

## NOTES

### EDITOR'S INTRODUCTION BY DANIEL MORGAN

1. Joseph Conrad, *The Nigger of the "Narcissus"* (New York: W. W. Norton, 1979), 8.
2. Tom Sito, interview by Didier Ghez on April 11 and 27, 2007, in *Walt's People: Talking Disney with the Artists who Knew Him*, ed. Didier Ghez (Bloomington, IN: XLibris, 2010), 9:483.
3. Stanley Cavell, "The Aesthetic Problems of Modern Philosophy," in *Must We Mean What We Say?* (Cambridge, England: Cambridge University Press, 1969), 78–79.
4. Cavell was not unaware of his desire to produce this effect. In his memoirs, he recalls an audition for a music class at Berkeley where he was required to perform a piece of music on the piano. Not having played seriously in years, he recalled only the opening of Liszt's D-flat Impromptu: "I stopped playing as the theme was about to elaborate itself, as if I could have gone on to the end were there time and need." Stanley Cavell, *Little Did I Know: Excerpts from Memory* (Stanford, CA: Stanford University Press, 2010), 209.
5. Hannah Frank, "Traces of the World: Cel Animation and Photography," *Animation: An Interdisciplinary Journal* 11, no. 1 (2016): 23–39.
6. Hannah Frank, "The Potential of *Pochta*: Unlikely Affinities between American and Soviet Animation, 1928–1948," in *A World Redrawn: Eisenstein and Brecht in Hollywood*, ed. Zoe Beloff (New York: Christine Burgin, 2016), 99–112.
7. Hannah Frank, "Proceeding from the Heat-Oppressed Brain': Thinking through Eisenstein's Macbeth Drawings," *Critical Quarterly* 59, no. 1 (2017): 70–84; Hannah Frank, "Robert D. Feild," "Eduard Fuchs," "Immanuel Kant," "Herman Melville," "Plato," and "James Thurber," in *Reading with Sergei Eisenstein*, ed. Ada Ackerman and Luka Arsenjuk (Montreal: Caboose Books, forthcoming).
8. Hannah Frank, "The Hitherto Unknown: Toward a Theory of Synthetic Sound," *boundary 2* (forthcoming).

9. Vlada Petric, *Constructivism in Film* (Cambridge, England: Cambridge University Press, 1987), 159.

10. See for example Norman M. Klein, "Animation as Baroque: Fleischer Morphs Harlem; Tangos to Crocodiles," in *The Sharpest Point: Animation at the End of Cinema*, ed. Chris Gehman and Steve Reinke (Toronto: YYZ Books, 2005), 27–48; Tom Klein, "Woody Abstracted: Film Experiments in the Cartoons of Shamus Culhane," *Animation: An Interdisciplinary Journal* 6, no. 1 (2010): 39–53.

11. She indicates this in an unpublished fragment: "But animation is also intertwined with modernist artistic traditions. As a way to analyze some of the surprising affinities between popular animated cartoons and avant-garde painting and film, I have begun amassing a parallel archive of stylistic tropes, ranging from kaleidoscopic effects that suggest blasts of dynamite to abstract compositions that simulate the disorienting blur of a whip-pan."

12. Sergei Eisenstein, *Eisenstein on Disney*, ed. Jay Leyda, trans. Alan Upchurch (London: Seagull Books, 1986), 3–4.

13. Paul Wells, *Understanding Animation* (New York: Routledge, 1998), 22.

14. Scott Bukatman, *The Poetics of Slumberland: Animated Spirits and the Animating Spirit* (Berkeley: University of California Press, 2012), 108.

15. Jean-Louis Baudry, "The Apparatus: Metapsychological Approaches to the Impression of Reality in the Cinema," in *Narrative, Apparatus, Ideology: A Film Theory Reader*, ed. Phil Rosen (New York: Columbia University Press, 1986), 299–318.

16. For some reflections on the dynamics between stillness and motion in cinema see Garrett Stewart, *Between Film and Screen: Modernism's Photo Synthesis* (Chicago: University of Chicago Press, 1999); Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion, 2006); Karen Beckman and Jean Ma, eds., *Still Moving: Between Cinema and Photography* (Durham, NC: Duke University Press, 2008).

17. Thomas Elsaesser, "'Le cinéma d'après Lumière': Rereading the 'Origins' of the Filmic Image," in *The Practice of Cultural Analysis: Exposing Interdisciplinary Interpretation*, ed. Mieke Bal and Bryan Gonzales (Stanford, CA: Stanford University Press, 1999), 66. I take it that Frank's emphasis on the intertwining of speculation and materialism is of a very different order than the movement known as "speculative realism," or what Quentin Meillassoux has described as "speculative materialism."

18. Hannah Frank, "Traces of the World," 26.

19. This is one of Frank's close affinities with the project of the Frankfurt school. See for example Miriam Hansen, "Benjamin, Cinema and Experience: 'The Blue Flower in the Land of Technology,'" *New German Critique* 40 (1987): 179–224.

20. We may even want to speculate against Frank's own conclusions. In the discussion of *Hair-Raising Hare*, she reads the disappearance of Bugs's head as a mistake that exposes the production process. But what if it wasn't? Bugs has just asked, "Is there a doctor in the house?" Could we see this as an inside joke: his head has just disappeared (or: he's lost his head!), and so he needs a doctor. That would mean that animators knew about the mistakes that were sometimes made, and were able to structure that knowledge into a joke of their own. It seems unlikely—but then, at least before reading Frank's book, so was the thought of Bugs's head going missing for a frame.

21. Tom Gunning, "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde," *Wide Angle* 8, nos. 3/4 (Fall 1986): 63–70.

22. Warburg is mentioned once, but only for his use of index cards (18).
23. Relevant accounts of Warburg's work are Ernst Gombrich, *Aby Warburg: An Intellectual Biography* (London: Warburg Institute, 1970); Philippe-Alain Michaud, *Aby Warburg and the Image in Motion*, trans. Sophie Hawkes (Cambridge, MA: Zone Books, 2004); Georges Didi-Huberman, *Atlas, or the Anxious Gay Science*, trans. Shane Lillis (Chicago: University of Chicago Press, 2018).
24. Jay Leyda, *The Melville Log: A Documentary Life of Herman Melville, 1819–1891*, 2 vols. (New York: Harcourt, Brace, 1951); Jay Leyda, *The Years and Hours of Emily Dickinson*, 2 vols. (New Haven, CT: Yale University Press, 1960).
25. See for example Tom Klein, "Woody Abstracted," 39–53.
26. In an August 2011 email, Frank wrote: "I at last realized how to tie it all together: *Melville*. Aside from the Leyda connection (*Melville Log* is dedicated to Eisenstein), Eisenstein writes about Melville when he writes about Disney." I am grateful to Sam Frank for permission to quote this correspondence.
27. Sergei Eisenstein, "The Materialist Approach to Form," in *Selected Works*, vol. 1, *Writings, 1922–34* (London: BFI, 1988), 62.
28. See Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (Cambridge, MA: MIT Press, 1989).
29. An important thread throughout the book is how microfilm reading functions as a precursor to frame-by-frame analysis.
30. Hollis Frampton, "For a Metahistory of Film: Commonplace Notes and Hypotheses," in *On the Camera Arts and Consecutive Matters: The Writings of Hollis Frampton*, ed. Bruce Jenkins (Cambridge, MA: MIT Press, 2009), 136. That Frank shared Frampton's initials was a source of delight to her.
31. Stanley Cavell, *The World Viewed: Enlarged Edition* (Cambridge, MA: Harvard University Press, 1979), 168. As Ryan Pierson has argued, Cavell's own position is more complex. See Ryan Pierson, "On Styles of Theorizing Animation Styles: Stanley Cavell at the Cartoon's Demise," *Velvet Light Trap* 69 (2012): 17–26. For a reconsideration of the place of animation in realist film theory see Karen Beckman, "Animating the *Cinéfilms*: Alain Resnais and the Cinema of Discovery," *Cinema Journal* 54, no. 4 (2015): 1–25.
32. Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001), 302; Esther Leslie, *Hollywood Flatlands: Animation, Critical Theory, and the Avant-Garde* (New York: Verso, 2002); Karen Beckman, ed., *Animating Film Theory* (Durham, NC: Duke University Press, 2014). See also Donald Crafton, "The Veiled Genealogies of Animation and Cinema," *Animation: An Interdisciplinary Journal* 6, no. 2 (2011): 93–110.
33. Noël Carroll, *Philosophical Problems of Classical Film Theory* (Princeton, NJ: Princeton University Press, 1988), 149.
34. See for example Joel Snyder and Neil Walsh Allen, "Photography, Vision, and Representation," *Critical Inquiry* 2, no. 1 (Autumn 1975): 143–69; Tom Gunning, "What's the Point of an Index? or, Faking Photographs," *Nordicom* 25, no. 1 (2005): 106–29; Daniel Morgan, "Rethinking Bazin: Ontology and Realist Aesthetics," *Critical Inquiry* 32, no. 3 (Spring 2006): 443–81; Josh Ellenbogen, *Reasoned and Unreasoned Images: The Photography of Bertillon, Galton, and Marey* (University Park: Pennsylvania State University Press, 2012).
35. On the display of the animator see Donald Crafton, *Before Mickey: The Animated Film, 1898–1928* (Chicago: University of Chicago Press, 1993), 11.

36. See Dana Polan, "Daffy Duck and Bertolt Brecht: Toward a Politics of Self-Reflexive Cinema?," in *American Media and Mass Culture: Left Perspectives*, ed. Donald Lazere (Berkeley: University of California Press, 1987), 345–56.

37. In an unfinished essay, Frank examines *Bosko in Person* (Warner Bros., 1933) to explore the relation between blackface and reflexivity in black-and-white cartoons. Building off work by Nicholas Sammond (*Birth of an Industry: Blackface Minstrelsy and the Rise of American Animation* [Durham, NC: Duke University Press, 2015]), she writes of the connection of animation to minstrelsy: "Yet blackness is special, for it is synonymous with the material properties of animated cartoons, namely, ink." How could animators resist? "All it takes for a white character to turn black is a blast of soot or a splash of paint or a splatter of mud." Race and ink come together.

38. Manny Farber, "Saccharine Symphony," in *Farber on Film: The Collected Film Writings of Manny Farber*, ed. Robert Polito (Washington, DC: Library of America, 2009), 17. See also Siegfried Kracauer, "Dumbo," in *Siegfried Kracauer's American Writings: Essays on Film and Popular Culture*, ed. Johannes von Moltke and Kristy Rawson (Berkeley: University of California Press, 2012), 139–40.

39. It also means, as Frank notes, that there is a close connection between animation and analog special effects (150–1). To which we might add that there is a connection to the uses of digital special effects, too.

40. See for instance Lisa Gitelman, *Paper Knowledge: Toward a Media History of Documents* (Durham, NC: Duke University Press, 2014), 83–110.

41. Iwerks was not only Walt Disney's early collaborator, but became a special-effects designer for Hollywood, most famously on Alfred Hitchcock's *The Birds* (1963).

42. Here and below I rely on unpublished documents.

43. The focus on industrial production marks a key difference between Frank's work and Vivian Sobchack's account of stop-motion animation in "Stop + Motion: On Animation, Inertia, and Innervation," Kracauer Lectures in Film and Media Theory, University of Frankfurt, May 2015, <http://www.kracauer-lectures.de/en/sommer-2015/vivian-sobchack/>.

44. Ryan Pierson and Alla Gadassik, "The Frankish Frame," *The Moving Image* 18, no. 1 (2018), 88–91. I am grateful to Ryan Pierson as well for his comments on an earlier version of this introduction.

45. Pierson and Gadassik sound a similar note: "The point here—as with most of these epistemological knots into which Hannah ties herself—is that the closer we look, the less we know. But the less we know, the more closely we are prompted to look."

## INTRODUCTION

1. Susan Howe, *Spontaneous Particulars: The Telepathy of Archives* (New York: New Directions, 2014), 21.

2. For the impact of Taylorism and the related industrial practices of Henry Ford on film production see Scott Curtis, "Images of Efficiency: The Films of Frank Gilbreth," in *Films That Work: Industrial Film and the Productivity of Media*, ed. Vinzenz Hediger and Patrick Vonderau (Amsterdam: Amsterdam University Press, 2009), 85–99; Lee Grieveson, "The Work of Film in the Age of Fordist Mechanization," *Cinema Journal* 51, no. 3 (Spring 2012): 25–51. Many of this book's claims about mass production and anonymous art were

first broached in Sigfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1948; repr., Minneapolis: University of Minnesota Press, 2013).

3. Earl Hurd, "Process of and Apparatus for Producing Moving Pictures," US Patent 1,143,542, filed December 19, 1914, patented June 15, 1915; E. G. Lutz, *Animated Cartoons: How They Are Made, Their Origin and Development* (1920; Bedford, MA: Applewood Books, 1998), 66. See also John Randolph Bray and Earl Hurd, "Bray-Hurd: The Key Animation Patents," *Film History* 2, no. 3 (September–October 1988): 229–66.

4. The definitive account of the industrialization of the animation process remains Donald Crafton, *Before Mickey: The Animated Film, 1898–1928* (Chicago: University of Chicago Press, 1993). See also David Callahan, "Cel Animation: Mass Production and Marginalization in the Animated Film Industry," *Film History* 2, no. 3 (1988): 223–28; Matt Stahl, "Nonproprietary Authorship and the Uses of Autonomy: Artistic Labor in American Film Animation, 1900–2004," *Labor: Studies in Working-Class History of the Americas* 2, no. 4 (2004): 87–105.

5. For instance, Fleischer did not have a Story Department, while Disney did, and the fairly loose hierarchical arrangement of above-the-line workers at Warner Bros. gave individual directors greater authorial control over their films—which is why we know the names and signature styles of Chuck Jones, Tex Avery, Bob Clampett, Frank Tashlin, et al. For an excellent overview of different models of organizational control see Alan Bryman, "Telling Technological Tales," *Organization* 7, no. 3 (August 2000): 455–75. See also Mark Langer, "Institutional Power and the Fleischer Studios: The 'Standard Production Reference,'" *Cinema Journal* 30, no. 2 (Winter 1991): 3–22.

6. My research would not be possible without the groundwork laid by historians like Harvey Deneroff, Michael Denning, Neal Gabler, Mark Langer, and Tom Sito. See Harvey Deneroff, "Popeye the Union Man: A Historical Study of the Fleischer Strike" (PhD diss., University of Southern California, 1985); Michael Denning, *The Cultural Front* (New York: Verso, 1997), 403–22; Neal Gabler, *Walt Disney: The Triumph of the American Imagination* (New York: Knopf, 2006), 349–80; Mark Langer, "The Disney-Fleischer Dilemma: Product Differentiation and Technological Innovation," *Screen* 33, no. 4 (Winter 1992): 343–59; Tom Sito, *Drawing the Line: The Untold Story of the Animation Unions from Bosko to Bart Simpson* (Lexington: University of Kentucky Press, 2006).

7. As reported in "N.Y. Projectionists May Force Fleischer Settlement; Cancellations," *Variety*, July 7, 1937, 23; "Strikers Jeer at Film," *New York Times*, June 26, 1937, 3.

8. This total does not include television programs or feature-length films, which also figure in this book, nor does it include non-US animated films. I should also note that I studied most of these shorts on DVD and Blu-ray, as well as via streaming sites such as YouTube, Amazon Video, Netflix, and Dailymotion; I have seen several hundred on 35mm, 16mm, and 8mm film as well.

9. Vivian Sobchack, "Animation and Automation, or, the Incredible Effortfulness of Being," *Screen* 50, no. 4 (Winter 2009): 384.

10. I am here paraphrasing Walter Benjamin, "Experience and Poverty," in *Walter Benjamin: Selected Writings*, vol. 2, 1927–1934 (Cambridge, MA: Belknap, 1999), 735. Donald Crafton, *Before Mickey*, 11.

11. Kirsten Moana Thompson, "Quick, Quick, Like a Bunny: The Ink and Paint Machine, Female Labor and Color Production," *Animation Studies Online Journal*, February 3, 2014, <https://journal.animationstudies.org/kirsten-thompson-quick-like-a-bunny/>; Peng-yi Tai,

"The Principle of Animation: History and Theory of a Social Technology" (PhD diss., University of California at Irvine, 2012); Nicholas Sammond, *Birth of an Industry: Blackface Minstrelsy and the Rise of American Animation* (Durham, NC: Duke University Press, 2015).

12. Scott Bukatman, *The Poetics of Slumberland: Animated Spirits and the Animating Spirit* (Berkeley: University of California Press, 2012), 108, emphasis in original.

13. Scott Curtis, "Tex Avery's Prison House of Animation, or Humor and Boredom in Studio Cartoons," in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. Daniel Goldmark and Charlie Keil (Berkeley: University of California Press, 2011), 226.

14. Sergei Eisenstein, "On Disney," in *The Eisenstein Collection*, ed. Richard Taylor (Oxford: Seagull Books, 2006), 92. Of Eisenstein's notes on Disney, Michael North comments wryly, "There are a number of fairly obvious ironies here, foremost among them the fact that Eisenstein did not come to write down [many of] his impressions of Disney until 1941, at which time the studio was wracked by an angry, epoch-making labor strike that led to the departure of a considerable percentage of Disney's happy collective." Michael North, *Machine-Age Comedy* (Oxford: Oxford University Press, 2009), 60.

15. Walter Benjamin, "Experience and Poverty," 171. For an analysis of how Benjamin's writings on Mickey Mouse fit within his broader theories of modernity and experience see Miriam Hansen, *Cinema and Experience: Siegfried Kracauer, Walter Benjamin, and Theodor W. Adorno* (Berkeley: University of California Press, 2011), 163–82. For a comparative analysis of Eisenstein's and Benjamin's respective takes on Disney see Esther Leslie, *Hollywood Flatlands: Animation, Critical Theory and the Avant-Garde* (London: Verso, 2002).

16. Reprinted as Richard Thompson, "Meep-Meep!," in *The American Animated Cartoon*, ed. Danny Peary and Gerald Peary (New York: E. P. Dutton, 1980), 219; Scott Bukatman, "Some Observations Pertaining to Cartoon Physics; or, The Cartoon Cat in the Machine," in *Animating Film Theory*, ed. Karen Beckman (Durham, NC: Duke University Press, 2014), 301.

17. Siegfried Kracauer, "Ufa-Beiprogramm," in *Werke Band: Kleine Schriften zum Film*, vol. 6, no. 2, 1928–1931, ed. Inka Mülder-Bach (Frankfurt: Suhrkamp Verlag, 2004), 45, my translation.

18. Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality* (Princeton, NJ: Princeton University Press, 1997), xlvii.

19. Eric Smoodin, *Animating Culture: Hollywood Cartoons from the Sound Era* (New Brunswick, NJ: Rutgers University Press, 1993), 45.

20. Kristin Thompson, "Implications of the Cel Animation Technique," in *The Cinematic Apparatus*, ed. Teresa de Lauretis and Stephen Heath (New York: St. Martin's, 1980), 112–13.

21. Kristin Thompson, "Implications of the Cel Animation Technique," 119.

22. In addition to Crafton's *Before Mickey* and Smoodin's *Animating Culture*, these works include (but are by no means limited to) Michael Barrier, *Hollywood Cartoons: American Animation in Its Golden Era* (New York: Oxford University Press, 1999); J. B. Kaufman and Russell Merritt, *Walt in Wonderland: The Silent Films of Walt Disney* (Gemonia, Italy: La Cineteca del Friuli, 1993); Kevin S. Sandler, ed., *Reading the Rabbit: Explorations in Warner Bros. Animation* (New Brunswick, NJ: Rutgers University Press, 1998); Charles Solomon, *Enchanted Drawings: The History of Animation* (New York: Knopf, 1989).



23. But there were exceptions! Notable forays into the theory of cel animation in the period include Russell George, "Some Spatial Characteristics of the Hollywood Cartoon," *Screen* 31, no. 3 (Autumn 1990): 296–321; Edward S. Small and Eugene Levinson, "Toward a Theory of Animation," *Velvet Light Trap* 24 (Fall 1989): 67–74; Norman Klein, *Seven Minutes: The Life and Death of the American Animated Cartoon* (London: Verso, 1993); Paul Wells, *Understanding Animation* (London: Routledge, 1998); and, of course, the first English translation of *Eisenstein on Disney*, ed. Jay Leyda, trans. Alan Upchurch (Calcutta, India: Seagull Books, 1986).

24. This is but the tip of the iceberg. See Daniel Goldmark, *Tunes for 'Toons: Music and the Hollywood Cartoon* (Berkeley: University of California Press, 2005); Lea Jacobs, *Film Rhythm after Sound* (Berkeley: University of California Press, 2014), 58–108; Thomas Lamarre, *The Anime Machine: A Media Theory of Animation* (Minneapolis: University of Minnesota Press, 2009); Casey Riffel, "Dissecting Bambi: Multiplanar Photography, the Cel Technique, and the Flowering of Full Animation," *Velvet Light Trap* 69 (Spring 2012): 3–16; Tom Klein, "Woody Abstracted: Film Experiments in the Cartoons of Shamus Culhane," *Animation: An Interdisciplinary Journal* 6, no. 1 (March 2011): 39–53; Scott Curtis, "Tex Avery's Prison House of Animation," 211–27; Donald Crafton, *Shadow of a Mouse: Performance, Belief, and World-Making in Animation* (Berkeley: University of California Press, 2013); Dan Bashara, "Cartoon Vision: UPA, Precisionism and American Modernism," *Animation: An Interdisciplinary Journal* 10, no. 2 (July 2015): 82–101.

25. William Garity, "The Production of Animated Cartoons," *Journal for the Society of Motion Picture Engineers*, April 1933, 314, quoted in Lea Jacobs, *Film Rhythm after Sound*, 59.

26. Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001), 302, emphasis in original. Alan Cholodenko makes a similar claim in his introduction to *The Illusion of Life: Essays on Animation* (Bloomington: Indiana University Press, 1993), 9–10.

27. Tom Gunning, "Moving away from the Index: Cinema and the Impression of Reality," *differences* 18, no. 1 (2007): 38.

28. Tom Gunning, "Animating the Instant: The Secret Symmetry Between Animation and Photography," in *Animating Film Theory*, 40.

29. Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion, 2006), 27; Christian Keathley, *Cinephilia and History, or the Wind in the Trees* (Bloomington: Indiana University Press, 2006), 9; Garrett Stewart, *Between Film and Screen: Modernism's Photo Synthesis* (Chicago and London: University of Chicago Press, 1999), 5.

30. For example Raymond Bellour, "System of a Fragment" (1969), trans. Ben Brewster, in *The Analysis of Film*, ed. Constance Penley (Bloomington: Indiana University Press, 2000), 28–67; Nick Browne, "The Spectator-in-the-Text: The Rhetoric of Stagecoach," *Film Quarterly* 29, no. 2 (Winter 1975–76): 26–38; John Cuniberti, *The Birth of a Nation: A Formal Shot-by-Shot Analysis Together with Microfiche* (Woodbridge, CT: Research Publications, 1979); Standish Lawder, *The Cubist Cinema* (New York: New York University Press, 1975).

31. Robert B. Ray, *The Avant-Garde Finds Andy Hardy* (Cambridge, MA: Harvard University Press, 1995), 110.

32. For example Roland Barthes, "The Third Meaning: Research Notes on Some Eisenstein Stills," in *Image-Music-Text*, ed. and trans. Stephen Heath (New York: Hill and Wang, 1977), 52–68; Kristin Thompson, *Eisenstein's "Ivan the Terrible": A Neoformalist*

*Analysis* (Princeton, NJ: Princeton University Press, 1981); David Mayer, *Sergei M. Eisenstein's Potemkin: A Shot-by-Shot Presentation* (Boston: Da Capo, 1990).

33. Scott Bukatman, *The Poetics of Slumberland*, 106.
34. Anne Nesbet, *Savage Junctures: Sergei Eisenstein and the Shape of Thinking* (London: I. B. Tauris, 2003), 10–11.
35. Ivor Montagu, *With Eisenstein in Hollywood* (Los Angeles: International, 1969), 30.
36. Susan Howe, "Sorting Facts; or, Nineteen Ways of Looking at Marker," *Framework: The Journal of Cinema and Media* 53, no. 2 (Fall 2012): 416.

# 1 ANIMATION AND MONTAGE; OR, PHOTOGRAPHIC RECORDS OF DOCUMENTS

1. Sergei Eisenstein, *Beyond the Stars: The Memoirs of Sergei Eisenstein*, trans. William Powell (London: BFI, 1995), 354.
2. Walter Benjamin, *Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Harvard University Press, 1999), 461.
3. David L. Nathan and Donald Crafton have estimated that *Gertie the Dinosaur*, for instance, consisted of somewhere between 2,500 and 3,500 drawings, which McCay produced in collaboration with John Fitzsimmons. David L. Nathan and Donald Crafton, "The Making and Re-making of Winsor McCay's *Gertie* (1914)," *Animation: An Interdisciplinary Journal* 8, no. 1 (March 2013): 23–46. For analysis of McCay's "performance" of his own labor see Nicholas Sammond, *Birth of an Industry: Blackface Minstrelsy and the Rise of American Animation* (Durham, NC: Duke University Press, 2015), 48–58.
4. Walter Benjamin, "Little History of Photography," trans. Edmund Jephcott and Kingsley Shorter, in *Walter Benjamin: Selected Writings*, vol. 2, 1927–1934, (Cambridge, MA: Belknap, 1999), 518. See also John Szarkowski and Maria Morris Hambourg, eds., *The Work of Atget*, 4 vols. (New York: Museum of Modern Art, 1981–85).
5. Rosalind Krauss, "Photography's Discursive Spaces: Landscape/View," *Art Journal* 42, no. 4 (Winter 1982): 315.
6. Imamura Taihei, "A Theory of the Animated Sound Film," trans. Michael Baskett, *Review of Japanese Culture and Society* 22 (December 2010): 48.
7. Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Second Version" (1936), trans. Edmund Jephcott and Harry Zohn, in *Walter Benjamin: Selected Writings*, vol. 3, 1935–1938 (Cambridge, MA: Belknap, 2002), 108.
8. Carlo Ginzburg, "Morelli, Freud and Sherlock Holmes: Clues and Scientific Method," trans. Anna Davin, *Historical Workshop Journal* 9, no. 1 (Spring 1980): 24. For more on Bertillon see Allan Sekula, "The Body and the Archive," *October* 39 (Winter 1986): 3–64; Josh Ellenbogen, *Reasoned and Unreasoned Images: The Photography of Bertillon, Galton, and Marey* (University Park: Pennsylvania State University Press, 2012).
9. Alphonse Bertillon, "The Bertillon System of Identification," *Forum* 11, no. 3 (May 1891): 331, quoted in John Tagg, "The Archiving Machine; or, The Camera and the Filing Cabinet," *Grey Room* 47 (Spring 2012): 28–29.
10. Walter Benjamin, "One-Way Street" (1928), trans. Edmund Jephcott, in *Walter Benjamin: Selected Writings*, vol. 1, 1913–1926 (Cambridge, MA: Belknap, 1996), 459.
11. Allan Sekula, "Photography between Labour and Capital," in *Mining Photographs and Other Pictures*, ed. Benjamin H. D. Buchloh and Robert Wilkie (Halifax: Press of Nova



Scotia College of Art and Design; Cape Breton: University of Cape Breton Press, 1983), 201, 198.

12. Allan Sekula, "Photography between Labour and Capital," 202.

13. Mark Andrew White and Lucy Robertson, "The Art of Animation and Animation as Art," in *A Century of Magic: The Animation of the Walt Disney Studios* (Norman, OK: Fred Jones Jr. Museum of Art, 2011), 47.

14. Edward S. Small and Eugene Levinson, "Toward a Theory of Animation," *Velvet Light Trap* 24 (Fall 1989): 69.

15. Hershel Parker, *Melville Biography: An Inside Narrative* (Evanston, IL: Northwestern University Press, 2012), 91; Lawrence A. Cummings, "Pitfalls of Photocopy Research" (1961), in *Studies in Micropublishing, 1853–1976: Documentary Sources*, ed. Allen B. Veaner (Westport, CT: Microform Review, 1976), 294.

16. Stephen R. Salmon, "User Resistance to Microforms in the Research Library," *Microform Review* 3, no. 3 (July 1974): 197.

17. Marcel Proust, *The Guermantes Way: In Search of Lost Time*, vol. 3, trans. Mark Treharne (New York: Penguin, 2005), 360–61.

18. Walter Benjamin, "The Artist as Producer: Address at the Institute for the Study of Fascism, Paris, April 27, 1934," trans. Edmund Jephcott, in *Walter Benjamin: Selected Writings*, 2:778.

19. See Peter Krapp, *Noise Channels: Glitch and Error in Digital Culture* (Minneapolis: University of Minnesota Press, 2011), 1–26; Spyros Papapetros, *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life* (Chicago: University of Chicago Press, 2011), 71–111; Denis Hollier, "Notes (on the Index Card)," *October* 112 (Spring 2005): 35–44; Walter Benjamin, "Review of Renéville's *Expérience poétique*" (1938), trans. Edmund Jephcott, in *Walter Benjamin: Selected Writings*, vol. 4, 1938–1940 (Cambridge, MA: Belknap, 2003), 116–19; Rowan Wilken, "The Card Index as Creativity Machine," *Culture Machine* 11 (2010): 7–30.

20. Erdmut Wizisla, "Scrappy Paperwork," in *Walter Benjamin's Archive: Images, Texts, Signs*, trans. Esther Leslie (London: Verso, 2007), 31; Alexandra Socarides, *Dickinson Unbound: Paper, Process, Poetics* (New York: Oxford University Press, 2012), 146; Oksana Bulgakowa, "Afterword," trans. Tamara Kamatovic and Larson Powell, in *Sergei Eisenstein: Disney*, ed. Oksana Bulgakowa and Dietmar Hochmuth (Berlin and San Francisco: Potemkin-Press, 2012), 142.

21. Erdmut Wizisla, "Scrappy Paperwork," 31.

22. Susan Howe, *Pierce-Arrow* (New York: New Directions, 1999), 6. See Roland Barthes, *Roland Barthes*, trans. Richard Howard (New York: Hill and Wang, 2011); Roland Barthes, *Mourning Diary: October 26, 1977–September 15, 1979*, ed. Nathalie Léger, trans. Richard Howard (New York: Hill and Wang, 2010); Emily Dickinson Archive, Houghton Library, <http://www.edickinson.org>; Emily Dickinson Collection, Amherst College Digital Collections, <https://acdc.amherst.edu/browse/collection/collection:ed>.

23. Charles S. Peirce, "What Is a Sign?" (1894), in *The Essential Peirce: Selected Philosophical Writings*, vol. 2 (Bloomington: Indiana University Press, 1998), 6; Richard S. Robin, ed., *The Charles S. Peirce Papers* (Cambridge, MA: Harvard University Library, 1963–70).

24. Peter Remnant, "Review of *The Peirce Papers*," *Microform Review* 3, no. 4 (October 1974): 298. Of course, not everyone is satisfied with microfilm reproduction. Susan Howe,

for example, prefaces her collection of poems about Peirce thusly: "Most of the illustrations reproduced in this book are from the original manuscripts of Charles Sanders Peirce now at the Houghton Library. They are not shot from microfilm copies or photocopies." The fact remains, however, that the illustrations in Howe's book are not original manuscripts but photographic reproductions. Susan Howe, *Pierce-Arrow*, ix.

25. George Lewis McCarthy, "Photographing Apparatus," US Patent 1,806,763, patented May 26, 1931.

26. *Screening Room with Robert Gardner: Robert Breer* (1976; Watertown, MA: Documentary Educational Resources, 2005), DVD.

27. Robert Breer, interview by Jim Trainor, *Upstart*, no. 4 (1980): 17.

28. Robert Breer, "Robert Breer on His Work," *Film Culture* 42 (Fall 1966): 112.

29. Ursula Marx, "Tree of Conscientiousness," in *Walter Benjamin's Archive*, 9.

30. Howard Eiland and Kevin McLaughlin, "Translators' Foreword," in Walter Benjamin, *Arcades Project*, xiv.

31. D. N. Rodowick, *The Virtual Life of Film* (Cambridge, MA: Harvard University Press, 2007), 122.

32. Robert Breer, interview by Jonas Mekas and P. Adams Sitney on May 13, 1971, *Film Culture* 56/57 (Spring 1973): 47.

33. Robert Breer, interview by Guy Coté, *Film Culture* 27 (Winter 1962–63): 18.

34. Walter Benjamin, "One-Way Street," 456.

35. Quoted in Oksana Bulgakowa, "The Evolving Eisenstein: Three Theoretical Constructs," in *Eisenstein and 100: A Reconsideration*, ed. Al Lavalley and Barry P. Scherr (New Brunswick, NJ: Rutgers University Press, 2001), 39–40.

36. Robert Breer, interview by Guy Coté, 20.

37. François Albera, "Eisenstein and the Theory of the Photogram," in *Eisenstein Rediscovered*, ed. Ian Christie and Richard Taylor (London: Routledge, 1993), 201.

38. Sergei Eisenstein, "The Dramaturgy of Film Form" (1929), in *Selected Works*, vol. 1, 1922–1934, ed. Richard Taylor (London: BFI, 1988), 164. For the original German text see Sergei Eisenstein, "Dramaturgie der Film-Form," in *Sergej M. Eisenstein: Schriften 3. Oktober*, ed. H.-J. Schlegel (Munich: 1975), 206.

39. Sergei Eisenstein, "The Dramaturgy of Film Form," 165.

40. Edward S. Small and Eugene Levinson, "Toward a Theory of Animation," 68, 72. See also see Mihaela Mihailova and John MacKay, "Frame Shot: Vertov's Ideologies of Animation," in *Animating Film Theory*, ed. Karen Beckman (Raleigh, NC: Duke University Press, 2014), 145–66.

41. Malcolm Le Grice, *Abstract Film and Beyond* (Cambridge, MA: MIT Press, 1977), 106.

42. Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Second Version," 103.

43. Nicholson Baker, *Double Fold: Libraries and the Assault on Paper* (New York: Random House, 2001), 107.

44. Lawrence A. Cummings, "Pitfalls of Photocopy Research," 292–93.

45. Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Second Version," 103.

46. Virginia Jackson, *Dickinson's Misery: A Theory of Lyric Reading* (Princeton, NJ: Princeton University Press, 2005), 3.

47. Jay Leyda, *The Melville Log: A Documentary Life of Herman Melville, 1819–1891* (New York: Harcourt, Brace, 1951), 1:ii, emphasis in original.

48. Walter Benjamin, *Arcades Project*, 460, emphasis in original.

49. Jay Leyda, *The Years and Hours of Emily Dickinson* (New Haven, CT: Yale University Press, 1960), 1:xxiii.

50. Although Horkheimer had advised Benjamin on December 30, 1936, to furnish Leyda with the French version (to which Benjamin consented in a letter dated January 31, 1937), Benjamin suggested to Leyda that he translate the German version of what he calls “Art in the Age of Its Capacity of Technical Reproduction.” Walter Benjamin to Jay Leyda, May 17, 1937, box 2, folder 30, Jay and Si-Lan Chen Leyda Papers and Photographs, TAM o83, Tamiment Library / Robert F. Wagner Labor Archives, New York University (hereafter cited as Jay and Si-Lan Chen Leyda Papers). See also Walter Benjamin, *Gesammelte Schriften*, vol. 1.3, ed. Rolf Tiedemann and Hermnn Schweppenhäuser (Frankfurt: Suhrkamp Verlag, 1978), 1029.

51. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxiii.

52. Walter Benjamin, *The Origin of German Tragic Drama*, trans. John Osborne (London: Verso, 1998), 28–29.

53. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:ix.

54. See for example Daneen Wardrop, *Emily Dickinson and the Labor of Clothing* (Lebanon, NH: University Press of New England, 2009); Aife Murray, *Maid as Muse: How Servants Changed Emily Dickinson's Life and Language* (Durham: University of New Hampshire Press, 2009); Gillian Osborne, “Dickinson's Lyrical Materialism,” *Emily Dickinson Journal* 21, no. 1 (2012): 57–78.

55. Alexandra Socarides, *Dickinson Unbound*, 169–70.

56. Karl Marx, “Prussian Censorship,” *Rheinische Zeitung*, May 5, 1842, available at [https://www.marxists.org/archive/marx/works/download/Marx\\_On\\_freedom\\_of\\_the\\_Press.pdf](https://www.marxists.org/archive/marx/works/download/Marx_On_freedom_of_the_Press.pdf).

57. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxii.

58. Jay Leyda to Millicent Todd Bingham, March 6, 1953, series V, box 84, folder 237, Millicent Todd Bingham Papers, Manuscripts and Archives, Yale University Library. See also Emily Dickinson, *The Letters of Emily Dickinson*, ed. Thomas Johnson (Cambridge, MA: Harvard University Press, 1986), 1:419.

59. Jack L. Capps writes, “Her reading reveals that she was related to her literary peers by no accident of mystical experience but by her own extensive knowledge of their lives and works. It also indicates that, although Emily Dickinson's poetry was created by imaginative genius and conscious artistry, many of her poems can be meaningfully related to a wide variety of identifiable sources.” Jack L. Capps, *Emily Dickinson's Reading, 1836–1886* (Cambridge, MA: Harvard University Press, 1966), 145.

60. Jay Leyda, *The Years and Hours of Emily Dickinson*, 2:470–71.

61. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxi–xxii.

62. Jay Leyda, “Miss Emily's Maggie,” in *New World Writing* (New York: New American Library, 1953), 255–56.

63. R. W. Franklin, ed., *The Manuscript Books of Emily Dickinson* (Cambridge, MA: Belknap, 1981), xiv.

64. Susan Howe, *The Birth-Mark: Unsettling the Wilderness in American Literary History* (Middletown, CT: Wesleyan University Press, 1993), 153; Jerome McGann, “Emily Dickinson's

Visible Language,” in *Emily Dickinson: A Collection of Critical Essays*, ed. Judith Farr (Upper Saddle River, NJ: Prentice-Hall, 1996), 259, emphasis in original. For a detailed account of Dickinson’s scholarly reception see Lena Christensen, *Editing Emily Dickinson: The Production of an Author* (New York: Routledge, 2008).

65. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxiii, 1:5.

66. See the Jay Leyda Material in Emily Dickinson Collection, box 31, folders 1–11, Amherst College Archives and Special Collections, Amherst College Library; see also Jay Leyda, in Dickinson Related Materials Collection, box 4, folder 41, Amherst College Archives and Special Collections, Amherst College Library. My thanks to Margaret R. Dakin for sending me PDFs of this material.

67. Letter to Joseph Cornell, October 7, 1953, box 3, folder 23, Jay and Si-Lan Chen Leyda Papers. See also David Porter, “Assembling a Poet and Her Poems: Convergent Limit-Works of Joseph Cornell and Emily Dickinson,” *Word and Image* 10, no. 3 (July–September 1994): 199–221.

68. Jay Leyda and Zina Voynow, *Eisenstein at Work* (New York: Pantheon, 1982).

69. Draft of letter to Catherine Kelley, May 22, 1953, box 10, folder 4, Jay and Si-Lan Chen Leyda Papers. Curiously, Leyda drafted this note on the stub of a royalty payment, which he had received for his documentary biography of the Russian composer Modest Mussorgsky, his first foray into the genre: Jay Leyda and Sergei Bertensson, *The Musorgsky Reader: A Life of Modeste Petrovich Musorgsky in Letters and Documents* (New York: W. W. Norton, 1947).

70. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxiii.

71. For more on Mark Hofmann see Simon Worrall, *The Poet and the Murderer: A True Story of Literary Crime and the Art of Forgery* (New York: Dutton, 2002); Robert Lindsey, *A Gathering of Saints: A True Story of Money, Murder, and Deceit* (New York: Simon and Schuster, 1988); Steven Naifeh and Gregory White Smith, *The Mormon Murders* (New York: St. Martin’s, 1988).

72. Martha Nell Smith, “The Poet as Cartoonist: Pictures Sewed to Words,” in *Emily Dickinson: A Collection of Critical Essays*, 230.

73. George J. Throckmorton, “A Forensic Analysis,” in *Salamander: The Story of the Mormon Forgery Murders*, ed. Linda Sillitoe and Allen D. Roberts (Salt Lake City: Signature Books, 1988), 536.

74. Conservation Office and Testing Office of the Library of Congress Preservation Office, “Preliminary Report on the Examination and Analysis of the ‘Oath of a Freeman,’” in *The Judgment of Experts: Essays and Documents about the Investigation of the Forging of the Oath of a Freeman*, ed. James Gilreath (Worcester, MA: American Antiquarian Society, 1991), 27.

75. Jay Leyda, *The Melville Log*, 1:xiv.

76. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxiii.

77. Jay Leyda, *The Years and Hours of Emily Dickinson*, 1:xxiii.

78. See Richard E. Hurley, *Victims: The LDS Church and the Mark Hofmann Case* (Champaign-Urbana: University of Illinois Press, 1992).

79. Walter Benjamin, “One-Way Street,” 478.

80. Jen Bervin and Marta Werner, eds., *The Gorgeous Nothings: Emily Dickinson’s Envelope Poems* (New York: New Directions, 2013); see also Claire Gilman, ed., *Dickinson/Walser: Pencil Sketches* (New York: Drawing Center, 2013).

81. See for instance Ron Nixon, "U.S. Postal Service Logging All Mail for Law Enforcement," *New York Times*, July 3, 2013, <http://www.nytimes.com/2013/07/04/us/monitoring-of-snail-mail.html>; Ron Nixon, "Postal Service Confirms Photographing All U.S. Mail," *New York Times*, August 2, 2013, <http://www.nytimes.com/2013/08/03/us/postal-service-confirms-photographing-all-us-mail.html>.
82. Walter Benjamin, "One-Way Street," 478.
83. Walter Benjamin, "The Artist as Producer," 774, 778.
84. Walter Benjamin, *Arcades Project*, 458.
85. See Walter Benjamin, "What Is Epic Theatre? (II)," trans. Harry Zohn, in *Walter Benjamin: Selected Writings*, 4:305.
86. See Lisa Gitelman, *Always Already New: Media, History, and the Data of Culture* (Cambridge, MA: MIT Press, 2006), 123–50.
87. Walter Benjamin, "The Artist as Producer," 774.
88. "Disney-Cartoonists Settlement Imminent; Schlesinger's 'Lockout,'" *Variety*, May 21, 1941, 20.
89. Neal Gabler, *Walt Disney: The Triumph of the American Imagination* (New York: Knopf, 2006), 367; [no author], "Men Who Draw Walt Disney's Animated Cartoons Report on Their Own Strike," *PM*, June 6, 1941, 26–27.
90. Thomas Elsaesser, "Le cinéma d'après Lumière': Rereading the 'Origins' of the Filmic Image," in *The Practice of Cultural Analysis: Exposing Interdisciplinary Interpretation*, ed. Mieke Bal and Bryan Gonzales (Stanford, CA: Stanford University Press, 1999), 67.
91. Jonas Mekas, "On the Expanding Eye," in *Movie Journal: The Rise of the New American Cinema 1959–1971* (New York: Macmillan, 1972), 119, quoted in Andrew Johnston, "Pulses of Abstraction: Episodes from a History of Animation" (PhD diss., University of Chicago, 2011), 131–32.
92. Irvin Stewart, "Reports on the Reading of Microfilm," *Journal of Documentary Reproduction* 1, no. 3 (Spring 1938): 145–50; Herman H. Fussler, "Photographic Reproduction of Research Materials" (1954), in *Studies in Micropublishing, 1853–1976*, 26; Richard Abel, "The Pleasures and Perils of Big Data in Digitized Newspapers," *Film History* 25, nos. 1/2 (2013): 6. See also Stacey Patton, "Microfilm Makes Me Sick!," *Chronicle Vitae*, May 7, 2014, <https://chroniclevitae.com/news/483-microfilm-makes-me-sick>.
93. P. Adams Sitney, *Visionary Film: The American Avant-Garde, 1943–2000* (New York: Oxford University Press, 2002), 344–45.
94. See Eivind Røssaak, "Acts of Delay: The Play between Stillness and Motion in *Tom, Tom, The Piper's Son*," in *Optic Antics: The Cinema of Ken Jacobs*, ed. Michele Pierson, David E. James, and Paul Arthur (New York: Oxford University Press, 2011), 96–106.

## 2 A VIEW OF THE WORLD: TOWARD A PHOTOGRAPHIC THEORY OF CEL ANIMATION

1. Allan Sekula, "An Eternal Esthetics of Laborious Gestures," *Grey Room* 55 (2014): 17.
2. Andrew Norman Wilson, "Andrew Norman Wilson with Laurel Ptak: *ScanOps*," *Aperture* 210 (Spring 2013): <http://www.aperture.org/magazine-2013/andrew-norman-wilson-with-laurel-ptak-scanops/>.
3. Gordon S. Mitchell, "Making Mickey Mouse Act for the Talkies," *Modern Mechanics and Inventions*, March 1931, 68; Carl Fallberg, "Animated Film Techniques—Part VIII,"

*American Cinematographer* 40, no. 3 (March 1959): 198; John Canemaker, *The Animated Raggedy Ann & Andy: An Intimate Look at the Art of Animation: Its History, Techniques, and Artists* (Indianapolis and New York: Bobbs-Merrill, 1977), 275.

4. See John Tagg, *The Burden of Representation: Essays on Photographies and Histories* (Minneapolis: University of Minnesota Press, 1993), 109; Allan Sekula, "An Eternal Esthetics of Laborious Gestures," 17.

5. Tom Gunning, "What's the Point of an Index? Or Faking Photographs," in *Still Moving: Between Cinema and Photography*, ed. Karen Beckman and Jean Ma (Durham, NC: Duke University Press, 2008), 30.

6. Shamus Culhane quoted in "Where Does the Money Go?" *Sponsor*, December 8, 1955.

7. Dudley Andrew, *What Cinema Is! Bazin's Quest and Its Charge* (Hoboken, NJ: Wiley-Blackwell, 2010), 2.

8. As Tess Takahashi observes, direct animators like Richard Reeves might *claim* "a direct, existential link between artist's pen and the strip of celluloid, a link that seemingly avoids the machine altogether," but what of their work "is screened is surely a print." Tess Takahashi, "Meticulously, Recklessly Worked Upon: Direct Animation, the Auratic and the Index," in *The Sharpest Point: Animation at the End of Cinema*, ed. Chris Gehman and Steve Reinke (Toronto: YYZ Books, 2005), 170. See also D. N. Rodowick, *The Virtual Life of Film* (Cambridge, MA: Harvard University Press, 2007), 58–59; Tom Gunning, "Animating the Instant: The Secret Symmetry between Animation and Photography," in *Animating Film Theory*, ed. Karen Beckman (Durham, NC: Duke University Press, 2014), 37–38.

9. Hollis Frampton, "Some Propositions on Photography," in *On the Camera Arts and Consecutive Matters: The Writings of Hollis Frampton*, ed. Bruce Jenkins (Cambridge, MA: MIT Press, 2009), 5–8.

10. John Tagg, *The Burden of Representation*, 11.

11. Tom Gunning, "Moving away from the Index: Cinema and the Impression of Reality," *differences* 18, no. 1 (2007): 38.

12. For a more complex discussion of Bazin's film theory than I am able to provide here see Daniel Morgan, "Rethinking Bazin: Ontology and Realist Aesthetics," *Critical Inquiry* 32, no. 3 (Spring 2006): 443–81. For a discussion of Bazin's metaphors see Burke Hilsabeck, "The 'Is' in *What Is Cinema?*: On André Bazin and Stanley Cavell," *Cinema Journal* 55, no. 2 (Winter 2016): 29–35.

13. André Bazin, "The Life and Death of Superimposition," in *Bazin at Work: Major Essays and Reviews from the Forties and Fifties*, trans. Alain Piette and Bert Cardullo (New York: Routledge, 1997), 73.

14. André Bazin, "Theater and Cinema, Part Two," in *What Is Cinema?*, trans. Hugh Gray (Berkeley: University of California Press, 2004), 1:108.

15. D. N. Rodowick, *The Virtual Life of Film*, 121; Mary Ann Doane, "The Indexical and the Concept of Medium Specificity," *differences* 18, no. 1 (2007): 148–49n3. For investigations into other affinities between photography and animation see Tom Gunning, "Animating the Instant," 37–53; Karen Beckman, "Animating the Cinéfilms: Alain Resnais and the Cinema of Discovery," *Cinema Journal* 54, no. 4 (Summer 2015): 1–25.

16. Lawrence A. Cummings, "Pitfalls of Photocopy Research" (1961), in *Studies in Micropublishing, 1853–1976: Documentary Sources*, ed. Allen B. Veaner (Westport, CT: Microform Review, 1976), 294.



17. D. Martin, "The Isabella Beecher Hooker Project," *Microform Review* 10, no. 2 (Spring 1981): 104; Richard I. Korman, "Latin American and Caribbean Official Statistical Serials on Microfiche," *Microform Review* 9, no. 3 (Summer 1980): 173.
18. André Bazin, "The Ontology of the Photographic Image," in *What Is Cinema?*, 1:14.
19. For an account of these debates see Peter Wollen, "'Ontology' and 'Materialism' in Film," *Screen* 17, no. 1 (1976): 7–25. See also D. N. Rodowick, *The Crisis of Political Modernism: Criticism and Ideology in Contemporary Film Theory* (Berkeley: University of California Press, 1994).
20. Theodor Adorno, *In Search of Wagner* (1952), trans. Rodney Livingstone (London: Verso, 2009), 72–74.
21. Honoré de Balzac, *Modeste Mignon and Other Stories*, trans. Clara Bell (Philadelphia: Gebbie, 1900), 63.
22. Sergei Eisenstein, "On Disney," in *The Eisenstein Collection*, ed. Richard Taylor (Oxford: Seagull Books, 2006), 139.
23. Sean Cubitt, *The Cinema Effect* (Cambridge, MA: MIT Press, 2004), 2; Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001), 298.
24. Stanley Cavell, *The World Viewed: Enlarged Edition* (Cambridge, MA: Harvard University Press, 1979), 168, 24. This of course is a highly condensed and necessarily reductive reading of Cavell. For a more nuanced analysis of Cavell's theory of animation see Ryan Pierson, "On Styles of Theorizing Animation Styles: Stanley Cavell at the Cartoon's Demise," *Velvet Light Trap* 69 (2012): 17–26.
25. Yuri Lotman, "On the Language of Animated Cartoons," trans. Ruth Sobel, in *Film Theory and General Semiotics*, ed. Ann Shukman (Oxford: Russian Poetics in Translation, 1981), 37.
26. Yuri Lotman, "On the Language of Animated Cartoons," 37; Frederic Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991), 76.
27. Jean Charlot, "But Is It Art? A Disney Disquisition," *American Scholar* 8, no. 3 (Summer 1939): 266.
28. Dudley Andrew, *What Cinema Is!*, xvii.
29. Dudley Andrew, *What Cinema Is!*, 18–19.
30. Dudley Andrew, *What Cinema Is!*, 19–20.
31. André Bazin, "The Evolution of the Language of Cinema," in *What Is Cinema?*, 1:24.
32. Andrew Sarris, *The American Cinema: Directors and Directions, 1929–1968* (New York: Da Capo, 1996), 55; Jacques Rivette, "The Genius of Howard Hawks," in *Howard Hawks: American Artist*, ed. Jim Hillier and Peter Wollen (London: BFI, 1996), 28.
33. Andrew Sarris, *The American Cinema*, 55; Jacques Rivette, "The Genius of Howard Hawks," 30.
34. Gerald Mast, *Howard Hawks: Storyteller* (New York: Oxford University Press, 1982), 203.
35. Christian Keathley, *Cinephilia and History, or The Wind in the Trees* (Bloomington: Indiana University Press, 2006), 65, emphasis in original.
36. André Bazin, "Theater and Cinema, Part Two," 110.
37. Shamus Culhane, *Animation: From Script to Screen* (New York: St. Martin's, 1988), 254.

38. Donald Crafton, *Before Mickey: The Animated Film, 1898–1928* (Chicago: University of Chicago Press, 1993), 11–12.
39. Roland Barthes, “All Except You,” in *Saul Steinberg* (Valencia, Spain: Institut Valencià d’Art Modern, 2002), 158.
40. Allan Sekula, “An Eternal Esthetics of Laborious Gestures,” 18.
41. Mark Langer, “Designing Dumbo: An Annotated Interview with A. Kendall O’Connor,” *Animation Journal* 2, no. 1 (Fall 1993): 42.
42. Oliver Wendell Holmes, “The Stereoscope and the Stereograph,” *Atlantic Monthly*, June 1859, accessed April 28, 2013, <http://www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361/>. Laura Mulvey’s description of a scene from Chris Petit’s *Negative Space* (1999) in which Petit slows down a shot from Howard Hawks’s *The Big Sleep* (1946) contains echoes of Holmes’s analysis. According to Mulvey, an extra in the scene, a young woman, becomes in slow-motion “a cinematic document as mysterious as an unidentified photograph,” possessed with “a presence that would be impossible to perceive at 24 frames per second and can only be discovered in the ‘playful’ process of repetition and return.” Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion, 2006), 194.
43. Tom Gunning, “Moving away from the Index,” 46.
44. Ising quoted in Russell Merritt and J. B. Kaufman, *Walt in Wonderland: The Silent Films of Walt Disney* (Gemonia, Italy: La Cineteca del Friuli, 1993), 88.
45. Jerry McDonald, “The Case against Microfilming” (1957), in *Studies in Micropublishing, 1853–1976*, 274.
46. Michael Frierson, “The Carry Over Dissolve in UPA Animation,” *Animation Journal* 10 (2002): 53, 50.
47. André Bazin, “A Bergsonian Film: The Picasso Mystery,” in *Bazin at Work*, 215.
48. For a discussion of light and cel animation see Kirsten Moana Thompson, “Animating Ephemeral Surfaces: Transparency, Translucency, and Disney’s World of Color,” *Refractory: A Journal of Entertainment Media* 24 (August 2014): <http://refractory.unimelb.edu.au/2014/08/06/thompson/>.
49. Donald Crafton, *Shadow of a Mouse: Performance, Belief, and World-Making in Animation* (Berkeley: University of California Press, 2013), 165.
50. Donald Crafton, “The View from Termite Terrace: Caricature and Parody in Warner Bros. Animation,” *Film History* 5, no. 1 (1993): 205.
51. Earl Hurd, “Process and Apparatus for Producing Moving Pictures,” US Patent 1,143,542, filed December 19, 1914, patented June 15, 1915.
52. Charles E. Osborne, “A Means of Preventing the Formation of Newton’s Rings during Contact Printing of Motion-Picture Film,” *Journal of the Society of Motion Picture and Television Engineers* 67, no. 3 (March 1958): 169–70.
53. Barbara Baldwin, interview conducted in 1995 by Rita Street, Collection 222, box 1, folder 3, Center for Oral History Research, Charles E. Young Research Library, University of California, Los Angeles.
54. Herb A. Lightman, “The Men behind the Mouse: A Day at Disney’s,” *American Cinematographer* 354–55 (October 1947): 377.
55. “Behind the Scenes with Walter Lantz: Photographing Animation Cels,” on disc 1 of *The Woody Woodpecker and Friends Classic Cartoon Collection* (Toronto: Universal Studios Canada, 2008), DVD.

56. E. Maurin, *Kinematograf v prakticheskoi zhizni* (Petrograd: n.p., 1916), 154, quoted in Yuri Tsivian, *Early Cinema in Russia and Its Cultural Reception*, trans. Alan Bodger (Chicago: University of Chicago Press, 1998), 105.

57. When working on an early installment of Walt Disney's *True-Life Adventures*, a nature documentary series, the animation technician Ub Iwerks devised a liquid optical printer that used perchlorethylene to conceal scratches in the final film print. See Leslie Iwerks and John Kenworthy, *The Hand behind the Mouse* (New York: Disney Editions, 2001), 169–71.

58. Theodor Adorno, *Prisms*, trans. Samuel and Shierry Weber (Cambridge, MA: MIT Press, 1967), 240; Walter Benjamin, *Arcades Project* (Cambridge, MA: Harvard University Press, 1999), 222.

59. Dai Vaughan, "Let There Be Lumière," in *For Documentary: Twelve Essays* (Berkeley: University of California Press, 1999), 4.

60. See Carolyn Steedman, *Dust: The Archive and Cultural History* (New Brunswick, NJ: Rutgers University Press, 2001).

61. Walter Benjamin, *Arcades Project*, 226.

62. Shamus Culhane, *Animation: From Script to Screen*, 253.

63. Auril Thompson, interview conducted in 1995 by Libby Simon, Collection 222, box 1, folder 17, Center for Oral History Research, Charles E. Young Research Library, University of California, Los Angeles.

64. Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality* (Princeton, NJ: Princeton University Press, 1997), 156.

65. Peter Tscherkassky, "The Analogies of the Avant-Garde," trans. Suzie Grieder-Buchan, in *Found Footage Film*, ed. Cecilia Hausheer and Christoph Settele (Lucerne, Switzerland: Zyklop Verlag, 1992), 27, emphasis in original.

66. Louis Doulas, "Art from Outside the Googleplex: An Interview with Andrew Norman Wilson," *Rhizome*, May 14, 2012, <http://rhizome.org/editorial/2012/may/14/conversation-andrew-norman-wilson/>. For a critical survey of the other works in the documentary subgenre to which Wilson's video belongs, including Harun Farocki's *Workers Leaving the Factory* (1995) and the multiple versions of the Lumière Brothers' 1895 film of the same name, see Jennifer Peterson, "Workers Leaving the Factory: Witnessing Industry in the Digital Age," in *The Oxford Handbook of Sound and Image in Digital Media*, ed. Carol Vernallis, Amy Herzog, and John Richardson (New York: Oxford University Press, 2013), 598–619. For examples of discussions of the socioeconomic impact of the Google workplace in the popular press see Nikil Saval, "The Office of the Future," in *Cubed: A Secret History of the Workplace* (New York: Doubleday, 2014), 256–77; Rebecca Solnit, "Diary: Google Invades," *London Review of Books*, February 7, 2013, 34–35; George Packer, "Change the World," *New Yorker*, May 27, 2013, 44–55.

67. *Philosophical Society of Washington Bulletin* 15 (February 1910): 133–67, available at <http://books.google.com/books?id=1QtBAAAAYAAJ>.

68. Andrew Norman Wilson, "Andrew Norman Wilson with Laurel Ptak: *ScanOps*."

69. Benjamin Shaykin, "Google Hands," <https://cargocollective.com/bshaykin/Google-Hands>; Krissy Wilson, *The Art of Google Books*, <http://theartofgooglebooks.tumblr.com/>. See also Kenneth Goldsmith, "The Artful Accidents of Google Books," *Page-Turner* blog, *New Yorker*, December 4, 2013, <http://www.newyorker.com/books/page-turner/the-artful-accidents-of-google-books>.

70. Louis Doulas, "Art from Outside the Googleplex: An Interview with Andrew Norman Wilson."

71. Rosalind Krauss, "Notes on the Index: Seventies Art in America, Part 2," *October* 4 (Autumn 1977): 59.

72. See Annette Michelson, "Screen/Surface: The Politics of Illusionism," *Artforum*, September 1972, 58–62.

73. Daniel Morgan, "Bazin's Modernism," *Paragraph* 36, no. 1 (March 2013): 18, emphasis in original.

74. It might thus be productively compared to what Hito Steyerl has called a "poor image," the quality of which speaks volumes: its degradation and blurriness "testify to the violent dislocation, transferrals, and displacement of images—their acceleration and circulation within the vicious cycles of audiovisual capitalism." Hito Steyerl, "In Defense of the Poor Image," *e-flux Journal* 10 (November 2009): <https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/>.

75. Karl Marx, *Capital*, trans. Ben Fowkes (London: Penguin, 1990), 1:289.

76. Lev Manovich, *The Language of New Media*, 298.

77. Robert Russett and Cecile Starr, *Experimental Animation: An Illustrated Anthology* (New York: Van Nostrand Reinhold, 1976), 176; see also Daniel Goldmark, "Sounds Funny / Funny Sounds: Theorizing Cartoon Music," in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. Daniel Goldmark and Charlie Keil (Berkeley: University of California Press, 2011), 257–71; Clark Farmer, "Every Beautiful Sound Also Creates an Equally Beautiful Picture': Color Music and Walt Disney's *Fantasia*," in *Lowering the Boom: Critical Studies in Film Sound*, ed. Jay Beck and Tony Grajeda (Urbana: University of Illinois Press, 2008), 183–97.

78. Robert Stam, *Reflexivity in Film and Literature: From Don Quixote to Jean-Luc Godard* (New York: Columbia University Press, 1992), 96. For more on the reception of these films see Hank Sartin, "Drawing on Hollywood: Warner Bros. Cartoons and Hollywood, 1930–1960" (PhD Diss., University of Chicago, 1998), 8–22.

79. Dana Polan, "Daffy Duck and Bertolt Brecht: Toward a Politics of Self-Reflexive Cinema?," in *American Media and Mass Culture: Left Perspectives*, ed. Donald Lazere (Berkeley: University of California Press, 1987), 351.

80. Robert Stam, *Reflexivity in Film and Literature*, 97.

81. Peter Gidal, "Technology and Ideology in/through/and Avant-Garde Film: An Instance," in *The Cinematic Apparatus*, ed. Teresa de Lauretis and Stephen Heath (New York: St. Martin's, 1980), 158.

82. Walter Benjamin, "A Glimpse into the World of Children's Books," trans. Rodney Livingstone, in *Walter Benjamin: Selected Writings*, vol. 1, 1913–1926 (Cambridge, MA: Belknap, 1996), 435.

83. Dudley Andrew, *What Cinema Is!*, 12.

84. Dudley Andrew, *What Cinema Is!*, 11–15.

85. André Bazin, "The Ontology of the Photographic Image," 14.

86. Christian Keathley, *Cinephilia and History*, 74–75.

87. Roland Barthes, *Camera Lucida*, trans. Richard Howard (New York: Hill and Wang, 1981), 3.

88. Walter Benjamin, "On Some Motifs in Baudelaire," in *Walter Benjamin: Selected Writings*, vol. 4, 1938–1940 (Cambridge, MA: Belknap, 2003), 338.

89. Theodor Adorno to Walter Benjamin, New York, February 29, 1940, in *Theodor W. Adorno and Walter Benjamin: The Complete Correspondence, 1928–1940*, ed. Henri Lonitz, trans. Nicholas Walker (Cambridge, MA: Harvard University Press, 1999), 321.
90. Virginia Woolf, “The Movies and Reality,” in *Red Velvet Seat*, ed. Antonia Lant (London and New York: Verso, 2006), 232.
91. For more on the “medium-sensitive film viewer” see Yuri Tsivian, *Early Cinema in Russia and Its Cultural Reception*; Robert Spadoni, *Uncanny Bodies: The Coming of Sound Film and the Origins of the Horror Film Genre* (Berkeley: University of California Press, 2007).
92. Juan A. Suárez, “Structural Film: Noise,” in *Still Moving*, 68–69.
93. Miriam Hansen, introduction to Siegfried Kracauer, *Theory of Film*, x.
94. Werner Nekes, “Whatever Happens between the Pictures,” *Afterimage* 5, no. 5 (November 1977): 10.
95. Peter Tscherkassky, “The Analogies of the Avant-Garde,” 27.

### 3 PARS PRO TOTO: CHARACTER ANIMATION AND THE WORK OF THE ANONYMOUS ARTIST

1. Siegfried Kracauer, “The Mass Ornament,” in *The Mass Ornament: The Weimar Essays*, ed. Thomas Levin (Cambridge, MA: Harvard University Press, 1995), 78.
2. Robert Breer, interview, *AFI Report* 5, no. 2 (Summer 1974): 35.
3. “Betty Boop and Popeye Picket for Cartoonists,” *Daily Worker*, May 15, 1937.
4. “Fleischer Strike Still Deadlocked,” *Variety*, June 16, 1937, 2.
5. See for instance Harvey Deneroff, “Popeye the Union Man: A Historical Study of the Fleischer Strike” (PhD diss., University of Southern California, 1985); Harvey Deneroff, “We Can’t Get Much Spinach! The Organization and Implementation of the Fleischer Strike,” *Film History* 1, no. 1 (1987): 1–14; Tom Sito, *Drawing the Line: The Untold Story of the Animation Unions from Bosko to Bart Simpson* (Lexington: University of Kentucky Press, 2006); Neal Gabler, *Walt Disney: The Triumph of the American Imagination* (New York: Knopf, 2006), 349–80; Michael Denning, *The Cultural Front* (New York: Verso, 1997), 403–22.
6. Russell George, “Some Spatial Characteristics of the Hollywood Cartoon,” *Screen* 31, no. 3 (Autumn 1990): 306.
7. Alina Louchheim, “Cartoons as Art,” *New York Times*, August 23, 1953, X8.
8. “New Approach to the Animated Cartoon: The Schlesinger Studios Having Discovered a Conviction Finds the Courage to Support It,” *Arts and Architecture*, February 1944, 19. Michael Barrier guesses that the writer was Eugene Fleury, a background artist at the studio at the time. Michael Barrier, *Hollywood Cartoons: American Animation in Its Golden Era* (New York: Oxford University Press, 1999), 447.
9. Ward Kimball quoted in Amid Amidi, *Cartoon Modern: Style and Design in Fifties Animation* (New York: Chronicle Books, 2006), 150.
10. Fred Ladd and Harvey Deneroff, *Astro Boy and Anime Come to the Americas: An Insider’s View of the Birth of a Pop Culture Phenomenon* (Jefferson, NC: McFarland, 2009), 85.
11. For a list of some of the most egregious mistakes see Fred Grandinetti, *Popeye: An Illustrated Cultural History* (Jefferson, NC: McFarland, 2004), 130–34.
12. Walt Peregoy, interview by Julie Svendsen on December 15, 2007, in *Walt’s People: Talking Disney with the Artists who Knew Him*, ed. Didier Ghez (Bloomington, IN: Xlibris, 2010), 9:270.

13. John Canemaker, *The Animated Raggedy Ann & Andy: An Intimate Look at the Art of Animation: Its History, Techniques, and Artists* (Indianapolis and New York: Bobbs-Merrill, 1977), 247.

14. Studs Terkel, *Working* (New York: Avon Books, 1972), 2, 9–10.

15. A notable exception is the work of background artists, who were often able to get away with ribald jokes—for instance, the paintings of naked women that hang on the walls of the houses in such Warner Bros. cartoons as *The Wabbit Who Came to Supper* (Friz Freleng, 1942), *Daffy—The Commando* (Friz Freleng, 1943), *Bugs Bunny and the Three Bears* (Chuck Jones, 1944), and *Slick Hare* (Friz Freleng, 1947). The most notorious example of this kind of “deliberate mistake” appears in Disney’s *The Rescuers* (1977), which features a photograph clipped from a pornographic magazine in the background of one scene. The detail didn’t receive widespread attention until the film’s release on VHS in 1999. “It was just a little joke because it was going at 1/24 of a second,” the animator Tom Sito told Didier Ghez. “What do you think? Do you think [we imagined] that forty years in the future people would have machines and they’re going to look at this single frame? I don’t think anybody thought that was possible. *Why would anyone bother to slow down an animated film and look at every frame?*” Sito, interview by Ghez on April 11 and 27, 2007, in *Walt’s People*, 9:483, my emphasis.

16. John Canemaker, *Felix: The Twisted Tale of the World’s Most Famous Cat* (New York: Pantheon, 1991), 108. An analogous practice might be the inscriptions and doodles of scribes and illustrators left in the margins of medieval manuscripts. See Michael Camille, *Image on the Edge: The Margins of Medieval Art* (Cambridge, MA: Harvard University Press, 1992).

17. For most of the 1920s, Sullivan Studios reversed the cel animation technique: Felix was inked on paper and the backgrounds were painted on cels. This had been the process as it was originally patented and as it was outlined in E. G. Lutz’s influential how-to manual published in 1920: E. G. Lutz, *Animated Cartoons: How They Are Made, Their Origin and Development* (1920; Bedford, MA: Applewood Books, 1998).

18. Karl Marx and Friedrich Engels, *The German Ideology*, in *Karl Marx: Selected Writings*, ed. David McLellan (Oxford: Oxford University Press, 2010), 206.

19. Osip Brik, “Our Agenda” (1921), trans. Natasha Kurchanova, *October* 134 (Fall 2010): 82.

20. “Testimony of Charlotte Darling Adams on March 26, 1953,” *U.S. Congressional Committee Hearings* (83) H 1428–2-B: 472.

21. Thomas Brady, “Whimsy on Strike,” *New York Times*, June 29, 1941, X3.

22. Osip Brik, “Our Agenda,” 83.

23. Thomas Elsaesser, “‘Le cinéma d’après Lumière’: Rereading the ‘Origins’ of the Filmic Image,” in *The Practice of Cultural Analysis: Exposing Interdisciplinary Interpretation*, ed. Mieke Bal and Bryan Gonzales (Stanford, CA: Stanford University Press, 1999), 66.

24. Jeanne Lee Keil quoted in Patricia Zohn, “Coloring the Kingdom,” *Vanity Fair*, March 2010, <http://www.vanityfair.com/culture/features/2010/03/disney-animation-girls-201003>.

25. Tom Gunning, “Animated Pictures: Tales of Cinema’s Forgotten Future,” *Michigan Quarterly Review* 34 (Fall 1995): 467.

26. Sergei Eisenstein, “K issledovaniiu ‘Disney’” [Toward the Study of Disney], in *Metod*, ed. Naum Kleiman (Moscow: Muzei Kino, 2002), 2:521. All translations from Russian are my own unless otherwise noted.



27. Sergei Eisenstein, "On Disney" (1941), in *The Eisenstein Collection*, ed. Richard Taylor (Oxford: Seagull Books, 2006), 128.
28. Yuri Tsivian, *Ivan the Terrible* (London: BFI, 2002), 29.
29. Sergei Eisenstein, "On Disney," 127.
30. Sergei Eisenstein, "Zametki o linii i ornamente" [Notes on Line and Ornament], in *Metod*, 2:431, emphasis in original.
31. Sergei Eisenstein, "Montage 1938," in *Selected Works*, vol. 2, *Towards a Theory of Montage*, ed. Michael Glenny and Richard Taylor (London: BFI, 1991), 309.
32. Sergei Eisenstein, "On Disney," 84.
33. For instance Hugh Harman and Rudolf Ising, then working at MGM, allowed their studio's Ink and Paint Departments to work on the completion of *Snow White*. "These girls just slaved, along with their girls, to complete this thing," Hugh Harman told Michael Barrier in 1973. In exchange, Disney allowed Harman-Ising to direct several *Silly Symphonies*, including *Merbabies* (1938), which Eisenstein loved (although, of course, he attributed it to Disney). See Harman, interview by Michael Barrier on December 3, 1973, available at [http://www.michaelbarrier.com/Interviews/Harman/interview\\_hugh\\_harman.htm](http://www.michaelbarrier.com/Interviews/Harman/interview_hugh_harman.htm).
34. Floyd Gottfredson, *Walt Disney's Mickey Mouse: Race to Death Valley*, ed. David Gerstein and Gary Groth (Seattle: Fantagraphics, 2011), 246.
35. Richard Schickel, *The Disney Version: The Life, Times, Art and Commerce of Walt Disney* (repr.; Chicago: Elephant, 1997), 34. Schickel's account, while certainly over-the-top, is at least partly supported by the following anecdote from Leslie Iwerks and John Kentworthy's biography of Ub Iwerks: "Mildred [Iwerks] recalls the tension she witnessed [between Walt and Ub] during a discomfiting evening at a Hollywood party. As Walt, Lillian [Disney], Ub, and Mildred were engaged in conversation, a young boy approached Walt Disney asking him to draw his famous character and autograph it. Turning to Ub, Walt said, 'Why don't you draw Mickey and I'll sign it.' Astonished, Ub fired back, 'Draw your own—Mickey!' and stormed out." Leslie Iwerks and John Kentworthy, *The Hand behind the Mouse* (New York: Disney Editions, 2001), 83.
36. Sergei Eisenstein, *Nonindifferent Nature*, trans. Herbert Marshall (Cambridge, England: Cambridge University Press, 1987), 341.
37. See Bill Mikulak, "Disney and the Art World: The Early Years," *Animation Journal* 4, no. 2 (Spring 1996): 18–42; Eric Smoodin, *Animating Culture: Hollywood Cartoons from the Sound Era* (New Brunswick, NJ: Rutgers University Press, 1993), 96–135; Gregory Waller, "Mickey, Walt, and Film Criticism from Steamboat Willie to Bambi," in *The American Animated Cartoon*, ed. Danny and Gerald Peary (New York: E. P. Dutton, 1980), 48–57; Mark Andrew White, "Thoroughly Modern Mickey: American Art and the Animation of Walt Disney Studios," in *A Century of Magic: The Animation of the Walt Disney Studios* (Norman, OK: Fred Jones Jr. Museum of Art, 2011), 7–43; Timothy White, "From Disney to Warner Bros.: The Critical Shift," in *Reading the Rabbit: Explorations in Warner Bros. Animation*, ed. Kevin S. Sandler (New Brunswick, NJ: Rutgers University Press, 1998), 38–48.
38. William Stull, "Three Hundred Men and Walt Disney," *American Cinematographer* 19, no. 2 (February 1938): 48.
39. Mack Schwab, "The Communalistic Art of Walt Disney," *Cinema Quarterly* 2, no. 3 (Spring 1934): 150.
40. Paul Hollister, "Walt Disney," *Atlantic Monthly*, December 1940, 700.

41. William Kozlenko, "The Animated Cartoon and Walt Disney" (1936), in *The Emergence of Film Art*, ed. Lewis Jacobs (New York: W. W. Norton, 1979), 250; Jean Charlot, "But Is It Art? A Disney Disquisition," *American Scholar* 8, no. 3 (Summer 1939): 269; Alberto Cavalcanti, "Comedies and Cartoons," in *Footnotes to the Film*, ed. Charles Davy (New York: Oxford University Press, 1937), 85.

42. Adam Abraham, *When Magoo Flew: The Rise and Fall of Animation Studio UPA* (Middletown, CT: Wesleyan University Press, 2012), 68. Hilberman, who was fluent in Russian, would later be "named" by Walt Disney in his 1947 testimony before the House Un-American Activities Committee. See "Testimony of Walt Disney on October 24, 1947," *U.S. Congressional Committee Hearings* (80) H 116–5: 280–90, reprinted in *The American Animated Cartoon*, 92–98.

43. Mikhail Kalatozov, *Litso Gollivuda* [The Face of Hollywood] (Moscow: Goskinoizdat, 1949), 50–52.

44. Mikhail Kalatozov, *Litso Gollivuda*, 50–52.

45. J. B. Kaufman, *Snow White and the Seven Dwarfs: The Art and Creation of Walt Disney's Classic Animated Film* (San Francisco: Walt Disney Family Foundation Press, 2012), 128.

46. Martha Sigall, *Living Life inside the Lines: Tales from the Golden Age of Animation* (Jackson: University of Mississippi Press, 2005); Didier Ghez, *Walt's People*, 15 vols.; Patricia Zohn, "Coloring the Kingdom."

47. See Kirsten Moana Thompson, "Quick, Quick, Like a Bunny: The Ink and Paint Machine, Female Labor and Color Production," *Animation Studies Online Journal*, February 3, 2014, <http://journal.animationstudies.org/kirsten-thompson-quick-like-a-bunny>.

48. Robert D. Feild, *The Art of Walt Disney* (New York: Macmillan, 1942), 267; Bob Thomas, *Walt Disney: The Art of Animation* (New York: Golden, 1958), 175; Ollie Johnston and Frank Thomas, *Disney Animation: The Illusion of Life* (New York: Abbeville, 1981), 283. The one creative contribution Johnston and Thomas mention—that it was a painter who thought to redden Snow White's cheeks, and even went so far as to apply her own rouge to the cel—is probably a canard. Commercially available facial powder would have caused far too much of a mess! But, true or not, the story's persistence does underscore the feminized, that is, marginalized, nature of the painters' work.

49. Ed Ainsworth, "As You Might Say," *Los Angeles Times*, May 31, 1931, A4. I will let this sentence's accidental allusion to the fragmentation of bodies under scientific management speak for itself.

50. "The Reluctant Dragon," *Variety*, June 11, 1941, 14.

51. Kirsten Moana Thompson, "Quick, Quick, Like a Bunny." For studies of the aesthetics of color and film see Scott Higgins, *Harnessing the Technicolor Rainbow* (Austin: University of Texas Press, 2007); Joshua Yumibe, *Moving Color: Early Film, Mass Culture, Modernism* (New Brunswick, NJ: Rutgers University Press, 2012); Richard Misek, *Chromatic Cinema: A History of Screen Color* (Chichester, England: John Wiley and Sons, 2010); Simon Brown, Sarah Street, and Liz I. Watkins, eds., *Color and the Moving Image: History, Theory, Aesthetics, Archive* (New York: Routledge, 2013); Giovanna Fossati, Tom Gunning, Joshua Yumibe, and Jonathan Rosen, *Fantasia of Color in Early Cinema* (Amsterdam: Amsterdam University Press, 2015).

52. Donald Crafton, *Shadow of a Mouse: Performance, Belief, and World-Making in Animation* (Berkeley: University of California Press, 2013), 298.

53. Siegfried Kracauer, "The Mass Ornament," 75.
54. Christina Kiaer, *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005), 90. See also Christina Kiaer, "The Russian Constructivist Flapper Dress," *Critical Inquiry* 28, no. 1 (Autumn 2001): 185–243.
55. See Sigrid Wortmann Weltge, *Women's Work: Textile Art from the Bauhaus* (San Francisco: Chronicle Books, 1993); T'ai Smith, *Bauhaus Weaving Theory: From Feminine Craft to Mode of Design* (Minneapolis: University of Minnesota Press, 2014).
56. Alice Kessler-Harris, *Out to Work: A History of Wage-Earning Women in the United States* (New York: Oxford University Press, 2003), 139; Karl Marx, *Capital*, trans. Ben Fowkes (London: Penguin, 1990), 1:595–99.
57. Eisenstein once claimed that he owned everything that had been written on Daumier; Fuchs, for his part, was a leading collector of the French caricaturist and had even published a four-volume anthology of his woodcuts and lithographs. See Ted Perry, "Introduction," in *Eisenstein at Work*, ed. Jay Leyda and Zina Voynow (New York: Pantheon, 1982), vii; Eduard Fuchs, *Honoré Daumier*, 4 vols. (Munich: Albert Langen, 1927).
58. See Eduard Fuchs, *Das erotische Element in der Karikatur* (Berlin: A. Hoffman 1904); Eduard Fuchs, *Illustrierte Sittengeschichte vom Mittelalter bis zur Gegenwart*, 3 vols. (Munich: Albert Langen, 1909–12). On Eisenstein's erotic drawings see Andrei Deryabin, ed., *A Mischievous Eisenstein* (St. Petersburg, Russia: Slavia, 2000); Jean-Claude Marcadé and Galia Ackerman, eds., *Desins secrets* (Paris: Seuil, 1999); Joan Neuberger, "Strange Circus: Eisenstein's Sex Drawings," *Studies in Russian and Soviet Cinema* 6, no. 1 (July 2012): 5–52.
59. Eduard Fuchs, *Die großen Meister der Erotik: Ein Beitrag zum Problem des Schöpferischen in der Kunst* (Munich: Albert Langen, 1930), 35.
60. Sergei Eisenstein, *Neravnodushnaia priroda*, ed. Naum Kleiman (Moscow: Muzei Kino, 2006), 2:499.
61. Sergei Eisenstein, "Wolves and Sheep: The Director and the Actor" (1935), in *Selected Works*, vol. 3, *Writings, 1934–1947*, ed. Richard Taylor, trans. William Powell (London: BFI, 1996), 48; Sergei Eisenstein, "The Future of Film (in an Interview with Mark Segal)," *Close Up* 8, no. 2 (August 1930): 144.
62. Sergei Eisenstein, "Wolves and Sheep: The Director and the Actor," 48.
63. Sergei Eisenstein, "Vorwort" (1944), in *Metod*, 2:417.
64. Karl Marx and Friedrich Engels, *The German Ideology*, 206.
65. Walter Benjamin, "Eduard Fuchs, Collector and Historian" (1937), trans. Howard Eiland and Michael W. Jennings, in *Walter Benjamin: Selected Writings*, vol. 3, 1935–1938 (Cambridge, MA: Belknap, 2002), 283.
66. Walter Benjamin, "Eduard Fuchs, Collector and Historian," 284–85.
67. Chuck Jones, interview by Greg Ford and Richard Thompson (1972), in *Chuck Jones: Conversations*, ed. Maureen Furniss (Jackson: University of Mississippi Press, 2005), 107.
68. Eduard Fuchs, *Dachreiter und verwandte chinesische Keramik des 15. bis 18. Jahrhunderts* (Munich: Albert Langen, 1924), 45, quoted in Walter Benjamin, "Eduard Fuchs, Collector and Historian," 284.
69. Siegfried Kracauer, "The Mass Ornament," 76.
70. Chuck Jones quoted in Bill Schaffer, "Cinema Three? Re-Animating Deleuze," *Warwick Journal of Philosophy* 16 (2005): 459.

71. Béla Balázs, *Theory of the Film: Character and Growth of a New Art*, trans. Edith Bone (New York: Dover, 1970), 192.

72. Tom Gunning, "Animating the Instant: The Secret Symmetry between Animation and Photography," in *Animating Film Theory*, ed. Karen Beckman (Durham, NC: Duke University Press, 2014), 46.

73. Tom Gunning, "New Thresholds of Vision: Instantaneous Photography and the Early Cinema of Lumière," in *Impossible Presence: Surface and Screen in the Photogenic Era*, ed. Terry Smith (Chicago: University of Chicago Press, 2001), 88–89.

74. Imamura Taihei, *Manga eiga* (Tokyo: Ghibli Library, 2005), 31, quoted in Yuriko Furuhashi, "Rethinking Plasticity: The Politics and Production of the Animated Image," *Animation: An Interdisciplinary Journal* 6, no. 1 (March 2011): 32. See also Alla Gadassik, "Assembling Movement: Scientific Motion Analysis and Studio Animation Practice," *Discourse* 37, no. 3 (Fall 2015): 269–97.

75. Imamura Taihei, "A Theory of the Animated Sound Film" (1936), trans. Michael Baskett, *Review of Japanese Culture and Society* 22 (December 2010): 47.

76. See Michael Barrier, *Hollywood Cartoons*, 436–37.

77. Tom Klein, "Woody Abstracted: Film Experiments in the Cartoons of Shamus Culhane," *Animation: An Interdisciplinary Journal* 6, no. 1 (March 2011): 39–53. See also Michael Cieply, "That Noisy Woodpecker Had an Animated Secret," *New York Times*, April 10, 2011, C1. Klein's research uncovers abstract paintings in the films Shamus Culhane directed for Walter Lantz in the mid-1940s. His frame-by-frame approach is quite similar to my own, but his ultimate focus is on the singular genius of Culhane: he claims that a sequence from *The Loose Nut* (Universal, 1945), for instance, shows us Culhane's "creative mindscape." It should also be noted that while Klein is correct to point out Eisenstein's influence on Culhane, he does not account for the numerous animators who looked to Eisenstein for inspiration in different ways, including Hugh Harman, Chuck Jones, and Jules Engel.

78. Robert Stam, *Reflexivity in Film and Literature: From Don Quixote to Jean-Luc Godard* (New York: Columbia University Press, 1992), 95.

79. Manny Farber, "Short and Happy," in *Negative Space: Manny Farber on the Movies* (New York: Da Capo, 1998), 52; Kristin Thompson, "Implications of the Cel Animation Technique," in *The Cinematic Apparatus*, ed. Teresa de Lauretis and Stephen Heath (New York: St. Martin's, 1980), 116.

80. Sergei Eisenstein, "On Disney," 103.

81. Scott Bukatman, "Some Observations Pertaining to Cartoon Physics; or, The Cartoon Cat in the Machine," in *Animating Film Theory*, 303.

82. Karen Beckman, "The Tortoise, the Hare, and the Constitutive Outsiders: Reframing Fast and Slow Cinemas," *Cinema Journal* 55, no. 2 (Winter 2016): 128.

83. Siegfried Kracauer, "The Mass Ornament," 76.

84. Sergei Eisenstein, "On Disney," 95.

85. Walter Benjamin, "Mickey Mouse," in *The Work of Art in the Age of Its Mechanical Reproducibility and Other Writings on Media*, trans. Rodney Livingston (Cambridge, MA: Harvard University Press, 2008), 338.

86. Dan O'Neill, quoted in Maureen Orth, "Lewdy Tunes and Merry Maladies," *Village Voice*, April 6, 1972, 23ff.

87. Terry Ramsaye, "Mickey Mouse: He Stays on the Job" (1932), in *A Mickey Mouse Reader*, ed. Garry Agpar (Jackson: University Press of Mississippi, 2014), 56.

88. This, of course, was one of the primary reasons Eisenstein was so attracted to Mickey Mouse. As early as 1930 he was praising those instances in which “a graceful movement of the foot is accompanied by appropriate music, which is, as it were, the audible expression of the mechanical action.” See Sergei Eisenstein, “The Future of Film,” 143.

89. Craig Yoe and Janet Morra-Yoe, eds., *The Art of Mickey Mouse* (New York: Hyperion, 1991); Garry Apgar, *Mickey Mouse: Emblem of the American Spirit* (San Francisco: Walt Disney Family Foundation Press, 2015).

90. Herbert P. J. Marshall Papers, MSE/MN 5001, folder 3, Department of Rare Books and Special Collections, Hesburgh Libraries of Notre Dame, Indiana.

91. Ivor Montagu, *With Eisenstein in Hollywood* (1967; repr., New York: International, 1969), 81.

92. See John Shelton Lawrence, “Donald Duck v. Chilean Socialism: A Fair Use Exchange,” in *Fair Use and Free Inquiry: Copyright Law and the New Media*, ed. Lawrence and Bernard Timberg (Norwood, NJ: Ablex, 1989), 51–69; Michael Todd Helfand, “When Mickey Mouse Is as Strong as Superman: The Convergence of Intellectual Property Laws to Protect Fictional Literary and Pictorial Characters,” *Stanford Law Review* 44, no. 3 (February 1992): 623–74; Douglas A. Hedenkamp, “Free Mickey Mouse: Copyright Notice, Derivative Works, and the Copyright Act of 1909,” *Virginia Sports and Entertainment Law Journal* 2, no. 2 (2003): 254–79; Ben Depoorter, “The Several Lives of Mickey Mouse: The Expanding Boundaries of Intellectual Property Law,” *Virginia Journal of Law and Technology* 9, no. 4 (Spring 2004): 1–68.

93. John Updike, introduction to *The Art of Mickey Mouse*, n.p.

94. Pathe Exchange Ltd. and Van Beuren Co. v. Walt Disney Productions Ltd. (9th Cir. 1931), 33, reproduced in *Classics from the Van Beuren Studio* (Ann Arbor, MI: Thunderbean Animation, 2015), DVD.

95. Pathe Exchange Ltd. and Van Beuren Co. v. Walt Disney Productions Ltd. (9th Cir. 1931), 43.

96. E. M. Forster, “Mickey and Minnie” (1934), in *A Mickey Mouse Reader*, 90.

97. Gilles Deleuze, *Cinema 1: The Movement-Image* (Minneapolis: University of Minnesota Press, 1986), 5.

98. Ollie Johnston and Frank Thomas, *Disney Animation*, 56.

99. Ollie Johnston and Frank Thomas, *Disney Animation*, 275.

100. Walter Benjamin, “The Formula in Which the Dialectical Structure of Film Finds Expression” (1935), trans. Edmund Jephcott, in *Walter Benjamin: Selected Writings*, 3:84. In his discussion of the latent affinities between photography and animation, Gunning offers a similar formulation: “The technical nature of cinema—producing continuous motion from discontinuous instants (frames)—reveals the common grounding of photography and animation in their control of time.” Tom Gunning, “Animating the Instant,” 38.

#### 4 THE MULTIPLICATION OF TRACES: XEROGRAPHIC REPRODUCTION AND ONE HUNDRED AND ONE DALMATIANS

1. Harry Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (New York: Review Press, 1974), 301.

2. Herman Melville, “Paradise of Bachelors and Tartarus of Maids,” in *Tales, Poems, and Other Writings*, ed. John Bryant (New York: Modern Library, 2001), 159.

3. Xerox ad, *Business Week*, August 24, 1963, 56–57.
4. Xerox ad, *Fortune*, August 1960, 155. For an analysis of early Xerox advertising campaigns see Hillel Schwartz, *The Culture of the Copy: Striking Likenesses, Unreasonable Facsimiles*, rev. ed. (New York: Zone Books, 2014), 194–99.
5. See for instance Lisa Gitelman, *Always Already New: Media, History, and the Data of Culture* (Cambridge, MA: MIT Press, 2006); Rick Altman, *Silent Film Sound* (New York: Columbia University Press, 2004); James Lastra, *Sound Technology and the American Cinema: Perception, Representation, Modernity* (New York: Columbia University Press, 2000); Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham, NC: Duke University Press, 2003).
6. James Lastra, *Sound Technology and the American Cinema*, 13.
7. James Lastra, *Sound Technology and the American Cinema*, 62.
8. Marshall McLuhan, “Address at Vision 65,” *American Scholar* 35, no. 2 (Spring 1966): 202. See also John Brooks, “Xerox Xerox Xerox Xerox,” *New Yorker*, April 1, 1967, 46–90.
9. The full title of the ABC broadcast was “The Confrontation between Senator Joe McCarthy and Attorney Joseph Welch on the Occasion of the Historic Army-McCarthy Hearings before a Senate Investigating Committee and 20,000,00 Stunned Americans in the Spring of 1954,” and the agency behind the sponsorship was Papert, Koenig, Lois, which was also responsible for the Picasso advertisement. See “The Confrontation,” *Variety*, April 10, 1968, reprinted in *Variety Television Reviews*, vol. 9, 1966–69, ed. Howard H. Prouty (New York: Garland, 1989).
10. Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” in *Illuminations*, ed. Hannah Arendt (New York: Harcourt, Brace and World, 1968), 223. An English translation (by H. H. Gerth and Don Martindale) of Benjamin’s essay was first published in 1960: “The Work of Art in the Epoch of Mechanical Reproduction,” *Studies on the Left* 1, no. 2 (Winter 1960): 28–46.
11. Yuriko Furuhashi, “Animating Copies: Japanese Graphic Design, the Xerox Machine, and Walter Benjamin,” in *Animating Film Theory*, ed. Karen Beckman (Durham, NC: Duke University Press, 2014), 188.
12. See Ute Stuffer, Timm Ulrichs, and René Zechlin, eds., *Timm Ulrichs: Betreten der Ausstellung verboten! Werke von 1960 bis 2010* [Keep Out of the Exhibition! Works from 1960 to 2010] (Ostfildern, Germany: Hatje Cantz Verlag, 2011), 92.
13. Lisa Gitelman, “Daniel Ellsberg and the Lost Idea of the Photocopy,” in *History of Participatory Media: Politics and Publics, 1750–2000*, ed. Anders Ekström et al. (New York: Routledge, 2011), 112. See also Lisa Gitelman, *Paper Knowledge: Toward a Media History of Documents* (Durham, NC: Duke University Press, 2014).
14. More recently, the experimental animator Alexander Stewart collated more than 4,500 photocopies of photocopies into the short film *Errata* (2005).
15. Lisa Gitelman, “Daniel Ellsberg and the Lost Idea of the Photocopy,” 115.
16. Juan A. Suárez, “Structural Film: Noise,” in *Still Moving: Between Cinema and Photography*, ed. Karen Beckman and Jean Ma (Durham, NC: Duke University Press, 2008), 68.
17. Lisa Gitelman, *Always Already New*, 8.
18. Zachary Schwartz quoted in Michael Barrier, *Hollywood Cartoons: American Animation in Its Golden Era* (New York: Oxford University Press, 1999), 512.



19. This language appears in all three of Iwerks's patents: Ub Iwerks, "Xerographic Powder Image Transfer Apparatus," US Patent 2,995,108, filed 1958, patented August 8, 1961; Ub Iwerks, "Xerographic Fusing Apparatus," US Patent 3,049,810, filed 1957, patented August 21, 1962; Ub Iwerks, "Xerographic Developing Apparatus," US Patent 3,057,324, filed 1959, patented October 9, 1962.

20. Of course, this hardly exhausts the list of institutions to which an animation studio might be compared. Consider, for instance, one journalist's comparison of the Hyperion Studio to an insane asylum: "The inmates love it. All day long they sit in their holes and corners contriving infinitesimal bits of lunacy—one privileged lunatic I saw was turning a staid still life of a regular violin into a fantastic creation only a mad musician could possibly play. Others, less privileged, have done nothing all morning but dip a brush into a pot of paint labeled 'X-76' and carefully fill in all similarly numbered areas on the squares of celluloid handed to them by the keepers." Arthur Millier, "Walter in Wonderland," *Los Angeles Sunday Magazine*, December 4, 1938, 3.

21. Martin Provinsen quoted in Michael Barrier, *The Animated Man: A Life of Walt Disney* (Berkeley: University of California Press, 2008), 153.

22. Harry Braverman, *Labor and Monopoly Capital*, 316.

23. For a discussion of these trends within white-collar work see Evelyn Nakano Glenn and Roslyn L. Feldberg, "Degraded and Deskilled: The Proletarianization of Clerical Work," *Social Problems* 25, no. 1 (October 1977): 52–64.

24. Thorstein Veblen, *The Theory of the Leisure Class: An Economic Study of Institutions* (1899; repr., B. W. Huebsch, 1912), 159–60.

25. Don Graham, Class on Action Analysis, June 7, 1937, box 1, folder 3, John Canemaker Animation Collection, Accretions 2001, MSS 040, Fales Library and Special Collections, New York University Libraries.

26. Other studios reserved this technique for special releases only, such as Chuck Jones's patriotic short *Old Glory* (Warner Bros., 1939). According to the painter Martha Sigall and a contemporary news report, producer Leon Schlesinger went all out on that short: fresh nitrate cels, special color inks, an additional hundred prints (fifty was the typical number in circulation). See Martha Sigall with Jerry Beck, commentary to *Old Glory*, in *Looney Tunes Golden Collection*, vol. 2, disc 3 (Los Angeles: Warner Home Video, 2004), DVD; Frederick C. Othman, "First Patriotic Cartoon in Hollywood's History Set for July 4 Release," *Pittsburgh Post-Gazette*, June 17, 1939, 22.

27. Sergei Eisenstein, "On Disney," in *The Eisenstein Collection*, ed. Richard Taylor (Oxford: Seagull Books, 2006), 147.

28. Phyllis Craig quoted in Maureen Furniss, "Animation and Color Key: The Career of Phyllis Craig," *Animation Journal* 5, no. 1 (1996): 62.

29. Grim Natwick quoted in J. B. Kaufman, *The Fairest One of All: The Making of Walt Disney's Snow White and the Seven Dwarfs* (San Francisco: Walt Disney Family Foundation Press, 2012), 129. See also William E. Garity, "Latest Tricks of the Animated Filmmakers," *Popular Mechanics*, May 1938, 713–15, 114A, 116A.

30. For a detailed look at the special effects created by Schultheis and his team see John Canemaker, *The Lost Notebook: Herman Schultheis and the Secrets of Walt Disney's Movie Magic* (San Francisco: Walt Disney Family Foundation Press, 2014).

31. Max Fleischer, "Art of Making Motion Picture Cartoons," US Patent 2,130,541, filed December 14, 1936, patented September 20, 1938.

32. Tamara Thornton, *Handwriting in America: A Cultural History* (New Haven, CT: Yale University Press, 1996), 165.

33. Walt Disney, "Growing Pains," *Journal of the Society of Motion Picture Engineers* 236, no. 1 (January 1941): 40.

34. Paul Klee, *Pedagogical Sketchbook*, trans. Sibyl Moholy-Nagy (New York: Praeger, 1972), 16; Sergei Eisenstein, "Organichnost' i obrazhnost'" [The Organic and the Graphic], in *Izbrannyye proizvedeniya*, ed. L. A. Il'ina (Moscow: Iskusstvo 1966), 4:653.

35. *Chicago Daily News* story quoted in "The True Abstract," *Art Digest* 13, no. 20 (September 1, 1939): 23.

36. Milt Kahl, interview by Michael Barrier and Milton Gray on November 4, 1976, in *Walt's People: Talking Disney with the Artists Who Knew Him*, ed. Didier Ghez (Bloomington, IN: XLibris, 2012), 12:461.

37. Ken Anderson, interview by Don Peri, in *Working with Walt: Interviews with Disney Artists* (Jackson: University of Mississippi, 2008), 139–40.

38. Marc Davis quoted in Neal Gabler, *Walt Disney: The Triumph of the American Imagination* (New York: Knopf, 2006), 620; Marc Davis quoted in Leslie Iwerks and John Kenworthy, *The Hand behind the Mouse* (New York: Disney Editions, 2001), 195.

39. Bamber Gascoigne, *How to Identify Prints* (London: Thames and Hudson, 2004), 57.

40. Carlo Ginzburg, "Morelli, Freud and Sherlock Holmes: Clues and Scientific Method," trans. Anna Davin, *Historical Workshop Journal* 9, no. 1 (Spring 1980): 16.

41. Ken Anderson interview, *Storyboard / The Art of Laughter*, August–September 1991, 14.

42. Harry Braverman, *Labor and Monopoly Capital*, 126.

43. Herman Melville, "Bartleby the Scrivener," in *Tales, Poems, and Other Writings*, 72; Honoré de Balzac, "Z. Marcas," in *The Human Comedy: Selected Stories*, ed. Peter Brooks (New York: New York Review of Books, 2014), 207.

44. Chuck Jones, *Chuck Reducks: Drawing from the Fun Side of Life* (New York: Warner Books, 1996), 168.

45. Joyce Carlson, interview by Jim Korkis, in *Walt's People*, 1:237.

46. See Friedrich Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Witz (Stanford, CA: Stanford University Press, 1999), 183–98; Sharon Hartman Strom, "Machines Instead of Clerks': Technology and the Feminization of Bookkeeping, 1910–1950," in *Computer Chips and Paper Clips: Technology and Women's Employment*, ed. Heidi I. Hartman (Washington, DC: National Academy Press, 1987), 2:63–97.

47. Siegfried Kracauer, *The Salaried Masses: Duty and Distraction in Weimar Germany*, trans. Quintin Hoare (London: Verso, 1998), 42.

48. "Girls at Work for Disney," *Glamour*, April 1941, 50.

49. Walt Disney quoted in Hope Ridings Miller, "Walt Disney, Cartoon Wizard, Comes to Capital on War Mission," *Washington Post*, December 2, 1943, B5.

50. Siegfried Kracauer, *The Salaried Masses*, 42.

51. Grace Bailey quoted in Bob Thomas, *Walt Disney: The Art of Animation* (New York: Golden, 1958), 175.

52. Jean Erwin, interview by Dave Smith on March 30, 1983, in *Walt's People*, 13:126.

53. Antonio Gramsci, "Taylorism and the Mechanisation of the Worker," in *Selections from the Prison Notebooks*, ed. Quintin Hoare and Geoffrey Nowell Smith (New York: International, 1971), 308–10.

54. Walter Benjamin, "One-Way Street" (1928), trans. Edmund Jephcott, in *Walter Benjamin: Selected Writings*, vol. 1, 1913–1926 (Cambridge, MA: Belknap, 1996), 447.

55. Roland Barthes, "Non Multa Sed Multum" (1976), in *Writings on Cy Twombly*, ed. Nicola del Roscio (Munich: Schirmer/Mosel, 2002), 95, 96, 98, emphasis in original.

56. Roland Barthes, "Non Multa Sed Multum," 98, my emphasis.

57. Of Twombly, Barthes asks, "What does he do? What name can we give to what he does? Certain words suggest themselves spontaneously—words like 'drawing,' 'graphism,' 'scribbling,' 'gauche,' and 'child-like'—but immediately afterwards one runs into a problem: at one and the same time (and this is very strange) *these words are neither false nor satisfying*." Roland Barthes, "Non Multa Sed Multum," 88. Of Saul Steinberg's cartoons he writes, "I cover Steinberg with adjectives, which are like the many rapid vibrations that this living work arouses within me. I say to myself: it is intelligent, precise, funny, amused, varied insistent, ironic, tender, elegant, critical, beautiful, attentive, open, sharp, inventive, distinguished, enchanting, and so on." Roland Barthes, "All Except You," in *Saul Steinberg* (Valencia, Spain: Institut Valencià d'Art Modern, 2002), 159. See also "The Grain of the Voice," in which Barthes asks of music criticism, "Are we condemned to the adjective?" Roland Barthes, *Image-Music-Text*, trans. Steven Heath (New York: Hill and Wang, 1977), 180.

58. Sergei Eisenstein, *Beyond the Stars: The Memoirs of Sergei Eisenstein*, trans. William Powell (London: BFI, 1995), 583.

59. Stendhal, *The Red and the Black*, trans. Robert M. Adams (New York: Norton Critical Editions, 1969), 333–34.

60. Sergei Eisenstein, *Neravnodushnaia priroda*, ed. Naum Kleiman (Moscow: Muzei kino, 2004), 1:484; Sergei Eisenstein, "K issledovaniiu 'Disnei'" [Toward the Study of Disney], in *Metod*, ed. Naum Kleiman (Moscow: Muzei kino, 2002), 2:496.

61. Sergei Eisenstein, "Some Personal Reflections on Taboo" (1943), in *The Eisenstein Collection*, 421.

62. William Shakespeare, *Macbeth*, act 1, scene 4; act 2, scene 2.

63. Sergei Eisenstein, *Beyond the Stars*, 579.

64. *The Body of the Line: Eisenstein's Drawings* (New York: The Drawing Center, 2000); Andrei Deryabin, ed., *A Mischievous Eisenstein* (St. Petersburg, Russia: Slavia, 2000); Richard Taylor, ed., *The Eisenstein Collection*.

65. C. Wright Mills, *White Collar: The American Middle Classes* (1951; repr., New York: Oxford University Press, 2002), 220.

66. Ken Anderson, interview by Don Peri, in *Working with Walt*, 140.

67. "52% of TV Plugs Animated," *Hollywood Reporter*, October 24, 1958, 1.

68. "U.S. Japan-Cartoon Co-Production Set by Toei with Harman-Ising," *Variety*, May 21, 1958, 11; "Hanna & Barbera Near Closing Cartoonery Deal with Columbia Pics," *Variety*, December 9, 1959, 3; "Coast's \$35-Mil. Cartoon Biz," *Variety*, May 24, 1961, 7, 11. See also Tom Sito, *Drawing the Line: The Untold Story of the Animation Unions from Bosko to Bart Simpson* (Lexington: University of Kentucky Press, 2006), 251–55.

69. For more on UPA see Amid Amidi, *Cartoon Modern: Style and Design in Fifties Animation* (New York: Chronicle Books, 2006); Dan Bashara, "Cartoon Vision: UPA, Precisionism and American Modernism," *Animation: An Interdisciplinary Journal* 10, no. 2 (July 2015): 82–101.

70. Ollie Johnston and Frank Thomas, *Disney Animation: The Illusion of Life* (New York: Abbeville, 1981), 42–69. The film's human protagonist, Roger, has a large, pointed nose, a design

trope common in the work of UPA and Saul Steinberg. But some of his more complicated movements, such as when he plays musical instruments, are rotoscoped.

71. Ray Aragon, interview by Didier Ghez, in *Walt's People*, 11:283.

72. See Sergei Eisenstein, *Nonindifferent Nature*, trans. Herbert Marshall (Cambridge, England: Cambridge University Press, 1987), 388–91; Kristin Thompson, “Implications of the Cel Animation Technique,” in *The Cinematic Apparatus*, ed. Teresa de Lauretis and Stephen Heath (New York: St. Martin's, 1980), 112.

73. See Eisenstein's description of “the colored storytelling” of Russian woodcuts, which “results not so much from the will of the artist, but from the limited technical means leaping independently, penetrating one other.” Sergei Eisenstein, “I siuzhet, i tsvet” [Both Plot and Color] (1947/48), in *Izbrannie proizvedeniia*, ed. L. A. Ilina (Moscow: Isskustvo, 1964), 3:515–17.

74. Alina Louchheim, “Cartoons as Art,” *New York Times*, August 23, 1953, X8.

75. Some earlier Disney shorts, including segments in the package pictures of the 1940s, had a contemporary setting. Examples include *All the Cats Join In*, with music by Benny Goodman—an episode in *Make Mine Music* (1946)—and *Football (Now and Then)* (1953), both directed by Jack Kinney, as well as Ward Kimball's contributions to Disney's anthology television series.

76. “Handbook of Production Information” and “Original Presskit,” box 7, folder 10, Walt Disney Productions Publicity Ephemera (Collection 280), Performing Arts Special Collections, Charles E. Young Research Library, UCLA.

77. Chuck Jones quoted in Leslie Iwerks and John Kenworthy, *The Hand behind the Mouse*, 192.

78. Dave Michener, interview by Didier Ghez, May 10 and 23, 2006, in *Walt's People*, 5:358–59.

79. Chuck Jones, interview by Michael Barrier and Bill Spicer, *Funnyworld*, no. 13 (1971), available at [http://www.michaelbarrier.com/Funnyworld/Jones/interview\\_chuck\\_jones.htm](http://www.michaelbarrier.com/Funnyworld/Jones/interview_chuck_jones.htm).

80. Norman Maurer, “Methods and Means for Producing Animated Cartoons,” US Patent 2,998,313, filed January 17, 1955, patented August 29, 1961.

81. “Animation without Animators Claimed for Artiscope Process,” *Broadcasting*, April 15, 1957, 78; “Industry News,” *American Cinematographer* 42, no. 10 (October 1961): 584; “Sponsor Week Wrap-Up,” *Sponsor*, April 9, 1962, 57; Leon H. Maurer and Harry Wuest, “Methods and Procedures for the Production of Fully-Animated Cartoon Films Using New Animascope Automatic Animation Processes,” *Journal of the Society of Motion Picture and Television Engineers* 76, no. 10 (October 1967): 1012–16.

82. J. B. Kaufman, *The Fairest One of All*, 49.

83. Incidentally, the Photostat camera, developed by Eastman Kodak, was an important precursor to the Xerox machine. See Barbara Rhodes and William Wells Streeter, *Before Photocopying: The Art and History of Mechanical Copying, 1780–1938* (New Castle, DE: Oak Knoll Press; Northampton, MA: Heraldry Bindery, 1999), 159.

84. Chuck Jones, interview by Michael Barrier and Bill Spicer. Ub Iwerks would later use a very similar technique to multiply the birds in Alfred Hitchcock's *The Birds* (1963). See Leslie Iwerks and John Kenworthy, *The Hand behind the Mouse*, 205–6; Kyle Counts, “The Making of *The Birds*,” *Cinefantastique* 10, no. 2 (1980): 14–35. For an analysis of more recent

examples of a similar practice see Kristen Whissel, "The Digital Multitude," *Cinema Journal* 49, no. 4 (Summer 2010): 90–110.

85. Donald Crafton, *Shadow of a Mouse: Performance, Belief, and World-Making in Animation* (Berkeley: University of California Press, 2013), 169.

86. Chuck Jones quoted in Donald Crafton, *Shadow of a Mouse*, 37.

87. Walter Benjamin, "The Work of Art in the Age of Its Reproducibility" (2nd version), in *Walter Benjamin: Selected Writings*, vol. 3, 1935–1938 (Cambridge, MA: Belknap, 2002), 103.

88. Walter Benjamin, *Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Harvard University Press, 1999), 225. Incidentally, the Russian word for animation, *mul'tiplikatsiia*, literally means "multiplication."

89. Honoré de Balzac, *Modeste Mignon and Other Stories*, trans. Clara Bell (Philadelphia: Gebbie, 1900), 72, quoted in both Walter Benjamin, "The Paris in the Second Empire in Baudelaire" (1938), in *Walter Benjamin: Selected Writings*, vol. 4, 1938–1940, ed. Howard Eiland and Michael W. Jennings (Cambridge, MA: Belknap, 2003), 26–27; and Walter Benjamin, *Arcades Project*, 225.

90. Scott Curtis, "Tex Avery's Prison House of Animation, or Humor and Boredom in Studio Cartoons," in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. Daniel Goldmark and Charlie Keil (Berkeley: University of California Press, 2011), 226.

91. Vladimir Nabokov, *Transparent Things* (1972; repr., New York: Vintage International, 1989), 6–7.

92. Lisa Gitelman, *Always Already New*, 124.

93. Ben Kafka, *The Demon of Writing: Powers and Failures of Paperwork* (New York: Zone Books, 2012), 12.

94. Walt Peregoy, interview by Julie Svendsen on December 15, 2007, in *Walt's People*, 9:284; Jack Kirby, interview by Gary Groth in summer 1989, *Comics Journal*, no. 134 (February 1990), available at <http://www.tcj.com/jack-kirby-interview/>.

95. Walter Benjamin, "Mickey Mouse" (1931), in *The Work of Art in the Age of Its Mechanical Reproducibility and Other Writings on Media*, trans. Rodney Livingston (Cambridge, MA: Harvard University Press, 2008), 338.

## CONCLUSION

1. Walter Benjamin, "The Rainbow: A Conversation about Imagination," in *Walter Benjamin: Early Writings, 1910–1917*, ed. Howard Eiland et al. (Cambridge, MA: Belknap, 2011), 215.

2. Noël Carroll, *Philosophical Problems of Classical Film Theory* (Princeton, NJ: Princeton University Press, 1988), 149. See also Daniel Morgan, "Rethinking Bazin: Ontology and Realist Aesthetics," *Critical Inquiry* 32, no. 3 (Spring 2006): 455.

3. Siegfried Kracauer, "Frankreich und der Zeichenfilm," in *Werke Band: Kleine Schriften zum Film*, vol. 6, no. 3, 1932–1961, ed. Inka Mülder-Bach (Frankfurt: Suhrkamp Verlag, 2004), 308–9, my translation.

4. Siegfried Kracauer, "Dumbo" (1941), in *Siegfried Kracauer's American Writings*, ed. Johannes von Moltke and Kristy Rawson (Berkeley: University of California Press, 2012), 139–40.

5. T. S., "Bambi, A Musical Cartoon in Technicolor," *New York Times*, August 14, 1942, <https://www.nytimes.com/1942/08/14/archives/bambi-a-musical-cartoon-in-technicolor-produced-by-walt-disney-from.html>.
6. Julie Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics* (New York: Columbia University Press, 2015), 43, 24, emphasis in original.
7. André Bazin, *Orson Welles: A Critical View*, trans. Jonathan Rosenbaum (New York: Harper and Row, 1978), 74, 80.
8. André Bazin, "Evolution of the Language of Cinema," in *What Is Cinema?*, trans. Hugh Gray (Berkeley: University of California Press, 2004), 1:52.
9. André Bazin, "Evolution of the Language of Cinema," 50.
10. André Bazin, "Evolution of the Language of Cinema," 50.
11. Karl Schoonover, "Wastrels of Time: Slow Cinema's Laboring Body, the Political Spectator, and the Queer," *Framework: The Journal of Cinema and Media* 53, no. 1 (Spring 2012): 66.
12. Walter Benjamin, "Mickey Mouse" (1931), in *The Work of Art in the Age of Its Mechanical Reproducibility and Other Writings on Media*, trans. Rodney Livingston (Cambridge, MA: Harvard University Press, 2008), 338.
13. "Cinderella," *Showman's Trade Review*, December 19, 1949, 21; "Cinderella," *Harrison's Reports*, December 17, 1949, 202.
14. Bosley Crowther, "The Screen," *New York Times*, February 23, 1950, 33.
15. Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality* (Princeton, NJ: Princeton University Press, 1997), 90.
16. Walter Benjamin, "Doctrine of the Similar," in *Walter Benjamin: Selected Writings*, vol. 2, 1927–1934 (Cambridge, MA: Belknap, 1999), 694.
17. Fernando Pessoa, *The Book of Disquiet*, trans. Margaret Jull Costa (London: Serpent's Tail, 1991), 113.