-visualized-31486a30dbfb>.
- Lupton, Deborah. "Lively Data, Social Fitness and Biovalue: The Intersections of Health and Fitness Self-Tracking and Social Media." In *The Sage Handbook of Social Media*. Thousand Oaks, CA: SAGE Publications, 2018.
- Lyford, Amy. "The Aesthetics of Dismemberment: Surrealism and the Musee du Val-de-Grâce in 1917." *Cultural Critique* (2000): 45–79.
- Lyon, David. *Surveillance Studies: An Overview*. Cambridge, UK: Polity, 2007.
- Madge, Charles, and Tom Harrisson. *Britain by Mass-Observation*. Harmondsworth, UK: Penguin, 1939.
- Madge, Charles, and Tom Harrisson. *First Year's Work*. London: Lindsay Drummond, 1938.

- Madge, Charles, and Tom Harrison. *Mass Observation*. London: Frederick Muller Ltd., 1937.
- Mann, Steve. "Continuous Lifelong Capture of Personal Experience with EyeTap." In *CARPE'04: Proceedings of the 1st ACM Workshop on Continuous Archival and Retrieval of Personal Experiences*, edited by Jim Gemmell and Hari Sundaram, 1–21. New York: Association for Computing Machinery, 2004.
- Mann, Steve. "Wearable Computing: A First Step toward Personal Imaging," *Computer* 30, no. 2 (1997): 25–32.
- Mann, Steve, and Joseph Ferenbok. "New Media and the Power Politics of Sousveillance in a Surveillance-Dominated World." *Surveillance and Society* 11, no. 1–2 (2013): 18.
- Manovich, Lev. "Avant-Garde as Software." 1999. http://www.manovich.net/docs/avantgarde_as_software.doc.
- Manovich, Lev. *The Language of New Media*. Cambridge, MA: MIT Press, 2001.
- Mathews, Stixx. "Why Is TikTok's 'Bold Glamour' AI-Filter Targeting Young Women." *HypeBae*, March 7, 2023. <https://hypebae.com/2023/3/tik-tok-bold-glamour-ai-app-filter-makeup-beauty-standards-info>.
- Menkman, Rosa. *The Glitch Moment(um)*. Amsterdam: Institute of Network Cultures, 2011. Menkman, Rosa. "Glitch Studies Manifesto." In *Video Vortex Reader II. Moving Images Beyond YouTube*, edited by Geert Lovink and Rachel Somers Miles. Amsterdam: Institute of Network Cultures, 2011.
- "Methodology." *Girlguiding*, March and April 2022. <https://girlguiding.foleon.com/girls-attitudes-survey/2022-report/methodology>.
- Miller, Tyrus. *Late Modernism: Politics, Fiction, and the Arts between the World Wars*. Berkeley: University of California Press, 1999.
- Mitchell, William J. *The Reconfigured Eye: Visual Truth in the Post-Photographic Era*. Cambridge, MA: MIT Press, 1994.
- Morgan, William D., and Henry M. Lester. *The Leica Manual*. New York: Morgan and Lester Publishers, 1937.
- Oldenzil, Ruth. "Boys and Their Toys: The Fisher Body Craftsman's Guild, 1930–1968, and the Making of a Male Technical Domain." *Technology and Culture* 38, no. 1 (1997): 60–96.
- Outka, Elizabeth. *Viral Modernism: The Influenza Pandemic and Interwar Literature*. New York: Columbia University Press, 2019.
- Owen, Wilfred. "The Show." In *The Penguin Book of First World War Poetry*, edited by Jon Silkin. London: Penguin, 1981.
- Papacharissi, Zizi. "Affective Publics and Structures of Storytelling: Sentiment, Events and Mediality." *Information, Communication and Society* 19, no. 3 (2016): 307–324.

- Parikka, Jussi. "Gender in Media Archaeology: Only a Boys' Club?" *Cartographies of Media Archaeology* (blog), 2013.
- Parikka, Jussi. *What Is Media Archaeology?* Hoboken, NJ: John Wiley and Sons, 2013.
- Pasi, Alessandro. *Leica: Witness to a Century*. New York: W. W. Norton, 2012.
- "The Passing Hour: 'The Bystander' Holds up the Mirror to the Gay World." *Bystander*, June 22, 1932.
- Penrose, Anthony, ed. *Lee Miller's War: Beyond D-Day*. London: Thames Hudson, 2020.
- Penrose, Anthony. *The Lives of Lee Miller*. London: Thames and Hudson, 1985.
- Pescott, Claire Kathryn. "'I Wish I Was Wearing a Filter Right Now': An Exploration of Identity Formation and Subjectivity of 10-and 11-Year Olds' Social Media Use." *Social Media and Society* 6, no. 4 (2020): 2056305120965155.
- Peterson-Salahuddin, Chelsea. "'Pose': Examining Moments of 'Digital' Dark Sousveillance on TikTok." *New Media and Society* (2022): 14614448221080480.
- Petterson, Stefan. "Statistics: How Filters Are Used by Instagram's Most Successful Users." *Medium*, October 20, 2017. <https://medium.com/@stpe/statistics-how-filters-are-used-by-instagrams-most-successful-users-d44935f87fa9>.
- Primbet, Denise. "The Bold Glamour Filter Is Proof That Western Beauty Is Still Seen as 'the Golden Standard' and I'm Tired of It." *Glamour UK*, March 9, 2023. <https://www.glamourmagazine.co.uk/article/bold-glamour-filter-western-beauty-standards>.
- Quayson, Ato. *Aesthetic Nervousness: Disability and the Crisis of Representation*. New York: Columbia University Press, 2007.
- Rajanala, Susruthi, Mayra B. C. Maymone, and Neelam A. Vashi. "Selfies—Living in the Era of Filtered Photographs." *JAMA Facial Plastic Surgery* 20, no. 6 (2018): 443–444.
- Rettberg, Jill Walker. *Seeing Ourselves through Technology: How We Use Selfies, Blogs and Wearable Devices to See and Shape Ourselves*. Basingstoke, UK: Palgrave Pivot, 2014.
- Richards, Neil M. "Watching the Watchers." *Wired*, November 4, 2013. <https://ssrn.com/abstract=2350002>.
- Richardson, Allissa V. *Bearing Witness While Black: African Americans, Smartphones, and the New Protest #journalism*. Oxford: Oxford University Press, 2020.
- Ross, Kelly. "Watching from Below: Racialized Surveillance and Vulnerable Sousveillance." *PMLA* 135, no. 2 (2020): 299–314.
- Russell, Legacy. *Glitch Feminism: A Manifesto*. New York: Verso, 2020.
- Ryan-Mosley, Tate. "Hyper-Realistic Beauty Filters Are Here to Stay." *MIT Technology Review*, March 13, 2023. <https://www.technologyreview.com/2023/03/13/1069649/hyper-realistic-beauty-filters-bold-glamour>.

- Saint-Amour, Paul K. *Tense Future: Modernism, Total War, Encyclopedic Form*. Oxford: Oxford University Press, 2015.
- Salter, Andrea Clare. "Women's Mass-Observation Diaries: Writing, Time and 'Subjective Cameras.'" PhD diss., University of Edinburgh, 2008.
- Sanders, Linley. "Blogger Calls Out Samsung for Automatically Airbrushing Selfies." *Teen Vogue*, June 29, 2016. <https://www.teenvogue.com/story/blogger-calls-out-samsung-automatically-airbrushing-selfies>.
- Scarry, Elaine. *The Body in Pain: The Making and Unmaking of the World*. Oxford: Oxford University Press, 1985.
- Schneider, Rebecca. "Glitch." In *Uncertain Archives: Critical Keywords for Big Data*, edited by Nanna Bonde Thylstrup, Daniela Agostinho, Annie Ring, Catherine D'Ignazio, and Kristin Veel. Cambridge, MA: MIT Press, 2021.
- Schriever, James Boniface. *Complete Self-Instructing Library of Practical Photography: Negative Retouching, Etching and Modeling. Encyclopedic Index. Glossary*. Vol. 10. Scranton, PA: American School of Art and Photography, 1909.
- Sedgwick, Eve Kosofsky, and Adam Frank. *Touching Feeling: Affect, Pedagogy, Performativity*. Durham, NC: Duke University Press, 2003.
- Segel, Liz Hilton, and Homayoun Hatami. "The Power of Gen Z Pessimism." *Mind the Gap*. Accessed January 22, 2024. <https://www.mckinsey.com/~media/mckinsey/email/genz/2023/03/2023-03-07b.html>.
- Sheridan, Dorothy. "Writing to the Archive: Mass-Observation as Autobiography." *Sociology* 27, no. 1 (1993): 27–40.
- Siebers, Tobin. *Disability Aesthetics*. Ann Arbor: University of Michigan Press, 2010.
- Skågeby, Jörgen, and Lina Rahm. "What Is Feminist Media Archaeology?" *communication +1* 7, no. 1 (2018): 7.
- Smith, Derek, and Tom Picton. "Humphrey Spender: M.O. Photographer." *Camera-work Magazine* 11 (1978).
- Stanley, Liz. "Women Have Servants and Men Never Eat: Issues in Reading Gender, Using the Case Study of Mass-Observation's 1937 Day-Diaries." *Women's History Review* 4, no. 1 (1995): 85–102.
- Stannard, Martin. *Evelyn Waugh: The Early Years 1903–1939*. New York: W. W. Norton, 1987.
- Sterne, Jonathan. "The MP3 as Cultural Artifact." *New Media and Society* 8, no. 5 (2006): 825–842.
- Stevens, Wesley E. "Blackfishing on Instagram: Influencing and the Commodification of Black Urban Aesthetics." *Social Media + Society* 7, no. 3 (2021): 20563051211038236.
- Stulik, Dusan, and Art Kaplan. "Halftone." In *The Atlas of Analytical Signatures of Photographic Processes*. Los Angeles: Getty Conservation Institute, 2013.

- Sundén, Jenny. "On Trans-, Glitch, and Gender as Machinery of Failure." *First Monday* 20, nos. 4–6 (April 2015). <https://firstmonday.org/ojs/index.php/fm/article/view/5895/4416>.
- Tannenbaum, Barbara. "The Queen of Leica." Cleveland Museum of Art, March–April 2020. <https://www.clevelandart.org/magazine/cleveland-art-marchapril-2020/queen-leica>.
- Taş, Birkan. "Vulnerability." In *Uncertain Archives: Critical Keywords for Big Data*, edited by Nanna Bonde Thylstrup, Daniela Agostinho, Annie Ring, Catherine D'Ignazio, and Kristin Veel. Cambridge, MA: MIT Press, 2021.
- Taylor, David John. *Bright Young People: The Rise and Fall of a Generation, 1918–1940*. New York: Random House, 2007.
- Theodosi, Natalie. "Exclusive: Richard Dennen Marks New Era at Tatler." WWD, May 31, 2018. <https://wwd.com/business-news/media/richard-dennen-marks-new-era-tatler-1202685171>.
- Thomas, Bronwen E. "'It's Good to Talk'? An Analysis of a Telephone Conversation from Evelyn Waugh's *Vile Bodies*." *Language and Literature* 6, no. 2 (1997): 105–119.
- Thompson, Chrissy, and Mark A. Wood. "A Media Archaeology of the Creepshot." *Feminist Media Studies* 18, no. 4 (2018): 560–574.
- Tiidenberg, Katrin. "All the Feels: Making Sense of Instagram and Snapchat." Future Making, March 15, 2017. <https://futuremaking.space/feels-making-sense-snapchat-instagram>.
- Trotter, David. *Literature in the First Media Age*. Cambridge, MA: Harvard University Press, 2013.
- Turkle, Sherry. *Alone Together: Why We Expect More from Technology and Less from Each Other*. London: Hachette, 2017.
- Turkle, Sherry. "Always-on/Always-on-You: The Tethered Self." In *Handbook of Mobile Communication Studies*, edited by James E. Katz. Cambridge, MA: MIT Press, 2008.
- Turkle, Sherry. *Reclaiming Conversation: The Power of Talk in a Digital Age*. New York: Penguin Random House, 2015.
- Twenge, Jean M., Jonathan Haidt, Jimmy Lozano, and Kevin M. Cummins. "Specification Curve Analysis Shows That Social Media Use Is Linked to Poor Mental Health, Especially among Girls." *Acta psychologica* 224 (2022): 103512.
- Virilio, Paul. *The Information Bomb*. New York: Verso, 2005.
- Waldman, Katy. "Not Feeling It." *Slate*. January 29, 2015. http://www.slate.com/blogs/lexicon_valley/2015/01/29/all_of_the_feels_how_we_distance_ourselves_from_emotion_on_the_internet.html.
- "Watching the Entire World." GDELT Project. Accessed February 2, 2024. <https://www.gdeltproject.org/#:~:text=%22The%20GDELT%20Project%20is%20an,what's%20happening%20around%20the%20world>.

Wetevrede, Esther, Anne Helmond, and Carolin Gerlitz. "The Politics of Real-Time: A Device Perspective on Social Media Platforms and Search Engines." *Theory, Culture and Society* 31, no. 6 (2014): 125–150.

Wernimont, Jacqueline. *Numbered Lives: Life and Death in Quantum Media*. Cambridge, MA: MIT Press, 2019.

Wetherbed, Jess, and Mia Sato. "Why Won't TikTok Confirm the Bold Glamour Filter Is AI?" *Verge*, March 2, 2023. https://www.theverge.com/2023/3/2/23621751/bold-glamour-tiktok-face-filter-beauty-ai-ar-body-dismorphia?mc_cid=9cca5880ef&mc_eid=UNIQUID.

Williams, Apryl. "Black Memes Matter: # LivingWhileBlack with Becky and Karen." *Social Media + Society* 6, no. 4 (2020). <https://doi.org/10.1177/2056305120981047>.

Williams, Kevin. *Read All about It!: A History of the British Newspaper*. New York: Routledge, 2009.

Williams, Raymond. "Structures of Feeling." In *Marxism and Literature*. Oxford: Oxford Paperbacks, 1977.

Willis-Tropea, Liz. "Glamour Photography and the Institutionalization of Celebrity." *Photography and Culture* 4, no. 3 (2011): 261–275.

Yang, Guobin. "Narrative Agency in Hashtag Activism: The Case of #BlackLivesMatter." *Media and Communication* 4, no. 4 (2016): 13.

Žižek, Slavoj. *Absolute Recoil: Towards a New Foundation of Dialectical Materialism*. New York: Verso Books, 2014.

Zox-Weaver, Annalisa. "When the War Was in Vogue: Lee Miller's War Reports." *Women's Studies* (2003): 158.

Zuboff, Shoshana. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: Public Affairs, 2019.

Zuckerman, Ethan. "Why We Must Continue to Turn the Camera on Police," *MIT Technology Review*, September 24, 2017. <https://www.technologyreview.com/s/601878/why-we-must-continue-to-turn-the-camera-on-police>.