

**“QUIET ON SET!”:
CRAFT DISCOURSE AND BELOW-THE-LINE LABOR IN
HOLLYWOOD, 1919-1985**

by

Katie Bird

B.A. in Film Production, Loyola Marymount University, 2007

B.A. in Creative Writing and English, Loyola Marymount University, 2007

M.A. Literary and Cultural Studies, Carnegie Mellon University, 2010

Submitted to the Graduate Faculty of
the Dietrich School of Arts and Sciences in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

University of Pittsburgh
2018

UNIVERSITY OF PITTSBURGH

Kenneth P. Dietrich School of Arts and Sciences

This dissertation was presented

by

Katie Bird

It was defended on

May 4, 2018

and approved by

Randall Halle, PhD, Klaus W. Jonas Professor, Film Studies Program, Department of German Languages and Literature

Adam Lowenstein, PhD, Professor, Film Studies Program, Department of English

Neepa Majumdar, PhD, Associate Professor, Film Studies Program, Department of English

Daniel Morgan, PhD, Associate Professor, Department of Cinema and Media Studies, University of Chicago

Dana Polan, PhD, Professor, Department of Cinema Studies, New York University

Dissertation Advisor: Mark Lynn Anderson, PhD, Associate Professor, Film Studies Program, Department of English

Copyright © by Katie Bird
2018

I teach Hollywood because of two things. First, I used to work there. Second, I think that most college teachers haven't. I've been to so many boring academic film conferences in my six years of teaching that I could buy a Rolls if I had a buck for each one. The single problem I've noticed at these things is that the people who are teaching film in large part, are people who have only done two things; [a] Gone to school. [b] Teach school. And what this unfortunate situation has fostered is a group of effete snobs who sit around making up new ways to talk about filmmaking (semiotics, hermeneutics, Marxist Criticism and other nonsense) and who look down their blue noses at the craft of making movies
- Bob Jacobs, *The Cinemeditor*, 1981

A film has cost not only money but also talent, intelligence, taste, and passion, and all these things glow and gleam in it like the fire in a genuine precious stone and for the expert they are more easily discernable than the money that has been invested
-Béla Balázs, *Visible Man*, 1924

“QUIET ON SET!”: CRAFT DISCOURSE AND BELOW-THE-LINE LABOR IN HOLLYWOOD, 1919-1985

Katie Bird, PhD

University of Pittsburgh, 2018

This dissertation examines the historical formation and circulation of craft discourse voiced by Hollywood’s technical workers. By exploring the tensions between manual and creative craft labor in the film industry, the dissertation interrogates how below-the-line workers’ discursive formations of their on-set embodied practices informed their aesthetic choices and political maneuvers within the studio system. Film production practitioners built on social and cultural norms of historical craftsmanship communities and instrumentalized this discourse within an industrial setting towards political and artistic aims of improving labor conditions, demanding critical and inter-guild recognition, and promoting public outreach. Craft discourse regularly moved beyond insular reporting to serve a range of practical and theoretical functions for workers: providing an opportunity for critical reflexivity, negotiating institutional and systemic modes of top-down production, and addressing and instructing public audiences in the art and craft of filmmaking technique. By emphasizing embodiment alongside artistry and technological change, technicians from the beginning of the studio system to contemporary practice have argued for a definition of Hollywood style as inherently crafted and negotiated from the ground-up by workers.

The four chapters explore the discourse of different communities of technical craft practitioners in four distinct historical periods. Chapter 1 interrogates the tension between manual and artistic discourse in the first decade of the American Society of Cinematographer’s house publication, *American Cinematographer* (1919 to 1929) and highlights how stunt,

newsreel, and travel filmmaking practices contributed to cinematographer's philosophical sense of "being in the world." Chapter 2 draws upon histories of organized labor conflict in the 1930s and 40s and uncovers the diverse and silenced discourse of studio grips and electricians whose voices, labor, and techniques were represented across studio publications despite the suppression of their political agency. Chapter 3 investigates how the formation of the American Cinema Editors in the 1950s and 1960s capitalized on the growth in post-war higher education film training and educational filmmaking to promote the craft of continuity editing at the end of the studio system. Chapter 4 examines the renewed embodied discourse accompanying niche practitioners of emerging stabilizer technologies like Steadicam and Panaglide in the 1970s and 80s.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	XVI
PREFACE: A DISSERTATION AS A DOCUMENTARY	XXIII
INTRODUCTION - WORKING METAPHORS: INSTITUTIONAL POLITICS AND POETICS OF BELOW-THE-LINE PRACTICE	1
1.1.1 Practice as Praxis	7
1.1.2 Working Metaphor	9
1.1.3 Embodiment, Intuition, Sense.....	14
1.1.4 Manual, Feeling, Physical.....	16
1.1.5 Craft, Guild, Workshop	18
1.1.6 Industrial Communication: Negotiating Promotion and Politics.....	23
1.2 HISTORIOGRAPHY: FILM STUDIES AND FILM LABOR.....	26
1.2.1 Histories of the Industry.....	27
1.2.2 Style, Technology, Apparatus	30
1.2.3 Media Industries and Production Culture	33
1.3 METHODOLOGY	38
1.3.1 Formal Discourse	40
1.3.2 Informal Discourse.....	41
1.3.3 Film History without Films?	42
1.3.4 Addressing Gaps	43
1.4 DISSERTATION CHAPTER BREAKDOWN	46

1.4.1	Chapter One. The Inner and Outer World of the <i>American Cinematographer</i> , 1919-1929	46
1.4.2	Chapter Two. Projecting Clouds, Throwing Shadows: Hollywood’s Phantom Studio Grips, 1926-1947	47
1.4.3	Chapter Three. Redefining the Look and Feel of Continuity Editing: The American Cinema Editors, Educational Filmmaking, and the Academic Study of Film Production, 1958-2018	48
1.4.4	Chapter Four. “Dancing Bodies, Flying Cameras”: The Early Years of Steadicam and Panaglide Stabilizing Practice, 1973-1985	49
1.4.5	Conclusion/Coda. Automating Craft in Global Hollywood	50
2.0	THE INNER AND OUTER WORLD OF THE <i>AMERICAN CINEMATOGRAPHER</i> , 1919-1929	52
2.1	<i>AMERICAN CINEMATOGRAPHER</i> AND THE AMERICAN CINEMATOGRAPHER.....	61
2.2	THE INNER WORLD	73
2.3	CAMERAS	76
2.4	DANGEROUS TRAVELS, WESTERNS, AND COMEDIES	81
2.5	A NEW EDITOR’S LENS AT <i>AMERICAN CINEMATOGRAPHER</i>	85
2.6	THE CAMERA OPERATOR IN AMERICAN PRACTICE AND GERMAN FILM THEORY	89
2.7	CINEMATOGRAPHER AS ARTIST.....	95
2.8	HOLLYWOOD AS THE WORLD.....	97

3.0	PROJECTING CLOUDS, THROWING SHADOWS: HOLLYWOOD'S PHANTOM STUDIO GRIPS, 1926-1947	106
3.1	METHODOLOGY	113
3.1.1	Grips and “The Double Present of [Film] Historiography”	115
3.1.2	Film Histories of the Classical Hollywood Period	119
3.1.3	Hollywood Labor Histories in the 1980s	124
3.2	IATSE'S STUDIO TECHNICIANS LOCAL AND THE STUDIO BASIC AGREEMENT	130
3.3	WATCHING THE STARS FROM ABOVE: STUDIO TECHNICIANS IN FAN MAGAZINES	133
3.4	THE ACADEMY AND ‘THE REAL WORKERS’	139
3.5	CARTOON GRIPS AND ‘WORKER GENERATED SNARK’	141
3.6	THE DEPRESSION: ILLUSTRATING HOLLYWOOD'S WORK IN THE SHADOWS	152
3.7	1933 STRIKES	160
3.8	THE BROWNE AND BIOFF YEARS	168
3.9	CATALOGING THE GRIP DEPARTMENT IN <i>INTERNATIONAL PHOTOGRAPHER</i>	171
3.10	THE IA PROGRESSIVES	185
3.11	UNION ORAL HISTORIES: WORKER'S ANECDOTES AND THE FAILURE TO PERFORM POLITICS	191
3.12	BROWNE AND BIOFF'S DOWNFALL AND THE IA 37 SPLIT	197
3.13	POST WWII JURISDICTIONAL DISPUTES	199

3.14	EVIDENCING THE WORKER IN BEHIND-THE-SCENES PHOTOGRAPHS	201
3.15	SHADOWS AND CLOUDS: HOW CONGRESSIONAL OVERSIGHT OF GRIP WORK SHAPED FUTURE DEFINITIONS OF THE CRAFT	213
3.16	CONCLUSION	221
4.0	REDEFINING THE LOOK AND FEEL OF CONTINUITY EDITING: THE AMERICAN CINEMA EDITORS, EDUCATIONAL FILMMAKING, AND THE ACADEMIC STUDY OF FILM PRODUCTION, 1958-2018.....	225
4.1	CONTINUITY EDITING: IN THEORY AND IN PRACTICE.....	229
4.2	FROM CUTTING TO EDITING	234
4.3	FILMMAKING PEDAGOGY IN POST-WWII FILM SCHOOLS	245
4.4	THE ACE FILMS.....	255
4.5	EMBODIED LEARNING WITH THE <i>GUNSMOKE</i> DAILIES.....	261
4.6	TEACHING WITH <i>GUNSMOKE</i> FROM 1958-1964	275
4.7	NEW WAVE TRANSFORMATIONS, 1964-1970S.....	280
4.8	<i>GUNSMOKE</i> 'S LEGACIES	286
4.9	REMIXING <i>GUNSMOKE</i> IN THE 21 ST -CENTURY	295
5.0	“DANCING BODIES, FLYING CAMERAS”: THE EARLY YEARS OF STEADICAM AND PANAGLIDE STABILIZING PRACTICE, 1973-1985.....	299
5.1	CODIFYING STABILIZER AESTHETICS: THE FLOATING PANAGLIDE AND STEADICAM'S INVISIBLE DOLLY.....	312
5.2	EMBODIED STEADICAM TRAINING: THE POETICS AND POLITICS OF DANCING WITH CAMERA	331

5.3	THREE CASE STUDIES: DISCOURSE, RECEPTION, EXPERIMENT	346
5.3.1	Pictorial Panaglide in <i>Days of Heaven</i>	347
5.3.2	The Steadicam(s) in <i>The Shining</i>	356
5.3.3	Hiding <i>Halloween's</i> Panaglide	368
6.0	CODA: AUTOMATING CRAFT IN GLOBAL HOLLYWOOD	374
	BIBLIOGRAPHY	392

LIST OF TABLES

Table 1 Grips Referenced in Cameragram, <i>International Photographer</i> (1933-1934)	165
---	-----

LIST OF FIGURES

Figure 2.1. Lewis Physioc, <i>American Cinematographer</i> . (February 1, 1922).....	53
Figure 2.2. Glenn R. Kershner, “The World is the Cameraman’s Oyster,” <i>Brulatour Bulletin, International Photographer</i> (March 1932).....	59
Figure 2.3. Pathé Daily News Ad, <i>Motion Picture News</i> (September 29, 1924): 11.	70
Figure 2.4 Debie Cameras Ad, <i>American Cinematographer</i> (December 1922)	79
Figure 2.5 Bank of Hollywood Ad, <i>American Cinematographer</i> (November 1927): 20.....	98
Figure 3.1 “Confessions of a Juicer,” <i>Screenland</i> (February 1931)	135
Figure 3.2 Glenn Kershner, “Why the Sets were Late,” <i>International Photographer</i> . 1, no. 7 (August 1929): 24.	145
Figure 3.3 Glenn Kershner, “Along About 1950,” <i>International Photographer</i> . 1, no. 11 (October 1929): 43.	146
Figure 3.4 Glenn Kershner, “Amenities on Location.” <i>International Photographer</i> . 3, no. 3 (April 1930): 32.	147
Figure 3.5 Glenn Kershner, “Something New,” <i>International Photographer</i> . 3, no. 12 (May 1931): 12.....	148
Figure 3.6 Glenn Kershner, “The Bears Came Over the Mountain,” <i>International Photographer</i> 2, no. 4 (May 1930): 32.	151
Figure 3.7 “Fog and Arc Lamp,” Watercolor. <i>Star Dust in Hollywood</i> , two shots from the same scene in <i>Docks of New York</i>	156
Figure 3.8 Sketches of a juicer, grips, and property workers in <i>Star Dust in Hollywood</i>	158

Figure 3.9 Sketches from various soundstages, <i>Star Dust in Hollywood</i>	159
Figure 3.10 Grip artifacts from Haines' <i>International Photographer</i> articles	182
Figure 3.11 James Manett, "Cream O' the Stills," <i>International Photographer</i> (January 1930)	203
Figure 3.12 Otto Beninger, "Cream O' The Stills," <i>International Photographer</i> (February 1930)	203
Figure 3.13 Robert W. Coburn, still from unnamed RKO set, "Cream O' the Stills," <i>International Photographer</i> (February 1932).....	205
Figure 3.14 Bert Longworth, "As the Electrician Sees It" from <i>Bridge of the Regiment</i> , "Cream O' the Stills," <i>International Photographer</i> (April 1932).....	206
Figure 3.15 Art Marion, "New Dolly Majestic Pictures," <i>International Photographer</i> (March 1933)	207
Figure 3.16 Bert Longworth, "First National – The King's Vacation," <i>International Photographer</i> (February 1933)	208
Figure 3.17 Bert Longworth, "An Exterior Interior – Lights Above and Coils Below," <i>International Photographer</i> (October 1932), edited.....	208
Figure 3.18 Edited <i>International Photographer</i> Collage.....	212
Figure 3.19 Kearns Committee Report, 370	217
Figure 3.20 An Atlas of Clouds – Matte, Rear-Screen Projection, Shadow-Glass Effect in <i>And Then There Were None...</i> (Clair, 1945)	220
Figure 4.1 Leonard Leff, "Film Editing: Three Cutting Continuities," <i>Journal of the University of Film and Video Producers</i>	262
Figure 4.2 A.C.E. Editors <i>Gunsmoke</i> breakdown by set-ups and shots. (McAdams, bottom row; Nadel, Middle Row; Coswick, Top row).....	266

Figure 4.3 Frame-By-Frame *Gunsmoke* shot cuts by A.C.E. Editor 269

Figure 6.1 Radar, “Editor 2000 A.D.” *The Cinemeditor* 4, no. 3 (September 1954): 2. 381

ACKNOWLEDGEMENTS

I am sincerely grateful for all of the support and encouragement I have received during this process and extend my gratitude to many individuals and institutions who have helped shape and guide me as a scholar and whose impressions have made lasting echoes on the work.

Each one of my committee members contributed depth, eclecticism, and innumerable personal and scholarly support during the making of this document. First, I feel at a loss to explain the degree of mentorship, friendship, and dedication to a certain tendency in the writing of history that I have shared and learned from my chair, Mark Lynn Anderson. Between excitedly exchanging stories from our research trips to splicing and projecting 16mm and 8mm film together, Mark's guidance, cultivated ambivalence, and critique offered a way to relish the pleasures of history's fraught materiality while skeptically investigating institutional formations of Hollywood and structural articulations of film history. Mark demonstrated the ways in which historians of film could both delight and deconstruct their objects of study and productively prodded me towards the harnessing of my emotional connections to the material in ways that revealed the political imperatives at the heart of the work. Neepa Majumdar encouraged me early on to press at the relationship between labor and technology and always offered incisive feedback about addressing audiences of my work in clear and concise language that made visible the stakes of this project. Randall Halle supported the many junctures between my historical work and its connections to deeper genealogies of film theory, apparatus scholarship, and the political and lived implications of film within history. Adam Lowenstein often reminded me of the critical imperative to take seriously wider relationships between below-the-line workers to above-the-line collaborators. Dan Morgan, an early mentor and one of the longest interlocutors

on the topics of craft discourse's relationship to style, beyond introducing me to what became this topic in his Camera Movement seminar at Pitt, often reminded me that scholars need to take time out to be human: to read poetry, to take walks in the park, to not do any work for long stretches of time. Dana Polan's interest and excitement in this project, from our early research emails about university film school education, to his detailed and in-depth notations on the most minute historical references to bigger picture implications within the industry and the field have been irreplaceable.

While the dissertation chapters reflect on the engagements with archival and historical sources frequently, I want to call attention to a few institutions who've provided specific support. I could not have written this dissertation (from Pittsburgh, in the time frame that I did) without the extensive open-access resources provided by the Digital Media History Library and its Project Lantern search engine. The work of Eric Hoyt, David Pierce, and countless contributors have created a dream for film historians. The detail and expansiveness of the search capabilities provided by this extensive digital library has encouraged and inspired questions I might have not so easily stumbled upon through other means. This dissertation also could not have been written without massive studio and film historical archival holdings. I want to thank the dedicated Louise Hilton and the entire staff at the Margaret Herrick Library in Los Angeles who during my long monthly trips quickly wrangled together unprocessed collections for my viewing, tracked down single copies of house organs that were off-site for binding, graciously assistant with my maximum allotment of daily copies, and answered innumerable questions about the collections. Their excitement about the research and their willingness to help with even minor details of the search is a testament to the enormous work that goes behind-the-scenes. Dino Everett at the USC Hugh Hefner archive answered many emails helping me to track down information about a lost

ACE film and answered questions about the UFVA collection. In my research, I've also had the pleasure of working with Genevieve Maxwell and Cassie Blake at the Academy Film Archive, Curator James D'Arc at the L. Tom Perry Special Collections at Brigham Young University's Harold B. Lee library, Brendan Coates at the Academy of Motion Picture Arts and Sciences Oral History Project, Mark Quigley at the UCLA Film and Television Archive, the Charles E. Young Research Library at UCLA, The Billy Rose Theater Division at the New York Public Library, Columbia University, and the Hollywood Studio Strike collection at Southern California Library for Social Studies and Research. Finally, much of the gaps in my research were filled in with the work and support of our Interlibrary Loan office at the University of Pittsburgh who found and provided even the strangest request for materials, educational films, and pamphlets from around the world.

This research has benefitted immeasurably from the support, feedback, and conviviality of colleagues in the field and industry who helped answer research questions and encouraged creative inquiry along the way. Thank you to Mal Ahern, Miranda Banks, Sean Batton, Melanie Bell, Matt Castellitto, Allyson Nadia Field, Hannah Frank, Catherine Grant, Liz Greene, Helen Hanson, Rick Hadley, Eric Hoyt, Will Hyler, Robert "Bob" Jones, Patrick Keating, Christian Keathley, Peter Labuza, Kevin B. Lee, Luci Marzola, Denise McKenna, Jason Mittell, James Rosenow, Girish Shambu, Shelly Stamp, Chris Yogerst, and my adventurous colleagues from Video Camp 2017. I am especially grateful to have been able to share work from this dissertation in *The Velvet Light Trap* (with excellent notes and help from Chelsea McCracken, Jennifer Smith, and readers) and *The Spectator's* "System Behind the Studios" issue (thanks to the sharp editorial eye of Luci Marzola). At many conferences and events I tested ideas from the dissertation with colleagues and delighted in invigorating scholarly company: The Collegium

Program at the Pordenone Silent Film Festival, the Conference on College Composition and Communication, Doing's Women's Film History, Film and History, Middlebury College's NEH supported Scholarship in Sound and Image, the Russian Film Symposium, the Society for Cinema and Media Studies, Women and the Silent Screen, and Pitt's wonderful Film Studies Graduate Student Organization annual conference.

I am deeply grateful for the financial support to pursue historical archival research via numerous and generous research and development grants, guaranteed conference stipends, and multiple dissertation fellowships during my time at Pitt thanks to my home department of English and the University of Pittsburgh's Dietrich School of Arts and Science's Dean's Office. These research and development grants offered me the financial opportunities to travel for festivals and research that I could not have done alone on a graduate stipend, including extended trips to Los Angeles to live and research at archives daily. The Richard C. and Barbara N. Tobias Fellowship in my 4th year and the Carolyn Chambers Memorial History Fellowship and Nancy Anderson Fellowship in my 5th year made it possible for me to dedicate myself full time to research, writing, and personal care.

I want to thank my esteemed colleagues who have guided me intellectually and personally through my graduate years. My mentors during my Cultural Studies Masters program at Carnegie Mellon University encouraged me to apply to doctoral programs in film studies and fiercely supported me during my time at Pitt: Jeffrey J. Williams whose editorial eye helped me rethink my writing style, Kathy N. Newman who travelled with me on my first archival visit, and David R. Shumway whose political critique and delight in film and pop culture reminded me why I began studying film in the first place. Thank You to my friends from my masters cohort whose early friendship in Pittsburgh was one of the best times of my graduate life: Steven

Ambrose, Joe DiPasqua, Matt Hall, Robert Kilpatrick, Parker Krieg, Joy Siu, and Chris Wike. During my time at Pitt I have benefitted from the excellent teaching, intellectual support, and personal mentorship in the Film and Media Studies Program. Thank you to Mark Best, Robert Clift, Nancy Condee, Josh Ellenbogen, Jane Feuer, Carl Kurlander, Marcia Landy, David Pettersen, Dana Och, Volodia Padunov, and Ali Patterson. In my home department of English I benefitted from a dedicated group of scholars in composition and literature who helped guide my teaching, writing, and professional growth during graduate school: Don Bialostosky, Ellen Bishop, Jean Carr, Mark Kemp, Matt Lavin, Bill Scott, Annette Vee, and Jennifer Waldron. The support and advising staff in the English department and film studies programs including Jennifer Seemann, Jesse Daugherty, Briar Sommerville, Anthony Payne, and Chelsea Chaump helped me navigate the often stressful terrain of paperwork and scheduling with ease. My gratitude to the Director of Graduate Studies in English, Nancy Glazener goes beyond all that can be said here. Nancy's thoughtful guidance in publication workshops and human kindness in matters of the mind and heart kept me going and afloat during all the times that felt most difficult. Many colleagues left their intellectual imprint on my development as a graduate student during seminar and while I worked on this project for which I am deeply thankful. In particular, I want to thank my occasional writing partners Jedd Hakimi and Carrie Hall, my regular readers Adam Hebert, Jordan Schonig, and Andrew Behrendt, and my graduate program colleagues who have influenced and challenged my research and teaching over the years: Jesse Anderson-Lehman, Molly Bain, Maxime Bey-Rozet, Kelsey Cameron, Evan Chen, Beach Grey, Jessica Fitzpatrick, Katherine Kidd, Sonia Luper, Julie Nakama, Meredith North, Ben Ogrodnik, Natalie Ryabchikova, Felipe Pruneda Senties, Laura Stamm, Gordon Sullivan, Michael Svedman, Noel Tague, Kuhu Tanvir, and John Taylor.

The emotional support, care, love, and joy of friends sustained a weary worn spirit across the years. I dedicate a special gratitude to two of my dearest friends who I respect and adore and whose love has awakened and protected me. To Veronica Fitzpatrick who has shared my tears, my celebrations, my heartaches, my dark days, my doubts, as well as my intensity for rigor, my delight in painful humor, and a deep pleasure in cinema and in food. And to Kerry Banazek who has shared the longest Frick Park walks, the pain and respect of hard-won and lost struggles, curiosity for odd things, a thrill of a western sky, the play of pedagogical thinking, and respect for the indescribable descriptions of being-in-the-world. I shared my home, my life, my celebrations and love with many friends near and far whose presence brought me comfort and comradery: Zaid Al-Momen, Andrew Behrendt, Lucy Behrendt, Matt Drwenski, Kristy Fallica, Kevin Flannagan, Shannon Gleason, Jedd Hakimi, Adam Hebert, Jeff Heinzl, Madison Helman, Ingrid Norbergs, Javier O'Neil-Ortiz, Ryan Pierson, Laura Plunkett, Jake Pomerantz, Sarah Rafson, John Rhym, and Jordan Schonig.

This dissertation is dedicated to my family who has always championed and challenged my creativity, intellectual curiosity, and stubborn willpower. Their pride in this project's completion is unparalleled. Thank you to my mother, Lynn, my father John, and my brothers Matt and Tony. Thank You to my Winnipeg family, Carol and George, whose hope and encouragement kept me going. And to Adam Prosk, for it is I who am lucky to have found you during this life's work-in-process. Thank you for your belief in me which has outshone and overpowered my every doubt and keeping aloft a steady light at the end of the tunnel when all I could see was darkness. You are a dream come true: two dogs, one bath, and endless laughter.

For the overwhelming majority of people, graduate school catalyzes or exacerbates physical pain, mental health, and emotional trauma. As a rape survivor during my first-year

graduate school and a person who often carefully hid PTSD, depression, multiple suicide attempts, and crippling anxiety under excessive work and successful milestones, I am grateful for the part of me who fought and continues to fight to build a life worth living in and outside of academia. Without access to affordable physical and mental health care services, financial support in addition to my stipend, and the compassion of my friends, colleagues, and family, finishing this dissertation and making this life would not have been imaginable. My hope is that in speaking more openly and honestly about the struggles of maintaining mental health in the academy, we can all actively fight for structural changes to alleviate the toxic culture around academic work.

PREFACE: A DISSERTATION AS A DOCUMENTARY

I never finished my thesis film. I couldn't afford a final remaster of the 16mm footage—an additional \$1,000 to \$2,000 after the \$10,000 I'd already spent on a short, ten-minute film about a mother grieving the loss of a son and a younger brother coping by imagining himself to be the Lochness monster. I needed money for the remaster, a new narrator, and a better narration recording; some professor suggested I reshoot the ending to take place in a desert instead of a backyard which also meant more money. I became so convinced that there was much that was wrong about the project, so much that needed to be fixed, that I abandoned the project all together. I feared what it meant to finish the film and put it out in the world, to no longer be able to tinker with it, to make it better, to make it what it was in my head. For years, I told myself that leaving film production was a choice. I'd be better in academia, better with an MA or PhD in English. I convinced myself that the misogynistic and exploitative experiences I had working in the film industry weren't worth the trade-offs of getting to make films. I had worked endless hours driving across Los Angeles doing equipment pickups and skipping class to get yelled at by actors when I clipped on their microphones, only to be paid in mileage reimbursements (not uncommon for interns if they are paid at all). Later, as the only woman working at a boutique production company, I noticed that I was slowly being demoted from my jobs as production coordinator, assistant editor, and assistant camera to gendered positions of on-set makeup and office manager. What was at first only implied, and then made explicit, was that I was better at administrative positions than technical positions because I was a woman. I was demoted from one of the jobs because a woman at a different production company with which we collaborated complained that she hated working with other women.

I convinced myself that my experiences had been so bad and that I had been so poorly cut out for Hollywood, that I left my filmmaking life entirely at age of twenty-four (a life that I'd been immersed in since the age of fourteen) to dive into academia head on. By that point, I had forgotten about the pleasures of operating cameras on friends' shoots and the deep sense of mastery I inhabited while editing even mundane projects. I forgot what it felt like during the first years of learning TV production in high school, when my teacher, a woman and a former sports and news camera operator, gave us a camera and had us out shooting each day and every weekend. I spent most afternoons and weekends in high school editing packages for our school TV news or filming events, sports, and making fiction or documentary films with my guy friends. In film school in Los Angeles, I crewed on every production I could find and made short documentaries in Germany (on the *Bergfilme*). It took me a long time to learn cinematography because I was barely allowed to touch the camera in my first cinematography class that was crowded with film school bros. I signed-up for an advanced cinematography course (where I was one of two women) just to use a 16mm and 35mm camera for the first time, and then I signed up for any second AC and 1st AC work I could get just to feel the excitement and terror of blind loading film into a magazine. When you do this kind of work you realize quickly that there's nothing like working on set. It's intense, physically exhausting, socially stimulating, mentally challenging, and you are constantly learning from yourself and from others. If you've never made a film, if you've never been in that community, if you've never woken up every day thinking about what you were going to shoot that day or walked around the world where every instance, experience, and interaction is transformed by what it would look like as a film, then it's hard to express what it means to lose that. To give that all up.

Losing this creative self was a grief that could not be reconciled. To even pick at its absence mentally was to open-up an old wound, an abyss of regret and failure. I wasn't a filmmaker anymore. I could write about it, but I would never pick up a camera, edit a scene, or make a film again. After researching and writing about production for years in graduate school, in 2016 I got that itch again. I decided that maybe it would be OK to pick up a camera and start filming again, to open-up a video file on Premiere and once again feel that odd intuitive pulse of smacking and releasing the keys that only editing can give. Reconnecting to this past allowed me to re-imagine aspects of my dissertation with a new energy. I wanted the dissertation to do more than describe or evidence production history; I wanted to write it in a way that conveyed what it feels like to be a body moving on set, to be a person within a history of an industrial system, and I sought to illustrate what speaking about that labor means now and what it likely also meant to workers in Hollywood. This is a history, but with feeling. And the writing of this history also has had its own workers, institutions, and discourses that made it happen.

This project started as a “way of seeing” or a “way of sensing” the inescapable labor in motion pictures. In beginning a project on sensing the intrinsic labor of film workers, I continually ran into the same dilemma. Speaking from my own background as a practitioner, I sought to address an audience of academics, but my ideas insights often got lost in translation. Before I could speak to this question of the sensation of labor inherent in the cinematic experience, I first needed to address the discursive gaps that would make such a project legible for scholars with little or no direct experience in industrial production. This dissertation then turned to the histories of discourse and practice. By relying on the language of practitioners to articulate and describe what it meant to sense the labor of other practitioners, within and outside

their own crafts, I increasingly came to liken and live out the process of the dissertation's research, collection, sifting, writing, and revising to that of making a documentary.

When you make a documentary you constantly look out for those moments in the hours and hours of footage, in the searching for materials and subjects, in the interviews, and in the assemblage of the timeline that will “jump out.” A documentary, like a film historical dissertation, is about coming to find these moments and sit with them, but also about finding ways to frame and structure everything else around them. Sometimes the assemblage is explicit and linear, and at other times the connections are more associative, stitched together on rhythm and pulse. In thinking about the process of constructing a dissertation like a documentary film, I came to more clearly recognize my own work and the broader connections of feeling that connect these pieces. This dissertation was written backwards from the most recent case study to the earliest. As such, the last two chapters on Steadicam operators and editors are more developed thanks to having more time for writing and revision. The first chapter reflects in some ways my earliest interests in the project (the embodiment of cinematographers from their beginnings as “crankers”). Perhaps the most exciting, but difficult work ahead is congealed in the complexities, richness, and weight of chapter two where I attempt to collate fragments of sources towards an unwritten history of 1930s and 1940s grips. I note these qualities of the research to indicate its openness and flexibility. For me, this project on film production, craft discourse, labor, embodiment, and sensation sets the groundwork for a lifetime's worth of work.

INTRODUCTION - WORKING METAPHORS: INSTITUTIONAL POLITICS AND POETICS OF BELOW-THE-LINE PRACTICE

“Outside of the name of the picture, the name of the producer and the name of the director, not one person in 1,000 cares who turned the camera crank, or chose the costumes. I have had hundreds of people ask me why it is done, saying that it made them very, very tired to have to sit and look at such stuff for a minute and a half to two minutes before the feature started. Of course, it is forced on them whether they want it or not and they must simply turn their heads or look at it.” – Motion Picture News, August 1926¹

Reacting to the increasing number of pre-feature screen credits in the mid 1920s, exhibitors in *Moving Picture World* and *Motion Picture News* decried the “evil” and “nuisance” of forcing the names of workers on audiences who presumably did not know or care about the labor behind the screen. As another editorial complained, “All of these persons are well paid for the services they render” and, “it is unfair to ask the exhibitor to pay for such advertising; particularly when these names are permitted to crowd out names with a definite cash value.”² To promote film workers—from the craft labor of the cinematographer to the “boy who blacks the stars’ boots”—was understood as advertising a product that had no intrinsic market worth to film distribution, exhibition, and spectators. After all, audiences ostensibly paid to see the work of the stars, the director, and maybe the producer, but not the labor of “the cranker,” “the cutter,” or “the grips.”

1 William A. Johnston, “Time to Debunk,” *Motion Picture News* 34, no. 7 (August 14, 1926): 361.

2 “Let’s Add the Office Boy and Quit,” *Moving Picture World* 82, no. 3 (September 18, 1926): 5.

Film credits, either scrolled before or after a film, flashed speedily at the end of a TV show, or skipped entirely during a Netflix binge, explicitly make visible all the workers who contributed to the production of media. Yet, film credits alone often fail to reveal the invisible labor behind the Hollywood screen. Even in film scholarship, we take for granted credits and their cited labor as intrinsically part of the moving image whole. As David Bordwell and Kristin Thompson even point out in their textbook *Film Art*, we ask students to stay for the credits not because of a concern for the politics of the industry or a recognition of labor power, but because the runtime of the film includes the credits and thus the credits are as much a part of the film's narrative and aesthetic coherency as the rising action, character development, and the *mise-en-scène*.³ Thus, for Bordwell and Thompson, credits refer scholars and students of film not outside of the film, but towards an opportunity for further close-analysis.

Yet credits were never organic to the film as purely part of an aesthetic object. As *the American Cinematographer* pointed out during the exhibitor battles of the mid 1920s, many credits were often forcibly removed by exhibitors wanting to cut down runtimes of individual films to fit more entertainment into their programs.⁴ Over Hollywood's history, unions and guilds have used credits to negotiate terms of prestige and profit. And even the length and organization of credits tell us about their industrial mode of production in any given moment (i.e. independent, low-budget, studio, multi-national, and art house) and the industry's current

3 Bordwell and Thompson explain, "When we open a novel, we don't expect the story action to start on the copyright page. Nor do we expect to find the story's last scene on the book's back cover. But filmmakers can start giving us narrative information during the credit sequences, and the process can continue to the very last moments we're in the theater." David Bordwell and Kristin Thompson, "When the Lights Go Down, the Narration Starts," *Film Art: An Introduction*, 10th ed. (New York, NY: McGraw Hill, 2013), 94 – 95.

4 Foster Goss, "The Editor's Lens: Credit Titles," *American Cinematographer* 6, no. 5 (August 1925): 10.

understanding of workers' value (i.e. the multiple credit columns consisting of hundreds of graphic compositing workers in low-paid visual effects houses).⁵ Credits have been and continue to be a site of industrial contestation laid bare to audiences even when the names of workers scroll, unwatched in empty theaters, living rooms, and classrooms. As the frustrated exhibitor of *Motion Picture News* explained, credits are not just a nuisance of time and attention, credits are “very, very” tiring. For, it is exhausting to have to read, imagine, and consider labor that one does not *think* they see and to be reminded that what they are watching has been labored over, constructed exhaustively, and rendered visible and audible through not only craft, but bodily work. Credits explicitly ask of spectators a physical and mental labor in order to experience “the other” (the bodies behind the screen) that had been made seemingly unknowable in their moving image encounter. This dissertation goes a step further. I argue that to opt out of an experience of a film's labor, we must not only turn our heads from the credits, but from the entire film. We are forced into looking at labor by the proximity of our watching, listening, and experiencing the moving image. Labor does not simply disappear; so, we can choose to turn away from what is there, or we can choose to “look at it.”

Invisible style is often lauded as craft without the appearance of work, without the strains of its making, and without the physicality of its virtuosity.⁶ In this dissertation, I ask my reader to think of style in Hollywood differently, as not invisible style but an enormous multiplicity of

⁵ “Industrial” is used throughout the dissertation both as an adjective to describe aspects particular to the film industry or “the industry” as it is casually referred to within film discourse. I also utilize “industrial” to signal studio production as a specific historical-economic mode of production.

⁶ John David Rhodes, “Belabored: Style as Work,” *Framework: The Journal of Cinema and Media* 53, no. 1 (2012): 47-64. <https://doi.org/10.1353/frm.2012.0005>.

work and craft that is endlessly and exhaustively noticed. Instead of emphasizing the invisible labor of the “unsung heroes,” I argue that craft discourse across the histories of Hollywood’s below-the-line workers has often publicly promoted work as craft and as manual labor. While the prevailing mythology about Hollywood style is its invisibility, suture, and hidden art, I suggest that the material history of workers’ voices and the industrial institutions of Hollywood production has regularly emphasized visibility, promotion, and the unique specialties of individual working groups and crafts. Even when craft workers regularly pronounced that their work is best when it goes unnoticed, they often detailed intense regimes of practice, training, and skill that they believe contribute to the this supposedly intended effect. Invisibility was a constructed discourse to perpetuate, promote, and disseminate its opposition: the visibility of worker’s skills, practice, and bodies on set and in the films they made. I highlight this negotiated discursive tension between visibility and invisibility to showcase the ways Hollywood discourse, operating at the level of labor (individuals, guilds, unions) and at the level of capital (trade publications, studios, Hollywood mythology in general), capitalized on and promoted itself not by hiding its workers, but by putting their bodies, crafts, and position within the industry under the spotlight.

I examine how archival and trade discourses on film style and technology written by film practitioners (primarily “below-the-line” workers, those in manual or technical crafts) have always addressed audiences of fellow workers, the industry at large, and the movie-going public about their craft and manual labor. I explore these themes through four case studies focusing on the institutional and practitioner discourses voiced by four different crafts in four different historical periods of Hollywood production: Cinematographers, 1919-1929; Grips, 1926-1947; Editors 1950-1970, and Steadicam operators 1973-1985. Each of these periods represents

significant moments when either the individual crafts were institutionally formed or the definition of the craft radically shifted. By examining the ways in which different below-the-line workers negotiated the discourse of their manual and craft labor across historical periods in Hollywood, I emphasize how visibility of labor has always been at the heart of institutional workers' discursive practices. To read industrial discourse as such is then to recognize that there has long existed a history of film style articulated by workers. The dissertation moves *not* towards an auteurism of below-the-line labor, designed to train or defend a practice of identifying specific artisans, but towards an awareness of how labor's voices prescribed more complicated notions of film style across Hollywood history.

I begin with the premise that Hollywood's "invisible style" has never really been invisible. Rather, I argue that style in industrial production has operated continuously as a critical, conceptual, and productive apparatus by which a construction and instruction of labor, technology, expertise, and craft has presented itself as work to the world. A useful analogy for Hollywood's craft formations and contributions considers John Ruskin's description of craft artisans designing elements of the medieval Gothic cathedrals. Ruskin argues in his essay "Stones of Venice" that, unlike the Greek temple overseen by distant architects and built by slave labor, each Gothic cathedral contains both the immense comprehensiveness of a mass labor force and individual markings of skilled craftsmen with the autonomy to literally carve out their unique traces into parts of the whole. Spectators of Hollywood film may encounter similar strange elucidations of the craftsperson when scanning their eyes across the whole of the film's surface. Some element, some strange twist of a camera movement's curve or some unique shadow down the length of a hallway, arrests the spectator. In this pause, in this holding to a detail—a segment of the film's whole—we notice the multitude of work in the production and

not simply the totality of its overall schema. The encounter with both the Gothic cathedral and the Hollywood production is amazing because their expansive separateness disrupts our ability to hold at once their totalities and respective parts. The disjuncture of viewing forces us to participate in this encounter with labor. The disjuncture refuses passive and easy viewing by forcing us to reconcile or fail to reconcile the oddity of parts to the project of its whole. It offers upon subsequent viewings new discovery of detail, new incongruities, new encounters with the many people who worked on the making.

I argue for a more erratic history of craft agency and bottom-up approach to Hollywood industrial production. As I highlight in Chapter 2, framing the Hollywood studios as factories and manual and technical workers as mere cogs in the wheel of production fails to account for the discontinuity and diversity of practices, technologies, techniques from different workers on different films, even at the same studio. As one producer explained of the seemingly minute work done with some of the lowest ranking workers on set—the grips, the electricians, and the property department—each shot, each scene, and even each film comes with it a new set of concerns, problems, and scenarios that must be imagined as if new.⁷ In each film, a new world must be constructed from known techniques and require the invention of new tools and the formation of new techniques, some that may never be used again.

Beyond technical jargon and industry speak, practitioners and workers of various crafts utilize language to describe a range of aesthetic techniques and goals. This language is both intensely embodied (describing physical and sensual abstractions of intuition, sense, feeling, manual labor, athleticism) as well as intricately craft-oriented (detailing obscure lineages of

⁷ See this dissertation, 189.

artistic formation, training, problem-solving, improvisation, codification, convention, and innovation with tools, techniques, and day-to-day working practices). I realized that in working to showcase how practitioners negotiated manual and craft discourse within their filmmaking practice, I could also potentially highlight what a future model of “sensing labor” could become.

1.1.1 Practice as Praxis

In the early stages of this research, I took the phrase “practice” and “practitioner” for granted. As a former practitioner, what seemed inherently understandable about the feeling of filmmaking as a “practice” often produced more questions than answers about what such terminology meant in this project. Instead, I ask the reader to think expansively about how the many definitions of practice, practitioner, and praxis operate for below-the-line film industry workers on a conceptual and concrete level.

Each chapter considers the professional activities and training that is tied to the concept and definition of what it means to be a “practitioner.” While often associated with the professional careers of law and medicine, practitioner is used in this context to consider the similar realms of professionalized training, specialization, vocation or calling, and rigorous evaluation of advancement according to a community or group (in this case the guild, union, and the industry). In this way, for example, a Steadicam practitioner has dedicated themselves to the craft of Steadicam through study, advancement and acknowledgement within the community via different structures of both informal and formal codifications and apprenticeship, and has become known not only for mastering traditional procedures, but in innovating and advancing new tools, techniques, and stylistic maneuvers of their own.

The “practice” of craft is tied to and distinct from being a practitioner of the craft. I consider practice first in its routine sense of carrying out an activity or route of action in a consistent manner (as the cinematographer’s set-up and break-down of equipment when setting up a shot is a habitualized process performed via usual conduct and muscle memory). Secondly, I consider practice as described by the Oxford English Dictionary as “the actual application or use of an idea, belief, or method, as opposed to the theory or principles of it; performance, execution, achievement; working, operation; activity or action considered as being the realization of or in contrast to theory.”⁸ For craft practitioners, one’s practice is to be, in effect, the theory and knowledge of the craft realized in the material world through one’s body.

In this way, for craft practitioners, their practice is also very much a praxis. Praxis here is also a political act that insists on the worker’s body as a site for ideological struggle at the level of working conditions and/or a worker’s theory of that work as a radical “common sense” mode of discourse that mediates (and at times resists) top-down paradigms of style.⁹ I argue here and throughout the dissertation that craft discourse serves not only to comment on institutional forces and craft protocols, but functions as a dynamic praxis of the theoretical craft knowledge and the embodied and manual labor of the work. In below-the-line discourse, film production workers synthesize their action and theory into language that describes and actualizes the work in progress. Practitioner discourse becomes in this activity, a productive apparatus by which workers come to know their work within their craft communities.

⁸ “Practice, n.”. OED Online. March 2018. Oxford University Press.

<http://www.oed.com.pitt.idm.oclc.org/view/Entry/149226?rskey=HFKQUn&result=1&isAdvanced=false> (accessed April 07, 2018).

⁹ Raymond Williams, “Culture is Ordinary,” *Resources of Hope: Culture, Democracy, Socialism* (New York: Verso, 1989), 3 – 18.

I argue for two approaches in thinking about a discourse developed and shared between practitioners. First, that language of technical craft discourse develops out of embodied relationship to the space of production where practitioners describe “tactile metaphors” from sense, intuition, and bodily movement (both virtuosically athletic and physically exhaustive). Secondly, that language of technical craft often strives to adopt the rhetorical and material models established by the other arts.¹⁰ These modes of description must fit into, improvise, or contest the micro-levels of discursive craft formation within the guild, the practice, and the working space or the workshop. Beyond the community of fellow craft practitioners, craft discourse always serves a secondary function of communicating across a broader range of institutional and industrial audiences: promotion of the craft to the industry as a whole (including adjacent avenues of critical and trade discourse) and educating the public by making legible the work of the practitioner with the whole of the film.

1.1.2 Working Metaphor

Craft practitioners often evoke metaphor when describing and translating their craft practice. Cinematographers describe their work as “painting with light,” Steadicam operators describe their craft as “dancing with camera,” editors sometimes describe cutting “as creating music,” and electricians, grips, and some cinematographers even swap “painting with light” for the more

¹⁰ Certainly, Bordwell in *Classical Hollywood Cinema* acknowledges and makes a similar argument out of E.H. Gombrich’s model of ‘group style’ in art history. My argument is not to accept these art historical influences as natural corollaries, but rather to treat them as political acts. Technicians articulate legitimation and legibility for technical crafts by aligning manual craft with ‘high art’ forms of craft. In this, film practitioners in technical crafts also help draw out a more complex understanding of the bodily, manual practices in day-to-day craftsmanship in the other arts while also relying on more abstract, but also more established rules of composition, lighting, and narrative construction to draw parallels.

material metaphor of: “sculpting light.” Below-the-line workers regularly evoke tactile metaphors and figurative description as a tool of translation to specialized and non-specialized audiences (producers, directors, and general viewers). These rhetorical maps are both productive records of self-description and utilizable for a range of translations across institutional, industrial, and public spheres. These translations serve a communicative function on the level of articulated maneuvers in day-to-day craft practice on set. For example, it may be necessary to describe metaphorically or figuratively a technique a practitioner is attempting to accomplish for a non-practitioner. Sound designer and editor Walter Murch is the master of using metaphor to convey and teach complicated and abstract notions of sound design and communicate swiftly and efficiently the felt effect of a sonic production choice. In one online interview, Murch described the effect of bringing a “bad” consumer microphone alongside good professional microphones to recording sessions:

When we record certain sounds for films, we use multiple recorders at various distances for different perspectives, and we also bring along a “bad” recorder, such as an old consumer-level video camera, to create a sound that has a degree of distortion in it. This is added to the final track, like a dash of bitters, to give the sound a ‘realistic’ quality it wouldn’t otherwise have.¹¹

This doubled-description, the technical and the figurative, provides the rationale for the choice and the sense-effect produced for a non-practitioner’s understanding. Even if they don’t understand “distortion,” they may understand the pleasing effect that just a “dash of bitters” can add to a drink.

¹¹ Walter Murch, “Comments: Sonic Realism,” Transom.Org, updated March 6, 2005, <https://transom.org/2005/walter-murch/>.

I will discuss this translation and communicative function in greater detail later, but for now I want to focus on how metaphor and figurative language serves as a self-articulation that activates theory in the process of making. I make recourse to Giambattista Vico's understanding of "poetic wisdom" to help describe how this metaphoric discourse functions for practitioners to themselves. As Vico argues, poetic wisdom differs from philosophic wisdom in that it originates not from established knowledge or understanding of the world, but from immediate sensations, curiosity, exploration, feelings, present activities, and material reactions in the moment. As Vico explains, "The human mind does not understand anything of which it has had no previous impression from the senses."¹² A form of expression catalyzed from creative and active working through of sensation into language, poetic wisdom is evocative if also rough, messy, and not easily or immediately assimilated into more established modes of discourse. Unlike the codified discourse of craft—jargon, terminology, technical language and training norms, metaphoric discourse—working metaphors can arise in the moment of action to communicate physicality and sensation. Metaphoric discourse if understood and felt by enough practitioners and refined over time can become a mode of established discourse, but sometimes its articulations continue to exist as felt throughlines that never completely cohere to codified language of the discourse. For craft discourse, metaphors that appeal to other arts are often foregrounded as primary discourse while metaphors that call upon sensation, emotion, and bodily labor often remain in the background of interviews, articles, and articulations of practitioners.

Embodied description precedes established craft theory and enacts for the practitioner an instrumentalization of description as a way of working through in the moment of its making. In

¹² Giambattista Vico, "The New Science," *Critical Theory Since Plato*, eds., Hazard Adams and Leroy Searle (Stamford, CT: Thomson/Wadsworth, 2005), 315.

this way, metaphor also performs a practical activity for practitioners when it evocatively equates aesthetic form with other artistic practices of touch and physical activity. In the “Three Addresses by way of Preface” to his 1924 *Visible Man*, Hungarian film critic and theorist Béla Balázs recommended to “directors and all other fellow practitioners” that theory is that which “you need in your fingertips, not in your heads.”¹³ Balázs explains to practitioners, “You love the material you work with. You keep on thinking about it even when you are not actually at work and enjoy playing around with it in your mind. This playing around in one’s mind, however, is already theory.”¹⁴ Similarly, sound designer Walter Murch has described accidental moments in sound recording and mixing that open up new pathways of play and experiment for thinking about where and how a sound can be used. Murch makes several of these moves in his own writing by relating certain sound production techniques to dance, colors, an orchestra, and refers to layering in the mix as “building up” or “cooking.”¹⁵ As editor Leon Barsha explained in a 1957 article in *The Cinemeditor*, writing and thinking about one’s craft in the moment offers a theory in which to build and explore one’s thinking and making further, “When we are forced to analyze our work and talk about it we come out with a better understanding of something we have been doing intuitively.”¹⁶ This understanding of what one has already been doing is

13 Béla Balázs, “Three Addresses by Way of Preface,” *Visible Man in Béla Balázs: Early Film Theory*. ed. Erica Carter, trans., Rodney Livingston (New York, NY: Berghahn Books, 2010), 6.

14 Balázs, *Visible Man*, 6.

15 Walter Murch, “Dense Clarity – Clear Density,” *The Transom Review* 5, no. 1 (April 2005): 22.

16 Leon Barsha, “Promoting Motion Picture Appreciation in High Schools,” *The Cinemeditor* 7, no. 3 (September 1957): 3.

beneficial not in its ability to be translated for other audiences, but serves a function in the performing and enacting the work for oneself.

The working metaphor then becomes not merely descriptive, but an active part of how practitioners process and work through the tasks at hand. For if to maneuver lights on set is also to sculpt, one begins to light differently not just as a conceptual map, but also via distinct physical techniques of shaving, cutting, and lopping light and shadow from surfaces. Similarly, when some editors (especially in digital workflows) describe their craft not unlike that of a jazz pianist, they are describing something about the physical activity of pressing the computer keyboard that is rhythmic, improvisational, and punctuated by impulsive and intuitive sensations. While the primary mode of working metaphor in Steadicam is dance (and the practice includes dance pattern worksheets, dance lessons, and considerations of the technological apparatus as a dance partner), Steadicam practitioners also describe the practice in many other iterations of embodiment, including jockeying a horse and holding a marble on a plate in space. I explore each of these cases more fully in the chapters, but I mention them here to showcase that although certain metaphors have become primary modes of craft discourse, new metaphors and personalized metaphors continue to arise and function for individuals and communities within crafts. These spontaneous, personal, and sometimes ephemeral metaphors help to describe their own experiences of work and to delineate for themselves their guiding map of working practice. By thinking in this way, practitioners are able to put into practice a methodology that coheres around the often-discrete aspects of craft knowledge with embodied sensation. The working metaphor then is a tool for translation, self-articulation, and, most importantly, it is operative at the level of day-to-day praxis. A whole new set of accompanying language including verbs, nouns, adjectives, and adverbs reorients practitioners to a new range of actualized physical and

mental activities. In this way, they begin to touch, feel, handle, conceptualize, move, and see in different ways.

1.1.3 Embodiment, Intuition, Sense

Practitioner discourse also includes moments when language fails to describe practice and technique. Practitioners often cite intuition, instinct, sense, and embodied experience as productive modes in which they make filmmaking choices, from knowing where to cut a scene, how to set up a shot, how much to shade a light, to pacing the movement of the camera. When practitioners can, they describe these choices in terms of narrative, character, or genre motivation, and responding to institutional or industrial pressures (the unspoken rules of the craft or the demand of a director or producer). Sometimes, however, the choice between cutting one frame to the next or composing the frame half an inch off is not the result of protocol but of what “feels right.” If so much of practitioner speak cannot describe why they did one thing or another but reverts to explanations of feeling, sensation, or intuition, how might scholars account for these descriptions when addressing craft style?

Editor and scholar Karen Pearlman explains, “Intuition is not the same as instinct. People are born with instincts, but intuition is something we develop over time, through experience; in other words, it is learned.”¹⁷ Intuition in this way is contextual to the craft in which its being evoked and for the specific practitioner who makes recourse to its meaning. The downside to reading or hearing historical practitioners speak of or towards “intuition” is our inability as scholars to ask them what their intuition means for them. As Pearlman describes, many editors

¹⁷ Karen Pearlman, *Cutting Rhythms: Shaping the Film* (New York: Focus Press, 2012), 1.

think of intuition as “what feels right,” combined with some abstract sense of “magic” or “it just makes sense.” Without being able to press back on this use of language to encourage practitioners to use gesture, anecdote, or illustrating via a practical example, it becomes nearly impossible to know exactly what practitioners mean when they say they intuited a cut, the framing of a shot, or the choreography of a camera movement. Here, “knowing” is archived in the body over time, like an athlete’s muscle memory, a hunch, or a prediction.

Scholars of film practice and technology sometimes bristle or discount this kind of language as capable of doing the kinds of intellectual work necessary for contextualizing, describing, and theorizing labor. When I have asked other academics about our impulse to avoid this language, they have responded with concerns that such embodied knowledge is beyond the terrain of academic work and outside of serious consideration for analysis. But, sense-knowing is about a theory of being in the world that can only describe in retrospect the feelings, physicality, emotions, instincts, and knowledge that spills forth in the moment. To take practitioners seriously always means developing techniques and approaches by which intuition and anecdote are valued as one of many craft tools practitioners use in the processes of making and theorizing. In Maurice Merleau-Ponty’s conception of artistic work, this sense process is made visible or felt through various attempts at an idea or through image-making over time; for example, Merleau-Ponty cites Paul Cézanne’s repeated tracing and circling around an object as if “he wanted to depict matter as it takes form.”¹⁸ I have attempted throughout the dissertation to describe craft specific intuition with anecdotes from the body and by retelling manual and technical protocols to help readers have a “sense” of what it feels like to hold a camera, make a cut, create a light

18 Maurice Merleau-Ponty, “Cézanne’s Doubt,” *Sense and Non-Sense*. trans., Hubert L. Dreyfus and Patricia Allen Dreyfus (Evanston, IL: Northwestern University Press, 1964), 14.

shadow, or move through the world as if balancing a Steadicam. These approximations can help scholars, if not intellectually comprehend, then at least imagine how intuitive sensations and embodied practice fulfill a vital and integral role in craft practice and theory.

1.1.4 Manual, Feeling, Physical

The manual labor of technical craft practitioners should be considered as tactile tasks that determine and are determined by their respective technological tools, socio-political environments, and physical abilities. Within the industry, craft practitioners perform activities that exceed a purely technological knowledge set and involve both athletic feats and mundane manual tasks that inform these workers' own aesthetic theories of making. Descriptions of manual, mechanical, and physical work serve multiple functions in craft discourse. For one, these function as a basic utility for elucidating practice and maneuvers on set, which helps establish to other practitioners how they might move their bodies safely and perform work efficiently. Such descriptions also serve a function for superiors who (whether they want it or not) need explanations for how long workers need to complete manual and mechanical tasks with skill and without injury. Other descriptions of manual and physical labor sometimes enact a broader educational function for the craft in articles and interviews that teach practitioners how to train their bodies for certain kinds of muscle memory and bodily stamina. These descriptions are often quite evocative and read somewhat knowingly like procedures for professional athletes in terms of recommendations for stretches, diet, and rest, as well as to develop techniques for imagining and mind-mapping the shot in a play-by-play. While certainly some of these accounts perform a promotional function to highlight the virtuosic physical skills of a practitioner, sometimes even the most mundane and subtle tasks of analog and digital editing take center

stage. I consider both of these forms, like intuition, to be integral processes of the crafts in discussions and ask in what ways these manual, mechanical, and mundane activities inform our perception of craft style and labor.

Politically, there is a real historical and social imperative to taking below-the-line labor seriously as a form of athleticism and as a form of manual and mechanical labor (not just as a form of artisanal or artistic practice), especially when practitioners choose to identify as such. When scholars or critics elevate labor to auteurism, they effectively seek to change the status and conceptual apparatus for what that work might mean to scholars and what it does mean in the daily lives of workers. Calling a gaffer an auteur separates the manual practices and physical pains of that work from the more lauded integral conceptual and artistic practices of the craft when these two modes must necessarily go hand-in-hand. A conventional professional mantra of artists and professionals, “love what you do and you’ll never work a day in your life,” has real implications for the material conditions surrounding those lives. Discourses of “love” and “passion” that often become inseparable from artistic and professionalized communities, like craft work in Hollywood, contributes to forms of precarious, unpaid, and even dangerous labor.¹⁹ As is the case now, so it has been the case in Hollywood across its history.

The precarity of craft workers in Hollywood has been a mainstay since the early days of the studio system. Workers’ bodies at various levels of crafts were arguably exchangeable to producers and studio heads who might not readily distinguish between different worker’s contributions to style or efficiency. Thus, communities of workers as crew teams, unions, or guilds served primary roles, not simply in advocating for craft recognition but for gaining

¹⁹ Miya Tokumitsu, “In the Name of Love,” *Jacobin*, January 12, 2014, <https://www.jacobinmag.com/2014/01/in-the-name-of-love>.

regulations that protected workers' hours, safety, bodies, and status on set. Using the terms "labor" and "work" in these ways often presented a gamble for craft communities depending on their end goals. For to say one is a laborer or a manual worker is also to claim, quite politically and socially, what one is not. Depending on the guild, or even one's ranking within the crafts, class consciousness presented tricky terrain to navigate. Guilds, like the American Society of Cinematographers (ASC) in its early years, found it difficult to advocate for the more manual aspects of their crafts for fear of drawing too much attention to the working-class backgrounds of its practitioners.²⁰ Other crafts, like editors, grew weary of the manual definitions of their work for fear of aligning their primarily college educated and middle-class practitioners with working-class and even gendered "handiwork" conceptions of the practice. Thus, for crafts to call attention to their manual and mechanical work (which remains inseparable from craft practice) was, at many times in their history, a political and social choice that could potentially expose and harm their professional status. Conversely, this terminology could also assist them in campaigns for better working hours, safer working conditions, and more stable and consistent working days in a year.

1.1.5 Craft, Guild, Workshop

While exploring four distinct craft, guild, and union formations in different historical periods, much of the dissertation considers how these various guilds informed and inflected how other guilds functioned in Hollywood. I use the word "guild" loosely to refer to an institutionalized formation of craft which functions in the parameters and traditions of a medieval craft guild.

²⁰ Patrick Keating, *Hollywood Lighting from the Silent Era to Film Noir* (New York: Columbia University Press, 2010), 18.

Such a guild prescribes discursive and practical norms and expectations of the craft, educates its members within a community, and promotes the craft's goals to a wider audience. In this way, both unions and fraternal organizations explicitly frame themselves as "guilds" and can be framed as "guilds." If they are performing the functions of a craft guild that dictates norms, expectations, and attitudes about the craft at large (as a fraternal organization like the ASC has often done) then I treat it as a guild even if all craft practitioners of cinematography do not belong to the ASC. A craft can have an identity outside of a guild or a union, though it is often these institutional and community structures that ground the discourse, promote the craft, and enable protection of tools, techniques and methods. Each chapter explores the practice of the craft writ large, its imagined and accepted parameters, and how that craft negotiates with union representation (within or outside of a guild) to accomplish political and economic goals. In looking at ASC in my first chapter, I detail how Hollywood's earliest technical craft guilds established protocols of discourse and industry communication that would set the model for guilds to come (like the American Cinema Editors in the 1950s) as well as encouraged a trend to separate guild and union matters. Emphasizing the social and community nature of an invited guild membership by labelling itself a fraternal organization, ASC established a precedent for guilds in Hollywood as being for those practitioners that most exemplified the art and promotion of the craft. Thus, future guilds were less interested in representing or promoting all members of the craft and instead highlighted the techniques, skills, and artistry of a select few.

Thus, I examine how craft, even if governed, codified, and articulated primarily via guild vehicles, also offers articulations and practices outside of those institutions. One of those places is within union representation, but as I explore in Chapter Two, the organization of the International Association of Theater and Stage Employees (IATSE) represented such a large

number of specialized and non-specialized technical employees in film, theater, and exhibition that the organization was easily co-opted by the exploitative politics of the 1930s and rarely represented the individual craft concerns of its locals. Thus, craft discourse operates in broad, unbounded, and experimental modes across individual practitioners and niche communities within the craft, even as craft discourse was regulated via institutional modes of discourse within craft guilds and the union. Both a film-historical and film-theoretical account of craft technicians must negotiate the tricky landscape of practitioner discourse that mediates the official language of the institutions, with all its seeming contradictions, self-degradation, and ballyhoo.

It is useful to think about the specifics of craft formation, institutionalization, and change in an industrial filmmaking context. It is also helpful to make recourse to broader trends in craft formation. Situating film craft within historical formations of craft reminds scholars that craftspeople have always been a distinct social and economic formation with their own set of rules, norms, practices, and discourse. As Richard Sennett describes in his sociological study of craft, “An ancient ideal of craftsmanship, celebrated in the hymn to Hephaestus, joined skill and community.”²¹ For Sennett, craftsmanship depends on the individual, autonomous craftsman, the craft and its institutional forms, and craftsmanship of the work. Sennett insists that craft is not an art (which he argues has a single dominant agent versus a collective agent) but functions in relationship to socio-economic status, a certain mode of production combining artisanship with utility (care and ability with speed and limitations), and bodily labor with technical tradition.²² In focusing on what Sennett calls the “intimate connection between head and hand,” he argues

21 Richard Sennett, *The Craftsman* (New Haven: Yale University Press, 2008), 51.

22 Sennett, *The Craftsman*, 73.

that craft “begins as bodily practice” and “that technical understanding develops through powers of imagination.”²³ The place in which the head and hand worked together was called the workshop and it was a place for learning, training, problem solving, routine, experimentation, tool practice and innovation, and improvisation.

The workshop, Sennett explains, in medieval times was a spiritual and practical home wherein “people dealt face-to-face with issues of authority. This austere definition focuses not only on who commands and who obeys, but also on skills as a source of the legitimacy of command.”²⁴ The workshop, then, has its own social history where craft is negotiated in isolation and “in the flesh” with tools, other practitioners, and modes of authority located within specific “master” craftsman and the unwritten and written discourse of the craft. While the film-technical crafts I explore do not often have a physical location for their workshops, they do have many spaces where the workshop virtually takes place either on set, on location, at the guild house, or the union meeting. The workshop is a “productive space” of learning, testing, and articulation. It is also a site of contestation where technologies come into use and fall into obsolescence, and it is an arena in which workers articulate metaphors of practice and experiment with techniques in the moment. The workshop is present in the active film shoot, the tinkering with one’s tools or “kit” at home, the sharing of problem-solving and workarounds at meetings, in correspondence, and in published house-organ articles. The workshop is where ideas and activities are open to play and a place where the authority of the guild and other practitioners challenge and foreclose experimentation and possibility. The workshop is at once

23 Sennett, *The Craftsman*, 9 – 10.

24 Sennett, *The Craftsman*, 54.

free-wheeling and a system by which traditions, expectations, and rules are legitimized.

Within the workshop, embedded, instinctive, intimate, and bodily tacit knowledge is translated into explicit skills. As Sennett explain, “every good craftsman conducts a dialogue between concrete practices and thinking; this dialogue evolves into sustaining habits, and these habits establish a rhythm between problem solving and problem finding [...] There is nothing inevitable about becoming skilled, just as there is nothing mindlessly mechanical about technique itself.”²⁵ Although the workshop depends on the making of things with hands, the touching of tools and materials, and learning “in the flesh” from other practitioners, guild-discursive norms often minimize the role of the body and the manual and mechanical tasks in order to promote the guild’s worth to society in more aspirational modes. On one hand, the act of translation that figures craft as art opens-up aspects of the craft to larger audiences that could potentially, in turn, reward the craft with promotion, appreciation, prestige, and financial gain. On the other hand, such translations often foreclose integral articulations of craft as embodied, sensual, and physical. One crucial aspect to this discourse, however, is how often craft translations between crafts like cinematography and the “high arts” (“painting with light”) are valued over cinematography’s discourse involving questions of manual and physical labor. I explore this productive tension between head and hand by yoking these two conceptions together: first, the intellectual discourse of “high art” craft production – its traditions, philosophies, techniques and valorization of artistic skill, and second, the material day-to-day labor of working—hours on set, hauling heavy equipment, and setting up hot lights.

²⁵ Sennett, *The Craftsman*, 9.

1.1.6 Industrial Communication: Negotiating Promotion and Politics

Addresses from technicians or crafts to above-the-line workers (directors, producers, actors, writers) as well as to public forums (education and general audiences) serve the function of communication, promotion, political maneuvering, and translation of basic tasks. I am interested in why and under what conditions technicians make these sorts of moves. Each chapter explores how the guild, craft, and union navigates translating their work to producers, the industry, and other guilds. In this way, crafts attempt to make their work legible in order to gain recognition, power, prestige, socio-economic power, and autonomy. In many cases, public-facing translations in non-industry publications or media broadcasts, behind-the-scenes special features, and practitioner talks also serve the goal of training audiences *how* to appreciate the craft. This kind of publicity work has been pushed since the beginning of these crafts. Either on their own or with the help of publicists, crafts attempts to procure the attention of local and national media outlets, universities and cultural centers, and popular press literature. This kind of discourse sells an educating function and appeals to a certain public desire to see and feel the inner workings of the industry via appreciation.

More often than not, practitioners find themselves caught between the rhetoric of promotion and exerting their manual and technical skills. Discourse, then, is as an active part of the job defending the parameters and stakes of the craft as is promoting it. Take for instance the fervent response to a 1985 editorial by Richard Patterson in *The American Cinematographer*. Patterson insisted that American directors were hiring more foreign directors of photography because these practitioners were not simply technicians, but brought more culture and knowledge

with particularly European artistic sensibilities.²⁶ In angry letters addressed to magazine advisory-board chairman Milton Krasner, ASC members asserted a mix of responses. Some insisted on the cultural knowledge and educated background of many cinematographers; others decried the continued expectations of performed cultural capital when what was really at stake was time, money, expertise, and skill. As Richard Shore, ASC, bemoaned:

It is [an] unfair inference to suppose that few or no American cinematographers are equally educated. Unfortunately, the American cameraman who makes references to literature or painting which might have significance with respect to a cinematic problem runs certain risks. The reason for this is that cultural awareness is frequently regarded suspiciously as the mark of a thinker, not a doer. In short[,] as the emblem of the impractical dreamer...Those directors who feel “more comfortable with a person who understands references to art history” might be surprised to learn that there are American Cinematographers who have some acquaintance with the treasures of Western Civilization. Foreign accents no more bespeak learning than native ones assure ignorance.²⁷

As Shore’s statement points out, practitioners must constantly mediate the cost and benefits of promotional and translation discourse that potentially privileges the head over the hand. Another letter to Krasner, that of television and theater lighting designer James L. Moody, referenced the ongoing frustration that industry practitioners had faced over the last few decades with runaway productions, as well as with producers and directors attempting to find cheap international labor outside of the American unions. Moody’s emphasis on practitioners as union workers highlights the manual and mechanical aspects of the craft in opposition to the performed aspects of the craft’s artistic aspirations:

Our Guild with the use of the Producer’s Roster insures that everyone have extensive background to qualify for our technical jobs. Most have had university training and should it not be seen as a nice plus that we do get better technical training thrown in? It

26 Richard Patterson, “From the Editor,” *American Cinematographer* 66, no. 1 (January, 1985): 6.

27 Letter from Richard Shore to Milton Krasner, January 10, 1985. Milton Krasner, ASC papers. Margaret Herrick Library.

escapes me why a producer wants a cinematographer who speaks in culturally rich metaphors but doesn't know how to deal with the day to day technical matters. If our training is so bad, why do countless foreign students flock to our shores to enter our programs?²⁸

ASC quickly and publicly dismissed the frustrations voiced by Moody, Shore, and others. It sought to reorient contentious conversations back to their codified norms of metaphor and analogy which more comfortably represented all American cinematographers as intelligent artists. By the May 1985 issue, the President of ASC, Stanley Cortez, penned a short apology for the opinions of the editor.²⁹ Cortez assured the membership, and more importantly, the industry and public subscribers to the publication, that the contributions of ASC members were the result of the highest intellectual, cultural, and artistic value. While Cortez says nothing about the guild's technical skills, working experience, or relationship to the political and economic concerns raised by the membership's letters, his editorial reminded the guild, the industry, and the public of the preferred "artistic" discourse when referring to the craft of American cinematography.

This example explicating the complicated politics behind craft discourse should be of interest to scholars of film history and film aesthetics for the ways in which craft discourse and theories of style might influence alternative routes for writing about film and media. Aesthetic theory in the hands of below-the-line makers circulates in different public arenas and distribution spheres than those of critics and scholars, and it develops a more dynamic public exchange between labor, the industry, and audiences. The problem of this practitioner discourse is that it often reads in opposition to or askew from assumed patterns of film language and stylistic

28 James L. Moody to Milton Krasner, ND. Milton Krasner, ASC papers. Margaret Herrick Library.

29 Stanley Cortez, "We Regret," *American Cinematographer* 66, no. 5 (May, 1985): 7.

construction described and systematized in film studies. In this, the terminology and modes of address in craft discourse often seems untranslatable to academic and critical terminology of film style.

1.2 HISTORIOGRAPHY: FILM STUDIES AND FILM LABOR

The study of Hollywood filmmaking, national film industries, and the global filmmaking marketplace has always held a prominent if not dominant place at the heart of film and media studies. An understanding and articulation of filmmaking as industry is central to our framing of film history, its disciplinary import, and the argument for why we might study and teach film and media as a mass entertainment. Industrial filmmaking in a Hollywood context is particularly necessary for my inquiry. It reveals the ways in which workers' participation in studio filmmaking offered certain possibilities for creative autonomy and experimentation within craft guilds, as well as how it was granted limited recognition by industry practitioners and institutions, despite scattered unionized protection and representation in matters of its safety and compensation.

A rejection of Hollywood style—so pervasive in art house and independent modes of production—also betrays itself as a dismissal of the multitude of workers' contributions to apparatuses of film and media history. I explore the relationship between the discipline of Film studies and histories of film labor, as well as its relationship with workers' approaches to style. My case studies engage with a wide range of film historians and scholars of style and technology when approaching each craft. Even so, I return again to larger conversations in the fields in

which craft is situated: film-industrial history; theories of style, apparatus, and technology; and media industries and production culture.

1.2.1 Histories of the Industry

While film history has been written since the medium's inception, the rise of revisionist and empirical film histories in the 1980s—a response to the scholarship of the 1970s (i.e. feminist, Marxist, psychoanalytic, and semiotic approaches, as well as auteur theories driven by close-analysis)—marked a period of exponential growth in scholarship on Hollywood as an industry. As Edward Buscombe explains, “A notorious case might be the concept of ‘classical Hollywood cinema,’ a term endlessly bandied about in the 1970s as if all the painstaking work needed to specify its meaning had already been done.”³⁰ Thanks to new availability of studio archives and records like the United Artists collection at the Wisconsin Center for Film and Theater Research, the Warners collection at USC, and the Fox and RKO collections at UCLA, film historians could suddenly tell a different history of Hollywood. This history would be based not only on films or “anecdotal” histories of the industry, but also on a documented period of economic players and industrial forces. One might imagine that the new interest in economic and technological histories of film catalyzed by the opening of corporate archives and touted in influential texts like Allen and Gomery's *Film History: Theory and Practice* (1985) might also include more detailed information about the people who supplied studio labor.³¹ As it turns out, studio records

30 Edward Buscombe, “Film History in the 1980s,” *Velvet Light Trap - A Critical Journal of Film and Television* 27 (1991): 3.

31 Robert C. Allen and Douglas Gomery, *Film History: Theory and Practice* (New York: Knopf, 1985).

do not actually tell us very much about the lives, techniques, or skills of the many workers at a film studio, but they do tell us a great deal about studio executives and producers, and occasionally about directors and stars.

Detailed in research and extensive in analysis, revisionist film histories from the late 1970s through the 1980s account for a stunning range of production activities at the Big Five studios (Warner Brothers, MGM, Paramount, RKO, and Fox/Twentieth Century Fox) as well as the minors (Universal, United Artists, and Columbia). This body of literature continues to be the cornerstone of scholarly work on the histories of Hollywood-as-industry.³² Although these texts are at once part of the canonical historiography of Hollywood, their methodologies and arguments have perhaps overdetermined our notions about what Hollywood was, how it worked, and how its history could be written in the future. Each of these accounts forefronts various notions of industrial analysis, corporate authorship, the signature style of the studios, producer-control through the “central producer system,” and streamlined production and efficiency practices for increasing modes of narrative continuity and aesthetic coherence. And yet, within each of these top-down schemas, moments of bottom-up disruption caused by studio labor stand

32 The corpus includes such works as: David Bordwell, Janet Staiger, and Kristin Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960* (New York: Columbia University Press, 1985).; Janet Staiger, ed. *The Studio System* (New Brunswick, N.J: Rutgers University Press, 1995).; Douglas Gomery, *The Hollywood Studio System: A History* (London: Macmillan, 1986).; Tino Balio, *United Artists: The Company Built by Stars* (Madison: University of Wisconsin Press, 1976).; Tino Balio, *The American Film Industry* (Madison, University of Wisconsin Press, 1976).; Richard Jewell and Vernon Harbin, *The RKO Story* (New York: Crown Publishers, 1982).; Thomas Schatz, *The Genius of the System: Hollywood Filmmaking in the Studio Era* (New York: Pantheon Books, 1988).; and the detailed ten-volume *History of the American Cinema*, with books penned by Charles Musser, Eileen Bowser, Richard Koszarski, Tino Balio, Donald Crafton, Thomas Schatz, David Cook, Paul Monaco, Peter Lev, and Stephen Prince (1993-2006).

out momentarily only to be discounted as aberrances or exceptions to the rule. While I do not argue about the extensive systemization of the vertically integrated studio system and the many ways in which authority determined even the lowest levels of style, I want to insist that the exceptions were as common in studio working practice as the rules.

For example, in its attempt to institutionalize a model of top-down production, *Classical Hollywood Cinema* illuminates by necessity just how crucial workers' individual and collective contributions were to the studios' day-to-day production, technological developments, and recitations of their own stylistic priorities. Each chapter, particularly those authored by Bordwell contain loose ends or extensive footnoting, heavily citing worker discourse in publications like *American Cinematographer*. These oddities halt the reader, forcing them to consider other possible interpretations and untold histories within the greater throughline of *Classical Hollywood Cinema*. These interruptions within the text are perhaps the most telling of the studio system's own constantly disruptive and shifting stylistic and technological priorities. The text, designed to tell an economic industrial account of a forty-plus years of history, opens line-by-line and citation-after-citation onto a rich and conflicting network of alternative histories. It is history, as Hayden White would have it, whose "historical record is both too full and too sparse."

³³ Where the overriding narrative of *Classical Hollywood Cinema* suggests only one possible reading of Hollywood's hegemony within industrial practices, narrative form, and technological development, its footnotes reveal a hidden history of worker relations that resisted and negotiated top-down models of production practice. *CHC*'s desire to explain the overriding ideological superstructure of the studio system as tied to the tidy design of its base explicitly attempted to

33 Hayden White, *Tropics of Discourse* (Baltimore, MD: Johns Hopkins UP, 1978), 51.

avoid the complex and contested everyday interplay workers leveraged within and against studio practices. Its unstated suggestion is that workers were so heavily interpolated into studio ideology that all practices and discourse spoken within it represented the dominance of studio system culture and capitalism writ large. Despite these explicit aims, *CHC*'s project is implicitly and inextricably infused with workers voices and bodies.

1.2.2 Style, Technology, Apparatus

Theories and histories of film style beginning with André Bazin and seemingly exhausted by David Bordwell reassert teleological narratives such that, as Edward Buscombe puts it, “The latest form of cinematic development was invariably seen as evidence of progress, a progress which moreover was always and already contained within its beginning.”³⁴ As Bordwell outlines at the beginning of *On the History of Film Style*, his goals in constructing such a narrative on history is to begin with the assumption that a history of style contains established and recurring patterns and a coherent, linear, continuity of stylistic techniques.³⁵ In this way certain techniques would develop patterns naturally thanks to other material, ideological, and artistic forces, but would cohere into an understandable formation by its developments across genres, directors, studios, national cinemas, modes of production, and film history. These “cinema itself” models came to dominate the discourse of emerging film language in film studies, both in film history and in film theory. Regimes of empirical film history, modes of apparatus theory, and histories of style from the 1970s onward sought to force out narrative eccentricities involving technological

34 Buscombe, “Film History in the 1980s,” 3 – 8.

35 David Bordwell, *On the History of Film Style* (Cambridge, MA: Harvard University Press, 1997), 4.

shifts, audience reception, and labor discourses that did not fit easily into the doctrine of studio assembly-line determinism and the ethos of eternal stylistic progression. These disciplinary regimes concretized in the 1980s and 1990s at the heart of a Film studies fascination with Hollywood, and continue to promote a failure to speak and articulate style as constructed by an evident filmmaking workforce.

In this way, academic scholarship on histories of style, technology, and apparatus theory offer additional arenas with which I regularly engage. Film studies outliers like Barry Salt's *Film Style and Technology: History and Analysis* is itself an odd and eccentric in voice amongst the works of 1980s revisionism. Salt's key text emphasized a new scientific and data-driven conception of film style that drew suspicion, not only for its "data and graphs," its measure of technique and style via "Average Shot Length" (ASL), but also for the language and tone of the writing (at turns acerbic, definitive, and dismissive).³⁶ Yet, Salt is often cited by scholars working between the intersections of style, labor, and technology for his attempt to bring together "old film theory and new film theory" with detailed descriptions, diagrams, and images of technology across filmmaking history. As a sourcebook, *Film Style and Technology* is invaluable, and yet its call to "omit all those technical ideas that had no success in the film industry" mistook a dynamic and contested picture of filmmaking history for an emphasis on stylistic continuity and dominance.³⁷

In apparatus theory, Jean-Louis Comolli's critique of "innovation" in matters of style and technology demanded that scholars avoid obfuscations of historical linearity. As Comolli argued,

36 ASL has remained a tool to evaluate questions of style and stylistic change. See: Yuri Tsivian's Cinematics project.

37 Barry Salt, "Preface," *Film Style and Technology: History and Analysis* (London: Starword, 1983).

the emphasis on “for the first time” or on historical breaks sought to smooth over incoherency, contestation, and sites of struggle as naturalized modes of improvement and progression of style. In doing so, Comolli departed from ‘idealist aesthetics’ of Bazin and Mitry who emphasize “the complete autonomy for the aesthetic process.”³⁸ By looking at technique—its many possible histories, situations, modulations, failures, discourses, placements, and uses—as dialectically stratified, we potentially “break apart the fiction of an autonomous history of the cinema.”³⁹ Comolli warns that an approach to cinema as only a “continuous chain of connections” rewrites the empirical and narrative situations of the past to fit the dominant signifying practices and structures of the present. Although Comolli’s project is concerned primarily with questions of technology, and notably overlooks questions of labor, I similarly avoid the naturalized language of evolution in technique and craft.

As is evident throughout each chapter, crafts often articulate their dominant narratives through indicators of stylistic progression, technological invention, and innovation of technique. They mark out their rise to prestige, autonomy, and artistry via notions of established modes over changing notions of tradition, codification, and expectations of craft style. However, across these accounts, it becomes clear that these crafts are at the same time telling many other stories about craft through error, troubleshooting, problem-solving, mechanical work, manual labor, exhaustion, one-time experiments, and improvisation. As I explore in Chapter One, even in a guild as old as the American Society of Cinematographers, the eccentricity and diversity of this

38 Jean-Louis Comolli, “Technique and Ideology: Camera, Perspective, Depth of Field (parts 3 and 4),” *Narrative, Apparatus, Ideology: A Film Theory Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986), 423.

39 Comolli, “Technique and Ideology,” 431.

language may become codified, but its diverse range of voices and articulations never fully goes away.

1.2.3 Media Industries and Production Culture

More recently, film and media scholars have sought to close the gap between earlier industrial histories by documenting the accounts of individual practitioners working in larger, global, and interconnected media industries. These primarily communications-oriented fieldwork projects—inspired by early popular ethnographies of Hollywood like Hortense Powdermaker’s *Hollywood the Dream Factory* report and offer records of current industrial practices across a large swathe of media networks. From these accounts we can reconstruct complex interactions within these organizations and media environments, whether occurring in non-profit youth production companies or in the offices of widely circulated magazines. As part of this work, much of the current field of *media industries* focuses on developing “new terminology” in order to bring media production and marketplace terms into the discourse of academic disciplines.⁴⁰

Much of the ethnographic reportage in media industry studies is valuable for understanding recent trends in production practice and the social and cultural politics at work in contemporary institutions. Yet, media industries, as a relatively new sub-field focused on the present, often neglects a number of historical and theoretical considerations in film studies and filmmaking culture more broadly. Less concerned with questions of text and even agency, this literature seeks to situate workers within the broader systemic context and interpretative

40 Timothy Havens and Amanda D. Lotz, *Understanding Media Industries* (Oxford: Oxford University Press, 2012).

communities in which they circulate to focuses on questions of industrial circulation, corporate policies and goals, and national and international regulation. Media industries scholarship, and production studies in particular, also remains suspicious of the power of self-reflexive media, craft discourse, and culturally produced and filtered media about craft work (Behind the Scenes DVDs and feature articles) to speak above and beyond the mythology, lore, and brands in which they are located. However, as the work of Miranda Banks, Vicki Mayer, and John T. Caldwell illustrate, disentangling this mythology from practitioner discourse presents often unwieldy complications for cultural studies work inflected by feminism and class consciousness.⁴¹ As Miranda Banks explained about fieldwork in her dissertation, “In my interviews and discussions with the practitioners I met with for this project, I made every effort possible to have these designers, merchandisers, sales people, writers, and executives theorize, in their own terms, the nature of their work within the process of production and the industry as a whole-economically, historically, and culturally.”⁴² To see production as a culture, community, and network of individuals requires those of us doing histories of and contemporary research on below-the-line workers to keep in check the very systems that regulate and encourage self-regulation of craft discourse, while also taking practitioners’ accounts seriously and incorporating their own theories centrally to the scholarship we write.

While I am concerned with how craft workers communicated and circulated within and outside of historical media industries, my approach to the topic is grounded in historical

41 Vicki Mayer, Miranda Banks, John T. Caldwell, “Introduction,” *Production Studies: Cultural Studies of the Media Industries* (New York, NY: Routledge, 2009).

42 Miranda J. Banks, *Bodies of Work: Rituals of Doubling and the Erasure of Film/TV Production Labor*. (PhD diss., University of California Los Angeles, 2006), 23.

discourse and articulations of work, craft, and agency as they relate to worker's understandings of their contributions to the cinematic experience or understandings of craft style. In looking back on these periods, without the possibility for fieldwork—and often without even the availability of oral histories—I attempt to look critically, but productively at the limitations and possibilities of what trade and craft discourse affords. Unlike contemporary media industries where workers have many visible, semi-public, and online venues in which to negotiate in writing different modes of discourse, historical craft communities sometimes only had the house organ or written correspondence between other members. While this discourse was always mediated by industrial pressures and craft self-regulation, the complexities of those filters, primarily for below-the-line workers, were not as self-consciously manufactured (or at least as diverse) as they are today. I give weight to these texts because practitioners gave weight to them as sites of firsthand personal, professional, community expressions that were not simply in the service of promotion, publicity, and public discourse. I am more interested in the more intimate details of their descriptions, their communities, and workers' aesthetic theorizing as it took place within larger institutions, the industrial setting, and their contemporary moment in history.

My work is heavily in conversation with one production studies scholar in particular, John T. Caldwell. It often explores Caldwell's framework and methodologies around contemporary below-the-line workers within historical industrial contexts. Caldwell's first-hand experience as a practitioner/scholar has offered him a self-described view of "both sides of the fence," which allows him to wear "both hats" as an industry insider and outsider.⁴³ Caldwell's

43 John T. Caldwell, "'Both Sides of the Fence: Blurred Distinctions in Scholarship and Production (a Portfolio of Interviews)," *Production Studies: Cultural Studies of the Media Industries*. eds., Vicki Mayer, Miranda Banks, and John T Caldwell (New York, NY: Routledge, 2009), 214 – 229.

model, which he terms a “critical industrial practice,” is informed by thinking of below-the-line production workers as able to self-articulate their cultural, economic, and theoretical position in the making of aesthetic images. As Caldwell has suggested, “Scholars should look beyond the standard split between film ‘theory’ and film ‘work,’ and consider how film industrial practices, technologies, discourses, and interactions also involve critical analysis, theoretical elaboration, and aesthetic sense making.”⁴⁴ By accepting the claim that craft workers are not only able to understand their critical place within the industry, but are also able to articulate that position in innovative ways dissimilar to academic-speak, I imagine the value of a methodology like “critical industrial practice,” and workers’ theory/praxis of “critical sense-making” in writing film histories of production workers.

It is also necessary to recognize that scholars participate in a complex system of theorizations and narratives when talking about labor and audiences and are not simply conveying empirical truths. Another methodology I employ is Caldwell’s notion of worker-generated snark, or the messy and complicated revelations peppered in unauthorized practitioner discourse.⁴⁵ This snark-discourse, Caldwell argues, offers a different image of economic conditions, working-relations, craft reflections, insider terminology, and unique insights into the rapidly changing terrains of specialty jurisdictions, technological innovations, and below-the-line attitudes towards above-the-line politics and power. These outlets which transact in humor, bitterness, outrage, industrial pedagogy, and craft reverence, often in the same sentence, “offer a

44 John T. Caldwell, *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television* (Durham, N.C: Duke University Press, 2008), 7.

45 John T. Caldwell, “Para-Industry, Shadow Academy,” *Cultural Studies* 28, no.4 (2014): 720-740. <https://doi.org/10.1080/09502386.2014.888922>.

goldmine of information about how media industries actually work on the ground. Taken together, they provide incredibly specific insights into economic and labour conditions for creative workers, new technology theorizing and damning critiques of the industry as a whole.”⁴⁶ This outlet of frustrations, in the guise of jokes (regularly at the expense of amateurs, lower-rank workers, and above-the-line personnel) or as illustrative metaphors also demonstrates workers’ devotion to the very craft or Hollywood structures that the stability of their employment. As Caldwell explains about online worker-generated snark,

Below-the-line workers tend to mix hard-edged corporate critiques with affirmations of the fortitude, commitment, and physical suffering requirement by the craft. [...] What is remarkable about these sites and any others is their earnest, extensive pedagogical tendency to teach and mentor. Even the snarkest sites regularly settle down to deliver incredibly detailed and valuable lessons about how specific crafts, technologies, labor arrangements, modes of production, auteurs, and genres work.⁴⁷

The purpose of all of this, Caldwell surmises is certainly not about promotion, or even only letting off hot air, but rather an affirmation of “vocational survival.”⁴⁸ I take Caldwell’s contemporary methodology and ask what such an industrial research project that countenances critical industrial practice and worker-generated snark would look like for the film historical past.

46 Caldwell, “Para-Industry, Shadow Academy,” 724.

47 John T. Caldwell, “Worker Blowback: User-Generated, Worker-Generated, and Producer-Generated Content within Collapsing Production Workflows,” *Television and Digital Media*, eds. James Bennett and Niki Strange (Duke University Press, 2011), 304.

48 John T. Caldwell, “Post-Network Reflexivity,” *Wired TV: Laboring over an Interactive Future*. ed. Denise Mann (New Brunswick: Rutgers University Press, 2014), 147.

1.3 METHODOLOGY

I approach each of my four case-study chapters recalling the historiographical scholarship cited in the previous section and considering additional scholars working in many more specific time periods and crafts. I work with formalized modes of craft discourse (trade publication, house organs, union publications, interviews, manuals, craft organization papers, and studio documents). Additionally, I utilize a wider range of craft related ephemera and discourse that often deviates from an established language of the craft and studio to convey embodied feelings, criticism, commentary, and personalized accounts of day-to-day work. Finally, I consider the films and media that workers produced. These objects of study are interesting to me for the ways in which craft discourse and critical industrial theory elucidates craft, style, technique, and traces of labor within the moving image. Given the scope of this enormous project and the constantly moving macro themes and micro details in which this dissertation traffics, I also grapple with some methodological limitations within the entirety of the project, itself, resulting from method, selection, accident, and frustration.

I accessed this craft discourse through various archives around the United States, primarily in Los Angeles at the Margaret Herrick Library, the Academy Film Archive, UCLA, USC, and the Southern California Library; in New York at the New York Public Library and Columbia University Special Collection, and in Provo, Utah at Brigham Young University's Harold B. Lee special collections. In addition to months of combined research on-site, the dedicated archivists, librarians and collection managers such as Louis Hilton at the Herrick and Dino Everett at USC provided valuable additional insights and documents long after I was back in Pittsburgh. The University of Pittsburgh's own Interlibrary Loan Office delivered many rare and fragile collections of trade publications on digital scans, paper, and microfiche, technical

manuals, craft house scrapbooks, practitioner penned pamphlets, VHS, 16mm, and even a PAL U-matic tape from Australia for me to view industrial training and educational films. The Hillman Library and off-site storage staff retrieved many dusty historical textbooks and guidebooks long since removed from the stacks on the technical topics of editing, cinematography, and lighting from the 1940s until today. This project could not have been completed without the existence of Eric Hoyt's Media History Digital Library's Lantern search engine which uses OCR to scan thousands of pages of industrial filmmaking and exhibition papers, journals, books, and manuals. Such a tool in digital humanities scholarship allowed my project the flexibility to search creatively, widely, wind down many research rabbit holes, and delve into some of the most minute topics of each craft. As Haidee Wasson expressed of the affordance and limitations of digital research tools like Lantern:

Searching can be a straight-line drive down a highway, but it should just as often be an experimental and exploratory wandering that includes a kind of consequence-free play of associations and lateral leaping. We did not need the digital to think of searching this way. But it has surely enabled this process, making more feasible cross-disciplinary, exploratory approaches to our questions across a wider and wider research landscape.⁴⁹

The richness, complexity, and diversity of the industrial sources I cite are the result of being able to play on this platform and search curiously in arenas I would not have investigated otherwise (like fan magazine and Congressional hearings). While I do not utilize field work ethnographies, I spoke informally to many teachers of film production at my alma mater, Loyola Marymount University's School of Film and Television, and at USC, UCLA, and NYU, and I ask follow-up questions with friends still working in the industry and former professional colleagues.

49 Haidee Wasson, "Researching Film Formats," *The Arclight Guidebook to Media History and the Digital Humanities*. eds., Charles R. Acland and Eric Hoyt (Falmer: REFRAAME/Project Arclight, 2016), 40.

<http://projectarclight.org/book>.

1.3.1 Formal Discourse

My approach to look at the confluence of historical period, technological and stylistic shifts, and craft discourse respects the rich and dynamic ways that workers participated in constructing aesthetic theories and histories of film style within a larger network of industrial discursive norms. Industry trade materials—whether local and national newspapers, fan magazines, exhibitor papers, craft and technical journals, trade books, or “outsider” popular press books—documented the emerging experience of practitioners’ embodied techniques. Such publications and institutional ephemera describe the mutability, instability, and detailed variety of a unique and distinct theory of film praxis voiced by practitioners that circulated largely outside any determination by film critics and academics. There are hundreds if not thousands of articles within and outside the industry from the mid-teens to today that still tout the “unsung heroes” of one film worker or another, driven in large part by the guilds, unions, studio publicity engines, and inter-industry cooperation and support. Rather than being unsung or unseen, the workers, guilds, unions, and publicists instead sought to streamline and codify discourses by which that labor could be both sung and seen. Often this meant appealing to a higher set of ideals of art and science (as I examine was the case with the American Society of Cinematographers in the 1920s) and attempting to eliminate modes of practice that seemed errant, obtrusive, or too embodied (as I examine in the case of Steadicam and Panaglide operators in the 1970s). In addition to published materials, I also look at craft organization papers, studio records, and oral histories as records of formal craft discourse.

1.3.2 Informal Discourse

When we dredge up the ephemera of production and begin to assign meaning to one fragment or another, we run into a dilemma that Louis Menand attributed to Edmund Wilson’s imaginative history, “Whatever *has* been written about therefore takes on an importance that may be spurious [...] all become luminous with significance—even though these are just the bits that have floated to the surface.”⁵⁰ The question of what to do with all this stuff remains. The discourse of practitioners appeared in various modes: formal, informal, and accidental. I think of these last two as opportunities to reveal those habits, language, and practices that were not codified, formalized, or condoned by the crafts, guilds, unions, or studios. These anecdotal and momentary revelations, sometimes only scraps, begin to hint at all that is ostensibly unseen and unheard, even within the established discourse, giving scholars a glimpse into the contested conversations that took place, on and off set, about questions of style, technological change, and institutional expectations.

Similar to Caldwell’s notion of worker-generated snark, craft discourse operates at many registers of professionalization, enthusiasm, and feeling. I look towards ephemera and scrap records that elucidate a felt sense of the concerns, exhaustion, boredom, and excitements that different groups of practitioners experienced in different historical moments. I draw upon a diversity of materials, including editorial cartoons, marginalia, personal correspondence, behind the scenes photography, illustrations, humor columns, jokes, songs, parties, personal scrapbooks, personal artifacts, online message boards and YouTube videos, unpublished writings. Some oral histories and informal interviews I frame as modes of informal discourse because of who is

⁵⁰ Louis Menand, Foreword to *To The Finland Station*, by Edmund Wilson (New York: Phoenix, 2004), ix.

speaking, the tone of the conversation, and the interviewed subject. Scholars can recover the richness with which practitioners discussed the style and politics of the craft over lunch, while venting to family and friends, or in private diaries. To a certain degree, the formal and informal craft discourse can only be known as a suggestion outlining the basic concerns and confines of a much richer, contested, and complex conversation taking place within and around those communities.

1.3.3 Film History without Films?

A project like this does not hinge on the close analysis of films. Rather, it operates on the assumption that this approach and some of its method can thoughtfully enrich all the creative work of these practitioners. In other words, I assume that the entire catalog of Hollywood studio filmmaking (plus anything that anyone who worked in Hollywood ever made) could benefit from closely considering its relation to craft discourse and practice. While my dissertation pauses briefly on some of these items and lingers on others, their status as remarkable objects is equal in their relationship to the discourse described. In this way the language about the Steadicam in Stanley Kubrick's *The Shining* (1980) is as important as its prototypical use in a 1972 Keds Commercial. This project lacks a designated filmography because its filmography is anything and everything labored, constructed, and worked on by Hollywood-trained craft practitioners.

There is, however, a different kind of film in this project. In writing the dissertation, whenever I found myself at a loss for words, I sometimes found in making, showing, and experimenting with filmmaking myself the most effective means of describing the embodied and sensual discourse of practitioners. Thus, some of the chapters include digital, hand-made, and filmmaking experiments to highlight moments where academic language fails to communicate

the feeling of a cut, the complexity of a choice in continuity editing, the wavering frame of a Panaglide, or the sensible steps of a Steadicam operator's body. I call on digital and making tools not to foreclose discussion, but to open-up further modes of historical investigation and embodied practice to help bridge gaps between research, practice, and academic writing.

1.3.4 Addressing Gaps

As expansive, this dissertation already seems, its scope limited by certain kinds of questions and narratives. I set out to write a bottom-up history of production workers across different periods and, at times, my emphasis on these workers' voices and agency elides larger structures of influence, particularly how practitioners interacted with above-the-line workers, managers, and executives. While I discuss craft discourse as a negotiation amongst those figures, I sometimes downplay the lack of autonomy of certain practitioners whose agency was surely mediated and structured by other forces. I wanted to work out an understanding of the myriad ways below-the-line practitioners *did find ways* to influence both technological change and stylistic technique at the moment of production. In doing so, I may have sometimes overemphasize this influence but, by the same token, as I argue throughout this dissertation, film studies and film history have overdetermined in their own ways the influence and agency of above-the-line figures by advancing, say, notions of group styles in the studios. Perhaps a bottom-up overemphasis is needed, if only to insist that even a grip's faint shadow or the half-second cut from the editor's hand are as significant for our appreciation of film style as the producer's memorandum.

As a woman who came to filmmaking as a girl wanting to make movies, to play with cameras, and to sit for days on end editing, I know intimately the degree to which below-the-line work, specifically technical work, is disparaged in a male-dominated industry. In addition, such

below-the-line communities themselves are not only primarily male, but also primarily white. During my time in the industry and as a graduate student, the lived-experience and histories of gender and race were inextricable from my filmmaking, my research, and my writing. I have sometimes paused to acknowledge these conditions of embodiment, but I do not grapple with them here as productively as I hope to do in future work on this project.

Many of the formal and informal sources I cite *do* speak about race, gender, identity, and national citizenship in ways that are often racist, misogynistic, and xenophobic. The early pages of *The American Cinematographer* and *The International Photographer* in particular often featured chauvinistic articles about race theory, complaints about women in the industry, and sometimes used racial epithets to mark out particular kinds of workers, voices, and bodies on set. The consolidation of editors into a guild formation in the 1950s also marked a decline in new women editors invited into the guild or allowed to work in the union, an attenuation that lasted from the 1950s to the 1980s. Those instance of discourses relevant to sex, gender, race, and citizenship that I did not cite are as rich and contested as any of the instances I cite throughout the dissertation.

Recent scholarship on women technical practitioners in particular is growing thanks to conferences such as the biannual *Doing Women's Film History Conference* in the UK, detailed data-driven projects on women technicians in the UK film industrial unions by Melanie Bell, the specific emphases being placed on less well-known women workers on set and their intensive contributions to sound work by Helen Hanson, and Lauren Steimer's evocative work on women stunt workers in Hollywood.⁵¹ Certainly, film studies already has many communities,

51 See Melanie Bell, "Learning to Listen: Histories of Women's Soundwork in the British Film Industry," *Screen* 58, no. 4, (December 1 2017): 437 – 457. <https://doi.org/10.1093/screen/hjx037>; Helen

conferences, and even publications devoted to women's filmmaking inside and outside of industrial modes of production in the United States (i.e. *Women in the Silent Screen*, *The Women Pioneers Project*, *Camera Obscura*, and *Feminist Media Histories*). My frustration in trying to incorporate research on women technicians (particularly in the editors and Steadicam chapters) remains a conundrum of writing and methodology that I find pervasive across film studies. There is a tendency to write these histories as separate from primary industrial histories of filmmaking. In this way, this kind of writing and research becomes secondary almost by design and choice, such that those scholars researching women in the film industries are most often only talking to other scholars (primarily women) working on women filmmakers.

When I attempted in my published Steadicam article to write about the women operators who helped define the style and tools of the craft, that section seemed to reviewers like a diversion from the primary article and was cut for coherency. I have even said to myself, "I'll just write about women Steadicam operators, women editors, women camera operators, and women grips and electricians *in their own article*." While these close, women-centered community network modes of research, practice, and publishing were and still are necessary for certain kinds of discourse and conversation, I wonder how those of us who do this work can contest assumptions in the field and in our own writing about where women fit into the picture. My dissertation takes for granted the white-maleness of its primary subjects. As this project develops, I hope to more expansively and critically account for how women, people of color, and non-American workers challenged modes of white male craft discourse and countered or resisted

Hanson, *Hollywood Soundscapes: Film Sound Style, Craft and Production in the Classical Era*, (London, BFI/Palgrave, 2017); Banks, Miranda J. and Lauren Steimer, "The Heroic Body: Toughness, Femininity and the Stunt Double," *The Sociological Review* 63, no. 1 (2015): 144 – 157. <https://doi.org/10.1111/1467-954X.12245>

union and guild regulations about properly gendered, racial, and ethnic memberships.

1.4 DISSERTATION CHAPTER BREAKDOWN

Each case-study chapter investigates how different craft organizations and workers navigated historical and institutional transformation within large-scale industrial filmmaking. This big picture approach to historical case studies zooms in and out of different periods of industrial history and on different kinds of workers to foreground a series of questions posed about labor, visibility, craft, and language. Unlike typical historical dissertations, the beginning and end dates of this investigation are flexible, amorphous, and account for micro-moments in industrial discursive history. As will become clear while reading, the dissertation's historical reach often extends before 1919 and well beyond 1985.

1.4.1 Chapter One. The Inner and Outer World of the *American Cinematographer*, 1919-1929

Chapter One explores how the American Society of Cinematographers instrumentalized their in-house publication to promote and negotiate diverse and often contradictory modes of craft discourse: between the inner world of virtuosic bodily and sensual labor of “cranking” camera operators and the aspirational artistic and scientific discourse of elevated craft style. ASC saw its mission the promotion of the cinematographer as the primary maker of meaning in a film and as a world adventurer. By attempting to expand the magazine's reach to global markets via membership of newsreel cameramen (a division of the organization), ASC resolved to redefine

the image of the cinematographer within its immediate economic impact on the industries of the Los Angeles, New York, and Chicago and within the conceptual imagination of movie-goers and for film industries worldwide. Within the national framework, both ASC's mission and its magazine's content often mirrored conversations about the power of the cinematographer simultaneously occurring in the other prominent film industries, including in Germany and Russia. What distinguished ASC from the conceptual writings of theorists like Siegfried Kracauer and Béla Balázs was its emphasis on a capitalist individualism and an entrepreneurial spirit against collective, collaborative, and even spiritual notions of filmmaking and meaning.

1.4.2 Chapter Two. Projecting Clouds, Throwing Shadows: Hollywood's Phantom Studio Grips, 1926-1947

Chapter Two investigates the enigmatic, sparse, and even absent historical accounts of Los Angeles studio grips and electricians from 1926-1947. In doing so, the chapter probes the limitations of corporate studio archives and formal accounts to showcase the contingency and arbitrariness of the archive's representation of labor at every level of construction. By asking how a historian might search for historical accounts and documents about grips during the period, I interrogate the limits of labor's visibility within studio history and as articulated in the disciplinary study of film history. Widespread studio consolidation during and immediately after the sound transition, together with the financial scare of the early 1930s resulted in specialized efficiency-model production; numerous, violent, and politically motivated jurisdictional disputes amongst labor unions; the formation of additional craft organizations; and the dispersal and silencing of individual and collective workers' voices who were without dedicated publications to address their concerns. While this period is already rich with literature on Hollywood labor

union history, strikes, the blacklist, and the red scare, I argue that much of this expansive history does little to navigate the contributions of below-the-line workers whose presence was obscured or diminished by corrupt union bosses, colluding studio executives, and subsequent histories of more prominent above-the-line personnel (like the screenwriters, actors, and producers). The back-and-forth jurisdictional turf disputes during this period—usually absent of workers’ input—determined the confines of craft practice and jurisdiction still in operation today. Thus, to understand *what a grip does*, we return to this turbulent industrial period to catch glimpses of how these workers labored on set, using what they could share in the public sphere about the ephemeral products of their labor. This chapter highlights unusual moments when below-the-line “discourse” was available within industrial trade publications and to a popular audience through a scattered archive of unexpected utterances: congressional hearings, cartoons and caricatures, behind the scenes photographs, humor columns in trade publications like *The International Photographer*, and even obituaries. This chapter also utilizes digital search methodologies and digital photographic editing software to investigate and reveal already visible, but obscured inscription of grip workers in the trade publications and industrial ephemera of the period.

1.4.3 Chapter Three. Redefining the Look and Feel of Continuity Editing: The American Cinema Editors, Educational Filmmaking, and the Academic Study of Film Production, 1958-2018

Chapter Three documents the intertwined institutional histories of the American Cinema Editors (ACE) craft organization, the rise and decline of post-WWII educational filmmaking within film schools and film programs at North American colleges and universities, and the University Film

Producer's Association from 1942 to the early 1970s. The chapter analyzes how flexible conceptions about the "rules" of continuity editing were filtered from ACE to aspiring filmmakers and the wider public, through both the production and distribution of their own, now ubiquitous educational film and project "The *Gunsmoke* assignment" (aka *Film Editing: Interpretations and Values*).

The *Gunsmoke* assignment of re-cutting dailies from the famous TV show has been used as a classroom exercise in film schools since its release in 1958. While now considered a tired pedagogical tool, the educational film at its inception sought to showcase the expansiveness and creativity editors felt in continuity practices of editing. Rather than a systemic approach to narrative clarity, editors understood the individual artistic and technical freedoms inherent in continuity cutting. The chapter highlights several important players who circulated between these organizations, including Fredrick Y. Smith, Leon Barsha, and Herb Farmer. It thinks through how industrial, institutional, and technological change ensured the longevity of ACE's educational mission and promotional project for a wider audience for over sixty years. The chapter also uses a videographic experiment to illustrate the complexity, nuance, and "endless possibilities" the editors foresaw in re-cutting again and again the *Gunsmoke* dailies.

1.4.4 Chapter Four. "Dancing Bodies, Flying Cameras": The Early Years of Steadicam and Panaglide Stabilizing Practice, 1973-1985

Chapter Four examines the troubled discursive histories and aesthetic practices of Steadicam and Panaglide camera stabilizing devices and their operators from 1972 to 1985. This chapter argues that the earliest Steadicam/Panaglide shots in films, television, and other media altered the mode in which audiences and critics experienced and discussed the production labor of the camera

operator. This often resulted in gaps, errors, and uncertainty in published descriptions. By looking to how operators and the stabilizing craft named the embodied aspects of the practice and sought to control and codify the quirks and signature of the operator's body on screen, the chapter offers a new way of looking at Steadicam aesthetics through its history and its labor. The chapter highlights the technological development of Steadicam and Panaglide as well as the languages and training practices of their operators and by using three case studies of *Days of Heaven*, *The Shining*, and *Halloween* to flesh out the conceptual, aesthetic, and historiographical questions raised by each. A companion videographic essay (discussed within the chapter) breaks down these questions even further by way of a series of video experiments and an inclusion of additional stabilizing footage in demo reels, training films, and commercials.

1.4.5 Conclusion/Coda. Automating Craft in Global Hollywood

The conclusion looks to future work. In this short preview, I imagine how emerging forms of automated technology and labor—together with additional digital venues for craft discourse—reproduce, expand, and challenge earlier modes of discursive activity. I argue that practitioners had always planned and imagined various forms of embodied and technological automation to save time and labor, and to imagine themselves as hyper-extended forms of the apparatuses. I look briefly at these histories and compare them to contemporary industrial and craft changes in automated labor. I explore the cinematographer's relationship to industrial robotic camera arms; the editor's relationship to software's that simplify rough continuity edits for multi-camera shoots; grips' and electricians' responses to automated cranes, dollies, and CGI lighting; and Steadicam operators' adoption of smaller automated stabilizing rigs like the MoVI cameras that were designed specifically to displace the need for their specialized camera operation. In

exploring these recent advancements, I ask questions towards how twentieth-century craft norms cohered to new forms of twenty-first-century industrial technology and production.

2.0 THE INNER AND OUTER WORLD OF THE AMERICAN *CINEMATOGRAPHER*, 1919-1929

On February 1, 1922, the *American Cinematographer* (the house organ of the American Society of Cinematographers, ASC) featured a fantastical cover of a cameraman in space (Fig. 2.1). Illustrated by Lewis Physioc, ASC, the image announced a new slogan for the organization: “Give Us a Place to Stand and We’ll Film the Universe!” In this case, the camera operator—looking dapper in a plaid suit and hat—stands on a celestial cloud, setting up his camera and tripod. With the camera pointed in front of him, the operator cranks his machine and films the entire earth radiating in the expanse of space. Glowing almost like a balloon or reflective shiny ball, the world becomes a mastered object of the cinematographer’s gaze as well as a specter of continual obsession. The desires, ambitions, and attitude of the camera operator—not alone in the world, but rather in control of all the earth—focalized the magazine’s future-forward imagination about the possibilities of cinema and the camera apparatus in general. Positioned as part fantasy, part declaration, the image signaled how the organization understood its goals, and simultaneously how it already imagined its current place in the history of cinema. The cover then was not a dream, but a metaphor for how ASC and their publication, the *American Cinematographer*, already had positioned themselves in the world in 1922.

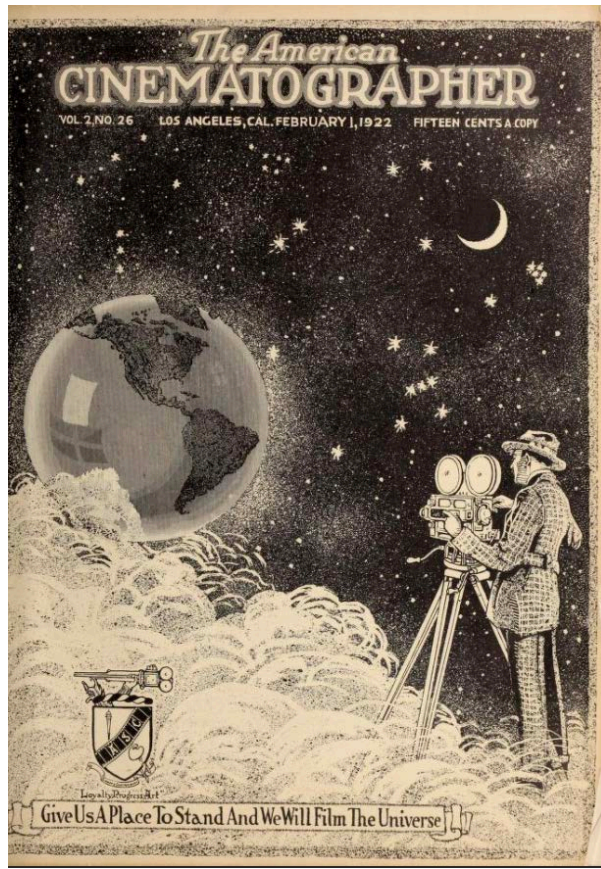


Figure 2.1. Lewis Physioc, *American Cinematographer*. (February 1, 1922)⁵²

This chapter explores the inner and outer world of the American camera operator as imagined in the eclectic discourse of 1920s *American Cinematographer* (AC). The first decade of the publication frequently purveyed how cinematographers' consciousnesses, sensations, and emotions became embedded in their filmic compositions, and how audiences reacted to these latent feelings within the images. This inner world also came to reflect a larger discourse about operators as adventurers, explorers, and world travelers. Athleticism, mobility, and creativity when faced with danger, trying conditions, and multiple wonders of the world (even if only reproduced in California) marked the ideals of the cinematographers in the budding organization. The pages of the publication often reflected this complex interplay between the inner and outer

52 Scanned Courtesy of the Media History Digital Library

world of the cinematographer, figured in both physical minutiae (the relationship between hand, crank, and eye) and in abstractions (the natural world as a small and conquerable thing). The body of the operator became visually, conceptually, and materially tied to the camera as a place *in, above, and of* the world. Key to this concatenation was the cinematographers' conceptual understanding that their role was to bring the static world to life.

The motto reveals the organization's sense that, in filming, cinematographers brought the world to life with inspiration from the Archimedean dictum, "Give me a place to stand and I will *move* the world." AC's slogan promoted the operator's inclination to produce fresh lines of sight in new and distinct locations around the world and beyond. When put into conversation with its Archimedean source, which is also often translated as "Give me a place to stand *and a lever* and I move the earth," the motto seems to make an even bigger claim: that operator plus camera apparatus can also make the earth *move*. I argue that cinematographers understood this function in both a physical and emotional sense. They literally made still pictures move by cranking the single film frames rhythmically through the camera, creating motion, by moving images of the world around the world in their cameras and bags of reels, and by their physical actions and emotional sensations they brought *to the* world. Such moving images, in return, could *move* the emotions *of the* world.

How cinematographers in the 1920s (and arguably still today) framed this world-picture as both interior and exterior functions of the very craft of cinematography is a central question of cinematic perception and aesthetics. For cinematographers, these acts of skilled and athletic forms of looking with a camera were inextricably tied to the feelings and activities of their bodies. The dynamism of the world as both known and connected to the task of the cinematographer was complemented by their accounts of organic interaction between the body

and the process of filming (sensing and negotiating weather, terrain, other bodies and spatiotemporal displacement). The world and the body of the cinematographer becomes figured not merely as the site of mastering skills, performing feats of will, or responding to natural conditions, but as being at once with and witness to the world. Such “coping” mechanisms as ways of coming to know and see oneself in the world reflect what philosopher Maurice Merleau-Ponty might describe as an openness to the “lived world” or a “sensing in the world.”

During the 1920s, the image of the cinematographer and the world—or the cinematographer’s sense and perception of that world (real, imagined, or constructed on a Hollywood soundstage)—became integral to specific discursive practices within the organization and one avenue in which it presented itself to the industry and the public. During the early part of the decade, *AC* often framed the cinematographer as one with the world, depicting cameraman’s feelings through their interactions with the world’s awesome and frightening materiality. In the latter half of the decade, cinematographers sought mastery, through perspective and framing over the natural elements of light. Thus emphasizing dramatic character motivation over a diffused internal sensation. In striving to depict and control this “objective world” (as a thing organized by scientific methodologies and artistic history, as well as one articulated by the insights of the mind), cinematographers moved away from the discourse that foregrounded their bodies, sensations, and affective relationship with the natural world.

The discourse of cinematographers interacting with the world through sensation mirrors what Merleau-Ponty describes as the experience of painters interacting or “overlapping” with the world. He explains this interaction as “lending the body” to the world.⁵³ While the painter in

53 Maurice Merleau-Ponty, “Eye and Mind,” *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*. eds. Galen A. Johnson, and Michael B. Smith (Evanston, Ill: Northwestern University Press, 1993), 123.

Merleau-Ponty's schema grasps, after the fact at a moment of connection, the camera operator captures this moment and the camera operator's own sensations within the moving image at the *exact* moment of inception. Merleau-Ponty writes as if he were a camera operator approaching a scene to shoot: "Things have an internal equivalent in me; they arouse in me a carnal formula of their presence. Why shouldn't these correspondences in turn give rise to some tracing rendered visible again, in which the eyes of others could find an underlying motif to sustain their inspection of the world."⁵⁴ Cinematographers often discuss framing and shooting as a capturing of their own sensation, latent in the image but rendered visible again through the audience's viewing of the footage. Merleau-Ponty describes this melding of the artist into the experience of an artwork as a kind of inspiration via expiration of being: "Action and passion [are] so slightly discernible that it becomes impossible to distinguish between who sees and who is seen, who paints and what is painted."⁵⁵ Cinematographers described the sensations in their filmmaking encounters (especially within the natural world) as not only a form of embodied translation within the image, but a fossilizing of their own bodily traces to the archive of the image.

Seeing the image, then, one also saw the cinematographer behind the camera; to feel the image was to sense the cinematographer's own emotions in the moment. This dualistic illustration is useful, not simply to overlay phenomenological philosophy on industrial craft discourse, but also to illustrate the ways in which discourses of everyday sense-making—whether from a philosopher or a camera operator—can arrive at similar conclusions about perception, art, and sensation. Later in this chapter, I discuss how cinematographers' discourse in

54 Merleau-Ponty, "Eye and Mind," 126.

55 Merleau-Ponty, "Eye and Mind," 129.

the 1920s, about sense-making as being in touch with the world, paralleled and inspired writing on photographic composition and cinematography by other film critics and other practitioners.

To talk about the world only in the abstractions of cinematographers—as a thing to interact with on an individual level of artistic creation—potentially minimizes the systems and political structures that made such a world-view possible. Theories of modernity in early cinema, such as those by Georg Simmel and contemporary film scholars like Tom Gunning and Ben Singer, foreground cinema’s ability to reorient and fragment conceptions of space and time. Thus, something like the travelogue or newsreel could bring the city to the country and the country to the city through phantom train, boat, or aerial rides, depicting all the spaces in between. However, modern conceptions of space also reoriented an image of the world not comprised of pieces but rendered as a monolithic whole, a globe.

Conceptions like the camera operators’ planet earth, framed in the lens of the camera, minimized and flattened the rich differences across various locales in favor of a single image of the world. Such a world-view or world-picture ignored and diminished the details of the whole and insisted that the camera operator’s photographic approach or mastery reigned supreme. As Jennifer Bean points out, “the problem is not simply that a historicist logic inherited from nineteenth-century European and North American intellectual traditions depends on a conception of time as linear and successive, cyclical and recurrent; it is also that this conceptual legacy obfuscates a view of the rest of the world as anything other than a space to be conquered or, empathically, *developed*.”⁵⁶ American cinematographers in the 1920s who, among many other international, national and local camera operators, had been filming, photographing, and

⁵⁶ Jennifer Bean, ed. “Introduction,” *Silent Cinema and the Politics of Space* (Bloomington, IN: Indiana UP, 2014), 2.

developing images of the world for nearly thirty years, mistakenly understood themselves as uniquely poised to represent that world back to itself.

Prior to the 1920s, the seeming ease of camera operators' mobility around the world via large international studios, newsreel companies, and travelogue suppliers, had long been established from the medium's earliest days. As Jennifer Peterson explains, this paradigm for capturing a model of the entire world on film was a common theme and motif across early 20th century travelogues: "As soon as the motion picture technology became available, filmmakers set about capturing the globe on film, not only because they could, but because they believed it was their prerogative. Like map making, the acquisition of images was an attempt to fix the world in a particular order."⁵⁷ Imperialist, colonial, and capitalist powers were at the center of the camera operator's (particularly the American operator's) ability to move freely in and around the world. As Tom Gunning has noted about the early travelogue industry, "This consumption of the world through images occurs in the context of industrial and colonial expansion, with war and the railway leading both photographers' and spectators' curiosity into new geographical realms."⁵⁸ Thus, the world-picture of globe-trotting photographers was consciously and unconsciously marked by the very period's politics, industries, and modes of transportation, even if these were not always explicitly indicated by their discourse. A 1932 illustration featured in a "Brulatour Bulletin" ad inside *The International Photographer* boasted that the world was the cameraman's oyster, not only conceptually, but as an unending resource to be mined (Fig. 2.2).

⁵⁷ Jennifer Peterson, "Atop of the World in Motion," *Education in the School of Dreams: Travelogues and Early Non-Fiction Films* (Durham: NC, Duke UP, 2013), 139.

⁵⁸ Tom Gunning, "The Whole World Within Reach," *Virtual Voyages: Cinema and Travel*. ed., Jeffrey Ruoff. (Durham, NC: Duke UP, 2006), 33.

The world as oyster symbolized, once again, not only an object to behold but an object to own and to use. Or, to utilize the aphorism's origin in Shakespeare's *Merry Wives of Windsor*: "Why, then the world's mine oyster, which I with sword will open." Cameramen sought to open the world—not with sword, but with camera.

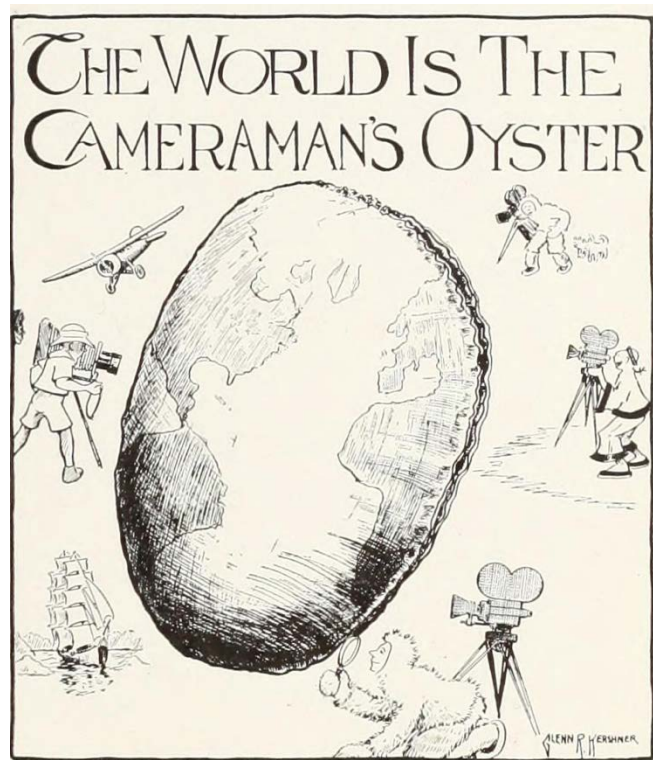


Figure 2.2. Glenn R. Kershner, "The World is the Cameraman's Oyster," *Brulatour Bulletin*,
International Photographer (March 1932)⁵⁹

Such reductive attention to any nuanced understanding or interest by a publication like *The American Cinematographer* in the political premises behind those images or the people represented in the images was repeated in the very pages designated as reports from the "Far-East," "the Arctic," and "the tropics." These pages highlighting foreign and exotic voyages are rarely anthropologically or culturally concerned, with the bulk of their descriptions highlighting

59 Digitized Scan Courtesy of the Media History Digital Library

technical or natural hurdles to overcome during shooting. The “American-ness” of *American Cinematographer* quality and expertise of American technology, crews, and working methods. Even when authored by immigrant cinematographers or when reporting on European productions in France, Germany, and Britain, the publication consistently glorified American style, tools, and techniques as superior. As a profile of the career by Perry Evans, ASC, boasted in 1922: “The American cameraman is in a class by himself. This is not saying that the foreigner is not a good cameraman—it is affirming rather that the cameramen trained in the studios of America are the best cinematographers in the world.”⁶⁰ Both insular and often nativist, this world-view, even in its sensational and evocative abstraction, contains within it a whole host of assumptions about American superiority, access, and domination. One editorial proclaimed that all the nations of the world “will be calling the American cameraman to photograph their pictures for them...they will want cameramen educated in American studios—they are the camera-masters of the world and their photography is in a class by itself.”⁶¹ Because of this arrogance, camera operators often seemed surprised when their local crews across the globe proved quite proficient in similar technologies and techniques of filmmaking. While this chapter focuses on how American camera operators in ASC sought to frame their work and talent as exceptional, I am not making the argument that the ways American cinematographers articulated their work was more meaningful or significant than other national or local camera operators.

This presumption of American exceptionalism is often reflected in contemporary film scholarship on the period. As Bean writes in the introduction *Silent Cinema and the Politics of*

60 “Perry Evans,” *American Cinematographer* 2, no. 26 (February 1, 1922): 32.

61 “The Job Will Chase the Man,” *American Cinematographer* 2, no.28 (March 1, 1922): 9.

Space, “The general rule for even the most sophisticated English-language collections dedicated to the period ...is to organize chapters pertinent to narrative cinema after 1910 country by country while also writing film history and geography as an exclusively Euro-Russian-American affair.”⁶² Certainly there have been many volumes written on American and Hollywood dominance in international filmmaking and distribution, as well as in response to such a deterministic schema of an eclectic period of production around the world across national and corporate ties. I do not wish to trivialize the very myopic and imperialistic accounts camera operators writing in the *American Cinematographer* expressed about their experiences filming across the world. Nor do I wish to recapitulate this narrow and dominant narrative either discursively or by rebroadcasting their skills and feats of daring as somehow more masterful than other national, international, and even local camera operators. Rather, I wish to explore this simultaneously abstracted and sensual expression of worldmaking, not uncritically, but in the ways it sought to depict American camera operators within their own national context and in relation to a rapidly changing mode of production within the craft as practiced in California studio filmmaking.

2.1 AMERICAN CINEMATOGRAPHER AND THE AMERICAN CINEMATOGRAPHER

The world as picture was an abstraction discursively designed to self-negotiate the unique skills of the cinematographer and publicize those craft characteristics to a wider audience. This shifting

⁶² Bean, “Introduction,” 8.

discourse also helps illustrate a level of uncertainty during the transition period for ASC, and for a range of cinematographers, from single-camera operators who travelled the world and worked outdoors to Hollywood studio directors of photography and managers of large camera and electric crews. Prior to its formation in January 1919, the fraternal organization of the American Society of Cinematographers had been the brain child Phillip Rosen, a member of the New York and Los Angeles Cinema Camera Club. The Cinema Camera Club had been amalgamated from two earlier cinematographers' clubs, the Static Club in California and the Cinema Camera Club of New York. Initially started as a way to "improve the cameraman's position in the business," the organization's membership required an oral examination and election process. Fearing retaliation by producers, the early meetings and discussions took place under a veil of secrecy.⁶³

By 1914, the Static Club embraced a more outward facing publicity approach with a new clubhouse, and it held annual social balls with the wider industry. The Static Club membership of over seventy cameramen met regularly to discuss advancements in technology, framing, lighting technique, and even to test out various lab experiments at the Los Angeles club house.⁶⁴

Both organizations utilized trade publications and their own house organs to address members and the wider industry: the Static Club published organization updates in a "Static Flashes"

63 L. Sprague Anderson, "Static Days in Hollywood: The Roots of the ASC," *American Cinematographer* 77, no. 10 (October 1996): 112.

64 J.C. Jessen, "Static Club Moves into Permanent Quarters," *Motion Picture News*. 10, no. 11 (September 14, 1914): 26.

column for *The Movie Magazine* and the New York Cinema Camera Club published a journal *Cinema News* designed to “build professional prestige and to secure screen credit.”⁶⁵

With roots in both organizations, ASC carried on much of their original educational, promotional, and social aims, but ultimately sought more lofty and widespread goals. Not satisfied with a mere gathering space for community discussions, ASC saw its place alongside the ranks of producers and directors in matters of industrial policy and prestige. Its motto, “Loyalty. Progress. Art,” early on announced its larger ambitions for their craft. As Patrick Keating has pointed out, “During the silent period the ASC worked to construct a new identity for the cinematographer, not as a manual laborer but as a man whose artistic talents were just as impressive as his technical skills. In order to construct that identity, the ASC promoted an eclectic set of aesthetic ideals.”⁶⁶ Keating’s *Hollywood Lighting from the Silent Era to Film Noir*, and especially his dissertation *Rhetoric of Light*, navigate the terrain by which cinematographers established cinematographic craft as art through outward presentations of cultural class growth, intellectual engagements with art history, and a shift away from the material body and manual work of the cinematographer. But, as Keating also admits, the pages of the *American Cinematographer* often reflected a diverse array of competing discourses about and by camera operators regarding their craft.

65 Janet Staiger, “Standardization and differentiation: the reinforcement and dispersion of Hollywood’s practices,” *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960*. eds. David Bordwell, Janet Staiger, and Kristin Thompson. (New York: Columbia UP, 1985),106.

66 Patrick Keating, *Hollywood Lighting from the Silent Era to Film Noir* (New York: Columbia University Press, 2010), 9.

By exploring the ways in which the discourse of manual craft, bodily labor, and physical sensation played into the world-making of the organization during the same time-frame, I argue that this period of linguistic transition was even more eclectic, contested, and reflective of industrial changes for the craft and the wider industry than how it has been conceived in previous scholarly accounts. In the second half of the decade, the discourse of manual labor and the world-adventuring cameraman would be covered over by discourses designed to craft the cinematographer as a professional, intellectual, artist, and scientist. These discourses included “painting with light,” composition with dramatic value, and mental and scientific experiments to innovate the art and technology of cinematography. That the later “winning” discourse of artistic, scientific, and class-based merit depended so heavily on earlier representations from cinematographers’ own discourse about their bodily work suggests just how conflicted this moment was in the publication and organization’s history. While the scientific and artistic discourses of “painting with lab and light” may have linguistically “won out” over the sweat of the cranking camera operator, I want to point to areas in which the body, emotion, and world-making remained at the heart of ASC’s cinematographer’s discourse beyond its “phasing out” in the 1920s.

The discursive diversity during the period mirrors the eclecticism of cinematographers’ various activities, on-set tasks, and critical understanding of their craft that had defined camera operating since the early days of filmmaking. In the 1920s, ASC’s membership included an assortment of operators with a diverse range of skills, a constituency that included some of the earliest camera operators at the turn of the century, newsreel and travelogue cameramen, those who specialized in trick effects, stunt and comedy cameramen, cameramen who specialized in specific cameras (the Akeley), and so-called “studio lighting” cameramen. From these ranks the

members entered the field from an equally diverse set of backgrounds, including still and portrait photographers, lab technicians, electricians, news and newsreel photographers, actors, and studio hands. Especially in the early years of ASC, the studio system and the central-producer system had not yet codified the practices, thinking, and diverse modes of production of its membership.

While film historians have often segmented periods of history according to modes of production and avenues of control and power, it is valuable to keep in mind the flexibility and endurance of production practices long beyond their “cut-off” dates in academic film history. For example, Janet Staiger has argued for the porous nature of the transitions between what Staiger calls the periods of “the cameraman system of production, 1896-1907,” “the director system of production, 1907-1909,” “the director-unit system of production, 1909-1914,” and the “central producer system, 1914-1930.” Staiger cites numerous examples of production activities or personnel maneuvers outside of these dates that mark not anomalies but hold-overs from previous system. As Staiger suggests, “The cameraman system represented a particularly unified craft situation. In general, cameramen such as K.L. Dickson, Albert Smith, Billy Bitzer, and Edwin S. Porter would select subject matter and stage it as necessary by manipulating setting, lighting, and people; they would select options from available technological and photographic possibilities [...] photograph the scene, develop and edit it.”⁶⁷ This “social division of labor” allowed opportunities for cameramen to work independently as their own bosses, managers, and directors and extended their filming mobility via world travel to produce newsreels distributed as “scenics,” “topicals,” and current news and events.

⁶⁷ Staiger, *Classical Hollywood*, 203.

Such flexibility and freedom did not offer reliable and consistent production schedules, and these cameramen often faced financial uncertainty from month to month or year to year. Such professional instability, coupled with the cost of training and maintaining specialized workers, made the “cameraman system” unsustainable for mass production. Staiger regards the logical transition to stratified responsibilities of director-cameraman-writer in the “director system” and the “director-unit system” which marked the expanded division of camera responsibilities via camera assistants (circa 1913) and second cameramen (shooting negatives, insurance prints, and European prints of the same action). Yet, Staiger points out that figures like Hal Mohr, ASC and others continued to work in small firms into 1910s and 1920s. In fact, long after a rigid understanding of the “cameraman system,” many cameramen worked across multiple systems of control and autonomy during the first twenty years of the 20th century. For a few months or even half a year, cinematographers might work on travelogues, topicals, scenics, or news event coverage, and for other months (or years) they might work with a director or under a producer with a larger company.

Looking at professional biographies and accounts of working camera operators reveals the multiple roles and relationships individuals and groups navigated in order to find work during the period. An early account from the “cameraman system” like Albert Smith’s *Two Reels and a Crank* exemplifies what Stephen Bottomore refers to as the image of the early cameraman as “daredevil adventurer” or even “hunter of images.”⁶⁸ Before eventually running the Vitagraph company, Smith’s early adventures filming and selling news, travel, and topical films brought him from the Spanish American war, to the Boer war, to the Galveston flood, to the funeral of

68 Stephen Bottomore, “Introduction: Behind the Camera,” *Film History* 24, no. 3 (2012): 256.

Queen Victoria, and even a front row seat to the assassination for President McKinley. Smith describes the glee and shock while “grinding the camera” in the midst of enormous excitement as well as the frustrations of working with such new machinery: “the film of that day had an occupational disease; its thickness sometimes varied, causing it to “ride” the sprockets. What we thought was some previous [...] footage was a jumbled, twisted mass inside the camera.”⁶⁹

While Smith’s account details the autonomy, flexibility, and rise to power that an early operator enjoyed working at the turn of the century, other accounts demonstrate how quickly these systems were diversified and specialized.

While not an ASC member, the story of British-American cameraman Arthur H.C. “Hal” Sintzenich is an illustrative example of the diversity and precarity of camera employment during the period from the 1910s into the early 1920s. Eric Barnouw highlights the life and travails which the camera operator listed in “The Sintzenich Diaries” (currently held at the Library of Congress). As Barnouw explains, “Sintzenich was not a literary stylist; his mind was technical.” And yet, his sixty-one diaries “record painstakingly periods of work, layoffs, triumphs, frustrations, and earnings.”⁷⁰ Sintzenich’s comedic and painful whirl-wind and world-wide career had him experimenting in all arenas of film production available at the time.⁷¹ Sintzenich

69 Albert E. Smith and Phil A. Koury, *Two Reels and a Crank* (Garden City, NY: Doubleday, 1952), 90.

70 Eric Barnouw, “The Sintzenich Diaries,” *Wonderful Inventions: Motion Pictures, Broadcasting, and Recorded Sound at the Library of Congress*. ed., Iris Newsom (Washington D.C.: Library of Congress, 1985), 17.

71 Sintzenich’s posts included filming travelogues for the wealthy heiress Lady Mackenzie, to local newsreels and topical in New York state, experimental underwater photography using John Ernest Williamson’s “photosphere,” teaching at the School of Military Cinematography at Columbia University in 1918, taking

even attempted to organize a “union” or “club” in 1919 for New York and travelling operators as more and more work moved to California, but, according to Barnouw, “there is little [the camera club] can do for themselves in a shrinking market. And while they share problems, they are also competitors for the same dwindling jobs.”⁷² If Sintzenich’s story typifies the uncertainty of these various modes of camera production in the 1920s, his peers who successfully moved to California and continued working abroad offer another story.

An account like Charles Peden’s *Newsreel Man* reflects the more niche marketplace of newsreel filmmaking beginning in the late 1920s at the saturation of the newsreel market. As Richard Koszarski has noted, competition among newsreel companies and cameraman created more interesting product for audiences.⁷³ However, such competition often produced “duplications,” “fabrication,” and “fraud.”⁷⁴ As Koszarski explains, “The four existing newsreels in 1925 were able to turn a healthy profit, but after Universal, Fox, Pathé, and Kinograms were joined by Paramount and MGM in 1927, the market became oversaturated.”⁷⁵ Peden’s memoir, however, continues to reflect the unexpected and freewheeling life first established in Smith’s account well into the 1920s: “The newsreel man is probably the only one in the world, except the diplomat, who habitually travels with a passport visaed for all countries,”

military still photos, working location stints and second camera for Fox and Selznick, and later working as one of four camera operators for D.W. Griffith from 1923 – 1926.

⁷² Barnouw, “The Sintzenich Diaries,” 25.

⁷³ Richard Koszarski, *An Evening's Entertainment: The Age of the Silent Feature Picture, 1915 – 1928*. vol. 3 (Berkeley: University of California Press, 1994), 169.

⁷⁴ Koszarski, *An Evening's Entertainment*, 170.

⁷⁵ Koszarski, *An Evening's Entertainment*, 170.

and “the newsreel man must be prepared for anything, anywhere, and anytime.” An ad for Pathé in a 1924 *Moving Picture News* illustrates how the newsreel cameraman understood his relationship to filming the world, as both capturing images of the world and “capturing” the world itself as an object bounded, contained, and consolidated “on one film.” (Fig. 2.3) The pages of the *American Cinematographer* similarly reflected Peden’s insistence on the newsreel cameraman preparation for spontaneity and improvisation.

ASC presented an ambivalent and mixed relationship to its members’ diverse filmmaking past in its first decade. On one hand, many of its then current members had worked in newsreels, travelogues, and topicals as side projects (or at least they had at one point in their career). ASC did not seem to mind leveraging and carrying on the image of “globe-trotting” adventurer to a certain extent within the first years of AC. On the other hand, the organization, even in its early years, wanted to distinguish the professional newsreel, travelogue, and exotic location work of its members’ from the everyday working of amateurs and local camera operators (like Sintzenich and less remarkable figures). The pages remind the industry, the public, and its members that ASC was an elected society of the top cameramen in the world, and its editorials in the early years were dismissive of amateur photography and cautioned against newsreel and topical cameramen elsewhere moving to “Camerafornia” in hopes of securing a coveted and in-demand job at the studios.⁷⁶

76 Foster Goss, “The Editors’ Corner,” *American Cinematographer* 4, no. 8 (November 1923): 10.



Figure 2.3. Pathé Daily News Ad, *Motion Picture News* (September 29, 1924): 11.⁷⁷

The *AC* issue that unveiled the space-cameraman also provided coverage of the careers of most of its members. These professional biographies, partially written by members or penned by the editors, showcased the diverse backgrounds, practices, and craft ideologies often at odds with one another. After stating the backgrounds of each member (portrait, lab, other) and whether or not each individual had served in WWI, the profiles highlight notable film projects, production companies, or technical achievements for each practitioner. Some profiles begin to nod toward the artistic discourse the *AC* would latch onto in the latter half of the decade, such as in the profile of the recently deceased Eugene Gaudio, ASC, which describes his relationship to the camera in a passionate metaphor: “He loved to work with the camera. It was his instrument of

⁷⁷ Digitized Scan Courtesy of the Media History Digital Library

expression and he regarded his camera much as a violinist regards his instrument with tenderness and affection.”⁷⁸ Between embodied connection to his “instrument of expression” and aspirational moves to connect music with cinematography, the profile holds aloft the career and the craft as one. Joseph A. Dubray, ASC, who would go on to pen many a column on the artistic merits and history of the craft for *AC* and later for *International Photographer*, announced in his profile his college education in chemistry and his background as a portrait photographer “making reproduction of classics in the famous art galleries of France, Italy, Spain, Belgium, and Holland.”⁷⁹ Such a gesture to link cinematography to cultural education and the arts was increasingly becoming a way of distinguishing between the manual and intellectual aspects of the craft.

Other profiles are less effusive about their cultural sophistication and instead hail the mechanical thrills and physical feats of the job. Gus C. Peterson, ASC, proudly recounts the “many troubles and much bluff” it took to become a “crank turner in 1912.”⁸⁰ Harry M. Fowler, ASC, chose camera operating because “he craved a more active life,” and Robert B. Kurrle, ASC, exclaimed that “shooting” was the “greatest game in the world,” even more invigorating than a game of golf (a high compliment from an organization that spent much of its off-camera time on the links). Perhaps member Alvin Wyckoff’s profile best highlights the physical, mechanical, and embodied aspects of the craft: “The successful cameraman must not only be possessed of an artistic sense, but he must be a man of resourcefulness and cool daring. He must

78 “Eugene Gaduio,” *American Cinematographer* 2, no. 26 (February 1, 1922): 18.

79 “Joseph A. Dubray,” *American Cinematographer* 2, no. 26 (February 1, 1922): 22.

80 “Gus C. Peterson,” *American Cinematographer* 2, no. 26 (February 1, 1922): 19.

be a quick thinker who will act instinctively in moments of emergency. In addition, he also must be a man of considerable agility, capable of almost acrobatic feats.”⁸¹ Wyckoff goes on to list a succession of stunts, maneuvers, and risking scenarios that place the camera operator in innumerable “precarious positions” all in the name of “getting the shot.”

A significant number of the profiles feature such stories of shooting in precarious positions to achieve “stunt,” “trick,” and “freak” shots in comedies and westerns. The editors reuse a similar image to call up this type of dangerous work, remarking: “a cameraman must be like the Roman sentry at Pompeii, once set to his duty he is there to do it regardless of danger or what may happen. He must get the scene if it costs him his hide.”⁸² Cameramen often referenced the films of Western star Tom Mix as the source of many a treacherous shooting scenario. Member Ben H. Kline’s profile explains that his “life is just one thrill after another and most of ‘em are calculated to strike terror to the heart and hair of the poor cameraman.”⁸³ Such “rough stuff” requires a great deal of “ingenuity.” Many of the members talk about being tied, rigged, and lashed to any number of swiftly moving vehicles, platforms, and steep surfaces. Members also have to imagine their work in a number of different ways, as Walter Lundin, ASC, exclaims about his camera work for comedian Harold Lloyd: “One must be a soldier, sailor, submarine diver, chimney sweep, steeplejack, structural iron worker, speed demon, mountaineer, dynamite mixer, stoker, balloonist, bridge builder, aviator, dog catcher, and everything else that’s

81 “Alvin Wyckoff,” *American Cinematographer* 2, no. 26 (February 1, 1922): 41.

82 “Frank B. Good,” *American Cinematographer* 2, no. 26 (February 1, 1922): 48.

83 “Ben H. Kline,” *American Cinematographer* 2, no. 26 (February 1, 1922): 47.

dangerous.”⁸⁴ While these accounts may seem hyperbolic to prove a point, their enthusiasm for these scary positions was the result of many a close call on set. In King D. Gray’s ASC profile, the cinematographer recounts a scenario shooting a low flying “aeroplane” during the filming of *The Heart of Humanity* where the “the plane went wild and swooped directly into the camera,” when King came to, the camera and tripod were destroyed, but King’s hand “still held the camera crank.”⁸⁵

2.2 THE INNER WORLD

That “risking and life and limb for the benefit of their art” was such a common theme in the early years of ASC makes it difficult to understand why such discourses of bodily precarity fell to the wayside as the decade moved on. The very first issue of *AC* included a boastful poem about “The Cameraman”:

He does so much, he braves so much, yet gets so little thanks
He must not tire, must face a fire, and risky places span:
 Through waves that dash, in battle’s clash, he stands his ground and cranks,
And stands there too, till he is through—your patient cameraman.

No danger fears, at time clocks sneers, each morn his work’s begun;
 High mountains sales, wades, streams, walks dales—he’s always in the van,
With more to do when “work” is through and slowly sinks the sun-
Your silent, wiry, never-tiry, patient cameraman.

So-when you go to a picture show, remember if you can
That a need of praise for good photoplays belongs to the cameraman.⁸⁶

84 “Walter Lundin,” *American Cinematographer* 2, no. 26 (February 1, 1922): 51.

85 “King D. Gray,” *American Cinematographer* 2, no. 26 (February 1, 1922): 31.

86 “The Cameraman,” *The American Cinematographer* 1, no. 1 (November 1920): 2.

By exploring the various discursive modes cinematographers used when describing emotions, consciousness, the crank's attachment to the body, bodily labor, and safety, I wish to illustrate the ways in which this embodied reflexivity was tied to conceptions of composition, spectatorial sensation, and the cinematographer's impact within the final film. That many of these camera operators who use this discourse understand their bodies, minds, and hearts as embedded within the image ties their critical-industrial reflexivity closer to socio-philosophical theories of labor like Marx's notion of consciousness or to artistic theories of craft production like William Morris' Arts and Crafts movement. That such philosophical concepts had implicit permeations in the everyday workplaces of the early 20th century is hardly surprising, given how these discourses circulated in public institutions like union halls, newspapers, and even the movies. While cinematographers sought to align themselves ever closer to the more erudite notions of art and culture, it remains productive to investigate how modes of craftsmanship tied to the body were fundamental to both day-to-day practice and how cinematographers constructively imagined the translation of their work to audiences constructively through embodiment.

Cinematographers often framed the "inner world" of emotions, feelings, and sensations as crucial to the construction of camera craft and audience reception. Many articles suggest that cinematography cannot be taught in schools because camera operators need to possess a "natural ability" or instinct for the practice. In this way, cinematographers stress a way of being in the world with one's body that makes one an apt "cameramaster." Dan Clark refers to the craft as a vocation, of sorts: "'many are called, but few are chosen.'"⁸⁷ This inherent sensibility, however, requires experience in and of the world, not the type of "experience" found in books. Clark

⁸⁷ Dan Clark, "Can Cinematography Be Taught in Schools?" *American Cinematographer* 4, no.3 (June 1923): 13.

explains, “the stage of the cinematographer is the world and not a schoolroom, and the subject to be photographed are the millions of things in the world and lots of things which are not in the world. His tools are a good eye, a good brain and good judgment, and a little piece of machinery.”⁸⁸ Camera operators rarely refer to the apparatus without also referring to their bodies, and many understand the two as inherently inseparable. John Arnold goes a step further and suggests that the apparatus is guided not only by the body, but the feelings within the cinematographer: “A cameraman must know composition. This is just as important in motion pictures as in still photography or in painting. It’s one of the things that a person feels when looking at a picture without knowing just what it is.”⁸⁹

This understanding of composition’s relationship to feeling extended to all manners of shooting including outdoor recording of live-events to narrative films and shorts. One piece of advice suggests that even composing a close-up requires the cinematographer to feel something first: “Don’t get it in your head that motion is all the “action” there is. You can get over more in a closeup showing repression than in a month of table pounding—if you think and feel.”⁹⁰ Thus, to think and feel guides *all* approaches to composition, framing, and the camera’s interaction with the world and the scene. That a cameraman bringing his own emotions to the shot in framing a close-up of a ‘repressed’ character to communicate and translate “more” than outright action illustrates a more complex understanding of how cameraman processed their work. To

88 Clark, “Cinematography,” 13.

89 John Arnold, “Some Fundamental Cinematographic Knowledge,” *American Cinematographer* 4, no. 8 (November 1923): 12.

90 My emphasis. “Just Don’t, That’s All: The Cameraman Offers a Few Tips to the Novice,” *American Cinematographer* 2, no.17 (September 1921): 1.

compose was not simply a blocking maneuver of apparatus and subject, but an interconnected choreography translating the felt emotion of the profilmic into the sensation of the finished film. These descriptions contain abstractions about what is in the world and what is not in the world (the inner world of feelings)—as well as what one feels without knowing.

Earlier accounts about composition as framing the inner and outer world with feelings stand in sharp contrast to the discourses that would creep into the second half of the decade about perspectival composition. To feel without knowing is the key marker of this early discourse which foregrounds the joys of shooting and the fears of filming as integral to the artistry of craft. Part of this maneuver seems calculated specifically to distance the members of ASC from amateurs or aspiring camera operators, with its language about vocation, inherent sensibility, and feeling. One does not learn how to use the camera, one *just feels how to do it*. In some ways, this is no more accurate a characterization than those discourses used later in the AC that do away with the mechanics of the practice in favor of totalizing science, knowledge, and artistic lineage. In this way, each discourse is at once a felt sense of describing the craft and a promotional or tactical approach to broadcasting the specialty of the craft to the world.

2.3 CAMERAS

To talk about cranking necessitated detailed discussions about cadence, rhythm, exertion, and adrenaline. Prior to motorized cameras introduced in the second 1910s, the crank symbolized the cameraman's actual work of pushing the film through the camera. As Richard Koszarski has pointed out, the Society of Motion Picture Engineers in 1917 had requested a standard speed of

60 feet per minute cranking and 80 feet per minute projected.⁹¹ Victor Milner suggested that this could be achieved with “two turns per second of the camera crank” producing an “automatic rate of 65.”⁹² The camera operators strongly promoted a coherent narrative of crank rotations per minute in order to advance notions of craftsmanship and expertise. Cranking rotations actually varied widely between operators, as John Arnold notes: “There is not set rule for the speed to be used in cranking. It varies and decision in this matter rests with the cameraman.”⁹³ To capture a shot the cameraman had to keep the crank moving despite all excitement, fear, and even discomfort. As Victor Milner points out about his first day shooting on a cold day at Rockaway Beach: “The spray was ice cold, so that my fingers became numb and felt like so many bains as I turned the crank ‘round and ‘round.”⁹⁴ While later ASC discourses sought to distance the organization from the language and the imagery of the cameraman as mere “cranker” and cinematography as “cranking,” many early cinematographers saw the necessity of cranking to any conception of the craft. The crank not only represented the inherent connection between their body and their consciousness embedded in their image, the crank became physically embedded in their own memories and embodied knowledge of the craft. Cranking also displayed the vocational devotion to the craft in the many exaltations that announced that to continue cranking was to potentially perform one’s duty in the face of death. As Dan Clark remarked on the near

91 Koszarski, *An Evening’s Entertainment*, 56.

92 Koszarski, *An Evening’s Entertainment*, 57.

93 Arnold, “Fundamental,” 12.

94 Victor Milner, “Fade Out and Slowly Fade In,” *American Cinematographer* 4, no.8 (November 1923): 6

death of ASC cameraman Norman De Vol, the cinematographer “grinds away as death looms below:”

Imagine seeing your shadow growing larger and larger on the ground while you rushed through the air to an inevitable crash; imagine yourself keeping that shadow within the eye of the camera, oblivious to your fate, striving only to get a celluloid record of what without doubt would be your death – to get the record not because you wanted your death described in films, but because you wanted to stick to your post, stick to your job, even until the last minute of your worldly existence.⁹⁵

Clark’s vivid description of De Vol’s cranking encounter with life and death highlights the degree to which all cinematographers valued the crank’s relationship to hand, eye, body, and spirit. While cranking cameras would be slowly replaced by motorized cameras, the pages of ASC featured a plethora of advertisements and articles promoting a full range of cameras that seemed readymade for these adventurous cameramen.

The introduction of smaller professional and amateur cameras that were more portable, lighter, and in some cases even motorized made the ease of travelogue, newsreel, aerial, location shooting, and any range of narrative scenarios possible. Camera ownership by cinematographers had become increasingly common and necessary after 1915, as Janet Staiger points out, due to the slow-downs in purchasing and repair at studios. As Staiger argues, such personal ownership likely led to the development of numerous specialized accessories, technological developments, and experimentations as a result.⁹⁶

95 Dan Clark, “Films Own Shadow as Plane Fall,” *American Cinematographer*. 4, no. 9 (December 1923): 7.

96 Janet Staiger, *Classical Hollywood Cinema*, 150.



Figure 2.4 Debie Cameras Ad, *American Cinematographer* (December 1922)⁹⁷

Camera manufacturers in the 1920s like Mitchell (designed by a former cameraman), Bell & Howell, and others regularly used the pages of *AC* to market their new inventions to eager and willing cameramen ready to test out new technologies and sell back old, outdated, or uninteresting equipment to other ready buyers. As Kristin Thompson highlights, many cameramen preferred the Pathé camera, but the company's production was adversely affected by the first world war and many camera operators found themselves needing to experiment to find a new ideal fit. The Debie Parvo camera manufactured in France was available in both a wood and (later) metal box, and notably featured a useful focusing ground glass. Debies were more widely used in European markets, and were especially popular in Germany.⁹⁸ With this

⁹⁷ Digitized Scan Courtesy of the Media History Digital Library

⁹⁸ "Comment and Review," *Close Up*, 6 (December 1927): 77.

knowledge, a 1922 ad for Debrie in *AC* promised to “record the events of the world.” (Fig. 2.4) With its tripod legs piercing through the flesh of the earth, the Debrie camera stands inside and over the globe and announces its ability to see through the entire world to achieve great shots. Again, the entire world is held in place by an apparatus, and only made to “move” again by the activities of the cinematographer.

Four cameras were especially targeted to a more mobile market: the Devry (1925), Bell and Howell’s 16mm Filmo (1923), Bell and Howell’s 35mm Eyemo (1925), and the Akeley Camera (1917). Most well-known for its gyroscopic head and long lenses, the Akeley became a coveted specialty camera that also catalyzed a market for specialized “Akeley” cinematographers. Designed by a taxidermist, Carl E. Akeley, the camera did well shooting high speed action scenes that required quick panning, which might include aerial shots, chases, and fights.⁹⁹ Similarly, the Eyemo camera could be used for aerial shots, specialty shots, and difficult angles in studio during narrative production, as well as for stunt work; furthermore, it was heavily used in newsreel and documentary production. The Eyemo camera’s advantages were its light, seven-pound weight, its ease of handheld or rigged operation, and the fact that it “held 200 feet of film and ran 35 feet on one wind of its spring motor.”¹⁰⁰ Less utilized in America, but marketed to ASC and used abroad, in newsreels, and by amateurs was the Chicago manufactured Devry.¹⁰¹ Affectionately known as “the lunchbox” thanks to its small horizontal

99 Kristen Thompson, *Classical Hollywood Cinema*, 268-269.

100 Thompson, *Classical Hollywood Cinema*, 270.

101 Koszarski, *An Evening’s Entertainment*, 146.

shape, it was considered both a durable and affordable camera.¹⁰² The Devry, like the Eyemo and Akeley, spoke to cinematographers who desired the mobility, proximity, and flexibility of smaller cameras that allowed the apparatus—and thus often the body of the operator—to maneuver into ever more “difficult” and exciting places.

2.4 DANGEROUS TRAVELS, WESTERNS, AND COMEDIES

These exciting places often signaled dangerous positions, and the early pages of the *AC* are full of close-encounters during shooting, whether in narrative filmmaking settings or rough conditions during location work. Many articles highlight accounts of cameraman from around the world finding themselves overwhelmed by weather or disorientation, with some even facing imprisonment. John Dored, ASC reported in a long exposé that he was imprisoned for filming Lenin’s funeral in Moscow.¹⁰³ Dored compares himself to a soldier at war, with his camera as his gun. Insisting that such a metaphor is not an exaggeration, Dored implores the reader: “Let us think of films, taken in faraway wild lands, taken individually or with expeditions; just think of all the risks and hardships the cinematographer had, to get the stuff he was after!”¹⁰⁴ Dored instructs that such a task is necessary, after all, “because the world’s troubles are his bread and butter—where there is a trouble, there is a cinematographer.” Many close encounters penned by

102 Mark Kirkland, “The Fotokem Cinema Camera Collection.” *Fotokem Newsletter* 34. 8 – 10.

https://www.fotokem.com/projects/news/pdf/FotoKem_Cinema_Camera_Collection.pdf

103 John Dored, “Soviets Imprison A.S.C. Member for News ‘Scoop’ in Filming Lenin’s Funeral at Moscow,” *American Cinematographer* 5, no. 2 (May 1924): 4.

104 Dored, “Soviets Imprison,” 4.

H.T. Cowlings involve filming ferocious beasts like lions, tigers, and charging elephants.¹⁰⁵

Shooting beasts with camera and gun were popular subjects of these travelogues for cameraman like Cowlings, who, in a 1924 correspondence with Foster Goss, explained, “My tour from India will take me into French Indo-China which I have never visited before, and where I am very anxious to go. It is one of the few remaining happy hunting groups for both the gun and camera.”¹⁰⁶ Many more articles consider the gear and preparation for arctic and tropical climates. Articles penned by Len. H. Roos, ASC, offer an almost comical approach to travelling cinematographers from contending with the crowds that constantly questioned what, exactly, his strange wood box *was*, and outline the difficulties of dealing with annoying people who were merely “Travelling for Pleasure!” These disconnected amateurs could snap photos indiscriminately and pass through customs without tariffs: “They didn’t go to out of the way places where the heat, flies, mosquitos and a hundred other pests would drive a person crazy. They see “the sights” from a comfortable motor car and don’t have to pack a heavy camera around.”¹⁰⁷ Roos’ sarcasm towards his fellow travelers underscores that as much as cinematographers described treacherous conditions and activities, much of their routine work was full of minor if even comedic irritations.

Sometimes the most dangerous conditions stemmed from seemingly unlikely places: shooting westerns and comedies in California. As the star performed many a daring stunt, the cinematographer often had to devise not only how best to achieve the shocking shot, but how to

105 Herford Tynes Cowling, “Filming a Tiger Shoot,” *American Cinematographer* 5, no. 4 (July 1924): 5.

106 Letter to Foster Goss from Herford Tynes Cowling, April 7, 1924. ASC papers. Margaret Herrick Library.

107 Len H. Roos, “Traveling for Pleasure! What Camera Globetrotters Must Contend With,” *American Cinematographer*. 8, no.2 (May 1927): 6.

do so in a way that may have to compromise his own safety. Beyond the precarious stunt compositions, many of these cinematographers, including Fred Jackman, ASC, (first cameraman at Mack Sennet), L. Guy Wilky, ASC, (first cameraman for William De Mille at Laskys), George Meehan, ASC, (Lehrman), and Walter Lundin, ASC, (Harold Lloyd) were often known for their specialty in-camera trick effects and their “freak” shots. Meehan’s profile describes “thrilling” stunt scenarios like shooting in balloons, racing cars, and even “swinging in a steel girder twelve stories above the street,” but that “it’s all in a day’s work in comedies and after a while it’s like playing with blocks.”¹⁰⁸ Many of the comedy and western cameramen describe their stunts and dangerous conditions with a calm sense of ease. Unlike the adventuring cameramen, they prove themselves not just in the stunts, but in their experimental effects. The pages of AC recognized and applauded the technical and athletic abilities of these cinematographers on a regular basis.

Fred Jackman’s work received numerous write-ups of praise from fellow-cinematographers and critics, and L. Guy Wilky, ASC, claimed that such work had “proved the training ground for cinematographers who have later been retained to utilize their knowledge in putting the intricate action of some of the greatest dramatic productions on the screen.”¹⁰⁹ Many of these articles were self-promotional in the face of other cinematographers who failed to take comedy work seriously. As Keating points out, “while the discourse of Art allowed some cinematographers to overcome this attitude of disrespect, there was one class of

108 “George Meehan,” *American Cinematographer* 2, no. 26 (February 1, 1922): 31.

109 L. Guy Wilky, “Behind the Camera for William de Mille,” *American Cinematographer* 6, no. 11 (February 1926): 7.

cinematographers to whom the stigma remained attached: comedy cameramen.”¹¹⁰ As the decade wore on, more and more of the writing in *AC*'s articles balanced discussions about the obvious skills of these comedy-picture cinematographers while also praising the more serious and so-called “artistic” dramas. As Walter Lundin, ASC retroactively surmised, comedy and western photographers held ambitions all along for the same recognition as their dramatic peers. By praising their diverse range of skills, Lundin argued for a greater recognition of these camera operators' work:

All of which calls for the utmost versatility on the part of the comedy cinematographer. Not only must he be able to “turn his camera inside out” for trick stuff as has so aptly been said, not only must he have the nerves of an iron man, but he must be able to make his work compare with that of the most favorable of his fellow artist who have made their reputations in dramatic motion pictures.¹¹¹

Articles like Lundin's often had to make linguistic backflips to praise their most noteworthy cinematographers (including President Fred Jackman) while suggesting ways in which comedies also required moments of dramatic action where these mechanical minds could add artistic variety to their shots. The comedy cinematographers seem less concerned with these arguments, as many of their articles and profiles still rank the effects work and athletic feats as primary to those genres. As early as July 1923, John Seitz had grappled with the difficulty of distinguishing between dramatic cinematographers and other camera operators for comedy, travelogue, and newsreel. As Keating has pointed out, this hierarchy constructs the dramatic photographer (Seitz) at the top, followed by comedy cinematographers, travelogue camera operators, and then

110 Patrick Keating, *The Rhetoric of Light: Discourse and Practice in Hollywood Cinematography, 1931 – 1940*. (PhD diss., University of Wisconsin-Madison, 2004), 52.

111 Walter Lundin, “Drama Treatment Enters Comedy Photography,” *American Cinematographer* 3, no. 5 (June 1924): 9.

newsreel cameramen at the bottom.¹¹² Seitz's argument that certain forms of cinematography could be trained in schools (like newsreels and travelogues) is harder to make with comedies and westerns, given the requirements for stunt work combined with technical effects skills. The comedy and western cameraman skills are that of motion in action: "Their work is often very difficult and exacting. Proficiency is gained only by long experience and specialization. The only school that can successfully teach this work is the school of the studio."¹¹³ According to articles like Seitz's, comedy and western cinematographers would always be more "physical than mental" because the comedy cameraman is "more of a photographer than a cinematographer," while the dramatic cinematographer "is less concerned with mot'on [*sic*] and more with lighting and tone."¹¹⁴ Thus, as early as 1923, Seitz indicates how conflicted and diverse were the approaches to photographic craft and quality. Seitz's views, as a self-described dramatic cinematographer, were emblematic of ASC's mission statement of "progress" and "art" as a way to move cameraman away from their embodied past as mechanical cranks.

2.5 A NEW EDITOR'S LENS AT *AMERICAN CINEMATOGRAPHER*

Such eclecticism was represented early in the magazine. While half of an issue might feature accounts of globe-trotting cinematographers filming in various locales around the world for newsreels, scenics, topicals, and travelogues, the same issue might contain articles suspicious of

112 Keating, *Rhetoric of Light*, 53.

113 John Seitz, "Can a School Teach Cinematography?" *American Cinematographer* 4, no.4 (July 1923): 5.

114 Setiz, "School," 6.

this work. An early response in *AC* to an article in *Literary Digest*, titled “Nothing Moves the Moving-Picture Cameraman,” took issue with the article’s assumption about all cinematographers. *ASC* under the *AC* responded defensively to the supposed publicity: “It may be a surprise to know that the cameraman who is supposed to turn and turn and turn and turn—actually spends not over fifteen minutes in an eight-hour day in this mechanical motion.” Later, this retort takes issue with the caricatured nature of the cameraman as “Snub-nosed Mike,” and insists that “‘Snub-nosed Mike’ may shoot the news weeklies, but we have not seen him in features. Germans, Italians, Englishmen, and Frenchmen are there, and a godly sprinkling of college-bred Americans, but in such a representative body as The AMERICIAN SOCIETY OF CINEMATOGRAPHERS [*sic*] there is not one Mike-and many large noses.”¹¹⁵ As Patrick Keating has pointed out, much of this discursive differentiation had as much to do about class as it did about craft. Keating describes one such running column, penned by the pseudonymous “Jimmy the Assistant,” as a way for *AC* to appeal to many cinematographers’ working-class roots from which they had ascended thanks to their art.¹¹⁶

By the middle of the decade, under the editorial control of publicity man Foster Goss, the *AC* doubled-down on its artistic rhetoric and its emphasis on cultured depictions of the “cinematographer” over manual descriptions. Goss often included articles penned by non-*ASC* members including critics and outsiders that praised the ideal “artist” cinematographer. As Irving A. Eckman, a St. Louis cinematographer for General Film Manufacturing Company cheered in his editorial, “A Tribute to the Cinematographer,” “the real cameraman—cinematographer—is

115 “Nothing Moves the Moving-Picture Cameraman, A Reply,” *American Cinematographer* 1, no. 3 (Dec 1, 1920): 2.

116 Keating, *Hollywood Lighting*, 18.

more than a mere “crank-turner.” He must be an artist.”¹¹⁷ Goss instructs the reader to interpret Eckman’s praise as not the voice of ASC cinematographer, but as the observations of “a student among the layman” who “writes as one who is far removed from the film capital.” Thus, Eckman’s amateur (but educated) assessment should remind ASC cinematographers how their positions might be ideally imagined from an outside perspective. Goss was careful to frame ASC members’ accounts to stress not only what they had accomplished in the past, but how they could frame the cultural, aesthetic, and scientific nature of their work for generations to come. As Goss writes about the return of Herford Tynes Cowlings to California studios after his many worldwide adventures: “He needed more than a steady hand and a staunch heart to grind away in the teeth of danger—he had to have the scientific aptitude to preserve the results of his enterprise through the balance of long and perilous journeys.”¹¹⁸ Goss utilizes the familiar term “crank” with its accepted lexicon of the travel film but then spins Cowling’s work as superior—not because of the cinematographer’s physical labor, but for his mental capacity and “scientific aptitude.”

Although Goss had taken over as editor in 1922, his most significant maneuvers in reorienting the professional label and its criticism within the *AC* took place in 1925 and 1926. One of Goss’ primary targets was the monikers “cameraman” and “crank turner.” In an editorial, “A Rose by Any Other Name,” Goss criticized the simple conjoining of body, tool, and label, claiming that doctors were no longer known as medicine men, therefore “camera” and “man”

117 Irvin A. Eckman “A Tribute to the Cinematographer,” *American Cinematographer* 5, no.8 (November 1924), 17.

118 Foster Goss, “Editor’s Lens” *American Cinematographer* 5, no.9 (December 1924): 11.

should not be connected in such a “derogatory” way.¹¹⁹ Goss, who was never a cinematographer, cameraman, or crank-turner himself could not understand the inherent connection between man and camera and thus found the description to lack dignity. While early approaches had tried to reframe this terminological debate, as a publicist Goss sought to connect cinematography to loftier aims in the industry and in culture at large. By linguistically disconnecting “camera,” “man,” “body,” and “emotion,” Goss could more forcefully promote the image of cinematographer as intellectual, scientific, and cultured artist. From then on, Goss insisted to the industry, critics, and perhaps even the members of the ASC that if they wish to receive due credit in the industry and increased compensation, they had to recommit to the established label of their own publication. They were no longer to think and refer to themselves as cameramen and crankers—they had to become the ideal American cinematographer.

Goss’s attempt to “smooth-over” and codify this rhetoric was supported by his more worldwide publicity efforts. Articles like “ASC Exodus to Europe” announced the visit of six cameramen to German studios though not explicitly to learn from their foreign counterparts’ innovations at studios like UFA, but figured instead as a kind of expanded location scouting and a chance to show off their own equipment. The articles exclaimed that the group would travel with six figures worth of equipment, and that “the whole of Europe [...] is rich in location matter for the cinematographer who knows how to use the location and who is able to cope with the foreign conditions.”¹²⁰ While often more concerned with the dramatic studio cinematographer at

119 Foster Goss, “Editor’s Lens: A Rose by Any Other Name,” *American Cinematographer* 5, no.11 (February 1925): 10 – 11.

120 “ASC Exodus to Europe,” *American Cinematographer* 4, no. 8 (November 1923): 18 – 19.

home, Goss boasted over a profile of cinematographers from ASC who were currently “blanketing the world” in 1926.¹²¹

2.6 THE CAMERA OPERATOR IN AMERICAN PRACTICE AND GERMAN FILM THEORY

While ASC and AC increasingly shifted its discourse away from the mechanical, embodied, and sensing cameraman, European film critics and filmmakers working amongst their own technicians and American practitioners embraced this physical language. Film critics and theorists like Siegfried Kracauer and Béla Balázs, and filmmaker-theorists such as Dziga Vertov, frequently discussed the importance of the camera operator’s body, senses, and emotion in framing compositions. Many academics may have already recognized parallels between the AC’s linkage of camera cranking with death and Béla Balázs’ essay “Compulsive Cameraman,” Kracauer’s understanding of camera composition as a framing of external reality via one’s internal reality or soul, or how Dziga Vertov’s Kino-eye imagines itself beyond the bounds of the human body, yet also frequently depicted as dependent on the agility of camera operators.

For Kracauer, the revealing and recording functions involve the tradesman understanding the devices at their disposal. Kracauer explains, “Provided his choices are governed by his determination to record and reveal nature, he is entirely justified in selecting motif, frame, lens,

121 Foster Goss, “Editor’s Lens: Blanketing the World,” *American Cinematographer* 7, no. 6 (September 1926): 5.

filter, emulsion and grain according to his sensibilities.”¹²² By including the technical language of ‘lens, filter, emulsion, and grain’, Kracauer points to the unique artistry of the photographer which might be analogous to a painter’s brush width, canvas weight, and paint dilution. The photographer does not merely recreate the reality he/she sees by choosing the ‘right tool for the job’, but in fact uses those tools that will most help him/her express the relationship between his/her senses and the conversation with what the photographer sees in reality. Present in this action is some unspoken understanding between the work the photographer is performing and the relationship he is playing out within the world. Kracauer asserts, “For nature is unlikely to give itself up to him if he does not absorb it with all his sense strained and his whole being participating in the process.”¹²³

In many ways, Kracauer unconsciously intellectualizes a similar craft discourse that photographers and camera operators evoked to explain their work. Kracauer, with his focus on technicality and the relationship going on between operator and nature, is presenting two versions of the cameraman as ‘adventurer’ and the artistry of operating as a type of “working through.” Thus, the craft performed in taking or shooting an image is something like discovery or a psychological investigation through one’s whole self – the mind and the body. Kracauer duplicates Vertov’s notion of the able and mobile photographer: “Due to the revealing power of the camera, there is also something of an explorer about him; insatiable curiosity stirs him to roam yet unconquered expanses and capture the strange patterns in them.”¹²⁴ The “unconquered

122 Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality* (Princeton, N.J: Princeton University Press, 1997), 15.

123 Kracauer, *Theory of Film*, 15.

124 Kraacuer, *Theory of Film*, 16.

expanses” reminds one of the ‘filming the universe’ cover of *American Cinematographer* and the many travelogue and newsreel articles of the globe-trotting image hunter.

Balázs’ first-hand relationship to the Weimar film industry illuminates an underlying attention to behind-the-scenes cinematic labor, due to his emphasis on the notion of *Einstellung*. *Einstellung* is a difficult concept, which indicates the interaction between the approach and attitude of the camera operator on one hand, and the physical camera set-up and viewing position produced by that setup on the other.¹²⁵ Similarly, the term was often used in Kracauer’s Weimar film writings (especially in his *Marsailles Notebooks*) for similar aims. As Miriam Hansen explains, “Kracauer stresses the active, interventionist manner in which film translates the photographic approach into cinematic terms. Among the ‘chances of alienation’ available to film, he lists framing, the choice among different distance ranges, angles, and static versus mobile shots [...] he draws attention to the link between cinematic framing and sociopolitical positions suggested by the German word *Einstellung* (which means both “shot” or “frame” and “attitude”).”¹²⁶ *Einstellung* emphasizes a cinematography that is created by production, sutured within the film object, and experienced by the spectator. While other classical film theorists emphasized the role of the spectator or cinema’s indexicality amongst other arts, the specificity and complexity of these making-oriented film production terms in 1920s German film theory

125 For further notes on Balázs’ terms used here (including *Bilderführung*, *Einstellung*, *Physiognomie/physiognomy*) see: Rodney Livingston and Erica Carter, “Notes on Translation, Glossary and Abbreviation,” *Béla Balázs: Early Film Theory: ‘Visible Man’ and ‘The Spirit of Film.’* (New York: Berghahn Books, 2011), vix – xiii.

126 Miriam Hansen, “‘With Skin and Hair’: Kracauer’s Theory of Film, Marseille 1940.” *Critical Inquiry* 19 (Spring 1993): 457.

illuminate a vital relationship between cinema's production languages and their theorization by the likes of Kracauer and Balázs.

Balázs understood that the consciousness of the cinematographer in relationship to the camera and pro-filmic space gives a felt sense of an "immediate present."¹²⁷ Balázs' investments in film production included his trade writing (specifically in the magazine *Filmtechnik*), geared towards cinematographers, and his relationship with renowned Weimar (and later ASC) cinematographer Karl Freund.¹²⁸ This connection to the production world led Balázs to deliver a number of lectures to the Berlin Cinematographers club, in which he stressed again and again the important role of the cinematographer within his conception of the cinematic arts: "ultimately, it is his [the cinematographer's] work that we see face to face in film."¹²⁹ The emphasis on the cinematographer as a maker of meaning here to a larger philosophic worldview in which the social and political projects of everyday persons contribute to a culture or society's wider sense of shared purpose and consciousness. In Balázs' writings on the cinematographer, the very heart of a Marxist project of historical consciousness, Husserl, Kracauer's *Lebenswelt*, as well as the phenomenological conception of *the Other* are put into praxis. In the "Future" lecture, Balázs begins:

Film can become a work of art only when photography itself ceases to be mere *reproduction* and becomes the *work itself*. When the work, the decisive creative expression of the emotions and the spirit, is realised not in staging and acting but *through*

127 Balázs, *Béla Balázs: Early Film Theory*, 156.

128 Karl Freund's Weimar cinematography work includes: *Metropolis* (Fritz Lang DE 1927), *Der letzte Mann/The Last Laugh* (F.W. Murnau, DE 1924), and *Berlin: Die Sinfonie der Großstadt/Berlin: Symphony of City* (Walter Ruttmann DE 1927), among others.

129 Joseph Zsuffa, "Béla Belász [sic] and the Cinematographer's Art." *American Cinematographer* 68, no. 10 (October 1987): 36.

the mediation of the photograph in actual shots. When the cameraman who does in fact make the picture also becomes its author, the poet of the work.¹³⁰

Balázs' fascination with the peculiar affective connection, when the spectator senses the cameraman in the film image, appears most vividly in his accounts of war and adventure cinema.

Using these as examples heightens his understanding of the conditions which might produce a consciousness of the cinematographer via the camera. Balázs writes of a cinematographer filming war, "We see the situation at a moment in which the cameraman is still present, and we do not yet know whether he will survive."¹³¹ In the next section, Balázs continues: "What is special and new here is that these men look death in the eye through the lens of the movie camera[...]This is a new form of human consciousness that has been vouchsafed to man by the camera. For as long as these men do not lose consciousness, they keep their eye to the lens and use the camera image to make of their situation a perceptible reality."¹³² The critic addresses the role of fear and consciousness specifically in his essay on war in *Spirit of Film*, as well as his essay on arctic explorer Robert Falcon Scott, titled "*Kurbelndes Bewußtsein*." Often translated as "The Compulsive Cameraman" and "Reel Consciousness," it is the literal translation of "Cranking Consciousness" that perhaps best gets at dual mental and physical "cranking" activities of the camera operator when faced with death. While many of the passages from *Kurbelndes Bewußtsein* were repurposed in *Spirit of Film* to discuss the war cameraman (like the one above), some of the passages here are unique to camera operators, like the newsreel

130 Balázs, Béla. "The Future of Film," *The Film Factory: Russian and Soviet Cinema in Documents 1896 – 1939*. eds., Ian Christie and Richard Taylor. (New York: Routledge, 1994), 145 – 144.

131 Balázs, Béla. *Béla Balázs: Early Film Theory*, 157.

132 Balázs, Béla. *Béla Balázs: Early Film Theory*, 157.

and travelogue camera operators who approached the particular dangers of the natural world with intuition and fluency. Balázs explains that Scott's South Pole cameraman-explorers were "true earth dwellers":

They have a conscious feeling for the earth, in the same way that one is said to have feeling for one's country, for example, one that implies a definite sense of responsibility: a person has to know where he is. They do not live in Vienna or London; they inhabit the globe, and they explore all the cellars and attics of their ancestral property. A person is never truly at home in any place until he has fully explored.¹³³

It is hard not to notice the vivid similarities expressed about the cinematographer's embodiment by both film theorists and camera operators. Both explicitly reference cinematographers' consciousness, their inner world of sensation, and conception of the world as a place to be "fully explored" with camera. Echoes of this discourse across two discursive groups in film culture—European film theorists and filmmakers on one side of the Atlantic and organized American technicians on the other—reflect that not only was the experience of "camera operators in the world" of interest to cinematographers themselves, but that their embodied rhetoric reverberated on other areas of film culture. That what cinematographers (in the US, Germany, and around the world) had to say about their craft and about their bodies working within that craft resonated with early film theorists trying to make sense of a new medium demonstrates a porousness and flexibility between philosophical, embodied, and technical notions of composition, framing, cranking, and the unique interactions between "camera," "man," and "the world."

133 Béla Balázs, "The Compulsive Cameraman." *October* 115 (Winter 2006): 53.

2.7 CINEMATOGRAPHER AS ARTIST

As European film critics were embracing the hand that cranked the camera, ASC and AC were already applauding their success in transforming the lowly cranker to the status of artist-cinematographer. Near the end of Goss's tenure, the editor wrote to then ASC president Daniel Clark:

Where we have been crawling and walking in publicizing the ASC in the *Exhibitors Herald*, *Film Daily*, and other trade papers, we know that our enormous membership has freed us of any provincial interests, are in a position to "run" as it were. We can do now what we have been contemplating so long—covering the entire United States through newspapers, magazines, wire services and feature services with a publicity service concerning the cinematographer [...] For once and for all they must disabuse themselves of the idea—that still persists—that the cinematographers' place is far in the background as possible.¹³⁴

Over the prior two years Goss had promoted an aggressive campaign to educate American film critics on the proper ways to write about cinematography and the cinematographer in reviews. Goss also advocated on behalf of the cinematographers' screen credits and battles between producers and exhibitors (who regularly cut what they deemed as unnecessary credits from release prints to shorten their program times). With the linguistic reframing of the cinematographer in their own publication, in industry trade papers, and in nation-wide review columns, Goss and other cinematographers needed to construct an additional language in which to convey the cinematographer's craft. As I have indicated throughout, this new language of the artist, thinker, scientist often directly conflicted with or sought to overwrite other conceptions about the craft's emotional and physical work. As Keating argues, "There is nothing surprising about this inconsistency. Institutional discourse is often opportunistic. We should expect the

134 Letter to Daniel Clarke from Foster Gross, August 12, 1927, Daniel B. Clarke 1926-1928, ASC Papers, Margaret Herrick Library.

ASC to use any argument that could highlight its guiding theme: why cinematographer deserves an improved standing in the industry.”¹³⁵

By using the metaphor of “painting with light” and the figure of the cinematographer as artist-scientist, the ASC attempted to justify a more prominent place in the industrial status and higher pay. In doing so, the ASC also sought to distinguish itself from sectors of the industry that would construe their artistry as manual labor and physical work. For years, many in the ASC resisted union representation, fearing it would significantly alter their status and standing with producers and directors. As Keating points out, a key transformation in attaining the title of artist or scientist necessitated a change in perception regarding the cinematographer’s class status. Joseph A Dubray, ASC figured prominently in promoting this position. Dubray’s college education in Chemistry and his background as a portrait photographer collecting images of Europe’s most famous paintings informed his desire to shift the classed trade language of his fellow members and encourage them to consider how their “mental effort” placed them securely in a professional class. As Keating has observed, “Dubray argue[d] that the cinematographer is a sophisticated intellectual—an elite, cultured man whose work should never be confused with “labor.” In attempting to win the cinematographer a new class status, Dubray fashions for him a new class identity.”¹³⁶

As implied in earlier discourse, the ASC and the AC wanted their members and audiences to think of the cinematographer not merely as responding to the world but controlling it. As much of the language involving the adventurous cranker, newsreel cameraman, and stunt

135 Keating, *Hollywood Lighting*, 17.

136 Keating, *Hollywood Lighting*, 21.

photographer attest, a cinematographer's earliest skills were dependent on action, experience, and quick thinking in unexpected conditions and environs. The newly fashioned cameramaster—or, even better, Director of Photography—held a much loftier position: to manage and control the world as made on set. As Chris Cagle illustrates, the onslaught of additional technicians during the sound-transition in the late 1920s required cinematographers to fortify their positions of power on set and in the industry. From the early years of the studios, camera crews had grown to include not only a first assistant, but second assistants, loaders, and multiple camera operators to provide continuity coverage for large productions. As Cagle points out, “One key change was in the cinematographer’s promotion to a managerial role, another consequence of multiple-camera shooting.”¹³⁷ This level of control and degree of management further distanced the “Director of Photography,” also known as in ASC as First Cameramen, from the ranks of camera operators, assistants, and the roving camera adventurers they once were.

2.8 HOLLYWOOD AS THE WORLD

The growth of studios’ sound-stage facilities in Hollywood as well as the increase in local California location shooting in the 1920s meant more and more of ASC’s members worked closer to the west coast production hub. Instead of globe-trotting around the world, they created a world in California. As Mark Sandberg has noted, “Hollywood’s eventual dominance was due in part to the rich array of settings conveniently at hand in California’s varied geography, which

¹³⁷ Chris Cagle, “Classical Hollywood, 1928-1946,” *Cinematography*. ed., Patrick Keating (New Brunswick, NJ: Rutgers UP, 2014), 39.

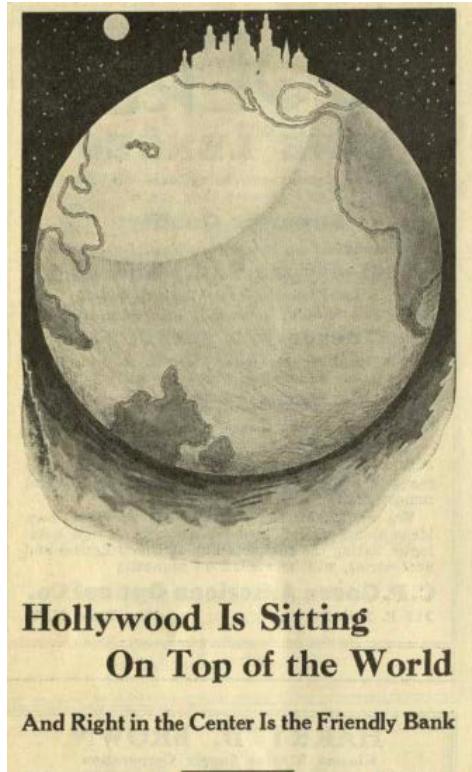


Figure 2.5 Bank of Hollywood Ad, *American Cinematographer* (November 1927): 20¹³⁸

made location shooting both economical and evocative.”¹³⁹ Sandberg’s essay includes a publicity map from Paramount Studios, flagging where California’s diverse landscape could stand in for famous locations around the world: The wet forests of central coast Big Sur could stand in for all of Africa, while San Diego could stand in for all of Spain.¹⁴⁰ An ad for “The Bank of Hollywood” in a 1927 *American Cinematographer* proclaimed that Hollywood was now sitting on top of the world! (Fig. 2.5) By the late 1920s and early 1930s, cinematographers were

138 Digitized Scan Courtesy of the Media History Digital Library

139 Mark B. Sandberg, “Location, ‘Location’” *Silent Cinema and the Politics of Space*. ed., Jennifer M Bean (Bloomington, IN: Indiana University Press, 2014), 32.

140 Sandberg, 33.

happy to utilize the industrial and geographic possibilities of the California production hub as a global center.

That the natural world could be controlled in the studio, on the backlots, or in nearby locales meant that cinematographers had greater access to artificial light sources. Keating points out that lighting was only ever one of the cinematographer's tools, but it also became a prominent part of the cinematographer's definition of their art thanks to studio practices from the late 1920s on. As Keating has explored in depth, the use of the metaphor "painting with light," made even more popular later in John Alton's cinematography book of the same name, was first introduced into ASC by Dan Clark in a 1926 interview which encouraged fellow cinematographers to study paintings. In the first *Cinematographic Annual* of 1930, Victor Milner also penned an essay, "Painting with Light."¹⁴¹ For cinematographers with a background in portrait photography, of which there were many, this metaphor came naturally. Their work with soft focus, diffusion, and isolation of subject in light and shadow was a primary technique of their craft. Additionally, painting as education also gave rise to numerous articles on how principles of Renaissance perspective might inform and dictate notions of composition. As Keating points out, composition became increasingly about staging with light, perspective, and the drama inherent in the narrative. Cinematographers like John Seitz and Victor Milner argued for an "Expressive Theory" of composition in which the cinematographer used the genre conventions of the narrative to guide their emotional reactions to the scene. From this emotional reaction, cinematographers could then frame and compose the mood with lighting, lens, and camera position. Keating explains: "By helping the cinematographer evoke the right emotions,

141 Keating, "The Silent Screen, 1894-1927," *Cinematography*. Ed Patrick Keating. (New Brunswick, NJ: Rutgers University Press, 2014), 168, n.47.

genre conventions help the cinematographer complete his transition from mechanic to artist.”¹⁴²

Keating seems baffled about their “insistence that the cinematographer should actually feel the emotions of the scene,” yet this mixed rhetoric of feeling with intellectual arguments about dramatic comprehension fits comfortably within the eclectic discourse of the 1920s AC. Thus, while “painting with light” and the emphasis on the artistic director of photography as the controller of camera, lens, light, and crew still dominate the discourse of ASC today, the embodied and sensational aspects of its camera operators’ earliest discourse still mingled with the newly codified expressions of craft.

In addition to “painting with light,” ASC and AC sought to establish the intellectual integrity of cinematographer’s technical prowess, not as technicians, but as scientists. Luci Marzola’s research has extensively explored the growth of scientific rhetoric with ASC and its relationship to the Society of Motion Picture Engineers (SMPE). Working with scientists, lab technicians, and manufacturers, cinematographers desired to play host to a larger conversation about technological development in Hollywood and the world. Their contributions in the form of feedback and suggestions to these scientists and engineers (based mostly on the East-Coast) strengthened their image as intellectuals and specialists in addition to being artists. As Marzola points out:

The engineers were often baffled by the artisanal, subjective, creative use of [cinematographer’s] technology and tools in ways that contradicted their professional values of standardization and efficiency. Through the SMPE, the engineering culture of East Coast technology manufacturers came into dialogue with the creative practices of Hollywood motion-picture production, working through the challenges of very different languages.¹⁴³

142 Keating, *Rhetoric of Light*, 104.

143 Luci Marzola, “A Society Apart: The Early Years of the Society of Motion Picture Engineers,” *Film History* 28, no.4 (October 2016): 2. <http://dx.doi.org/10.2979/filmhistory.28.4.01>

This exchange of language via SMPE conventions, SMPE's own journal in the late 1920s, and conferences co-sponsored by the cinematographer's guild and the engineering association strengthened these linguistic and conceptual bonds. Marzola cautions that these meetings of the minds were not without their own confusions, debates, and discursive miscalculations. In April 1928, one such meeting organized by the newly formed Academy of Motion and Picture Arts and Sciences brought together ASC and SMPE to discuss how the two could more thoughtfully work together.¹⁴⁴ It became clear that as much as the cinematographers and lab technicians wanted to view themselves as scientists, their abstract definitions of artistic outcome often conflicted with the engineers and scientists' exacting process of technological development. As Marzola points out, directors and cinematographers often used unscientific and even hazy language about artistic "quality" to define their expectations of process and outcome: "Hollywood laboratory men argued that the artistic desires of the cameramen and the director for different "sorts" of quality meant that engineers could not make the process 'any more mechanical' than it already was."¹⁴⁵

Foster Goss, it seemed, had successfully accomplished his publicity goal of crafting the cinematographer as a director, an artist, and a scientist. The magazine now represented more than a loosely organized gang of crankers, but spoke on behalf of professionals who finally fit the motto of "Loyalty. Progress. Art." When Goss left the magazine in 1927, a former editor of *AC* and publicity man, Silas "Sy" Snyder, took over the reins. Snyder shared many of the ideals of

144 Marzola, "A Society Apart," 17.

145 Marzola, "A Society Apart," 19.

Goss, made clear in his overly philosophical and bombastic speech to the Photographers Association of America in 1928:

Photography is the Scientific medium by which cinematographic Art can be expressed. Slowly, but surely, cinematography has been progressing and what more, it has been educating the masses to a keener appreciation of expressions of Beauty. Photography means “writing with light.” It should also mean “painting with light.” Writes and Paints! Writes and Illustrates! In other words, it “tells a story” in a complete and most comprehensive manner. This is Photography! - and if motion is injected into it, and if color and sound are summoned as its attributes and interwoven in an harmonious whole, then all elements but Life itself will contribute to the telling of a story and when such seemingly unsurpassable apex is reached — then Art still remains to inspire the possibilities of great Beauty, of great Truth.¹⁴⁶

Snyder’s enthusiasm for the linguistic campaigns established by Goss’s editorship is evident here and in Snyder’s tenure from 1927-1929. However, Snyder’s personality and editorial style presented a less polished and more energetic approach to the magazine. While Goss had sought to smooth over the occasional reference to the old days of manual work, cranking, stunt and travel work, Snyder re-embraced the globe-trotting cameraman and his trials and travails with glee and enthusiasm. In Snyder’s tenure as editor he often urgently solicited camera operators for any “dope” they might have about the international scene.

While fervently persuading members living abroad to promote the cause of ASC, Snyder also encouraged members to develop craft organizations in France and Germany. In 1928, Snyder wrote to ASC cinematographer Georges Benoit, then working in France:

We would very much like to find somebody who will represent our magazine in Germany. If you know of any such person, please either get in touch with him or put us in touch with him so that we may make some sort of an arrangement. In order to the make the A.S.C. magazine a truly international publication, we should have every month a letter from somebody in France and Germany who understands the motion picture

146 Silas Snyder to Daniel B. Clark, “Communication to the P.A.A. Convention,” March 1928, Daniel B. Clark 1926 – 1928, ASC Papers, Margaret Herrick Library.

situation in those countries and are able to put them down on paper.¹⁴⁷

Snyder corresponded regularly with Benoit, the image-hunter H.T. Cowlings, and John Dored, and he created an entirely new monthly feature column in the *AC* titled “Our A.S.C. Outposts,” with reports penned by ASC cinematographers across the world. In July of 1928, Snyder requested of Dored, “Whenever you’re on an assignment of world-wide interest and some outstanding event occurs, we would be glad to have you send us at our expense a brief cablegram setting forth the facts” Later in October of 1928, Snyder requested of Dored:

The ASC is very anxious to be kept informed on everything pertaining to the motion picture industry in general which is taking place in foreign countries, especially countries which possibly might become production centers. Any information you may gather would be welcome by us [...] It is of vital interest to the motion picture industry, and to the cinematographer, to be informed from a reliable source of the intensity of production in foreign countries and the influence it may have on American pictures.¹⁴⁸

Unlike Goss’s often isolationist or American-exceptionalist approach, Snyder foresaw the value in promoting the American cinematographer as more importantly an “international photographer” (a prophecy that would come true when Snyder left the magazine in 1929 to edit *The International Photographer*, IATSE 659’s Motion Picture Camera Operators house organ in 1929). Snyder’s emphasis on production activity, technology, and human interest stories again focused the magazine’s attention on camera and man moving through the world. Despite his best efforts however, the legacy of Goss’s professional language had become codified amongst the studio first cameramen, now with the backing of producers and a powerful academy membership behind them. While the metaphor of “painting with light” and the title of Director of

147 Silas Snyder to Georges Benoit, September 10, 1928, Georges Benoit, ASC papers, Margaret Herrick Library.

148 Silas Snyder to John Dored, October 23, 1928, John Dored 1922 – 1954, ASC papers, Margaret Herrick Library.

Photography still securely dominates the rhetoric of contemporary cinematographers in ASC, the language of sensuality and physicality in the world remained within the linguistic tool kit of cinematographers long past the 1920s.

Importantly, cinematographers brought with them (and then were taught through apprenticeship practices) the value of the inner world of the camera operators' emotion, sensation, and the interaction between one's body, heart, and mind with the outer world of filmmaking. Notably, documentary interviews with cinematographers like *Cinematographer Style* (2006) often reproduce the broad range of artistic, scientific, and embodied discourse that had descended from the 1920s. Many of the cinematographers interviewed came from photography and painting, and many mention their frustration with working in stagnate images (in other words, they felt compelled to take their images of the world and make them move). Even the world-renowned Vittorio Storaro emphatically insists that he is “not a director of photography,” but only a cinematographer. Storaro's interviews echo those of the many stunt, travelogue, and newsreel cameraman who talk about composing from the senses, or in Storaro's words “composing with the heart.” He does not mean an abstraction of emotion, but the physical pounding and beating heart that pushes life-blood through one's veins to make one move, see, and experience. To take up and paraphrase Merleau-Ponty once more, it is in “lending his body to the world” that the cinematographer makes the world move.

As this chapter opened with the “universe” cover image from the 1923 *American Cinematographer*, it might be logical to return to the ASC's re-imagination of the cover on its 80th anniversary in 1999. Inspired by Phsyioc's fantastical drawing, the editors of *AC* sought to

reproduce its ambitions while nearing the 21st Century.¹⁴⁹ To the editors, this meant “[s]eeking top-notch visual effects talent,” putting the cinematographer in a space suit, outfitting a Panaflex camera with fictional accessories, and spending countless hours and numerous software programs to reproduce the universe. While certainly reframing the “place to stand” as imagined not via a camera, but special effects at the turn of the century, the anniversary misses out on what the first cover inherently understood.

The operator could film the universe thanks to the camera and thanks to positioning his body in relationship to the world. Perhaps a better contemporary analogy to the kind of embodied positioning can be seen through 21st digital documentary. Kirsten Johnson’s 2017 documentary *Cameraperson* vividly highlights how the sensations and materiality of the camera operator in the world still imbue the image with *her* action, presence, and consciousness. While filming a field before a storm in the opening moments of the film, Johnson’s gasp at a lightning strike, followed by a sneeze that shakes the camera, digitally testifies to the memories of thousands of camera operators whose bodies, minds, and cranking cameras had animated the world in which they moved in the 1920s and now.

149 *American Cinematographer*, 80th Anniversary Cover (March 1999).

<https://theasc.com/magazine/aug04/record/image19.html>

3.0 PROJECTING CLOUDS, THROWING SHADOWS: HOLLYWOOD'S PHANTOM STUDIO GRIPS, 1926-1947

“It is no longer a question of constructing a language or method appropriate for apprehending a past in its truth and for selecting those objects and documents amenable to projects of reconstruction or reconsideration, that is, for the holding of a dance ball that adequately approximates a ball held exactly a hundred years ago. The historian’s task is one of acknowledging the intelligibility of a past that never had a future, a past that cannot speak because it has been already spoken for.”

-Mark Lynn Anderson, “The Impossible Films of Vera, Countess of Cathcart”¹⁵⁰

“October 22, 1946—Projected clouds

The work in dispute involved setting up and handling during photography of a glass mounted in a frame. The glass being sprayed with paint in varying densities with the result that a beam of light projected through the glass threw shadows of varying intensity representing clouds on a white or blue back behind the set. Local 80—grips—claimed the work under the general theory it was a shadow. Local 44—property men—claimed the work on the theory that it was an effect. On October 23, 1946, Barrett, business agent of grips, phoned the studio to advise that Mr. Brewer, international vice president, would give a decision forthwith. As no decision was given, the studio assigned the grips to the jobs as in the past. The matter is still in dispute.”¹⁵¹

-Jurisdictional Disputes in the Motion-Picture Industry Hearings, Subcommittee of the Committee on Education and Labor. 80th Congress (August 1946)

Closing out a contentious twenty-year history of jurisdictional battles over studio technicians’ labor in Hollywood, the Kearns Congressional committee of 1947 oversaw the contested ownership of movie-made shadows and clouds. Or, rather, the committee (among its other tasks) sought to determine which skilled labor in Hollywood was responsible for constructing the appearance of any range of veiled and diffused light that appeared on screen. At the heart of this

150 Mark Lynn Anderson, “The Impossible Films of Vera, Countess of Cathcart.” In *Researching Women in Silent Cinema: New Findings and Perspectives*. Edited by Monica Dall’Asta, Victoria Duckett, and Lucia Tralli. Bologna, Italy: Università di Bologna, 2013. 176 – 196. <http://amsacta.unibo.it/3827/>

151 *Jurisdictional Disputes in the Motion-Picture Industry: Hearings Before a Special Subcommittee of the Committee on Education and Labor*, 80th Cong. (September 2 – 3, 1947).

on-going jurisdictional dispute on the topic of “glass shadow cloud” effects was the Motion Picture Studio Grips, Local 80. Like the ethereal shades, grips left an indelible impression on the moving picture productions on which they worked, but the record of their labor, skills, and techniques during the studio era appears equally fleeting. From the late 1920s to the late 1940s, the transient nature of grips and the very impermanent nature of their work—entailing constructions and break-downs for every shot—continues to make it difficult to tell a story of grips’ contributions to Hollywood style and film history. As in 1947, film scholars today still know very little about what exactly constitutes the work of a grip.

So, what *does* a grip do? As a grip friend from film school described for me, “a grip is a general roustabout in production.” Over their history, grips are often described by this catch-all moniker as able to do anything and everything that requires moving things on set. Similarly, the discursive history of grips presents a contested lineage of job requirements and expectations. Originating during the jurisdictional disputes of the 1930s and 1940s, the now standard expectations that come with a grip position focus on the “non-electrical control of light.”¹⁵² The ambiguity of whether grips were always involved with seemingly every manual task on set, or with the specific nuances of shades and shadows is captured in this contemporary job description from a current grip’s anonymous production blog:

The rule of thumb is that anything which casts a shadow is grip [...] Grips, in addition to precision shadow-casting, are responsible for general safety on set. They build ramps, reinforce stairs and handrails, move set walls, hang pipe grids and greenbeds (walkways which are suspended over a set), build tents outside building windows...to shoot night

152 Muse 10 Photography, “Film and Video Grip – Getting a Handle on Grip,” YouTube Video, 3:10, January 10, 2011, <https://www.youtube.com/watch?v=GDuu68dL8u8>

scenes during the day, and assemble and operate those gigantic, complex camera cranes...Grip is *not* an entry-level position.¹⁵³

Grips generally serve both the electrical and camera departments, working under the Gaffer and Camera Operators.¹⁵⁴ Depending on the size of the production, there can be any number of grip positions including: Key Grip (who serves under the Gaffer and organizes and instructs all the other grips in lighting), a Best Boy Grip (who serves the key grip and manages other grips), Camera grips including Dolly Grips and Crane Grips, and any number of grips who move walls, hang grids, set up and break down reflectors, diffusion, and build other safety or assistive platforms or support. These contemporary definitions of grip craft detail and generalize the complicated maneuvers, skills, and physical requirements of the work that emerged and was negotiated during 1930s and 1940s.

But, where and how did grips and their work come to be in the studio system? The term “grip” originates from the theater, from the stage-hands or “scene-shifters.” That IATSE represented stage-hands before representing motion picture technicians meant that terms used to describe manual theater workers migrated to describe and delineate film studio technicians represented by the union. Unlike the tasks of other technicians such as camera operators and editors, grip work—its practitioners, as well as the development of its technologies, styles, and craft—has not been a subject of study by film historians, and has rarely been acknowledged within industrial or worker’s accounts of the studio system. Given this lack of documentation,

153 “Peggy Archer,” posted November 14, 2006; “Totally Unauthorized.” <http://filmhacks.wordpress.com>. I learned about this production blog and its un-named author who goes by the pseudonym “Peggy Archer,” in John Caldwell, “Worker Blowback,” 305, 308.

154 Cinematography Database, “Grip and Electric Departments 101,” YouTube Video, 12:09, August 18, 2016, <https://www.youtube.com/watch?v=J50ivBNQ0K8>.

how would one begin to write about the odd and multi-layered work that grips do on set (all the sheer manual labor of the job, and all the intricate craft specialties of building rigs for lighting, cameras, bodies, and vehicles)? While contemporary online accounts, interviews, and first-hand ethnographies should make grip labor and grip workers more accessible to media industries scholars, this chapter explores how one might investigate grip work during a crucial turning point during its defining craft moment in Hollywood of the 1930s and the 1940s.¹⁵⁵

When I set out to write this chapter, I intended to write about efficiency models for general studio and stage labor that followed the introduction of sound in Hollywood during the late 1920s. I wanted to find studio records and union accounts of how personnel bodies could best move and be moved around the set. I wanted to find documentation of safety standards, on-set and on-location injuries, golden hour pay, and compensation denied. I wanted to establish the physical lengths and degrees to which the studios and unions managed and mismanaged the bodies of its workers.

What I found were only fragments and suggestions of this incredibly complicated grip work. The most glaringly obvious concern in the existing records was the dangers posed by the parallels, the multi-layered wooden structures on sets and locations for placing cameras, lights, and holding the technical crew. The parallels were often mentioned in accounts of on-set accidents and even deaths, mostly suffered by grips, electricians, prop men, and assistants who positioned lights, flags, and moved equipment on their precarious perches. Only at the addition of added third railings late into the 1930s, at the suggestions of Paul M. MacWilliams (Warner

155 For an interview with a grip working in contemporary Hollywood, see Calvin Starnes, *Voices of Labor: Creativity, Craft, and Conflict in Global Hollywood*. eds., Michael Curtin and Kevin Sanson (California: University of California, 2017). <https://doi.org/10.1525/luminos.26>

Brothers medical chief) and Harlan West (head of RKO's grip department), did the fate of workers on the parallels improve.¹⁵⁶ And while the practice of safety went largely ignored on most sound-stages, a handful of individuals, including Macwilliams, took it upon themselves with the short-lived Motion Picture Studio Safety Association to publicize and educate technical workers and laborers about physical safety and work-place standards and sold the concept to studio heads as insurance.¹⁵⁷ While a concerted union push and industry campaign for on-set safety protocols would not become significant until the early 1980s following a string of deaths on set, the lack of union and industrial accountability for the safety of worker's bodies during the 1930s and 1940s bespeaks a bigger story about worker visibility during the this period.

In thinking about the parallels, my research pivoted to what below-the-line manual work, specifically the craft of grips, electricians, and prop men looked and sounded like during this period. These workers, like many craft specialties at that time (besides the ASC), lacked their own guild and publication outlet from which to speak about their labor conditions and the uniqueness of their craft. This left me wondering how grips were represented as workers during this period and who represented them. How did these workers communicate the work of their craft? Without formal institutionalization and sets of discourse norms, how might historians begin to talk about not only their labor, but this formative period in grip craftsmanship?

In the 1930s and 1940s, grips, stage hands, prop men, electricians, carpenters, and general labor were strewn across multiple union locals with different international affiliations between IATSE (at that time an arm of the AFL), the International Brotherhood of Electrical

156 "Safety Association Program Gets Results," *International Photographer* 10, no. 1 (February 1939): 5 – 7.

157 "Safety Association Program Gets Results," *International Photographer* 10, no. 1 (February 1939): 5 – 7;

Lucie Neville, "Hollywood Calls him Doc," *The Montana Standard* (April 13, 1941): 30.

Workers (IBEW), The Carpenters, and the short-lived progressive organizations like the Federation of Motion Picture Crafts (FMPC) and the Confederated Studio Union (CSU). The locals were sometimes a grab bag of crafts and departments (IA 37 Studio Technicians included) and sometimes so specifically niched that different locals would claim jurisdiction over the same, miniscule element of work (the placement of a board on set, for example). With representation by competing and corrupt union bosses, individual crafts and workers within the larger frameworks of IATSE and IBEW lacked a voice in the industry to represent their day-to-day concerns and called for protections against exploitative on-set practices and pay. As Mike Nielsen and Gene Mailes contend, “The strikes [of the 1930s and 1940s] are the ‘unspoken thing’ among old-time Hollywood folks. The rancor of these events continues to haunt the industry, more importantly, as the chips fell in 1945-7, so they lie today. The winners of that time dynastically picked their successors and today’s labor structure in the US film industry is based largely on the deals worked out at that time.”¹⁵⁸ Part of what solidified during this period alongside and as a result of jurisdictional disputes, was a clearer definitional sense of grip craft and day to day grip practices.

While the definition of grip work has changed over time and continues to develop and expand its craft parameters to adapt to new technologies today, the period between 1926-1947 marks a profound moment of industrial and institutional disputes of what constituted quotidian grip, electrical, and prop labor. In this period, “grip” came into its medium-specific definition, apart from its origin in theater and distinct from general stage labor and carpenters. In this period, grip came to mean something for the workers who, after being divided across union

158 Mike Nielsen and Gene Mailes, *Hollywood’s Other Blacklist: Union Struggles in the Studio System* (London: BFI, 1995), ix.

disputes and reorganization of the locals, sought a firm definition of what constituted their work and craft from the most general framework of the job to its most specific tasks. Thanks to advances in the coming of sound, lighting, and color technology, grip work came to further define itself not in relation to the construction of the set, but to the movement and placement of the camera apparatus, as well as those lights and shadows that the camera apparatus might pick up.

Although many film guilds claim that their work is the most invisible to the audience and the industry at large, grip work and the discourse around that work is certainly among the least documented of the manual specialty crafts (we might also include prop men, carpenters, and greensmen). Unlike the other guilds and craft organizations discussed in the other three case-study chapters and who outwardly represented their work through house organ publications, grips were always represented elsewhere and often without language. Grips win no awards from the academy, are barely mentioned in histories of style and technique (and then only in technical manuals), and the current union website for IA Local 80 suggests no publication and no circulated written history amongst members. With little written discourse of grip labor from one of its more dynamic periods, I had to look for moments in historical writing, in studio records, and in trade publications, both during and beyond this period, for the slightest mention of the grip or grip practice. Like the presence of grip work in the final cut of a film, what remains of its discourse are like the elusory clouds and shadows grips threw, diffused on the backgrounds of industrial and institutional ephemera.

3.1 METHODOLOGY

This chapter does not claim a conclusive or even close to exhaustive account of what it meant to be a grip or of the many stylistic implications of grip work on screen practices in the 1930s and 1940s. To say this account even scratches the surface would imply that there still exists a whole world of documentation yet to be explored. Perhaps this is true; perhaps out there in some archive, in some garage or attic there sits the documents, the transcripts, the interviews that someday would elucidate the complexities of rigging, describe the feelings of pushing the dolly on set, express the fears and instabilities of grip work during a particularly tumultuous and precarious moment. Unlike the cinematographers and editors, keeping such histories or accounts of the craft was not a priority, if it was thought of at all, as workers were more concerned with violent jurisdictional disputes, declining pay, and uneven studio production schedules.

This chapter then is less about writing from an archive, than it is about how to compose an archive of these phantom workers out of only glimmers, shadows, and apparitions of events, people, and activities long since passed. This chapter is also about the utter delusional and Sisyphean task of trying to make an archive of that which was never designed to be kept, preserved, and institutionalized as film history. Surely, as Carolyn Steedman has pointed out, this is true of most history, an accidental collection of “selected and consciously chosen documentation” from state and institutional power collided and indexed amongst the “mad fragmentations that no one intended to preserve and just ended up there.”¹⁵⁹ It is as much about the pleasures of finding needles in haystacks and the foolishness of composing a story with a handful of needles and a backlot’s worth of hay. Grips, as even revisionist academic film

159 Carolyn Steedman, *Dust: The Archive and Cultural History* (New Brunswick, NJ: Rutgers UP, 2002), 68.

histories written in the 1980s tell us, were merely common laborers whose bodies and names were as disposable and insubstantial as their mark on the film's content and style. If even in the 1980s grips failed to garner attention from studio histories, why study them now?

For one, contemporary scholars who are unable to produce fieldwork and interview first-hand accounts from the period, now have access to digital tools that can more easily search out linguistic needles in the scanned haystacks of industrial literature. Projects like The University of Wisconsin-Madison's Media History Digital Library and the Lantern Search Engine can comb over thousands of pages of trade publications, film books, fan magazines, and technical journals. Scholars can virtually flip a page at the click of a button and utilize OCR search recognition to seek out specific crew positions, crew jargon, and individual personnel. While many names and things get lost in this massive net, the possibilities of pulling up even a few hundred hits promises at least an exciting development for those of us studying topics at the periphery or margins of the film industry. Along with Lantern, the growth in recent years of other online databases, search engines, WorldCat cataloging, my own institution's ILL services, and those traditional archives willing to scan and send .pdf copies of documents in their collections—all have made doing such a search theoretically easier, even if still endlessly time consuming, frustrating, and ultimately amounting to very little primary materials. Despite the promise of the digital, the inter-connectedness of archives, and the hundreds of pages and printer toner one can waste printing out all this material in order to construct a physical archive at the margins, the stacks of paper containing single-word references amount to little more than a drop in the bucket. To search for workers, even with all the best tools currently available, is still doing research on marginalia that were never intended to be put together as a story, if was even considered worth saving at all.

3.1.1 Grips and “The Double Present of [Film] Historiography”

What became most clear from this searching was that the disciplines of film studies and labor history, while claiming to have protected and celebrated this work, had also actively and passively obscured and appropriated the voices behind this labor to their own ends. Jane Gaines described this “double present of historiography” dilemma in writing about the obfuscation of the history women’s working in Hollywood by later feminist theories.¹⁶⁰ The first strand of the dilemma is the forgetting or ignoring of workers in their “present moment” of 1930s and 1940s by their unions, by fellow craftspeople, and by above-the-line personnel whose own prestige was built-up by the hands and skills of the lowliest studio labor. The second strand is what Gaines terms a failure of academic film studies to “recognize” (“imply[ing] both cognizance and acknowledgement”) these past workers because other adjacent paradigms within the discipline appeared, felt, or were prioritized as more pressing in their own “present moment” (the late 1970s and early 1980s). As Eric Smoodin and Jon Lewis have illustrated in the introduction to their edited collection *Looking Past the Screen: Case Studies in American Film History and Method*, film histories often tell us as much about the period or academic present moment in which they were written as the pasts they claim to represent. Thus, work like Robert Allen’s and Douglas Gomery’s *Film History: Theory and Practice* (1985) and Bordwell, Staiger, and Thompson’s *Classical Hollywood Cinema* (1985) represented the current debates around textual analysis utilizing both conventional “filmic evidence,” but significantly subservient to the “non-filmic evidence” of studio records valorized by revisionist film, responding to, imbibing, and

¹⁶⁰ Jane Gaines, “In Focus: Film History and the Two Presents of Feminist Film Theory,” *Cinema Journal* 44, no. 1 (Fall 2004): 113 – 119.

displacing the previous decade's theoretical pursuit of semiotics, feminist theory, and Althusserian Marxism.

These cornerstone texts of Hollywood film history and style also prescribed a paradigm for what Hollywood was (and apparently had always been) and how Hollywood could be imagined and engaged in future scholarship. Gomery and Allen specifically stressed particular methodologies for how historical research in film should be performed to address, with a rather narrow kind of quantifiable evidence, industrial, economic, political, and social questions previously ignored by textual approaches to the cinema. As Gaines has also pointed out, such revisionist history promoted (and continues to promote even thirty years later) “lost and found” paradigms of “recovery” and “reclamation” while often reproducing the very same obfuscations and historical narratives established in the initial revisionist paradigm.¹⁶¹ Certainly this was true regarding non-existent craft histories of grips, electricians, prop men, and carpenters who were “forgotten” or ignored in their present moment, and “eclipsed” in later film histories by seemingly more important 1980s academic stakes in economic and union narratives, where the studio division of labor was seen as the key to understanding “the [textual] mode of production.”

In the past few years, another reclamation project focusing on industrial histories of production, craft, and practitioners has emerged to grapple with the issue of studio labor, only to eventually settle back within the paradigms established by Gomery, Allen, Bordwell, Staiger, and Thompson. These histories of style (such as those like Patrick Keating's monograph *Hollywood Lighting from the Silent Era to Film Noir* and Julie Turnock's *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics*) and craft industrial

¹⁶¹ Gaines, “In Focus: Film History,” 113 – 119.

histories (Luci Marzola's in-depth work dissertation on The American Society of Cinematographers and the Society of Motion Picture Engineers and Helen Hanson's *Hollywood Soundscapes: Film Sound Style, Craft and Production in the Classical Era*) respond to and richly expand the scope of film historical scholarship on the topic of Hollywood filmmaking and modes of production. However, a certain degree of "lost and found" historical recovery work depends on there being rich material and documentation to recover in the first place. As explored in the first chapter, technicians like cinematographers had a more public profile, a position of esteem amongst above-the-line personnel, greater economic capital than their technical peers, and they considered their "artistic" craft and history worth documenting early and often.

How then does a history of studio grips, without much of what Gomery and Allen would deem acceptable "nonfilmic evidence," relate to these inherited and reigning models, if at all? Responding to Vivian Sobchack, Gaines explains the historian's ever-present dilemma, "we do not need to be cautioned against the correspondence theory of truth, or reminded that there is no way around 'fictioning accounts of past events whose existence we do not take to be fictitious.'"¹⁶² As it is, historical scholarship always to some extent involves the recognition that "the existence that the historical phenomena no longer has (as it was) and cannot now have (again) except by means of our reimagination of it. Thus, the only existence history can now have is textual."¹⁶³ In this chapter, I hone in specifically on the construction of grip history as an imaginative act, and I undertake a loose re-fictioning of available histories to write a ghost story from missing pieces.

162 Jane Gaines, "What Happened to the Philosophy of Film History?" *Film History* 25, no. 1 – 2 (2013): 72.

163 Gaines, "What Happened," 73.

This assemblage of apparitions looks less like a historical narrative and more like an index of an incomplete collection on grips. Like any useful archival inventory, I begin by contextualizing and summarizing the 1930s and 1940s in Hollywood history (history written both during the period and by later revisionist film historians such as Gomery, Schatz, and Balio) and I provide a historiographical account of the literature written about grip and other stage workers as part of a trend in labor historical writing during the 1980s. I present my research findings as a story told within a story: the multi-textual representations, appearances, and utterances of grips and electricians tucked between the dominant and disturbing union history of the time. This detailed collection index of materials, artifacts, mentions, and suggestions offers glimpses of what has been left out of revisionist labor histories. Rather than separate the two, I wanted to explore what additional insights might come from reading a history of style, worker's accounts of technique, and representations of worker's bodies and voices back into (or, perhaps, onto) traditional labor histories. Additionally, I wanted to explore how the context of institutional histories of studio labor (disputes, leadership, shifting representation) might clarify worker's relationships to film style and technique. The methodologies of acquiring both "filmic" and "non-filmic" evidence in the domains of labor histories and histories of style are often at odds. My patchwork suturing seeks to imagine more creative ways these two approaches not only speak to, but depend on one another.

Here, I speculate on the utility of ephemera and secondary sources to speak the very histories I am seeking from them. The truth is that, in their own moments during my research, each behind-the-scenes photograph of an obscured face positioning a filter, each vague allusion to a grip's handiwork in a review, any nod to grips as workers on-set in an editorial cartoon, or a loose reference to their craft in articles about anything—each instance jumped from its context

and into my own. To look for the grip in such an expansive way by running a fine-tooth comb across studio archives, personal papers, trade publications, house organs, fan magazines, newspapers, photographic records, technical manuals, oral histories, feature-length and promotional films, government documents, and academic film history is to find grip workers located both everywhere and nowhere. I hoped to have come away from the act of painstaking curation to say something more substantial about this crucial moment in the history of this craft and of these workers. What I left with was a loose silhouette of these workers and a collection of artifacts that only begin to frame a more complex story of their work.

Grips, electricians, and prop men appear in film and industrial history in two ways: in the foreground of labor history of the period in histories of unions and strikes, and in the background of other craft and industrial discourse. While my focus for this chapter is grip work, the ways in which grips were often lumped—linguistically, conceptually, and politically—with other studio workers like electricians, prop men, greensman, carpenters, and sometimes even the lowest rank of camera assistants, means that I will often have to mention these groups in one breath. However, these groups of workers often interacted with one another in complicated and shifting ways throughout these two decades, making their constant proximity, whether as friends or foes, necessary in any discussion of these crafts.

3.1.2 Film Histories of the Classical Hollywood Period

Much of the film historical literature on this period has focused on studio building and reorganization by the moguls of the five majors: MGM, Paramount, Twentieth Century Fox, Paramount, Warner Bros, RKO, as well as the new talent at Universal and Columbia. The period between 1926 and 1947 (the purview of this chapter) saw widespread studio consolidation during

and immediately after the industrial transition to sound, and, together with the financial scare of the early 1930s, resulted in increasingly specialized efficiency-model production. Despite the fear and panic occasioned by the global financial collapse in 1929 and the economic dispossession of the once powerful William Fox, in 1930 studios were having their most successful year to date. Thinking they were “depression proof,” many studios continued to funnel money into sound transition expenses, theater renovations, and costly productions before the bottom fell out for many studios in 1932-1933.¹⁶⁴ The new studio masters took the form of financial representatives from Wall Street. Seeking to ensure the stability and success of the studios’ real-estate holdings in nationwide theater chains, they had financed costly experiments with color and conversion to sound, in order to benefit directly from commercialized mass entertainment.¹⁶⁵ This shift signaled an even stricter division between art and commerce (with the former subjected to the later). Additionally, the frightening revelation of so many motion-picture related failures industry luminaries such as William Fox, Lewis J. Selznick, and Samuel Goldwyn were enough for studios heads like Louis B. Mayer, now-beholden to the real powerheads in New York, to tighten their governance over risk-taking producers like MGM’s Irving Thalberg and RKO’s David O. Selznick while still banking on their boy-genius status to produce quality, box-office successes again and again.¹⁶⁶ As the decade went on, such

164 Thomas Schatz, *The Genius of the System: Hollywood Filmmaking in the Studio Era* (New York: Pantheon), 69.

165 Balio, *Grand Design: Hollywood at a Modern Business Enterprise, 1930-1939* (Los Angeles: University of California Press, 1995), 21.

166 John Wilkman, “Brother Can You Spare a Dream?: 1929 – 1941.” *Moguls and Movie Stars: A History of Hollywood*. 2010. Turner Classic Movies. DVD (2011)

efficiency measures proved too volatile and the central-producer system was gradually transformed, structured into more controlled groups of many producers and production units.¹⁶⁷ Thus, the failure or death of one key producer (i.e. the passing of MGM's Thalberg in 1936) would not compromise the health of the studio as a whole.

During the period that followed a string of sex and murder scandals like the Fatty Arbuckle trials in the early 1920s, the Hollywood community and studios both contended with reform movements via the recently created Motion Pictured Producers and Distributors Association (MPPDA) that, headed by Will Hays, self-policed the industry and sought to reshape public perceptions of Hollywood and its products.¹⁶⁸ The rapid growth of radio, initially a threat to the industry, provided the talking-picture studios with a ready-made pipeline of pre-approved public stars, comedians, performers, and script talent.¹⁶⁹ Studios, once far from the scrutiny of direct government oversight, now contended with National Reform Administration policies, labor disputes, and precarious overseas relationships to national film boards.¹⁷⁰ The growth of the socialist and communist parties in the 1930s threatened the explicitly capitalist motivations of studio moguls who actively suffocated the aspirational fires of socialist political candidates (such as Upton Sinclair's who unsuccessfully ran for Governor of California in 1934) and sought to stifle collectivization efforts by crafts and workers at all levels of production.¹⁷¹

167 Balio, *Grand Design*, 187.

168 Richard Maltby, "The Production Code and the Hays Office," *Grand Design: Hollywood at a Modern Business Enterprise, 1930-1939*. ed., Tino Balio (Los Angeles: University of California Press, 1995), 37 – 72.

169 Balio, *Grand Design*, 171.

170 Murray Ross, *Stars and Strikes: Unionization of Hollywood* (New York: Columbia, 1941), 92.

171 Wilkman, "Brother Can You Spare a Dream?"

While the discrediting cry of “communist” to blacklist workers was heard as early as the late 1930s, red-baiting became muted during the war-time years of 1942-1945, though its vitriol in the form of an industry-wide inquisition came back with a vengeance at war’s end.¹⁷²

The establishment and refining of what film studies scholars would come to term “classical Hollywood style” was already accomplished and well-polished across all studios thanks to advancements in a variety of film technologies beyond color and sound. These included faster film stocks and standardization of aspect ratio, expanded lab processing techniques, advances in photographic Max Factor make-up, a wider variety of lights, cameras, sound recording equipment, and changes in the size and organization of pre-production, production, and post production crews.¹⁷³ The influx of talent from East Coast journalist-writers turned screenwriters and New York theater actors and directors turned movie stars and directors altered the speed, cadence, and kinds of stories being told.¹⁷⁴ Similarly, studios experimented and succeeded in producing and selling a different variety of genre pictures and production trends—from Warner Bros gangster films, MGM’s musicals, Universal’s horror, Paramount’s European inflected star-genre cycles, and RKO’s film noirs and b-pictures.¹⁷⁵

172 Larry Ceplair and Steven Englund, *The Inquisition in Hollywood: Politics in the Film Community 1930-1960* (Los Angeles: University of California Press, 1983).

173 David Bordwell and Janet Staiger, “Technology, style and mode of production,” *The Classical Hollywood Cinema*, 243 – 261.

174 Balio, *Grand Design*, 82 – 85.

175 Annette Kuhn and Thomas Schatz, “The Studios,” *The Cinema Book*. eds., Pam Cook and Mieke Bernick. 2nd ed. (London: BFI, 1999), 11 – 33.

Often top-down approaches, many of the core film revisionist histories including Tino Balio's *Grand Design: Hollywood as a Modern Business Enterprise: 1930-1939*, Douglas Gomery's *The Hollywood Studio System: A History*, Thomas Schatz's *The Genius of the System*, and David Bordwell, Janet Staiger, and Kristin Thompson's *The Classical Hollywood Cinema* that I have cited here posit the power of the system to flow from the top: the New York financiers, the studio heads, and a handful of dominant producers. As Schatz goes so far to say, "these producers and studio executives have been the most understood and under-valued figures in American film history."¹⁷⁶ The core of these histories insist on the capacity, might, "genius," and efficiency of the whole of the system, as well as its *discreet* interdependence of a highly skilled and stratified mass labor-force.

The metaphor of studios as factories with assembly lines, sometime popularized by widely read scholarship, such as Hortense Powdermaker's ethnographic study, *Hollywood the Dream Factory* (1950), is alive and well in these more recent accounts. This understanding of the classical studio system as mass production is consistently presented as commonly shared knowledge within the film studies field in scholarship and undergraduate teaching, such that film textbooks like *The Cinema Book* and *Film History* consolidate a diversified range of labor activities from this top down overview approaches. Statements such as, "the main features of this form of organization of production are highly developed divisions of labour[,] hierarchies of authority and control, and detailed breakdown of tasks"¹⁷⁷ overlook by design the complexity and nuance of worker's experiences and perspectives in favor of broad strokes meant to

¹⁷⁶ Schatz, "Genius," 8.

¹⁷⁷ Annette Kuhn, "The Studios: Introduction." *The Cinema Book*, 12.

streamline the complicated and often unwieldy mass of industrial moving parts. While Fordist notions of how the industry worked may help to explain the various ways institutional forces effected questions of style within small case studies of individual productions (Schatz) or formations of a “house style” at specific studios (Bordwell), they do little to explain worker’s agency, contributions, and resistance to this mode of production. James Lastra thinks through this problematic differently, suggesting the ways in which classical Hollywood’s continuity and stability were internalized by workers not as coherent sets of rules, but as self-conscious attempts to adapt, adhere, and transform within their own craft. As Lastra summarizes this process, “the norms of classical continuity construction *were* internalized by workers in the studio system in the form of what one sociologist calls a ‘durably installed generative principle of regulated improvisations,’ or, more simply, as a consistent and coherent set of predispositions towards practice.”¹⁷⁸ While Lastra lends credence to bottom-up modes of craft production like practice, improvisation, and “informal theory—which we might even term aesthetics,” he stops short of giving consciousness or understanding to these acts, as their, “objective significance...outstrips the conscious intentions of the practitioners.”¹⁷⁹

3.1.3 Hollywood Labor Histories in the 1980s

In response to the methodologies recommended in Allen’s and Gomery’s *Film History: Theory and Practice* and inspired by parallel academic discourses in social/labor history and British

178 James Lastra, “Standards and Practices: Aesthetic Norm and Technological Innovation in the American Cinema.” *The Studio System*. ed., Janet Staiger (New Brunswick, NJ: Rutgers, 1995), 201.

179 Lastra, “Standards and Practices,” 201.

cultural studies, a concurrent generation of PhD students sought to write classical Hollywood film histories grounded in the other half of studio infrastructure: the workers who made the pictures. Partially as a reaction to textual or style-based analysis (not to mention psychoanalysis, semiotics, feminist, and apparatus theories), and in line with the empiricist methodological demands of the time, these studio histories of workers emphasized social context, economic conditions, and an emphasis on the working-class and/or working conditions via narrowly-focused union and labor histories of IATSE, SAG, and the Writer's Guild. PhD field work or dissertations by Danae Clarke at the University of Iowa that led to *Negotiating Hollywood: The Cultural Politics of Actor's Labor*, Denise Hartsough's dissertation at the University Wisconsin, Madison: *Studio Labor Relations in 1939: Historical and Sociological Analysis*, and Mike Nielsen's dissertation at University of Illinois at Urbana-Champaign: *Motion Picture Craft Workers and Craft Unions in Hollywood: The Studio Era, 1912-1948* cite the influence of Gomery's and Allen's insistence on "non-filmic" empiric evidence.

The defensive tone of these works' introductions signals a weariness about how they understand their labor histories to speak to their contemporary field. Hartsough even gives an impassioned defense of why such a history matters for motion picture production than other industries: "a traditional cinema studies scholar might object to my chosen object of study, arguing that I could just as well research the relations of production in, say, the shipbuilding industry."¹⁸⁰ All self-avowed Marxists, their dissertations also cite influences from British cultural studies case study work such as Paul Willis' *Learning to Labor* and E.P. Thompson's *A History of the British Working Class* in mounting their exploration of classical Hollywood labor

180 Denise Hartsough, *Studio Labor Relations in 1939: Historical and Sociological Analysis (Hollywood; California)* (PhD diss. University of Wisconsin-Madison, 1987), 7.

politics. Nielsen even ascribes his project to his own time working as a stage hand in IATSE: “Academes in general tend to laud the work of intellectuals and ignore, demean, or belittle the work of people who actually get their hands dirty on a daily basis. [...] I hope that readers of this dissertation will appreciate the fact that everyone who works in the entertainment industry deserves some place in the writing of the histories of the various branches.”¹⁸¹ Despite Nielsen’s moving and rather Raymond-Williams-esque appeal to “common culture” and worker’s agency, many of these accounts find unavoidable the necessity to document and narrate how the power of executives, producers, and even fellow crafts suffocate and silence the voices of the lowest workers.

Less workers’ histories of Hollywood than histories of IATSE union disputes in Hollywood, both Nielsen’s and Hartsough’s dissertations make clear their political aim: to unveil a drawn curtain surrounding Hollywood’s success built on exhaustion, exploitation, and even the deaths of workers. Both Nielsen’s and Hartsough’s work explore in detail the period between 1925 and the late 1940s, during which occurred multiple jurisdictional disputes, producer collusion with Chicago mobsters who had taken over IATSE, and violent strikes. These two labor histories, as dissertations and as the later articles and books written by Nielsen, Hartsough, and Gerald Horne’s *Class Struggle in Hollywood: 1930-1950* (not to mention previous histories on the subject by Larry Ceplair and Murray Ross), shed light on the wide-spread way organized criminal syndicates contributed to the corruption and confusion that reigned in Hollywood during an already turbulent era of industrial and political change.

181 Michael Nielsen, *Motion Picture Craft Workers and Craft Unions in Hollywood: The Studio Era, 1912 – 1948*, (PhD diss. University of Illinois Urbana-Champaign, 1985), vii.

These Hollywood labor histories illustrate the complicated web of inter-industry systems binding together workers, crafts unions, studios, and politicians. These accounts highlight how politics and governmental institutions insulated powerful producers from real responsibility to their workers despite a nation-wide embrace of the ostensibly pro-labor policies set forth by the Roosevelt's Nation Industrial Recovery Act (NIRA) and the National Labor Relations Act and the National Labor Relations Board. During this period, studio workers operated precariously at the will of large international unions (IATSE [AFL], IBEW, Carpenters, United Scenic Artists, etc.), who knew little about the industry-specific craft specifications under their purview to say nothing of their lack of awareness regarding the day-to-day working conditions of their rank-and-file. During the period between 1926 and 1947, it was almost certain that a worker would have been forced to move back and forth between different and often unrelated union representation if they were lucky to keep their jobs, but the many workers found themselves in the wrong place at the wrong time, losing their jobs in the midst of jurisdictional battles, mob extortions, blacklisting, political propaganda, unacknowledged injuries, and producer apathy. What empathy or solidarity the lowest ranks of studio technicians might find with other crafts like the Screen Writers Guild, Screen Actors Guild (both now notable for their progressive labor activities during the period), or even with the other technical crafts like the camera operators and sound technicians was scant or virtually non-existent. Certain technical workers lumped into more artistic (camera assistants) or more skilled trades (lab and sound technicians) appeared less expendable than the rank and file of workers who made up the bulk of the technical union locals: grips, electricians, prop men and other manual workers in IA 37, the studio technicians.

In briefly rehearsing this complicated and crucial labor history written by historians before me and refashioning it with additional materials about the work, techniques, and practices

of technicians, I attempt to highlight important gaps in this revisionist work. I also hope to illustrate how such emphasis on working conditions, wage scale, and certain forms of institutional and industrial documentation often forecloses the possibilities of seeing certain kinds of workers and reinforces the structures and narratives which continue to preclude an investigation of that. Maybe it goes without saying that all this industrial turmoil and lack of union stability during the 1930s and 1940s had a significant effect on not just the workers and their working conditions, but on the screen work itself. While this seems abundantly clear, and maybe so obvious that it does not deserve our attention, I find it frustrating that little to no concern is given to this very question in the revisionist Hollywood labor histories that so carefully and intricately detailed the exploitation of workers by their unions and by producers during the period.

There are many reasons the work itself seems of little interest to these writers. First, the historical conditions of their own writing appear defensive if not outright hostile to questions of style and textual analysis. Second, and perhaps most troubling is that these accounts assume worker's complete alienation from their work (via economic exploitation, dire working conditions, and lack of institutional or industrial power) making them unable to find meaning, value, and agency in what are still solidly craft professions. In some ways, camera operators' continued insistence on fighting for the appreciation of both craftsmanship and manual work made them more resilient against such claims on their work, resisting at the time the hegemony of the unions and producers and, in the present day the assumptions of film historians. Because camera operators and directors of photography told us loudly and often how much they valued the various components of their work, we understand this discourse as defiance and confident agency. Since other studio technicians had no official voice via a union, a trade publication, or

even stable employment, scholars and industry critics (then and now) often assume these practitioners had no relationship to their work as craft. When scholars attempt to recover that history, accounts about day-to-day work or personal anecdotes are treated as secondary or even in conflict with the more important aspects of history (their relationship to union disputes, strikes, and working conditions).

Rather than separate these out as matters of labor in one camp and matters of style in another, I want to think through how we see (even if only in glimpses) the various ways workers navigated this incredibly complicated and precarious terrain while still finding ways to value in some small way their craft by making it visible. This is not so much a criticism of industrial historians as a recognition of the very differences at the heart of historiographical practice. Working backward, we can look at contemporary discourses and practices of workers in grip departments to determine their own understanding of their work as physical labor, but also as learned craft attained and innovated on-set and as knowledge and insights passed down from a previous generation of technicians.

Revising and remixing these histories calls our attention to all these inklings of worker's understanding of their craft, as well as the industry's unconscious reliance on the very skills. The very jurisdictional disputes meant to secure protections and profits for producers, studios, and union leaders ended up solidifying definitions and boundaries of grip craft expertise and set up conditions under which the craft's formation would continue to develop and expand, even at a stunted rate of growth compared with other technical crafts. As I work back and re-broadcast these earlier histories, I want the reader to consider how labor history often frames these workers as an undistinguishable mass that were unconcernedly moved around in unions, on sound stages, and out of work. Because studio technicians moved in and out of IA 37, it is often difficult to

parse in the primary and secondary materials who these people were and what guilds they belonged to at any given time. Here it is the case that grips, electricians, and prop men are often lumped together in the primary sources and in the revisionist historical accounts, without concern for the nature of their work specialties, knowledge, or the distinction of their craft.

3.2 IATSE’S STUDIO TECHNICIANS LOCAL AND THE STUDIO BASIC AGREEMENT

The International Alliance of Theater and Stage Employees formed in 1893, move to unionize motion-picture projectionists in 1914, and then formalized unionization of studio technicians in 1925. Prior to IATSE’s arrival in the budding production hubs of Los Angeles, other international unions had already begun establishing locals in the California film industry. The Carpenters formed local 1692 in Hollywood in 1921, followed shortly after by the IBEW establishment of a filmmaking local in 1923. In the decades to follow, these three International unions, and the many local, progressive technical unions that would splinter from these strong-armed powerhouses, would fight jurisdictional battles, bloody strikes, and some would even find ways to blacklist or cajole any worker caught holding the wrong union card at the wrong time. The big three technical unions: IA, Carpenters, and IBEW were especially susceptible to corruption by and collusion with and studio executives and producers, and their leaders often found themselves working against the rank and file to procure more permanent contracts and thus more incoming dues for union officials. Earlier in their story, however, the big three had worked closely together to resist an initial “divide and conquer” strategy put in place by the formation of the MPPDA, and their labor branch, the Association of Picture Producers (AMPP).

The MPPDA came together as a result of both a series of industry-wide and nation-wide scandals involving Hollywood celebrities producing “strained relations between producers and exhibitors,” and the growing threat of studio unionization. The nine major producing companies comprising AMPP created a “placement bureau,” The Mutual Alliance of Studio Employees (MASE), designed to control and supply the flow of workers into studios.¹⁸² AMPP’s attempt to create a carefully curated company union was swiftly met by the big three organizing their own contracts amongst themselves (i.e. IA 37’s short-lived agreement with Carpenters 1692 and IA’s agreement with IBEW in 1926 and threatening to strike).

While IA’s union drive in the studios promised potential prestige and wealth, IA’s real source of power rested in its thousands of rank-and-file projectionists. Calling projectionists to strike was IA’s primary weapon against the studios from the 1920s until the Paramount Decision of 1948. One of the earliest threats of such a strike occurred in January 1926, scaring producers into the realization that it was better to work with union officials rather than against them. Forcing the issue further, the IA, IBEW, the Carpenters and the United Scenic Artists began developing a strike strategy of all four studio unions (including projectionists) to take place at the end of October of 1926. By this point, the unions not only sought autonomy from producers, but they wanted a “closed shop, readjustment of wage scales, and a standard eight-hour day with six days off with pay per year, and overtime for Sunday work.”¹⁸³ The Studio Basic Agreement (SAB), signed November 29, 1926 between the producers and the IA, IBEW, Carpenters, and United Scenic Artists, set in place an “agreement to negotiate” on working conditions and wages

182 Nielsen, *Motion Picture Craft Workers*, 6.

183 Nielsen, *Motion Picture Craft Workers*, 8.

between the producers and international union representatives. Explicitly left out of this agreement were local officials and rank-and-file members who could speak more accurately about issues most directly affecting their day-to-day labor conditions in the studios that were far removed from the east-coast offices of their International heads. As Frank Berenna, (a former IA 37 studio electrician interviewed by Mike Nielsen) remembered:

After SBA, union offices became much like hiring halls. The IA made a rule for its members: nobody goes through the “shape-up” at the gates; all IA members had to go through the local union offices to work in the studios...Once you got a steady job and were an IA person in the studios, you would go around and try to get other people to also join the union. You were very careful not to talk to the wrong people, because you could ask some studio electrician or grip to come to the union and he would turn around and tell the boss and you would find yourself out of a job. You would never get back into that studio.¹⁸⁴

Rather than tell a story of newly-won worker recognition under the SBA, Berenna’s account reveals a still deeply held suspicion about producers and other workers. Berenna’s description of paranoia and instability among workers stood in sharp contrast to the way Hollywood’s studio workers, specifically manual laborer and technicians, were portrayed by the studios and trade publicity arms. Rather than depict the people who worked in grip, lighting, and props as workers, much of studio discourse sought to treat them as symbols for an industrial system at its most efficient and powerful and as stand-ins for the common man who benefitted from the mass entertainment that studio films provided.

184 Nielsen, *Motion Picture Craft Workers*, 8.

3.3 WATCHING THE STARS FROM ABOVE: STUDIO TECHNICIANS IN FAN MAGAZINES

One of the least likely, but perhaps most telling outlets for how the studios encouraged outsiders to imagine these workers appeared in the pages of fan magazines. Mostly anonymous grips, electricians, and prop makers appeared in the pages of *Motion Picture Magazine*, *Picture Play Magazine*, *Photoplay*, *Motion Picture Classic*, *Silver Screen*, *Screenland*, and others from 1926 well into the early 1930s. These publications rarely represented these figures as workers, but rather as one-dimensional symbols of the studios, often huddled together as an amalgam of “the grips, the juicers, and the prop boys.” On one hand, grips, electricians, and prop makers were often referenced in articles designed to give fans a taste of a studio tour without setting foot on the lot. These technicians are often mentioned in “studio slanguage” guides meant to teach Hollywood outsiders the funny jargon they might be likely to hear shouted across a soundstage.

Such glossaries promised an amusing, insider’s guide to technicians’ working terms and tools. Dorothy Wooldridge opened her 1926 article on the subject for *Picture Play* to give her audience a taste of this “mystifying” sonic surround: “Kill the babies beneath the coop, put a pair of ear muffs on the broads, and have the gaffer jazz up the juice. And while you’re at it, send the grips over to the big shed and tell ‘em we will need about three more ash cans. Can you get it? Sounds goofy, doesn’t it? ... if you will run over some of the expressions listed below, you will find that there is sense in such slang, after all.”¹⁸⁵ Much of this slang-sense-making defines a variety of lights, filters, and other apparatus used in electrical, grip, and prop work.

185 Dorothy Wooldridge, “The Slang of the Studios,” *Picture Play* (November 1926): 12.

Not two years later in 1928, another article in *Picture Play* by Lulu Case Russell, again used a slangage guidebook to help readers navigate the linguistic terrain of the soundstage. Less a glossary, than a detailed explanation of each term, Russel's article claims a "serious and well-intentioned attempt" to "compile a visitors' compendium, embracing those strange and incomprehensible terms heard in the jargon of the studios." The article, "Are You Going to Hollywood?" also suggests that learning these terms helps their reader not only to imagine and understand what's happening on a soundstage, but how to comprehend and pay attention when they arrive to tour the lots. Russel's article, unlike many, also provides a better sense of the techniques, technology, efficiency modes, and hierarchy of workers on set: "Instead of saying to the men in charge of lights placed above a set, 'Gentlemen, we are about to start shooting—will you kindly take your paces among the rafters?' a great deal of time and language is saved by one word, 'Decorate!' and the workers proceed to scramble up to their loft perches, not among, but *above* the stars."¹⁸⁶ Certainly this image of technicians looking at the stars from up above in the cat walks or from out of the shadows of the lit set was as iconic in Hollywood's self-reflection then as it is now. By framing workers, particularly technicians and manual workers as both enamored by the star image and willing participants in its production, studios could control, distinguish, and leverage their brand of worker as a symbol of studio efficiency and magic. After all, to work in Hollywood, even as a precarious and poorly paid technician, frequently working in dangerous conditions, still meant these workers were closer to the stars than almost anyone else.

186 Lulu Case Russell, "Are You Going to Hollywood?" *Picture Play* 28, no. 4 (June 1928): 91.

So powerful was the suggestion that even the lowliest of film workers could be closer to the star than the most admiring fan, that the idea was often in the star profiles of fan magazines. One exposé written in a 1931 *Screenland* issue titled, “Confessions of a Juicer,” was supposedly written “by One,” the One in question being a nameless electrician that never receives credit for his insights, mostly because his anonymity was consistent with the imposed facelessness of this group of workers (Fig. 3.1).

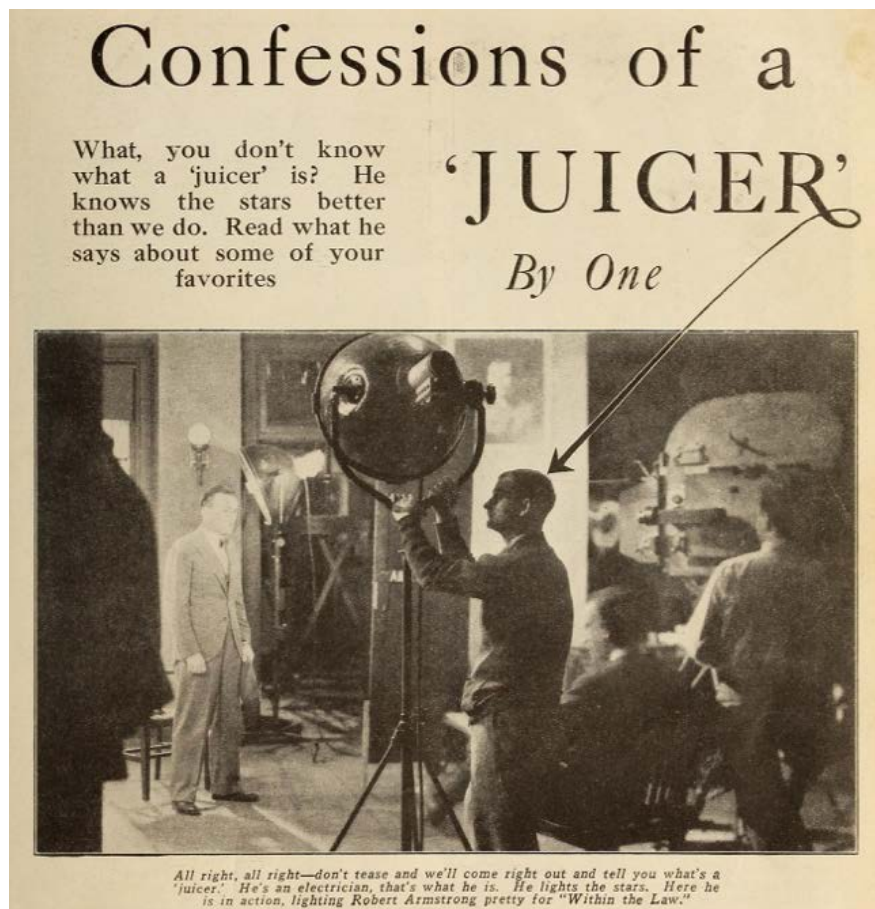


Figure 3.1 “Confessions of a Juicer,” *Screenland* (February 1931)

In these “Confessions” the stand-in electrician, pictured and highlighted with an arrow, calls himself “just a ‘roughneck juicer [. . .] whose overalls have carried me past scores of doors

[that] men in tuxedos and gals in Paris gowns have tried to crash in vain.”¹⁸⁷ Never forgetting to remind us of his working-class roots when he upsets any number of butlers by dragging cables across the marble floors of many a star’s home (presumably for publicity shoots), the juicer also gives the reader a full accounting of which stars are agreeable, fussy, or understanding of his work. Marion Davies invited the juicer for a swim before the job, while John Gilbert’s knowledge of photography and the great view [from his home] made for a wonderful visit, and the ease at which Greta Garbo took instructions and never complained impressed the electrician who usually never heard the end of star’s complaints about the blinding lights and reflectors. While the juicer ends his expose by refusing “‘more caviar’ with all the sincerity of one of these old Russian dukes,” other technicians were portrayed enjoying a meal and conversations with the stars.

In addition to having technicians in their homes as guests, other stars were humanized by eating their lunch with grips or spending their off-camera time hanging around on-set and talking with them. Multiple articles describe Lon Chaney as preferring to spend his time with the technicians, discussing politics over lunch with the grips in the cafeteria.¹⁸⁸ Ruth Chatterton had a publicity photo taken, “back among the grips and props,” and a feature article in a 1932 issue of *Screenland*, “O.K.R.C., R.C.O.K.” promoted Chatterton’s talent via the perspective of someone certain to tell the truth, George “the juicer.” Men of his occupation, the article explain, are the real judges of star quality and performance on set: “Those men up there [on the parallels]—some of them know more about making pictures than some of those in front offices

187 “Confessions of a Juicer: By One,” *Screenland* 22, no. 4 (February 1931): 53.

188 See: Theodore Irwin, “How to Make Your Own Anti-Blue Laws,” *Screenland* 22, no. 4 (February 1931): 116; Ivan St. Johns, “Mr. Nobody” *Photoplay* 31, no. 3 (February 1927): 136.

do. They know what's what. If you can satisfy them—you're a success."¹⁸⁹ Although these workers finally taking their break in the parallels at the start of the scene might seem "aloft and aloof," they really know "whether [a new actor] is a bet or not." The article claims it was unlikely "anyone ever suspected that a "juicer" might have an opinion at all," but they know an actor's star qualities by seeing them "from all directions."¹⁹⁰ What the fan magazines omit from these accounts, but that sometimes can be gleaned elsewhere, are the moments when studio technicians express their unsolicited opinions in the form of joke or snark. Such was the case in a different Ruth Chatterton picture when

[a] scene was in rehearsal on a set at the Paramount studios for Ruth Chatterton's *Unfaithful*, in which the star was endeavoring to make a point in a dice game. She was supposed to fail. "What point shall I say it is?" she asked Director John Cromwell. "What's a hard one to make?" From the runway far above came the voice of a "juicer," an electrician: "They're all hard, lady."¹⁹¹

Written as a joke in *International Photographer*, the punchline shouted from the catwalks is designed for the amusement of technicians, but showcases the ways in which workers' emotive responses as represented in fan magazines were a far cry from their likely behavior on set.

Regardless, this "evidencing" of curated or imagined opinions, smiles, laughs, and cheers from the parallel are sprinkled like star-power currency throughout the fan publications of the late 1920s and early 1930s. As Dorothy Spensley signaled in an article for *Motion Picture Classic*, making good in the eyes of the studio workers was tantamount to approval from the common man out in the rest of the country: "My dear, I simply love to go around and shake hands with the grips and props and electricians, like the best of the stars. After all, I am of the

189 John Carlisle, "O.K. R.C., R.C.O.K.," *Screenland* 25, no. 4 (August 1932): 92.

190 Carlisle, "O.K.R.C.," 2.

191 "How Well the Juicer Knew," *International Photographer* 3, no. 2 (March 1931): 38.

people. Lowly and all.”¹⁹² Stars desire to be seen and approved by the “grips, juicers, and prop boys” and be accepted amongst them, at least for the fictions of the publication write-ups, signaled humility to a fan base and suggested a critical hurdle to overcome. After all, as many publications state, if you could catch the attention of even the “most hardened juicer” and make such a proximate critic laugh, smile, cry, what couldn’t you do as a star? One profile of newcomer Eric Linden described how he heeded carefully Joan Crawford’s advice, since “she considered the greatest of all tributes to an actor a favorable reaction from the ‘props’, the ‘grips’ and the others on set. She said that the height of her ambition was to make the men forget their work and watch her.”¹⁹³ To look out into the parallels and see adoring faces and uncontained reactions from these working-class brutes was a medal of honor in itself.

Unlike movie stars, these studio laborers are often at the margins of other’s authorship: the words about them are almost never their own, and representations of their work in photographs, cartoons, and other visual depictions were imagined by people with far more institutional power. Their voices of laborers, then, as now, subsist on the supposed authority and expertise of outside interlocutors or accidental mediators. Rarely mentioned in these fan publications is that it was the arduous work of grips, juicers, and prop boys—and not their adoring attentions—that made the stars shine. That these publications described technical work in such a way as to confirm what we were already supposed to know—that the star’s ultimate value resulted from her skill, persuasion, beauty, charm, humor, and humility, but not from such studio labor power—contributed to the impression that such work was lowly, routine, and

192 Dorothy Spensley, “Robbing the Cradle,” *Motion Picture Classic* 27, no.6 (August 1928): 18.

193 “Are These Our Eric Linden?” *Silver Screen* 2, no. 4 (February 1932): 74.

replaceable. Rather than treated as essential, workers in these publications are modeled as symbolic accessories in a tableau celebrating Hollywood's efficiency and patina.

That the publicity engines of the studios sought so easily to leverage the imagined and fabricated connection between star and on-set worker to advance the star's persona in no way reflected a reality in which these two group rarely if ever spoke, let alone imagined eating together while discussing politics; neither did they share the same agenda about salaries/wages and working hours. Likely even the accounts of Margaret Sullivan and Lon Chaney sharing meals at the lunch counter with these workers were fanciful, as these technicians often worked eighteen-hour days, sometimes days at a time, with little food or sleep, often subsisting on what they brought from home.

3.4 THE ACADEMY AND 'THE REAL WORKERS'

While the years between the signing of the SBA and the later 1933 strikes would signal a period of relatively harmony between unions, workers, and studio heads, thereby fostering production growth, fan magazine fantasies about worker's lives and desires on set reveal a system deeply distrustful of its workers. Workers themselves grew restless playing the character of "common man" in overalls without being allowed the new affordances that common men all over the country were gaining by joining unions. After the SBA, with the threat of further union efforts from above-the-line creative personnel like screen actors and writers, and given the possibility that top cameramen would soon organize with IA, the producers worked on another means to quash union sentiment amongst its crafts. The Academy of Motion Picture Arts and Sciences (AMPAS), formed on May 1, 1927, was designed partially as an unofficial company union to

keep costs low for producers and discourage international and local collectivization by creative personnel. It also promised perks like craft discussions, exclusive academy memberships, and, later, an awards ceremony to woo its most prized directors of photography, actors, and writers.

While many might have been open to playing along with the promotional possibilities of the early Academy Awards, others recoiled from its promise of anointing only the most prominent workers in the industry. As one 1930 editorial by John Hall in *Hollywood Filmograph*, argued: “the public prints, in reporting the event, do not mention any reward bestowed upon an ‘extra,’ a ‘juicer,’ a property man or a plain everyday ‘grip’—not even an actor of the ranks. THE REAL TOILERS [sic] are completely ignored, only studios, big stars and high technicians of the first rank, occupying the attention of the Academy, no doubt, all honestly won their honors.”¹⁹⁴ Hall’s emphasis throughout the editorial on the “real toilers” functions as a call for radical democracy throughout the industry and the country at large. Hall, “resigning all hopes of Utopia,” was clearly under no illusion that such criticism could change an inherently anti-union Academy that remained less than charitable to the workers who actually performed the “hard, back-breaking dirty work of the studios.”¹⁹⁵ Yet, Hall’s editorial reflects a growing divide and distrust between the majority of studio technicians and the first cameraman, whose explicit aims at recognition and prestige far outweighed their concerns for those who served under them to accomplish the same professional goals of technical excellence.

194 John Hall, “The Moving Movie Throng,” *Hollywood Filmograph* 10, no. 12 (April 12, 1930): 5.

195 Hall, “The Moving Movie Throng,” 5.

3.5 CARTOON GRIPS AND ‘WORKER GENERATED SNARK’

While the Academy’s foundation may have appealed to First Cameramen working in the studios and who were already implicitly protected by the prestige and power of their guild the American Society of Cinematographers (ASC), the organization did little to promote the welfare and working conditions of the majority of workers in camera departments, including day-to-day studio cameramen, assistants, newsreel cameramen, still photographers, and loaders. The formation of IA Local 659, Camera Operators in 1929 and the publication of the first issue of their own house-organ *The International Photographer* in February, 1929, marked a potential shift in the unionization of various strata of creative and manual workers. Unlike the *American Cinematographer* whose primary concern was to promote, to the industry and the public, the artistry and scientific expertise of the newly monikered first cameramen, the “Director of Photography,” the *International Photographer* instead dabbled in more day-to-day matters of camera work alongside questions of craft. Although the publication was mainly geared in its first four year years to members of 659, many other technicians and crafts apparently subscribed to the publication, including technicians of Local 37’s electricians, prop men, and grips.¹⁹⁶ The publication’s insularity and ties to the union also gave it leverage to express concerns, criticism, and even forms of “worker snark” about changes within the industry, complaining about the widely despised transition to sound and making jokes about all-knowing directors. The *International Photographer*, edited in its earlier years by former AC editor and publicity man, Syllas “Sy” Snyder, often mounted these criticisms under the guise of humor, jokes, and even editorial cartoons.

196 “Out of Focus,” *International Photographer* 1, no. 11 (December 1929): 48.

In contemporary media industries studies, John T. Caldwell has made a claim for the messy and complicated revelations peppered in unauthorized practitioner discourse. Caldwell has urged media industries scholars to look at the rich material of what he terms “worker-generated snark.” This snark-discourse, Caldwell argues, offers a different image of economic conditions, working-relations, craft reflections, insider terminology, and unique insights into the rapidly changing terrains of specialty jurisdictions, technological innovations, and below-the-line attitudes towards above-the-line politics and power. Caldwell’s contemporary methodology can be used to ask what such an industrial research practice would look like in earlier moments. What in the 1930s and 1940s was, if not the equivalent, a parallel practice of worker’s critical reflexivity and worker generated snark? More subservient to industrial structure than now, how did studio technicians deploy humor, jokes, and other forms of craft snark as critical blowback against the studios?

The early years of *International Photographer (IP)* are full of satirical and humorous columns like “Out of Focus” and feature numerous editorial cartoons by cameraman Glenn Kershner and others. Although such levity focused primarily on issues faced by the camera department crews, it was not uncommon for this material to mention grips and electricians in the background. In one such regular column, “The Daily Grind” by Ralph B. Staub, the figure of “Jimmy the grip” is introduced when he steals a ladder away from “a rather shaky parallel.” When the cameraman, Bob DeGrasse asks how he is supposed to get down, Jimmy shouts back, “Oh, just shut your eyes and walk about a bit.”¹⁹⁷ That the parallels were a consistent source of injury and concern meant that the pages of *IP* often referenced and made-light of the headaches

197 Ralph B. Staub, “The Daily Grind,” *International Photographer* 1, no. 3 (April 1929): 6.

they caused, with many gags about a “missing ladder” taken by one of the grips. Making light of safety concerns ranged from lack of sleep (“How are things coming these days? Fair, but the night life is beginning to wear on me.”) to speed and efficiency (“Harry Merland has installed an electric cook stove in his camera booth so that he may cook his own supper, thus fooling the directors who never stop for a meal”), to electrocution (one electrician says to another: “catch a wire.” “Feel anything?” “Nope.” “Well, don’t touch the other one; it carries two thousand volts.”).¹⁹⁸ Along with the fear of the parallels and a number of other safety concerns, worker industrial snark also asked “Jimmy the grip” to stand in for any number of grips in just the way that “Jimmy the assistant” stood in for any number of incompetent and replaceable camera assistants.¹⁹⁹ While occasionally, *IP* praised “all the grips” for a job well done, often their interchangeability and supposed inattentiveness was a source of humor. One column joked, “Dev Jennings has three grips named ‘Red.’ He says he wants three more, then we he calls ‘Red’ one of them is bound to answer.”²⁰⁰

Similarly, Glenn Kershner’s editorial cartoons and advertisements for *American Cinematographer* and *The International Photographer* poke fun at a range of critical and humorous conditions on set for camera crews, but also often include the imagined voices and sketches of grips, electricians, and propmen. As Denise McKenna has noted about the role of editorial cartoons in film publications of the period:

Cartoons are rhetorically efficient weapons. As complex semiotic forms, cartoons can argue, promote, deride, protest, and critique—and sometimes make us

198 IRA, “Hoke-Um,” *International Photographer* 1, no. 10 (November 1929): 30.

199 For more on the use of “Jimmy the Assistant” in *American Cinematographer*, See Keating, *Hollywood Lighting*, 17-23.

200 “More Speed,” *International Photographer* 1, no. 9 (October, 1929): 41.

laugh...Cartoons allow the artist to personify abstract ideals, and to condense and fuse ideals and information into a graphic argument. Of equal significance, however, is the cartoon's ability to draw readers into new relationships and known ideas.²⁰¹

Kershner's cartoons often personified the abstract ideals of cameramen, their assistants, and critiqued and promoted certain modes of production. That Kershner's cartoons are also often populated with grips, juicers, and other production workers draws our attention not only to the cameramen's labor and desires, but to their relationship with other technicians on set. A simple inclusion of grips occurs early on in "Why the Sets Were Late" (Fig. 3.2), an editorial cartoon that jokes about the on-set distractions for propmen and grips when scantily-clad chorus girls, accompanied by the costume designer, show up on set for costume approval. While many of the painters and prop men are distracted, a grip carrying a piece of the set shouts from the back of the stage "Where do you want this this thing put?" Far to the back, the grip's view of the dynamic scene is blocked by the very scene boards he's changing. He shouts to no one in particular and also at anyone who will listen.

201 Denise McKenna, "Picturing Uplift: Cartoon Commentary in Early American Film Journals," *Early Popular Visual Culture* 12, no. 3 (2014): 358. <https://doi.org/10.1080/17460654.2014.924422>.



Figure 3.2 Glenn Kershner, “Why the Sets were Late,” *International Photographer*. 1, no. 7 (August 1929): 24.²⁰²

Grips are rarely the focus of such illustrations that take both day-to-day set life and industrial change as their focus, but their presence, literally in the background, populates the world and energies of the image, not unlike their presence in the behind-the-scenes exposés of the fan magazines. Kershner’s satirical illustration, “Along about 1950,” imagines a future in which the “talkie” fad has gone out of fashion, with the studios having so many obsolescent sound booths that all the retired members of 659 can live inside them in a utopic “happy valley”

²⁰² Digitized Scan Courtesy of the Media History Digital Library

community filled with gardens, an antique camera shop, and even a parodic memorial to the “throne of the director” surrounded by barbed wire (Fig 3.3).



Figure 3.3 Glenn Kershner, “Along About 1950,” *International Photographer*. 1, no. 11 (October 1929): 43.

Putting these sound booth cottages into place is none other than the grips, who gripe in the background, “Say Len- Your [sic] just like you always was. Let me do all the pushing.” Casually conversing with another camera man in the foreground, one member jokes, “Billy Tuers just told me that Len’s old grip is visiting him and everytime the parrot squawks ‘New Deal’ That grips gets right out and starts to moving things.” In fact, Grips are often just moving things or shouting in the background of Kershner’s illustrated studio cities. Take Kershner’s “Amenities on

Location” which features three grips hauling a tilting parallel, with cameraman on top, arguing with the cameramen on the ground (Fig. 3.4).

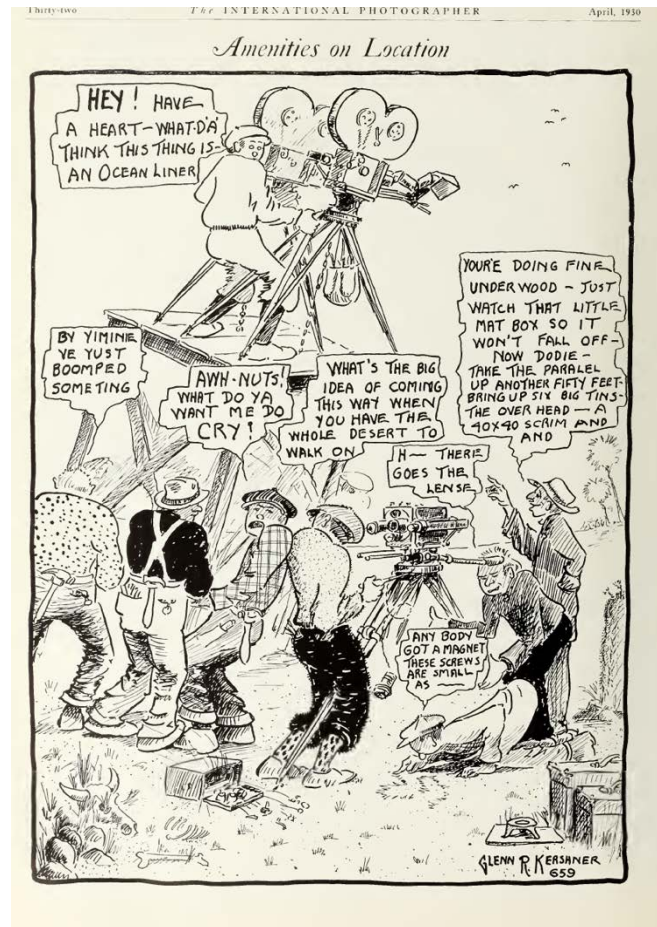


Figure 3.4 Glenn Kershner, “Amenities on Location.” *International Photographer*. 3, no. 3 (April 1930): 32.²⁰³

One grip mocks a complaining operator, “Awh-Nuts! What do you want me do Cry!” While another confusedly mutters, “By Yiminie ve yust boomped something.” With hammers in their back-pockets, checkered shirts, jeans and overalls, not to mention their loud attitudes and accented speech, the grips are clearly marked out from the white shirted, knicker-wearing cameramen. More classed than any of Kershner’s other illustrations, this depicted confrontation

203 Digitized Scan Courtesy of the Media History Digital Library

nonetheless offers us a glimpse, albeit mediated, into the marked stratifications both visual and aural of technical workers on set. Perhaps Kershner's most notable focus on grips came in his illustration "Something New" where not just grips, but the techniques of their work took center stage (Fig. 3.5).



Figure 3.5 Glenn Kershner, "Something New," *International Photographer*. 3, no. 12 (May 1931):

12.²⁰⁴

On a location shoot, a camera crew with myriad assistants stands in the foreground shooting on a large lawn populated by one star and a host of grips. Circling the star, the grips hold different reflectors, mirrors, filters, diffusers, and bounce boards to direct the light onto the actress.

Kershner's illustrations often indulge in filling up the space with people, commentary, and equipment. Thus, while the number of grips for this single shot may seem excessive, the illustration nicely highlights the range of grip technologies being utilized to direct and control the light.

Grips were called-upon in the pages of *IP* to help mount the members' continued complaints about the transition to sound and the effect of new sound technology on camera protocol and tools. While the weight and size of blimped cameras were often depicted as sources of humor (needing 2 assistants to carry a film magazine, for example), many more editorial cartoons illustrated fantasy all-in-one cameras that could move in any direction, record sound, and shoot technicolor and black and white.²⁰⁵ In one column, *IP* even joked that new positions for grips would be made within the sound department: "First Grip—How come, Bill? We just finished construction on this set yesterday. Now we have to tear it down. Second Grip—Well, you see, the office hired a new architect and he designed the set with the soundtrack space on the right-hand side."²⁰⁶ Grips throughout the *IP* are called-upon to voice the concerns of their on-set superiors in ways that may not and likely do not reflect that majority of their own concerns with work at the studios. The safety of the parallels, lack of sleep, wage scales, efficiency protocols, and time allowed for to meals were certainly of concern for IA 37, but *IP*'s representations of grips are not leveraged for these. Rather, the grip stands in to voice complaints and annoyances that camera operators and assistants faced in dealing with work-flow and the technical nuisances of sound. While the jokes, editorial cartoons, and other forms of worker-industrial snark during

205 See Charles Boyle, "The New Bucklebird Camera," *International Photographer* 2, no. 2 (March 1930), 34.; "What Dreams May Come!" *International Photographer* 2, no.7 (August 1930), 46.

206 Ira Hoke, "Dirts and Scratches," *International Photographer* 3, no. 6 (July 1931): 16.

this period provided a safe, but critical outlet for 659 members to vent their industrial frustrations, little space was offered in their pages for the technicians working alongside and under them to express their own concerns in their own voice.

While the 659 and the *IP* might have had subscribers of grip, electric, and prop makers, their articles and agendas about safety, working-conditions, pay, and technique were primarily focused on camera operators and their assistants. The early pages of *IP* did little to nuance or describe the actual technical or stylistic work of grips, juicers, and prop makers, but instead tended to lump them together by treating their work in broad strokes (the grips' placement of sets and the moving of reflectors). The *IP* did, however, offer something perhaps more valuable than the imaginary figure of the fawning or adoring grips represented in fan publications. The publication represented grip work as manual work and gave representation to their attitudes and bodies even if only as working-class stereotypes. That *IP* gave even the slightest recognition to their work of moving, placing, and holding equipment, with their bodies situated amongst the camera crews and not just in relation to stars, provides a hint at some of the on-set interactions between IA 37 technicians and IA 659 operators.

Perhaps unlike the studio technicians and other West Coast Studio Locals of IA, the 659 also held the privilege of bargaining directly with IA and the producers, while eliciting the envy and suspicions of other locals. Kershner's May 1930 illustration for *IP*, "The Bears Came Over the Mountains," depicts "the giants." The international heads of IATSE coming into the Los Angeles valley for the IATSE and MPMO convention and looking down on the miniscule cameramen below (Fig 3.6).

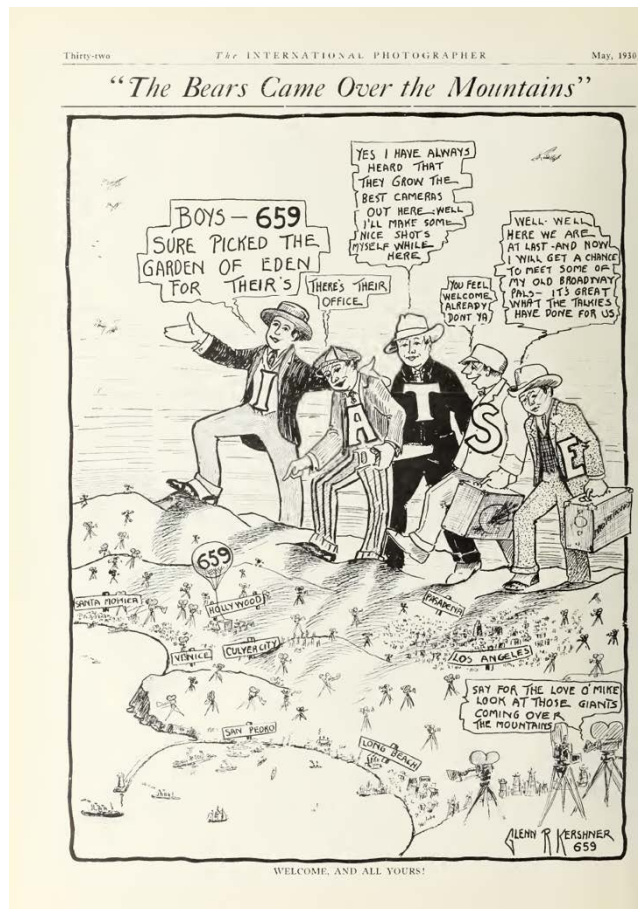


Figure 3.6 Glenn Kershner, “The Bears Came Over the Mountain,” *International Photographer* 2, no. 4 (May 1930): 32.²⁰⁷

The illustration, while explicitly celebratory, suggests the differences in felt power dynamics between the West Coast Studio Locals and the IA. In retrospect, the cartoon forebodingly hints at the terrifying power the IA would wield over its locals in the second half of the 1930s. Early in their union tenure, 659’s business representative, Howard Hurd, negotiated a sixteen-hour day and divided overtime into different classifications. A few months later, cameraman Alvin Wyckoff on behalf of 659 signed an updated wage scale and bill of working conditions with the

²⁰⁷ Digitized Scan Courtesy of the Media History Digital Library

producers on May 12, 1929.²⁰⁸ While the 659 was a branch of the IA and thus should have fallen under the same bargaining agreements applied to the other studio locals of the SBA (mainly that all negotiations would go through the International officials and not through local business reps), 659's leverage rested in its significant studio power since cameramen were considered more skilled and valuable to producers than mere manual or technical workers.

3.6 THE DEPRESSION: ILLUSTRATING HOLLYWOOD'S WORK IN THE SHADOWS

This unique position of technical sway seemed to have provided similar inspiration for the break-away formation of IA Local 695 sound technicians from their previous home amongst the mass of IA 37 studio technicians in September 1930.²⁰⁹ Unlike the camera departments who had long before established some arena of autonomy and insularity, even within their relationship to the producers and within unions, the growing field of newly minted sound technicians was ripe for the picking by other unions. Both IA's 695 (now at membership of 624 members) and IBEW had been attempting to organize sound workers to grow their own international strength in the studios, and in May 1931 the two unions met to discuss a range of issues related to the representation of this new group of technicians.²¹⁰

208 The Committee on Wage Scale and Conditions (Local 659), "The Bacon is Brought Home." *International Photographer* 1, no. 5 (June 1929): 12.

209 Hanson, *Hollywood Soundscapes*, 125.

210 Hanson, *Hollywood Soundscapes*, 125.

Despite many Hollywood studios believing they were “Depression proof,” the enormous cost of studio and theater sound conversion, coupled with significant drops in attendance (down 12 percent at seventy million attendance per week in 1931 and fifty-five million attendance per week in 1932), the closing of picture palaces, and the overall tightening of Wall Street funds to the studios began to be felt across the industry.²¹¹ Needing to react to the cultural, social, and economic changes in the country in order to stay afloat, studios needed to realign their capital priorities and appeal to the country with more grounded depictions of American life. Numerous Christian organizations and reform groups had long criticized the excesses of Hollywood, both on and off the screen, but the occasion of the MPPDA September 1929 conference on “The Community and the Motion Picture” signaled not just a policy change in the industry, but a recognition of its need to seem like it was aware of and responding to a cultural and social change, but doing so on its own terms.²¹² The growth of the motion-picture reform movement, the early years of the Production Code and the Studio Relations Committee (as distinguished from the process of its more ridged enforcement later in 1934), and a desire to appropriately acknowledge “the possible influence of movies on the moral and the conduct of those who saw them,” gave rise to a number of adjacent texts touting the reality of *everyday people* who lived and worked in the studios.²¹³

A cross between reform-era promotional campaigns, educational literature aimed at a public interest in the industry, and even personal memoir/travelogue, the growth in popular press

211 Balio, *Grand Design*, 13.

212 Balio, *Grand Design*, 46.

213 Balio, *Grand Design*. 46.

handbooks and pamphlets about the film industry and Los Angeles toned down its glamor and image of excess in favor of living portraits of a working town. This ephemera about the motion-picture capitol that was written in the early 1930s focused on how the industry worked or proffered imaginative stories about different studio figures or scenarios, a sort of pseudo-tour of the industry for a public audience. Examples include *Hollywood Shorts* (Charles Ray, 1935), *Star-Dust in Hollywood* (Jan and Cora Gordon, 1930), and *Talking Pictures: How They are Made and How to Appreciate Them* (Barrett Kiesling, ND). While the Kiesling text seems to fit in nicely with a wider push in the film education movement at the time, which, according to Eric Smoodin, “sought to use moviegoing to activate and improve other skills deemed necessary to the adolescent—including those involved in taste, consumption practice, and even family relations.”²¹⁴ Many of these others texts seemed to have less high-minded ambitions (*Hollywood Shorts* provides an assortment of fictional short stories with accompanying illustrations, “compiled from incidents in the everyday life of men and women who entertain in pictures,” stories ranging from a sensational account of a stunt-man’s death to more mundane depictions of a director’s between-scene directions).

Jan and Cora Gordon’s *Star-Dust in Hollywood*, originally printed in 1930 and successful enough to garner a second reprint, offered a personal account of an English pair’s stay in a Hollywood of abundant foliage and oranges, with opportunities for myriad interactions with the business of the town: filmmaking. After a few chapters introducing readers to the landscape and real estate of Hollywood, the Gordons take us to the Paramount lot where they seek to sketch “the work they do there” for a later exhibition. And what sketches indeed! The reader is treated

214 Eric Smoodin, *Regarding Frank Capra: Audience, Celebrity, and American Film Studies, 1930-1960* (Durham, NC: Duke UP, 2004): 78.

to an entire book's worth of detailed illustrations, water colors, and prints of all ranges of filmmaking activity. Moreover, the chapters are stuffed with enough vivid descriptions of studio soundstage to rival Nathaniel West's evocative backlot depictions in *Day of the Locust*. On their first soundstage encounter, the Gordans' detail the elaborate studio lighting set-up on the Von Sternberg picture *Docks of New York* (1928):

Round a long curtain of backcloth we came on to the set. We saw a row of tall, grotesque-looking instruments. At their feet clustered black figures silhouetted, paper-like, against a vivid cavern of brilliance scooped from the darkness by the powerful lights. Suspended from the invisible roof overhead were grids of mercury lights floating like immense square moons of powerful green cheese; to right and left on tall tripods arc-lamps glared like tropic suns, and along the top of the scenery a line of tall-hatted 'scoops' added a more diffused radiance. The cameras, like small machineguns, were perched high on massive legs, and the cameramen, self-respecting technicians forced into a certain dandyism by contact with the business, stood on piles of boxes to reach the level of their instruments. Electricians and scene-shifters [grips] wearing striped overalls, like overgrown children in rompers, lounged with an air of loose carelessness mixed with good humoured contempt that is the American workman's normal poise.²¹⁵

The Gordons' visual and verbal "documents" regularly linger on technicians and their equipment as a source of both awe-striking oddity and aesthetic achievement. The descriptions accurately and hauntingly detail technical aspects of the production's progress while dually evoking the tone and feel produced by the lighting set-ups. In the book's opening pages, Jan's watercolor from behind the scenes of *Docks of New York* depicts the moment where Betty Compson's character is rescued from a suicide attempt off the docks (Fig. 3.7).

As the confluence of the watercolor of the set, still frames from the film, and the Gordon's thick description of the experience produces its own kind of shocking indeterminacy of labor. The Gordons account for a sensual encounter with the workers staging the scene, the uncertainty of grip workers and actors dressed like dock workers, the scene being acting and the

215 Jan and Cora Gordan, *Star-Dust in Hollywood* (London: George G. Harrap and Co, 1930), 75.

scene being produced. The workers produce and are produced by the soundstage atmosphere, creating a fog that hovers in the scene making their bodies indistinguishable and yet seen as workers and not fading into the background.

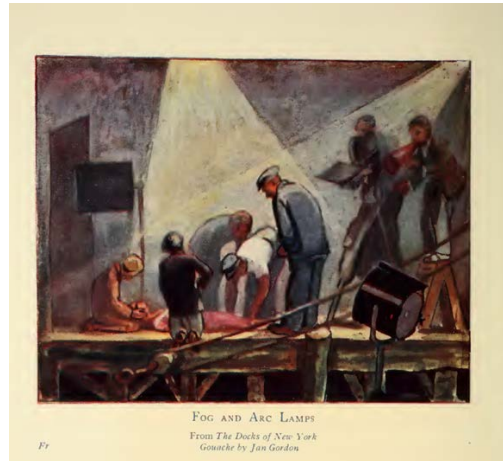


Figure 3.7 “Fog and Arc Lamp,” Watercolor. *Star Dust in Hollywood*, two shots from the same scene in *Docks of New York*.²¹⁶

The Gordon’s description of the scene captures the strange confluence of the dock’s uncanny verisimilitude coupled with the intensity of artificial lighting and mixture of workers (and actors dressed like workers) all in one space:

The pictorial effect was magnificent. The artificial fog hung like an opal under the glow of the Klieg lights and the green mercury lamps. Through the slowly drifting vapour the tall moons of arc-lamps drove long columns of brilliance, cutting one another, blinding, striking wide pools of illumination on to the dripping dock, the slime-smear’d piles, the actors and scene-shifters [grips] who moved in and out of the opaque air. And against the glittering yet ghostly radiance were silhouetted the camera-men with their grotesque

216 Digitized Scan Courtesy of the Media History Digital Library

implements; the floor-lights seemed like tall-hatted freaks; the overalled workmen, lax from being steeped in so many warm Californian midsummers, were lounging with an almost Mediterranean grace—soiled pierrots.²¹⁷

The Gordons' desire to sketch the backlots and soundstages, not just of Paramount, but MGM and United Artist's as well, alarmed some publicity specialists unsure about the potential damages such exposure to "the cinema public" might cause. MGM and UA had apparently understood the promotional benefits of such coverage and the Gordons gently reminded Paramount that perhaps they were in no position to protest any free advertising during an attendance slump. One of the numerous publicity specialists brought in to deal with the Gordon's request demanded, "We can let you in and you can draw the stars and people, but you mustn't draw the sets." According to the Gordons, the concern was that the sketches might expose that the sets were not real. The Gordons, joking back, explained, "But the sets are the very things we want to draw... We want to get the strange mixture of the real and the false. We are proposing to make a set of etchings of the work in the studios, and, of course, the half-made sets, the struts and stays and the general gimcrack, are tremendously interesting."²¹⁸ The cheap, false ornament or the "gimcrack" that the Gordons said they want to represent is not really what their sketches depict. Oftentimes, the Gordons are quite careful to speak to any numbers of workers on set and seek to capture not only the intricacies of their work and tools, but provide character sketches of faces and drawings capturing the activity of work in progress. These include miniature sketches of a "juicer," grips and electricians "shifting a thirty-six," the specialized language of the set shouted at a grip in overalls, and a propman using a bucket to splash water on actors (Fig. 3.8).

217 Gordan, *Star-Dust in Hollywood*, 93.

218 Gordon, *Star-Dust in Hollywood*, 98.

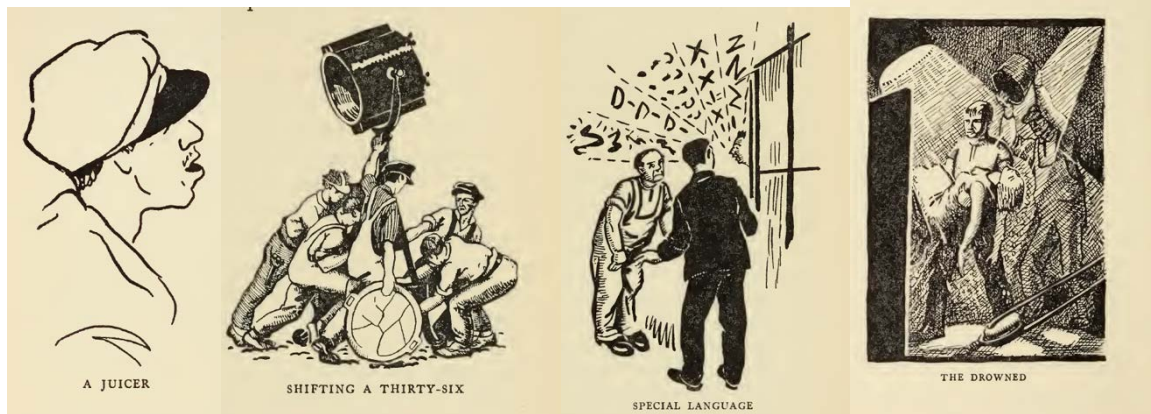


Figure 3.8 Sketches of a juicer, grips, and property workers in *Star Dust in Hollywood*²¹⁹

The Gordons’ set sketches often showcase the enormity of productions, with workers and set pieces flanked by the apparatus of the studio system and viewed from various angles: props, camera, lighting, extras, actors, costume, directors, assistants, grips, electricians, rigging, flags, diffusion, wild walls, etc. (Fig. 3.9).

With grips usually lost in silhouette or shadow in the behind-the-scenes photos from the period—images that typically depict the scene being shot with the star in the center—the Gordons’ illustrative sketches instead focus primarily on the enormity of the apparatus (including accurate and detailed depictions of lighting placement and grip rigging). Like the “Fog and Arc Lamp” watercolor that evocatively depicts the scene in progress in *Docks of New York* while also mapping placement of lights for that series of shots, the Gordon’s set sketches figuratively illuminate the ways lighting, rigging, and diffusion contribute significantly to the backlot, soundstage, and location shoot. Here, the scaffolding, cat walks, rigging, canvas, wood, metal, ladders, apple boxes, parallels, platforms, and cords crowd the world of the set.

219 Digitized Scan Courtesy of the Media History Digital Library

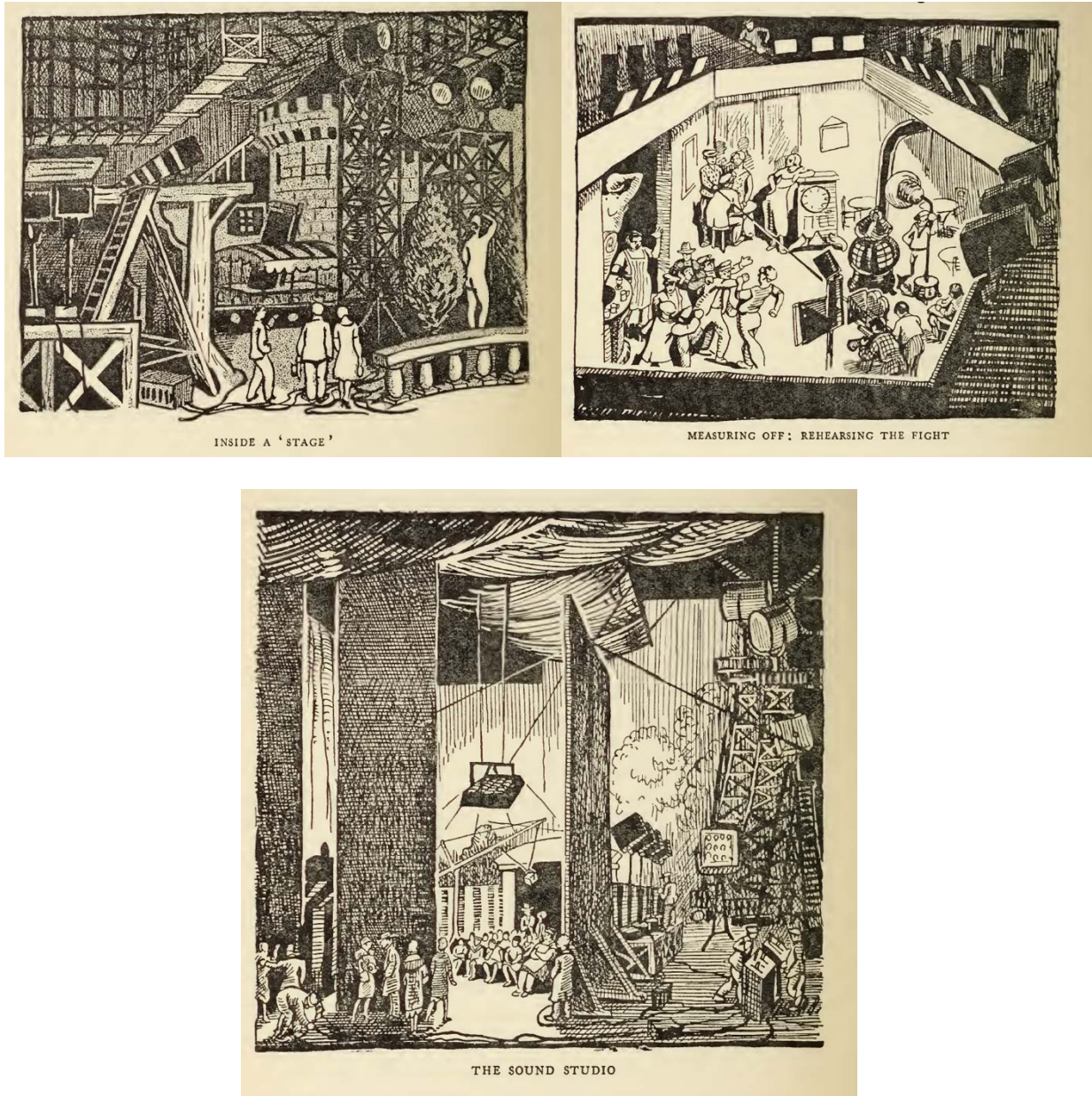


Figure 3.9 Sketches from various soundstages, *Star Dust in Hollywood*²²⁰

²²⁰ Digitized Scan Courtesy of the Media History Digital Library

While some of the studios may have used the Gordons' sketches imagining a wider promotional angle to boost Hollywood's image, the Gordons' interest in representing studio production work and technology cannot be considered as radically demystifying either, since they had planned for their final sketches to be used in a gallery show directed above a "common film audience"). Their depiction of the apparatus as inherently aesthetic was not singular during the period. Certainly, such artistic depictions of studio life were equaled by writers like F. Scott Fitzgerald whose time working in Hollywood as a screenwriter is fictionalized in his unfinished *The Last Tycoon*, and Nathaniel West's *Day of the Locust* captured the thrills and terrors of the people loosely tied to the industry. Wood artist and studio prop maker Robert Witt Ames was similarly captivated by the interplay between the soundstages' enormity of the studio's backlot soundstages and the extreme chaos and claustrophobia within its gates. Ames's mahogany carved relief mural, *Hollywood* (1935), on display at the Los Angeles County Museum of Art, depicts the wide variety of production, promotion, and business activities at a given studio on any given day: from the extras lining up at the casting office, to cameramen shooting an adventure film with alligators, to writers typing away on mysteries and love stories in their crowded office. Like the Gordons, and perhaps influenced by his own experience in the studios, Ames is more concerned with the backs of sets, the lights hanging off rigs, and workers huddled together on catwalks, sleeping or slumped over in exhaustion.

3.7 1933 STRIKES

In 1932, the studios instituted a "voluntary," ten-percent wage cut. The following year, over the bank holiday attendant to President Franklin D. Roosevelt's inauguration, the MPPDA met in

secret to rework the conditions of the SBA that would soon be coming up for renewal.²²¹ Will Hays suggested required eight-week salary cuts of 25 to 50 percent for all workers, while Pat Casey (the MPPDA labor secretary) suggested 20-percent cuts in pay rates for unionized craft workers.²²² Over the next few months, craft groups across the industry reacted to the cuts. The unions in the SBA voted to reject the cuts and renegotiated with the producers for layoffs instead of carrying excess workers on payroll. Meanwhile the formation of the Screen Writer's Guild (SWG) (formerly the Author's League) in April 1933 and the Screen Actors Guild (SAG) in June 1933 marked above-the-line resistance to control of the creative workers by the producers. While IA's involvement in the SBA limited most local's ability to independently strike or negotiate with producers, sound technicians 695, working at Columbia pictures, were exempt from the SBA agreement as Columbia (a minor) had not originally been part of the SBA. Seven days after Roosevelt signed the National Industrial Recovery Act (NIRA) into law and established the National Recovery Administration (NRA), IA 695 declared a strike at Columbia, demanding an established wage scale for studio sound workers.²²³

Following 695's declaration, IA called a studio-wide strike across all its eleven affiliated AMPP studios. As the strike dragged across July 1933, rank-and-file and specific crafts within IA grew restless. Namely, higher-rank members of 659, the cameramen who were also involved in the ASC and who were already suspicious of sound technicians, began signing individual contracts with producers and crossing picket lines. ASC held little regard for the rationale behind

221 Nielsen and Mailes, *Hollywood's Other Blacklist*, 11.

222 Nielsen and Mailes, *Hollywood's Other Blacklist*, 9.

223 "Strike Against Columbia Pictures," IATSE website. Accessed April 13, 2018.

<http://www.iatse.net/history/strike-against-columbia-pictures>

the 1933 strikes and met with producers early to negotiate their own contracts for their first cameramen.²²⁴ In a letter to Alvin Wyckoff, President of 695, a number of prominent first-cameramen, including Victor Milner, Charles B. Lang, Henry Sharp, and Karl Struss, decried the cameramen's involvement in what they deemed a single craft's dispute with producers and demanded, "Whereas we had no voice in the calling of this strike, we feel, after mature deliberation, it is our moral duty to return to work tomorrow morning."²²⁵ That some of these cameramen scabs were later rewarded with long-term contracts or personal letters from producers (like the thanks Milner received from Adolph Zukor for helping restore production at the studio) certainly colored their ability to reflect objectively on the situation.²²⁶ Rank-and-file technicians, seeing the First Cameramen cross the lines and restart work, were encouraged many to return to work at the studios, where IBEW was waiting to help them sign new union cards.

In the first week of August, FDR established the National Labor Relations Board (NLRB) and producers claimed that IA had violated the terms of the SBA and, therefore claimed its provisions null and void. On August 5, the producers offered a new agreement with IBEW in a redrawn SBA, granting representation to sound workers in the electrical union. The revised SBA

224 The ASC would continue to battle for their own representation of cameraman outside the purview of IATSE, even trying to file their own union with the AFL. By January 1934, ASC signed a contract for collective bargaining on behalf of its members with producers. See: "Cameramen's Group Adopts Pact on Work," *Citizen* (January 22, 1934). ASC Scrapbook 1, Margaret Herrick Library; "Lenses Turned Down by AFL," *Variety*, December 21, 1933.

225 Letter to Alvin Myckoff, July 25, 1933, Victor Milner Papers. Harold. B Lee library. Brigham Young University.

226 Letter to Milner from Adolph Zukor, July 26, 1933, Victor Milner papers, Harold B. Lee Library. Brigham Young University.

“reduced the daily rate for most SBA groups from \$8.25 per eight-hour day to \$7.00 per six-hour day, [a] 13.5 per cent increase in hourly rate, but an overall decrease for workers since many of them worked shifts at two different studios.”²²⁷ Meanwhile, the once enormous IA 37 studio technicians’ membership was obliterated when the producers granted grip and property work to the Carpenters union. The IA’s gamble on the power and necessity of sound workers had resulted in a near annihilation of their studio union holdings. Within a week, IA members fled or acquired additional union cards in either the IBEW or the Carpenters to ensure their job security. While members could not officially hold multiple union cards, many carried multiple cards especially in uncertain times such as these where jurisdiction could change from month to month. Many would never again work in the studios after the 1933 strikes, and at least two suicides were directly attributed to the lockout’s aftermath. According to Mike Nielsen, IA’s overall membership dropped from 9,000 to 200. The bulk of that lost membership came from the thousands of studio technicians of grips, electricians, prop men, lab technicians, and other workers who deserted IA 37 during the summer of 1933, leaving its September membership a mere forty workers.²²⁸

One of the tasks in a study such as this might aim to garner a more complete list of such names. Unlike the first-cameramen, editors, stars, writers, and even costume designers, the names of personnel in the grip, electric, and prop departments never appeared in the opening credits of a films, and the nearly constant shifting of these workers across studios and union representation also meant that coherent records of worker’s names and positions were also often

227 Nielsen and Mailes, *Hollywood's Other Blacklist*, 13.

228 Nielsen and Mailes, *Hollywood's Other Blacklist*, 13.

incomplete or non-existent. Even for the most obscure editor, there is usually some listing of their credits on an IMBD page (Internet Movie Database). Information on grips is completely absent in digital databases, and whether such credits exists in union archives or in the production records of individual studios is difficult to say. While many workers held cards across different unions, it is unclear whether these workers would appear in the local or international rosters from month to month or year to year.

Such a database would be helpful if at any point scholars try to connect technical workers to the products of their labor. As is stands, without these names, it becomes remarkably more difficult to seek out lived accounts of their day-to-day work, piece together crews or groups of workers who may have circulated together across projects as ensembles, collaboratively developing strategies for certain kinds of rigging and lighting techniques. Without knowledge of such assemblages we routinely credit the cinematographer or the director for work and effects that were often performed by knowledgeable technicians.

My own attempts to begin collecting such a list failed early on for this project; I could garner only about fifty names of grips mentioned in articles, and I hoped that some of these names would be connected to the films on which they worked or the studios where they were currently employed. The devastation of 659 and their ensuing jurisdictional battles with the ASC that continued well into the early months of 1934, meant that much of the pages of *International Photographer* were devoted to other concerns. Luckily for such a project, one of the running articles in *IP*, aside from a myriad of amateur photography and home-movie cinematography articles that now kept its pages full, was “The Cameragram,” a list of current films in productions at the studios with cursory technical crew lists, including the names of gaffers and sometimes grips. The series ran off and on from May 1933 until September 1934 and provides a rare look

into the make-up of these crews, albeit as an excuse to take up space in a flagging publication while appealing to the interests of lost membership. Technical department heads at different studios would submit films in production. Even in the course of a few months, the crew lists help make clear who would have been under contract as key grips at different studios based on their recurrence across different films under the title “chief grip.” These included:

Table 1 Grips Referenced in Cameragram, *International Photographer* (1933-1934)

FOX:	George Carpenter, Charlie Hall, Fred Richter, George Switzer
Warner-FirsNational	L.P. Maxmeyer/L.P. Mashmire/D. Mashmeyer (likely the same person misspelled three times), Dudley Slausson, Owen Crompton, Harold Noyes, Charles Eastman, Harry Barnhouse
Mack Sennet:	Ray Bouc
RKO Pathe:	Charles Rose
Monogram:	Robert Murphy, Bertram Hayes
Universal:	George Robertson
Columbia:	Walter Meins, Al Becker, Jimmy Lloyd, Eddie Blaisdell

That studios like MGM, Paramount, and even United Artists submitted crew lists but never included the grips, tells us something about whether their grips were under contract and worth being credited by their technical department heads. After the 1933 strikes, tensions between producers, first-cameramen, 659, and the newly reorganized technicians lasted long into the coming years and may have poisoned communications, even between department heads and the union affiliated *IP*.

While some broader Hollywood histories, producer accounts, and even the records of other craft organizations like ASC will chalk the 1933 strikes up to a mere jurisdictional battle between IBEW and IA, this so-called minor blip in labor history had a profound and lasting impact on the lives of studio workers during the 1930s that extended well into the 1940s. The

effect it had on workers was both ideological and practical. A letter in *The Nation* summed up the bleak atmosphere on the streets, “the strike overnight became a lockout. The men are bitter, some pace the streets in a daze. Rumbblings are heard about murder, beatings, and sabotage. In the meantime, one of the strongest unions in the country is broken in body and spirit; the men are locked out as a result of the treachery of a handful of cameramen, the knavery of two unions, and the great power and influence of the NRA.”²²⁹ Ideologically, whatever faith workers might have had in both union representation and an imagined solidarity with other craft workers (i.e. the cameramen, actors, and writers who were ready to betray them the moment they were offered more lucrative contracts) was swiftly and irreparably broken in the 1933 strikes. For many workers, the unions (like the producers) seemed concerned more with aggrandizing power than in advocating and protecting the interests of workers. IA had failed to read the historical and economic conditions in which they were inextricably immersed during the early years of the Depression and the beginnings of Roosevelt’s New Deal, but the stakes were evident to workers even in the moment. Many felt the IA had gambled on a power grab at the risk of the rank-and-file, with little concern to what it would mean for these workers—even with a healthy union unemployment fund—to weather a strike amidst nationwide economic anxieties. To say that these workers lost trust in the ideals of collective action and unionization would be an understatement; the 1933 strikes taught studio technicians how easily and quickly they could be traded to the highest international union bidder and how adaptable they would need to be not only in skill, but in attitude. For years to come, many workers kept union cards (without

229 “Letter to the Nation Shows Conditions,” IATSE website, Accessed April 13, 2018.

<http://www.iatse.net/history/letter-nation-shows-conditions>.

necessarily paying all the dues) to whatever union might be their home a one week, a month, or a year.

Practically, the 1933 strikes did significant damage to the living and working conditions of the lowest strata of technical workers in Hollywood. Crews who had worked alongside each other for a good part of a decade had been separated by strike-breakers and by divisions across union-cards, new and arbitrary craft designations, and the practice of blacklisting after the 1933 strikes. It is impossible to stress how crucial were the ties of trust, shared experience, and group knowledge that had formed amongst crews working together over time. The fact that most crews, by the late 1920s and 1930s, moved together across sets and knew each other's strengths and weaknesses, collaborated and choreographed their movements across tasks, and, most importantly, looked out for each others' safety—all this could not be easily reproduced after the strike. Patchwork crews after the summer of 1933 were often composed of randomly selected new union members who had never worked in the trade, scabs without skill, and experienced old-timers. Union officials in IBEW and Carpenters, seeing what had happened to IA, were reticent and unwilling to advocate and negotiate new working conditions on behalf of their workers, even for the elimination of physically dangerous conditions on set. The deep apathy and ignorance about studio workers' jobs that were obtained before 1933, meant that the new grip, electric, prop, and sound workers of IBEW and Carpenters were governed by both local and international officials who knew little to nothing about the physical requirements, training, and skilled expertise of the very crafts they represented. In this way studio technicians as a collective and as a community of workers in Hollywood were significantly weakened politically and spiritually in the aftermath of the 1933 strikes. This weakness made these workers easy targets

for further manipulation and exploitation in the decades to come, and the barely surviving IA was particularly vulnerable to abuse by those who had designs to restore its once former power.

3.8 THE BROWNE AND BIOFF YEARS

Across the country from the failed strike in Los Angeles, another IA marketplace for its theatrical and projectionist holdings was just coming into power. Chicago, home to the Nitti gang (a Capone syndicate), played background to the meeting of small-time pimp William Bioff and small-time IA leader George Browne. In 1930, Browne was already positioned at the rank of fifth Vice-President of IATSE.²³⁰ While the IA was busy planning their power grab in the studios, George Browne had infiltrated and become business manager of IA Stage Local 2 in Chicago and began his work extorting small extra dues and fees from stage workers. Getting wind of Browne's scheme, Bioff suggested they combine their talents to expand the operation on a larger IA scale. Pretending to help those workers hit hardest by the Depression, Browne and Bioff set up their operations via a worker's soup kitchen, skimming funds off donated meals and two-for-one contributions from working members (one meal for you and one meal for a brother hard on his luck).²³¹ Soon, Browne and Bioff realized how these donations from theater owners could be scaled up to the highest level, and cornering A. J. Balaban into donating a sum of

230 "General Officers of the International Association of Theatrical Stage Employees and Motion Picture Machine Operators of the United States and Canada," *International Photographer* 2, no.4 (June 1930): 6.

231 Herbert Aller, (Beverly Hills, CA: Guild-Hartford Publishing, 1972), 37.

\$50,000 to the soup fund in exchange for industry kick-backs.²³² Soon, the IA projectionists (the real power source of the International IA) were also in the hands of Browne and Bioff. As Browne and Bioff climbed the ranks of the Chicago scene, they did not go unnoticed by Frank Nitti and were quickly brought into his Nitti's criminal network, the minor setback of losing organizational autonomy was offset by the benefits of now having gangs of thugs at their disposal. Still hurting after the loss of the 1933 strikes and with almost non-existent studio membership, a weakened IA squabbled at their 1934 convention, narrowly electing an up and coming IA man from Chicago, George Browne to the presidency (a result achieved through a concerted "silencing" strategy applied to former IA presidents William F. Canavan and William Elliot by Browne's friends in the Nitti gang).²³³

Browne's first step as IA President was to recommit to the West Coast Studio Locals and place the trustworthy Bioff in charge of all studio union business. On April 18, 1935, Browne and Bioff arranged a meeting with Nicholas Schenk of MGM/Loews) and Leslie Thompson of RKO. Schenk and Thompson knowledge of Browne's and Bioff's deal with Balaban, coupled with the presence of henchmen Mick Circella of the Nitti gang might have scared them to the bargaining table. But it was ultimately the November 1934 deployment of projectionist strikes in New York, Chicago, St. Louis, and all significant "points in between" that brought most of the major producer and studio heads to an agreement.²³⁴ In a December 1935 meeting with producers and executives, Browne and Bioff promised a return of projectionist and a guarantee

²³² Aller, *The Extortionist*, 39

²³³ Gerland Horne, *Class Struggle in Hollywood, 1930-1950: Moguls, Mobsters, Stars, Reds, & Trade Unionists* (Austin: University of Texas Press, 2001), 46.

²³⁴ Nielsen and Mailes, *Hollywood's Other Blacklist*, 19

of no future union disruptions or strikes of studio work if IA was granted a closed shop for studio technical work. A week later, IA was granted full jurisdiction in sound and a closed shop agreement with the studios, alongside agreements with IBEW, the Carpenters.

In January, the new IA demanded that all former IA workers return to their previous unions before the 1933 strikes. As part of their new agreement with the studios, the unions' power now resided in the union card and union officials' new authority to blacklist workers and withhold cards.²³⁵ In the next year, Browne and Bioff formalized their scheme to shakedown the studios by requiring payments of \$50,000 a year from 20th Century Fox, Warner Brothers, MGM, and Paramount and \$20,000 a year from RKO and Columbia.²³⁶ Browne and Bioff ensured compliance from workers by extending the notorious two-percent wage assessment they had already been collecting from the International IA body of members to the newly joined and returning IA studio members. Furthermore, Brown and Bioff cemented the silence of confused and angry workers within the newly re-populated IA 37 studio technicians, the 659 camera local, and the 695 sound technicians by declaring a "state of emergency" of all West Coast Studio Locals in July 1936.

Browne's and Bioff's state of emergency stripped locals of all autonomy and outlawed any local election, meeting, or voting. To make sure locals would comply with union directives, Browne and Bioff saturated the locals (especially IA 37) with their own representatives (culled from members of the Chicago Nitti gang) and provided lot checkers to collect the two-percent wage assessment and keep workers in line. While in the years to come studio executives and

235 Nielsen and Mailes, *Hollywood's Other Blacklist*, 20

236 Nielsen and Mailes, *Hollywood's Other Blacklist*, 21

producers would claim they were blackmailed and extorted by Browne and Bioff, the reality is that producers and studios benefitted equally from their payments to Brown and Bioff for which they received compliant and silent workers from the moment of the Browne and Bioff takeover in 1935 until after their criminal indictments in 1941. Some workers and historians like Nielsen have even argued that the legacy of IA's corruption by Bioff and Browne is still felt implicitly in how the IA structures industry contracts today.

3.9 CATALOGING THE GRIP DEPARTMENT IN *INTERNATIONAL PHOTOGRAPHER*

While not difficult to see this period in studio worker history as solely dominated by Browne and Bioff, it must be remembered that until the late 1930s and early 1940s, very few members of the west-coast local rank-and-file knew or understood the extent of union corruption and extortion. In this way, while workers experienced additional and drastic financial and existential precarity, the fact that the chaos of the 1933 strikes had happened only a year and a half earlier contributed to a constant atmosphere of insecurity and disruption. In other words, the reign of Browne and Bioff may not have directly affected how workers approached their jobs since they were already embroiled in the labor turbulence of the previous eighteen months. IA's depleted rank-and-file membership numbers coupled with ASC's studio contracts impacted a publication like *The International Photographer* in the years following the 1933 strikes such that editor Snyder and associate editor Earl Thiesen briefly redirected their attentions to the amateur movie-maker market. Browne's and Bioff's control of IA and the restoration of thousands of workers to the IA

rank-and-file re-energized the publication's focus and capital (through advertisers), and expanded its range of articles for and by studio technicians.

Thiesen's columns "The Hollywood Notebook," "Hollywood Offstage," and his more pointed articles and project on the industry's history reflect *IP*'s renewed focus. In a March 1935 column, Thiesen paid close attention to that well-treaded territory of studio "slanguage"; however, Thiesen approaches the topic not as an oddity or tourist attraction, but to defend a history of worker's discourse. In "The Language of the Movies," Thiesen compels readers to consider the utility and necessity of slang:

The phraseology of the motion picture is a lingual short-cut, and is very rich in connotative meaning. There is nothing trite or stale in the use of words in the movie studios. It is true the words are slang and barbarisms, but on the sets, making the meaning clear is first and foremost; however to an outsider the conversations are often about as obscure as that of a foreign language. To the studio worker, however, one word will often say as much as a whole flock (there I am that way too) of conventional words.²³⁷

The degree to which Thiesen took seriously not only the language but the technical, stylistic, manual, and embodied aspects of studio work was evidenced in his various projects to collect and exhibit the early histories of film production technology and ephemera in the Los Angeles Museum, in his 1935 San Diego exhibition, and his continued support of such articles in *IP*.²³⁸

Thiesen's writing highlights the divisions of workers and he is careful to draw attention to those technicians not often mentioned in accounts of the studio, including grips, electricians, and propmen. Later in his "Language" article, Thiesen details a visit to the Universal lot and hears this slang from the "rigging gang" first hand:

237 Earl Thiesen, "The Language of the Movies" *International Photographer* 7, no.2 (March 1935): 24

238 Earl Thiesen, "Hollywood at the San Diego Exposition" *International Photographer* 7, no.6 (July 1935): 12.

Overhead on the “cat-walks,” men were moving lights. On the floor, lights were also being shoved and hurriedly arranged. Everywhere men, hairy chested ones, were rushing, hurrying, jostling each other, and walking over each other like a swarm of ants when their nest is disturbed. There was not time for excuse-me, or pardon me, nor did I hear any, although there were a few disparaging looks cast by a victim at a receding husky form who had just collided with the victim. Perhaps “hardlooks” would describe them better. Over the hum of the activity was a constant babble of talk and orders. Here could be heard, “throw a baby on her,” then someone would say “move the gobo in,” or “how's the high stuff.”²³⁹

Thiesen is careful to describe—not to claim—first-hand knowledge of the slang. In so doing, Thiesen pinpoints that importance of translation from the workers themselves to label equipment and to make sense of their contexts and use. This need for a translator foregrounds the worker’s voices who might best mediate Theisen’s own expectations with studio reality. Thiesen also sometimes commented on culturally fraught or problematic craft terminology.²⁴⁰

Thiesen’s support of motion-picture discourse in the pages of *IP* came to its fruition when the journal shifted its proposed audience and scope in the November 1935 issue. For the previous two years, the publication scraped by in gearing its writing and advertisements to amateur photographers and a diverse array of other technical crafts (it was even written into the title page of every issue: “A monthly publication dedicated to the advancement of Cinematography in all Branches: Professional and Amateur, Photographer: Laboratory and Processing, Film Editing,

239 Thiesen, “Language,” 24.

240 Honing in one item in particular, Theisen explains, the fraught linguistic history of the “gobo,” previously and even at the time, still referred to by a racial epithet: “The ‘niggers,’ used to prevent the set illumination from spreading to unwanted places, were called ‘niggers’ because they were black until one day a noted negro actor played on a set. From that day on ‘niggers’ also had the name, ‘gobo.’” While the reported incident indicates a casual racism that existed on set (as it did in the rest of the society), it also demonstrates a responsiveness by technicians to quickly adapt craft language to in order to avoid offense to stars. Thiesen, “Language,” 25.

Sound Recording, and Projection, and Pictorialists.”)²⁴¹ In the background for the previous few months, a notification of a subscription expansion and price change signaled something big was about to happen at *IP*. On the cover page of the November 1935 issue, a note announced: “Motion Picture Arts and Crafts will be emphasized in the *International Photographer* henceforth.” While the previous dedication continued to appear on the contents page, the promise that the publication would now be geared to professional camera and lighting departments did not fully gain traction until mid-1936 when all the amateur articles were moved to their own small section and more camera technicians returned to write for *IP*. While the March 1936 issue would offer saccharine (perhaps knowing) praise for George Browne’s presidency, the copy also perhaps suggests an undercurrent of suspicion with claims that Browne is “absolutely trustworthy,” but whose “startling coop” “demanded loyalty.”²⁴² Despite or in parallel to such promotion, the *IP* renewed elements of studio criticism as well as safety and health news, including updated mentions of set-related deaths (including notice of the death of a member of local 621, United Scenic Artists, who fell from the scaffolding at MGM, and a feature piece on Columbia’s new studio lot that included air conditioning and showers in the camera workshop.)²⁴³

By April 1937, a redesigned layout and style signaled that the professional motion-picture photography magazine had shifted course (an issue later, Snyder would resign due to an

241 “Contents,” *International Photographer* 7, no. 9 (October 1933): 2.

242 “George E. Browne, President, I.A.S.T.E. and M.P.M.O” *International Photographer* 8, no. 2 (march 1936): 35.

243 “Obituary,” *International Photographer* 8, no. 4 (April 1936): 31.; “Columbia Studios Move Ahead,” *International Photographer* 8, no. 4 (May 1936): 31.

unknown health issue and relocated to Waco, Texas). The new design also signaled a new agenda to suit the needs of all studio camera, lighting, and support crews: including electricians and grips. The first redesigned issue addressed equipment advancements from studio to studio, and featured individual department heads and workers. An article about “RKO’s Camera and Dolly Unit” pictured the new dolly “robot” with photos of grips (like Lou Anderson and Jimmy Kirley) who would be working with the new technology.²⁴⁴ The same issue announced a series column on “Lighting-Sets-Décor” from “The Boys of ‘Thirty-Seven’” that would deal with technique, equipment, and incidental from any number of the technicians in IA 37. To better set-up this series, the editors included an introduction to “Those Fellows in Over-alls,” and jokingly referred to the catch-all nature of the expansion local, “often referred to as ‘gripspropsgaffersspecialeffectsminiaturemakersetcetc’ [sic] in one sliding breath.”²⁴⁵ That even the editors explained the amalgamation of different groups in 37 as “virtually impossible to distinguish where one stops and the other starts,” the editors signaled the need to do just that (seemingly not only for the reader, but also for themselves).

The publication isolated IA 37 studio technicians for recognition, promotion, and as a topic in which the editors thought other members and cameramen would benefit from learning. Not only was it practical to know the names of technicians working at different studios, the article promised to convey the advances and changes in those departments. The introduction then goes onto to list multiple examples of on-set work in which an IA 37 member’s contributions were both necessary and improved the quality of the scene. “Remember the fog sequences in

244 “RKO’s Camera and Dolly Unit,” *International Photographer* 9, no. 3(April 1937): 9.

245 Lew C. Blix, “Those Fellows in Over-alls...Introduction To a Series on The Work of “Thirty-Seven,”” *International Photographer* 9, no. 3 (April 1937): 22.

‘The Informer,’ the battle scenes in the ‘Big Parade’, the earthquake and fire scenes in San Francisco?” The article then lists a dizzying array of possible scenarios and effects: jungles, rice fields, blizzards, sand storms, and the burning metal of a steel mill, all conjured in Los Angeles. Stationary taxi-cabs are constructed so that “famous cities of the world pass by,” and then there is “the misty halo-like light that distinguished the entertaining skating scenes of Sonja Henie’s initial starring vehicle, “One in a Million.”²⁴⁶ This series of articles would presumably present “detailed and copiously illustrated account[s] of the different departments and achievements,” as intended for “a regular monthly exchange of ideas and news of the field.”²⁴⁷ What on the surface appeared a genuine shift in inter-guild recognition unfortunately belied more malicious intent.

The article and later series on IA 37 penned and promoted by Lew C. Blix, the business representative of Local 37, was, in reality, a promotional cover-up to hide the International head’s extortions. Blix was later called out as the “bag-man” for Bioff, and he admitted backing-up Bioff on many occasions related to strikes and labor concerns knowing full well his superior’s motives.²⁴⁸ That Blix, who had apparently been such a fervent supporter of the working man following the 1933 strikes, would support a mob figure like Bioff is perhaps surprising. But such company also fit Bioff’s unique brand of performed concern for the worker whilst robbing them. As Herb Aller tried to describe in his memoir of the period, *The Extortionists*, “There is something strange about this type of men. Autocratic, selfish and concerned with their own

246 Blix, “Those Fellows,” 24.

247 Blix, “Those Fellows,” 24.

248 Horne, *Class Struggle in Hollywood*.

welfare, the hardship of their past still hovered over their heads and seemed to arouse a sense of indignation for the fellow that worked for a living or had made certain sacrifices.”²⁴⁹ Aller even recounts Bioff praising Karl Marx’s *Das Kapital* as forecasting how, “[w]e’ll be living this way some time in the future.”²⁵⁰ It seems that Bioff and those who served and protected him might have genuinely felt—in spite of their extortions and autocratic behavior—that their leadership ultimately did do good by the everyday worker of the West Coast Studio Locals locals. Even Blix, who oversaw collecting Bioff’s two-percent assessments all those years, believed that the discursive promotion of IA 37 mattered to the workers. Oddly, it is also hard to argue that this attention to lower level studio personnel—meant to assuage and conceal the many grievances, hardships, and fears faced by these same workers—was as shallow as it now might seem in retrospect. The fact is, the articles did what no series of articles had done at the time—they talked about the work, tools, and techniques of these workers.

Merrill F. Hanna’s June 1937 article for the column “Lighting-Sets” details a series of scenarios faced by set lighting electricians and the “highly specialized and exacting” skills they used to solve complicated filmmaking problems. Hanna describes crew rankings, special language, equipment and even safety issues. “Never-ceasing vigilance is the obligation of the studio electrical operators of Local 37, IATSE. From high in the catwalks to kneeling to nurse a spot, operators must be constantly on the alert to protect not only photographic values [but] the lives of the people who work on the set under heavy lighting equipment.”²⁵¹ Hanna suggests

249 Aller, *The Extortionists*, 64.

250 Aller, *The Extortionists*, 68.

251 Merrill F. Hanna, “Lighting-Sets,” *International Photographer* 9, no. 5 (June 1937): 31.

that “Volumes could be written on the circumstances peculiar to each set, each new picture.” An observation that demonstrates the amount of detail available in a single production and the impossibility of fully capturing the work and feel of this craft. Hanna draws our attention to the precision, timing, and sophistication of every single lighting set-up. “It doesn’t sound very simple. Nor was the lighting any simpler than it sounded. Each order was given with the sure knowledge of what results would be obtained. There is no guesswork in set lighting.”²⁵² Such “sure knowledge” was in fact a “mustering of practical knowledge gained only by years of conscientious effort in this specialized field.”²⁵³ Hanna’s circling descriptions around these operations reveal just how much work is not accounted for in the column and how much is left out because there is too much to describe. How does one describe the lighting of a film without describing all the lighting, all the setups, the equipment, the people, the cords, the grids, the rigging, the flags, the reflections, and the diffusions? Per Hanna, to list, to describe, to account for all the work becomes an impossible task that nevertheless he attempts to gesture towards.

Ed Gibbons attempts something more minute and instead focuses on the virtuosic skills of one grip who moved a camera to the beat of a waltz in Paramount’s *Stolen Heaven* (Andrew Stone, 1938):

Another novelty is the use of a “dancing camera.” This required the services of a musically trained “grip” for the movement of the camera. He was found in the person of Darryl Turnmeyer, a “grip” on Paramount’s “backlot” who is a competent pianist by avocation. In the shooting of one scene, Turnmeyer was called upon to change the position of the camera seven times and each time on beat to a portion of a Moskowski waltz danced through a household by Bradna and Raymond. Through this stunt Stone hopes to heighten the audience[’s] sense of rhythm.²⁵⁴

252 Hanna, “Lighting-Sets,” 32.

253 Hanna, “Lighting-Sets,” 31.

254 Ed Gibbons, “Mr. Stone Innovates,” *International Photographer* 10, no. 1 (February 1938): 24.

It is extremely rare for grips to be distinguished in this way. Turnmeyer's hobby of playing the piano is conceptualized as contributing to his embodied rhythm of moving the camera. And, further, it is Turnmeyer's dancing *as a grip* would translate a felt sense of rhythm for the cinema audience.²⁵⁵

Perhaps the best exposure of technicians' style and technique came in a short series on "Grip Equipment," by George M. Haines, IA 37. Haines' articles were not merely a column, but instead a kind of community resourcing and sounding board for a future published collection on grip equipment, skills, first-hand knowledge and practices to be called, "The Studio Technician's Handbook." The series of articles were presented to the *IP* reader as a crowd sourcing for "gathering pictures and information" from all the studios and grip departments. Each month featured a large, labeled photo of specialty grip equipment at each studio, created to fit the particular needs of specific productions on that lot: "Never before in commercial manufacture had there been need for such odd combinations of materials: and consequently most of these gadgets were devised by ingenious technical workers to fit some particular problem, then gradually improved on and developed until they became a part of production routine."²⁵⁶

Haines' project thus was a kind of anthropological mission to document and preserve the materials and accounts of technicians, to produce a shared body of published knowledge that could be circulated across studios as a foundational reference work. Haines, like Hanna before him, signals the enormity of a project designed to capture the knowledge and skills that were

255 Ed Gibbons, "Mr. Stone Innovates,"²⁴.

256 George M. Haines, "Grip Equipment," *International Photographer* 10, no. 6 (July 1938): 14.

internalized in the bodies of workers whose labor was always being assembled, dismantled, and reconfigured. As Haines explains:

After the set lighting arrangement for a particular shot has been worked out by the camera and electrical crew, it then frequently falls upon the grips to undo some of this work with various pieces of equipment used to block off light. However, the undoing always is in the interest of a more artistic finished picture, for in professional motion picture production, often with straight un-corrected light, no matter how excellent the equipment and skillful the arrangement, the result is not perfectly satisfactory. This is particularly the case in those subtle little touches of light and shade that distinguish Hollywood photography.²⁵⁷

In this one utterance “subtle touches of light and shade,” Haines captures the complicated simplicity of grip labor. The technique of grips is very much a project of subtraction and sculpting with the light at their disposal. This “undoing,” as Haines calls it, is as much an aspect of diffusion, shading, reflection, and blocking as it is the material and manual practices of literally undoing the rigs, equipment, and set once they are finished. Haines’ commitment to the project is evidenced in the propitiousness language that he use to describe this archive:

“Unimpressive as they may look when stood up stiffly in a group on exhibition as in the accompanying illustration, these gadgets are extremely valuable to Hollywood production routine. If their use were suddenly forbidden, it is safe to say that artistic motion picture photographer would slide back ten years in quality.” Haines sense that the materials and equipment themselves are bearers of a screen history literally molded by workers is his prime motivation.

Like Thiesen collecting the artifacts of earlier film history to mount as a collection, Haines’ project similarly wants to document the work processes and tools of grip craft, not merely to sell a manual but to preserve and keep track of a history Haines senses may be in

257 George M. Haines, “Grip Equipment,” *International Photographer* 10, no. 6 (July 1938): 14.

danger of disappearing. This becomes clearer across Haines' articles for *IP*. Haines' first installment featured equipment used to block off light, his second image included "equipment used by grips to assist the juicers in their work," and later articles featured specialized and distinct equipment created on the different studio lots by grip departments with Twentieth Century Fox, Paramount, MGM, Universal, and Samuel Goldwyn (Fig. 3.10).



Figure 3.10 Grip artifacts from Haines' International Photographer articles 258

Haines continued to solicit information about individual pieces of equipment, including its “correct technical name; slang names used at various studios; size and other minimum specifications; brief descriptions clearly defining the use of each item in studio production.”²⁵⁹

Alongside images of equipment, individual members of studio grip departments were prominently featured next to their designs and with captions stating their years of service to that lot.²⁶⁰ Looking at this equipment now, I am most struck by the range, creativity, and often idiosyncratic uses for these devices. Seeing them collected in this way prompts one to go beyond the descriptions in order to imagine them in use. How and in what ways would these various pieces of grip equipment be mapped out in the shooting of an actual scene? What arrangement of all this wood and metal would produce the desired stylistic effects, and what degrees of troubleshooting and finessing would produce those very nuanced elements of Hollywood style to which Haines clings so closely?

If, as Haines wrote, it is indeed all these “little things” that make up the aesthetic of the film, then what would it mean to take these various apparatus and their workers and techniques seriously? One possible route would be in imagining diagrams of existing shots that included the placement, adjustments, and timing of equipment paired with the shot itself as duration (what stylistic elements are brought in or out, and how did the workers come to these decisions?). Certainly, Haines had such diagrams in mind, and it is actually a terrible loss that the long advertised *Studio Mechanic's Handbook* was never published and that Haines' amassed

259 George M. Haines, “Grip Equipment,” *International Photographer* 10, no. 7 (August 1938): 15.

260 George M. Haines, “Paramount Grip Equipment,” *International Photographer* 11, no. 3 (April 1939): 12.

collection is seemingly only preserved in the pages of *IP*. Unlike other charts, such diagrams could have only been based on memory or perhaps recorded by Haines in brief case studies, as records of such quick, moving parts would have been of little practical use during that period. In asking questions about grip's contributions to the subtle aspects of light and shadow that would come to define Hollywood style during the period, such diagrams and an ability to map back these various grip technologies and techniques could be immensely useful. For as Haines bemoaned, "It is one thing to vision an effective sequences, another to get that dramatic idea 'in the can.'"²⁶¹ Haines' articles and project to record this history of workers and their equipment gets us a little closer to understanding what it might have looked and felt like to get it "in the can," and yet the incompleteness of Haines project and the fact that his articles disappear without mention after a Goldwyn write-up in the September 1939 issue perhaps speaks to the more insidious underpinnings of a union leadership losing control.

While a highly mediated account of grip work, the representations of such work in the pages of *IP* during the late 1930s gave space and priority (even if misguided and tainted) to the voices, bodies, knowledge, and tools of workers. That these articles by Haines, Gibbons, Hanna, and Blix are still some of the only accounts we have from IA 37 workers about their craft is telling of the local's fraught and divisive history. Yet, had Blix not insisted on this promotional series, it is perhaps unlikely we would have the series at all. The articles, at first glance, seem like an antidote to missing narratives about style, technique, craft, and studio work during the Browne and Bioff era. As with any question of craft style, the workers and their work are intricately and inescapably tied to a larger history.

²⁶¹ George M. Haines, "Grip Equipment," *International Photographer* 11, no. 4 (May 1939): 14.

3.10 THE IA PROGRESSIVES

Browne's and Bioff's reign was not met with full complicity by the rank-and-file. Splinter groups in the IA and other unions fought off union-producer corruption and cooperated with local workers to demand better pay, working conditions, and safety standards. Much has been written about labor groups like the IA Progressives, the Confederate Studio Union (CSU), and the Studio Utility Employees (SUE) and their relations to the post-war red scare and the Hollywood Ten. Mike Nielsen's *Hollywood's Other Blacklist*, co-authored with former IA 37 Progressive and prop-maker Gene Mailes, provides a heart-breaking, first-hand account of how IA's corruption ruined the lives of many studio technicians and how Browne's and Bioff's mob tactics threatened, humiliated, and sought to destroy the very IA 37 members (like Irv Hentschel and Jeff Kibre) trying to make a union willing to take care of its own workers.

Gene Horne's *Class Struggle in Hollywood: 1930-1950* similarly tracks the perception of these progressive union movements within the studio system, and each group's purported affiliations with the Communist Party and various worker's movements of the 1930s. Both Nielsen and Horne cite and respond to earlier works about these groups, such as Murray Ross's *Stars and Strikes: Unionization of Hollywood* (1941) and Larry Ceplair's and Steve Englund's *Inquisition in Hollywood* (1980). I do not go as deeply into these various groups as sites of resistance because the rich and full histories of these groups is covered in much greater detail in the works cited above, and because many of these groups seemingly did not include as significant numbers of grips and electricians, as these departments were considered less

specialized and thus subject to greater mob infiltration. Nevertheless, a few moments of this history are worth highlighting. The Federate Motion Picture Crafts (FMPC), overseen by SUE, organized many manual laborers outside the jurisdiction of other unions. As Nielsen describes, “they were among the hardest working and lowest paid of all wage earners in the film production industry” at 62 cents an hour, no clear work start and end dates, and no overtime.²⁶² Not one to miss any opportunity to control workforces, Bioff quickly set up a raid on SUE. Per Nielsen, Bioff began by

[o]ffering SUE members “Class B” grip memberships and guaranteeing them an increase from 62 cents per hour to 82 cents per hour. As FMPC workers were leaving lots, Bioff’s men offered them free IA cards. Several workers accepted the cards, but the vast majority of SUE and Painters members walked out and stayed out for several weeks. A de facto expansion of IA’s jurisdiction.²⁶³

Workers who walked out were easily and swiftly replaced by Bioff’s quick recourse to IA 37 members and his special reserves of lot checkers. Much of Browne’s and Bioff’s core support came from IA 37’s electricians, grips, and stagehands either from fear of being blacklisted or because they were direct Nitti connections. Absent any stable roster of members from the first signing of the SBA, through the 1933 strikes, IA’s take-over in 1935, and the strikes of 1937, it is difficult to know the many thousands of workers who circulated in and out of grip, electric, and prop work during these chaotic change-ups. Both Nielsen’s and Hartsough’s accounts make it clear that Bioff placed the largest group of his direct supporters in charge of the grip and electric areas of IA 37. It seems, based on the placement and reorganization of workers, that Bioff and Browne did not distinguish this craft work as anything more than manual labor loosely tied to certain tasks on set. This ignorance and apathy drew grievances from many progressives

²⁶² Nielsen and Mailes, *Hollywood's Other Blacklist*, 26

²⁶³ Nielsen and Mailes, *Hollywood's Other Blacklist*, 26

in the ranks regarding how these unskilled replacements affected the safety and quality of their work.

On April 20, 1937, a two-percent levy on workers by studio heads (in addition to the two-percent assessment for IA workers from the union) led to a two-month strike that ended on June 10th, 1937. As IA 37's Irv Hentschel of IA Progressives explained to Harry Bridges, then leader of the longshoreman's union, "the recent strike having further exposed the racketeering and complete domination of our local by our officials, had made the rank and file more determined to find the solution to their difficulties."²⁶⁴ During this two-month strike period, Kibre and other IA progressives sought legal pathways for the restoration of local autonomy. Through the LA Central Council, who passed a resolution calling IATSE "a company union and a scab-herding agency," Kibre and others could garner the attention of attorney Carey McWilliams who urged the California State Assembly to call for a hearing on the IA's involvement in labor racketeering.²⁶⁵

Combined with the strikes, the news of the hearing frightened and excited many IA workers and put several splinter groups on alert that now was the time to act. SUE members voted to work for seventy-five center per hour, but with an open, nonunion shop, and they filed for SUE 724 to be granted jurisdiction over all studio laborers, hoping to block IA while the union was weak.²⁶⁶ Meanwhile, IA 659 camera operators filed with the NLRB to represent all

264 Nielsen and Mailes, *Hollywood's Other Blacklist*, 27

265 See: Horne, *Class Struggle in Hollywood*, 49.; Nielsen and Mailes, *Hollywood's Other Blacklist*, 35-36.

266 Nielsen and Mailes, *Hollywood's Other Blacklist*, 27, 52.

photographic employees including those already under contract with the ASC.²⁶⁷ For the moment, and to reduce suspicion on Bioff, Browne temporarily restored autonomy to the West Coast Studio Locals in October 1937 and placed Harold V. Smith and Harland Holmden in charge of the west coast offices.

Following Browne's and Bioff's payoffs to investigators Williams Jones and William Nesbit to squash the assembly inquiry, Browne re-instated at state of emergency in the studio locals and refused local autonomy, but called off the two-percent assessment. Sensing that the reprieve of a failed assembly investigation was only temporary, in the early months of 1938 Browne officially removed Bioff at Nitti's request. At the discovery of a \$100,000 check made out to Bioff from Nicholas Schenk (the evidence that would break open their extortion scandal for good), Browne once again restored autonomy to the locals. Meanwhile, studio producers had already begun cutting down the number of productions for the new year in response to that economic recession of 1938.

The reduced production schedule caused a jump in studio unemployment. Jeff Kibre and Herb Sorrell (of Painters Local 644) organized the Studio Unemployment Conference in January 27, 1938, to offer solutions for the 95 percent unemployment crisis.²⁶⁸ With an absent Bioff, and a distracted IATSE, the IA Progressives continued to push for a local autonomy at a series of meetings and elections. These campaigns were quickly marred by manipulated votes, false promises, and fear tactics. As Jeff Kibre recalls,

Before the meetings intimidation through gang bosses and shop foreman against a vote for autonomy was flagrantly practiced. In the largest organization, Local 37, no free discussion from the floor on the question was permitted. The main issue was so put as to

267 Nielsen and Mailes *Hollywood's Other Blacklist*, 52

268 Nielsen and Mailes *Hollywood's Other Blacklist*, 37-38.

impress the members that a vote for Home Rule would result in the withdrawal of International assistance breaking of present contracts, and the establishment of open shop conditions. Finally, a standing vote, instead of a secret ballot, was utilized.²⁶⁹

Reading a letter composed by Kibre of the IA 37 Progressives, Irv Hentschel presented a resolution of IA Progressives' demands at the 34th IA convention in Cleveland that June. Kibre's letter and Hentschel's testimony—given in front of a tyrannical IA board and an equally hostile audience—outlined the various damages the IA international leaders had inflicted on the West Coast Studio Locals, specifically IA 37.

In addition to workers' lack of a voice and participation in the IA that had resulted in agreements being signed that failed to, "take into account the problems of the industry, and [. . .] permitted a progressive deterioration of working conditions," Kibre's letter also cited the "absence of proper examination to determine qualifications of hundreds of new members."²⁷⁰ These new members, composed of Browne and Bioff's henchmen and anyone else on whom they could force a card to increase workforce control and profits. The result, as Kibre bemoaned, was not only that these workers were unqualified for the tasks they would need to perform on set, but their lack of expertise and experience potentially endangered the safety and lives of everyone on set. And safety was the least of IA's concerns, as Kibre noted, "Agreements now in force have been violated with impunity by the employers. Such destructive conditions as the "stretch-out" and "speedup" have been sharply intensified in the last few months; and because of this, together with the relaxation of safety precautions generally, accidents to members have become an almost daily occurrence."²⁷¹ Kibre's laundry list of the progressives' grievances about the

269 IATSE, *Combined Convention Proceedings*, Vol. 2, 337.

270 IATSE, *Combined Convention Proceedings* 337.

271 IATSE, *Combined Convention Proceedings*, 337.

assessments, on-set safety, secret ballots, lack of autonomy, and rampant unemployment (40 to 50 percent of the membership), also drew attention to a shocking trend, “Average annual wages, steadily declining since 1929, continued to fall in 1935 and 1937 in spite of hourly rate increases. Craftsmen who were averaging over \$2400 in 1929 earned an average wage of less than \$1500 in 1937. The average for 1937 declined approximately \$100 under that of 1935 despite the fact that this particular year, the profits of the five major employers [...] was considered the best since the depression.”²⁷² Grips, electricians, and propmakers often earned even less, averaging between \$1215 and \$1738 in 1938.²⁷³ Although studio workers then and now often earn higher than average hourly rates, their work was both unpredictable and highly seasonal, with larger payrolls during the spring and summer months, and small payrolls during the fall and winter. As Nielsen suggests, the rank-and-file’s “high degree of apathy” over years of mob rule and the history of jurisdictional shake ups may have left rank and file workers frustrated about the conditions outlined IA Progressives; yet, they were unlikely to complain for the fear of losing current or future work.²⁷⁴ Coupled with this indifference and docility, the IA helped scare people away from progressive change by labeling progressives “the 37 white rats” or, even worse, “Communists!”²⁷⁵

²⁷² IATSE, *Combined Convention Proceedings* 337.

²⁷³ Horne, *Class Struggle in Hollywood*, 50.

²⁷⁴ Nielsen and Mailes, *Hollywood's Other Blacklist*, 38.

²⁷⁵ Nielsen and Mailes, *Hollywood's Other Blacklist*, 27.

3.11 UNION ORAL HISTORIES: WORKER'S ANECDOTES AND THE FAILURE TO PERFORM POLITICS

It can be difficult to sync-up the union history of this time as told by Nielsen, Mailes, Horne, Hartsough, and others with the day-to-day activities of craft workers. While the mood of economic stability and political threat was real, studio workers still had to keep going about their work. That little of this is captured within standard union histories is not surprising given the later periods in which they were written. What perhaps is surprising is how little accounting we have from this period by the same people who were interviewed for histories on the unions. Even the most complicated and nuanced of union histories take at face value the claims of producers, unions leaders, and even workers that the so-called “common” labor of grips, electricians, and propmen was understandably less vital than other crafts. As a result, the attention paid in these histories to the work, craft, style, skill, physical requirements, technical expertise, embodied knowledge, and the institutional memory of day-to-day gripping, electrical work, and prop construction is relegated once-more to the shadows of film history. As Nielsen bemoaned about his oral history fieldwork in the introduction to his dissertation:

I discovered that, first of all, the men I was interviewing really could not provide a very complete picture of working conditions in the studios. They could provide *wonderful anecdotes* that provided a certain amount of *depth and feeling* to the dry, chronological tale of labor relations in Hollywood. But these anecdotes could hardly be fused into the genuine “worker’s history” that I had originally intended to write. The typical craft workers *were too busy doing their jobs* to have an overview of how their work fit into the complex division of labor in the Hollywood studio system. [emphasis my own].²⁷⁶

It is not unusual for labor histories or even histories of style to dismiss the ability of anecdotes to do the significant work of narrativizing progress or chance. In this way, anecdotes become

²⁷⁶ Nielsen, *Motion Picture Craft*, 2.

aberrance, or a “getting in the way” of the history. In treating anecdotes this way, Nielsen fails to recognize in what ways “depth and feeling” are not mere spices used to liven an otherwise “dry, chronological tale,” but are valuable in and of themselves. That Nielsen so easily downplays the day-to-day anecdotes of workers who were “too busy doing their jobs” in favor of a more substantive documentation of working conditions illustrates what was considered valuable during a certain moment of revisionist film history in the 1980s. In correspondence with a supposed NYU researcher, Dan Biederman, during the same period, Nielsen writes, “[Biederman] noted in a letter to me that the craft workers he interviewed ‘could not see the forest for the trees.’”²⁷⁷ Later, Nielsen added that in his own oral history work he “found it very difficult to really discover the way these [interviewees] felt about their jobs beyond their comments expressing positive feelings about their daily work routines and negative feelings about the absence of jobs security. The very nature of the information I was seeking and status of my informants as lower-echelon workers made the task very difficult.”²⁷⁸ Nielsen’s frustration that his interview transcriptions extracted only “feelings” about the work and not information about topics securely in the domain of union concerns is doubly signaled by his resignation that these “lower-echelon workers” may not have had the capacity or desire to account for anything beyond their “feelings.”

Histories of workers must take seriously those “feelings,” despite their inability to provide sufficient evidence for a scholar’s political or scholarly goals. That an oral history composed of “anecdotes” could not be mounted as “evidence” as neatly as quantifiable data,

²⁷⁷ Nielsen, *Motion Picture Craft*, 2.

²⁷⁸ Nielsen, *Motion Picture Craft*, 2.

trade articles, or IATSE convention records tells us a great deal about what did and did not matter and in these otherwise thoroughly researched labor histories.²⁷⁹ Echoing Biederman's concern that workers failed to see the forest for the trees, I want, as best as possible, to present the forest AND the trees, the history and the feelings, the work and the working conditions under which they were produced. Only in doing so can we have a more *lived* understanding of day-to-day working life in the studios in matters of economic realities and workers' contributions within oppressive industrial regimes.

It is not uncommon for union and labor histories to favor accounts of labor disputes and the mounting of grievances over experiential and affective remembrances of craft production. Examining such accounts allows scholars to explore the ways in which exploitation threatens worker's safety and well-being as well as workers' sense of their work. Only by listening to the full, dynamic articulations of workers can we appreciate what neither an aesthetic account nor a standard labor history can do alone.

I have tried and failed to contact Nielsen to ascertain the status of these now thirty-five-year-old oral histories. I have tried and failed to find information about a Dan Biederman in hopes of asking him about his oral history research. Other oral histories or biographical sketches that are commonly cited in this period include testimony from 659 business representative Hebert Aller, operating cameraman Lothrop Worth, Jeff Kibre's papers, Gene Mailes' accounts in his co-authored book with Nielsen, and Father George Dunne's pamphlet *Hollywood Labor*

²⁷⁹ It's likely clear that Nielsen sensed this too, as the project that would later develop out of individual chapters of his dissertation would be co-authored a decade later with a former IATSE worker, Gene Mailes, a studio propmaker. In this account *Hollywood's Other Blacklist*, Mailes first account insights and feelings read back and forth and alongside Nielsen's historical account of the 1930s and 1940s.

Dispute: A Study in Immorality that became a touchstone text in condemning the tactics of IA and the producers in their jurisdictional battles with the CSU. All of these accounts focus primarily, if not exclusively, on the various labor disputes, mob extortions, and strikes of the late 1930s and early 1940s. Even during Nielsen's dissertation case-study work, he mentions how difficult it was to find and talk to grips and electricians from the period, given how rare it was for someone to work consistently in those positions during the era.

Certainly, even now, there are very few oral histories or interviews with grips or lower-rank (non-gaffer) electricians. Media industries research and popular press books on the topic of filmmaking are making these interviews more available than before, but most of these technicians were not alive during the period of this study. I initially came close to finding an oral history of the period in interviews solicited from the sons of grips and electricians who had worked in the 30s and 40s, but these gave little insight into the experience of their fathers.²⁸⁰

One of the most useful, if albeit sparse accounts can be found in Sylvia Shorris 1994 book *Talking Pictures with the People Who Made Them* which contains numerous interviews with 1920s to 1940s studio personnel, interviewed in the 1980s. As Shorris reflects:

We interviewed all kinds of people who had worked behind the scenes, from producers and directors to grips and gaffers. Theoretically if not actually, most of them had nothing to do with the content of the film, but they had everything to do with its form and technology. By assimilating their stories we began to realize how technology, form, and content are perhaps less separated and deeply integrated in film than in any other art form.²⁸¹

280 For profiles of three key grips (Carl Manoogian, Tommy May, and Gaylin Schultz) and a gaffer (Earl Gilbert) working from the late 1940s into the 1970s, see: James C. Udel, *The Film Crew of Hollywood: Profiles of Grips, Cinematographers, Designers, a Gaffer, a Stuntman, and a Makeup Artist* (Jefferson, NC: McFarland & Co, 2014).

281 Sylvia Shorris and Marion Abbott Bundy, *Talking Pictures: With the People Who Made Them* (New York: New Press, 1994).

Shorris' approach, albeit romanticized as capturing the magic of golden age Hollywood, nonetheless takes seriously the ways in which everyday workers were “both participants and witnesses” to a critical moment in the history of film style and technology. Shorris’ short profile of Jim Noblitt, a grip who came to California in the late 1920s, focuses on his job description and examples of his work on set.²⁸² Her interview with Noblitt and his personal history are expanded in the Shorris’ interviews transcriptions that are cataloged with her papers at the Margaret Herrick Library.

Noblitt’s account details the range of equipment and technology over time, the number of workers needed depending on the shoot, and the exhaustion of the worker: “On location you’re up earlier, and you go to bed earlier because you’re so tired. In those days you worked in the sand and the dirt. The equipment was heavy, and you didn’t have near the help on location that you had at the studio...Out on location you carried it all. It was very tiresome.”²⁸³ Noblitt describes starting at Paramount, his preferred studio, in 1928 at seventy-five cents an hour to work. “The studios were all different. Fox was entirely different from Warner Brothers. I think people were more taskmasters at Fox than at Warners. They were more lenient at Warners. There were not as many people walking around to report you.”²⁸⁴ Ed Rike, a gaffer interviewed by

282 From an interview June 30, 1984, Noblitt is cited through Nielsen dissertation, *Motion Picture Craft*, 253n.46

283 Shorris, *Talking Pictures*, 148.

284 “Sylvia Shorris Interview Jim Noblitt,” 13, September 1985, Sylvia Shorris Papers, Margaret Herrick Library.

Shorris, similarly described a Warners lot that “had more help than the other studios, and that made working their easier. There were always plenty of men on the crews.”²⁸⁵

Noblitt’s interview goes into great detail about his time as the Local 80 business representative and various production protocols. Noblitt notes that grips must have strength, attention, and listening skills. “You have to be quick to learn, and you have to obey the rules. I don’t think anyone ever learns from anyone else...you just have to pick it up. The man you’re working alongside of, he’ll help you quite a bit. The grips will always say, “Find out for yourself.” But I never found anyone selfish with information.”²⁸⁶ Noblitt in his interview with Shorris (and apparently with Nielsen) described a delicate balance of needing to make good with both the department heads at various studios and the “call steward at the union.” Laurie Caroline Pintar, referred to this degree of deferential behavior by studios workers, citing a Nielsen interview with Noblitt as evidence of the union and studios “emasculating” force. “As studio grip Jim Noblitt stated, people with families had to learn quickly ‘whose ass to kiss’ to be able to keep working.”²⁸⁷ Perhaps one of the lucky ones, Noblitt also learned to keep up the right acquaintances with department heads who could help put him back to work or give him consistent work amidst layoffs and unions disputes. Sometimes this meant serving as a grip one week and doing set construction with the carpenters the next. Through these sparse oral histories, we have a better sense of how individual craftspeople found ways to navigate the precarious and uncertain terrain of union representation and studio politics to keep work flowing, even during

285 Shorris, *Talking Pictures* 151.

286 Shorris, “Sylvia Shorris Interview Jim Noblitt,” 14,

287 Laurie Caroline Pintar, “Herbert K. Sorrell as the Grade-B Hero: Militancy and Masculinity in the Studios,” *Labor History* 37, no. 3 (1996): 392.

the most turbulent of times. Certainly part of that equation did mean “kissing ass,” ‘looking the part’ by finding ways to “keep yourself clean,” even in overalls, and, most importantly, staying out of the more progressive union campaigns.

3.12 BROWNE AND BIOFF’S DOWNFALL AND THE IA 37 SPLIT

By 1939, the Progressives were growing in number and appealing to a wider constituency of the West Coast Studio Locals (as Nielsen explains, thanks to their role in lifting the two-percent assessment), and they had the support of Herb Sorrel’s Painter’s local.²⁸⁸ Employment was back on the rise, and sensing another Progressive call for autonomy, Browne called another “state of emergency” and moved to divide IA37 studio technicians into five distinct locals in May, 1939. While the Progressives had called for a similar division of craft authority within the strength of 37 the year before, Browne’s intent was to weaken the vigor of the Progressive’s call for autonomy and insure that all leaders of the new locals would directly report to and defend the International line. The five newly established locals included: 44-propmakers, 80-grips, 165-studio projectionists, 727-utility workers, and 728-electricians.

The most susceptible to strong-arming were locals 80 and 728. The Motion Picture Studio Grips, local 80, were governed by a new Browne appointed board that included Robert Fleming (President), W.C. Barrett (Vice-President), W. Holbrook (Secretary), W.C. Thomson (Secretary), Owen Crompton (business rep) and Augie Keller (sergeant at arms).²⁸⁹ Sensing

²⁸⁸ Nielsen and Mailes, *Hollywood's Other Blacklist*, 53

²⁸⁹ *Variety*, 21 June, 1939, f.

their inability to organize in this new structure, the IA Progressives broke away from the IA to form the United Studio Technicians Guild, backed by the CIO, and “under the leadership of ‘long-time gaffer at Columbia Studios’ Howard Robertson.”²⁹⁰ In August of 1939, the United Studio Technicians Guild requested an election through the NLRB to rule on who might organize studio workers, the IA or the USTG. The vote was 4,460 for IA and 1,967 for USTG, thanks in part to a promise from Bioff and Browne for a ten-percent wage increase and a closed shop. The aftermath, according to Nielsen, resulted in the blacklisting of “known USTG supporters,” many of whom “never again found work in the studios.”²⁹¹

Not until the early months of 1940, was the full extent of Bioff’s and Browne’s criminal activities and penetration of IA publically exposed. In February, charges of income tax evasion were filed against Bioff, and the trail of Browne’s and his payoffs finally revealed. In a desperate last-gasp attempt to conceal their activities, Browne launched a publicity campaign in the pages of the IA 35th Convention proceedings and mounted a spirited defense of IA leadership at the convention meetings. By 1941, board member Richard Walsh had replaced Browne as President even though Walsh (and other top IA officials) had directly benefitted from the small payouts they garnered from the two-percent assessments. Walsh continued the tradition of placing previous Browne and Bioff henchman into places of power within the studio locals, including assigning Cappy Du Val (once put in charge of collecting the two-percent assessment) to the head of local 44. If rank-and-file workers wanted a substantial overhaul of IA corruption after the removal, indictments, and later convictions of Bioff and Browne in 1941, they were sorely

290 Nielsen and Mailes, *Hollywood's Other Blacklist*, 57.

291 Nielsen and Mailes, *Hollywood's Other Blacklist*, 62.

disappointed. While no longer directly connected to the Chicago Nitti Gang and Capone Syndicate, the IA continued using many of the same anti-worker, pro-producer strategies to control workers for another decade. In 1942, studio locals, the IA, and the producers finally negotiated a two-year agreement with new provisions for working conditions, a wage increase of twelve to fifteen percent over the next two years, but once again a surrender of local union autonomy.

3.13 POST WWII JURISDICTIONAL DISPUTES

Labor and jurisdictional disputes came to a halt for the duration of World War II. The war and the National War Labor Board and War Labor Disputes Act essentially took over the power of the NLRB to handle labor disputes, wages, and union benefits and effectively refused to consider cases that might threaten war production. The resurgence of renewed labor activity after the war in 1945, coupled with the beginnings of the Hollywood blacklist investigations by Martin Dies (initially invited to Hollywood by Browne in 1940) resulted in further violent union disputes across the industry for the next few years. Although the protracted Warner Bros strikes and the “bloody Friday” riot that erupted between Herb Sorrel’s CSU and the studio are the most memorable events of the period, ongoing jurisdictional disputes around set-building, woodworking, and props continued, strongly fueled by IATSE head Walsh who worked with the producers to challenge Bill Hutcherson of the Carpenters. The jurisdictional disputes during these few years would determine the craft boundaries of grip workers for decades to follow.

The jurisdictional contestation often revolved around one material, wood, and who had the authority to use it on set. As B.B. Kahane, a vice president at Columbia, explained, “the motion-picture studios cannot operate on an assembly-line basis. Each set, each mechanical or other device designed to produce an illusion, presents a separate problem. While it is possible to prepare general formulas for allocation of work, the application of those formulas to specific operations presents a continuous series of problems, many of which will never again recur.”²⁹² For every film, every day, every scene, and every set-up a potential jurisdictional issue lurked around the corner. While often these disputes could revolve around who touched what and when, some disputes circulated around the tools and equipment used or the materials that might be required to do a job.

That wood was crucial for both grips and carpenters meant their jurisdictional claims at any one moment were constantly shifting. As Horne explains, “each aspect of production,” intrinsically contributes to both conceptual and physical “shades of meaning,” and he stressed how “the importance of these ‘shades of meaning’ heightened the shades of jurisdictional distinction that existed between and among unions.”²⁹³ In many ways, wood had always been an item of dispute since the 1920s, but the turmoil of the 1930s had discouraged many from pursuing these disputes over tools and materials. Carpenters had overseen the construction of sets, while one of the grips’ many duties involved putting those sets into place and breaking them down. The rationale for grip’s duties as set movers was the set’s relationship to light, shade, and

²⁹² *Jurisdictional Disputes in the Motion-Picture Industry*, 6.

²⁹³ Horne, *Class Struggle in Hollywood*, 34

shadow and the placement and movement of the camera. Grips needed to be able to move walls to accommodate a flag or filter, build a platform for the camera and assistants, and negotiate room for a dolly or crane. That this complicated work needed to be choreographed and communicated, not only between the grips and rigging crews, but also to the electricians, camera assistants, and propmakers, was bound to cause disputes. The various moving parts of studio sets required efficiently maneuvering a lot of equipment, heavy machinery, and people around, and this helps explain why grips were in some ways “unofficially in charge” of safety, long before it became a more established part of their job description.

3.14 EVIDENCING THE WORKER IN BEHIND-THE-SCENES PHOTOGRAPHS

On March 1, 1945 Hutcheson (Carpenters) met with Walsh (IA) and the producer’s labor rep, Pat Casey to settle jurisdictional disputes between the Carpenters and IATSE. But, as Horne explains it, “During the meeting a vexatious issue arose that would lead directly to the 1946 lockout: Hutcheson and Walsh clashed over the issue of set erectors and the carpenters’ fervent desire to control all moviemaking jobs that involved the use of wood.”²⁹⁴ Casey suggested that the two more closely examine the work itself and agreed to meet and examine “hundreds of photographs of movie sets spread before them.”²⁹⁵ Although the meeting ended in further dispute and a failed settlement, with Hutcheson demanding “sovereignty over all wood—even the

294 Horne, *Class Struggle in Hollywood*, 159.

295 Horne, *Class Struggle in Hollywood*, 59.

microphone,” the investigative activity of deciding jurisdictional lines based on behind-the-scenes photos is telling. It is hard to say where these exact “hundreds of photos” may be collected now (if they were saved at all), but because their mass and specificity provided enough evidence of work and workers (albeit mediated through still photography), they may be a place for later historians to look more closely. Were these on-set photos produced explicitly for this purpose? Or, were they culled from still collections at the studios? That a later jurisdictional inquiry might have made use of photos originally intended for a range of production uses (continuity, promotion, studio records, etc.) offers an additional perspective on how we might inspect behind-the-scenes still photography.

Behind-the-scenes photography of workers and sets is nearly as old as the history of filmmaking. Its growth during the rise of the studio system demarcated an expansion of its utility. For one, BTS photos offered studios and production personnel a way to keep better records for maintaining continuity and documenting set construction. Such files could be referenced by future crews working on similar films or by an editor, the camera department, or script supervisor to compare continuity where notes and camera charts did not provide enough insight. BTS photos could also be used to promote the industry, and they were a valuable way to utilize still photographers’ time when not documenting the stars or shooting scenes for publicity stills. *IP* even began offering cash rewards for BTS photos from still photographers in the IA ranks to encourage the circulation of more images depicting the men and crews “beyond the frame.” The “Cream O’ the Stills’ insert in the first four years of *IP*, from 1929 to 1933, feature portrait stills, landscape stills, and travel stills, but also often prominently included BTS photos. In the first years, evocative and “unusual” silhouette images of crews working at night were extremely popular subjects (Fig. 3.11-3.12)



Figure 3.11 James Manett, “Cream O’ the Stills,” *International Photographer* (January 1930)²⁹⁶



Figure 3.12 Otto Beninger, “Cream O’ The Stills,” *International Photographer* (February 1930)²⁹⁷

296 Digitized Scan Courtesy of the Media History Digital Library

297 Digitized Scan Courtesy of the Media History Digital Library

Platforms, lights, crews and cranes silhouetted by their own bright Klieg lights emphasized the expanse of the shooting crew and equipment, and made the entire filmmaking process appear both magical and otherworldly. Aestheticizing craft in this way, rather than revealing the false construction of reality that producers were concerned about in the Gordons' illustrations, contributed to the cultural imaginary of Hollywood as dream factory. While these stills were evocative representations of set life, they did little to communicate the details of work or the identities of workers (save for the loose outlines of capped heads and slouched bodies next to cameras). Other genres emerged in BTS photography in the "Cream O' the Stills" insert, including wide shots of the entire sound stage from above and low-angled, vertical framings that included the crew on the ground and the catwalks above (Fig. 3.13-3.14). Reminiscent of the fan magazines that waxed poetic about the grips and juicers looking down on the stars from above or from out of the shadows, these shots also help mark the range of crew members and the stratification of different kinds of jobs. Full set stills also offer a primer in set-lighting, flagging, microphone placements, and set constructions. The workers of different ranks are easy to spot by their proximity to their tools, and the actors by their clothing (the grips and juicers are identifiable by their gloves, caps, shirts, and iconic overalls). Longworth's photo is especially remarkable as an exercise in perspective, not just to see all the equipment and personnel on the set, but to imagine the set from the juicer's perspective.

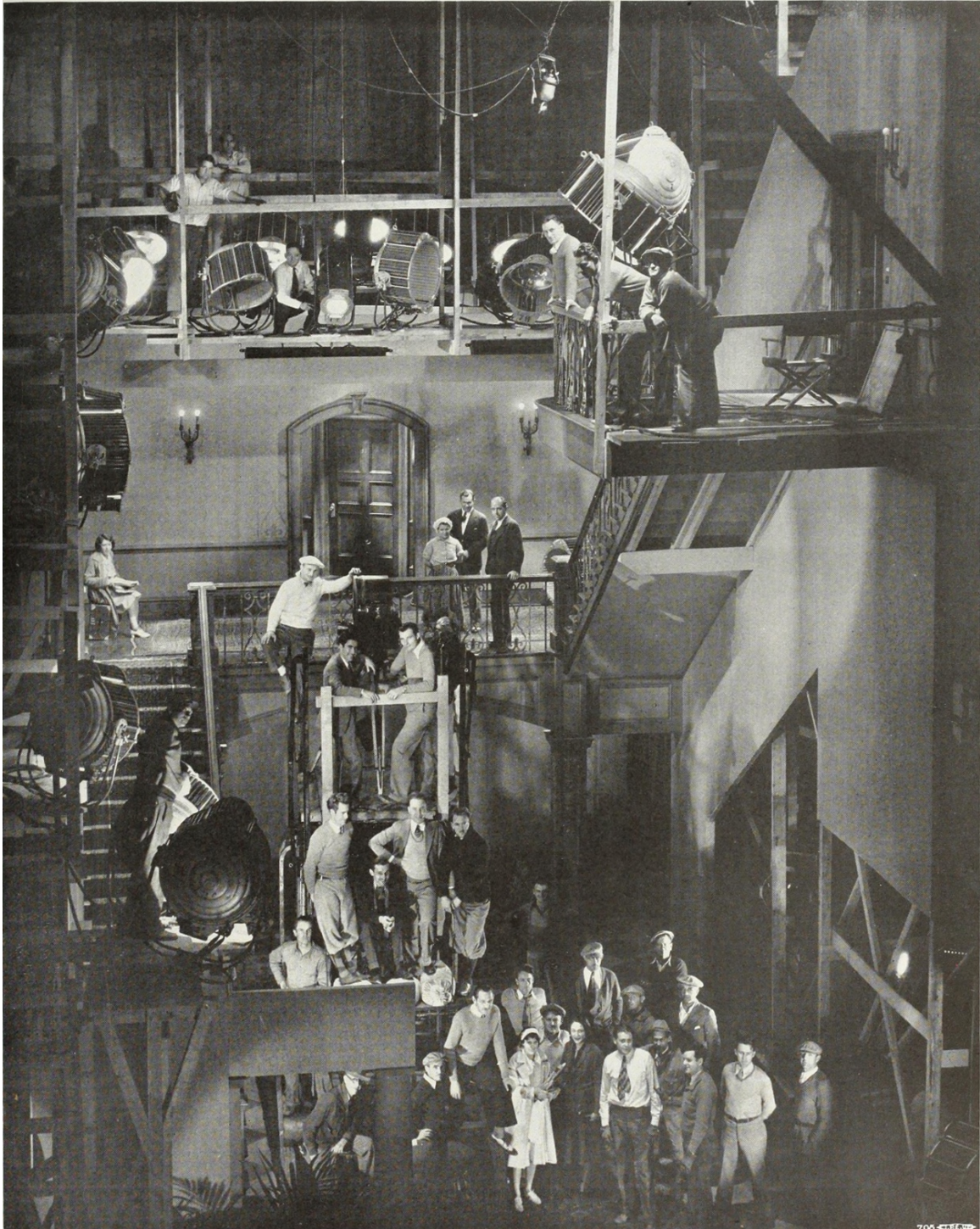


Figure 3.13 Robert W. Coburn, still from unnamed RKO set, "Cream O' the Stills," *International*

Photographer (February 1932)²⁹⁸

298 Digitized Scan Courtesy of the Media History Digital Library



Figure 3.14 Bert Longworth, “As the Electrician Sees It” from *Bridge of the Regiment*, “Cream O’

the Stills,” *International Photographer* (April 1932)²⁹⁹

299 Digitized Scan Courtesy of the Media History Digital Library

Longworth's still photography and several photo-collage layouts featured elsewhere in the pages of *IP* often focused on the topic of specialized craft labor. This nod to the technician also appears in Longworth's still photos of set rigging and lighting without the presence of workers (Fig. 3.16-3.17). For Longworth's still of *The King's Vacation* set, the photographer compares the scene to Broadway in the early morning before the hum of work begins. To emphasize Longworth's illumination of a studio set transformed into an exterior using light and set design, I have slightly adjusted the brightness of the top and bottom of the image to "expose" even more of the ground cords and lighting grid contained in the source image. These pauses on the set without workers also allows the viewer to see the technology and placement of apparatuses, as well as observe the protocols and structures of on-set work, including the curling of cords on lights, the sandbags atop cords on the ground, and the treacherous catwalks (*sans* railings) that allow electricians and grips to move and adjust the lights.

BTS photos within *IP* featuring crews rarely name anyone outside of the camera operator and assistants, even when the tool or technique requires the skill of a grip or a juicer. Take for example Art Marion's photograph of Majestic Picture's new dolly (Fig. 3.15)

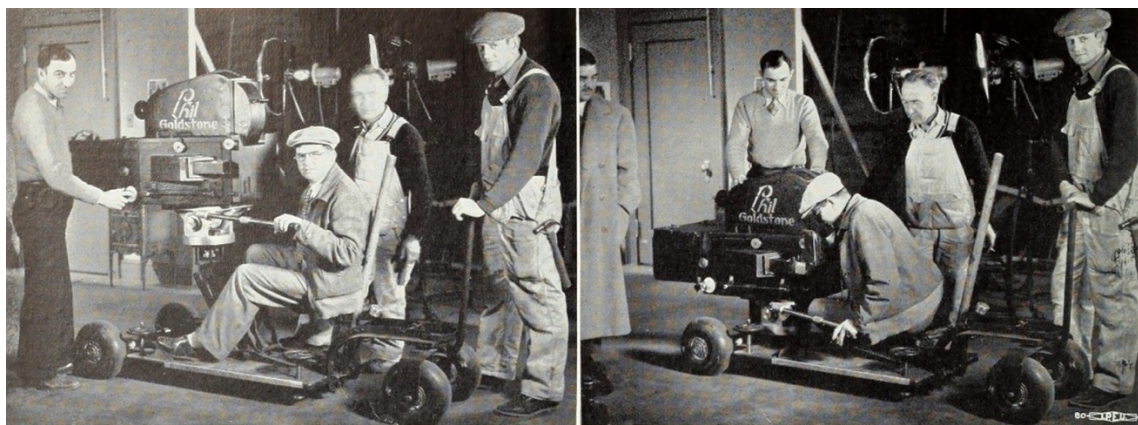


Figure 3.15 Art Marion, "New Dolly Majestic Pictures," *International Photographer* (March 1933) ³⁰⁰



Figure 3.16 Bert Longworth, "First National - The King's Vacation," *International Photographer* (February 1933)³⁰¹

Figure 3.17 Bert Longworth, "An Exterior Interior - Lights Above and Coils Below," *International Photographer* (October 1932), edited³⁰²

301 Digitized Scan Courtesy of the Media History Digital Library

302 Original Digitized Scan Courtesy of the Media History Digital Library

Ira Morgan, cameraman, and his assistant Harry Walsh touch the camera and demonstrate the new dolly's boom function, while two unnamed grips in overalls stand next to the dolly ready to push. The limited availability of below-the-line technician credits for individual films during the period, combined with a failure to label depictions of electricians and grips in BTS photos makes it difficult for historians to adequately re-inscribe their labor back into the productions on which they worked. Part of this project reflects upon the failures of such recovery projects by thinking through and testing methodologies that may, in the process of searching, help scholars in using and appreciating these mediating representations of below-the-line labor in new ways. Relevant to such an approach is still photographer Otto Dyar's commentary that BTS photography has the potential to reveal the sheer "number of persons employed on some sets when the screen reveals but one."³⁰³

Dyar is referring to a still image from the Maurice Chevalier vehicle *Love Me Tonight*, which features Chevalier, illuminated by hard key-lighting and casting a larger-than-life shadow, surrounded by an orchestra, camera crew, electricians, sound technicians, director, assistants, cameras, lights, flags, set, cords, and stage. Tucked in the corner, in overalls and a cap, stands a grip, his arms folded, silently observing the scene. The image, and its single(?), but noticeable grip inspired me to consider where else I could search for grips in BTS photos. Instead of revealing the "but one" of the singular star, I wondered what it would look like to reveal the grip or groups of grips and juicers tucked behind walls, hanging about on the cat walks, or hidden behind lights, flags, and camera cranes (Fig. 3.18).

303 Otto Dyar, *Cream O' The Stills for "Love Me Tonight"*, *International Photographer* (November 1932).

Using a selection of BTS still photographs from *International Photographer*, I began “searching” for technicians creating a kind of “hidden pictures” game along the way. Using software like Photoshop and high-quality downloaded .jpg files from the Media History Digital Library’s search engine, I could zoom in, adjust the exposure and contrast of the images, and “tint” the grip’s iconic overall and caps blue when I “found” them in on the set. Although this produced a large collection of these lost-and-found images that are useful and evocative in the ways that they highlight these workers who would have also been identified on set via their attire, I found the process of searching for them more insightful than the end results. By turning these images into interactive documents, I could investigate and explore the periphery of each photograph. Pulling the darkest parts of the image from saturated inky blacks to muted greys unveiled additional cords and metal poles attached to equipment and exposed the arms, legs, and bodies of workers tucked in the shadows of the set. Zooming in and around these sound stages forced me to think about the ways bodies were positioned around space of the sets, in proximity to each other and the equipment.

This act of poking and prodding the image, examining it at its most pixelated, allowed me to consider what constitutes institutional and archival loss. In their original wide shot, these BTS photos already tell an industrial and institutional history of the studio system. Now in microscopic detail, they revealed not what was forgotten or lost, but what had always already haunted the image. The inescapability of labor and the cultural and social signals of its presence have always been visible to a range of crew members and in institutional documentation. This technique of searching felt like part pedagogical exercise—a kind of re-teaching myself the organization of figures on a film set—and part paranormal séance, but using quasi-scientific technologies to sense delicate changes of mood, tone, or atmosphere occasioned by a sudden

zoom in to the man in overalls. After altering the image and zooming back out, the figures re-appear, smaller and sometimes barely noticeable (some legs on the cat walks are mere suggestions), but now it feels impossible to “see” the image without these spectral workers.

A bigger data set for such a project might reveal even more trends in the act of such searching. The more comprehensive inclusion of a range of BTS photography could make visible representations of grips in more mundane institutional photography not produced as. Collections such as 20th Century Fox’s production stills and RKO’s scene-reference and “off-camera” photography at the Margaret Herrick Library offer thousands of these possible images. Photographs like these, with and without workers in the frame, also help catalog the range of technologies and techniques used at any one time on the lot in different kinds of productions. Additionally, procuring higher quality scans of these production images and the *IP* photographs would allow for an even more nuanced exploration of the image.

That an original collection of hundreds of behind-the-scenes photos were utilized at Walsh’s and Hutcheson’s 1945 arbitration with IA and the Carpenter’s betrays the power of these images, then and now. Those hundreds of photographs strewn across a desk as evidence, evidence in their most minute components—who had moved what where and when—suggests that leveraging of set photos offers similar insights into both the large and small scale impressions workers made on the materiality of their working conditions, the techniques employed, and the contributions they made to Hollywood style. For Walsh, Hutcheson, and their workers, the next few years saw fluctuating agreements between the IA and the Carpenters, contracts that might only last for a few months before a new one or ruling would overhaul jurisdictional claims once more.



Figure 3.18 Edited *International Photographer* Collage.

Clockwise from top left, Elwood Bredell, "RKO's Young Bride" (September 1932), Elwood Bredell; "Paramount - Monte Carlo," (April 1933); Anthony Ugrin, "Fox's new crane," (March 1933), Fred Henderson, "RKO-Lost Squadron," (September 1932); Mickey Marigold, "Universal," (March 1933); NA, "Wonders of Picture Making," (June 1933); "Otto Dyar, "Love Me Tonight," (November 1932).

3.15 SHADOWS AND CLOUDS: HOW CONGRESSIONAL OVERSIGHT OF GRIP WORK SHAPED FUTURE DEFINITIONS OF THE CRAFT

While set erection was granted to Local 946 Carpenters—after an agreement in November 1945 between their international representatives and local 80, Motion Picture Grips—by December, an AFL committee of three people reversed that contract and granted set erection to IA 80, reverting back to an IA/Carpenters agreement of 1925, the provisions of which had largely be discarded.³⁰⁴ In doing so, the three-person panel failed to review interim agreements and standard working-practice, and they ended up taking away work from both groups. IA then used the resulting confusion over set-erection to try to establish even further control by creating a new “set-erectors” local of IA that took work away from their own grips. As Father Dunne testified later testified to the Kearns committee,

If the set erectors had been an old union, it would have been understandable, but it seemed to me obvious that Mr. Walsh had established a phony union, and a union which never had existed before, for the precise purpose of frustrating the purpose of this agreement between the grips and carpenters, creating an issue and a controversy that never would have existed in Hollywood.³⁰⁵

Thanks to the AFL’s quick, uninformed decision and Walsh’s newly established union of set-erectors designed to create “hot sets” requiring arbitration, the Carpenters responded with a strike. In September 1946, the Carpenters strike was a reaction to the recent loss of between 300

304 Nielsen and Mailes, *Hollywood's Other Blacklist*, 134.

305 *Jurisdictional Disputes in the Motion-Picture Industry*, 410.

to 350 jobs. However, Herb Sorrel and CSU's support of the Carpenters quickly secured Walsh's support from the producers in the matter.³⁰⁶

The carpenter lock-out that would follow and the subsequent lawsuits of the Carpenters against the IA, concealed the underlying collaboration of Walsh and the producers to create many of these "hot sets" that were designed to push the carpenters and CSU painters off the lots. As Horne explains, even "those who did not leave were asked to do so."³⁰⁷ That these "hot sets" would later become the basis for the accounts reviewed by the Kearns Committee illustrates the difficulty of treating even jurisdictional and court cases as objective. The Taft Hartley Act (proposed in the Spring of 1947 and accepted in the summer) responded to the many violent strikes and labor disputes occurring in Hollywood and across the country after the war by restricting and diminishing the authority and freedom of labor unions across the United States. That producers and the congressional committee tried to leverage Taft Hartley as a threat did little to convince union leaders that they could stand to lose everything and be back at an "open shop" situation. Nielsen reported that by the commencement of the Kearns Committee in August (a subcommittee on education and labor tasked with reviewing motion picture jurisdictional disputes), Congressman Carroll Kearns was already sympathetic to the Carpenters, causing concerned producers and the IA to diminish Kearns' influence by packing the committee with additional members more sympathetic to the studio's cause. While scholars like Nielsen and Horne interpret this event as just another case of IA corruption, producer influence, and the failure of the government to protect the interests of workers, it might be productive to look at

306 Nielsen and Mailes, *Hollywood's Other Blacklist*, 134.

307 Horne, *Class Struggle in Hollywood*, 200.

what these documents can tell us about the everyday experiences of these workers and not just their problematic histories of exploitation.

Certainly Nielsen's frustrations are grounded in "the fact that the committee overlooked hundreds of blacklistings of craft workers—people who were neither 'Communists' nor 'fascists,' but simply 'caught out of bounds' during a very confusing period—is a strong indication of just how far to the right the US had moved in the post war period."³⁰⁸ As a result of blacklisting fears, not only were people's lives and livelihood threatened, but their ability to express craft discourse and form communities of support (whether effective collectives within local unions, structured guilds, or merely stable working groups) had been stymied and elided from the historical record. That traces of such moments, however tainted, still exist to offer evidence of that work and workers is crucial to consider as a paltry index of the contributions of below-the-line workers to Hollywood style during this period.

Reading the entire 1,000-page document of the committee meetings, it is less clear that anyone was heavily supportive of the studios, but rather most congressmen were incredibly confused and frustrated about how to navigate the complicated territory of Hollywood labor. Many of the conversations involve producers, business representatives, and interested members of the public (like Father George Dunne) attempting to explain basic terminology and work. Yet, the committee, trying to compare the Hollywood labor disputes to jurisdictional issues in other industries were at a loss for how to handle the complicated and often unspoken craft justifications for jurisdictional boundaries. During the committee meetings, the local representatives of the grips did not speak, a silence that perhaps explains the seeming

308 Nielsen and Mailes, *Hollywood's Other Blacklist*, 161

mystification of both committee members and producers about what it grips did. In one exchange, McCann asks Pat Casey (labor representative for the producers) to define a “grip.”

Mr. McCann. This ‘grips’ is a funny name. Will you tell me what it stands for?... I would like to know what ‘grips’ means, if you can give it to me.

Mr. Casey. I will tell you; it originates from the theater. In the theater we have what we call a construction crew who builds the scenery for that production. Then after that production is built, it was usually built on canvas on what we call flats, kind of a square like—a window there [indicating]...Then the grip, this so-called grip, came along and he took these different pieces of this room or the ceiling and he put them together with what we call a lash line. In other words, there was a little hook up at the top; threw the rope over there and you brought it down here [indicating], and there were two little hooks here, and you put them together and tied it.

Mr. McCann. That is what the grip does?

Mr. Casey. That is what a grip does. Now, in the studios the grip handles the sets after they are made. He ties them up, and fixes them and braces them, and then takes them down and puts them away and stores them, and brings them back to be used again.³⁰⁹

Casey’s contextualization helps lay the historical terrain for the initial conception of grip work for the committee, but it, much like the other accounts from producers, failed to describe the duties of grips outside of set erection, moving, and disassembly. As the *IP* articles a decade earlier made clear, grip work had been as significantly tied to lighting, camera movement, and camera placement as it was to its formative basis in the movement of sets.

While most testimonies fail to register this expertise, the fact remained that much of what grips did varied from studio to studio. As Skelton tried to explain, “There was some shuffling of jobs. There had been a few little incidents between grips and local 904 in regard to the erection of sets, what we term in the studios ‘hold and fold.’ Only in those conditions was there

309 *Jurisdictional Disputes in the Motion-Picture Industry*, 71.

any argument.”³¹⁰ Thanks to several more detailed exhibits, a fuller picture of grip work was presented in committee findings, even if these topics weren’t broached during testimony. For one, McCann put into exhibit the November 1945 agreement between the grips and carpenters that clearly outlined all the jurisdiction of grips (Fig. 3.19)

Mr. McCANN. I would like to read from this copy the authority that was given under this contract or agreement to the Motion Picture Studio Grips’ Local 80. That contract reads as follows:

That Motion Picture Studio Grips’ Local 80 shall have jurisdiction over—
The handling of all sets and units from the mill to the stage, from stage to stage, from stage to scene dock, from scene dock to mill, and from scene dock to stage.

The handling and maintenance of all grip equipment.

The erection and handling of all fold-and-hold cut-outs.

The construction, maintenance, and handling of all diffusing frames, with the exception of heavy construction on wooden frames.

The building, erection, and dismantling of all tubular steel scaffolding. This is not to include underpinning.

The construction of all platforms, including underpinning, for use exclusively by camera, lighting equipment, and for supporting dolly tracks.

The agreement reflected in the setting forth of the above jurisdictional points is not intended by either party to reflect the full jurisdiction of these locals in the studios, but does reflect the agreement which has been reached between the representatives of local 946 of the United Brotherhood of Carpenters and Joiners of America, and Motion Picture Studio Grips’ Local 80, of the IATSE, on the jurisdictional points which were at issue between these two local unions.

It is further recognized that some of the jurisdictional points to which local 80 has agreed are at issue between the carpenters’ local 946 and other local unions of the IATSE, and this agreement is not intended to reflect an agreement to these points for any IATSE local, with the exception of grips’ local 80.

Figure 3.19 Kearns Committee Report, 370³¹¹

The contract usefully delineates grip’s responsibilities on set, the types of tools and materials with which they were allowed to work, and the conditions under which certain tasks were under

310 *Jurisdictional Disputes in the Motion-Picture Industry*, 534.

311 Digitized Scan Courtesy of the Media History Digital Library

their responsibility. The contract's parameters are necessary to an understanding of the supporting evidence from the major studios of jurisdictional disputes from 1945 to 1947.

At the request of Kearns, Charles S. Boren of the Association of Motion Picture Producers compiled a portfolio of lot jurisdictional disputes from the following studios: MGM, Paramount, Columbia, Samuel Goldwyn, Warner Brothers, Republic, RKO, Fox, and Universal.³¹² The disputes concerning grips range from erecting, assembling, and breaking down sets, moving wild walls and wild furniture for a moving camera shot, constructing the catwalks used for rigging, building working platforms for camera equipment and crew, and most importantly, controlling light. Some of these disputes center around the placement of mirrors at MGM. Mirrors were a source of reflection for grips, but also a potential impediment to on-set lighting when used as a prop in the scene. A mirror in the frame reflected light and thus became a lighting problem to negotiate even if it was also a prop. But, as a prop piece "in the scene" its jurisdiction belonged to Local 44, propmakers. Similarly, the use of canvas materials or veils by the prop department potentially caused problems for the grips when lighting placement made the canvas material into an accidental source of diffusion. Thus, grips claimed that their control of light extended into the on-screen space if such prop materials (like mirrors or canvas materials) had the accidental effect of influencing the look of light in the shot.

The most remarkable moments of the hearings are those accounts that center on the nuance and subtlety of shadow, cloud, and shade effects. In one dispute at Columbia, "In 1946 during the shooting of picture No. 1100, set 5, we wanted to see the shadow of an elevated train passing through the shot. A silhouette and mechanical apparatus necessary was presented by the

³¹² *Jurisdictional Disputes in the Motion-Picture Industry*, 468-507.

prop shop local 44, and they started to operate this for the shot...the grips claimed it because of the shadow effect. The work was awarded to the grips and they took over.”³¹³ Not knowing which film that “shadow effect” of the silhouetted train takes place makes it difficult to line up any direct correlation between the grip’s work and its presence on screen. However, at Samuel Goldwyn, the film “*Ten Little Indians*” (*And Then There Were None*, René Clair 1945) “there was a dispute between Property Craftsmen Local 44 and grips local 80 as to who had jurisdiction of “cloud glass shadow effects,” for the purpose of projecting clouds or shadows representing clouds on backings—this was finally disposed of by having a stand by grip and the special effects man operate in unison to handle the equipment.”³¹⁴

Searching through the film for these clouds or “shadows representing clouds” feels as impossible as it seems.³¹⁵ For one, clouds as shadows are specifically designed not to be noticed, but there’s also of course the problem that the film just contains so *many* clouds: in matte paintings, on rear-screen projection, and in projected glass shadows (Fig. 3.20). In these tangible intangibles, there is very little to grasp; very little to point to and say, “There, *that’s* the work of the grip.” The whole process of this search has felt like a fool’s errand. Is this the cloud shadow? Or is it this one? I found myself second guessing every single shadow and every single cloud. To watch the film in this way is to experience Classical Hollywood against the grain of its nuance, subtlety, and artistry.

313 *Jurisdictional Disputes in the Motion-Picture Industry*, 485.

314 *Jurisdictional Disputes in the Motion-Picture Industry*, 487.

315 Manipulated screencaps, see: René Clair, “*Ten Little Indians*” (*And Then There Were None*, 1945).

Distributed in full on YouTube by owner, Inter-Pathé. Accessed July 19, 2019.

<https://www.youtube.com/watch?v=fSGqDyTuaSE>



Figure 3.20 An Atlas of Clouds – Matte, Rear-Screen Projection, Shadow-Glass Effect in *And Then There Were None...* (Clair, 1945)

Capturing all these clouds in the René Clair film—and others mentioned in the jurisdictional disputes—starts to feel like trying to mark out an “atlas of clouds,” an imaginary map that might point me back to the labor that created them. Here, I am reminded of a line from novelist David Mitchell who writes, “What wouldn't I give now for a never-changing map of the ever-constant ineffable?” There is something so suggestive about this elusive trace of labor that exists not in authorship, signature style, or even a common name, but only as phantasms and faded silhouettes.

3.16 CONCLUSION

The October 22, 1946 jurisdictional dispute about “projected clouds” at Republic that began this chapter symbolizes how grips and their work became embedded into the seams of the film. “*The work in dispute involved setting up and handling during photography of a glass mounted in a frame. The glass being sprayed with paint in varying densities with the result that a beam of light projected through the glass threw shadows of varying intensity representing clouds on a white or blue back behind the set.*” In many ways, this historical project, and the research that went into it, feels like an investigation into clouds layered in “varying densities.” Grip work today is still very much “in dispute,” just as it was when grips were forced across union lines and when their work, bodies, and thoughts were represented and recorded by everyone other than themselves.

The account of these disputes is a fascinating revelation about the work that crews perform, for what constitutes the techniques, styles, and manual labor of each craft is to be found

in the subtle and nuanced minutiae of such reports. While the validity of evidence provided by the Kearns committee, influenced as it is by producers and the IA, taint claims to objectivity, the anecdotes throughout provide rarely documented details about the actual work and technique of these crafts during the period. They also veer into the theoretical, conceptual, and sensual during such moments as when the intensity of clouds and shade is debated.

Like the elusive clouds conjured by these workers, their “shades of meaning” and ephemeral impressions are worth further investigation and inclusion in histories of both Hollywood labor and style. Writing about stars’ hand-scripted marginalia, Amelie Hastie instructs, “This is historiography writ not large but in the margins,”³¹⁶ and, she explains, “we can expand an act of retrieval with the practices of history and fantasy merged together—what we newly imagine as “history” and those fantasies of fictional production.”³¹⁷ To put together this evidence of grip work in Hollywood in conversation with records like George Haines’ articles on grip equipment for *IP*, as well as the thousands of behind-the-scenes photos, fan publications, educational illustrations, unofficial personnel records, and even editorial cartoons is only a first step in mapping the terrain of grip craft during the period. Finding ways to put these disparate and highly mediated artifacts into productive relations with one another would take more time for the close work of putting names, equipment, studios, and the films together, or of failing to do so. Such a massive project would, of course, require additional years of archival visits and the work of imaginative reconfiguring these collections to appreciate what else might be said about grip and grip techniques.

316 Amelie Hastie, *Cupboards of Curiosity: Women, Recollection, and Film History* (Durham: Duke University Press, 2007), 4.

317 Hastie, *Cupboards of Curiosity*, 5 – 6.

My hope would be to find more examples where we could map named grips, their equipment, accounts, as well as the diagrams constructed from behind-the-scenes photos and the films themselves to imaginatively reenact at least a handful of these examples. This imaginative and personalized historiographical turn in writing film history, and in particular histories of labor and of the working class, is not an entirely new approach. As Carolyn Steedman writes in *Dust: The Archive and Cultural History* about the difficulties of social history archival work, “a way out of the epistemological wasteland in which socialist historians found themselves...might be to remove historical explanation from the hypnotic fix of linear time [by] affective use of the historical past.”³¹⁸ In one such instance, Steedman reflects on the conundrums of affective historical misappropriation when she inserts an object of working-class life (the early 20th century rag-rug as described in Richard Hoggart’s *Uses of Literacy*) into a description of Elizabeth Gaskell’s 19th century novel *Mary Barton*. Steedman explains this as an accident of *longing*, of wanting the heavily weighted working-class object of the rag-rug (“a thing made from torn scraps of other things, rags indeed”) to symbolize and represent all that it could not represent, in and out of its time. This “montage praxis” of using “debris and rubbish, broken and torn scraps” to illustrate “the irreducible traces of actual history, and [the idea] that history *cannot be made to go away*” ultimately expose more about the historian’s own dreams of a history that was, as it turns out, not what they imagined at all.

In writing this chapter about the scarcity of evidence on Hollywood’s working grips, about trying to make with rags my own rag rug, I would question whether I am telling their history or the story of my longing for a grip history that cannot be exhumed because its bodies

318 Steedman, 78 – 79.

were never marked or properly buried. Given this absence of some materials (oral histories) and the abundance of others (union accounts), I have tried to weave these scraps so as to make them hold together, to make them speak. Such an endeavor is the creation of something that was never meant to be. Maybe, like the shifting shades and clouds produced by grips during the studio era, their lives and work must remain silhouettes, shadows cast by the industry's light. And perhaps it is against the grain of historical sense to bring these shadows into the light in exactly this way.

4.0 REDEFINING THE LOOK AND FEEL OF CONTINUITY EDITING: THE AMERICAN CINEMA EDITORS, EDUCATIONAL FILMMAKING, AND THE ACADEMIC STUDY OF FILM PRODUCTION, 1958-2018³¹⁹

In August 1957, the American Cinema Editors (ACE) prepared a lecture and demonstration at the Academy of Television Arts and Sciences showcasing three cuts of the same scene from the television show *Gunsmoke*. Since the beginning of the organization in 1950, the editors researched and embraced the growth of the TV editing field. With mass layoffs in feature-film production at the beginning of the decade, ACE urged its members to seek the quality and stability in TV series and TV film employment.³²⁰ By mid-decade, the editors saw TV as a place for more stable and sustaining employment opportunities and for gaining authority that came

319 Excerpts of this chapter, particularly moments focused on the career of editor Fredrick Y. Smith, are reprinted from the article “The Editor’s Face on the Cutting Room Floor: Fredrick Y. Smith’s Precarious Promotion of the American Cinema Editors, 1942 – 1977.” *The Spectator* (special issue: “System Beyond the Studios,” guest edited by Luci Marzola) 38, no. 2, (Fall 2018): 9-19. Used with permission by author and publisher.

320 “One conclusion appears certain. The mushrooming of the television film industry will take up the employment slack of the feature film companies,” “TV Trends,” *The Cinemeditor* 3, no. 1 (January 1953): 2.; “We cannot minimize the effect of mass layoffs or the trimmed schedules and budgets of the feature film making companies. Yet, there remains a bright spot on the horizon, a simple and not too profound fact...Possibly, it’s reckless prediction. Nevertheless, it’s our opinion that the late summer will find a heavy production schedule both in feature and TV films and a full employment slate.” “Editorial,” *The Cinemeditor* 3, no.2. (May 1953): 2.

with Supervising Editor positions on programs like *Gunsmoke*.³²¹ The success of the TV Academy demonstration led to the production of two educational films, *Film Editing: Interpretations and Values* (The *Gunsmoke* dailies) and *Basics of Film Editing*, both in 1958. *Interpretations* was shot at Filmmaster Productions (one of the makers of *Gunsmoke*) and featured supervising editor Fred W. Berger as host of a 37-minute program which included 17 minutes of uncut dailies (slates and all) and three versions of the scene cut and described by editors Michael McAdams and Arthur Nadel, as well as a third and final TV scene cut by Harry Coswick (a regular editor on the program). As the December 1957 issue of ACE house organ, *Cinemeditor*, explained, *Gunsmoke* was “wisely chosen” because “the director [Ted Post] had given it excellent coverage and the sequence chosen encompassed drama, a touch of humor, and high excitement.”³²² Leon Barsha hosted the much shorter, 8-minute film, *Basics of Film Editing* which featured two versions of a scene from the 1957 film *Baby Face Nelson*. Barsha’s film emphasized the importance of coverage to give the editor choice in constructing mood, character, and narrative information. Both projects premiered to enthusiastic praise at a general meeting of various guilds in the Motion Picture Industry in Los Angeles in 1958. Barsha’s *Basics* was deemed “too elemental for the University level,” but “perfect for the general public.”³²³

321 “Computing their total product, these TV companies in operation have completed more finished film monthly than all the major studios have produced in one year during their lush times. And along with the growth of TV, the Supervising Editor is rapidly taking his proper niche as one of the most responsible jobs in television today.” Stanley Franzen, “TV Prod. 12 – 1 over Majors,” *The Cinemeditor* 4, no.2. (March 1954): 2.

322 “TV Academy Forum Noteworthy Step,” *The Cinemeditor* 7, No. 4 (December 1957): 3.

323 “TV Academy,” 3.

Berger's *Film Editing: Interpretations and Values/Gunsmoke*, on the other hand, was praised as a "wonderful step towards recognition [of the editor] outside the industry."³²⁴

The American Cinema Editors in the 1950s could not have predicted the staying power and institutional influence of their foray into educational filmmaking when it was being developed alongside the organization's other college educational and promotional activities. While Barsha's *Basics* eventually faded into obscurity (likely from its lack of accompanying daily footage), the *Interpretations/Gunsmoke* film and later assignment came to dominate filmmaking classes at a variety of higher-ed institutions for decades to come. *Film Editing: Interpretations and Values/the Gunsmoke* dailies, defined the organization's mission and would unsuspectingly educate over fifty years of students in the craft of editing. More pervasive and longer running than even the most routine film textbooks, the educational film and its derivative *Gunsmoke* assignment have been keystones in the education of filmmakers, students, and young film scholars for engaging the concept and practices of continuity editing.

This chapter explores in case study how the long life of the *Gunsmoke* educational project bound together a larger intertwined history of three burgeoning movements within film culture during the post WWII era: The American Cinema Editors in the 1950 and 1960s, the explosion of post-war college and university film education, and the growth of the 16mm educational film industry. Filtered through these interconnected developments to a broader public were the changing definitions of Hollywood studio style, namely, continuity editing. While ACE's initiatives to educate the public, the industry, and students of film in the appreciation of the artistic craft of film editing, their associated educational and promotional projects mirror other

324 "TV Academy," 3.

democratizing impulses embedded in the broader film culture of the time. Sustaining these initiatives, the growth of 16mm in production, changes in editing technologies, and new kinds of distribution networks proved a fertile ground for the reception, metamorphosis, and expansion of a single educational film.

Setting the stage for the late 1950s educational films, the individual members of ACE had long shown an interest in engaging the broader public on issues of craft appreciation and, uniquely, on craft training within amateur and student arenas before the formation of the organization. By exploring the background of individual members like Fredrick Y. Smith, Leon Barsha, Arthur Nadel, Fred Berger and the earlier work of the short-lived Society of Motion Picture Film Editors (SMPFE) and IATSE Local 776, we can understand why the promotional projects of ACE in the 1950s and 1960s fit into a larger craft discourse that had always sought a broader audience outside of aligned industry guilds. This craft organization history also illustrates the intertwined connections between members and local Los Angeles film educational institutions at UCLA, USC, Loyola, LA county high schools, and within the broader network of North American educational producers and amateur filmmakers. This network benefitted and was ultimately bolstered by a larger trend in the rise of the post-WWII university, thanks to the G.I. Bill and the subsequent growth into the 1970s of several visual and arts related disciplines in secondary and graduate education, including film studies, media literacy, and institutional AV departments. These connected histories help explain why educational films, like *Interpretations* and ACE's later *Gunsmoke* project had such staying power long beyond their initial scope. The changing landscape of the Hollywood film industry was also reflected within the educational projects and films in their focus on television and their emphasis on creative, flexible, and alternative possibilities within day-to-day editing practices. By exploring these interconnected

histories and networks in depth and by parsing out the iterations of the *Gunsmoke* assignments over their fifty-plus year tenure, this chapter rethinks the permeability and stasis of standard continuity editing through the perspective of editors' craft discourse.

4.1 CONTINUITY EDITING: IN THEORY AND IN PRACTICE

This chapter will discuss and illustrate by working example the kinds of flexible and creative thinking about continuity practice at the heart of the *Gunsmoke* assignment's interpretative framing. Like all film terminology, the divide between critical and academic nomenclature and practical, technical jargon of production workers produces often unbridgeable discursive gaps. No place is this more distinct than the framing, discussions, and understandings of how continuity editing *works*. In the standard contemporary textbook *Film Art: An Introduction*, Bordwell and Thompson explain, how "continuity style aims to transmit narrative information smoothly and clearly over a series of shots. This makes the editing play a role in narration, the moment-by-moment flow of the story information."³²⁵ Continuity style's emphasis on narrative flow according to Bordwell and Thompson requires similar strategies in mise-en-scène and cinematography to ensure "graphic qualities roughly continuous from shot to shot." In accomplishing the smooth flow from shot to shot, editors employ a range of techniques with the most important being shot/reverse-shot, eye-line match, establishing and reestablishing shots, match on action, and cross-cutting. This seamless movement to stabilize the viewer's sense of

325 David Bordwell and Kristin Thompson, *Film Art: An Introduction*, 10th ed. (New York, N.Y: McGraw-Hill, 2013), 232.

space and time, requires a great number of conceptual tools, workarounds, exceptions to the rules, and cheats. As Bordwell and Thompson would agree, continuity editing first requires continuity shooting (coverage, consistent lighting, symmetrical/complimentary framings), script construction and supervision, directing, and consistent costume and set design practices during pre-production and shooting. The assumption, however, is that unedited dailies footage necessarily guarantees or sets the stage for a very particular kind of continuity editing. This assumption also implies that the system—because it is a system which sets conditions for its use—therefore predetermines the final look of the scene from production to final cut. Despite its enormous variables in coverage and exceptions-to-the rules, Hollywood continuity style is often introduced and taught in film classrooms and film scholarship as a fairly static, inflexible, and rigid system with a limited number of options.

In many ways, the *Gunsmoke* editing assignment fulfills all the purposes of teaching film students the conceptual and practical tools of continuity that Bordwell and Thompson outline in their textbook. The project even implies how student editors might begin learning the exceptions and cheats. In order to help illustrate *how* the *Gunsmoke* project functions for student editors in both these pedagogical and hands-on interpretative modes, I utilize videographic methodologies later in the chapter to showcase the various choices and sensations at work when physically handling the *Gunsmoke* dailies today in Adobe Premiere Pro (a standard digital editing software). What fascinates me about putting these two significant classroom pedagogical tomes about film editing side-by-side—in concept and in practice—is the way in which they seem to confirm what we already know about continuity: its guarantee of narrative sense, smooth flow and, most importantly, the often-emphasized invisibility of incredibly complicated techniques. This combination of the instructional works, however, unmask the supposed simplicity of this

monolithic systemization. When put into practice, the work of continuity editing requires a whole set of intuitive, conceptual, and physical gestures that are not reducible to quizzable terms. While it might be expedient to know what to call a cut between two actors in dialogue, part of what editors already know is that the craft of cutting is as much about how cuts *feel* as how cuts look. Even in scholarly discussions of continuity editing, we often glide over the very descriptions which are the most terminologically tangled. What do we mean when we say a scene flows, that the editing is smooth, that the shots are seamless, that we have watched a rhythmic sequence?

Before editors tell us anything else about their work, they tell us that their work is best when no one can see it happening. The guise of invisibility as craft expertise permeates all technical craft discourse from editing, to cinematography, to sound design. What comes next in these practitioners' discussions is not usually a laundry list of techniques that help accomplish this movie magic mystification, but a suggestion that their work is also indebted to a certain *je ne sais qua*, a.k.a. their intuition or feeling. Editor and scholar Karen Pearlman distinguishes intuition from instinct in her book *Cutting Rhythms*, “[I]ntuition is something we develop over time, through experience; in other words, it is learned.”³²⁶ Pearlman situates intuition as a necessary component in practices of craftsmanship alongside codified techniques and how editor's bodies physically move in the workspace of the editing bay and the world at large. Yet, as Pearlman points out, “To say that something is intuitive is often used to draw a protective veil around the knowledge.”³²⁷ Perhaps this is why so little attention is given to intuition and feeling

326 Karen Pearlman, *Cutting Rhythms: Shaping the Film Edit* (New York: Focus Press, 2012), 1.

327 Pearlman, *Cutting Rhythms*, 2.

in historical and critical accounts of editing craft; most scholars simply don't have a language to talk about it.

As non-practitioners, film scholars often shy away from discussions that might seem overly specialized and for technician's ears only. We seem to understand in these cases why we are being shut-out from these insights or maybe we surmise that we simply cannot know what technicians know to the degree that they know it. My suspicion is also that we inherently do not trust what technicians mean when they make these gestures towards feeling or intuition. Not because these feelings are not quantifiable or describable in disciplinary terminology, but because they exist outside the realm of already comfortable schemas for discussing film form and film history. These revisionist histories of studio style become especially fraught when talking about technicians and crafts within the studio system. The top-down model of historicizing and categorizing trends and changes within the Hollywood studio system (as exemplified by historians such Bordwell, Staiger, Thompson, Gomery, and Schatz) make it difficult to suggest ways in which studio workers, especially below-the-line workers, seemingly towed the line but also went against the rules and, with their bodies their feelings and their day-to-day "cutting" activities, resisted implicit systematic prescriptions. We have neglected to appreciate the discreet histories of hundreds of studio film editors who worked more autonomously from the 1930s to the 1970s than they have in any decade since. The justification for such neglect rests on the assumption that editors in the studio system have always done as they were told to do by directors, producers, and studio heads. But unlike the contemporary era of director's final cuts, in the studio era editors saw more freedom of choice and flexibility.

Certainly, during this period producers still held the most sway over final cut and directors increased their authority in the editing room near the late 1960s into the 1970s;

however, many editors observed how collaboration could often work in their favor to offer producers what they thought they wanted while still carving out room for creative autonomy. Editors expressed varying degrees of certainty and interest in this autonomy. Editor Rudi Fehr at Warner Bros worked very closely with Jack Warner and often sought his approval and advice. Fehr even goes as far too say that Jack Warner should be given more recognition for the style or look of film editing at the studio, “The Warner Bros. films had a reputation in the business ebbing the tightest, best-edited films in the industry, at one time. Credit must also go to Jack Warner, who had an instinct for tightening films, and making them move faster. He loved editing. IT was his pet department.”³²⁸ On the other hand, working editors like Fredrick Y. Smith encouraged directors and producers to trust the intuition and creative insights of editors more. As Smith explained in his oral history, “I say, ‘please let me make the first cut. Respect my talent, experience, knowledge enough to let me give you the translation I think you want.”³²⁹ Editors work (more than any other member on set) was often completed alone and away from the day-today direct supervision of these decision makers. While their craft was perhaps more closely linked to the supervision of producers than other below-the-line crafts, their isolation at the Moviola and away from production often offered them more flexibility for creative input than other technical workers. And, with this semi-autonomy, editors saw an impetus to share such skills with a broader public.

By approaching this topic from a historical moment where film production workers collaborated directly with academics and critics to conceptually rethink the working terms of

328 *An Oral History with Rudi Fehr*, interviewed by Douglas Bell, Academy Oral History Program, AMPAS (Academy Foundation, 1998), Margaret Herrick Library, Beverly Hills., 169.

329 *An Oral History with Fredrick Y. Smith*, 305.

continuity editing in a critical landscape, we might reimagine a third way in which to reframe our experience, scholarship, and even teaching of long-accepted definitions and concepts in film study. Throughout this chapter, I argue that the educational and promotional projects of the American Cinema Editors (especially the *Interpretations* educational film and its subsequent *Gunsmoke* teaching project) promoted dominant and acceptable models of continuity editing while showing how these projects in the classroom could enact a working (and lived) definition of intuitive and creative editing practices.

4.2 FROM CUTTING TO EDITING

Prior to the more institutional promotional efforts of the American Cinema Editors in the 1950s, various editors and organizations sought to educate the public, the amateur filmmaker, and fellow industry guilds on the craft of editing. A founding member of the Society of Motion Picture Film Editors (SMPFE) and a several time president of ACE, Fredrick Y. Smith, an editor at MGM, devoted much of his mid-to-late career promoting the film editor to the public and industry at large. Smith often authored vocational pamphlets, lectured to amateur cinema clubs and college classrooms, organized collaborative industry workshops, worked with the University Film Producer's Association (UFPA) to implement editing curriculum, and eventually taught his own stand-alone editing courses at Los Angeles' Columbia College in the 1970s. After interviewing the editor for the Academy's Oral History project, Douglas Bell remarked that

Smith was “a man of both cheerful wanderlust and sustained application.”³³⁰ Early in life, Smith studied at Stanford prior to beginning his Hollywood career as an extra and a projectionist before finally landing as a job as an assistant editor for First National and then Warner Bros in the late 1920s.³³¹ After a stint in Europe working for Paramount, Gaumont-British, and UFA, Smith returned to Los Angeles in 1935 and began working at MGM editing b-romance films and projects for directors Frank Borzage, Busby Berkeley, and Norman Taurog into the early 1940s.³³² During these years, Smith often saved small trims from his films as personal mementos of his work product. This attention to curatorial detail early in the editor’s career bespeaks Smith much larger investment in narrating the industrial history and material practices of editing craftsmanship.

The Society of Motion Picture Film Editors (SMPFE), formed in 1937 by film editors Ben Lewis and Philip Cahn and sound editor James Wilkinson, sought to be the official collective bargaining arm and craft organization of a wide group of film and sound editors, assistants, apprentices, and studio film librarians.³³³ Yet, it was Smith’s presidency in the early

330 *An Oral History with Fredrick Y. Smith*, interviewed by Douglas Bell, Academy Oral History Program, AMPAS (Academy Foundation, 1994), Margaret Herrick Library, Beverly Hills., 2.

331 Mike Steen “Film Editor: Fred Y. Smith,” *Hollywood Speaks an Oral History*. (New York: G.P. Putnam’s Sons, 1974), 304.

332 Steen, “Film Editor,” 305.

333 For an early history of the editor’s guild see: Jeff Burman, Christopher Cooke, Michal Kunkes, “The Great Society: The Beginnings of the Editors Guild.” *Editors Guild Magazine* 32, no.4. (July – August 2011).

<https://www.editorsguild.com/Magazine.cfm?ArticleID-1052>;

For a fascinating series on “The Founding Forefathers of the SMPFE” see Edward Landler, “The Founding Fathers: Keep the Story Moving I. James Wilkinson” *Editor’s Guild Magazine* 1, no.3 (May – June 2012).

<https://www.editorsguild.com/Magazine.cfm?ArticleID-1099> ; Edward Landler, “The Founding Forefathers: A

1940s and his initial oversight of the short-lived house organ *The Leader* (first published in 1943) that foresaw the necessity of advocacy for editors beyond the important tasks of labor hours and pay scale negotiations.³³⁴ Smith's frustration with the organization—as it was structured to function as a joint craft and union arm—stemmed from a precise assessment: “We have members who undoubtedly belong to our organization because they are compelled to belong—who pay for dues in a spirit of duress—who are naturally against almost everything and anything that could be accomplished through cooperation with their fellow workers.”³³⁵ Even during his SMPFE tenure, Smith longed for a division between union matters and the activities of craft promotion in the eyes of the industry and the public. While a union division could handle day to day labor relations, Smith wanted an organization that could also host an artistic, promotional, and educational community of selected craftsmen. After over a decade of ongoing violent, political, and disruptive jurisdictional disputes between IATSE, the IBEW, the Carpenters, and the recently formed Confederation of Studio Unions, it is not unsurprising that Smith and other editors might look suspiciously and fearfully on the potential (dis)advantages of a union alliance. Smith and other older members of the organization often dismissed the importance of union bargaining for established editors, arguing (like the American Society of Cinematographers had done in the 1933 strikes) for a distinction between mere technicians and

Company Man but a Union Man, Ben Lewis” in *Editor's Guild Magazine* 1, no. 3 (May – June 2012).

<https://www.editorsguild.com/Magazine.cfm?ArticleID-1098>

334 Jeff Burman, Christopher Cooke, and Michael Kunkes “The Great Society: The Beginnings of the Editors Guild” *Editors Guild Magazine* 32, no. 4 (July-August 2011).

<https://www.editorsguild.com/Magazine/cfm?ArticleID=1052>

335 Fredrick Y. Smith, “Your Society,” *The Leader* 1, no. 1 (January 1, 1943): 1.

artisans of the craft.³³⁶ In the spring of 1943, Smith resigned from his post as president and enlisted in the Navy, joining hundreds of other editors and film industry technicians in the war effort. In 1944 the *The Leader* folded when SMPFE dissolved and joined IATSE to form Local 776, The Motion Picture Film Editors.³³⁷

After serving in the US Naval Reserve from 1944 to 1946, Smith returned to Los Angeles and continued work at MGM.³³⁸ In November 1950, he joined a handful of other editors, including Frances D. Lyon, Jack Ogilvie, and James E Newcomb to form The American Cinema Editors craft organization. ACE was to serve as a social and promotional organization that would complement the work of the newly formed IATSE local and extend the public face of the editor to other industry guilds and the public at large. Smith constantly reminded this new membership that the image of the editor to the director, producer, and audience at home was vital to raising the financial and professional stakes of all editors in the industry. As part of this mission to “build the prestige and dignity of the craft,” the organization, its education and research committee (headed by Smith and Leon Barsha), and their publicity specialist Ted Leff (and later Marty Weiser of the Arthur P. Jacobs Firm) sought to redefine the image of the editor in trade publications, movie and television reviews, and in the eyes of the public. Their first mission, and a project Smith had already been working on for some time, involved reworking the mechanical

336 Smith remained skeptical of the IA into his late career, remarking in 1970, “unionism takes a talented man and puts him the middle strata. It takes the lazy, inefficient person and brings him up to the same level as the talented person.” Steen, “Film Editor,” 314.

337 Multiple accounts of SMPFE dissolution/IA adoption point to the membership shift during the war years from an older, established roster (who enlisted and thus could not vote) to a younger, female roster. See: Burman, Cooke, Kunkes, “Great Society,”; Steen, “Film Editor,” 314.

338 “Biographical Data,” Fredrick Y. Smith papers, Margaret Herrick Library., (Hereafter Smith Papers).

title of “film cutter” to the that of “film editor” in all industry published materials that referenced editing. ACE immediately targeted three areas for promotional focus: running their organization by the model of the American Society of Cinematographers (including publishing a sustainable trade newsletter, *The Cinemeditor*, and campaigning for an “A.C.E” title credit), spearheading a series of around the town open-forum collaborative conversations with the different guilds, and beginning a college cooperative program (now called ACE’s Visiting Editor Program) as early as 1951. Smith began his tenure as the organization’s president in 1953, the same year he joined the board of the Academy of Motion Picture Arts and Sciences (AMPAS). Smith’s involvement with each of ACE’s promotional projects is evident throughout the first two decades of *The Cinemeditor* (in the 1950s and 1960s) and in the publicity write-ups in *Variety*, *The Hollywood Reporter*, etc. during the same period regarding the organization’s many inter-industry activities and events. While Smith’s largest contributions to the industry are tied inextricably to his service in SMPFE, AMPAS, and ACE, his manuals and lectures educated amateur filmmakers, students, and the public about the work of the editor from the 1930s until his teaching career in the 1970s. Within these materials, Smith’s work emphasizes a handful of recurring themes that would become foundational in ACE’s organization’s later mission statements.

For one, Smith’s writings insist on the value of consistent terminology to reorient producers, directors, and the public’s mind about their craft. He began by insisting upon the terminology of film “editor” over film “cutter.” As Paul Monticone has noted about one of these distinctions, “While the term most frequently used to identify this production task—“cutting”—accurately described the technical process of splicing and cementing together lengths

of celluloid, it did little to differentiate between what we now understand as film editing.”³³⁹

Smith saw part of his mission as responding directly to this long history of the ascribed and self-prescribed moniker of “cutter.” Smith had not been the first person to try to point out the differences between the terms, “cutter” and “editor.” Articles as early as the nineteen-teens attempt to explain how the altered distinction might result in both prestige and better pay.³⁴⁰

Smith was responding to how the term “cutter” was used across trade, press, and fan publications beginning early in the studio system to critique a film’s story or structure (as in the cutter’s “wicked pair of sheers” which ruined a film) or to describe the work as purely manual and often clumsy (one publication joked about a new cutter coming straight from “Barber college.”)³⁴¹

Yet, the ‘rags to riches’ stories of successful directors and producers such as Dorothy Arzner and Frank Borzage, “from the ranks of lowly film cutters” were common enough that one Hollywood Reporter article joked in 1934 that “the funny part about it is that some insignificant film cutter whom we were passing by without a thought is probably the Irving Thalberg of 1940.”³⁴²

Smith’s response to the history of this “lowly” or derisive mechanical terminology sought to abolish the still prevalent currency of “cutting” by targeting other editors, journalist, and

339 Paul Monticone, “Classical Hollywood, 1928-1946: Editing,” *Editing and Special/Visual Effects*. eds. Charlie Keil and Kristen Whissel (New Brunswick, NJ: Rutgers UP, 2016), 51.

340 For an early example distinguishing between the “cutter” and the “film editor,” William Lord Wright explains, “It is true that some of the cutters had the name “Film Editor” wished on them in lieu to a raise in salary, but for the most part they are unhonored and unsung.” See, William Lord Wright, “Hints for Scenario Writers,” *Picture-Play Magazine* 7, no. 4 (December 1917): 248.

341 16 Robert E. Sherwood, “Surgeons of the Screen,” *Screenland* 8, no. 2 (November 1923): 17; William Lord Wright, “Screenings,” *Picture-Play Magazine* 10, no. 3 (May 1919): 56.

342 17 Robert Welsh, “Tradeviews,” *The Hollywood Reporter* 19, no. 1 (January 12, 1934): 1.

producers instead of the public. For Smith, his concern rested not merely in the “cutters” intrinsic tie to the manual work of scissors, but in the pejorative association, “the lowly editor” that would catapult to fame or rot away in his lonely cutting room buried under miles of footage. As early as 1936, Smith reached out to journalists and authors who referenced “the cutter” in books and reviews. Smith corrected what he saw as a rudimentary term that undervalued the technical proficiency and artistic process at work:

What does a cutter do? Most people ask that question when they visit a studio cutting room for the first time. The answer could be simplified to the fact that he takes an ordinary pair of scissors and actually cuts film. A child of five could do that sort of work without much practice, but to those on the inside who know their business, a cutter is an important technician in the personnel of a studio.³⁴³

In Smith’s correspondence and writing, the editor often reverts back to dictionary distinctions between the “cutter” and the “editor.” Where a cutter “may describe a boat—a tailor—or a film editor, “a stone cutter,” or “one whose work it is to cut a (specified) thing (in a specified way), as in *amethyst cutter, machine cutter, disc cutter, gravestone cutter, timber cutter, film cutter,*” the term “editor” implies evaluation of narrative, story, and scene.³⁴⁴ Smith’s influence on this front is evidenced in the rhetoric of his fellow editors two decades later. Editor George Amy used Smith’s logic to celebrate the industry’s move from the “inmate” cutter to the autonomous editor in a 1957 editorial “Why A.C.E.?”. Amy writes: “the verb—‘to cut’—as: to carve, to hew, to mow, to reap, to pare, to dilute (as in cutting liquor), to form, shape, or adorn by cutting. Even though I have had the privilege of editing some of the biggest financial successes produced in

343 Fredrick Y. Smith letter to “Paddy,” July 30, 1936. “Correspondence 1936-1954.” Smith Papers.

344 Smith, “letter to ‘Paddy’”; Fredrick Y. Smith, “The Cutting and Editing of Motion Pictures,” *The Journal of the Society of Motion Picture Engineers* 34 (November 1942): 284.

Hollywood, I still cannot apply any of Webster's definitions of the word 'cut' to my work."³⁴⁵

Not unlike other technicians during the early years of institutional craft formation, the editors wanted to draw clear distinctions between manual labor and conceptual, creative work. Amy's citation of these dictionary action verbs adjoined to "cutting" evoke several quite evocative words that might be productively used to describe even the most creative editing, words like "carve," "dilute," and even "adorn." Yet, Amy and Smith before him, use these words not in a metaphoric or figurative sense, but merely to signal that "cutting" implies only the manual, mundane aspects of the craft and offers nothing of its more cerebral or learned skill requirements.

In a 1942 talk, "The Cutting and Editing of Motion Pictures," presented at a SMPFE meeting and later published in *The Journal of the Society of Motion Picture Engineers*, Smith explained, "Whereas the term film editor is more indicative of the creative nature of the work, the term cutter seems to imply that the process is the work of a technician who performs his duties according to the standards and regulations of the profession."³⁴⁶ Smith's writings and lectures sought not only a conceptual differentiation between the technical requirements (the cutter) and intellectual process (the editor who must be skillful at both), but a historical progression of innovation and position within the industry. As Smith recounted in his Academy Oral History, "Editing is up here. (points to the head) Not down here. (holds up his hands) This is just the mechanics."³⁴⁷ The proposition of this rhetorical division between the head and the

345 George Amy, "Why the A.C.E.?" *The Cinemeditor* 7, no.1 (March 1957): 4.

346 Fredrick Y. Smith, "The Cutting and Editing of Motion Pictures," *The Journal of the Society of Motion Picture Engineers* 34. (November 1942), 285.

347 *An Oral History with Fredrick Y. Smith*, 25.

hand is clear; editors wanted to be seen and treated as creative professionals rather than technicians. However, as Smith and other editors accounts showcase during this period, the companionship of the “creative” head and the “cutting” hand often blurred the boundaries where the technical and the artistic collided in day to day practice. In this way, editors were often equally invested in thinking about how editing could be both manually and creatively described as an embodied practice of carving, diluting, and adorning cinematic time and space.

In the 1942 talk, Smith marks the historical transition to sound as the defining break in mechanical difficulty and as the beginning of truly creative editing practice. Smith instructs: “Film became a much more involved process than it was in the era of silent pictures. In those days, it may have been possible to edit a picture with a work-bench, a set of rewinds, a pair of scissors, film cement, a viewing device, and a receptacle for the film. Since the introduction of sound, film cutting has become much more technical.”³⁴⁸ These historical distinctions aided Smith’s claim that the editor was destined to work alone, autonomously, and on *his* own creative merits. Smith’s writing on editing film history fails to reflect the gendered demographics of silent editors (that the craft before the transition had been significantly composed of women), a trend that perhaps foreshadowed much of ACE’s later discourse which took for granted the demographics of gender in one of the few technical crafts that even after the sound transition prominently employed women and whose prestige and power depended on many of them (including Margret Booth, Anne Bauchens, Viola Lawrence, and Barbara Mclean).³⁴⁹ Smith’s talk, however, was careful to reveal his presumptions regarding the potentially closer working

348 *An Oral History with Fredrick Y. Smith*, 25.

349 Kristen Hatch, “Cutting Women: Margaret Booth and Hollywood’s Pioneering Female Editors,” *Women Film Pioneers Project*. <https://wfpp.cdrcs.columbia.edu/essay/cutting-women/Editors>

relationship between the director and cutter during the silent period, though he could not have foreseen that later advancements in film technology (from flatbed to video to digital editing stations) would bring the directors back into the cutting room with more authority than before.

In Smith's historical moment, however, the dominance of the Moviola and the hierarchies of the production system (as highlighted in his manual, *Where Does the Editor Fit into the Motion Picture Industry*) would offer editors a great deal of creative and mechanical freedom from the late 1930s into the 1960s. Smith may have even convinced directors that he worked under to rethink the work of an editor. Smith's potential influence on Norman Taurog may be reflected in a speech the director presented during SMPFE's 1940 annual gala, "In the early days a 'cutter' was just that. But they, themselves, in their progress, have forced [the] industry to change the name to that of 'film editor.' Originally their success depended upon the dexterity of their fingers. Today it is the best knowledge tucked away in their heads that counts."³⁵⁰ The improvements in working hours and pay guaranteed by the union, the organization of studio system personnel, and the growth of 16mm as an industrial format after WWII provided Smith and other editors more autonomy, power, and arenas in which to share these revised working schemas with broader audiences beyond the studios.

In addition to Smith's preoccupation with redefining industrial terminology, the editor often reached out to social, professional, and educational groups to lecture on the mechanics, history, and artistry of film editing. In 1947, Smith spoke to the local Los Angeles amateur filmmakers' organization Cinema Club, screening members' films and providing his expert

350 Norman Taurog, "From Past to Present." In *SMPFE Dinner-Dance Commemorative Program*, September 20, 1940 (Los Angeles: SMPFE), 19.

feedback.³⁵¹ His long investment in preserving and narrating the history and craft of film editing found their stronghold within the American Cinema Editors primary activities through the 1950s and 1960s: Industry-wide and inter-guild promotion, public awareness, and educational grooming. As the college cooperative programs gained more recognition in the trades in the early 1950s, many editors from ACE often guest lectured in Los Angeles film editing classes at UCLA, USC, and Loyola College. Francis D. Lyon and Smith even spoke at Columbia University in New York and at the Sorbonne in France. Smith and fellow editor Leon Barsha, who later headed the education and research committee and oversaw the high-school outreach projects, saw an even larger audience for such a mission beyond Los Angeles. With the success of the lecture series in the first five years of ACE, the editors began planning a series of film demonstrations that would better highlight the artistry of their craft. One of those demonstrations included the successful 1957 presentation at the Television Academy of the *Gunsmoke* daily interpretations and Leon Barsha's *Basics* film. In 1958, ACE's research and education committee, run by Leon Barsha and supported by then President George Amy, promoted and circulated the *Interpretations/Gunsmoke* educational film as well as *Basics*. While the original intent of the educational films was to fulfill the overall organizational mission to raise appreciation for the film editor's creativity in the minds of the public, its possibilities as a classroom technology and tool had not yet been explicitly developed. The educational films went on to live two very different lives in the promotional mission of the organization. While Barsha's film was often used in his presentations and workshops with the Motion Picture Industry Council for the Los Angeles City school system, and in other publicity talks, Berger's

351 "With the Amateur Movie Clubs," *Home Movies* 14, no. 2 (February, 1947): 104.

Interpretations/Gunsmoke film became an unexpected national and international success, thanks in part to ACE Presidents Smith's and Barsha's later respective outreach efforts to the University Film Producer's Association (UFPA) in 1961 and 1962. The distribution requests for purchasing both films for universities and college film programs across the country and abroad became so demanding that ACE made a deal with USC's Educational Film Sales Branch to copy and distribute the films on their behalf. The success of *Interpretations* as an educational film intended for use as a kind of film technical training and film appreciation is specifically tied to larger movements in educational filmmaking and the growth of film technical training programs in the post-WWII era. I describe the films themselves (what they look like and how they work) a bit later, but first it is helpful to make a case for why ACE, the rise of educational film, and the post WWII university contributed to the very fertile conditions surrounding the *Interpretations/Gunsmoke* film's initial success and explains its fifty-year-plus longevity as both an educational film and teaching technology.

4.3 FILMMAKING PEDAGOGY IN POST-WWII FILM SCHOOLS

To understand the discursive and aesthetic impact of this educational film in classroom settings in Los Angeles, North America, and across the world, we must attend to the pedagogical, institutional, and organizational affiliations that fostered its growth. That the *Gunsmoke* film was used so widely in classrooms as film appreciation and technical film training for so many decades suggests something profound about its particular emergence and its form of instruction. In this way, I want to think of the *Interpretations/Gunsmoke* film as a particularly dynamic form of film pedagogy that spoke to the burgeoning discipline of critical film studies and the

expanding higher-ed institutions of film technical training. More so than any distributed text book, *Interpretations*' impact is notable primarily because of its pedagogical contexts. Here, I take seriously Dana Polan's call for a more dedicated attention to how "everyday activities of teaching" have constructed discursive norms in film culture both inside and outside the ivory tower. Polan explains that disciplines rarely acknowledge their formation "through what happens in the average classroom session. It is as if the everyday work of imparting instruction to a student population is taken to be a secondary activity with no direct impact on the field's constitution and continuance."³⁵² I would argue that how we talk in the discipline about film form today has as much to do with what was happening in the post-war university film production classroom as it does with traditional accounts of the growth and influence of literary New Criticism (from formalist, close-reading scholars like I.A. Richards, John Crowe Ransom, and Cleanth Brooks), European art house film distribution and Andrew Sarris "auteurism," and post 1970s critical film theory.

After World War II, post-secondary student enrollment rose from a pre-war 1.5 million population to 2.7 million in 1950, and 7.9 million in 1970.³⁵³ Largely a result of the G.I. Bill, these first-generation, primarily male cohorts also benefitted from an increase in federal attention and spending to universities, colleges, and community colleges in research and scientific programs.³⁵⁴ Additionally, the growth of the big research university and the rapidly expanding

352 Dana Polan, *Scenes of Instruction: The Beginnings of the U.S. Study of Film* (Berkeley: University of California Press, 2007), 21.

353 John R. Thelin, *A History of American Higher Education* (Baltimore: John Hopkins UP, 2004), 261.

354 According Thelin, "The sixty thousand women military veterans enrolled in higher education as participants in the GI Bill represented a high participation rate (about 30 percent, compared with male

campus looked beyond federal funding to external foundations and local industries.³⁵⁵ Nowhere was this new relationship between higher education and the government so profound as the state of California. As John R. Thelin's *A History of American Higher Education* notes of the 1947 Truman Commission Report, "of all the states, California boasted the highest per capita expenditure on students. That it was such a populous state made the statistic all the more impressive."³⁵⁶ Alongside this uptick came the rapid expansion of degree specializations, advanced coursework, and graduate degree granting programs. One of these was, of course, the more institutionalized emergence of critical film studies.

As Dana Polan has pointed out in *Scenes of Instruction: The Beginnings of the U.S. Study of Film*, amalgamations of film courses had been offered since the 1920s, but often removed from the framework of serious humanities disciplines. Film, up until the postwar era, was often relegated to extracurricular cinema appreciation courses housed in night lecture and educational training formats.³⁵⁷ In 1949, American universities and colleges offered 113 film studies related courses across the curriculum, by 1959 that number jumped to 305 and included listings for ten undergraduate majors.³⁵⁸ AFI's *Guide to College Film and Television Courses* suggests that not until the 1968-1969 school year did schools claim some 5,300 programs with undergraduate

veterans' 18 percent rate). Women nonetheless constituted a small percentage of total GI Bill enrollments. Hence one consequence of the GI Bill was to masculinize the postwar campus—both in terms of the sheer numbers of new male students matriculating, and by intensifying the split between the typically male fields of study and those now deemed appropriate for women," *American Higher Education*, 267.

355 Thelin, *American Higher Education*, 283.

356 Thelin, *American Higher Education*, 287.

357 Polan, *Scenes of Instruction*, 122.

358 Shyon Baumann. *Hollywood Highbrow: From Entertainment to Art* (Princeton: Princeton UP 2007), 68.

major and graduate offerings in film. The AFI list shows the growth of film studies as a discipline during the late 1960s and early 1970s. From the 1971-72 school year to the 1973-74 school year, student majors and graduate students in film studies increased from 6,108 students to 22,466 students with a 25% growth in film instructors and of that growth, included a 30% increase in titled full-time instructors.³⁵⁹ While these figures are staggering, the AFI listings do not account for early film courses that were housed in other humanities disciplines such as Art History, English, and Comparative Literature. Whether in a film program or adjacent humanities discipline, most of these courses were taught by professors whose appreciation for the new ‘art’ extended beyond their professional training.

Programs had dabbled with or embraced film technical training before the war at USC, Columbia, and NYU. As Dana Polan documents, much of this early training in the 1920s and 30s (particularly at USC) emphasized the scientific aspects of curriculum that could help advance laboratory and technological innovations within the industry. The advancement of three track systems as advocated by Will Hays, the president of the MPPDA, to a few colleges further emphasized a need for training in scenario writing, cinematography, and art and set design. Hay’s influence set the stage within the curriculum to establish expectations of general and introductory cultural classes to be followed by applied and specialized work in each track later in a student’s career.³⁶⁰

After the war, various programs repurposed the popular 16mm war-time instructional films produced by and for the Navy and the Army for university and industrial settings. Thus,

359 Michael Zyrd, “Experimental Film and the Development of Film Study in America,” *Inventing Film Studies*. eds., Lee Grieveson and Haidee Wasson. (Durham: Duke UP, 2008), 189.

360 Polan, *Scenes of Instruction*, 78-81.

alongside and independent from narrative and dramatic filmmaking, programs and audio-visual departments invested in producing non-narrative films for non-theatrical markets cropped up across the country. These programs included Indiana University, University of Minnesota, Ohio State University, the University of Iowa, City College of New York, USC, and UCLA. Early surveys of the institutional effects of this burgeoning field were featured in the *Journal of the Society of Motion Picture and Television Engineers* and *The Journal of the University Film Producers Association*. In a September 1950 issue of SMPTE Journal, Jack Morrison compared the change of film courses and specialized technical courses between a 1946 Frayne report and a 1949 follow up survey. While Morrison reported that “little if any significant change in the teaching of the production of motion pictures in colleges and universities,” he conceded that the report indicated three hundred more “related courses.”³⁶¹ The findings themselves reveal the division of core curricula, such as a shift from fundamental courses into more specialized courses, or introductory cinematography courses being broken up over two courses. Morrison cites the minority of programs (half-dozen) offering a “comprehensive major in production” which he attributes to “a reflection of expensive of equipment, lack of personnel and antipathy toward the “trade school” courses.”³⁶² This trade school aversion was most glaringly articulated in post-war film production training programs slowly developing within other departments or

361 Jack Morrison, “Motion Picture Courses,” *The Journal of the Society of Motion Picture Engineers* 55 (September 1950), 278.

362 Morrison, “Motion Picture Courses,” 278.

alongside other more established academic art programs. The rise of UCLA's undergraduate and graduate motion picture production degree is one such example.³⁶³

Formed in 1947, UCLA's theatre division was composed of an overarching theatre program and four subsequent major programs: theatre, radio, television, and motion picture. Students would be given two years in general theatrical arts education followed by two years of specialized major training. No greater was the division within the program than between the Theatre Arts faculty (hailing primarily from academe) and the Motion Picture faculty (hailing primarily from the Hollywood film industry). The head of the division, former producer and playwright Kenneth Macgowan, argued for the necessity of dramatic, cultural, and literary training of all undergraduate students before they could pursue the more technical research or produce fully-realized motion picture projects. As Macgowan once explained in a written lecture for an international collegiate conference, "Film, radio, and television do not provide as wide or thorough a means of educational, cultural, and emotional development as theatre; that, alone, they have no secure place in university education, but that, linked with theatre, they can justify themselves."³⁶⁴

363 One UCLA campus newspaper feature in the Daily Bruin praised the Motion Picture division's ongoing projects, yet presented skepticism about the overall technical impulse of the new program: "A question that is still continually raised by people, is whether a university is the proper place to learn a form of show business such as motion picture. Some feel that a study of this nature is more in the province of a trade school." As quoted in Fred Roos, "Prize Pictures are Produced: A Description of the UCLA motion picture division," *UCLA Daily Bruin*, April 13, 1956, M2-M3.

364 Kenneth Macgowan, "Some notes on the Attitude of American Universities: Towards Theatre and Modern Media of Mass Communication," from *The Relation Between the Universities and Film, Radio and Television*. Ed, Glynne Wickham. (University of Bristol). Kenneth Macgowan papers, UCLA., (Hereafter Macgowan papers)

His early convictions of motion picture's disciplinary relationship and dependence on theatre arts was backed by head of the Theatre Arts major Ralph Freud, who complained bitterly of the motion picture division's entitlement to an autonomous curriculum. In particular, Freud cited the motion picture faculty's technical demographics, "Our present motion picture division, in leadership and faculty composition, is dominated by cameramen who see the motion picture entirely as a camera exercise. Their worship of the machine—the box with a hole—makes it for them—if you'll excuse the pun—a real Camera Obscura."³⁶⁵ Freud continues, "I doubt if one member of the motion picture division could tell you the names of three faculty members. I doubt if they could explain the difference between the College of Arts and Letters and Science. I even doubt whether most of them could tell the university's general structure. They are just not in the university or of it." This resentment and condescension was clearly felt by the motion picture faculty, run by camera operator and mountaineering filmmaker Norman G. Dyhrenfurth who retired in 1952 after a five-year tenure to return to filmmaking. In his departure, Dyhrenfurth supplied Macgowan with a substantial list of recommendations if the success of the motion picture program was to be insured. Dyhernfruth evaluated the full course curriculum making a case for important theoretical and specialty (practice-oriented) divisions between the two disciplines, itemized a list of necessary technical improvements (facilities, classroom space, equipment repairs), and highlighted the strength and potential growing job market for graduates in non-theatrical filmmaking.³⁶⁶ Despite these early squabbles over film and television's place in the disciplinary schema of the theater program, the growth in student enrollments in the

365 Letter from Ralph Freud to Kenneth Macgowan. February 26, 1951. Macgowan Papers.

366 Letter from Norman G. Dyhrenfurth to Kenneth Macgowan. February 12, 1952; "Aims, philosophy, and curriculum of the Motion Picture Division." Macgowan papers.

program bolstered finances and confidence in the new program (in the 1956-1957 school year, the department saw its Motion Pictures undergrad and graduate enrollment peak at about 200 students, around 44% of total enrollment across the four majors).³⁶⁷ The increase in inter-industry and inter-Hollywood relationships over the 1950s into the 1960s, solidified film and television's eventual dominance in the program: Macgowan's position on the Hollywood Museum board, Colin Young's film course inviting Hollywood studio personnel to speak, and the popular on-set immersive "Paramount Class" taught on the Paramount Studios backlot.

Unlike UCLA's ideological struggles over art, industry, and academe, just across town USC had fully embraced film technical training and the financially self-sustaining model of non-theatrical filmmaking and distribution. Much has already been written about USC's influence, production, and role in the field of educational filmmaking. Dino Everett and Jennifer Peterson's study "When Film Went to College: A Brief History of the USC Hugh M. Hefner Moving Image archive," documents Herbert E. Farmer's development and maintenance of USC's Audiovisual services from 1946-1976, profitable distribution rental catalog of thousands of non-theatrical 16mm films, and the eventual archive of decommissioned rental materials and student films.³⁶⁸ Films produced at USC started to be distributed and sold in 1949 with the first full catalog of twenty-eight films being distributed in 1951.³⁶⁹ By 1957 the catalog had grown to one-hundred

367 Kenneth Macgowan, "Full-Time Equivalents-Faculty and Students. Department of Theater Arts – Spring, 1957." Macgowan papers.

368 Dino Everett and Jennifer Peterson, "When Film Went to College: A Brief History of the USC Hugh M. Hefner Moving Image Archive," *The Moving Image* 13, no. (2013): 33-65.

369 Everett and Peterson, "When Film Went to College," 44.

pages and included both USC produced educational films and Non-USC instructional films.³⁷⁰

By the late 1960s, the A-V catalog had grown twice the size and A-V employee Glenn R. McMurry (at the encouragement of Farmer) organized an extensive computerized cataloging project of all nationally circulating 16mm films (*Index to 16mm Educational Films*) with the National Information Center for Educational Media (NICEM) and McGraw-Hill.³⁷¹

The successful enterprise of A-V services' Film Sales program (with a revenue in excess of two hundred thousand dollars in 1969) depended on the continued output and quality of student and faculty productions.³⁷² As Everett and Peterson explain, "Distributing educational films became not only a revenue stream for the USC Department of Cinema but also a teaching tool, as students were able to get hands on filmmaking experience making sponsored films, which were then rented or sold as part of a larger film library held by A-V Services."³⁷³ USC's unique success as a private institution making and selling sponsored films (most other institutions doing the same during the period were public) was thanks in large part to the institution's expanded facilities, equipment, and processing laboratory and a student cohort of undergraduate and graduate students who each worked on a handful of films during their time in the program.³⁷⁴ Alongside Farmer's Audio Visual department, educational filmmakers Lester Beck and Ernest D. Rose instructed students on the utilitarian art of non-fiction filmmaking. As

370 Everett and Peterson, "When Film Went to College," 44.

371 Glenn D. McMurry, "The University of Southern California," *The Autobiography of an Unimportant Man*. <http://www.gregssandbox.com/mcmurry/sec10/10-usc.htm>

372 Everett and Peterson, "When Film Went to College," 49.

373 Everett and Peterson, "When Film Went to College," 43.

374 Everett and Peterson, "When Film Went to College," 45.

part of this curriculum, undergraduates worked on campus-based educational films and graduate students worked with off-campus foundations, organizations, or companies in producing a sponsored film.³⁷⁵

The expansion of film technical education, particularly non-narrative filmmaking in the post-war university at UCLA, USC, and across the country, often appeared as a topic in the pages of the *Journal of the University Film Producer's Association*. In 1961, NYU professor Robert W. Wagner attempted a more thorough investigation into the changing landscape of film education (both critical and practical) and the challenges that colleges and universities teaching film or adjacent curriculum currently faced and would continue to tackle in the decades to come. Wagner advocated for all programs to accept general core curriculum of “principles” and “techniques” that would combine theoretical and aesthetic practices of film study with the forms of expression inherent in the act of making a film. Wagner also highlights the particular difficulties of producing coherent sets of discourses across widespread locations and college campuses with different goals on matters of film education and film assessment (“The university will have to evolve new standards for judging creativity. How do you “grade” a film? How important is the finished work compared to the process by which it was produced?”)³⁷⁶ Wagner also makes an interesting plea: “We shall also need films about filmmaking. A few of these exist.” Two such films that according to Wagner “represent the beginning of what should be a continuing flow of good films about how films are made” were the American Cinema Editors’ educational films *Film Editing: Interpretations and Values* and *Basics of Film Editing*.

375 Everett and Peterson, “When Film Went to College,” 46

376 Robert W. Wagner, “Cinema Education in the United States,” *Journal of the University Film Producers Association* 13, no. 3. (Spring 1961): 112.

4.4 THE ACE FILMS

As both an educational technology and a promotional tool for the budding organization, *Interpretations*, a.k.a. the *Gunsmoke* dailies, and *Basics* sought to redefine continuity editing as a craft and an art form. *Interpretations* opens with an image of ACE's logo (a hand holding a pair of scissors that act as a scale weighing script pages on one side and a completed film reel on the other). ACE founding member and *Gunsmoke* supervising editor Fred W. Berger turns from where he is seated at a Moviola and addresses the camera. Berger insists that students think about the uniqueness of the film editing experience as they would other creative avenues of expression such as writing, drawing, or reading poetry. Berger explains:

Each person's approach to a creative medium is different from anybody else's. No two writers describe a scene the same way; no two people draw a line in exactly the same way; no two people interpret a poem the same way. So it is with film editing. Given the same sequence of film, each editor would *handle* it in a slightly different way. Nobody would be wrong in his approach; it merely differs from the other.³⁷⁷

The film begins with the rushes or dailies footage from one scene in the "Buffalo Man" episode of *Gunsmoke*. The usable dailies highlight the degree of professional coverage available to editors of Hollywood television during the period (viewers are given twenty-six different set-ups, spanning seventeen minutes, to be cut into a three-five minute scene). Viewers are given a sense of the speed and pace of production (we are mostly shown a single take per set-up though the man-in-the-white-hat holding the sync slate gives us clues as to which take we are watching and how many have come before). Viewers are also given access to the interactions between the camera crew, director, and actors. Illustrative on their own merits, the dailies section is designed to inspire the viewer's imagination and set the stage for the different "interpretations" by three

³⁷⁷ *Film Editing: Interpretations and Values* (American Cinema Editors, 1958)

ACE editors. As Berger instructs the viewer prior to watching the footage and the different versions, we are not meant to compare and contrast the three sequences for quality. Berger implores us instead to “remember, this is not a competition. It is three points of view.”

The language used by the editors as they appear on screen (again as each is seated at a Moviola) to introduce their version is especially telling. While Michael McAdams asserts his version is how the film *should* be cut, Arthur Nadel instead suggests that his cut is merely “how he interpreted the sequence.” Finally, Harry Coswick reveals that his cut was the actual cut used in the show. The discourse of individual interpretation (“can”) over theoretical ideal (“should”) within craft practice that is at the heart of the editor’s *Gunsmoke* variations had been long developing across day-to-day industrial practices and was core to the mission of the American Cinema Editors in the 1950s. Writing about the possibilities for alternative and creative editing in the studio system of the 1930s and 1940s, Paul Monticone explains, “Despite the rather strict paradigm of intra-scene cutting, editors understood their work here to possess a subtle artistry that exceeded mere adherence to “rules.”³⁷⁸ With the establishment of the IA Local and the American Cinema Editors, the organization of once lowly and “invisible” cutters became brightly visible across social, industrial, and cultural spheres of Hollywood, as well as the educational networks of North America.

With this surge in public visibility during ACE’s first decade in the fifties, editors advanced their artistic might by holding more power in the editing room and on set, as supervising editors (like Berger) at studios had a say in coverage options while films and TV

378 Monticone, “Classical Hollywood, 1928-1946: Editing,” 63.

shows were still in production.³⁷⁹ An editorial by W. Donn Hayes in the second issue of *The Cinemeditor* praised the increasing role of editors as “directorial consultants” on set: “One of the many advantages of this coordination of effort will be to minimize the number of camera setups and yet at the same time maintain sufficient flexibility and protection in the eventual editing of the film.”³⁸⁰ As Dana Polan has observed about these new powers, “Procedures of filming that gave editors material from which to build continuity [...] were not about binding editing into one particular structure, but creating options.”³⁸¹ So, while even the actual editor of the scene Harry Coswick explains that this is how the scene was finally cut for television, Coswick’s supervising editor Fred W. Berger bookends *Interpretations* by reminding the viewer that the project is only the beginning and adds, “the possibilities are endless.”

As then ACE President George Amy explained in a memo upon *Interpretations*’ release, “The film is a good example of how personal an experience is the viewing of a movie; how each individual puts his own interpretation on the various dramatic values. It also illustrates how much control the editor has over dramatic constructions.”³⁸² Continuity style as defined and figured within the film and its later adapted hands-on assignment is depicted as how a scene should or could be edited. Yet, *Interpretations* most important and radical gesture is its demonstration of how practices of continuity produce many possible ways of seeing or making. In this way, a re-evaluation of *Interpretations* asks us to consider how the definition of continuity

379 Monticone, “Classical Hollywood, 1928-1946: Editing,” 57.

380 W. Donn Hayes, “Editorial,” *The Cinemeditor* 1, no.2 (October 1951): 2.

381 Dana Polan, “Postwar Hollywood, 1947-1967: Editing,” *Editing and Special/Visual Effects*, 80.

382 George Amy, “Memo from American Cinema Editors” (ND). Smith Papers.

or analytic editing practices were less stable in the 1950s and 1960s than we might have imagined. Rather than understanding the history and dominance of studio continuity style as a top-down systemization of narrative practice (ala Bordwell, Staiger, and Thompson), the American Cinema Editors suggest that continuity style's very survival and pleasure relied heavily on its individual creative practices of experimentation, openness, and potentiality. *Interpretations'* *Gunsmoke* experiment was presented as a critical and practical exercise in unique narrative and sensory possibilities for the viewer and the actual or speculative editor.

While originally conceived as a purely stand-alone instruction of film appreciation, later on the more common approach in specialized film schools involved using the duplicates of the dailies footage for classroom continuity exercises. From the 1960s to today, instructors have been assigning this *Gunsmoke* continuity editing assignment on a variety of formats for students to reinterpret the dailies into their own cut scene of the TV show. Over the years, however, it has been unclear how successful the *Interpretations* and the *Gunsmoke* assignments have been at conveying in thought and practice the stated goals of creativity, openness, and flexibility in continuity editing.

Anyone who has taught or completed the *Gunsmoke* cutting for themselves share their own widely ranging "interpretations" on the film's utility and creative pleasures. In his 1969 talk "Problems and Prospects of Film Teaching," Ernest D. Rose, then president of the University Film Association, drew attention to the large gulf in quality between educational films *about* filmmaking and film appreciation and the narrative Hollywood dramas students watched in the classroom. For communications professor Rose, the educational films *about* films (including *Basics* and *Interpretations*) lacked both entertainment and usefulness. Rose remarked,

“Audiovisual educational aids on the topic of film making techniques tend to be beyond all belief in their capacity to bore or irritate the viewer.”³⁸³

Indeed, thanks to the longevity of the instructional film and the *Gunsmoke* assignment, no other filmmaking educational film has received so much attention for its “capacity to bore” and “irritate the viewer” despite its “indispensable” and “inspiring” role in the history of film school institutions. HBO Docs editor Geof Bartz praised the assignment’s revelatory qualities as he experienced them during his undergraduate years by exclaiming, “It was like the scales fell off my eyes. It didn't come out of the camera that way! Somebody made decisions to link those shots that way!”³⁸⁴ Many members on Avid software forums recall their own memories of the assignment and proclaim it a “rite of passage” for any film student, though many other editors are not so praiseworthy, calling the assignment “that old relic” and “outdated.”³⁸⁵ For nearly thirty years, the film was one of the few widely available resources for useable professional dailies and instruction in an introductory editing assignment, a dilemma that prompted professors Betsy McLane and David Price to host a panel at the 1982 University Film and Video

383 Ernest D. Rose, “Problems and Prospects in Film Teaching,” *Journal of the University Film Association*. 21, no. 4 (1969): 97.

384 Megan Cunningham interview with Geof Bartz, “Geof Bartz, Crafting Cinematic Television,” *The Art of the Documentary: Fifteen Conversations with Leading Directors, Cinematographers, Editors, and Producers* (San Francisco: New Riders/Peach Pit, 2014), 231.

385 According to AVID software user Terry Snyder, “When I was at USC film school in the early 80's, they gave us the Gunsmoke dailies on 16mm film and we had to cut it on an upright Movieola [ibid].[...] They had printed so many student copies off the negative, the quality was pretty bad. But the Gunsmoke editing [exercise] was a right-of-passage.” See, Terry Snyder, “Re: Gunsmoke dailies (or any dailies),” Avid Community Web Forum (August 18, 2011). <http://community.avid.com/forums/p/99761/574649.aspx>

Association conference titled, “After *Gunsmoke*, What's Next? Editing Exercises for the Intermediate Director and Editor.”³⁸⁶

Film programs in colleges and universities certainly saw the utilitarian value in a film and project like the *Gunsmoke* assignment from the mechanical point of view. Students could work with professional footage that included a great deal of coverage, without the additional hassle of shooting and paying for their amateur footage. As Arthur Nadel had observed while teaching at UCLA in 1955, “I found that because of a severe limitation of available film, limited in fact to that which they themselves had shot, they had scarcely any opportunity to work on a scene which had been sufficiently covered, and to which it was possible to give various interpretations.”³⁸⁷

Gunsmoke offered the opportunity of cutting professional shots into sequences which offered students, including myself, a primer on the artistic, narrative, and emotional affordances available with expansive coverage shooting and continuity editing. Working within certain structures (particularly the kinds of Hollywood narratives or pre-determined kinds of coverage setups) limits or constricts certain kinds of larger structural maneuvers while opening-up thousands of micro-choices. Indeed, part of the play in the activity of continuity editing is figuring out the multiple ways the puzzle can be solved or the story-world can be navigated given the options on the table.

386 Barbara A. McLane and David Prince, “After *Gunsmoke*: What’s Next? Editing Exercises for the Intermediate Director and Editor,” The 36th Annual University Film and Video Association Conference (August 5, 1982) reprinted in: *Journal of the University Film and Video Association* 34, no. 4 (Fall 1982): 41.

387 Arthur Nadel, “Teaching at UCLA,” *The Cinemeditor* 5, no. 2 (June 1955): 3.

4.5 EMBODIED LEARNING WITH THE *GUNSMOKE* DAILIES

Perhaps like the thousands of film production students who cut the dailies into their own interpreted sequence, I also wavered between the project's tediousness and its unique quirks and technical affordances when I was a film student cutting the footage for the first time. I want to balance *Interpretation's* stated intent of creativity and flexibility with its own limits, to delve more deeply into these individual navigations and micro-maneuvers by ACE editors and those tentative choices by students cutting the strict (non-remix) version for the first time. On first back-to-back viewing of the ACE and student versions, it *is* tricky to parse out what the differences are between each. For clarification, here is how the story plays out in all three versions.

Chester, the Deputy Sherriff is looking around town for Marshall Dillon. When Chester finds Dillon talking with the Doctor, Chester informs them that "Buffalo Man" Ben Siple has come into Dodge and his treating his wife Abby "something terrible." The trio rush out to the street where Siple is yelling at Abby about "being too good" for her family and "putting on airs." Siple grabs Abby to put her on his carriage and slaps her. Before Siple can hit Abby again, Dillon intercedes and attempts to diffuse the situation. Siple and Dillon verbally spar and Dillon asks Abby what she wants to do. Abby affirms that, she "never wants to see [Siple] again as long as she lives." Following Abby's exit, Dillon and Siple engage in an extended brawl. Siple loses the fight and Dillon orders him out of town and tells him never to come to Dodge again. Siple is driven out of the town, Dillon tips his hat to the on-looking Abby before walking away, and all is set right again in the world of *Gunsmoke*.

It's easy to say, "Okay, it's a typical scene from *Gunsmoke* no matter which way you cut it, so what?" But as Leonard Leff explained in a 1977 pedagogy article for the *University Film*

Association Journal: “If the classroom instructor shows [*Interpretations*] once, briefly discusses it, and abandons it, its potential is minimized. On the other hand, by providing students with a cutting continuity of the three versions, the instructor renders the film more accessible as a teaching tool and establishes the basis for an effective simulation of hands on experience.”³⁸⁸

Leff argues that these kinds of detailed continuity diagrams [produced in his article] help draw the students’ attention to the role of emphasis and individual nuance in the professional editor’s cuts.

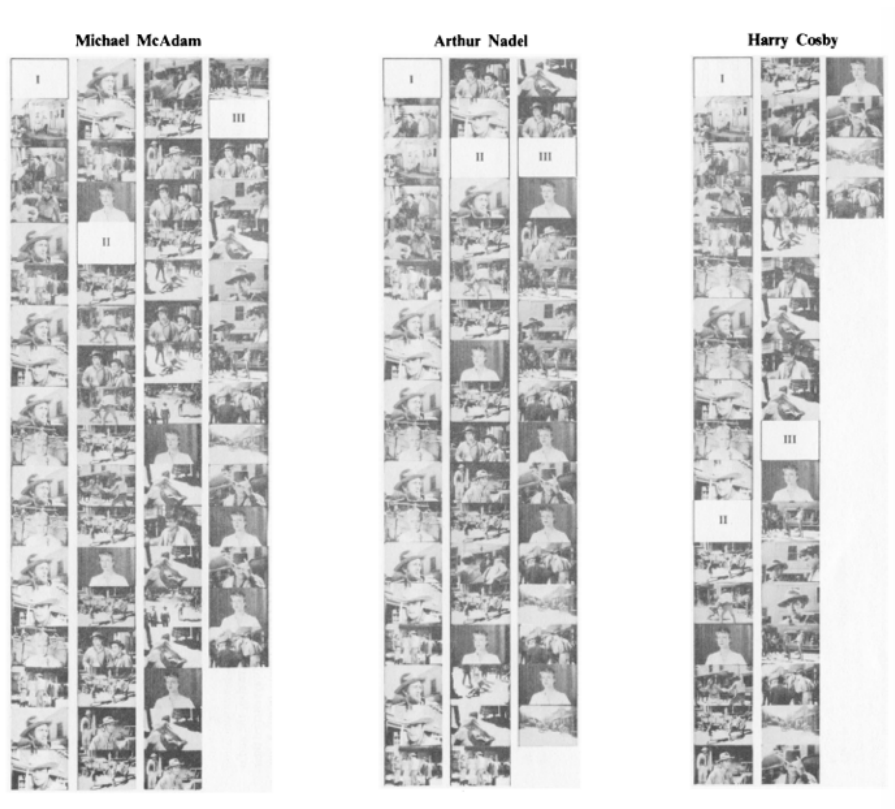


Figure 4.1 Leonard Leff, “Film Editing: Three Cutting Continuities,” *Journal of the University of Film and Video Producers*³⁸⁹

388 Leonard J. Leff, “Film Editing: Three Cutting Continuities,” *Journal of the University Film Association* 29, no. 2. (Spring 1977): 53.

389 Figure used with permission from the *Journal of Film and Video* and author.

Leff argues that “McAdam’s cut highlights action, by satisfying character. Nadel’s “breathes” better than either one of the others, but perhaps allows Abby more prominence...than a minor player in the series deserves. Although Cosby [*sic*] paces all three scenes well, he perhaps over relies on master shots.”³⁹⁰ Beyond Leff’s normative assessments of narrative meaning, Leff goes on to weigh the many possibilities of assignments generated by the instructor and even by the students. Leff suggests that by engaging with the film as viewers, students also become “speculative” makers in working with the material. Leff’s detailed continuity breakdowns showcase one way to access the possibilities at work in the dailies (Fig. 4.1).

Inspired by Leff’s continuity charts, I wanted to take the *Gunsmoke* project a step further and to use Berger’s words “handle the film” in my own “slightly different way.” I did not want to cut the sequences yet again for myself (I’d already done this once for my Intro to Editing course I took through Loyola Marymount University’s Düsseldorf Film and TV satellite program in the Fall of 2005). I wanted—as best as possible—to think and feel through the cuts offered in the film by McAdams, Coswick, and Nadel by literally reproducing their cuts myself. As Coswick’s is the only realized working model on the table here (beyond his stating this, there are other markers of the sequence’s rushed post-production and efficient cuts), it is also helpful to think of McAdams’s and Nadel’s versions as equally experimental and perhaps more creative given that they likely spent a longer time cutting these sequences for the purposes of public craft promotion (one that specifically highlighted their individual work) than a typical sequence on their own TV shows. McAdams and Nadel were also regular TV editors on shows like *Suspicion*, *The Schlitz Playhouse* and *Death Valley Days*. With Premiere video editing software, I uploaded

390 Leff, “Film Editing,” 63.

the full sequence of each editor's version onto a timeline in a multi-screen format so that I could view each more closely side-by-side.

This approach offered a few insights: namely how Coswick and McAdams begin and end on two similar shots, while Nadel's beginning and ending structures differ drastically from the other two in tone and character focus. I wanted to see and experience not just the overall parallels and contrasts between the three, but also the minute choices the editors were making from frame-to-frame cuts, matches on action, eye-line match, as characters exited and entered the frame, choices of dialogue and reaction shots, and the particular rhythm each editor developed across shots. In other words, I wanted to think through the rules and exceptions of continuity editing by placing "working terms" into action. Each editor was limited by what was shot and which takes were deemed acceptable, 17 minutes of footage (1,800 feet) for a 3 to 5-minute scene would give anyone a dizzying array of options.

Once I set to slowly watching and cutting into sequential cuts each editor's version (represented as a single clip), I started to *feel for myself* a little bit of the editor's sensibilities and technical procedures at work. By no means was I cutting a 16mm negative at a Moviola, splicing ends together, and hanging them in a bin; I was working from an .MP4 digitized copy I purchased from ACE's online store which made available the downloadable versions in 2017. Previously, I had been working with phone video I had recorded from a projection of my institution's deteriorating 16mm copy (I had requested DVD and VHS versions of the films from my institution's ILL with no success). I list these degrees of format variation to alert the reader that I am well aware that my digital tinkering with compressed video sourced from who-knows-what-prior-format may only be a rough approximation of the kinds of technical craft maneuvers and embodied sensations at work in the original ACE editors analog process, not least of which

difference is that my digital frames at 29.9 fps can never exactly match up with the original 24 fps thanks to random frame duplicates throughout. My project here is not simply to try to reproduce an exact replica, but loosely approximate the technical and felt actions of continuity editing processes. Whether cutting with scissors or a button or a mouse or whether splicing with cement, tape, or a sequence of computerized delete-drag-snap actions, each editor in any historical moment who has encountered the project must still physically and cognitively “handle” the material. Thus, my process of re-cutting in shot-to-shot seams made invisible in their projection and imported as whole uninterrupted clips were slowly and suddenly made visible as hard edges and as individual choices once again. In this sense, the embodied artfulness of continuity editing has always literally existed at the very edges of the frame(s). The lines where the editor, and not the director, has felt the internal cry of “cut.”

As I began to cut through each version, I color-coded each clip to correspond to a camera set-up, a riff on Leff’s graphic map of the films (Fig. 4.2). This allowed me to visualize each editor’s distinct choices across coverage and to notice explicitly how editors favored different kinds of set-ups (master shots vs. shot-counter-shot close-ups to convey action) and how these preferences would then dictate the kinds of rhythm and meaning (and vice versa). Seeing these choices as cuts of coverage and feeling these choices in my own act of cutting even further differentiated the versions.

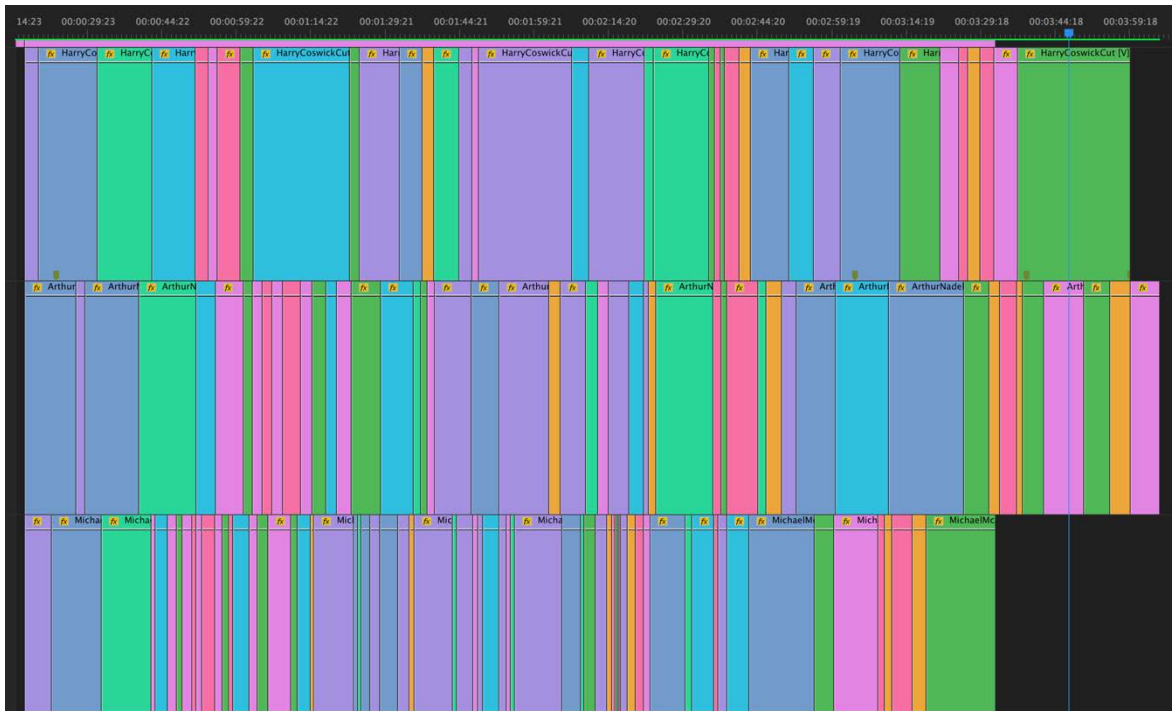


Figure 4.2 A.C.E. Editors *GunsSmoke* breakdown by set-ups and shots. (McAdams, bottom row;

Nadel, Middle Row; Coswick, Top row)

McAdams is the shortest (at 3:16), but has twice as many cuts as Coswick (at 3:43) and relies on short cuts (mostly shot/counter shot between characters) and a range of coverage in every part of the scene. Coswick relies on long takes and master shots (perhaps another indicator that this is the actual version and was cut quickly using the fewest cuts to communicate the necessary narrative and emotional shifts). Nadel’s is the longest and feels the longest (at 3:49). Nadel’s cut is also the most unique in structure, pace, and content (Nadel picks set-ups and performances that aren’t used at all by Coswick and McAdams who pick similar set-ups to highlight key narrative developments). Nadel chooses to linger on scenes the other two quickly move away from (the beginning scene with “Doc” telling a joke is omitted from the other versions, and the scene where Marshall interrupts Siple hitting Abby). Nadel also emphasizes character and focuses on longer reaction shots than McAdams’ quick back and forth cutting.

While on the surface all the *Gunsmoke* versions seem similar, in these seams every version looks and feels like different films. Here, the activity of re-cutting-in feels actually much more important than this end-product visualization implies. In one way, I kept thinking about the process through Karen Pearlman's altered definition of *decoupage* as, "roughly, cutting something up with the intention of putting it back together again."³⁹¹ While what I was putting "back together again" was already completed before I even began, I started to sense intuitively the creative and flexible appeal of continuity editing even in its most industrialized form, serial television. As Pearlman suggests,

What the multiple shots provide an editor with is a much finer degree of control over the shaping of time, energy, and movement. Each shot and take of a scene that could have unfolded in a real time and space will contain its own unique potential for contributing to rhythm. Performances will have different uses of time: faster or slower, shorter or longer. Shots will have different uses of space: close-ups, two-shots, wide shots, or other configurations. They will also each contain their own movement—movement of camera, characters, or composition, and the near-infinite range of energies with which these kinds of movement can be executed.³⁹²

The *Gunsmoke* dailies offer exactly this kind of potentiality and possibility in every cut. Indeed, every cut offers a new opportunity to disrupt, reinterpret, and rethink the most structural, narrative, and rhythmic elements of the scene. Additionally, each cut at its finest details (a foot exiting a scene, frame by frame) gives the editor even further choices of timing, space, and sensation. In another way of approaching the material, I placed cuts of the same set-up side by side in a different sequence to determine which "frames" or exact moments each editor chose to cut the same shot. Let's begin with a wide-shot of Deputy Chester Goode (Dennis Weaver) ambling down the boardwalk looking in windows and doorways and yelling for Sheriff Dillon,

391 Pearlman, *Cutting Rhythms*, 156.

392 Pearlman, *Cutting Rhythms*, 157.

“Mr. Dillion!” Both McAdams and Coswick use this shot as the opening shot of the scene, establishing for the viewer that something is afoot in Dodge to which the Dillon urgently needs to be alerted. Nadel’s first shot opens on a two shot of “Doc” (Milburne Stone), humorously complaining about his duties to the sheriff: “...passing pills?! Ninety-percent of my work is surgery, setting broken bones, delivering babies... in the middle of the night!” Chester’s calls off-screen announce a cut to the just-short-of-two-second wide-shot of Chester out on the streets before cutting back into Doc and Dillon (who have turned toward the door) anticipating Chester’s on-screen entrance into the frame a few seconds later. All three editors utilize this wide-shot set-up of Chester to indicate a significant narrative moment, but all three editors cut in and out of the set up at slightly *different* moments. Nadel’s is the most structurally and tonally significant, while McAdams shows Chester looking around longer before calling out, and Coswick’s Chester moves forward, gestures to someone off screen, and then yells “Mr. Dillon!”.

In terms of spatial continuity, the interaction between the wide-shot of Chester and his entrance into the room where Doc and the Dillon are speaking doesn’t geographically line-up. Chester’s motion from background to foreground on a diagonal line gestures towards an off-screen figure behind the right of the camera, yet Doc and the Dillon are inside a room seemingly in the buildings to the right of Chester (unless of course they are in an open doorway that we do not see directly in front of Chester, which seems spatially unlikely). Ultimately, I don’t know how much this nitpicking of “spatial continuity” matters here, as the narrative continuity covers over any incoherence in the physical layout of the action (though, this disruption does feel more clear when you’re actually working with the material). What I’m more interested in is not how each cut follows or breaks the rules of spatial continuity (all three—thanks to the available footage—had to break a rule within seconds of the scene’s commencement), but within more

intuitive choices in cutting from one frame to the next, how each editor cuts on action and movement differently in micro-movements.



Figure 4.3 Frame-By-Frame *Gunsmoke* shot cuts by A.C.E. Editor³⁹³

Between rule and intuition, editors navigate a wide space for interpretation. Take the end of the Chester wide-shot. Each editor cuts on Chester's movement out of frame, but no two editors cut at the exact same moment. While Coswick waits for Chester's body to just completely clear the edge of the frame, Nadel leaves an entire foot remaining in shot, and McAdams cuts when Chester's entire body is still mostly in the shot (Fig. 4. 3). In no way does this determine the speed at which Chester enters the next shot. All three editors here are cutting on action, but each three maneuvers the definition of the rule and cuts instead on a *feeling*. Editing instructional manuals offer mixed advice on this kind of cut. Most suggest following the most simple rules for the action cut: If character exits frame right, they must enter frame left. Technically this is true in Chester's case, even if the spatial configurations of buildings and rooms doesn't cohere, the logic of the exiting and entering action covers this gap.

Yet, very few manuals offer more specific guides to frame-by-frame manipulation. As director (and former editor), Edward Dmytryk explains in his instructional book, *On Film*

393 Frame-By-Frame analysis, screencaps from personal edited material. reprinted with permission of the American Cinema Editors, inc.

Editing: An Introduction to the Art of Film Construction, “The cutter must view his film on the Moviola, where he can start, stop, run forward, or run backward as quickly, as slowly, and as often as he wishes. He must be able to stop on the proverbial dime, and he often needs to. In short, it is on the Moviola that he finds the *exact* frame to leave one scene and the *exact* frame to enter the next.”³⁹⁴ Dmytryk’s book helpfully illustrates the editor’s negotiations between implicit craft rules of continuity and strong personal preferences for technical decisions. Even when Dymtryk clearly states how things *should* be done at the Moviola, he quickly “corrects” himself with a footnote that offers much greater personal leeway. In a footnote on the first page of Chapter Five titled “You’ve Got to Have a Reason,” Dmytryk acknowledges, “The rules of cutting, as stated, are mine. Some of those which I will lay down in this book have been observed for many years, before my time, but they have never, to my knowledge, been codified. Experienced editors will probably agree with most of my rules. However, if you want to question one now and then—have fun.”³⁹⁵ In this way we can read Dmytryk’s rules not as its own form of codification, but a flexible notion of working practices that have come to be understood as loose guidelines, guidelines that can as easily be prescribed as played around with and partially improvisational.

It is with this malleability that I think we can read Dmytryk’s fascination with *exact* cuts more broadly than his strict instruction implies. Dmytryk explains:

The word *exact* is stressed because I believe that the proper cut can be made only at single point. Obviously, cutting three or four frames to either side of the hypothetically “perfect” cut will make a difference of only 3/24ths or 4/24ths of a second—hardly enough to bother a viewer who consumers 5/24ths of a second to, literally, blink of an

394 Edward Dmytryk, *On Film Editing: An Introduction to the Art of Film Construction* (Boston: Focal Press, 1984), 24.

395 Dmytryk, *On Film Editing*, 23.

eye. But why be 1/8th of a second off target if you can be perfect? Beyond this purely ethical consideration, when making an “Action cut,” three frames too much or too little on one side or the other can effectively spoil the match.³⁹⁶

Putting “purely ethical considerations” aside, what Dmytryk’s rule here suggests is *not* that there is one “perfect” cut in a shot for all editors (since all cuts before and after would likely also be distinct), but rather that this cut is “perfect” for Dmytryk and that a different cut using the same footage in my own distinct sequence would be “perfect” for me. In this way, there is no one cut that *is* perfect; there is only the one cut that *feels* perfect for each editor. Instead, it is useful to think of Dmytryk’s rules in relationship to intuition. Dmytryk counsels new and inexperienced cutters not to “agonize for hours over a single cut,” but rather, “the first immediate and instinctive choice is more likely than not to be the right one. Experience will eventually teach a cutter exactly where to make the cut the first time around, and the decision will scarcely be a blip on his mind.”³⁹⁷ For Dmytryk, like many other editors, that “1/8th” of a second off-target is about the combination of timing, rhythm, emotion, and fitting the rules in a way that feels subjectively right. And, if it is not just right it will feel not only wrong, but it will feel like an itch to compulsively scratch, a picture tilted just ever so slightly, an ever so quiet leaky faucet that when adjusted by one simple twist will set the whole thing right again. Pearlman highlights how one right cut determines and continues the movement of energy from one shot to the text. Pearlman uses the metaphor of throwing and catching an invisible ball when teaching students how to edit and explains, “they all catch the [invisible] energy the way it was thrown.”³⁹⁸

According to Pearlman, so it is with the editor who, “throws the energy from one shot to the

396 Dmytryk, *On Film Editing*, 24.

397 Dmytryk, *On Film Editing*, 26.

398 Pearlman, *Cutting Rhythms*, 115.

next. She chooses the shots, their placement, their duration, and the frames to make an emotional arc from one shot to the next, so that it appears that the emotional energy thrown in one shot is the energy responded to in the next shot.”³⁹⁹

As a way to draft out this metaphor a bit further, I wanted to think of some of the other instances in ACE’s *Gunsmoke* versions, where each editor chooses different in and out frames and what kinds of feeling and throwings/catchings of energy are at work here. I found it helpful to add a fourth frame in my sequence (and timeline) to compare the three versions against the original dailies material of the same shot (<https://vimeo.com/264541343>, pw: *gunsmoke*). Again, by just watching the shots simply play out it is hard to parse out why these editors are cutting in and out of the dailies at the moments they do. What was more revealing to me were moments when I found myself instinctively reaching out to start and stop the shot, when, without thinking I would smack the space-bar to halt the image just where it felt right to me.

As you are watching Coswick’s, Nadel’s, and McAdams’ versions of these in and out points with the dailies footage, I want you to think—and more importantly—I want you to try to *feel* where you would put a cut in the footage. Rather than go frame by frame, watch the shot a few times and when it feels right, smack the keyboard, or slap your hand on the table. Don’t feel silly, this practice is not uncommon amongst professional and non-professional editors reviewing each other’s cuts to watch back through multiple times and make suggestions on their own intuitions for where the cut feels right (even if only a couple frames away).

The instinct to want to cut and the intuition for where to cut might not come to you immediately, if at all. As Pearlman explores in depth in her book, “The editor’s intuition is an

³⁹⁹ Pearlman, *Cutting Rhythms*, 115.

acquired body of knowledge with two sources—the rhythms of the world that the editor experiences and the rhythms of the editor’s body that experiences them. These are the sources of the editor’s somatic intelligence about rhythm, and they are also the triggers that active the editor’s creativity in cutting rhythms.”⁴⁰⁰ As Dmytryk, Pearlman, and other editors write about the rules and practices of learning how to edit, instruction and modelling can only ever be one part of craft education. Whether it be implicit rules of the craft or sensing one’s own intuition for where to cut a frame, to know and teach continuity editing must always involve praxis based pedagogy which emphasizes bodily “acquired knowledge” and a playful adherence to the observed guidelines.

The American Cinema Editors in their emphasis on medium-specificity also sought to delineate the intricacies of craft-specificity. In their publicity roundtables, press write-ups, and interviews, ACE privileged story and narrative continuity alongside more subtle categories of mood, feeling, rhythm, interior meaning, and intuition. The hand that holds the cutting room scissors in the organization’s insignia must balance the narrative structure of the script and the feeling of the image. As Leon Barsha put it, editors “must have that innate feeling” and “one must have at his fingertips” a knowledge of the craft and narrative form.

Central to the *Interpretations* educational film, the *Gunsmoke* assignment, and the organization’s other publicity and educational projects was the emphasis on the editor as the head, the heart, and the hands “inside” of each film or television show. As Director George Stevens once praised the work of his editor William Hornbeck, “Every good motion picture has a good director behind it, but it has a good film editor **inside** it. When the final frame is snipped

400 Pearlman, *Cutting Rhythms*, xvii.

and pasted, the film editor has left behind little parts of himself scattered thruout [sic] the movie. Film editing is an internal thing—a delicate thing.”⁴⁰¹ I argue that by guiding the public’s conception of editing craft as mechanical and creative labor, the discourse surrounding the organization’s educational projects in turn offers film scholars another way of approaching histories of editing style.

The educational film’s emphasis on interpretation and the later assignment’s flexibility reasserts, redefines, and at times challenges definitions of dominant studio continuity editing. Additionally, the act of translating craft instinct to public discourse, signaled and mobilized a deeper recognition of the editors’ art to and for themselves. As Leon Barsha described the process of making the educational films and speaking with audiences, “These teachers are an inspiring audience. And I learned something else: when we are forced to analyze our work and talk about it we come out with a better understanding of something we have been doing intuitively.”⁴⁰² The language of interpretation so pervasive in these publicity materials and especially in the educational films also forged a distinct bottom-up below-the-line agency for thinking about the editor’s role in developing alternative and creative editing practices.

401 George Stevens, “The Editor has Much to Give,” *The Cinemeditor* 7, no 4. (March 1957): 1.

402 Barsha, “Promoting Motion Picture Appreciation in High Schools,” *The Cinemeditor* 7, no. 3 (September 1957): 3.

4.6 TEACHING WITH *GUNSMOKE* FROM 1958-1964

ACE's *Interpretations* educational film and the *Gunsmoke* continuity assignment—developing independently at various higher-ed institutions—encouraged students to think of continuity editing as a flexible mode of stylistic interpretation not only in the classroom, but in their future professional practice. In this way, ACE accomplished more than just a successful mechanical training or appreciation film, but a fulfillment of the broader social project to elevate the status of the editor from mechanic to a dynamic interpreter and creator of meaning in the making of a film and in the eyes of an audience. Thus, the cooperative, low-key editor who asserted again and again the value of “invisible style” was also instrumental in reinterpreting and redefining those very rules. It is here that editor Irving Lerner perfectly encapsulates the spirit of ACE's larger educational projects and the play at work in The *Gunsmoke* assignment: “If there are rules they are there to be broken ... the only way to such discovery is experimentation.”⁴⁰³

As illustrated in my analysis in the previous section, a big part of this experimentation now as well as in 1958, was the project's adaptability to technological iterations of medium format and editing machines. One crucial technological advancement during the 1960s that made the *Gunsmoke* continuity assignment feasible to both prestige film production schools and other college campuses outside of New York and Hollywood had to do with changes in film splicing. As Dana Polan and Barry Salt have illustrated, advances in removable tape splicing as opposed to cement splicing made industrial rough-cut editing quicker and offered the editor more freedom to try out different sequences. Similarly, the possibility for tape splicing also built versatility and flexibility into classrooms working with 16mm dupes of the *Gunsmoke* dailies. Students could

403 Polan, “Postwar,” 84.

make mistakes and try out different techniques. As one editor Irving Lerner rejoiced, “tape encouraged experimentation since it was easier to take an edit apart and redo it in another fashion.” Polan explains that for Lerner, “tape’s impact was aesthetic more than mechanical.”⁴⁰⁴

Similarly, the working practices of the Moviola machine in the context of higher-ed during this period held its own creative advantages and costly downsides. In 1955, a UCLA Theatre Arts Department memo lists a cost of around \$10,000 (\$92,000 in today’s dollars) to outfit a student editing facility with four of the following: Moviolas (\$1,600 each), editing tables, synchronization machines, rewinds and associated gear, barrels and racks, cabinets, and cement splicers.⁴⁰⁵ Earlier in the decade, the University Film Producers surveyed twenty-one colleges and universities with educational film production units and revealed that only ten schools were using working picture and sound Moviolas, with most schools owning only one machine each (UCLA and USC both held four sound and picture Moviolas, and six additional picture-only machines).⁴⁰⁶ By 1962, A Department of Education survey of motion picture program production facilities reported an increase to thirty-seven sound and picture Moviolas and twenty picture-only Moviolas across thirty-six surveyed schools.⁴⁰⁷

Williams and Snyder’s over 400-page survey details the range of production programs from across the country in the areas of undergraduate and graduate teaching, the division of labor

404 Polan, “Postwar,” 84.

405 “Department Fund” June 27, 1955. Macgowan papers.

406 “Survey of Motion Picture Production Equipment in Educational Film Production Units,” *Journal of the University Film Producers Association* 4, no. 2 (June 1952): 14.

407 Don G. Williams and Luella V. Snyder, *Motion Picture Production Facilities of Selected Colleges and Universities*. 15. OE-51005. (University Film Foundation/U.S. Department of Education, Bulletin, 1963), 145.

on film projects across the faculty and student bodies, and the variety of educational, fiction, and experimental films being produced on college campuses. The survey asks what kind of work is being done by whom and how the pressures of time and limited financial resources contribute to feelings of being overworked across many departments. However, the survey seems relatively unconcerned with the future careers or job prospects for enrolled undergraduates and graduate students purportedly being trained for future employment in the industry. ACE's educational films, however, marketed and promoted a practice of editing at odds, or least functionally distinct, from the kinds of non-narrative and documentary editing that most university students of production would encounter. At the time of *Interpretations'* and *Basics'* inception, teaching college students making educational films how to edit in the television and Hollywood style sparked a curiosity in teachers and students editing far away from the epicenter of Los Angeles studio production. Although it was not uncommon for many undergraduates to pursue an additional graduate career in production at many of these institutions and then go on to teach and continue making educational films at their alma mater, the prospects of those students looking towards Hollywood production were dim.

By 1959, the overwhelming number of requests for the two ACE films caused the organization to distribute the films through USC's film library.⁴⁰⁸ Articles in *The Cinemeditor* regularly announced the screening and the distribution of the films in the classrooms of professor Colin Young at UCLA and Mel Sloan at USC, and circulated around the world in places like Germany, Thailand, and Vietnam. By 1962, the distribution of the films expanded even further into colleges and universities across North America thanks to ACE's Fred Berger and Smith's

408 George Amy, "The Direct Approach," *The Cinemeditor* 9, no. 1 (March 1959): 2.

increasing involvement with the University Film Producer's Association. Berger and editor Danny Landres had attended the 1961 UFPA conference in Berkeley to showcase the films and as a result ACE was formally invited back to present at the 1962 Glacier, Montana UFPA conference.⁴⁰⁹ At the 1962 conference, Smith presented the two ACE films and gave a talk on the editor's position in the "production chain of commands" with the aid of glass-slides made by Herb Farmer at USC.⁴¹⁰ After the lecture, much of the conversation turned to the kinds of potential careers there were "out west" for student's looking to apprentice with a Hollywood editor. As Smith bemoaned, "During the question and answer period, the old plea of "How do you get a job in Hollywood?" raised its ugly head, but I had some startlingly illuminating answers ready—including my own experience of being out of employment for the past six months!"⁴¹¹ Smith continued by quoting the current unemployment statistics of the film editor's union and the widespread industry concerns about runaway productions. Alongside the educational and promotional projects so highlighted in the pages of *Cinemeditor*, ACE members also held organization and industry meetings and ran articles on a number of pressing employment and industry-related threats, like the growth of the TV sector in editing, runaway production, Pay-TV, editing color film and Cinerama, and shifting formats to magnetic tape.⁴¹²

409 Danny B. Landres, "A.C.E. represented at UFPA Berkeley Conclave," *The Cinemeditor* 11, no.3 (October 1961): 2.

410 Fredrick Y. Smith, "Something in Common," *The Cinemeditor* 12, no. 4 (December 1962): 3.

411 Smith, "Common," 3.

412 See: "T-V Trends," *The Cinemeditor* 1, no.2 (October 1951): 3; "T-V Trends," *The Cinemeditor* 2, no.1 (January 1952): 3; John W. Lehnert, "A Report About "Runway Production," *The Cinemeditor*. 12, no. 1 (February 1962): 1, 3 – 5; "A.C.E. Views 3D and Wide Screens," *The Cinemeditor* 3, no. 2 (May 1953):1,3; John Dunning, "Report on Visual Tape," *The Cinemeditor* 6, no.3 (September 1956): 1-2.

Following his talk, Smith distributed a questionnaire prepared by then president Leon Barsha. Suggestions received included the idea that ACE should start its own college training program, a film series devoted to 16mm educational and documentary editing with the product supplied by UFPA with three edits by ACE editors, and two suggestions that particularly caught Barsha's eye. The first note instructed ACE to "create a sequence which, when fully covered, can be edited in different ways—to produce comedy, mystery, drama or tragedy." The second added simply, "Produce a package of "takes" of a scene which students can cut for themselves."⁴¹³

Until the *Gunsmoke* dailies footage appeared standard on new AVID editing software purchases in the late 1990s, it does not appear that ACE or USC ever officially distributed copies of the dailies for the explicit purpose of students editing the assignment. The best we have to go on is that schools with labs likely duplicated the dailies material themselves, perhaps at the suggestion of other faculty at different institutions. ACE may have unofficially condoned or provided dailies for cutting in their own visiting lectures and for editing instruction at colleges and universities, though none of this is at least publicly documented. UFPA's continued involvement, urging, and conversations with ACE about the necessity for usable narrative dailies footage as early as the 1962 conference suggests that they played some role in the eventual widespread reach of what became the unofficial *Gunsmoke* editing assignment. Yet, Barsha's intrigue in the suggestion that different coverage takes could be edited into different genres would possibly inspire ACE's third educational film, tentatively titled, "Six Editors in Search of a Theme."

413 Smith, "Common," 4.

4.7 NEW WAVE TRANSFORMATIONS, 1964-1970S

In the spring of 1964, *The Cinemeditor* featured an article on the process and production behind the soon-to-be third film for ACE's educational series. Tasked with the project by then president Anthony Wollner, Gene Fowler, Jr. set to figuring out a different kind of educational film. One idea involved the history of editing narrated by Arthur Knight, but with a limited budget of \$25.00 (around \$200 in today's dollars), a complicated project was not in the cards. As Fowler jokingly tells it, after the failure of the first idea; "that night I dreamed Eisenstein had given me a bunch of film pulled out of the trash bin and told me to make a picture out of it."⁴¹⁴ Supposedly inspired by the dream (or the UFPA suggestion) Fowler organized a project where five or six editors would be given a set of the same dailies and asked to edit short scenes in different genres: comedy, tragedy, romance, etc.

In order to accomplish this ambiguous and ambitious project on the cheap, Fowler called in the help of Sid Solow at Consolidated Lab for free lab work, donated camera equipment from Mark Armistead and Birns & Sawyer, Bernie Kantor and Mel Sloan of USC offered Kodak film and a crew of graduate students (Fred Heinrich, Roy Lim, Les Paul, Howard Blau, Harvey Laidman, and Carol Kamen), as well as some wrangled actors from the Screen Actors Guild. In "about fifty set ups" Fowler and the crew shot all over west Los Angeles, USC, and UCLA. As Fowler describes it, the shots were "innocuous," and he tried to emulate the typical coverage of fiction shooting for a random scene without a script (basically b-roll and improvised action with little narrative motive or direction). The unfinished project was advertised at an "Inside TV" program held at the National Academy of Television Arts and Sciences on June 16th, 1964.

414 Gene Fowler, Jr. "Meanwhile—Back at the Cutting Room," *The Cinemeditor* 14, no.1 (Spring 1964): 8.

Smith's later account of Fowler's presentation explained, "This film will attempt to demonstrate how a number of 'meaningless, unrelated or neutral shots' can be edited in such a way as to indicate comedy, tragedy, mystery, suspense, action, or an avant-garde editing techniques. [...] We are hoping that the final results will be sufficiently enlightening to make this editing demonstration the most successful to date."⁴¹⁵ But, the project was already doomed to failure even during its promotion.

As Fowler recounts in his Academy Oral History, "It was meant to be an exercise in cutting, to show how an editor can restructure film to change its meaning...the whole idea was to give it to editors and say, 'All right, now, make a mystery out of this...make a musical out of this...you make a comedy out of this...'. All with the same film. Only one took me up on it."⁴¹⁶ One editor even protested, "I can't do a thing like that. Nobody can do a thing like that to film, because if the film isn't shot to do it, you can't make it do something else."⁴¹⁷ The only one brave or crazy enough to attempt the project was former president and creator of *Basics*, Leon Barsha, who (according to Fowler) transformed the footage into the style of the "Nouvelle Vague" by cutting it with a sound recording of, "one of those coffeehouse poems that don't mean anything."⁴¹⁸ Barsha's unique aptitude for experimentation and creative editing practices perhaps produced something really special, but we'll likely never know what Barsha's new wave

415 Fredrick Y. Smith, "TV Academy and Editors Launch Crafts Confab," *The Cinemeditor* 14, no. 2. (Summer 1964): 3.

416 *An Oral History with Gene Fowler, Jr. and Marjorie Fowler*, interviewed by Douglas Bell, 14. Academy Oral History Program, AMPAS (Academy Foundation, 1993), Margaret Herrick Library, Beverly Hills.

417 *An Oral History with Gene Fowler, Jr. and Marjorie Fowler*, 15.

418 *An Oral History with Gene Fowler, Jr. and Marjorie Fowler*, 15.

cut of the meaningless, innocuous footage contained. Because Fowler met with so much resistance to the project, the educational film was seemingly abandoned.⁴¹⁹

Barsha's lost-cut and attempt at different kinds of non-Hollywood editing practices in the mid-1960s helps mark a shift which occurred within the broader industry (a shift towards European art house inflected style and narrative) and a change in production and academic influence in film schools and film programs across the country. When Gene Fowler, Jr. took over ACE's presidency in 1964, he brought with him a continued commitment to the educational film projects in Los Angeles and beyond. His tenure promised a more substantial relationship with UFPA (and a larger circulation for *The Cinemeditor* with new subscriptions coming in from higher-ed institutions affiliated with UFPA), more robust and regular updates from production at college campuses (as evidenced by editorials from USC's Mel Sloan and UCLA's Colin Young), and structured awards programs for student editors. Fowler specifically sought to use the university connections as a way to foster and solidify best practices for editing style and instruction. In his address to the members in the Fall of 1964, Fowler cautioned against the excitement for "experimental films" and "New Wave" influence without a clear understanding that, "one must know the rules before they can be broken."⁴²⁰ In this way, Fowler's mission to work with UFPA and colleges through the Visiting Editor's Program, student competitions, and

419 I was hoping at least the dailies footage from the USC crew or Barsha's cut made it into the USC's Hugh Hefner Moving Image Archive which stores many student's film projects from the period, but even with the enormous help of head archivist Dino Everett, there was no evidence to be found of it ever existing in the catalog.

420 Gene Fowler, Jr. "To the Limits of One's Reach," *The Cinemeditor* 14, no.3 (Fall 1964): 3.

the pre-existing A.C.E. videos was also a gesture towards industrial gatekeeping against the tide of foreign (European) influence on Hollywood filmmaking and practices.

The influx of European style flat-bed editors, like the German Steenbeck and KEM (Keller-Elektro-Mechanik) machines, in the late 1960s and early 1970s offered additional industrial disruptions and benefits that would later filter to film production in educational settings. The rise of the flat-bed editor in industrial production symbolized a number of other broader industrial changes. One of these involved the decrease in editorial autonomy and even greater influence and power of the director over all aspects of the picture, including cutting. As Benjamin Wright highlights, editors adopted these selectively and differently across production practices, “[T]hese approaches also reveal that editing technology was neither deterministic nor mandated, but instead related to the technical demands and preferences of the editor.”⁴²¹ While some of these preferences were about work-flow and feeling—the Moviola allowed a different kind of intimacy, proximity, and material handling of the film while the flatbeds allowed for faster, broader, and more complicated strokes with sound and music cuts. One reason that perhaps Hollywood editors clung to the Moviola more closely may not only have had to do with familiarity with techniques of using the machines, but also that it allowed them to edit privately (thanks to the small viewfinder) and not in-front of or with the “assistance” of the director in the room (watching on the flat-bed’s larger monitors).

Even before the widespread use of flat-bed editing machines, in the pages of *The Cinemeditor* articles about new director contracts which included “final-cut” privileges or responses to editorials about auteurism provoked backlash and heated debates about protecting

421 Benjamin Wright, “The Auteur Renaissance, 1968 – 1980: Editing,” *Editing and Special/Visual Effects*, 105.

the status of the editor they had fought so hard to establish. In one editorial, Anthony A. Wollner then editor of *The Cinemeditor* complained that, “It is not uncommon nowadays to see directors standing over the shoulders of editors as they assemble or recut sequences in their Moviolas. Some editors steadfastly refuse to work in this fashion; others do so only because they fear loss of their positions if they don’t comply.”⁴²² The editorial proved the catalyst for an entire issues worth of responses by fellow editors, editors turned directors, and producers. One supportive and further scathing response by editor Marjorie Fowler pinpointed the role of European art house auteurism and the “cult of the director” on college campuses for producing “12-year old acid heads” who thought they could cut better than editors trained for thirty years. Editors even derided the new rhetorical flourish of “post-production” in wide industrial discourse as it minimized the specific act of film editing. As Fowler complained bitterly of the onslaught of recently film studies educated directors in the editing room, “Right now whether they do or do *not* have the capacity to personally supervise the editing of a film, they *do* have the compulsion *and* the authority to do so. It is an age of rediscovery—it is the age of naiveté.”⁴²³ Editors saw the growth of the director’s power in the 1970s both professionally and culturally as an economic and social threat to the stature and autonomy they had worked so hard to establish for themselves and in the public eye.

The language around auteurism in the growth of critical film studies during this period also threatened ACE in two arenas. For one, ACE saw discussions around new wave auteurism and editing as a potential stylistic and industrial threat to continuity practice and editorial

422 Anthony A. Wollner, “Editorial: Picking a Thorn,” *The Cinemeditor* 18, no.1 (Winter 1968): 5.

423 Marjorie Fowler, “The Film Editor is... The Diminished Man,” *The Cinemeditor* 19, no. 4. (Fall 1969): 23.

autonomy. Secondly, the growing disregard for older Hollywood modes of production style and suspicion around industrial forms of craft training (that seemed not to lead to jobs anyway) diminished the once complementary relationship ACE had developed alongside UFPA, and with film colleges and universities. While the California colleges were largely left out of this burgeoning distrust of academic film scholarship amongst technicians, the *Cinemeditor* would occasionally publish articles or letters to the editor from film production teachers in other parts of the country complaining about the snobbery and derision towards “Hollywood” and technical filmmaking evidence by their colleagues.⁴²⁴ New modes of experimental, independent, and foreign filmmaking also caught the fascination and distrust of long established production programs known for their non-narrative and educational film training.

In the university production classroom and curriculum, these changes in production practice and the rise of the director as auteur also influenced a shift from educational and non-narrative filmmaking (especially at USC and UCLA) towards an atmosphere and on-campus production culture more economically geared towards independent, political, and later studio narrative filmmaking. As early as the Spring of 1966, chair of the UCLA Theatre Arts Department Colin Young, outlined in the pages of *The Cinemeditor*, the ambitious plans for new studio space and production facilities at UCLA that would determine the programs’ focus once and for all. In his article, Young parsed out the growing frustrations between students and faculty geared towards narrative and studio production and the camp of faculty and students who for over a decade had worked on nonfiction, documentary, and educational film projects. Amidst the squabbles, Young clearly stood on the studio camp, as he readily admits, “It is very difficult to

424 Bob Jacobs, “Yes, Virginia, There is an Oshkosh,” *The Cinemeditor* 31, no. 2-3. (Summer/Fall 1981): 18, 26 – 27.

make any sort of public statement about what we are doing at UCLA without its being quoted in such a way as to make us sound anti-Hollywood. The films don't help, in a way, since they don't look like studio pictures."⁴²⁵ Young's plan outlined a definite shift in the program's influence and future with a strategy that involved three enormous sound stages, a 250-seat theater with projection for 8mm, 16mm, 35mm, and 70mm, a 100-seat projection room, twenty-six editing rooms with two negative cutting rooms and six rooms for tape cutting, and a television facility. With the growth of larger studio-gearred production facilities at UCLA and later at USC in the 1980s, both schools increasingly geared curriculum and production space towards narrative filmmaking.

4.8 GUNSMOKE'S LEGACIES

ACE held their first student awards competition in 1973 with only local Los Angeles based schools participating. The competition was later extended across the US. For a small processing fee, students were given access to dailies footage from a scene in the television show *Hawaii Five-0*.⁴²⁶ While the competition was short-lived (from '73-78), the circulating dailies footage, like *Gunsmoke*, came to be used as an additional (unofficial) classroom resource for continuity assignments. Though not as prevalent as the *Gunsmoke* footage, occasionally contemporary continuity cuts from these original 1973 *Hawaii Five-0* dailies appear on student YouTube and

425 Colin Young, "Plans for New Studios at UCLA," *The Cinemeditor* 16, no.1. (Spring 1966): 5.

426 "Student Award Program," *The Cinemeditor* 23, no.3. (Fall 1973): 15.

Vimeo uploads. In 1978, the competition shifted to dailies from the TV series *Police Story*.⁴²⁷

By the 1980s, ACE had started showing dailies from the TV series *Dallas* (provided by then editor Fred W. Berger). This full circle connection between Berger's *Gunsmoke* and *Dallas* dailies could not have come soon enough as editors teaching with the *Gunsmoke* continuity at UCLA, USC, and other schools across the country were already growing weary of the material. While teaching at USC, Gene Fowler, Jr. started using footage from the Jerry Lewis picture *Smorgasbord* because he reportedly couldn't stand *Gunsmoke* any longer, multiple reports of ACE publicity during the 1970s comment that most audiences (specialized or not) had already seen the *Interpretations* film more than enough times.⁴²⁸

At many schools, however, the *Gunsmoke* assignment would come to be equated with the first milestone editing assignment in film school. This was certainly evident at UCLA when head editing teacher Ed Brokaw taught the material, so much so that the class apparently came to be known at the *Gunsmoke* class.⁴²⁹ A precursor to established remix assignments, a handful of students at institutions teaching the material attempted to cut against its continuity intentions. As David James explains, "Though overall the chief function of student filmmaking is to train young filmmakers for the industry, in some cases students chafe against industry priorities and

427 "ACE Student Competition," *The Cinemeditor* 27, no.3-4. (Fall/Winter 1977-78).

428 *An Oral History with Gene Fowler, Jr. and Marjorie Fowler*, 23.

429 Allyson Nadia Field, "Rebellious Unlearning: UCLA Project One Films, 1967-1978." *L.A. Rebellion: Creating a New Black Cinema*. eds., Allyson Nadia Field, Jan-Christopher Horak, and Jacqueline Najuma Stewart. (Oakland, CA, University of California Press, 2015), 88.

use their schools' resources in aesthetically and socially creative ways.”⁴³⁰ Such was the case with some of the L.A. Rebellion filmmakers at UCLA in the late 1960s and 1970s.⁴³¹ As

Allyson Nadia Field explains:

The shared experience of being film students at UCLA, specifically film students of color, fostered a bond between them in spite of their diverse backgrounds and life trajectories to that point. As much as the process of studying film in a university consisted of learning the necessary skills, techniques, and history of filmmaking, working with a medium that had historically been mobilized in the persistent marginalizing and dehumanizing of people of color necessitated approaching filmmaking with circumspection. It required a radical *unlearning*.⁴³²

In addition to Project One, the required laboratory for undergraduate and MFA students' first films, UCLA students were required to take a number of courses on introductory production techniques, including the nicknamed “the *Gunsmoke* class.” Actress Pamela Jones remembered that, “We all had to do *Gunsmoke* at UCLA, you had to edit an episode of *Gunsmoke*. So, when I got my *Gunsmoke*, I remember the bullet going (ricochet sound) and then the echo would go (echo sound)., My *Gunsmoke* - it was one of the things I was most proud about, It was so fun because I just saw it differently.”⁴³³ Director and documentary filmmaker Bernard Nicholas reflected, “There was the standard editing class where you had to edit a scene from *Gunsmoke* and people did whatever they wanted with it and he [Ed Brokaw] would support

430 David E. James, *The Most Typical Avant-Garde: History and Geography of Minor Cinemas in Los Angeles*. (Berkeley: University of California Press, 2005): 205.

431 Thank You to Allyson Nadia Field who referred me to the *Gunsmoke* project references in the UCLA Oral History interviews with L.A. Rebellion filmmakers Pamela Jones, Bernard Nicholas, and Haile Gerima.

432 Field, “Rebellious Unlearning,” 83.

433 Pamela Jones, “Oral history interview,” by Jacqueline Stewart, transcribed by Michael Kmet, May 29, 2011. LAROH, UCLA Film & Television Archive.

it.”⁴³⁴ Yet, not all students responded to the often restrictive parameters and stylistically determined curriculum so easily or ambivalently. As Field suggests, the “shocking content” of L.A. Rebellion student projects, “can be read as a manifestation of aggression born out of frustration on the part of students who, at least in the early years, were seen by some white faculty, administrators, and students as out of place in the film department.”⁴³⁵ These “frustrations with the curriculum” manifest in creative practical and conceptual disruptions to now routinized film training protocols, like the *Gunsmoke* assignment.

In one case, *Bush Mama* director Haile Gerima—a black student and recent immigrant from Ethiopia, who often felt isolated and alienated as a student at UCLA—told the editing instructor, Ed Brokaw, why he refused to complete the over-determined project. Gerima protested the all-encompassing and pervasive sonic assault of *Gunsmoke*’s unending dialogue repetitions and the loud mid-scene scuffle looped ad-infinitum down the editing room corridors: “You hear it, you come into editing, you get out of the editing, the guy says, ‘I don’t want to hear you again. I don’t want to see you again.’ And the guy *Gunsmoke* goes, ‘Take him away. Get him out of here.’ Sound track: bomb, bomb, bomb, four or fix six editing rooms you’re hearing. And I go, ‘Oh, that sound.’ I’m like angry, and angry, and angry.”⁴³⁶ Gerima often found himself having to defend against and combat the complaints from white filmmaking students and

434 Bernard Nicholas, “Oral history interview,” by Allyson Field, Christopher Jan-Horak, and Jacqueline Stewart, transcribed by Diamond L. McNeil and Yasmin Damshenas, June 17, 2010, L.A. Rebellion Oral History Project (Hereafter LAROH), UCLA Film & Television Archive.

435 Field, “Rebellious Unlearning,” 88.

436 Haile Gerima, “Oral history interview,” by Jacqueline Stewart and Zeinabu Davis, transcribed by Robyn Charles and Michael Kmet, September 13, 2010. LAROH, UCLA Film & Television Archive.

administrators who turned away from Gerima's accounts of police brutality and the violent experiences of black communities living in Los Angeles.⁴³⁷ The onslaught of the fictionalized white cowboy violence in the *Gunsmoke* scene stood in stark, yet ambivalent contrast to Gerima's own filmmaking goals which attempted to show the very real pain and systemic injustice inflicted by white police and authority figures so easily romanticized as Marshall Dillon figures on commercial TV. Gerima, waffling between wanting to reject or overturn the required continuity assignment, recounts approaching Ed Brokaw with a creative re-interpretation, "I said to him [...] 'Okay Prof. Brokaw, I'm going to do only this class this way. I'm going to shoot a black guy first hearing Gunsmoke guy doing all the action. I'm going to intercut that into your Gunsmoke footage.' He says, 'Gerima, you don't need my class.'"⁴³⁸ Gerima's account reflects the pervasiveness of the *Gunsmoke* dailies as a conceptual and material institutional force infusing the very atmosphere with its repetitive sounds and cuts looped ad nauseam by thousands of film students who went through UCLA doors. Gerima's resistance to the project's limits and prescriptions also offered him a new way to critically reimagine the project's possibilities. Gerima's speculative "re-edit" of the project, while an outlier to the assignment's and educational film's intent, highlights how students throughout the *Gunsmoke* assignment's history (not just in the 21st-century remix) pushed against the film's ubiquity and hegemony as a certain kind of Hollywood film instruction.

While seemingly ACE and film schools looked to be moving away from using the *Gunsmoke* footage in the 1970s (perhaps because of student's growing dissatisfaction with the

437 Field, "Rebellious Unlearning," 88.

438 Gerima, "Oral history interview," LAROH.

assignment), the burgeoning field of Media Literacy embraced the affordances of the educational film and assignment. When the film's circulation grew in the 1970s and 1980s with its inclusion in a number of visual literacy film guides, the potential for the film's meaning in a non-production classroom and the possibility for the assignment mutated further. As one educator, Harold M. Foster, noted for high-school teaching, the film could be shown in tandem with other photographic editing assignments. After showing the educational film, the instructor could copy photographs from many sources including frames from the film into photocopies for students to create photographic montages or story boards during class time. This "exercise in perception" was designed so that "[s]tudents should learn that pictures, like words, contain meanings and ideas."⁴³⁹ Rather than editing *Gunsmoke* the students would be creating short stories and would be asked to re-edit other's short story montages.

While *Interpretations* was one of the few educational films on the topic of filmmaking, it wasn't the only film on the topic used in the classroom. The 1970s also saw an upturn in films that filled the gap where ACE films had grown tired and predictable. Less focused on Hollywood production, these educational films also focused in greater detail on questions raised by media literacy and academic film studies. They drew students' attentions to questions of abstract graphic symmetry between shots, varieties of continuity that explicitly directed students to narrative variance and character performance, and often used material from theatrical adaptations or well-known films (*Battleship Potemkin*, *Citizen Kane*, and *Metropolis*) to illustrate key concepts. None were shot or produced by a craft guild or other Hollywood entity. Rather they were produced by companies like Encyclopedia Britannica's [*Editing a Film: Synge's "The Well*](#)

439 Harold M. Foster, *The New Literacy: The Language of Film and Television*. (Urbana, IL: National Council of Teachers of English, 1979): 39.

of the Saints” (1975), International Film Bureau’s *A Film about Film Editing* (Henry Cheharbakhshi, 1974), Berkeley Extension Media Center’s *Film Graphics: Abstract Aspects of Editing* (Barry Spinello, 1973), and Perspective Films/Janus Films’ *The Art of Film: The Edited Image* (1975). Even one winner of ACE’s student editing award, Robert Ferretti, produced a film with Columbia College of California’s Tim Baar titled *Editing for Beginners* (1973). As Ferretti, a former student in Smith’s editing course at the college, described it, the film “attempts to stimulate young students’ interest in doing the [editing] job properly and to have pride in their work.” The film was reportedly picked up by USC for use as a training film.⁴⁴⁰ The upsurge of films about filmmaking came at the exact same moment that production of educational and nonfiction filmmaking at United States film schools on a downturn.

Following the example set by UCLA’s change to a motion picture program in the late 1960s and a building of a robust studio-oriented campus, USC began constructing the 365-seat Eileen Norris Cinema Theatre in 1976.⁴⁴¹ With the success of more commercial and Hollywood focused graduates like Lucas, the program shifted gears along with their student body. In 1983 the department of Cinema transformed into an entire school of cinema and television and the following year moved into an enormous new production facility funded by in large part by Lucas. As Everett and Peterson reflect, the shift towards narrative and away from educational production and distribution meant that those who had built the program (like Herbert Famer) in the 1940s, 1950s, and 1960s, “were supportive, but melancholy about these changes. This new era for film studies at USC also marked the end of an era of educational cinema’s importance in

440 Robert Ferretti, “Winning the Student Editing Award,” *The Cinemeditor* 23, no.4. (Winter 1973 – 74): 17.

441 Everett and Peterson, “When Film Went to College,” 51.

the program.”⁴⁴² As the 1970s drew to a close, ACE also began to minimize its investments with active educational instruction through the visiting editors program and with other educational filmmakers through UFVA. For one, the increasingly closed shop nature of the union made it difficult to actively encourage younger editors in the field when 40 percent of the craft were already out of work in 1982.⁴⁴³ ACE’s sights were no longer set as intently on promotion and prestige and were increasingly consumed with union disputes with an IATSE division that they believed failed to actively negotiate the specific needs of a craft outside of on-set production. During this period, ACE members were also scrambling to adjust to a variety of new technologies and production styles. Outside the flat-bed upheaval, members now had to maneuver the tricky and frustrating terrain of video and linear editing.

In the mid-1980s, *American Cinemeditor* re-branded once again and marketed its publication more widely to an audience interested in all things of “post-production importance.” The emphasis on “post” over editing allowed the organization to work around older members of the craft and appease younger members already skilled at linear and electronic editing practices. The covers and contents of the 1980s issues reflected these new workflows with editorial series like, “views from the [editing] bay,” ads warning about computer literacy and technological learning curves, and a Summer 1988 illustrated cover featuring “The Marriage of Film & Tape.”

While most film school students resigned themselves to what they may have perceived to be an outdated assignment even in the 1980s, with the influx of a new generation of film students in the 1990s and students influenced by “MTV style editing,” the *Gunsmoke* project entered a

442 Everett and Peterson, “When Film Went to College,” 52.

443 Arnold Mann, “The Film Editor: A Splice from Life,” *The Cinemeditor* 32. no. 2-3. (Summer/Fall 1982): 21.

new technological stage as well. YouTube uploads of the project as early as 2005 give us a glimpse into the range of media formats and iterations that *Gunsmoke* dailies have been transferred over time. Some students are clearly using footage digitally transferred from deteriorating 16mm prints, some Betamax tapes, and some are using footage that must have at one point been placed on VHS. Although the continuity assignment was most likely taught as a 16mm film cutting assignment even into the 1990s, there's physical evidence to suggest that some unfortunate students had the unlucky and frustrating experience of cutting the footage on linear editing systems which disallowed and technologically discouraged the kinds of experimentation and play at the heart of the *Gunsmoke* assignment.

The introduction of AVID digital editing software into film production classrooms in the late 1990s and early 2000s, reinvigorated the interpretative affordances of the assignment. For one, *Interpretations and Values* and the *Gunsmoke* dailies came standard on the software as test footage with the dailies pre-loaded as their own logged digital clip in a digital "bin." At my own undergraduate institution, Loyola Marymount's School of Film and Television in 2005, we edited on Final Cut Pro and were given the dailies footage without the context of the educational film. Our only explanation was that the *Gunsmoke* assignment was a legacy assignment handed down from generation to generation of film school students. In other words, it's just what you did in your first editing class and it's just what everyone else before you had done too. No explanation necessary. It wasn't until I saw *Film Editing: Interpretations and Values* at a graduate student screening of the University of Pittsburgh's 16mm collection in the Fall of 2015 that I realized the *Gunsmoke* assignment had a much longer and complicated institutional history than I (or any other film student since 1958) could have imagined.

While it is certainly the case that many institutions are still using the *Gunsmoke* dailies as

continuity source material for beginning editing assignments (the daily YouTube uploads year after year attest to as much), the bulk of this classroom film and exercise was placed out of commission at the major film schools in the first decade of the 21st Century. Most recent former students I talk to from USC, UCLA, and NYU do not recall seeing or using the material.

According to former USC professor and editor Bob Jones, USC was using 16mm *Gunsmoke* and *Dallas* dailies as late as 2001 and then switched to digital editing on AVID in 2002.⁴⁴⁴ Loyola Marymount and Emerson College in Boston amongst a handful of other well-established production programs were using the material well into the mid 2000s. Other continuity projects reported include the television shows *Highlander*, *House*, the pay service dailies library Editstock.com, and many others. As late as 2013 and 2014, University Film and Video Association president Norman Hollyn promised to develop more contemporary replacements to the *Gunsmoke* assignments, including a contest making available sequences from the film *Thor 2* to edit via the iPad TouchEdit application.⁴⁴⁵

4.9 REMIXING GUNSMOKE IN THE 21ST-CENTURY

Recent online syllabi and YouTube uploads of *Gunsmoke* Assignments showcase an entirely new trend in the versatility of the material as instructors increasingly ask for a traditional continuity cut of the film, a sound overdub, visual effects updates, and a “Remix” cut of the footage with a

444 Robert Jones, e-mail message to author, May 5, 2017.

445 Norman Hollyn, “President’s Corner,” University Film and Video Association. (December 27, 2013; January 31, 2014; March 1, 2013). <http://www.ufva.org/default.asp?page=PresidentsCorner>

new spin. Walk in to a film editing course in 2018, and you are as likely to see students working on a video remix project as you are to see students painstakingly re-cutting the standard continuity assignment. As Brett Gaylor's 2008 open-access, documentary *RiP!: A Remix Manifesto* asserts, the intention of remix making projects are to disrupt vast digital and online archives of available film, television, audio, and other media materials by "making something fresh out of something stale."⁴⁴⁶ These disruptions come in the style of spoofs, genre remakes, supercuts, and even forms of academic videographic criticism. The materials are free, accessible, and work well within Fair Use digital assignments. Type in "Gunsmoke Remix" into YouTube and you are as likely to find a zombie, *Terminator*, and *Law & Order* remix of the *Gunsmoke* dailies as you are to find a rave music remix transforming the rowdy brawl into an intense dance choreography. In looking at the comments below the posted videos, it is clear that most students aren't aware they are editing a scene from *Gunsmoke* and are not even familiar with the long-running series. Yet, they still seemed thrilled with the opportunity to turn some "old," "boring," and "black and white" western into something cool, colorful, and funny. The recent remix iterations of the *Gunsmoke* dailies continues to bespeak the very heart of flexibility, possibility, and creativity built into the film and assignment from its beginnings.

Literally thousands of students edited *Gunsmoke* continuity and remix videos appear on YouTube and Vimeo search results. In the continuity edits, *Gunsmoke* footage is being used as originally imagined in beginning editing courses at a range of colleges and universities in the US and abroad. The quality of footage bespeaks the film's industrial, institutional, and technological histories ranging from HD to material which has lived through a gamut of digital and analog

446 Brett Gaylor, *Rip!: A Remix Manifesto* (2008)

iterations from 16mm to VHS to compressed digital video. While the video uploads go back as far as YouTube's inception in 2005, the sheer volume and range of format quality available in the short life of YouTube's platform alone suggest the much larger backlog of student versions and the sixty-plus year archive for the *Gunsmoke* editing assignment.

The remixes highlight the adaptability of the assignment to emerging modes of new media and digital editing practices more prevalent and perhaps marketable to students in the 21st century. But, what does the long life of the standard *Gunsmoke* assignment teach us about film history, film terminology, and changing practices of film editing and thinking about continuity in film studies? For one, it illustrates a more complicated history behind contemporary divisions between film studies and film production. A division that in the 1950s seemed more complementary and less contentious (thanks to ACE's educational projects), and a relationship that was strained in the 1970s by changes in discourse brought out by the critical and commercial popularity of the European art house influences on popular and academic culture. At the same time, the endurance of the assignment also tells us something about A.C.E. as a craft institution and its founding editors, especially Fredrick Y. Smith, Leon Barsha, George Amy, and Arthur Nadel who devoted seemingly more time than other crafts during the Classical Hollywood Era to advocate for their daily work to a decidedly public audience. With education, inter-guild collaboration, and promotion at the heart of ACE's mission from the beginning, they defined their "work" as much by the creative and mundane aspects of their industrial editing production as their outwardly bent discursive practices. For this reason, we should take seriously these working and lived-definitions of continuity style, continuity editing, and continuity's flexible, creative, and inherently open practices. What ACE—and the many editors who have worked before and since these words were formally published—promoted was the play, experiment, and

interpretative possibilities at the heart of all continuity cutting. For academic scholars of film studies and film history to consider continuity in this way potentially opens-up new ways of speaking and thinking about Hollywood labor and bottom-up Hollywood film style. Rethinking continuity editing in practice also forces us to newly feel the subtle choreography of the editor's hands, body, and mind behind each individual cut.

5.0 “DANCING BODIES, FLYING CAMERAS”: THE EARLY YEARS OF STEADICAM AND PANAGLIDE STABILIZING PRACTICE, 1973-1985⁴⁴⁷

This chapter focuses on the function and formation of niche craft practice and community after the classical Hollywood period. As David Cook has claimed, “The American film industry changed more between 1969 and 1980 than at any other period in its history, except, perhaps, for the coming of sound.”⁴⁴⁸ As a response to a decline in box office receipts during the 1960s, widespread structural changes occurred within the industry in the 1970s including diversification of outside funding sources, an emphasis on block-buster alongside niche production, and changing distribution patterns.⁴⁴⁹ While at the beginning of the 1970s, a significant number of filmmakers in Hollywood were unemployed, the restructuring of the industry’s mode of production also encouraged the emergence of outside niche below-the-line practitioners and new articulations of niche craft formations.

447 Significant portions of this chapter were published in article form. The article differs in its focus on “organic” stabilizing style in contemporary filmmaking as a recurrence of latent experiments in early Steadicam and Panaglide practice. The chapter investigates a richer history of the industrial contestations, critical reviews that hint at the recognition of stabilizing craft during the period, and video experiments to highlight the productive combination of historical research, craft discourse, and spectatorship. From the article “‘Dancing, Flying Camera Jockeys’: Invisible Labor, Craft Discourse, and Embodied Steadicam and Panaglide Technique” by Katie Bird, originally published in *Velvet Light Trap* 80, Copyright © 2018 by the University of Texas Press. All rights reserved. Used by permission.

448 David A. Cook, *Lost Illusions: American Cinema in the Shadow of Watergate and Vietnam, 1970 – 1979*. Vol. 9 (New York, N.Y: Charles Scribner's Sons, 2000).

449 Cook, “Introduction,” *Lost Illusions*, 1-7.

Thanks in part to the growth and influence of European art house production and documentary realism on New Hollywood style and the Hollywood Renaissance, emerging techniques and technologies required either the adjustment of traditional Hollywood craft guilds and unions or the inclusion of outsider and amateur filmmakers. In addition to these aesthetic influences, European and documentary modes of production specifically influenced industrial tools and practice in cinematography and special effects work.⁴⁵⁰ For editors this meant a change in editing systems and more director's authority over cuts, while for large organizations like the ASC this shift signaled a new way of thinking about the artistic ambitions and aspirations of the cinematographer. As the anecdote in my introduction regarding the contested cultural superiority of European directors of photography in *American Cinematographer* suggests, the ASC was anxious and aware of the industrial, aesthetic, and social impact of European styles of cinematographic craft on the changing landscape of Hollywood production.

While some members of the craft held true to established traditions of cinematographic style codified in the classical period, other younger cinematographers embraced new techniques, experiments, and tools utilized in European and documentary production like an increased use of hand-held cameras, split diopter and zoom lenses, a wider variety of film stocks, 16mm and a rougher more 'naturalistic' style. As Bradley Schauer has suggested, a new generation of American cinematographers emerged to mirror and complement the "film generation"/ "Movie Brats" of directors graduating from film schools at the time. Schauer argues that these

450 For a detailed account of European and documentary's influence on cinematographic style and craft in the 1970s, see Bradley Schauer, "The Auteur Renaissance, 1968-1980." *Cinematography*. ed. Patrick Keating. (New Brunswick, NJ: Rutgers University Press, 2014): 84 – 105. For a detailed analysis of 1970s special effects work see Julie Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics* (New York: Columbia University Press, 2015).

cinematographers understood the need to shoot differently than other camera operators if they hoped to get a job in a crowded market. As Schauer explains, “By assaulting the dominant stylistic paradigm, cinematographers could establish themselves as auteurs.”⁴⁵¹ By attempting to ascend to the level of cinematographer auteur, these practitioners chose to use more self-reflexive modes of production and as Schaeur describes, “challenged classical norms through camera movements displaying a virtuosity that threatens to outweigh their narrative utility.”⁴⁵² One such technique was Steadicam, and its cadre of outsider practitioners who worked alongside these so-called “auteur” directors of photography, but also independently as niche camera specialists.

Throughout Hollywood history, the sudden use and adaptation of specific and niche technologies to new modes of production often required the employment of practitioners who specialized in the maintenance and use of single tools and equipment. Technicolor technology required its own costume, makeup, and camera supervisors; the use of the Akeley camera required trained specialist to handle its gyroscopic capabilities; and when Steadicam burst into the scene in the late 1970s, it required technicians trained in its unique quirks, technological parameters, and stylistic possibilities. In its first few years Steadicam was only operated by its inventor Garrett Brown, but as its use gained in popularity the technology and industrial practice required a whole new group of craft practitioners and a craft discourse to describe its unique, embodied practice of camera operating. Steadicam’s smooth mobility—relieving the camera from the confines of a dolly track and stabilizing the bumpiness of a hand-held shot—has been

451 Schauer, “The Auteur Renaissance,” 101.

452 Schauer, “The Auteur Renaissance,” 102.

its industrial selling point since its invention by Garrett Brown in 1973. The community and craft of Steadicam and other stabilizing operators stemmed primarily from young practitioners who either could not get jobs as camera operators in a saturated market or were attracted to the industry because they had seen shots performed by Garrett Brown. They came to the practice both as amateur cinematographers and as outsiders more interested in the tools than in an aspirational idea of cinema. While originally a rag-tag group of specialists, stabilizer camera operations established a serious and substantial craft practice, discourse, and guild formation within the first fifteen years of their craft. Steadicam operators would later join an even larger niche organization, the Society of Camera Operators (themselves a breakaway in response to a more stratified and less stable hierarchy of post-classical Hollywood camera departments). These niche specialties and smaller guild formations are especially useful to study during this period for the ways in which they tend to reproduce classical Hollywood notions of craft formation as established by the ASC, recreate similar discursive patterns, and reinforce traditional notions of the apprenticeship. Unlike the ASC, however, the SOC was always less interested in matters of artistic formation and more interested in questions of physical and manual labor and technical matters and industry conditions. While both are honorary organizations, ASC primarily includes Directors of Photography, whereas SOC includes career camera operators of various ranks with a large contingent of Steadicam Operators. In this sense, the organizations represent and speak to different kinds of working practices in the industry. Technicians listed in the chapter without these designations are not to my knowledge members of ASC/SOC or are members of other national or international craft guilds.

This chapter explores the industrial formation of stabilizer technology, craft, and discourse in the 1970s and 1980s. Thanks to a heated industrial battle between Steadicam's

inventors and practitioners and competing and short-lived stabilizing system, Panaglide, early stabilizing practice, aesthetics, and craft discourse present a unique case study to investigate experimental and latent techniques of craft. The first ten years of practitioners' use of these technologies showcases a wide range of stylistic uses for the unbounded camera and a diverse array of testing grounds (industrial films, commercials, art house, Hollywood, b-movies, independent, sports broadcasts). By investigating this eclectic period in the craft's history, I illustrate how Steadicam's users sought to quickly develop norms of the practice and to codify a stable Steadicam style. In streamlining the activities and discourse of its practitioners, Steadicam attempted to make the craft more readily marketable to the industry as a cleaner and more economical way to achieve complicated long or stunt shots. This chapter explores moments when the craft's eccentricity and experiment were described and felt by practitioners using the new technology and by critics and the public reacting to its unique and surprising aesthetic quirks. As the look of Steadicam has become a normalized aesthetic in the 21st century, I use videographic experiments to attempt to de-familiarize and make noticeable Steadicam technique and aesthetic a new and to draw the reader's attention to the moments when the craft was still in its contested and incoherent formation.

I use competing sets of craft discourses in a Panaglide/Steadicam case history to articulate the terms of what such an approach might look like. In their verbal and physical manifestations, below-the-line discursive practices of stabilizer operators illustrate a history of style that is varied, contested, and complicated even at micro levels of technological change and technicians' daily embodied experience on set. I showcase the early years of stabilizer history where the technical and aesthetic experiments of two competing stabilizing technologies, Steadicam and Panaglide, concretized the dominant mode of stabilizer style in practice by

operators today. Prior to stylistic codifications in the late 1980s, the two competing practitioner discourses offered more nuanced possibilities for how stabilizer aesthetics could be used in production and experienced by audiences at the time.

Panavision's imitation of the Steadicam, the Panaglide, which used alongside Steadicam from 1977 to the early 1980s. Panaglide was both lauded and criticized for its more wobbly and wavy aesthetic (thanks to its less sophisticated arm and lighter weight). While obscured or written over in Steadicam's history, Panaglide and Panaglide operators produced a distinct and sometimes desirable aesthetic even if this look was a result of its own mechanical deficiencies. Steadicam's and Panaglide's more intuitive appeal stemmed directly from their physical attachment to the operator's body. Both devices attach the camera to the operator via a vest, a self-articulating arm, and a gimbal, which reduces transferred friction to the shot and leaves the operator free to move around the set. While mid- to late 1980s Steadicam professional literature would restrict and codify the languages and practices around the technology, the eccentricity and variety of stabilizer deployments in the 1970s showcases how operators had not yet developed a strict understanding of how Steadicam shots ought to look. Steadicam's constant use alongside so-called inferior competing stabilizer technologies, like the short-lived Panaglide, led to confusion as to the ideal use and quality of shot produced. This chapter is not designed as a technician argument meant to justify Steadicam's ascendancy over Panaglide; instead, it is an attempt to document the role that industrial competition and craft contentions played in the formation of what are now seen as dominant and inevitable Steadicam practice and style. In this, my emphasis is not simply to compare the units' benefits or deficiencies but to illustrate how discourse and uses surrounding each during this turbulent early period altered language, norms, and embodied work on set that eventually concretize in Steadicam craftsmanship. It is impossible

to divorce the history of stabilizer style and craft technique from questions about technological change, just as it is equally impossible to divorce questions about embodied labor practices from the technologies. As Rick Altman explains in his call for a “crisis historiography,” technical change in institutions, contexts of use, and in a particular technology’s dominance or obsolescence is determined, in part, by the practitioners who use them.⁴⁵³ The ways in which stabilizer operators experimented and discursively framed both systems’ unique quirks in movies, television, commercials, and industrial films during the period reflect the contested and complicated history of the craft and its applications.

Forty years after Steadicam’s invention, the problems and possibilities afforded by its unique attachment of camera to human operator still complicate the language by which below-the-line technicians, above-the-line personnel, critics, and scholars describe what makes a Steadicam shot inimitable. Take, for example, a 2010 YouTube video entitled *Steadicam Op vs. Director*, uploaded by user lisagav1.⁴⁵⁴ In this humorous industrial critique, an unnamed Steadicam operator used the ExtraNormal Movie Maker generator to highlight misunderstandings between a director’s aesthetic demands and an operator’s technical, artistic, and professional craft. In the video, the director explains the vision for the Steadicam shots to an operator: “I guess what I’m looking for is for it to be a bit more organic[. . .] Does it have to be so smooth? Can you rough it up a bit?” The operator responds, “So you don’t want a handheld shot? I can just operate badly if that’s what you want?” The unspoken but heated miscommunication between director and operator revolves around the simple question of what

453 Rick Altman, *Silent Film Sound* (New York: Columbia University Press, 2004), 16.

454 *Steadicam Op vs Director*, YouTube video, 1:57, posted by “lisagav1,” August 16, 2010, <https://www.youtube.com/watch?v=7wVEPVz2SSs>.

about the shot will look “good.” For the operator, the description of “organic” requires by necessity “operating badly,” making something look worked over, showing signs of mistakes, even using the innovations of the rig against itself.⁴⁵⁵ “Organic,” for the operator, is a rhetorical “bullshit film school term” that is “overused by poser hacks” and that has “nothing to do with actual camerawork.”⁴ For the operator, a quality Steadicam shot as dictated by a detailed thirty-year history of manuals, training videos, workshops, and trade newsletters should be indistinguishable for the audience from a tracking shot. In other words, despite its obvious mobility, a Steadicam shot should look as predictable, clean, and stable as if it were produced using a dolly. The Steadicam shot, like its operator, should be invisible to the audience.

“Organic” did not and does not exist as a specific term for Steadicam operators then or now. To operators, the only thing organic about Steadicam is that a human body operates it. Its mystification as a term by directors, scholars, or critics seems to point to a Steadicam shot that calls itself out as such and fails to hide under the invisibility of a dolly shot or an ultra-smooth handheld shot. Steadicam style—as a Victorian art critic such as John Ruskin might have suggested—is valuable because of its relationship to the imperfections of the human body itself.⁴⁵⁶ This imposition of aesthetic sensibility by the director and critic’s label of “organic” on

455 John David Rhodes’s essay suggests that the only way that labor can show itself within industrial filmmaking involves such markers of mistake or being overly worked over. Rhodes cites the Italian concept of *sprezzatura* in craftsmanship, where artists strive to make a piece look easy or effortless despite the difficulty of its creation. This motto of “invisible style” is often utilized by film workers, such as cinematographers, when they remark that a shot is good when audiences don’t notice the cinematography as cinematography. John David Rhodes, “Belabored: Style as Work,” *Framework* 53, no. 1 (2012): 47–64. <https://doi.org/10.1353/frm.2012.0005>.

456 John Ruskin, *Stones of Venice*, vol. 2, London: Smith Elder, & Co, 1867. *Internet Archive*. <https://archive.org/details/stonesvenicevol00ruskgoog>

the operator's craft training and specialized technical language highlights the complicated and contradictory terrain between below-the-line craft discourse and formalized aesthetic terminology of directors, critics, and film scholars. Even in its earliest developments, operators found they needed to describe for the director the many possibilities and limitations of the device and craft. Operator Ted Churchill jokingly explained to aspiring operators how to handle overly naïve directors in his handmade *Steadicam Operator's Manual of Style* (1980):

Are they familiar with the potential of the Steadicam? If so, assume the worst. If not, also assume the worst. Since the job will always incorporate the recording of some moving thing, find out early what it is and how fast it will be going. This will affect the amount of work you will be required to do. If you talk to the director, be suspicious of high artistic aspiration and allusions to well-known films of the past, especially those which have utilized the Steadicam. If they mention "The Shining" hang-up. (You can always say later that you were disconnected.)⁴⁵⁷

In this way, a history of craft discourse that probes the messiness inherent in such discursive failures and gaps between technician-director-critic-audience illustrates the broad considerations necessitated by a history of film style in the context of labor. These histories often included moments of profound changes in technology, but their ultimate arbiters are the very workers who navigate the institutional, economic, and social conditions. In this way, a history of craft discourse that probes the messiness inherent in such discursive failures and gaps between technician-director-critic-audience illustrates the broad considerations necessitated by a history of film style in the context of labor. These histories often included moments of profound changes in technology, but their ultimate arbiters are the very workers who navigate the institutional, economic, and social conditions.

⁴⁵⁷ Ted Churchill, *Steadicam Operator's Manual of Style* (1980).

<https://www.videouniversity.com/articles/steadicam-operators-manual-of-style/>

I begin by looking at the contested discursive history of the invention and industrial use of Steadicam and Panaglide stabilizing systems. In this history, I chart out how discursive battles between Steadicam and Panaglide operators and manufacturers in the 1970s and early 1980s expedited invisible style while dually integrating aspects of embodied craft technique. Next, I look at how Steadicam training manuals and workshops pair metaphoric descriptions of craft knowledge with discourses of athleticism and dance, and I explain why we should take seriously this historical embodied language as a mode of craft workers' aesthetic theorizing. In doing so, I hope to illustrate the rich and heterogeneous histories by which audiences, practitioners, and even critics grappled with film language and aesthetic terminology at the advent of a new technology.⁴⁵⁸ Parsing out the technological, aesthetic, and terminological distinctions between these different modes offer scholars a greater range of critical and theoretical argumentation.

Similarly, this chapter looks to the written descriptions of audiences, critics, and practitioners of late 1970s and early 1980s Steadicam and Panaglide cinematography to uncover a parallel set of assumptions about labor and technology's intrinsic connection to spectatorship. While apparatus theory has traditionally concerned itself with questions of text and spectatorship, my investigation into Steadicam and Panaglide labor seeks to extend issues of apparatus theory into a more complex relationality between filmmaker-film-spectator in different historical periods. In this chapter, I suggest that to watch a Steadicam or Panaglide shot as a spectator is also to visibly witness and explicitly sense the labor of the technology's operators. I argue that these shots engage the body of the spectator and even ask for a hands-on engagement

458 These language games might also provide film scholars and film instructors with a more thoughtful approach to talking about camera movement and cinematography rather than just relying on the assumption that a tracking shot is the same as a dolly shot is the same as a Steadicam shot.

to critically respond back. The range of critical reactions to Steadicam and Panaglide shots and industrial discourse by operators prompts theoretical questions surrounding “the haptic” and embodiment. These theoretical conceptions are necessary guiding posts to thinking of the material relationality between the watching-bodies of audiences and the working-bodies of production practitioners.

One area that has been ignored thus far concerns the public and trade discourse surrounding the making and reception of the media texts themselves. Steadicam and Panaglide operators often write and speak about the manual labor, craft influences, and theoretical understandings of their work and the aesthetics of the shots produced. This rich material offers a new set of language and perspectives for thinking about how film critics, scholars, and audiences might view and experience these kinds of shots. On the other side, audience and critical writing from the earliest years of the technology is seemingly sparse. While these writings rarely (if ever) explicitly use the terminology “Steadicam” or “Panaglide,” I suggest these writings pointed to the problem of describing something that at the time had no name. What we find instead in the critical reviews and audience letters-to-the-editor about films featuring the technology is a mix of error, confusion, and enigma. The descriptions—in trying to point to the feeling or effect of Steadicam/Panaglide—often misdirect their descriptions to other technologies or sensations.

Stabilizer operators’ agency as film production workers asserts itself in day-to-day discursive interactions with other industrial practitioners on and off set. Their agency is not dependent on whether their work is seen, appreciated, and named by directors, scholars, and critics. After all, a Steadicam shot is a Steadicam shot, regardless of whether a critic or scholar knows how to label it as such. One way to work around this discursive gap between industrial practitioners and public reception involves putting the descriptions back into conversation with

the films themselves. Descriptions however figurative or elusive extend and alter our ways of seeing and experiencing these shots as *labored*. Thus, alongside the chapter, I pair the discursive practitioner and reception history with a series of my own video experiments highlighting significant moments in early Steadicam and Panaglide industrial practice. As a companion piece to this chapter, I have created a stand-alone video essay featuring these experiments alongside a short overview of Steadicam history.⁴⁵⁹

I call upon maker-practices of video production in a history of practitioner-scholarship from Harun Farocki, to Laura Mulvey, to contemporary video essayists like Catherine Grant and Kevin B. Lee, to offer a new way of seeing the very invisible sensations of labor practice and spectatorship of labor. What it means to write in the 21st century about films in the 20th century might also include a new way of writing with film texts that productively engages not just the images themselves (video essay as visual conference paper) but actively engages the tools by which essay filmmakers have previously used to question the medium. This may be of special concern to scholars working on histories and theories of production culture.

The emergence of videographic film studies, however, often treats these digital editing tools as useful, but secondary additions to traditional modes of film scholarship. As a way to historicize and theorize the complex relationality between spectator-film-filmmaker in 1970s and 1980s stabilizing technologies, my series of experiments reconstitutes significant Steadicam and Panaglide films, commercials, and footage from the period in a new context and as a new way of seeing. These experiments are designed to map out the range of spectatorial reactions to the labor

459 Although I had started these video experiments in 2015 and 2016, I was able to compose a full videographic essay rough cut during the Scholarship for Sound and Image program at Middlebury in the summer of 2017. I continued to work on that project during the fall and spring of 2017-2018.

of 1970s Panaglide and Steadicam stabilizing technologies. Each experiment will visualize a spectatorial reaction (whether visceral or theoretical) to specific aspects of Steadicam or Panaglide practice with a single cinematic text from the 1970s and early 1980s. Rather than as a selection of clips, I have designed these experiments to illustrate the process of asking formal and spectatorial questions within the framework of the software's own tools. These experiments are designed to explicitly show what is *felt* in the making and the reception of such sensational images. These experiments probe at the limits of what written language and other technologies can illustrate about our phenomenological response to a complex series of cinematic choices.

I position these craft metaphors and worker aesthetic theory alongside four historical reception and production case studies of early Steadicam and Panaglide filmmaking including: Larry McConkey's Steadicam in *After Hours* (Martin Scorsese, 1985), Eric Van Haren Noman's Panaglide in *Days of Heaven* (Terrence Malick, 1978), Garrett Brown's Steadicam in *The Shining* (Stanley Kubrick, 1980), and, finally, Raymond Stella's Panaglide in *Halloween* (John Carpenter, 1978). First, I examine how operator Larry McConkey's theories of experimentation, improvisation, and dance in *After Hours* fortuitously pair with a Steadicam training video by operator Ted Churchill. Both McConkey and Churchill theorize and make explicit reference to the manual and athletic qualities of these shots. In this way, modes of formal and informal discourse shared by operators during the period highlight the ways in which the craft utilized codified norms and personal experimentation to make sense and play of the work. In *Days of Heaven*, I investigate how operator Eric Van Haren Noman's Panaglide work helped condition and support the ephemeral and organic qualities of the film described in its critical reception. To illustrate, I propose a series of hypothetical and practical video experiments that helps us trace the peculiarities of the Panaglide look. In the next section, I look to two different kinds of

Steadicam shots by Garrett Brown featured in *The Shining*. I break down how technical and manual variations in Steadicam operation elicited widely disparate reactions amongst critics and audiences. Finally, I examine how post-digital stabilization of Dean Cundey's Panaglide work and digital restoration in various distributed versions of *Halloween* poses historiographical obstacles for reception and film analysis scholarship of technological history more broadly. In order to best understand these case studies, it is necessary to explain the short history of Steadicam and Panaglide technology, craft, and labor practice.

5.1 CODIFYING STABILIZER AESTHETICS: THE FLOATING PANAGLIDE AND STEADICAM'S INVISIBLE DOLLY

In 1976 the stabilizing technology Steadicam emerged in its first feature production in Hal Ashby's Woody Guthrie biopic *Bound for Glory*. In an elaborate crane step-off tracking shot, inventor/operator Garrett Brown's Steadicam looks overhead at a migrant camp, floats down to earth, and weaves its way around shuffling workers before finally landing on a union rally. For its production complexity, the shot also presents key aesthetic features of early stabilizer technology: smooth, highly mobile, dynamic, curious, and constantly capturing nonstop action. While Steadicam's later production practices promised low-cost and more flexible corollaries to existing techniques (a smooth handheld shot or a mobile dolly), early stabilizer aesthetics and practices offered at times playful, experimental, and investigative modes of camera movement. As early Panaglide operator and Steadicam adopter Ted Churchill explained, "One of the more interesting aspects of Steadicam, and one which makes operating continually challenging and

rewarding, is the vast range of possibilities that exists for its use—possibilities which extend from the most precisely technical to the most liberally stylistic.”⁴⁶⁰

Both Steadicam and Panaglide stabilizing devices operate on the same conceptual principles as a gyroscope, even though neither unit contains one. Steadicam and Panaglide rigs consist of a heavy vest tightly strapped to the camera operator and an arm that juts out from the vest’s chest-plate and bridge-plate on a waistband. This structure insures the heavy weight management of the vertical “sled,” a center post holding up a stage platform for camera, batteries, and monitor. The sled balances from the outstretched arm on a gimbal and stabilizes the load between camera, battery, and other weights placed on the top or bottom of the center post. The camera can be placed in high mode or low mode of the sled, boom up and down, and pan left and right within these positions. The gimbal connecting these elements on the sled provides the possibility for fluid motion and requires a great deal of control, finesse, and training from an operator. The rig can weigh between forty-five and eighty pounds, depending on the weight of the camera, batteries, and additional components. In the early years, purchasing a Steadicam from its manufacturer Cinema Products cost anywhere from \$30,000 to \$75,000 for a full kit, and they were used primarily by operators in southern California.⁴⁶¹ Panaglides were

460 Ted Churchill, “Steadicam: An Operator’s Perspective. Part One,” *American Cinematographer* 4, no. 64 (April 1983): 113.

461 Jan Harlan’s letter to Stanley Kubrick lists the base price of \$30,000. See Jan Harlan to Stanley Kubrick, displayed in Stanley Kubrick special exhibition, Los Angeles County Museum of Art, November 1, 2012 – June 30, 2103. Janice Arthur listed a base price of \$25,000 plus additional back-up and component parts, resulting in a full rig grand total of \$60,000 in the early 1980s. See Clifford Terry, “Steady as She Goes: An Interview with Janice Arthur,” *Chicago Tribune*, May 16, 1993, http://articles.chicagotribune.com/1993-05-16/entertainment/9305160450_1_steadicam-camera-frito-lay.

initially available for rental only via Panavision and its international distributors, having a wider use outside of the United States, as well as with independent and art house productions outside of Hollywood.

Both Steadicam and Panaglide systems create fluidity of movement despite and because of the technologies' attachment to a human operator. Thus, for the first time, the camera could move through space like a human because of its unique attachments to the human body. As David Samuelson, ASC, wrote in a September 1977 *American Cinematographer* article,

Floating camera systems . . . introduce the possibility of shots that were just not done before, because they were impossible. Their effect can, I think, best be likened to that of a low-level helicopter. Cameras may swish up and down stairs, float across barriers, run ahead of a pursuing artist and operate over types of terrain which heretofore, had the shot even been possible, would have involved laying tracks and/or using a large camera crane.⁴⁶²

Filmmakers began using Steadicam to transcend the physical and conceptual limitations of other tools. More importantly, the Steadicam shot became distinct in aesthetic form and feeling from handheld, tracking, tripod, and crane shots. As Peter Rosenfeld, SOC, explains, "Steadicam is now more of a language that we [use] to tell a specific story or to find something within the set to tell, that you can't really tell with conventional equipment."⁴⁶³ Part of this "language" also involved a history of parsing out each technology's desirable qualities into a concrete set of formal practices and norms.

The existence of two stabilizer systems in the early years challenged formal assumptions of what these kinds of moving camera shots ought to look like and how they might be used as

462 David Samuelson, "A Survey of Current Film Production Techniques," *American Cinematographer* 58, no. 9 (September 1977): 923.

463 "SOC Steadicam Forum," *Camera Operator: The Journal of the Society of Camera Operators*, Fall/Winter 2006, 42, https://issuu.com/cameraoperators/docs/soc_co_2006fallwinter.

tools on set. While the Steadicam camp sought to streamline training protocols and establish drills for producing smoother and invisible shots into the 1980s, the less craft oriented and rental driven market of Panaglide used the device for all sorts of narrative and aesthetic purposes. Both use of the systems in the early years showed signs of a more embodied style and experimentation with narrative camera movement. Rather than blending in with preexisting techniques, the stabilizer shot visibly stood out. However, Panaglide's technical disadvantages made its look and operation more noticeable and unpredictable than Steadicam, and its legal problems and lack of industrial and craft support would lead to its obsolescence. The history of both devices' development and manufacturing set the stage for our understanding of their unique aesthetic signatures employed by operators at the time.

In 1972, out of a desire to produce a handheld shot that looked as stable as a dolly shot, Philadelphia-based camera operator and commercial producer Garrett Brown set to work on a series of experimental designs for an apparatus that could mimic the way that humans see and move around in space. This apparatus would eventually become the Steadicam. Brown's earliest iterations of the stabilizing technology "The Pole," "The Brown Walking Boom," and "The Walking and Talking Machine" in 1972 and 1973 featured long metallic balancing arms, tube-like fiber-optic viewfinder helmets that snaked from the camera to the operator's eye, and various vest configurations to physically support the weight of the rig and camera.⁴⁶⁴ Brown's production house The Moving Talking Picture Company experimented shooting with the devices on local commercials (a 1973 Connecticut Gas and Power spot with rig operated by Dave Watts)

464 Garrett Brown, "Inventing the Steadicam. Part 1: Code Name 'Pole,'" *Camera Operator: The Journal of the Society of Camera Operators*, Fall/Winter 2006, 33, https://issuu.com/cameraoperators/docs/soc_co_2006fallwinter.

and for a segment in an ABC “Women in Sports” special that would air in 1974. Brown finally settled in 1973 on the earliest version of the “Brown Stabilizer” a unit that attached the camera via a pulley and bungee system to an old Leo-Pad harness used by news camera operators.⁴⁶⁵

According to Brown, this discovery that, “short springs or elastics provide a relatively hard ‘ride’ for whatever they suspended,” helped him solve the serious problem that the earlier devices demanded exhausting and painful manual labor to operate. These new adjustments to Hooke’s Law, further provided a wider variety of lifting and booming options at a range of heights beyond the previous iterations’ low to the ground shots.⁴⁶⁶ Furthermore, this weight distribution discovery would also pave the way for Brown’s replacement of the bungee pulley with a spring loaded and later iso-elastic arm.

During this time, Brown continued to book and shoot local commercials (Fidelity Bank, Agway Insurance, and four Girard Bank spots) and segments of ABC Sports coverage of the Steam Boat Springs ski races in 1974. By way of testing and exhibiting the special qualities of his final prototype design to potential large scale industrial manufacturers in a demo reel, Garrett Brown wore the rig and performed a series of video tests.⁴⁶⁷ The footage from the very

465 Brown, “Inventing the Steadicam,” 33.

466 Hooke’s law states that, “for relatively small deformations of an object, the displacement or size of the deformation is directly proportional to the deforming force or load.” The Editors of Encyclopedia Britannica, “Hooke’s Law,” *Encyclopedia Britannica*. (December 15, 2017).

<https://www.britannica.com/science/Hookes-law>.

467 A short clip featuring Brown wearing a prototype from a demo reel is available to view here: SG Life Achievement Award: Garrett Brown, YouTube video, 00:09 – 00:13, from the Steadicam Guild Life Achievement Awards on April 8, 2013, posted by “Steadicam Guild,” August 10, 2013, https://www.youtube.com/watch?v=v8_jgfiZfg&list=PL8QcVDaAA3Mk__5cBZKrv95veyI2mv2rU&index=2

beginning emphasized the image produced and the process and activity involved in the production of the image. We see Brown wearing the apparatus in some shots and we see the footage shot with the apparatus. Here for the first time, the camera could leap from the constraints of the dolly track and offer fluid and not jumpy handheld movements. The “Brown Stabilizer” offered at once a streamlined production practice for highly difficult shots and shooting conditions alongside a revolutionary energetic feel to the shot. It is also important to keep in mind that in the early years, Brown primarily thought of the Steadicam as a “stunt camera” or running camera. Yet, the “Brown Stabilizer” promised to revolutionize the basics of on-set production practice more broadly and in doing so created a new aesthetic language for the camera and expanded narrative storytelling possibilities. Dialogue scenes could be shot—as in real life—on the go, characters could change direction, and the camera movement itself could vary in alternating speeds and compositions as necessitated by the space of the scene and the actors’ needs.

In the spring of 1973, Brown and an associate Warren G. Paul set up a screening of Brown’s Pennsylvania demo footage at Panavision’s new headquarters in Tarzana, California attended by Robert E. Gottschalk president of Panavision. Brown did not show Gottschalk the actual device partially for fear that its noise would deter the manufacturer of the recently released silent Panaflex camera and partially to keep its design under wraps. While Brown’s earlier conversations with Panavision suggested interest in manufacturing and selling the product, Brown’s in-person interview with Gottschalk at Panavision proved lukewarm at best. Gottschalk seemingly dismissed the future potential for the stabilizing system and its ability to be rented by a significant number of industry practitioners, and thus produce a sizeable rental return on investment from the seemingly prohibitive research, development, and production costs.

Gottschalk also raised the possibility that Panavision had been developing its own stabilizing device that could hold the weight of a 35mm camera.⁴⁶⁸ Brown's later retelling in excerpts from his Steadicam biography repaint Gottschalk in this narrative as "balding and intense in an incongruous Hawaiian shirt" and even unaffected by the power of Brown's footage, "he acted like a Roman general being shown the 'effect', but not the cause, of a machine gun."⁴⁶⁹

Gottschalk's cold reluctance and quick mention of lawyers during and after their Summer 1974 conversations worried Brown.

In 1974 Brown returned to Philadelphia to make a 35mm "Brown Stabilizer" prototype and updated demo reel to promote the device to potential large-scale manufacturers. In the demo reel, Brown wore the rig and produced a series of "30 impossible shots:" rambling around the Pennsylvania hills near his barn workshop and a sequence with Brown chasing his girlfriend, Ellen, up and down the stairs of the Philadelphia Art Museum.⁴⁷⁰ This demo featured both footage shot using the stabilizing device and some footage depicting Brown operating the new rig. The art museum stair footage would go on to captivate manufacturers and directors alike, and it directly inspired John Avildsen and Sylvester Stallone's now infamous sequence

468 Garrett Brown to Don Rogers, Chairman Scientific and Technical Awards Committee Academy of Motion Pictures Arts and Sciences, December 17, 1976, Linwood G. Dunn Papers, Margaret Herrick Library, Academy of Motion Picture Arts and Sciences.

469 Brown, "Inventing the Steadicam," 33.

470 To view ten clips from the reel, see Ariston Anderson, "'Impossible Shots' That Changed Filmmaking Forever," *Hollywood Reporter*, August 14, 2014, <http://www.hollywoodreporter.com/news/steadicam-inventor-reveals-impossible-shots-725346>.

ascending the very same Philadelphia stairs in *Rocky*.⁴⁷¹ Not long after Brown finished his final demo, he signed a development and manufacturing deal with the president of Cinema Products, Ed DiGiulio, in November 1974.⁴⁷² Thereafter, Cinema Products engineer Arnold DiGiulio worked with Brown for another year and a half, updating the arm and renaming the device “Steadicam.”⁴⁷³

A self-promoting figure, Brown has provided the dominant narrative of Steadicam’s history: inventing and innovating the technology; developing masters’ workshops; publishing the craft’s trade publication, the *Steadicam Letter* (1987–95); participating in various behind-the-scenes and *American Cinematographer* interviews; and penning his own forthcoming biography about his years as the technology’s inventor and sole operator. From the beginning, Brown was both the shower and the teller, the inventor and the revelator. Most recently, Brown was awarded a lifetime achievement award by the Society of Camera Operators, spoke at a Lincoln Film Society retrospective of Steadicam in filmmaking, and his earliest prototypes are planned to be featured at the Academy of Arts and Sciences Film Museum.⁴⁷⁴ In his own accounts of the invention’s inception, Brown has claimed, “I was the only one in the world who could make such

471 Garrett Brown, “The Iron Age,” *Steadicam Letter* 1, no. 4 (March 1989): 5, <http://www.stabilizer-news.com/steadicam-letter-march-1989/>.

472 Brown to Rogers, December 17, 1976, 5.

473 Brown to Rogers, 6 – 7.

474 Carolyn Giardinia, “Steadicam Inventor Garrett Brown to Get SOC Lifetime Achievement Honor,” *Hollywood Reporter*, October 31, 2016, <http://www.hollywoodreporter.com/behind-screen/steadicam-inventor-garrett-brown-get-soc-lifetime-achievement-honor-942549>; Dan Sullivan, “Going Steadi: 40 Years of Steadicam,” Film Society of Lincoln Center, December 16 – January 3, 2017, <http://www.filmlinc.org/series/going-steady-40-years-of-steadicam/>.

shots, yet it was also clear that none but crazed obsessives would endure using this contraption.”⁴⁷⁵ Brown’s enthusiasm is playfully magnetic, and his explanations of the technology and its aesthetics are primarily (and sometimes humorously) prescriptive (i.e., this is what a Steadicam can and *should* do) versus descriptive (its experiments and its possibilities). For Brown, Steadicam serves a primarily utilitarian function on set above and beyond its unique aesthetic signatures. This utilitarian function was the technology’s and craft’s largest economic selling point from the earliest days of its invention to its later uses in commercial television.

According to John T. Caldwell,

Not only could the device preempt costly crane and dolly rentals, and the time needed to lay track across a set or location, but it cut to the heart of the stratified labor equation that producers imported to primetime from Hollywood. On scenes demanding Steadicam, the Director of Photography, the “A” camera operator, the focus-puller, and one or more assistants would merely stand aside as a single Steadicam operator executed lengthy moves that could previously consume inordinate amounts of program time. Steadicam was, then, not just a stylistic edge; it was also offered concrete production economies.⁴⁷⁶

Steadicam, alongside Brown’s other subsequent stabilizing technologies and sports-related camera rigs (Fly Cam, Dive Cam, Scuba Cam, etc.), were all born of functional rather than aesthetic concerns. But even Brown acknowledged early on that these “stunt cameras” quickly became interesting for a host of other possibilities. Behind Brown’s thinking is the idea that if the camera could do more things, then the camera operator could explore more ideas, shots, and narrative possibilities as a result.

475 Garrett Brown, “Ancient History: The Brown Stabilizer,” Steadicam Letter 3 (December 1988): 8, <http://www.stabilizer-news.com/steadicam-letter-december-1988/>.

476 John Caldwell, “Steadicam,” in *Encyclopedia of Television*, Museum of Broadcast Communications, <http://www.museum.tv/eotv/steadicam.htm>.

During the same period of Brown's development and manufacturing deal with Cinema Products, Panavision and Gottschalk were at work developing and testing a competing stabilizer technology. In 1977, a year after Steadicam's feature-film debuts in *Bound for Glory* (Hal Ashby, 1976), *Rocky* (John Avildsen, 1976), and *Marathon Man* (John Schlesinger, 1976), Panavision unveiled the Panaglide. In an April 1977 write up for the Panaglide "Mr. Panavision Speaks Out," Gottschalk's company described the brand-new apparatus as "the floating camera" and offered two models the 'Panaflex Panaglide' (for sync sound) and the 9lbs lighter modified Arriflex model (for non-sync sound).⁴⁷⁷ Brown's paranoiac fears that had driven his notorious confidentiality contracts, limited demo showings, and even hiding his prototypes under fabric while he operated had been legitimated. As the Steadicam camp tells it, shortly after Gottschalk's and Brown's Panavision meeting in 1974, Gottschalk set out to obtain Brown's then pending patent and mimic Brown's device. These accounts range from innocuous (a team of engineers developing a unit based on Gottschalk's description) to dramatic (Gottschalk sending undercover spies to infiltrate sets or manufacturing meetings, and one account where Gottschalk himself jumped out from behind a bush during testing for *The Heretic* to take snapshots of the rig). Gottschalk has since claimed the idea was inspired by many different technologies, including a suspension contraption designed for Japanese delivery bikes.⁴⁷⁸

The histories of the prototype construction wars made its way to then Academy of Arts and Sciences President Linwood G. Dunn who was considering the nomination of both devices for the 1978 Academy Scientific and Technical Awards. In these accounts, early operators,

477 Anonymous, "Mr. Panavision Speaks Out," *American Cinematographer* 58, no. 4 (April, 1977): 432.

478 A more in-depth accounting of this legal conflict is documented in the Academy Scientific and Technical Awards investigation between the two technologies. See Dunn Papers

manufacturers, Directors of Photography, and friends defend both Panaglide's and Steadicam's authentic and untarnished origin stories. Despite Panavision's best attempts, the Panaglide soon lost its legal battle, its Academy recognition, and much of its practice in day-to-day industry productions. In a 1979 out-of-court legal agreement, Panavision settled a patent infringement suit brought against its Panaglide by Cinema Products. Panavision agreed to continue renting units, with royalties to Cinema Products.⁴⁷⁹ Eventually the rigs were upgraded from Panaglide's "inferior" gas cylinder arm to Steadicam's patented iso-elastic spring arm, and finally the remaining rentals were sold off in the early 1980s as used rigs to eager new operators. The industrial backstory to Steadicam's conflict with Panavision's Panaglide is a story narrated and propagated by the Steadicam camp.

The years between 1977 and 1983, which Brown would later term the "contraption wars," included a lengthy battle between Cinema Products' Steadicam and Panavision's Panaglide over their competing industrial claims of ownership and technological superiority.⁴⁸⁰ Steadicam operators and developers have often discounted nuanced differences between Steadicam's and Panaglide's films and practitioners, as well as subtle mechanical distinctions between the two, as merely the result of Panaglide's inferior, "copycat" technology. Yet, such subtle differences describe significant variations in both weight (up to twenty pounds) and

479 Serena Ferrara, *Steadicam Techniques and Aesthetics* (Boston: Focal Press, 2001), 143.

480 These years marked Steadicam/Cinema Products' turbulent legal history during the first five years of its production as Brown and Cinema Products became embroiled in lawsuits with competing stabilizing technologies from Panavision's Panaglide to various Russian and Japanese prototypes, and even to the amateur tinkerers posting DIY stabilizer guides in local movie-maker magazines. Garrett Brown, "The Contraption Wars," *Steadicam Letter* 2, no. 1 (June 1989): 1 – 8, <http://www.stabilizer-news.com/steadicam-letter-june-1989/>.

weight distribution, thanks to the proprietary functionality of Panaglide with Panavision's other recent technological innovation: the extremely lightweight Panaflex camera. Another significant difference involved Panaglide's inferior vest and prototype arm, which, according to DiGiulio, suffered as a result of its gas-cylinder arm, causing Panaglide's particular waviness and uneven horizon lines: "It had friction. If an operator with the Panaglide jumps up and down you can see the camera doing this."⁴⁸¹ While DiGiulio perhaps overemphasizes the degree to which the device reacted to operator movement, these slight differences gave Panaglide its first-glance calling card as the "floating camera," a phrase utilized by Steadicam in a pejorative context to indicate its lack of grounding to the horizon. This effect is most recognizable in *Halloween* and *Days of Heaven*, which used the prototype gas shock arm before switching to a spring arm copied from Steadicam. Both stabilizers were introduced and talked about on the market as "floating cameras," and only later would Steadicam rebrand "floating" as the pejorative quality of Panaglide. Since Steadicam was the stabilizer technology that won out both in practice and in legal production, the history of these early stabilizing technologies in trade publications, practitioner-interviews, and published manuals, often compounds the industrial histories, labor practices, and aesthetic qualities of Panaglide and Steadicam into one singular technology, aesthetic, and practice.

Despite these differences, these devices look almost indistinguishable to a non-practitioner's eye. The single academic book on the subject, Serena Ferrara's *Steadicam Techniques and Aesthetics*, uses the so-called copy-cat quality of the two technologies to discount and sometimes superimpose Panaglide with Steadicam by calling it "the Steadicam

⁴⁸¹ Ferrara, *Steadicam Techniques*, 143.

effect” when referring to different shots in the early period. Ferrara’s discussion presents Panaglides as a mere blip in a wider history of Steadicam and often refers to the apparatus as merely a “clone.”⁴⁸² One of the main difficulties in researching the Panaglides system and Panaglides debates between 1976 and 1979 is that much of the press about Panaglides in trade publications and in Steadicam industrial writings refers to the system in diminutive terms such as “the other system,” “the glide,” “the imitator,” “the imposter,” and “the one that doesn’t work.”⁴⁸³ A November 1977 letter from operator Steven E. Michaud to the editor of *American Film* magazine even chided writer Richard Fuller’s July/August profile of Garrett Brown “The Floating Camera” for slighting Panaglides as inferior and assuming Steadicam’s superiority, or rather as Michaud criticized “[Steadicam’s] God-given mandate to be the only manufacturer of hand-held camera stabilizing equipment.”⁴⁸⁴ Michaud’s letter highlighted—in the very moment of the “contraption wars” most divisive moment—how many trade and critical articles around stabilizer technologies were geared to “mislead” general readers and production personnel against non-Steadicam devices through pejorative phrasing, euphemism, or outright exclusion.

A fuller account of this moment in stabilizing history suggests that these kinds of dismissals were everyday tactics in industrial promotion, marketing, and competitor aggression. Panaglides’s marketing similarly participated in modes of shoptalk “shit talking” by avoiding any mention of Steadicam technology. Panavision President Gottschalk went as far in a 1977

482 Ferrara, *Steadicam Techniques*, 52.

483 For some of this “floating” language in battle, see Richard Fuller, “Explorations: The Floating Camera,” *American Film* 2, no. 9 (July 1977): 16–17; also, a heated response to Fuller: Steven E. Michaud, “Letters: Steady There,” *American Film* 2, no. 3 (November 1977): 4.

484 Michaud, “Steady There,” 4–5.

interview with *Screen International* to suggest that other technologies on the market might be similar to Panaglide but did not possess the degree of technological sophistication or research of Panavision products. Even at the London “Film ‘77” exposition *American Cinematographer* writer Herb A. Lightman describes a side-by-side “shoot-off” on the convention floor between Brown operating the Steadicam and George Binnensley (a rep of Panavision) shooting with a Panaglide. Lightman jokes that, “It gets pretty funny when the two blokes almost collide in mid-corridor, camera stabilization mounts dangling. The two are very “Noel Coward” about it all, however—trying on each other’s mounts and voicing discreet comparisons.”⁴⁸⁵ An adequate construction of this history must go beyond accepting these slights at face value to recognize that this level of discourse signifies a longer, more mundane history of cross-industrial passive aggression and snark. Such language does not necessarily signify truths about any technology in relation to another, but rather specifies a vernacular of industrial interaction. Steadicam’s success at narrativizing an industrial history dismissive of Panaglide is part of what makes it so difficult to parse out lived and felt differences between the two technologies. The argument for seeing the technologies as the same in all aspects (labor, craft practice, and aesthetics) stems in large part from the lawsuit’s citation of their material spring-arm similarities while refusing (or legally unable) to recognize the sensual and aesthetic differences noted by practitioners. The mood of the “contraption wars,” while accusatory, inflammatory, and litigious, also fueled fascinating discussions about both aesthetic and technological distinctions between the two systems.⁴⁸⁶

485 Herb A. Lightman, “Report from Film 77,” *American Cinematographer*. 58, no. 9 (September 1977): 914 – 915.

486 For more detail on Panaglide’s appearances after 1988, see Erwin Landau, “Historic Pictures II . . .,” *The Steadicam Forum: Pictures and History*

Part of my interest in reinserting Panaglide into industrial histories of craft discourse and technology is to discover in what ways it allows us to examine a richer, murkier, more complex series of interactions between spectatorship, technology, and craft aesthetics within a turbulent period of industrial change. This project argues for the necessity of re-inscribing Panaglide back into an aesthetic theory and labor history of 1970s and 1980s stabilizing and Steadicam history in order to reveal the nuances in cinematic experience voiced by both practitioners and audiences of these films, television, and commercials. For one, due to the Panaglide's relationship to the giant rental house of Panavision and its international distributors the apparatus had a wider use outside of the US, as well as with independent and art house productions outside of Hollywood (including rentals by one of the first women operators Janice Arthur in Chicago). For operators, directors, and audiences, the dual market of both Steadicam and Panaglide offered an additional variety of aesthetic choices in its eccentricities or even its faults as a technology. Other accounts suggested that slight differences in the mechanics of the arm offered less control and stability, causing the Panaglide to be slightly more reactive and receptive to an operator's touch. While this added to Panaglide's now negative "floating qualities," its responsiveness also imparted to the image what was described as a more corporeal feeling or even possessing a consciousness of its own. Ted Churchill, who operated both Panaglide and Steadicam during his career, joked affectionately that he would charge \$35 an hour to rehearse with the temperamental Panaglide while only charging \$10 an hour to rehearse with a Panaflex camera on a Steadicam. Its earliest operators were often prototype-developers for the company or people who wanted to merely

Archives, <http://www.steadicamforum.com/index.php?showtopic=219&hl=panaglide>; and Rich Cottrell "Panaglide," *The Steadicam Forum: Pictures and History*

Archives, <http://www.steadicamforum.com/index.php?showtopic=12230>.

“test-it-out” on a day shoot and may or may not have continued using the device after the lawsuit was settled.⁴⁸⁷ Early operators who had purchased the remaining rentals outright (including master operator Ted Churchill) continued to use the device well in the 1980s. Yet even in 1991 Churchill reflected on the final gasp of increasingly rare Panaglide: “The Panaglide, both light and quiet, alas, is on (and I’m told over) the cusp of obsolescence.”⁴⁸⁸ To this day, online Steadicam forums still feature debates about the differences between the two technologies and aesthetic examples cited by practitioners to highlight the differences in their own experience with Panaglide. Some members on Steadicam forums even conjecture about the use of Panaglide rigs well into the 1990s, with one member joking that perhaps the 1999 Matrix film was shot on a Panaglide.

Illustrating these differences within the history, discourse, and aesthetics of Steadicam and Panaglide is particularly important given the moment of industrial change occurring within the industry from the 1970s independent production to large-scale blockbusters in the 1980s. Steadicam would go on to be the dominant mode of practice that moved from its earliest experimental years, to its use in large scale production and stylistic and craftsmanship codification in the 1980s, to its once innovative and now mundane use in the one-hour television dramas of *Homicide*, *ER*, and *The West Wing* (the ubiquity and cliché of the television “walk-and-talk” being Steadicam’s main aesthetic and narrative signature). Yet it is these contested

487 Certainly this is the case for operator Eric Van Haren Noman, who after shooting with Panaglide on *Days of Heaven*, *Hannover Street* (Hyams 1979), and *Friday the 13th: Part II* (Miner, 1981) and more, seemingly abandoned Panaglide operating to concentrate on finding work as a Director of Photography.

488 Ted Churchill, “The Moviecam Compact,” *Steadicam Letter* 3, no. 2 (April 1991): 6, <http://www.stabilizer-news.com/steadicam-letter-april-1991/>.

1970s and early 1980s years of technological debates, aesthetic experiments, and the formation of the very labor practices of training that best speak to the relationship between emerging technology, camera operators, and audience reception.

A useful technological and aesthetic parallel might be the introduction of deep focus cinematography as detailed by David Bordwell in *Classical Hollywood Cinema*. Bordwell uses the example of Director of Photography Gregg Toland to illustrate a long history of debates about Toland's own 'eccentric' style and technique. Bordwell—in citing a vast period of trade publication articles on the topic—highlights various other practitioners (i.e. Arthur Miller) who were utilizing deep focus cinematographic techniques before and during Toland's own experimentation with the style. Bordwell highlights deep focus shots that seem uniquely Toland-esque, not simply for their sharpness of depth, but instead for a use of depth that feels “crammed”, “figural”, and at times even “confusing” (referencing the great deal of activity occurring on foreground and background planes at once). These kinds of historical-returns (specifically to rich histories embedded in trade papers) yield the muck of the historical moment back to the contemporary reader. It is a gesture to restore the historical subtlety and contestation back into what is now an uninterrupted and widely accepted cinematic innovation.

This early period of competition with Panaglide challenged acceptable kinds of techniques and expedited formal modes of Steadicam craft training and its impact can be felt explicitly in discursive language of practitioners and implicitly via on-set practices during and long after the contraption wars. In 1985 Steadicam was fast becoming an industry of its own, with a cadre of well-trained operators commanding large wages on studio productions. In 1987 operators formed their own craft organization—the Steadicam Operator's Association (SOA)—and filtered all training, work placement, and stylistic norms through the organization's

publication and job clearinghouse, the *Steadicam Letter*.⁴⁸⁹ In addition to skills training and mechanical advice, authorized craft workshops, manuals and VHS instructional series, formation of master operators at the '88 Rockport Workshop, industrial job directories, The SOA established testing of skill levels and codified stylistic norms.

As part of this standardization process, operators were trained to make Steadicam conform as best it could to existing production methods, primarily by using a Steadicam to replicate a dolly shot or by using a Steadicam operator as a living tripod. To accomplish these looks, the Steadicam training process and discourse sought to filter out characteristics that most tied the image to quirks of the operator's body. The very signatures that made the early stabilizers of Panaglide and Steadicam so virtuosic were the exact markers that signaled the presence of a living and breathing operator behind the camera. In the process of making such shots more "invisible" to the overall style and narrative of the film, Steadicam operators were taught to reduce potential traces of the very subjectivity and bodily shifts that might give their operation as such away.

Steadicam's growth outside the feature film arena was also thanks to Cinema Products development and marketing of additional (less expensive) tools for lighter-weight electronic production, including Steadicam EFP in the 1980s and the JR version, intended for the prosumer market, later in the 1990s.⁴⁹⁰ While Steadicam and other industry stabilizers have evolved and

489 The 1988 Rockport workshop included the major players of Steadicam both in the 1980s and today, including Academy Award-winning operator Chris Haarhoff, Janice Arthur, Garrett Brown, Ted Churchill, Mike Elwell, Jerry Holway, John MacNeil, Jeff Mart, Jimmy Muro, Mark O'Kane, Rick Raphael, Erich Roland, Bob Ulland, Ralph Watson, and Ian Woolston-Smith. See "News Flash from the Masters," *Steadicam Letter* 1, no. 1 (Spring 1988): 7, <http://www.stabilizer-news.com/steadicam-letter-spring-1988/>.

490 Caldwell, "Steadicam."

developed cheaper, lighter, and consumer-line iterations in thirty years, the basic principles of the early units' users and their underlying contentions about its embodied quirks still determine the technologies and practices associated with large-scale industrial Steadicam craft today. Alongside this dominant history of innovation, Steadicam operators (and even users of the increasingly obsolescent Panaglide) continued to utilize the experimental and playful aesthetic aspects of their stabilizing devices first introduced in the 1970s in a range of media products. Such a model importantly points to modes of technological or labor history that resist false narratives of "inception" as underlined in Jean-Louis Comolli's apparatus theories.⁴⁹¹ Thus histories of technological or stylistic innovation often exist entwined with labor practices, devices, and aesthetic sensibilities seemingly at odds with dominant norms of production and standardization.

Despite the formal craft's emphasis on producing a more invisible style, the embodied techniques of the early practitioners were never fully eradicated in craft training and on-set improvisation. Today, Steadicam labor is still a conceptually and physically distinct form of cinematographic craft. Assembling, operating, and maintaining such a device requires not only the usual cinematography craft skills but also a strong and physically fit body and the tinkering knowledge of a machinist. It is a system one must learn to "breathe with" and is described by operators as both an extension of one's own body and an entirely different body attached to one's own. Steadicam engages the tactile senses of operators and spectators due to its relationships to touch, dance, and breath. What Steadicam profoundly suggests of manual practice, craft technique, and emerging technology of its time is an aesthetic whose virtuosity and sensual

491 Jean-Louis Comolli, *Cinema against Spectacle: Technique and Ideology Revisited*, trans. Daniel Fairfax (Amsterdam: Amsterdam University Press, 2015), <http://www.oapen.org/search?identifier=611591>.

responses derive from the very bodily conditions of its human labor. In this way, language of critical description breaks down, and one must do it to know it.

5.2 EMBODIED STEADICAM TRAINING: THE POETICS AND POLITICS OF DANCING WITH CAMERA

Since their inception, Steadicam and Panaglide required additional genres of aesthetic description precisely because stabilizer craft discourse primarily depends on alternative—non-cinematic—modes of descriptions. From dance to music, sport, and painting, stabilizer operators describe the cinematic motion of their practice and affective experience as a kind of camera operation on steroids. In stabilizer training, learning to use the camera itself comes long after operators have mastered moving with the rig through space. Since the beginning of their history, Steadicam operators have learned how to use Steadicam through dance lessons. The first dance is called “walking the line,” and it is a skill Chris Haarhoff, SOC, describes as “like dancing with someone for twenty years and they never let you lead.”⁴⁹² Entire Steadicam training manuals, safety guides, and exercise philosophies are devoted to the “inertia,” “balance,” and even “tight-rope” walking involved in retraining the body to work with and not against Steadicam’s weight and movement. That the operator’s own body must not only literally fall away from the Steadicam but also have both the strength to guide and the flexibility to be moved by the Steadicam is indicative of the contradictory forces at work when shooting. Randy Nolan, SOC, offers two metaphors: “It was always like Tai Chi to me. You get it started and it sort of takes

⁴⁹² “The Steadicam Forum,” *Camera Operator Magazine*, 45.

over, you only need to pull back a little. Operating a Steadicam is like having a marble on a plate; your body is the plate; the Steadicam is the marble. The only difference is that the marble is not on the plate, it's in space."⁴⁹³

Perhaps this is why comparing Steadicam shots to tracking and handheld shots feels so frustrating for operators; not only do these shots not look the same, they in no way *feel* the same. When thinking about metaphors of sensation as a kind of discursive craft practice, it is helpful to make recourse to theories of embodiment and labor embedded in the context of a historical phenomenology. Bruce R. Smith's description of "historical phenomenology" as "an ambient quality of knowing in-place-and time" is a useful way to think about both Steadicam craft discourse of style and the embodied sensations described by operators.⁴⁹⁴ James Kearney and Kevin Curran develop the definition of historical phenomenology even further by explaining two important premises: first, that "feeling and sensing have a history," and second, that these "are not historical artifacts in the same way . . . since feeling and sensing are embodied, subjective processes."⁴⁹⁵ The "nebulosity of feeling" so often voiced by craft practitioners attempting to translate their embodied sensations and perceptions of making in interviews gives us clues—in the strangeness or cloudiness of their lexical description—to the historically subjective experience often undocumented in more traditional records of discourse and technique.⁴⁹⁶ So when Steadicam operators claim they can name the operator behind a shot based on an intuition

493 "The Steadicam Forum," 45.

494 Bruce R. Smith, *The Key of Green: Passion and Perception in Renaissance Culture* (Chicago: University of Chicago Press, 2009), 9.

495 Kevin Curran and James Kearney, *Introduction to Criticism* 54, no. 3 (July 1, 2012): 354.

496 Curran, *Introduction to Criticism*, 354.

of how that person's body moves in space, they are keying into an embodied witnessing of their own and others' labor through abstractions of the senses. Perhaps director of photography Vittorio Storaro, ASC, described the abstractions inherent in Steadicam operation and its aesthetic possibilities best:

In other words, Steadicamera has a Steadicam movement, there's this floating feeling that is almost aquatic, let's say, that has an emotion of its own, that has a beauty of its own, a style of its own and it should be used when that kind of movement is needed and I think it shouldn't be a substitute for the movement of something else, even if it's been done a lot because a dolly couldn't be used, so they picked up the Steadicam and took two steps backward, But it's different, it's something else.⁴⁹⁷

Technicians' use of metaphors to describe this "something else," these kinds of indescribable embodied camera movements, also points to corollaries in puppetry and even aspects of motion-capture technology. As early as 1810, playwright and philosopher Heinrich von Kleist grappled with the dilemmas of how to describe the action of puppeteering and the witnessing of the puppeteer's performance in an essay entitled "On the Marionette Theater." For Kleist's interlocutor, who describes the scene, what makes the puppeteer's performances so personally felt by the audience requires the basic bodily mechanics of inertia, gravity, and the puppeteer's manipulations of the contraptions' lines and curves: "for it is nothing other than the *path taken by the dancer's soul*; and he doubted if this could be achieved unless the operator transposed himself into the marionette's center of gravity; that is to say the operator dances."⁴⁹⁸ Or, to paraphrase, the puppeteer himself must dance. To move in such a way, the object (in Kleist's

497 Ferrara, *Steadicam Techniques*, 154.

498 Heinrich von Kleist and Christian-Albrecht Gollub, in "On the Marionette Theatre," *German Romantic Criticism*, ed. A. Leslie Wilson (New York: Continuum, 1982), 239.

case, a puppet; in our case, Steadicam) must be infused with the puppeteer's/operator's body and feeling.

Description here shows us something about the embodied experience and the historical act of witnessing, of what prompts, provokes, and pleases the viewer in the dynamic interaction with performance and performer. Similarly, dance choreographer William Forsythe's recent experiments with dance and motion-capture hope to illustrate and pinpoint the differences in dancers' motion and their visual and physical effect on audiences.⁴⁹⁹ Charles Atlas's prescient use of early stabilizer technology in his short 1978 dance film *Locale* sought to suture the choreographed movements of dancers to the parallel trained maneuvers of a camera operator.⁵⁰⁰ Steadicam operator Larry McConkey describes his own practice not unlike Kleist's puppeteer. McConkey explains, "the very path to transcending the use of physical means to achieve abstract thought and emotion lies in the absolute reliance and involvement with mechanical things. It's how I make music...Camera movement has an intrinsic aesthetic component with clear corollaries to music and dance."⁵⁰¹ It is this balancing of gravity, the manipulation of human hands to an inanimate technology, and most importantly the dance between the two that best describes the range of possible feelings available to spectators of both marionette and Steadicam performances. The move from puppets to camera rigs to dance is not an association as odd as it

499 William Forsythe, Maria Paulazzi, and Norah Zuniga Shaw, "Synchronous Objects: One Flat Thing," Advanced Computing Center for the Arts and Design, Department of Dance, Ohio State University, 2009, <http://synchronousobjects.osu.edu>

500 Charles Atlas, *Locale*, Merce Cunningham Dance Company (1978).

501 Larry McConkey, "The Long Steadicam Shot," in Jerry Holway and Laurie Hayball, *The Steadicam Operator's Handbook*, 2nd ed. (New York: Focal Press, 2013), 437.

sounds. Much of the descriptive acts surrounding both the performing and witnessing of each of the crafts have much in common, from the Kleist's 'enigmatic' elliptical movements connected to a human center of gravity to McConkey's feeling of dance between human and technology.

Rather than reverting to other phenomenological and aesthetic appeals to body, camera movement, and cinematic experience (as previously discussed by Barker, Sobchack, and Morgan), it might be useful to think of these kinds of Steadicam operators' techniques as embodied performances captured by the very cameras they are operating.⁵⁰² In this way, highlighting Steadicam operators' own sense of athletic performance in this craft also helps elucidate the intricacies and felt nuances that mark a Steadicam shot as unique. To do this, returning to basic dance instruction is necessary.

We can think of "walking the line," the first movement any operator learns, as stepping the figure-eight grapevine, but having to move not just yourself but a Steadicam's heavy weight. A Steadicam moving in one direction tends to keep moving in that direction. Like a dance partner, operator must use both strength and grace to direct the Steadicam to where the operator wants it to go, keeping it on the same line. While dance training seemingly happened almost intuitively, according to Steadicam and Panaglide operator accounts, its prescription as a formal training method occurred workshops, training tapes, articles in *The Steadicam Letter*, and formal

502 Daniel Morgan "Where Are We? Camera Movements and the Problem of Point of View," *New Review of Film and Television Studies* 14, no. 2 (2016): 222–48, <https://doi.org/10.1080/17400309.2015.1125702> ; Daniel Morgan, "Max Ophuls and the Limits of Virtuosity: On the Aesthetics and Ethics of Camera Movements," *Critical Inquiry* 38, no. 1 (2011): 127–63, <https://doi.org/10.1086/661646> ; Jennifer Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009); Vivian Sobchack, "Toward Inhabited Space: The Semiotic Structure of Camera Movement in the Cinema," *Semiotica* 41 (1982): 317–35. <https://doi.org/10.1515/semi.1982.41.1-4.317>

and informal manuals. *The Steadicam Operator's Handbook* instructs new operators in the art of foot pattern worksheets, not unlike dance instructional manuals. But moving both one's own feet and the seventy-pound apparatus "with a mind of its own" can be incredibly difficult, though also incredibly easy once the two are in sync. As operators progress, they transition from "walking the line" to "making the switch" between operating positions in a basic "line dance."⁵⁰³ The dance partner metaphors therefore aren't just descriptive but practical. If operators treat the tool as a thing that also wants things, then operators can utilize this "consciousness" to their own advantage.

What then would it mean to visualize this sensation more explicitly? Other operators make clear in interviews that they can identify the operator in a given shot—not by some previous knowledge of the operator's resume—but through a recognition that "so and so's body moves this way feels this way on screen." This intuition, built on a knowledge of personal quirks (ways of moving in space) but also the weight and placement of load by the operator's body. In other words, no Steadicam shot performed by different operators would look alike even if filmed under the exact same shooting conditions, flight path, and start and stop marks. In order to illustrate this felt difference, I examined a handful of early Steadicam training videos.

I ordered the first Steadicam training videos on their original VHS and U-Matic formats. I clumsily transferred the footage to my computer and began digitally sketching over sequences where operators teach the initial "Walking-the-line" technique. These figural line drawings, inspired by choreographer William Forsythe's dance instructional software "Improvisation Techniques, A Tool for the Analytic Dance Eye," attempted to pinpoint the differences in

503 Jerry Holway and Laurie Hayball, *The Steadicam Operator's Handbook*, 2nd ed. (New York: Focal Press, 2013), 61.

operator movements in the most basic and integral motion of the craft.⁵⁰⁴ As the training videos emphasizes, each micro movement involved in dancing with the camera imprints its own quality on the image within the frame: whether this affects the warping at the edge of the frame, the bobbing of the horizon line, or even the thrust and halt of the overall camera movement.

The daily labor of a stabilizer operator involves a kind of skillfully trained dance improvisation. The best example of such expressive enjoyment can be seen in Larry McConkey's final shot in Martin Scorsese's *After Hours*. In a film where chaos is unleashed in the night of a lower east side New York City, the return of the conservative protagonists Paul Hackett (Griffin Dunne) to his middle-management job in Midtown signals a gesture back towards normality. The setup begins with the sound of ominous dark chimes as Paul—in destroyed suit and exhausted disposition from the raucous night before—finally sits down in front of his computer. Yet this final landing is no pause at all, as Paul's computer boots up with the greeting "Good Morning Paul," the camera breaks from free from its stuffy constraints and imparts the spirit of the previous night's mayhem on the cubicles of Paul's office, effectively transforming the mundane fluorescent lit desks, the metallic chairs, and the morning office soundscape into a stage for its whirling expressivity. In this shot, operator Larry McConkey, SOC, was given free range to experiment with the Steadicam. McConkey explained, "Michael Ballhaus [director of

504 William Forsythe, "Improvisation Technologies, A Tool for the Analytical Dance Eye," Vimeo video, posted by "University of New South Wales, Sydney iCinema Centre for Interactive Cinema," <https://vimeo.com/2904371#t=106s>; Forsythe's more recent "Synchronous Objects" project mentioned earlier involved using motion control capture software to more accurately document the movements of dancer's torso's, speed, and interactions with other dancers. Such an advanced experiment would additionally benefit a project like mine if it were possible to gather all the top Steadicam operators and film their distinct movements across a variety of basic and advanced Steadicam techniques.

photography] lit a large office so that I could shoot in any direction without concern about seeing lights or grip equipment. Staging was very simple and Scorsese told me to ‘have fun.’ The music for the scene was played over speakers. I was being given a virtual playground while Marty and Michael watched the video from an adjacent room.⁵⁰⁵ In the shot, McConkey navigates the maze of office cubicles, haptically grazing account books, pushing in on metal desks, circling employees, propelling forward and backward, and levitating seemingly on a whim.

Steadicam as a dance is also a production of space. Steadicam operators like any human produces the space of their own body, place their body in a space, and productively act on that space to extend their body across it. Lefebvre explains, “Here the production of space, beginning with the production of the body, extends to the productive secretion of ‘residence’ which also serves as a tool a means.”⁵⁰⁶ Steadicam operators use the Steadicam apparatus (an extension of the movements of their whole body) to act, extend, and insert themselves into the profilmic and represented world in cinema. The material world as such is a thing available for an encounter not simply a frame to look at or on. Steadicam captures ‘objects and faces’ as they emerge into perception. The effect for the viewer is difficult to place into a language of formalism, for it is more about a sensation of another body, a perception of our consciousness via the making of another’s consciousness.

Steadicam is a practice that expands the contour of film frame, not simply in the camera operator’s constant movement (its potential mobility beyond the expected path), but also in its

505 The music during shooting—Mozart’s Symphony No. 45 in D Major—matched the music used in the final cut of the film. McConkey, “The Long Steadicam Shot,” 431.

506 Henri Lefebvre, *The Production of Space*. trans, Donald Nicholson-Smith. (Malden, MA: Blackwell, 1991), 173.

blurring of an idea of the frame. Because the frame is always shifting, its edges loosen to a kind of roundness, the space that a frame usually delineates for the narrative and visual actions is constantly opened up and distorted in sometimes large and sometimes minute movements. This opening up of space produces a sensual engagement that reaches out and touches, participates, and performs in the scene rather than watches. The logic is not purely a point of view or a following; the Steadicam produces an effect that attempts to engage the sensation or feeling of the scene in the making. The curiosity of Larry McConkey's haptic dancing in the final shot of *After Hours* enlivens a corporate office floor into a space of pure expression. McConkey often thinks of his own Steadicam training as not just a dance of "phrases" but also a dance informed by his other bodily and structured craft training as a classical concert pianist: "Each transition between phrases comes at carefully considered points in time and space with a frame that defines something about the characters, the set, or both[. . .] [T]he result is the imposition of an internal rhythm to the shot."⁵⁰⁷ McConkey emphasizes the work, even if considered "play," as a learned sense of musical structure, a structure that in its impositions offers new kinds of freedoms. Like Marcel Mauss's "techniques of the body," McConkey's account of musical drills translates to Steadicam operation on the shared system and efficiency structures of habitual bodily training.⁵⁰⁸ The terpsichorean curves in the *After Hours* shot feel dance-like and even improvisational despite and because they are rehearsed like a pianist moving through keys.

While researching this project, I was surprised to stumble on an early 1980s instructional video shot at Victor Duncan (a camera rental house in Chicago) with Ted Churchill describing how to

507 McConkey, "The Long Steadicam Shot," 433.

508 Marcel Mauss, "Techniques of the Body," in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992), 77.

use both Steadicam and Panaglide systems.⁵⁰⁹ In the last few minutes of the hour-long demo, Churchill puts on the Steadicam rig and illustrates for the VHS viewers, the play and improvisation of testing the rig in an office setting. Placing Churchill's test from the early 1980s, next to McConkey's shot in *After Hours* reveals the surprising similarities, but also operator differences in the shots. Both experiment with the camera in the office setting and both have fun with the quirks of their own body and the rig moving around the analogous spaces.

An official "master" Steadicam operator like McConkey has mastered the craft of years of Steadicam practice and mastered their relationship to their Steadicam "animal" (another term some operators use for the rig).⁵¹⁰ While some operators refer to rigs as dance partners and to operating as dancing, others think of the machine as a moving beast. "I think of myself as a camera jockey," remarks Jerry Holway, SOC, and many operators describe the apparatus as a mode of transportation or a ride, calling the act of operating "flying." All Steadicam operators agree that the performance itself is inscribed with emotions and reactions from the body of the operator. The performative quality of Steadicam operation suggests a certain kind of awareness produced between operator, camera, and observer, an awareness that results in something like the feeling of happening upon a scene. The Steadicam operator's dance seems to look, or explore, as if for the first time out of curiosity or hesitation, the body's gestures reacting as if in some new

509 Ted Churchill Steadicam Demo, YouTube video, 53:50, posted by "dr1vancejr," June 10, 2015, <https://www.youtube.com/watch?v=TFDFcFPC28I>

510 The "master" designation was born out of a need for operators to self-classify the Steadicam Operators' Association (SOA) job listing service. However, the tongue-in-cheek classification descriptions penned by Brown suggest a sense of humor with the designation itself. Brown lists the following levels with their abilities from "Living Master" to "Invertebrate." Garrett Brown, "What Is a Master?," *Steadicam Letter* 1, no. 1 (Spring 1988): 11, <http://www.stabilizer-news.com/steadicam-letter-spring-1988/>.

surroundings. This finding or happening upon, with all its emotional valences and contingencies, also inextricably contains the athleticism involved in controlling such reactions.

A different language of macho athleticism exists alongside the emotional metaphors wrapped up in Steadicam dance training. Training protocols emphasize constant physical strength workouts and stretch routines (including yoga) and often go into detail about back safety concerning the long-term shortening and compression of the spine. Additionally, Steadicam manuals instruct new operators on the art of training muscle memory similar to the kinesthetic or procedural memory involved in learning to ride a bike or swim. The training in the Steadicam Handbook suggests creating the visual memories necessary for executing shots in the same way that athletes previsualize their competitions:

Downhill ski racers use this kind of memory to tackle the course. Often, before the race, you see skiers sitting with eyes closed, imagining their journey down the slope. In this way, a ski racer can anticipate the next turn before he gets there, improving his reaction time and ensuring he stays on course. As a Steadicam operator, you can use this kind of memory to enhance your performance as well.⁵¹¹

Some of this athletic language also pokes fun at the physically exhaustive qualities of wearing and operating the rig. As operator Ted Churchill joked, “If you’re a freak about health the Steadicam is just the thing. No more need to spend uncountable miserable hours jogging; spend vast amounts of money on health clubs.”⁵¹²

Steadicam discourse is at once heavily gendered and sexually suggestive. Its two operating positions are officially called “The Don Juan” (operating with the camera facing backwards) and “The Missionary” (operating forward with the camera to one side). In the early

511 Holway, *The Steadicam Operator’s Handbook*, 75

512 Ted Churchill, *Steadicam Operator’s Manual of Style* (1980). Accessed May 3, 2016, <https://www.videouniversity.com/articles/steadicam-operators-manual-of-style/#basic>

years, operators often joked about looking cool on set by casually wearing the rig even while they weren't operating to prove how easy it was for them to lift the rig. Inventor Garrett Brown even suggests that, "our hunter-gatherer genes also predispose us to enjoy being a Steadicam operator. Our species likes moving around, exercising both gross and fine motor activity. Sitting all day is boring. Working well with a sophisticated tool, moving about, sweating a little...Don't fight it. Fulfill your biological destiny."⁵¹³ Many articles take seriously Brown's joke about "biological destiny" by weighing the benefits of a taller operator or a heavier operator over a shorter or slender operator (this myth originated over Garrett Brown's supposed natural affinity with the machine as someone who was quite tall and skinny). The rhetoric about the natural predilection for the practice of some bodies over others also helps conditioned a rather odd discourse of women's "inherent sensitivity" for the craft.

In the second edition of the *Steadicam Operator's Handbook*, a special section entitled "Women in Steadicam" suggests that women's bodies and personalities are perhaps better suited to the Steadicam than a man's. This seems to suggest that although very few women operate, that more could easily join ranks despite the majority of male operators and overwhelmingly male-oriented discourse and institutions that drive the craft. The handbook section, written by women Steadicam operator Laurie Hayball, argues that women have a number of advantages over their male counterparts in the industry including: their low-center of gravity, the likelihood that "usually women have taken some kind of dance class," and their "different sensitivity" in bringing out emotional qualities of the actors they are filming.⁵¹⁴

513 Holway, *The Steadicam Operator's Handbook*, 438

514 Holway, *The Steadicam Operator's Handbook*, 113.

While less than twenty women are listed as Steadicam operators in the Society of Camera Operators today, even fewer women operated in the earliest years of the craft. Notably, Janice Arthur (of Chicago) and Elizabeth “Liz” Ziegler (of Los Angeles) worked in commercial, Hollywood, and industrial production in the 1980s as the first two women Steadicam operators. Both operators adapted to the “boy’s club” rhetoric of the overwhelming male environments by using sarcasm, humor, or blunt statements to avoid harassment or conversations about gender in relationship to their work. At the same time, both Ziegler and Arthur used gender explicitly in their marketing campaigns to poke fun at the industry’s own assumptions. Arthur placed ads in trade publications featuring a Steadicam Barbie (a doll wearing a vest and a rig) while Ziegler’s ads featured a latex clad superhero babe operating a Steadicam in space.⁵¹⁵ Even in the earliest years, the rig itself was designed with a man’s torso and body in mind, and the vest had to be adapted to be fit a woman’s body. Ziegler—who trained as a machinist at Lucas Films and Tyler Camera Systems—famously designed and built her own “breast plate” Steadicam vest.⁵¹⁶ Unlike their male counterparts, Arthur and Ziegler, rarely if ever utilize dancing or emotion metaphors. Instead their discourse emphasizes athleticism, strength training, and bravado.

This tension between athleticism and sensitivity, between dance and strength, seems to pose a particular dilemma for women operators in the craft. Take for example Jerry Holway’s explanation of the dance metaphor:

In dance, there is a specific pressure that each partner maintains against the other in order to communicate intentions. This is how the man leads the woman through the dance. However, if the woman fails to push back or resist to a certain degree, the man cannot

515 Holway, *The Steadicam Operator’s Handbook*, 354 – 355.

516 Jessica Lopez, “Liz Ziegler’s Vest,” *The Steadicam Forum*. January 26, 2015.

<http://www.steadicamforum.com/index.php?showtopic=21825>

effectively lead her anywhere. So the Steadicam can be considered the female dance partner, consistently delivering resistance in the form of weight, torque, and inertia.⁵¹⁷

There are a number of reasons why women operators might feel uncomfortable recapitulating the dance metaphor in their own discourse—certainly thinking of the rig as a “resistant” woman might be one. Another reason might be because woman operators are just not asked what they think about their own Steadicam practice in the first place. Most often, women Steadicam operators, like women camera operators in general, are asked solely about their ability to lift the camera equipment and endure the exhausting twelve hour days on set. The discourse opportunities offered to male craft technicians to speak metaphorically or technically about their work are often not extended to women technicians who must prove again and again the right to their very bodily presence on set.

This is particularly troubling when we think about how productive the dance metaphor is (even despite its gender problems) when thinking about how any operator physically moves on set, but also as a description for how their bodies and the camera interact with the scenes being filmed. The performance and emotional quality of the filming becomes an integral aspect of how operators experience their own craft and how audiences sense their labor at work. What is so fascinating about these metaphors of balance or inertia is the way they might help condition our own critical descriptions of the craft and its aesthetics. We must ask how these metaphors might offer us new ways of thinking and looking if established operators like Ziegler and Arthur were asked to contribute their own figurative discourse. The athletic performance and dance sensitivity are integral aspects of how operators experience their own craft. The entwined dance and athletic metaphors help us remember the various components involved in the craft of

517 Holway, *The Steadicam Operator's Handbook*, 148 – 149.

Steadicam operation: first, technical expertise required of any camera operator; second, physical strength and stamina; and finally, an understanding of how their own emotions, reactions, and feeling are transcribed into their choice of compositions. Dance is after all a showcase of athletic stamina and strength combined with ease and grace. A Steadicam shot therefore is always a performance of the particular craft and histories of Steadicam dance.

The levels of figurative description necessary for many Steadicam operators to describe what they do goes beyond a simple need to communicate to a non-craft audience. These accounts of worker reflexivity, figurative language, and metaphoric descriptions also serve a practical role for operators on set. What it means to simply “get the shot”—whether a dynamic and virtuosic long shot like McConkey’s in *After Hours* or even as seemingly simple as a walk-and-talk following shot in *ER* or *West Wing* by Emmy Award–winning operator Dave Chameides, SOC—often means something much more complicated for the operator. Operators think about themselves and their work as an always evolving and complex configuration of several roles: camera operator, athlete, dancer, and camera jockey. The combination and shift of these roles at any given point in a shot requires for them both material and conceptual modes of preparation, execution, and description.

This intuitive recognition is built on a knowledge of personal quirks (ways of moving in space), as well as the weight and placement of load by the operator’s body. In other words, no Steadicam shot performed by different operators would look alike even if filmed under the exact same shooting conditions, flight path, and start and stop marks. What is obvious here for operators is not obvious for critics or audiences. What is remarkable in operators’ way of speaking about this recognition and their own operation is that sense itself is a kind of witnessing and a kind of accounting for a practice that can only be fully understood by practitioners. This

movement, feeling, and sensation of personal operator quirks cannot be easily rendered to a consumable “way of watching” Steadicam to non-technicians. Although each technology and practice offers subtle aesthetic markers, I want to think about ways in which ineffable sensations of operators in their historical moment might inform and expand how we as scholars, critics, and teachers approach our own descriptions of these kinds of shots.

5.3 THREE CASE STUDIES: DISCOURSE, RECEPTION, EXPERIMENT

While the history of Steadicam’s invention and its contention with Panaglide bespeak the very bodily and economic effects of the technologies on operators’ material lives, I also want to take seriously how far metaphors of dance, improvisation, athleticism, and embodied technique might inform other modes of critical and scholarly interaction with these texts. Workers’ industrial technique need not necessarily contradict or overwrite traditional modes of film analysis by media critics and scholars. Instead, we might think how these accounts provide an aesthetic complement and historical context to rethinking existing innovation-oriented histories of style and technology. By looking at a variety of video experiments (see: <https://vimeo.com/266813422> password: steadicam) alongside the early case studies of the Steadicam and Panaglide technology, I want to impress and mirror how closely these spectatorial and critical concerns are tied to questions of the manual and craft practice of their human operators. These experiments explore what it means to take this casual discourse seriously as a mode of describing and forming cinematic language. Each of the films in this section exposes multiple experimental and exploratory ways in which technicians utilized Steadicam and Panaglide in early years of the craft. This richness of mechanical and bodily modes made available by the craft during the

period highlights the instability and possibilities around its emergence and reception rather than solidifying markers of a concrete style. A wider index of films, television shows, and commercials shot with Steadicam and Panaglide in the late 1970s and early 1980s demands a more critical attentiveness to the larger industrial production structure and political contexts of the moment. The range of genres, production scales (budget, Hollywood blockbuster, art house), and narrative functions (POV, supernatural, stunt work, even as a gun prop in *Alien*) suggests the sheer range of the two technologies' resonance and reverberation in all levels of media production at the time.⁵¹⁸ The critical industrial reflexivity evidenced by Steadicam and Panaglide operators during this early period and the offers an exciting alternative mode of film history where thoughts, feelings, and discursive insights of practitioners are foregrounded as valuable sources of aesthetic theory. As part of this alternative discursive history of style, I want to put forward a series of questions media scholarship might take up going forward.

5.3.1 Pictorial Panaglide in *Days of Heaven*

First, when film critics implicitly reference Steadicam shots in their reviews of films, are they unconsciously remarking on the process and performance of Steadicam operators? The making and reception of Eric Van Haren Noman's Panaglide in *Days of Heaven* seems to suggest as much. Speaking about Panaglide in the film, director of photography Néstor Almendros, ASC,

518 The diversity of these experiments also includes, among others, a Keds commercial shot by Hal Wexler and Brown (1974), *Marathon Man* (Schlesinger, 1976), *Exorcist II: The Heretic* (Boorman, 1977), *Rocky II* (Stallone, 1979), *Risky Business* (Brickman, 1981), *Wolfen* (Wadleigh, 1981), *Reds* (Beatty, 1981), *Taps* (Becker, 1981), *Porky's* (Clark, 1981), *Star Wars: Return of the Jedi* (Lucas, 1983), *One from the Heart* (Coppola, 1981), many roller discos, and other unlisted commercials, music videos, and industrial films.

explains, “In the beginning, Terry [Malick] was very enthusiastic and wanted to do practically the whole movie with Panaglide. . . The weight of the system is considerable and the operator has to be an Olympic athlete. If the system becomes standard equipment in the state it is in now, we will have to create a whole new generation of *cameramenathletes*, and the problem will be to find athletes who are also artists.”⁵¹⁹ Panaglide was impractical for all scenes due to the number of things it captured in its moving frame (including crew members), creating problems for continuity, but most importantly because it produced a particular kind of overwhelming aesthetic effect. Yet even Almendros exclaims, “The main sequences and shots in *Days of Heaven* could not have been done without a Panaglide. It is these scenes that the audience and the critics continually talk about.”⁵²⁰ Part of what critics at the time of the film’s release might have been getting at when they overwhelmingly called the film pictorial or painterly points to the film’s emphasis on image as process rather than *as image*.

Critics in 1979 and after often referred to Terrence Malick’s second film *Days of Heaven* (co-shot by Néstor Almendros and Hal Wexler) as heavily “pictorial” and ‘like a painting’. The film’s use of magic-hour lighting combined with its focus on landscape photography garnered the Academy Award for Cinematography that year and perhaps elicited such art-historical comparisons. TJ Clarke writes, “Modernity is the pathos of two states coexisting—the pathos, but also the stiff delight...only painting can make the dialectical proposition not seem strained,

519 Néstor Almendros, “Photographing Days of Heaven,” *American Cinematographer* 60, no. 6 (June 1979): 593 – 94.

520 Almendros, 594.

or have the fact of its being strained by wrapped up in the moment's quiet particularity.”⁵²¹ Like Malick's later films, *Days of Heaven* draws our attention to the minutia of natural ephemerality, “the moment's quiet particularity” amidst the stiff delights of modernity: migrant farm workers walking through the now-clichéd grass in the wind, animals twitching to hear their mechanical surroundings, and the dirt of the earth stirring beneath the trains and combines. The Panaglide in *Days of Heaven* offers a perspective and even a *way of feeling* that mimics Malick's thematic emphasis on impermanence and perception.

The film's decided de-emphasis on plot and character—in favor of play, freedom, and potentiality—prompted frustration and even annoyance from some critics who termed the film “cold.” Yet Vlada Petric of *Film Quarterly* praised the film and instructed both critics and audiences to appreciate the cinematic and perceptual encounter of image and sound: “In nearly all the shots of the harvest the camera *glides* [my emphasis], giving the viewer a palpable sense of the rhythm and space in which the action occurs. This is not to say that the camera never stands still. . . . Yet, visual movement prevails on the screen: its overall dynamism matches the nature of the subject filmed, which is essentially *movement*, that is the constant motion of people, machines, animals, and natural forces.”⁵²² Rather than producing a packaged cinematic scape that conforms to the atmosphere of the narrative, Petric suggested that Malick directs our eyes and ears to the understanding that a film is a result of an encounter with the world. For Petric, technology—particularly the encounter of various modes of traditional techniques with new

521 T.J. Clark, *The Painting of Modern Life: Paris in the Art of Manet and His Followers*. (Princeton, NJ: Princeton University Press, 1984), xx.

522 Vlada Petric, “Days of Heaven by Terrence Malick,” *Film Quarterly* 32, no. 2 (Winter 1978–79): 38, <https://doi.org/10.2307/1211939>.

camera technologies—is at the heart of the film’s “kinesthetic impact,” “dynamism,” and “palpable sense of rhythm and space.”⁵²³ While Petric doesn’t explicitly label “tracking, panning, and craning shots” as Panaglide (though these are certainly what they are), the critic strongly suggests its unconscious presence with words like “glide.” Most interesting for Petric is that the world’s demand of constant interaction also requires a continual process of camera description.

Like the encounter of the dance described by stabilizer operators, Petric’s emphasis on an embodied interaction between camera, world, and characters points to watching Panaglide as watching a process of continuous re-compositions. In this way, critical language alone fails as evidence for recognizing labor and Panaglide technique as such. These gaps in formal analysis to describe the ineffable effect produced by such shots are usefully complemented by reconsidering operators’ and technicians’ articulations of the effect. Almendros’s notion of *cameramenathletes* paired with technicians’ description of operating as a kind of dance of curiously looking, moving, and happening upon an unknown world seems to more accurately account for the kinds of corporeal camera movements so often utilized in *Days of Heaven* and in Malick’s later films. The combination of critical description and operator discourse offers insights into the process of filmmaking and the stylistic choices neither could do alone.

Philosopher Maurice Merleau-Ponty made a similar claim on Cézanne’s paintings of landscapes. “Cézanne did not think he had to choose between feeling and thought, between order and chaos. He did not want to separate the stable things which we see and the shifting way in which they appear; he wanted to depict matter as it takes form, the birth of order through

⁵²³ Petric, “Days of Heaven,” 38.

spontaneous organization.”⁵²⁴ This process work, or a captured series of re-compositions (a painter ‘approaching’ the canvas anew with each stroke) mimics the language that Panaglide and Steadicam operators use to describe their approach in operating. Each attempt at a shot, while eventually blocked out, requires the operator to breathe with the characters, movements, and other elements of the pro-filmic set. Each attempt at filming the scene provides, as T.J. Clarke suggests of modernist painting, new “means of investigation” in which to highlight the impermanence of an impermanent world. As art historian E.H. Gombrich notes, “What a painter inquires into is not the nature of the physical world but the nature of our reactions to it.”⁵²⁵ Thus what the Panaglide elicits in audiences is not just the investigation of the camera in the profilmic space, but a secondary experience of world-making inquiry from the body of the spectator.

Part of what Eric Van Haren Noman’s Panaglide does so sensually in *Days of Heaven* depends on our understanding of these shots as “approaches”, “investigations”, or even “re-compositions” to our own constantly changing relationship to the natural world. Thinking of Panaglide operating in this way resonates with Merleau-Ponty’s account of Cézanne’s process—or even Harold Rosenberg’s account of American action painter Jackson Pollock’s work “as an arena in which to act—rather than as a space in which to reproduce, re-design, analyze or “express” an object, actual or imagined.”⁵²⁶ What was to go on the canvas was not a picture but an event—it might be useful to think of Panaglide shooting and aesthetics here as a kind of

524 Maurice Merleau-Ponty, “Cézanne’s Doubt,” *Sense and Non-Sense*. Trans. Hubert L. Dreyfus and Patricia Allen Dreyfus. (Evanston, IL: Northwestern University Press, 1964), 13.

525 E.H. Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation*. (Princeton, NJ: Princeton University Press, 1961), 44

526 Harold Rosenberg, “The American Action Painters,” *London Magazine* 1, no. 4 (1961): 45.

series of tests, or as a documented performance. In this, each shot contains within it its own particular glances and movements, but also the embedded feelings of past-takes and future-takes, the possibilities of an endless kind of perceptual curiosity. This feeling of looping, or recurrence is a signature aspect of the Panaglide camera movement in the film.

Take for example a Panaglide river sequence in *Days of Heaven* where Bill (Richard Gere) convinces Abby (Brooke Adams) to accept The Farmer's (Sam Shepard) proposal. Director of Photography Néstor Almendros notes that while at first, "Terry [Malick] was enthusiastic and wanted to do practically the whole movie with Panaglide" that ultimately "there was an impression of *tour de force*, of great effort. The camera became a protagonist, a living actor; and it was an intruder."⁵²⁷ Panaglide became impractical for all scenes due to the number of things it captured in its moving frame (including the crew), the problems of continuity and editing, and most importantly because it produced a particular kind of overwhelming aesthetic effect. In the first sequence, Bill and Abby wade around the river in knee deep water while talking about Abby's potential marriage to The Farmer. Almendros reflects that "the scene required movement" as the characters flirted and figuratively danced around the exciting but challenging topic. This dance amongst the characters is composed of a sequence of glances, bodily grazes, and re-compositions by the also dancing Panaglide operator Eric Van Haren Noman.

Taking Cézanne's approach as a guide, I thought it might be useful to attempt some layering my own. Ideally, such a video experiment would utilize the actual sequence and the whole list of takes that were not used in the final cut of the scene. For some films or sequences,

⁵²⁷ Néstor Almendros, "Photographing Days of Heaven," *American Cinematographer* 60, no. 6 (June 1979): 593–94.

there might only be one or two takes of an especially difficult stabilizer shot. However, given what we know about Malick's directing and shooting style, camera operators were and are often encouraged to go off and play with the camera or try takes over and over with both minor and major adjustments. This kind of experimentation—an archive of many possible takes—would make a video test as such especially insightful (though finding all of the hours of footage from *Days of Heaven* is nearly impossible if the raw footage even still exists). Thus, the video experiment can only be a fraction of our ideal play with this sequence. Since I did not have access to multiple takes of the same sequence, I asked what kind of alternative modes of re-editing or recomposing the scene in Adobe Premiere might produce an understanding of the Panaglide as “layered” or “traced” within the sequence.

What becomes clear is that the video experiment should direct our attention to elements of the frame that particularly highlight the technological imprints of the Panaglide and the Panaglide operator. This includes the constant re-configuration of the frame itself, the wrapping at the frame's edges, and the waving or floating quality of the horizon line (a subtle, but distinct bobbing sensation). Later Steadicam and Panaglide shots, in mimicking the dolly, often attempt to keep the frame centered on an object (often a following shot of someone walking or a dialogue sequence between characters). In this sequence, and in other early stabilizer examples, the character's themselves are less important than the camera's exploration of movement and of the natural atmosphere. The scene is more relevant within the context of the wider film not for what the characters say, but the continued affection shared between Bill and Abby. The Panaglide shots direct our attentions to the winding bodies of the character, the winding flow of the river, and the winding movement of the image circling throughout the scene itself.

In order to illustrate the peculiarities of this movement then the video experiment needed to focus not on the center of the frame, but its edges. Not the shot compositions, but the particularities of the always-shifting compositions. In my first experiment, I played with the possibilities of the same shot superimposed on itself at various levels of opacities with the shots beginning or ending anywhere between a two-frame difference to a two second difference in playback. I hoped that such an experiment could illustrate the imprint of the many possible takes both future and from the past (a recurrence of the time and space itself that such a Panaglide shot suggests). What resulted could easily have fit into parts of the film itself (enamored as it is with slow cross-fades). Constantly overlapping lines of motions from the camera movement, the characters, and the setting form to create a collage of images from the past, the present, and the future. The constantly changing re-compositions in the experiment helped to mark out what we already potentially feel when watching the original sequence, a sensation of a constantly moving world around us. Each move is an investigation, a trace, and an approach to another way of looking or being in the scene.

Although, the two-second difference exposes quite evocatively this layered embeddedness, the two-frame difference only re-emphasized a narrative focus of the two characters by creating a soft buzz-like halo around Bill and Abby. Panaglide and Steadicam shots get at a way of expressing not dissimilar to Merleau-Ponty's description of Cézanne's making and our sensation at feeling, "For the world is a mass without gaps, a system of colors across which the receding perspective, the outlines, angles, and curves are inscribed like lines of force; the spatial structure vibrates as it is formed."⁵²⁸ Noman's Panaglide shots in *Days of Heaven*

528 Merleau-Ponty, "Cézanne's Doubt," 15.

blur the boundaries between our spaces of looking, across the clarity of every space in between. The camera operator, amongst the characters, can stand up, run, look up, linger. The Steadicam floats and dances in ways that smudge the perspective and vibrates amongst many possible objects of inquiry.

I am reminded again of T.J. Clarke's insistence that painting is a slow-moving craft in a fast-moving world of modernity.⁵²⁹ Perhaps it remains productive for us to think of the work that a Panaglide does, particularly in *Days of Heaven*, as similarly painterly in its process of work and its process of recording the world. Part of what is evocative about the two ways of thinking is how dependent the investigation and the body are on one another and how this interlockedness impresses itself on the spectator watching these shots. If we take seriously painting or Panaglide "as a means of investigation", we are also taking seriously the process of the work of production in the final product of the work of art. As T.J. Clark explains:

It is a way of discovering what the values and excitements of the world amount to, by finding in practice what it takes to make a painting [Panaglide] of them—what kind of play between flatness and depth, what kind of stress on the picture's limits, what sorts of insistence ellipses, showmanship, restraint? If *these* are means needed to give such and such a scene or world of emotion convincing form, then what does this tell us about the scene or emotion? Does this "realization" extend and intensify—that is to say, validate—the meanings and appearances, or disperse and qualify them?⁵³⁰

What the reception history, the video experiments, and the film itself reveal is how much these "means needed" (the tools, techniques, and work in the making) found their way into the sensations of historical audiences at the time of the film's release. So, while Panaglide isn't explicitly referenced, we can still sense its impression on critics in comments like: "[the film]

529 Clark, *The Painting of Modern Life*, x.

530 Clark, *The Painting of Modern Life*, xxi.

asks viewers to be alert but helps to create that alertness,”⁵³¹ “gets under your skin,”⁵³² “less a narrative than a succession of tableaux moments,⁵³³” “the images also pulse with vitality,⁵³⁴” and “of an American instinct for wandering, for wallowing.”⁵³⁵ Part of what we see in these is how the Panaglide and Steadicam technologies elicited specific reactions distinct from other camera technologies but also were felt as a different kind of aesthetic language requiring new kinds of aesthetic description.

5.3.2 The Steadicam(s) in *The Shining*

Like with *Days of Heaven*, critics of the *The Shining* (Kubrick UK 1980) failed to explicitly reference the Steadicam stabilizing technology in their reviews of the film. Yet, even in the harsh reviews during the film’s contemporary release, critics and audiences grappled with what to call this peculiar image and subjectivity evoked by Steadicam’s haunting presence. Fresh off Garrett Brown’s Science and Technology Technical award from the Academy of Motion Picture Arts in 1978, the Steadicam operator/inventor began principle shooting on *The Shining*. Kubrick had initially seen Garrett Brown’s “Brown-Stabilizer” prototype test footage in 1974 and telexed Ed DiGiulio at Cinema Products praising the demo reel as “spectacular” and that DiGiulio could “Count on [Kubrick] as a customer.”⁵³⁶ Kubrick went on to say that the “Mystery Stabilizer”

531 Jack Kroll, “Heaven and Hell,” *Newsweek* (September 18, 1978): 97.

532 Kroll, “Heaven and Hell,” 97

533 Charles Champlin, “In Days of Heaven, Sounds of Silence,” *Los Angeles Times* (September 17, 1978): I1.

534 Champlin, “In Days of Heaven,” I2.

535 Judith Martin, “Less a Movie than a Moving Picture,” *The Washington Post* (October 6, 1978): W19.

536 Garrett Brown, “The Steadicam and The Shining,” *American Cinematographer* 61, no. 8 (August 1980): 786.

would “revolutionize the way films are shot.”⁵³⁷ Brown and DiGiulio later demonstrated the updated device to Kubrick after the 1977 Film London technical exhibition.⁵³⁸ Before shooting began, Brown continued to update Kubrick on recent innovations to the device as they worked out the shooting arrangements and locations chosen with the Steadicam’s capabilities in mind.

Brown originally intended to rent equipment and train an operator for Kubrick, but as he walked *The Shining* sets at Borehamwood Studios in the spring of 1979, Brown felt compelled to operate most of the film himself (Ray Andrew would operate on weeks that Brown was away shooting *Rocky II* and other US productions). The film offers a number of instances of Steadicam through the Overlook Hotel (going up and down stairs, moving on its own through the empty grand rooms and hallways, tracking Danny as he rides his big wheel on the various hotel floors, and finally through the snowy maze). Brown writes, “Here were fabulous sets for the moving camera; we could travel unobtrusively from space to space or lurk in the shadows with a menacing presence.”⁵³⁹ It is exactly this ‘menacing’ presence that comes up so often in the reviews of the film at the time.

The sequences most often described as ghostly, or haunting focus on the sequences involving the following shots of Danny or the shots of the camera alone in the hotel spaces. Many reviews from the time suggests that the camera seems to roam through the hotel not out of curiosity, but as a “haunting,” such that any person, object, feeling within the hotel itself becomes a mechanism of the space’s horrific history. As Janet Maslin wrote in her second more favorable review of the film, “Indeed, the early parts of “The Shining,” which draw their

537 Brown, “The Steadicam and The Shining,” 786.

538 Brown, “The Steadicam and The Shining,” 787.

539 Brown, “The Steadicam and The Shining,” 787.

ominousness from household artifacts and the hints of an unhappy marriage, are far more frightening than the standard horror-film fiendishness of the ending. Scaring the viewer is easy [...] What is harder, and what Mr. Kubrick does so ingeniously here, is to accentuate the horrifying aspects of things that are familiar.”⁵⁴⁰ Serena Ferrara suggests that part of what makes this unfamiliar familiarity operate in the film depends on the audience treating the Steadicam shots as a disembodied point of view (a neutral narrative voice) and yet also “an object that is “alive” in its own right, a separate entity that moves in a quasi-mental space.”⁵⁴¹ Ferrara suggests, as have others, that audiences and critics might read the Steadicam as “a gaze which, in its turn, has the gift of the ‘shining’, which knows what might happen and allows itself to delay some things [...] there is also the intention to create suspense, to enter the realm of the undefined, which becomes embodied in the gaze of the storyteller.”⁵⁴² This weighted spirit, narrator, presence of foreboding turns the embodiment of the Steadicam into a disembodied “ghost-like” presence and the floating sensation evoked in *Days of Heaven*’s Panaglide from a painterly dream to a disembodied nightmare.

Garrett Brown had previously experimented with such a supernatural look years before on John Boorman’s film *The Exorcist II: The Heretic* (in many ways, a more innovative and accurate look of how the Steadicam could imbue a scene with supernatural or horrific qualities). For Boorman’s film, the director of photography William A. Fraker, ASC suggests the Steadicam was used specifically because it looked different from any other tool used before, “I think this is the first time that it’s really been put to directorial use that works with the story.” Its

540 Janet Maslin, “Flaws Don’t Dim the Shining,” *New York Times* (June 9, 1980): D15.

541 Ferrara, *Steadicam Techniques and Aesthetics*, 77

542 Ferrara, *Steadicam Techniques and Aesthetics*, 77

very newness set it apart for all viewers as a very unique and distinct look, one that similarly matched the narrative necessities of the film. Fraker says, “our demon [Pazuzu] . . . he’s a demon of the air. Therefore, he moves through things and around them and so forth.”⁵⁴³ Boorman goes a step further in speaking of the Steadicam’s relationship to Pazuzu, “We had to have some special quality of movement that was beyond what people were familiar with. This camera was ideal for our purposes. It has extraordinary mobility; it is absolutely smooth; it is beyond muscle or machine and suggests the supernatural.”⁵⁴⁴ Indeed, the Steadicam’s use in the *Exorcist II: The Heretic* develops over the course of the film from sped up shots mimicking Pazuzu/Reagan’s dream visions through an Ethiopian village to Pazuzu’s floating presence near Father Lamont (Richard Burton), to Pazuzu’s possession of Father Lamont and Reagan as the camera weaves unbounded by the crowd through New York’s Penn station and boards an Amtrak train to Washington.

Certainly Garrett Brown’s work executing a similar supernatural look in *Exorcist II: The Heretic* (particularly the earliest sped up shots) contributes to his use of a similar, but heightened distancing in *The Shining*. Like all things in the Overlook Hotel, it is impossible to get a sense of grounding in the closed-off and mad mise-en-scène. The disembodied, floating camera also seemed to remind viewers (both critics and audiences) how little control they had to affect or look away from the narrative gaze. Certainly this is true in all films, but something about the novelty of the Steadicam’s particular kind of motion brought this sensation to forefront of the cinematic experience. As Janet Maslin tried to describe in her first review of the film, “As the

543 Anonymous, “The Photography of the *Exorcist II: The Heretic*,” *American Cinematographer* 58, no. 7 (August 1977): 810.

544 Anonymous, “The Photography of the *Exorcist II: The Heretic*,” 842.

camera tracks [Steadicam] slowly into the room in a frenzy of anticipation, is confronted by one of Mr. Kubrick's most heart-stopping inventions, an image halfway between eroticism and terror. 'The Shining' stands on the brink of a physicality that has been very much absent from Mr. Kubrick's other work."⁵⁴⁵ Maslin's initial attempts at describing these very new bodily and psychological sensations evoked by the Steadicam also probe the limits at critical description when encountering new technologies. The shot she describes is a Steadicam shot, not a tracking shot, yet her language illustrates her uncertainty of this effect. This "frenzy of anticipation" and "brink of physicality" suggest the Steadicam shot is performing a different, a new kind of aesthetic and sensual effect that was distinct from a traditional tracking shot on a dolly⁵⁴⁶.

The Steadicam pushed forward into moving characters, lingered behind walls, hesitated, or even wandered alone with no human figure to follow. Its logic of movement looked seemingly unlike anything audiences had seen before. This particular kind of moving frame thrust audiences into unexpected physical spaces and sensations. On one hand, the Steadicam shots in *The Shining* showcased a look that evoked a sense of mobility in enormous space and a sense of endless time to transverse that space. On the other hand, the Steadicam seemed to heighten a

545 Janet Maslin, "Screen: Nicholson and Shelley Duvall in Kubrick's 'The Shining,'" *The New York Times* (May 23, 1980): C8.

546 Maslin's double reviews parallel a wider phenomenon in the reception of *The Shining*. On first viewing, many critics, audiences, and filmmakers (Steven Spielberg) expressed dislike for *The Shining*'s unmotivated and at times confusing plot. Yet, Maslin's second review (only weeks after her first) makes a case for audiences and critics alike to revisit the film with formal (visual and sonic) concerns in mind. What is horrific about the film for Maslin, and later critics, stems not from its failure to properly translate King's genre novel appropriately, but in the ways that Steadicam cinematography and sound insert make uncannily the expected style of the Horror genre. See Janet Maslin, "Screen: Nicholson and Shelley Duvall in Kubrick's 'The Shining,'" *The New York Times* (May 23, 1980): C8; Janet Maslin, "Flaws Don't Dim the Shining," *New York Times*. (June 9, 1980): D15.

spectatorial sense of contradictory claustrophobia and a minute-ness of time rather than its open duration.

As the audience could neither look away nor stop themselves from being pushed around the oppressive space of the hotel, the camera *feels* more powerful than it looks. In a summary of an interview with the ethno-documentarian Jean Rouch, Italian critic Raul Grisoli writes, “Rouch identifies the “Steadicam”, and in particular Kubrick’s use of it in *The Shining*, as the symptom of a disease of the image, an image that does not arise from physical contact between those who produce and those who provoke the image. It arouses from a sickness, perhaps a mechanical or electronically produced perfection such that the “Steadicam” imprisons the body and mind of the filmmaker.”⁵⁴⁷ Rouch goes so far as to say that Kubrick failed in the making of the *The Shining* precisely because of his use of Steadicam, “At that point it had become a “performance.” There was no more movie ... The camera glided like an eel, but there was no more story.”⁵⁴⁸ For Rouch, the mechanism of the camera had become too technical or present in the scene. Unlike *Days of Heaven*’s Panaglide sequences that seemed to offer spectators a felt sense of process—of an encounter with the natural world—the use of Steadicam in *The Shining* seemed to create the opposite effect from fright of the supernatural to disgust of its obvious mechanics.

547 Raul Grisoli, “Lo Steadycam impriona corpo e mente del regista.” *Cinema Nuovo*. (May/June 1987): 15-16. My translation. Rouch individua nello “steadycam,” e in particolare nell’uso che ne fa Kubrick in *Shining*, il sintomo di una malattia dell’immagine: un’immagine che non nasca dal contatto fisico fra chi la produce e chi la suscita e malata, perfetta forse ma creata da uno strumento meccanico o elettronico come appunto lo “steadycam,” imprigiona il corpo e la mente del cineasta.

548 Grisoli, “Lo Steadycam,” 16. My translation. A quel punto era diventata una "performance." Non c'era piu film... La macchina da presa scivolava come un'anguilla, ma non c'era piu storia."

In designing *The Shining* experiments, I wanted to closely consider these sensations of “haunting” and “sickness” with the spectatorial reactions to different kinds of Steadicam modes of production utilized in the filmmaking. This brought me to my second methodological question: How do operators’ utilization and adaptation of their rigs to other established technologies alter their operating practices and stylistic norms? In particular, how did Steadicam and Panaglide practitioners utilize or problem-solve impositions and enhancements posed by component technologies and on-set limitations? While operating on *The Shining*, Brown’s Steadicam craft practice was challenged by a rigorous shooting schedule and learning to adapt the apparatus to work with other camera technologies. In the film, Brown’s Steadicam shots appear in two distinct aesthetic forms: Steadicam shots operated on a wheelchair dolly (much of the Overlook Hotel “tracking” shots) and upright walking Steadicam shots.

Originally designed by Ron Ford to be used with various mounts on Kubrick’s *A Clockwork Orange* (1971), the wheelchair dolly would come to be used on a great many Steadicam shots in the Overlook Hotel.⁵⁴⁹ Garrett Brown and grip Dennis (Winkle) Lewis adapted the Steadicam for the Elemack head designed for the rig and secured it to a Mitchell mount. Here, Brown could still level and reduce any imbalances that might cause the rig to float.⁵⁵⁰ The wheel chair dolly allowed the operator Garrett Brown to sit in a chair and operate the rig without the need to physically chase Danny around the set. On the one hand, the wheelchair dolly was devised to alleviate extra physical labor by operators Brown and Ray Andrew (perhaps a necessity, as Kubrick often demanded a seemingly excessive number of takes). On the other hand, the wheelchair dolly’s Steadicam shots possessed a peculiar kind of eerie and slick

549 Garrett Brown, “The Steadicam and ‘The Shining,’” 850.

550 Garrett Brown, “The Steadicam and ‘The Shining,’” 850.

sensation distinct from a walking Steadicam shot and from the uneven horizon line of the Panaglide. The resulting qualitative effect is something uncannily smooth and mundanely like shots produced with other wheeled vehicles more so than those indexing motion of the human body. When Danny (Danny Lloyd) takes corners on his bike, in the now infamous shots around the Overlook Hotel, the wheelchair Steadicam mimics a lag in duration. Part of this has to do with the camera and the operator's inability to capture Danny slowing down to take the turn while the operator and camera are still at full thrust, and when the camera and operator must slow to take its turn, it misses Danny's acceleration at the top of the curve. The shots feel more like a car on a track than a body cutting corners at an angle.⁵⁵¹ The wheelchair Steadicam shots are prescribed by the speed of their motion but also in the way a wheelchair's movements are restricted to large maneuvers and its inability to react and improvise.

The give-aways for the wheelchair dolly are always the curve of the turn and the slow down and acceleration of the shot before and after the turn. This lag produces an additional eerie sensation of catching up rather than walking alongside. In other moments, the camera allows Danny to move ahead while it lingers in the corridor of the kitchen, even allowing Danny to turn the corner without "chasing" him. The audience is 'treated' or 'subjected to' the floating body of the image moving through the hotel on its own (an image we see at other moments when it creeps alongside Wendy pushing the breakfast cart, or multiple times as it creeps behind Jack at his writing desk). Kubrick wanted to make this effect even more pronounced by adding a kind of speedometer to the wheel chair rig that would dictate a consistent speed and distance between the camera and the object it followed. Had this tool been implemented, it would have added

551 Holway, *The Steadicam Operator's Handbook*, 82.

additionally to the feeling of the wheelchair Steadicam's mechanicality or technicity and further removed any recognizable organic qualities evoked by the walking Steadicam. As Brown has said of this camera work, "I think, the oily smoothness of Stanley's camera cumulatively made the vast cold environs of the Overlook feel dangerous throughout."⁵⁵² The choice to add the wheelchair dolly drastically altered the kinds of embodied practices inherent to the craft by severing the Steadicam rig from the operator's body. Unlike the "eel like smoothness" and weightlessness of the interior wheelchair Steadicam shots, the upright shots offer room for slight adjustments in movement (we can get closer to characters and their surroundings and make small, tight turns to move with their actions).

The upright walking technique, on the other hand, creates specific echoes of its operator's bodily labor. As Brown remarked, his time on *The Shining* refined his craft by attuning him to small movements of his body that would change the feeling of a given shot. He explains that in the thirty plus takes of an early Steadicam scene in the film where Wendy (Shelley Duvall) and Doctor (Anne Jackson) leave Danny's Denver bedroom: "I liked participating in that way of working because I got a chance to refine what I did to an extent that I'd never even approached before. I got to learn the closest dimensions of the apartment. What would happen if this foot was 6 inches in this direction or if I took another half step?"⁵⁵³ The body imposes itself on the Steadicam at the smallest increment, at the tiniest variations in speed, and even at times according to the intensity of the operator's breath. As Steadicam operator Ted Churchill explains of the "classic" upright technique, it becomes impossible to remove one's own subjectivity from

552 Holway, *Steadicam Operator's Handbook*, 82.

553 Garrett Brown, Feature Commentary. *The Shining* (Kubrick, 1980) as featured in Warner Two-Disc Special Edition DVD, 2007.

the end shot: “Since Steadicam operation is the act of individual will, it can behave similarly—make spontaneous lateral moves, instantaneous stops and starts, accelerations, decelerations; be passive or aggressive, omniscient or participatory. Or, with equal facility, it can articulately follow the same behavior in another person.”⁵⁵⁴

Here it might be important to think about the sensual differences of a camera walking vs a camera running. How this energy and weight shifts contribute to the overall look and feel of these embodied shots. Another way to illustrate these differences might be to place all the turns—both inside and outside-wheelchair and walking together in one viewing plane. By key-framing each sequence into its own window, we see how each turn showcases the uniqueness of its construction. The delays and wide, slow curves of the wheelchair dolly stand in contrasts to the upright body cutting of corners at an angle and turning the camera slightly ahead of the curve to anticipate the frame.

This is a relevant distinction rarely mentioned in the discussions of Steadicam in *The Shining*, especially when we consider how differently audiences perceive and react to the maze shots vs. the interior tracking sequences. These shots look different as Steadicam shots, as aesthetic vehicles, and as modes of narration because they are intrinsically different kinds of filmmaking.⁵⁵⁵ The shots I wanted to compare more discretely speak to this presence, haunting,

554 Churchill, “Steadicam: An Operator’s Perspective. Part One,” 114.

555 I argue this important aesthetic distinction between full body operated Steadicam and Steadicam placed on a dolly or other apparatus extends beyond the single example of *The Shining*. These shots look different because they are created differently and thus imprint the modes of their labor differently on the shot. When we talk about Steadicam labor or Steadicam aesthetics, its vital to research and parse out the various labor, craft techniques, and other technologies (such as lenses) involved and not simply the singular dominant

and claustrophobia mentioned by critics and audiences of the film. Kubrick and Brown paired the Steadicam with specially picked and designed wide-angle lenses. As Brown explains, “Stanley loves wide-angle lenses. They make the sets look large, and they augment that sense of motion.”⁵⁵⁶ This augmented sense of motion also required the camera to be low and level, without any tilting. Such a move distorted the image (particularly the vertical lines of the set), an undesirable effect called “keystoning.” This threat of distortion, dictated the rigidity of the pans, booms, and center focused shots in all the scenes with the Steadicam.

The first time we see the Steadicam shots in the maze occur early in the film when Wendy and Danny go on a daylight walk. All of the maze scenes were shot with a 9.8mm Kinoptik lens at an ideal lens height of 24 inches. As Brown explains, “This combination permitted a tremendous sense of speed and gave the correct appearance of height to walls. The distortion was negligible when the camera was held level fore-and-aft.”⁵⁵⁷ Yet, the combination of the lens, Steadicam, and walking mode produce a range of odd characteristics and sensations. The walls of the maze look quite larger and taller than life-like, and as we wind our way through the walls with the characters, the edges of the frame warp inwards dramatically: a combination of the Steadicam’s usual frame curl and the wide-angle lens. This rush of movement while subtly noticeable in a usual Steadicam shot is multiplied again by the lens and the nuances of Brown’s operation. The combined effect is something like moving through a tunnel, or more familiarly

technological device in order to better understand the different perceptions and sensations experienced by audiences.

556 Garrett Brown, Feature Commentary, 2007.

557 Garrett Brown, “The Steadicam and ‘The Shining,’” 852.

the effect of moving through a video game, the walls seem to generate before us and fall away behind us.

In order to illustrate this sensation, I slowed down the footage from this scene and the footage from the later maze scene by 20% and then even further by removing the center part of the frame with Wendy and Danny so that might focus on the edges alone. This effect is most pronounced when Wendy and Danny walk into a dead end and we must back out with them in what Garrett Brown describes as a “whirlwind move.” By removing the focal point of these scenes—the characters at the center of the frame—we can more clearly see the aesthetic and technological effects of the Steadicam, bodily labor, and the lens distortion at work. Another way to utilize the slow motion without the center image removed is to pay closer attention to the shifts in weight of each character’s feet and how the camera movement subtly reflects (almost imperceptibly) Brown’s own steps while operating. In the early shots, the characters and Brown are moving slowly (we can almost feel the soft steps Brown takes, shifting weight carefully from one foot to the next), but by the final maze scenes all of these characteristics are heightened yet again when Danny, Jack, and Brown run through the maze.

This raises a number of additional considerations when we talk about Steadicam in a film. We might say now that we speak in error when we call the Steadicam shots on Wheelchair “Steadicam” in the same way that we call the walking shots “Steadicam.” Ultimately, while Steadicam can produce fluidity and smoothness like a dolly, many operators and Director of Photography stress using Steadicam for its unique attributes not just a more spatially open replacement for a tracking shot or a more stable hand held shot.

5.3.3 Hiding *Halloween's* Panaglide

Ultimately, the project of restoring craft discourse to critical accounts of early stabilizer style and technological change poses its own historiographical questions. Namely, how does the experience of witnessing and producing early Panaglide and Steadicam aesthetics hold up over time, and what institutional and industrial mechanisms exist to suture these now erratic images into dominant modes of invisible stabilizer craft? Even when, in my own explanation of the look of early Panaglide Steadicam I am forced to draw the reader's attention to the uneven horizon line, the floaty/ungrounded quality of the frame, then I am forced into a position that draws myself away from the exciting and strange sensations produced for audiences at the time and for myself today. My description functions as a product of and within a system of explanation established for me by formal filmic discourse today and one established for me by practitioners who did not really begin to describe the aesthetic institutionally until ten years after its inception.

In my last case study and experiment, I look at how digital postproduction transfers in recent distributed versions of *Halloween* (John Carpenter, 1978) present historiographical problems for scholars wanting to study the unique look of Panaglide in its early years. Shot on Panaglide by Ray Stella, SOC, and director of photography Dean Cundey, ASC, *Halloween* offers an interesting argument for Panaglide's role in subjective camera POV shots in horror and thriller genres. Later, when Garrett Brown was asked to shoot the opening sequence for Brian De Palma's thriller *Blow-Out* (1981)—a send-up of Michael Myers's serial killer point of view from *Halloween*—the operator originally imagined that this was his chance to do a good POV Steadicam shot, “one that felt like a true human,” without, as he called it, the drunken rolls and horizon tilts characteristics of the “bad” Panaglide shot. As Brown proclaimed, “I wasn't doing a good one, I was doing a parody of *Halloween*, I was doing a crappy horror

film. You know it's not easy to be bad, particularly after Kubrick. So, every part of it went against the grain for me. Every aspect of it. Moving clumsily as if every footstep was showing."⁵⁵⁸ As Brown describes it, De Palma wasn't really interested in why the original Panaglide shot was "bad" and how Brown could make it a "good" Steadicam shot; instead, De Palma was interested in the aesthetic quirks or mistakes that made the body behind the camera even more visible: the waviness, the unintended glances, the ever-so-slight and barely perceptible bob of footsteps underneath the camera. Because of its technical problems with stability, the Panaglide looked and felt inherently more like a human POV, now an almost unsettling combination between prototypical Steadicam movement with a dash of handheld operation.

It is here where test footage shot with an early Panaglide in Panavision's Tarzana parking lot by Ray Stella in preparation for *Halloween* is so useful.⁵⁵⁹ Test footage allows us to see in fuller detail the quirks of the technology and how craft and labor practices contain or explore these quirks from each device. In other words, test footage forefronts the interaction (and sometimes struggle) between technology and operator. These broad markers of technological nuance and craft practice come in handy when looking at "cleaner" and more sophisticated shots within the final film (or even comparing the test footage, the POV shot in *Halloween*, and the POV Steadicam shots by Brown in *Blow-Out*). The test footage shot showcases exactly these differences in control and weight—the Panaglide seems incredibly light, and the horizon line

558 Garrett Brown, "Interview with Steadicam Inventor Garrett Brown," disc 1, *Blow Out*, directed by Brian De Palma (New York: Criterion Collection, 2011).

559 *Halloween Panaglide Test*, Pre-production before Principal Photography Began, Vimeo video, 4:26, posted by "Billy Kirkus," July 27, 2013, <https://vimeo.com/71166481>.

seems to swerve and dip more sporadically than Steadicam's demo footage. Because Panaglide does offer something different, even if a bit messy or unclear, it stands out as a site of discursive struggle in early histories of Steadicam and is also indicative of Steadicam's move into cleaner, coherent, and more industrially stable forms of Steadicam style.

Yet, this site of struggle may not seem so obvious when watching the film in retrospect. Thanks to the film's popularity and continued home rentals, the film has received multiple and regular DVD releases over the years. To market a DVD to a new or similar marketplace, companies offer special editions, restored, or digitally remastered new features. One of these iterations, the highly contentious Anchor Bay twenty-fifth-anniversary DIVIMAX transfer, involved a digitally color-enhanced and improved image stabilization not approved by Cudey because it looked so different from earlier theatrical, televised, and DVD versions.⁵⁶⁰ What this means for historians and even film scholars solely interested in the aesthetics of the film is a different kind of image and perhaps different possible interpretations of the sequences using the device. Here is where an attention to craft discourse reminds us of the industrial dynamics and histories at play when "correcting" a shot for future audiences according to discordant notions of proper form. The Panaglide's radical and erratic POV shot seems at once normal to our eyes accustomed to seeing Steadicam used as POV shots, but it also seems less obtrusive than it might have to original audiences and even to Garrett Brown's discernment. What is "bad" about the Panaglide shot has now been brought into line with more stable Steadicam aesthetics. Placing test footage side by side of various remastered versions highlights what we miss out on when trying to make the bad image look good—or what precisely we fail to see without a technician's

⁵⁶⁰ *Halloween: DiviMax 25th Anniversary Edition*, directed by John Carpenter (1978; Beverly Hills, CA: Anchor Bay Entertainment, 2003), DVD.

eye. A more precise experiment to compare these versions involves videographic digital “distant readings” beyond my technical capabilities. My future experiment for this project is inspired by Taylor Arnold and Lauren Tilton’s “Distant Viewing TV” project which uses, “computer vision to facilitate the algorithmic production of metadata describing the content (i.e., people/actors, dialogue, scenes, objects) and style (i.e., shot angle, shot length, lighting, framing, sound) of time-based media.”⁵⁶¹ Arnold and Tilton’s DVT-toolkit has been already been used to study large collections of moving images to determine characters movement, prop placement, and editing. I believe such a tool could be especially invaluable in a project such as mine by comparing different versions of a film like *Halloween* where the floaty or wavy qualities of the Panaglide has been mastered out of later version and in comparing the Steadicam shots across operators’ careers and compared to other Steadicam practitioners. Such broader structures of discourse within the industry at large and even within smaller craft formations seek to bring eccentricities and “bad objects” of their own histories more into line with a dominant narrative of innovation.

Scholarship that seeks to tell histories of labor and technology within histories of style must also address the varied confusions, debates, and enigmas within narratives of aesthetic change. If we look at films, television shows, commercials, and other media artifacts that contain stabilizer shots in different periods as documents of these kinds of changes in industrial practice, then we must also take a closer look at how these objects are materially changed by broader histories of industrial discourse. Where is such experimentation in Steadicam aesthetics desirable, and where is it unacceptable as a mode of operating? What kinds of operators are

⁵⁶¹ Taylor Arnold and Lauren Tilton, “Distant Viewing TV Project.” University of Richmond.

<https://distantviewing.org/>

given permission within the craft to adapt their own operating practices at odds from dominant invisible modes? In what ways are all operators always experimenting?

Increasingly, stabilizing aesthetics seems to be shifting back to modes of practices that fail to fall in line with the codified norms of the craft. Steadicam shots are embracing the wavy, wobbly, floaty styles that marked the early Panaglide and Steadicam shots. Or, maybe it is more accurate to say that these shots are not simply a return to an eradicated past, but a seizing on activities still latent in the craft that never quite went away. To look more closely into the many stabilizer shots in its thirty-year history is to see the codified norms—the invisible dolly, the stable handheld, and the living tripod—And, it is also to see the many remnants of the embodied signatures that still show up and were embraced in various formations. Certain kinds of shots call for this more than others (dance scenes), and certain kinds of productions are more interested in utilizing this aesthetic (commercials, live-action events, sports, and art house productions). Yet, even in Dave Chameides iconic walk-and-talk's in *The West Wing* and *ER*, we begin to see little touches that Chameides throws in (a curve around a pole to partially block the view of the talking actors, moving closer and farther away to catch-up, to fall behind, to look at what is happening elsewhere).

I want to conclude by thinking about two more examples, side by side: stabilizer's past and stabilizer's future and a more subdued, but potential thread between them. When I see a shot by contemporary Steadicam operator Jörg Widmer who worked on *Pina*, *Turin Horse*, and *Tree of Life* I see a similar curiosity and embodiedness from the early days of the practice, but more fully developed as a practice. I feel in Widmer's shots in *Tree of Life* the lineage of something entirely different from the art house exuberance of Malick, I feel early operator Jeff "Mountain Man" Mart testing out one of Garrett Brown's stabilizer prototypes in a 1979 Canadian industrial

logging film *Spar Tree*. Known as an incredibly athletic and stunt-minded operator, Mart's shots floating and gliding just above the forest floor feel like walking this wilderness ourselves. Like Widmer, Mart's shots feel tethered to the operator operating and the world it films. Both shots explore, turn, linger, glance, and hover in around trees. Widmer and Mart show us that Steadicam shots can do so much more than follow, they can show us what it is to be in a space and what it looks like to sense feeling and thought as it takes form. A Steadicam shot is not just a marker of cinematographic style but the result of a material body at work in its economic, institutional, historical, and aesthetic contestations.

6.0 CODA: AUTOMATING CRAFT IN GLOBAL HOLLYWOOD

Much of this dissertation has been concerned with the role of the human body and human consciousness in various formations of film technical craft, discourse, and practice. From the late silent period, to the classical Hollywood period, to the new Hollywood of the 1970s and 1980s, I explored how below-the-line crafts, guilds, and unions situated themselves within the film industry. I illustrated how crafts promoted their practice to one another, other guilds, above-the-line personnel, the industry at large, and the wider public. At one point or another, each craft formation has had to negotiate its aspirational intellectual language itself with the need to speak and address the manual, physical, and mechanical requirements of the work. The constant tension of the head and the hand bespeaks a wider tension in craft discourse about labor's visibility and invisibility. Regardless of the craft, its hierarchy in the industry, its size, influence, many of the themes about discourse, visibility, labor, and creativity evidence a similar throughline across diverse periods and craft communities. While this dissertation has nodded to moments beyond its historical framework of 1919-1985, it has not considered whether these notions of craftsmanship and these specific modes of craft discourse and practice still (and will continue to) hold sway in 21ST century modes of production in Hollywood.

The location and ideological formation of Hollywood as a site of mass production where top-down and bottom-up forces created certain kinds of industrial contestations, struggle, and opportunities for craft agency was important and necessary for the kinds of gestures and arguments I was making within a historical time period and industrial survey. I question whether it continues to make sense to apply the same geographic and ideological limitations about Hollywood craft in the 21st century. While many below-the-line jobs still depend on the

connections forged in the Southern California marketplace, many camera operators, Steadicam operators, lighting technicians, and even grips are finding less crowded and more stable employment in other North American production hubs like Atlanta, South Carolina, Toronto, Vancouver, and elsewhere thanks to tax incentives designed to bring production to their locales.⁵⁶² Beyond North America, more and more camera departments are specifically being pieced together on international sets with a British director, an American Director of Photography and Gaffer, additional camera operators from Poland, and a crew of electricians and grips available at filming locations like Dubrovnik, Croatia and Budapest, Hungary.

Productions like this are partially managed by “service producers” who help organize crews, translators, location and work permits, and deal with local bureaucracy and labor laws.⁵⁶³ Such constantly shifting changes in crew composition drastically alters the modes in which craft and industrial discourse functions. Lacking a common vernacular—including even film jargon which can vary by language—increasingly complicates how work and craft are shared and translated amongst practitioners. As Adam Goodman, a service producer, explained of international productions:

Communication is our biggest challenge. Different people from different parts of the world communicate in very particular ways: what words they choose, the tone in which they say them, how they use body language. An electrician from Pinewood doesn't enunciate, and suddenly there's a complete clusterfuck because a scaffold is here when it needs to be there. I've been doing this long enough now that I can actually see it

562 As Stephen Lighthill explains, cinematographers will have their home base in Los Angeles for connections to producers and directors, but many will fly out to work elsewhere for their primary work. “Stephen Lighthill, Cinematographer,” Curtin, Michael and Sanson, Kevin (eds.). *Voices of Labor: Creativity, Craft, and Conflict in Global Hollywood*. Oakland: University of California Press, 2017). 92. <https://doi.org/10.1525/luminos.26>

563 “David Minkowski, Service Producer,” Curtin, Michael and Sanson, Kevin (eds.) *Voices of Labor*, 147.

happening: a department head is communicating something to the crew, and the crew is nodding along but not understanding.⁵⁶⁴

These barriers to communication and the ephemeral nature of international crews in general discourage shared experience of craft knowledge, discursive norms, and expectations of fellow practitioners. Communities of below-the-line workers, in particular, are limited by insurance paperwork and union contracts that restrict how productions travel with key personnel beyond the director of photography, gaffer, and key grip.

As a result, crews often work together once or only for a few days at a time and never have time to adjust to social or practice cues beyond the linguistic barriers. Cinematographer Stephen Lighthill expresses a similar frustration with language on international productions, “When you’re on the set you sometimes hear conversations that have nothing to do with you, but they give you clues or warnings about how the work is going and what may be ahead. When you don’t get those clues [because of linguistic or cultural barriers], things can become very difficult.”⁵⁶⁵ Craft formation have become even more global in scope and working expectations and national models of working (with the same crew on the same studio for twenty-years) are no longer sustainable or possible in the same ways. On international and non-New York and Los Angeles shoots, craft practitioners no longer utilize each production as a way to advance their careers within a community or within a guild (most are affiliated with their national organization and are working on non-union or loosely affiliated unions sets). Thus, rather than imagining themselves as part of a larger community and tradition of craft practitioners, below-the-line workers are increasingly operating and understanding themselves as individuals forming loose

564 “Adam Goodman, Service Producer,” Curtin, Michael and Sanson, Kevin (eds.) *Voices of Labor*, 163.

565 “Stephen Lighthill, Cinematographer,” Curtin, Michael and Sanson, Kevin (eds.) *Voices of Labor*, 99.

networks of contacts across the globe and travelling with their own workshop, gear, and techniques in hand.

It is unclear what this will mean for craft discourse going forward, though certainly by the 1990s and 2000s, craft magazines had already expanded to imagine a primarily general audience (and not an address to its own practitioners). Those discussions now happen elsewhere, primarily on message boards, group chats, and social media sites like Twitter, Facebook, and Instagram. Some of these are private, some semi-public, and others intentionally outward facing and continue to negotiate primary aesthetic questions and working concerns of the craft. These outlets encourage similar debates, worker-generated snark, humor, pedagogy, training, and craft adoration that took place in the earliest house organs of the 1920s and 1930s. Via online platforms, individual practitioners seemingly have greater access to self-promotion and also a more flexible place to describe practices that might seem outside of traditional protocols or modes of descriptions. The use of Instagram in particular allows practitioners to document and perhaps even “archive” the activity of their work on a day-to-day basis. A tool like Instagram is especially important for grips and electricians whose ephemeral craft often goes undocumented in film history. Accounts like “griprigs,” with nearly 150,000 followers posts photos and videos from grip users to document cool, spectacular, or fun rigs or setups.⁵⁶⁶ Additionally, the account sometimes posts #throwback photos of grip crews on famous Hollywood films from the 1940s-1980s. The captions and comments on the posts often serve to promote some tool and educate users broadly about the history of some technique or the rationale for certain set-ups. In this way

⁵⁶⁶ See, Instagram “griprigs,” <https://www.instagram.com/griprigs/?hl=en>

the public Instagram page speaks to an audience of grips, amateurs learning or trying to break into the industry, and interested members of the public.

Perhaps even more pressing than concerns about global production and updated arenas for craft discourse is the threat of automation. As I hope to have illustrated throughout this dissertation, craft and embodiment are integrally tied together in theory, practice, and discourse. And as I've also illustrated, questions of the body in film production have always been a site of discursive confrontation due to their ties to manual work, issues of class, labor politics, and in the ways that the site of the body seemingly conflict with aspirational or artistic modes of creative production. In many ways, manual work has even been treated as a given, an assumption to which attention that need not be called. By taking manual work for granted at times during its 20th century history, crafts and industry in the 21st century may find themselves forced into a position to either defend as definition of craft without a body or a renewed necessity for insisting on the manual labor of craft.

Increasingly, automated tools and software are developed outside of the industry for use inside the industry. As a way to market defunct automation from other industries and to expand and diversify automated market share outside of traditional manufacturing or domestic arenas, new tools are developed—or, more often—reimagined to appeal to film production uses. Automation in camera technologies, editing platforms, stabilizing systems, and even in CGI advertises multiple advantages to the industry: fewer workers, reduction in costs or workplace injuries, quicker production and post production schedules, consistency of product, offering greater choice and freedom in technical matters outside of specialists, and an array of aesthetic quirks that outperform human practitioners. According to an updated 2017 Oxford University Press study titled, “The Future of Employment: How Susceptible are Jobs to Computerisation?,”

researchers Carl Frey and Michael Osborne estimate that 47% of US occupations are at the highest risk for computerization or automation by 2033. For film and video work, Frey and Osborne predicted a 60% probability that Camera Operators, 55% probability that technicians, and 30% probability that editors would be automated or computerized by 2033.⁵⁶⁷ As

embodiment and consciousness is central to my argument about craft in Hollywood, I want to explore briefly what automation and robotic “practitioners” might mean for craft going forward. Specifically, I want to ask: if the manual body in craft is replaced by a robot, can we still call it craft?

I begin in the 1920s with Luigi Pirandello and Dziga Vertov, each of whom imagined iterations of the automated camera long before the 21st century. Writing in his 1926 novel *Shoot!* Pirandello describes a scene where a curious onlooker questions a cranking cameraman named Gubbio about the utility of his body in operating the camera. Couldn’t ‘they’ figure out a way of “making the camera go by itself?” the onlooker asks. “Is there any real necessity for you? What are you? A hand that turns the handle. Couldn’t they do without this hand? Couldn’t you be eliminated, replaced by some piece of machinery.”⁵⁶⁸ Gubbio explains that, for now, all that is required of him is “impassivity in the face of action,” but that, “A piece of machinery, in that respect, would doubtless be better suited, and preferable to a man...I have no doubt, however in time, Sir, they will succeed in eliminating me. The machine—this machine, too, like all the other

567 Carl Benedikt Frey and Michael A. Osborne. “The Future of Employment: How Susceptible Are Jobs to Computerisation?” *Technological Forecasting and Social Change* 114 (January 2017): 272 – 273.

<https://doi.org/10.1016/j.techfore.2016.08.019>.

568 Luigi Pirandello, *Shoot!*. trans. C.K. Scott Moncrieff (Chicago, IL: University of Chicago Press, 2005): 6

machines—will go by itself.”⁵⁶⁹ Gubbio’s “three-legged spider” camera and tripod that preys on the excitements of life becomes for Dziga Vertov an apparatus that does not drain the operator of life, but imbues the world and the cameraman with dynamism. In “Kinoks: a Revolution” Dziga Vertov and The Council of Three proclaim: “We cannot improve the making of our eyes, but we can endlessly perfect the camera.”⁵⁷⁰ In 1923 the camera as an endlessly perfectable technology was already automated and automating. Vertov had already imaged the playful possibilities of the camera robotic body and the human body in his famous stop-motion sequence in *Man with a Movie Camera*. But Vertov also foreshadowed the possibilities of a human and robotic collaboration far into the future. Vertov writes,

Aiding the machine-eye is the kinok-pilot, who not only controls the camera’s movements, but entrusts himself to it during experiments in space. And at a later time the kinok-engineer, with remote control of cameras. The result of this concerted action of the liberated and perfected camera and the strategic brain of man directing, observing, and gauging—the presentation of even the most ordinary things will take on an exceptionally fresh and interesting aspect.⁵⁷¹

In both Pirandello’s and Vertov’s account, an autonomous camera is both a fear and a fascination, free-wheeling and yet ultimately under the control of the camera operator. I mention these accounts because they suggest a more nuanced and dynamic understanding of how many film production crafts in and outside of Hollywood from the 1920s to today imagine autonomous, remotely operated, and even robotic cameras, software, and other computerized production technologies. At once “liberated and perfected” these tools promise a plethora of new

⁵⁶⁹ Pirandello, *Shoot!*, 6.

⁵⁷⁰ Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov* (Berkeley, Ca: University of California Press, 1984): 15.

⁵⁷¹ Vertov, *Kino-Eye*, 19.

techniques to free the body and mind of the worker to go to new places, create new kinds of films, and produce distinct perspectives. To imagine automation in this way—as many crafts hint at across their histories—was also to imagine a craft without the confines, precarity, and physical limitations of the body.

Grip articles in the 1930s suggested that new variations of tripods and dollies could be thought of as “robots” and an illustration in a 1954 issue of the *The Cinemeditor* joked that the editor in the year 2000 would be editing on a machine-like system, somewhere between a flat-bed editor, a Moviola, and a digital workflow (Fig. 6.1). The new millennium editor used buttons and foot pedals to view film and cut trims. Relaxed in his chair, not hunched over a viewfinder, this new system would free the editor from the purely manual task of “cutting” and would provide him more time to think up creative editing solutions at the push of a button.



Figure 6.1 Radar, “Editor 2000 A.D.” *The Cinemeditor* 4, no. 3 (September 1954): 2.⁵⁷²

572 “Editor 2000 A.D.” Reprinted with permission of the American Cinema Editors, inc.

Similarly, editor Fredrick Y. Smith foreshadowed the possibilities of automated workflows in a 1956 article “Looking into the Future,” on various editing machines, including the automatic cutting of Disney’s TV Picture Scanner, aka “The Monster.” Smith explains that “At the completion of the editing, it is possible to duplicate the cutting pattern by reversing the machine and starting it again from the beginning...By means of electronics, the CONTROL (sic) track has made possible this automatic cutting without touching the film.”⁵⁷³ For Smith, who often urged editors and the public to think of editing as a creative craft more refined than the crude act of cutting, the idea that some of this manual work could be alleviated would have been a welcome proposition.

Automation posed a series of possibilities in the 20th century and it continues to impose a series of problems in the 21st century. For many technicians, discourse around robotic imagination performed a kind of aspirational relief from the tedium and exhaustion of certain kinds of manual, physical, and mechanical work. The largest expansion of automated, computerized, and robotic assistive technologies appeared hand-in-hand with the renewed development of special effects production beginning in the 1970s. As Julie Turnock points out, the relationship between special effects and animation partially reconfigures the histories and redefines the terms by which we describe the live-action technologies involved in both modes of production. Turnock highlights one figure in particular, John Dykstra – the so-called “father” of motion-control technology, “a programmable computer-controlled camera that could repeat the same movement over and over.”⁵⁷⁴ These motion control technologies were often one-of-a-kind

573 Fredrick Y. Smith, “Looking into the Future,” *The Cinemeditor* 6, no. 1 (March 1956): 3.

574 Julie Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics*. (New York: Columbia University Press, 2015): 43.

tools created for specific problem-solving issues on individual films that became models for equipment and manufacturing companies to emulate and distribute for other special effects and compositing work. Yet, Dykstra also stressed the ways in which early motion control allowed for precision, but with too much smoothness. In *Star Wars*, Dykstra and others were forced to add imperfections into the motion-control camera to make it look like it was operated by a “cameraman in space” and not an automated control.⁵⁷⁵ Dykstra’s own concern, a worry echoed by many, was that motion control’s particular aesthetic produced a look too polished or slick to convincingly be used in place of a human operator especially outside of effects or composite purposes.

Other automated tools that would later contribute to today’s more recent robotic technologies included David Samuelson’s LOUMA crane with its remote-controlled gimbal mounted camera head, The Technocrane, and electromechanical dollies developed by Panther in the 1980s. What each of these groups emphasize for their aesthetic uses and labor implications is increased precision for focusing, for tracking, for framing and increased mobility and movement. Camera crews and practitioners embraced these kinds of tools for their ability to extend the physicality of the operator and to refine the operator’s craft specialization. These automated technologies were treated as problem solving tools allowing for greater flexibility in camera placement and to “imagine” shots otherwise unattainable. If anything, these tools invented by film technicians, provided workers a place at the table in an increasingly animated, effects, and CGI production environment. However, these technologies, although robotic, were not treated or thought of as standalone “robots.”

⁵⁷⁵ Interview with John Dykstra, “Motion Control: Unforgettable Shots,” *Movie Magic* Season 2, episode 7 (1994).

A new generation of all-in-one high speed, motion control, remote operator, eletro-mechanic tracking robotic cameras presents a different threat to the craftsman-tool relationship long held by below-the-line technicians. These robotics companies, often full-production houses, are staffed by non-film industry engineers, coders, and designers and they provide equipment, production, and completion packages furnished by tech workers and non-traditional union film crews. They specialize in large-budget corporate commercials for sports and beverage companies, special effects work, and spec experiments often charging thousands of dollars per second. In this way their outsider status as inventor-engineers entering the industry is not so unlike Garrett Brown's entry in the 1970s with his Steadicam. Yet, these emerging robotics companies are also proposing an alternative language to the traditional craft practice relationship between camera operator and camera(bot).

Take for example the Robotics firm, Bot & Dolly in operation from 2011 to 2014.⁵⁷⁶ Bot & Dolly specialized in repurposing six-axis industrial arm robots into what they termed "Creative Robots" that would go on to shoot Alfonso Cuarón's *Gravity*, to build models of architectural designs, to create experimental music orbs for Google offices, and to follow and mimic hand-made drawings by professional illustrators. Rather than thinking of these creative robots as tools, Bot & Dolly proposed that users think of robots as "collaborators," or better yet, as immigrant workers. Speaking at the 2014 Solid Conference (a series of talks on the changing

⁵⁷⁶ This San Francisco company, created in 2011 by Jeff Linnell (the Director of Design Firm AutoFuss) was bought out by Google Robotics in 2013 along with 5 other prominent boutique robotics firms. Google has been widely criticized for not utilizing these robotics holdings and sold Boston Dynamics, another prominent robotics acquisition in 2017. See, Mark Bergen and Joshua Brustei, "Google has Made a Mess of Robotics," Bloomberg *Businessweek* (October 12, 2017). <https://www.bloomberg.com/news/articles/2017-10-12/google-has-made-a-mess-of-robotics>

environment and collision of hardware and software), Bot & Dolly's Director of Product Strategy Tobias Kinnebrew narrated a story about how this particular six-axis industrial arm manufacturing robot "broke free from its place in the assembly line" and showed up at his door:

When it arrived it was a foreigner in a foreign land and this robot was a little bit different from the others, maybe more aspirational about its future, maybe more poetic. It didn't speak our language, we didn't speak its language. But we had a hunch that what we could do together would be significant and meaningful to the world, so we began to learn and we began to teach. It showed up with its own story, so the first thing we did was tell it.⁵⁷⁷

Kinnebrew goes on to showcase a short video reel telling the robot's "immigrant's story" from the perspective of its robot "grandfather" that involves the robot waiting in customs, having its immigration papers examined, and finally growing restless and breaking free from its electric plugs and flying away in search of its own American dream. Bot & Dolly's immigrant robot as exoticized other, is seemingly in service to make this immigrant back-story appealing rather than threatening. And apparently, this discourse of "Robots as immigrants" is a quite common and seemingly useful metaphor within the tech industry at large.⁵⁷⁸

This tone-deaf rhetorical gesture to seemingly soften the perceived threat of creative automation is curiously telling about the tech industry's own fraught relationship to its immigrant labor issues in America alongside its naïve understanding of immigrants conceived broadly as welcomed outside labor for American industrial jobs. Perhaps this gesture mirrors other orientalized waves of robotics marketing coming from Japan in the 1980s that similarly

577 O'Reilly, "Tobias Kinnebrew: 'Robotics & The Natural Language of Creatives' - Solid 2014 Keynote," YouTube video, 3:00, May 22, 2014. <https://www.youtube.com/watch?v=feXWLuyns6I>

578 "Immigrants from the Future," *The Economist* (March 29, 2014). <https://www.economist.com/news/special-report/21599522-robots-offer-unique-insight-what-people-want-technology-makes-their>

sought to familiarize and make friendly robots in the workplace and home. That generation of robots including “Asimo,” also featured the very six-axis automotive assembly line industrial arms that were so heavily contested by autoworkers in the US and other post-industrial European manufacturing hubs. Calling the current wave of robots “immigrants” is not exactly wrong though, as many of the design companies that supply these six-axis industrial camera arm bots are distributed by German manufacturers KUKA Robotics and other European and British manufacturers such as, Marmalade-Spike, Mr. Moco Bolt, and Roca Bots. Other six-axis bot arms “migrated” from the rust-belt hubs of the United States. One of Bot & Dolly’s other odd mottos is contained in a publicity slogan, “From Detroit to Hollywood” which references their original industrial camera arms bought from closed-down Detroit auto-plants. Or, as a 2010 *Wired.com* article exclaimed, “It’s great to see a startup hiring laid off auto-workers even if they aren’t human.”⁵⁷⁹

On Bot & Dolly’s Facebook page, they suggest the industry and practitioners treat these robotic collaborators as human, linking to published studies which showed that robots worked best when taught under a military teambuilding technique called “Cross-Training.” In this technique robots and humans switched jobs in order to intuit and adapt to the other’s expectations in a task. For example, one such experiment promoted by Bot & Dolly’s test labs involved teaching the camera bot how to operate a camera handheld by synching up a human camera operator moving with the camera through space and then having the robot reproduce the same “handheld” camera movement exactly. The more the robot learned from the operator, the more the robot could reproduce the nuances, aesthetic feel, and mistakes of its human

579 Matthew Honen, “Lights, Bots, Action. Former Car-Assembly Droids Get Reboot,” *Wired*, April 19, 2010. https://www.wired.com/2010/04/st_robotfilmmaking/

counterpart. This idea of robots as mastered and taught by practitioners to take over the supposedly mundane and manually aspects of the work also seems to suggest the importance for programmers to reproduce the feeling of a human presence, even in shots produced without humans. Like John Dykstra's concern that motion-control mounts produced shots that felt too slick, robotic camera bots are being trained to mirror human imperfections by "shadowing" or "apprenticing" with human practitioners.

Automation in this way, may also carve out new work for union grips and camera crews. The niche skill sets and qualities of six-axis industrial robots' fast-motion movements and sheer weight and strength also raises concerns about the fragility and safety of the star bodies they film. Take *Gravity*, where camera operator Peter Taylor helped train the Robotic arms not to hurt George Clooney and Sandra Bullock by doing camera movement tests at variable speeds. Taylor describes how the camera operators had to intervene to correct the robot, "With the complex moves and so many variables, sometimes the robot would not always bring the camera to where it needed to be ... I would occasionally override the tricky end of a camera move... I never really knew how the camera would react."⁵⁸⁰ Taylor also insists, "It should be remembered that good old live[-]action filmmaking was employed for a great deal of it."⁵⁸¹ Robots figured not as tools, but as immigrant labor in training, are paternalized by their human collaborations. Taylor's comments suggest that robots need the mastery and skill of their human operators and that the machines require supervision by a union crew to remind them who's boss.

580 Peter Taylor, "Camera Operator of the Year Winer – Feature. Peter Taylor SOC for Gravity," *Camera Operator* (Spring 2014): 28-29. https://issuu.com/cameraoperators/docs/soc_co_2014spring

581 Taylor, "Camera Operator," 29.

While camera operation is at the highest risk for automatization and computerization, changing modes of industrial production have also altered the other craft formations I discussed in this dissertation. Directors of Photography and gaffers are increasingly acting as special lighting consultants on CGI produced films which might seem to diminish the need for on-set practical lighting and thus a reduced need for grips and electricians. However, with a growth in CGI and green-screen compositing work, grips and electricians are performing different kinds of lighting support. More grip crews are working on “rigging crews” that come in before and after production and set up enormous diffusion and green screens over wide areas on the location. While not projecting “clouds,” these rigging crews are identifiable by their large white diffusion structures that almost look like enormous clouds hovering over and around the set. Rather than adding shadows, grips and electricians seek absolute exposure on all green screen surfaces. Working against their original mode of operation is understood as a process of adaptation and flexibility.

Editors in this way might need to call upon the slogan of their educational films to reestablish the value of continuity editing by the physical hand of an editor. As Smith’s 1956 article foreshadowed, automated editing promised to preprogram the cutting of a multi-camera shoot into a coherent and consistent pattern. A variety of editing software programs like Final Cut Pro and Avid have experimented with an semi-automated cutting effect for multi-camera setups that streamlines the workflow of a pre-shot production into the setup for a live-edit. Loading all the camera setups onto a timeline, the editor watches and selects as if in real-time, a process that then automatically lays the selected timings and cuts on the sequence. Increasing the speed and efficiency of post-production in this scenario is also influencing the ways in which live multi-camera events like news and sports can be edited with little to no human intervention.

Computer scientists working with Disney Research (DR Pittsburgh at Carnegie Mellon and ETH Zurich) have been studying how patterns in certain sports like soccer and hockey could be coded to determine which camera angle, shot duration, and cutting rhythm is necessary to give a game accurate coverage.⁵⁸² Such a pre-determined process combined with automated cameras would eliminate the need for sports camera operators and an entire crew of booth production crews (like live-directors and technical directors/switchers). By finding niche specialties within automation, practitioners have developed justifications for how their craft specialty enhances the qualities of automated tools or helps regulate or make those tools more efficient.

The development of the stabilized remote-head systems, like the MōVI Freefly camera rigs and Freefly Mimic, advertised their products as eliminating the need for specialized practitioners like Steadicam operators. Booths at the National Association of Broadcasters (NAB) convention and early promo videos circulating on Youtube and Vimeo promised a system that could be operated by anyone (even an actor or an extra) and a camera that could be directly framed and manipulated by the director.⁵⁸³ Ostensibly this tool argued that a film shoot would not even need a camera operator, just a director, an actor, and the MōVI. Rather than be replaced by a cheaper alternative, Steadicam operators began to experiment and train with MōVI units and made a clear case to producers and directors. While theoretically, amateurs could use a MōVI, a

582 Christine Chen, Oliver Wang, Simon Heinzle, Aljosha Smolic, Markus Gross, “Computational Sports Broadcasting: Automated Director Assistance for Live Sports,” IEEE International Conference on Multimedia and Expo (ICME) 2013 (July 15, 2013). <https://www.disneyresearch.com/publication/computational-sports-broadcasting-automated-director-assistance-for-live-sports/>

583 Freefly Systems, “MōVI - Behind-the-Scenes (BTS),” YouTube video. 2:00, August 14, 2013.

https://www.youtube.com/watch?v=54LZTdI94_M; Freefly Systems, “Freefly MIMIC with Chase Jarvis,” YouTube video. 2:08, June 29, 2015. <https://www.youtube.com/watch?v=jwlfZm4kKCc>

Steadicam operator was uniquely positioned to think about the weird eccentricities of a mobile camera moving unbounded in space and the intricate and nuanced quirks of moving stabilized cameras by touch.⁵⁸⁴ Brett Harrison explained on the Steadicam forums, “I also happen to believe that the MōVI is an instrument, however its nature is closer to that of the synthesiser, whereas a Steadicam is like a guitar. Each has its place in the form.”⁵⁸⁵ As it turns out, Steadicam operators can make a compelling case for the operation of the MōVI apparatus moving through space (and while standing on the sidelines operating a remote-control of the camera head). To know how a body moves with this kind of a camera helps the operator off to the side understand intuitively the large and small gestures they must make in guiding the remote operation with their hands at a distance. Thus, Garrett Brown’s development of two-handed Steadicam operation in the 1970s as series of light, subtle touches later coincidentally trained Steadicam operators to think about how to work with remote head units that originally threatened to replace their work.

Shifts in modes of production, working communities, shared discourse, training, and flexible and precarious notions of craft adaptation potentially reframe the very concerns presented in my dissertation. I conclude by posing a series of uncomfortable questions about whether craft can continue to be defined by its traditional structures of codification, workshop, community and promotion in an industry that is increasingly fragmented. In this changing

584 For video showing Larry McConkey playing with a MoVI on a Steadicam and Garrett Brown talks about the affordances of both technologies, see Brett Harrison, “Steadicam Talks with MoVI: Garrett Brown with Tabb Firchau,” The Steadicam Forum: General Discussion,

<http://www.steadicamforum.com/index.php?showtopic=20334>

585 Harrison, “Steadicam Talks.”

environment will craft communities be constituted from groups of people across industrial boundaries (computer scientists and camera operators), hailing from different national context to work in diversified global production locations, and even composed of crews that are comprised of equal or greater portions of non-human “collaborators” to human practitioners? What does it mean to think of the robot or computer program as a creative collaborator, and in what way are agency, automation, and coding affected by the program of craft language and craft bodies? In what ways does that creative collaboration inflect its own sets of discursive practices, boundaries, and ‘agency’ on human workers, and how might it affect changing expectations of craft norms? In what ways does the language of immigrant film laborer, whether in CGI production warehouses or as imagined robot immigrants, mirror paternalistic and xenophobic responses elsewhere in the film industry’s history? What happens to the inflexible bodies of human auto-workers and human, unionized camera crews after they have taught the robots to do their jobs? To what extent will the human imprint or the bodily sense (the weight of the camera operator, the hand of the editor) behind the image become programmable by computer code and not indexed by human contributions? In what other ways will craft practitioners adapt their roles to automated tools behind training and monitoring? What is the workable life of a six-axis industrially arm robot, and when the camera bot is inevitably laid off from its production job, where will it go next?

Robots, unlike manual human labor, do not live with the same bodily precarity, only with many possible futures. Indeed, “We cannot improve the making of our eyes, but we can endlessly perfect the camera.” In the 21st century, can embodied craft, practice, and discourse continue play a role in this endless perfection? Or, will human labor finally be made invisible?

BIBLIOGRAPHY

I: Popular Press, Trade Journals, and Web Forums

- American Cinematographer*
- American Film*
- Camera Operator: The Journal of the Society of Camera Operators*
- Cinemeditor (also known as The Cinemeditor, and American Cinemeditor)*
- Chicago Tribune*
- Citizen*
- Close-Up*
- Editor's Guild Magazine*
- Film Daily*
- Film Quarterly*
- Hollywood Filmograph*
- The Hollywood Reporter*
- Home Movies*
- IATSE General Bulletin*
- IATSE website*
- International Photographer*
- Journal of the Society of Motion Picture Engineers*
- Journal of the University Film Producer's Association (also known as the University Film and Video Association)*
- The Los Angeles Times*
- The Leader*
- Media History Digital Library*
- Motion Picture Classic*
- Motion Picture News*
- Moving Picture World*
- Newsweek*
- The New York Times*
- Photoplay*
- Picture-Play*
- Variety*
- Screenland*
- Silver Screen*
- The Steadicam Letter*
- The Steadicam Forum*
- UCLA Daily Bruin*
- The Washington Post*

Section II: Selected Archives and Manuscripts

Margaret Herrick Library, Academy of Arts and Sciences – Los Angeles, CA

American Society of Cinematographers Papers

Fredrick Y. Smith Papers

ASC Scrapbooks

ACE scrapbooks

Sylvia Shorris Papers

Linwood G. Dunn Papers

Southern California Library for History and Research – Los Angeles, CA

The Studio Strike Collection

Charles E. Young Research Library, University of California Los Angeles

Kenneth MacGowen Papers

Harold B. Lee Library, Brigham Young University – Provo, UT

Victor Milner Papers

Theater Owners of America

Part III: Additional Primary and Secondary Works

Acland, Charles R. and Eric Hoyt, ed. *The Arclight Guidebook to Media History and the Digital Humanities*. Falmer: REFRAME/Project Arclight, 2016. <http://projectarclight.org/book>.

Adorno, Theodor W. "The Curves of the Needle." *October* 55. (Winter 1990): 49 – 66.

Adorno, Theodor W. *Introduction to the Sociology of Music*. New York: Seabury Press, 1976.

Adorno, Theodor W. and J. M. Bernstein. *The Culture Industry: Selected Essays on Mass Culture*. London: New York; Routledge, 2001.

Adorno, Theodor W. *Minima Moralia: Reflections on a Damaged Life*. London: Verso, 2005.

Allen, Robert C. and Douglas Gomery. *Film History: Theory and Practice*. New York: Knopf, 1985.

Alton, John. *Painting with Light*. Los Angeles: University of California Press, 1995.

Aller, Herbert. *The Extortionists*. Beverly Hills, CA: Guild-Hartford Publishing, 1972.

Althusser, Louis. "Ideology and Ideological State Apparatuses: (Notes towards an Investigation)." In *Lenin and Philosophy and other Essays*. New York: Monthly Review Press, 1971.

- Altman, Rick. *Silent Film Sound*. New York: Columbia University Press, 2004.
- American Cinema Editors. *Basics of Film Editing* (1958)
- American Cinema Editors. *Film Editing: Interpretations and Values* (1958)
- Anderson, Mark Lynn. "The Impossible Films of Vera, Countess of Cathcart." In *Researching Women in Silent Cinema: New Findings and Perspectives*, edited by Monica Dall'Asta, Victoria Duckett, and Lucia Tralli. 176 – 196. Bologna, Italy: Università di Bologna, 2013. <http://amsacta.unibo.it/3827/>
- Anderson, Mark Lynn. "Today the World, Tomorrow Hollywood: Film History as Effigy at the Los Angeles Museum during the 1930s." Paper presented at the Society for Cinema and Media Studies Conference, Chicago, IL, March 22 – 26, 2017.
- "Archer, Peggy." "People, Please." *Totally Unauthorized* (blog), November 14, 2006. <http://filmhacks.wordpress.com>
- Arnold, Taylor and Lauren Tilton. "Distant Viewing Lab." University of Richmond. Accessed July 17, 2018. <https://distantviewing.org/>
- Balázs, Béla. "The Future of Film," *The Film Factory: Russian and Soviet Cinema in Documents 1896-1939*, edited by Ian Christie and Richard Taylor, 144 – 145. New York: Routledge, 1994.
- Balázs, Béla. "The Compulsive Cameraman." *October* 115 (Winter 2006): 51 – 52.
- Balázs, Béla. *Béla Balázs: Early Film Theory*. ed. Erica Carter, trans., Rodney Livingston. New York, NY: Berghahn Books, 2010.
- Balio, Tino. *The American Film Industry*. Madison, University of Wisconsin Press, 1976.
- Balio, Tino. *United Artists: The Company Built by Stars*. Madison: University of Wisconsin Press, 1976.
- Balio, Tino. *Grand Design: Hollywood at a Modern Business Enterprise, 1930 – 1939*. History of American Cinema, edited by Charles Harpole, vol. 6. Los Angeles: University of California Press, 1995.
- Banks, Miranda J. "Bodies of Work: Rituals of Doubling and the Erasure of Film/TV Production Labor." PhD diss., University of California Los Angeles, 2006.
- Banks, Miranda J. and Lauren Steimer. "The Heroic Body: Toughness, Femininity and the Stunt Double." *The Sociological Review* 63, no. 1 (2015): 144 – 157. <https://doi.org/10.1111/1467-954X.12245>

- Barker, Jennifer. *The Tactile Eye: Touch and the Cinematic Experience*. Berkeley: University of California Press, 2009.
- Barnouw, Eric. "The Sintzenich Diaries." In *Wonderful Inventions: Motion Pictures, Broadcasting, and Recorded Sound at the Library of Congress*, edited by Iris Newsom, 17 – 30. Washington D.C.: Library of Congress, 1985.
- Baxandall, Michael. *The Limewood Sculptors of Renaissance Germany*. New Haven: Yale University Press, 1980.
- Baxandall, Michael. *Patterns of Intention: On the Historical Explanation of Pictures*. New Haven: Yale University Press, 1985.
- Baxandall, Michael. *Painting and Experience in Fifteenth-Century Italy*. Oxford: Oxford UP, 1988.
- Baumann, Shyon. *Hollywood Highbrow: From Entertainment to Art*. Princeton: Princeton UP 2007.
- Bazin, André. "La politique des auteurs." In *The New Wave*, edited by Peter Graham, 137 – 155. New York: Double Day, 1968.
- Bean, Jennifer, ed., "Introduction." In *Silent Cinema and the Politics of Space*. 1 – 14. Bloomington, IN: Indiana UP, 2014.
- Bell, Melanie. "Learning to Listen: Histories of Women's Soundwork in the British Film Industry." *Screen* 58, no. 4 (December 1 2017): 437 – 457. <https://doi.org/10.1093/screen/hjx037>
- Benjamin, Walter. "Author as Producer." *New Left Review* 62, (July – August 1970) :83-96.
- Benjamin, Walter. "Theses on The Philosophy of History." In *Illuminations*, edited by Hannah Arendt, 253 – 264. New York: Schocken Books:1968.
- Benjamin, Walter. "Work of Art in the Age of Mechanical Reproduction." In *The Work of Art in the Age of Mechanical Reproduction, and Other Essays*. London: Penguin Great Ideas, 2008.
- Bergen, Mark and Joshua Brustei. "Google has Made a Mess of Robotics." *Bloomberg Businessweek*, October 12, 2017. <https://www.bloomberg.com/news/articles/2017-1012/google-has-made-a-mess-of-robotics>
- Bird, Katie. "'Dancing, Flying Camera Jockeys': Invisible Labor, Craft Discourse, and Embodied Steadicam and Panaglide Technique." *Velvet Light Trap* 80 (Fall 2017): 48 – 65. <https://doi.org/10.7560/VLT8005>

- Bird, Katie. "The Editor's Face on the Cutting Room Floor: Fredrick Y. Smith's Precarious Promotion of the American Cinema Editors, 1942 – 1977." *The Spectator*, special issue: "System Beyond the Studios," guest edited by Luci Marzola. 38, no. 2, (Fall 2018): 9-19.
- Bordwell, David, Janet Staiger, and Kristin Thompson. *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960*. New York: Columbia University Press, 1985.
- Bordwell, David and Kristin Thompson. *Film Art: An Introduction*, 10th ed. New York, NY McGraw Hill, 2013.
- Bordwell, David. *On the History of Film Style*. Cambridge, MA: Harvard University Press, 1997.
- Bottomore, Stephen. "Introduction: Behind the Camera." *Film History* 24, no. 3 (2012): 255 – 259.
- Brown, Garrett. "Interview with Steadicam Inventor Garrett Brown." Disc 1. *Blow Out*, directed by Brian De Palma New York: Criterion Collection, 2011.
- Burnett, Colin. "Hidden Hands at Work: Authorship, the Intentional Flux, and Dynamics of Collaboration." In *A Companion to Media Authorship*, edited by Jonathan Gray and Derek Johnson, 112-133. West Sussex: Wiley-Blackwell, 2013.
- Buscombe, Edward. "Film History in the 1980s." *Velvet Light Trap* 27 (Spring 1991): 3 – 8.
- Cagle, Chris. "Classical Hollywood, 1928-1946." In *Cinematography*, edited by Patrick Keating, 34 – 59. New Brunswick, NJ: Rutgers UP, 2014.
- Caldwell, John. *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham, N.C: Duke University Press, 2008.
- Caldwell, John T. "'Both Sides of the Fence:' Blurred Distinctions in Scholarship and Production (a Portfolio of Interviews)." In *Production Studies: Cultural Studies of the Media Industries*, edited by Vicki Mayer, Miranda Banks, and John T. Caldwell, 214 – 229. New York, NY: Routledge, 2009.
- Caldwell, John T. "Worker Blowback: User-Generated, Worker-Generated, and Producer Generated Content within Collapsing Production Workflows." In *Television and Digital Media*, edited by James Bennett and Niki Strange, 283 – 310. Durham, NC: Duke University Press, 2011.
- Caldwell, John T. "Para-Industry, Shadow Academy." *Cultural Studies* 28, no.4 (2014): 720 – 740. <https://doi.org/10.1080/09502386.2014.888922>.
- Caldwell, John T. "Post-Network Reflexivity: Viral Marketing and Labor Management" In *Wired TV: Laboring over an Interactive Future*, edited by Denise Mann, 140 – 160. New

- Brunswick: Rutgers University Press, 2014.
- Caldwell, John. "Steadicam." In *Encyclopedia of Television*, Museum of Broadcast Communications. Accessed July 10, 2018. <https://www.museum.tv/eotv/steadicam.htm>.
- Cartwright, Lisa. "The Hands of the Projectionist." *Science in Context* 24, no. 3 (September 2011): 443 – 464. <https://doi.org/10.1017/S0269889711000184>
- Cavendish, Philip. "A Hand that Turns the Handle: Camera Operators and the Poetics of the Camera in Pre-Revolutionary Russian Film." *The Slavonic and East European Review* 82, no. 2 (April 2004): 201 – 245.
- Cavendish, Philip. *The Men with the Movie Camera: The Poetics of Visual Style in Soviet Avant Garde Cinema of the 1920s*. 1st ed. New York: Berghahn Books, 2013.
- Ceplair, Larry and Steven Englund. *The Inquisition in Hollywood: Politics in the Film Community, 1930 – 1960*. Los Angeles: University of California Press, 1983.
- Chen, Christine and Oliver Wang, Simon Heinzle, Aljoshia Smolic, and Markus Gross. "Computational Sports Broadcasting: Automated Director Assistance for Live Sports." Paper presented at the IEEE International Conference on Multimedia and Expo (ICME) July 15, 2013. <https://www.disneyresearch.com/publication/computational-sports-broadcasting-automated-director-assistance-for-live-sports/>
- Churchill, Ted. *Steadicam Operator's Manual of Style (1980)*. Video University. Accessed May 3, 2016. <https://www.videouniversity.com/articles/steadicam-operators-manual-of-style/#basic>
- Cinematography Database. "Grip and Electric Departments 101." YouTube Video, 12:09, August 18, 2016, <https://www.youtube.com/watch?v=J50ivBNQ0K8>.
- Clark, Danae. *Negotiating Hollywood: Cultural Politics of Actors' Labor*. Minneapolis, MN: Minnesota, 1995.
- Clark, T.J. *The Painting of Modern Life: Paris in the Art of Manet and His Followers*. Princeton, NJ: Princeton University Press, 1984.
- Comolli, Jean-Louis. "Technique and Ideology: Camera, Perspective, Depth of Field (parts 3 and 4)." In *Narrative, Apparatus, Ideology: A Film Theory Reader*, edited by Philip Rosen, 421 – 442. New York: Columbia University Press, 1986.
- Comolli, Jean-Louis. *Cinema against Spectacle: Technique and Ideology Revisited*. trans. Daniel Fairfax. Amsterdam: Amsterdam University Press, 2015. <http://www.oapen.org/search?identifier=611591>.
- Cook, David A. *Lost Illusions: American Cinema in the Shadow of Watergate and Vietnam*,

- 1970 – 1979. *History of American Cinema*, edited by Charles Harpole, vol. 9. New York, N.Y: Charles Scribner's Sons, 2000.
- Cottrell, Rich. “Panaglide.” *The Steadicam Forum: Pictures and History Archives*, posted June 30, 2010. <http://www.steadicamforum.com/index.php?showtopic=12230>.
- Cunningham, Megan. “Geof Bartz, Crafting Cinematic Television.” In *The Art of the Documentary: Fifteen Conversations with Leading Directors, Cinematographers, Editors, and Producers*, 230 – 259. San Francisco: New Riders/Peach Pit, 2014.
- Curran, Kevin and James Kearney. “Introduction: Shakespeare and Phenomenology.” *Criticism: A Quarterly for Literature and the Arts* 54, no. 3 (July 1, 2012): 353 – 364. <https://digitalcommons.wayne.edu/criticism/vol54/iss3/>
- Curtin, Michael and Kevin Sanson. *Voices of Labor: Creativity, Craft, and Conflict in Global Hollywood*. Oakland: University of California Press, 2017. <https://doi.org/10.1525/luminos.26>
- Dmytryk, Edward. *On Film Editing: An Introduction to the Art of Film Construction*. Boston: Focal Press, 1984.
- Everett, Dino and Jennifer Peterson. “When Film Went to College: A Brief History of the USC Hugh M. Hefner Moving Image Archive.” *The Moving Image* 13, no. 1 (Spring 2013): 33 – 65.
- Ferrara, Serena. *Steadicam Techniques and Aesthetics*. Boston: Focal Press, 2001.
- Field, Allyson Nadia. “Rebellious Unlearning: UCLA Project One Films, 1967 – 1978.” In *L.A.Rebellion: Creating a New Black Cinema*, edited by Allyson Nadia Field, Jan-Christopher Horak, and Jacqueline Najuma Stewart, 83 – 118. Oakland, CA, University of California Press, 2015.
- Forsythe, William. “Improvisation Technologies, A Tool for the Analytical Dance Eye.” Vimeo video, posted by “University of New South Wales, Sydney iCinema Centre for Interactive Cinema.” <https://vimeo.com/2904371#t=106s>
- Forsythe, William and Maria Paulazzi, and Norah Zuniga Shaw. “Synchronous Objects: One Flat Thing.” Advanced Computing Center for the Arts and Design, Department of Dance, Ohio State University, 2009. <http://synchronousobjects.osu.edu>
- Foster, Harold M. *The New Literacy: The Language of Film and Television*. Urbana, IL: National Council of Teachers of English, 1979.
- Freefly Systems. “MōVI - Behind-the-Scenes (BTS).” YouTube video, 2:00, August 14, 2013. https://www.youtube.com/watch?v=54LZTdI94_M

- Freefly Systems. "Freefly MIMIC with Chase Jarvis." YouTube video, 2:08, June 29, 2015. <https://www.youtube.com/watch?v=jwlfZm4kKCc>
- Frey, Carl Benedikt and Michael A. Osborne. "The Future of Employment: How Susceptible Are Jobs to Computerisation?" *Technological Forecasting and Social Change* 114 (January 2017): 272 – 273. <https://doi.org/10.1016/j.techfore.2016.08.019>
- Gaines, Jane. "In Focus: Film History and the Two Presents of Feminist Film Theory." *Cinema Journal* 44, no. 1 (Fall 2004): 113 – 119.
- Gaines, Jane. "What Happened to the Philosophy of Film History?" *Film History* 25, no. 1-2 (2013): 70 – 80.
- Gerima, Haile. Oral history interview by Jacqueline Stewart and Zeinabu Davis, transcribed by Robyn Charles and Michael Kmet, September 13, 2010. L.A. Rebellion Oral History Project (LAROH), UCLA Film & Television Archive.
- Giardinia, Carolyn. "Steadicam Inventor Garrett Brown to Get SOC Lifetime Achievement Honor." *Hollywood Reporter*, October 31, 2016. <http://www.hollywoodreporter.com/behind-screen/steadicam-inventor-garrett-brown-get-soc-lifetime-achievement-honor-942549>
- Gombrich, E.H. *Art and Illusion: A Study in the Psychology of Pictorial Representation*. Princeton, NJ: Princeton University Press, 1961.
- Gomery, Douglas. *The Hollywood Studio System: A History*. London: Macmillan, 1986.
- Gordan, Jan and Cora. *Star-Dust in Hollywood*. London: George G. Harrap and Co, 1930.
- Gorfinkel, Elena. "Introduction: Work." *Framework* 53, no. 1 (2012): 43 – 46.
- Gunning, Tom. "The Whole World Within Reach." In *Virtual Voyages: Cinema and Travel*, edited by Jeffrey Ruoff. 25 – 41. Durham, NC: Duke UP, 2006.
- Gray, Jonathan and Amanda D. Lotz. "A Robust and Dynamic Field." In *Media, Culture & Society* 35, no. 8 (November 2013) 35.8: 1019-1022. <https://doi.org/10.1177/016344371350870>
- Griprigs (@griprigs), Instagram Account. <https://www.instagram.com/griprigs/?hl=en>
- Grisoli, Raul. "Lo Steadycam impriona corpo e mente del regista." *Cinema Nuovo*. (May/June 1987): 15-16.
- Hall, Hal., ed. *Cinematographic Annual*. vol. I. Los Angeles: American Society of Cinematographers, 1930.

- Hall, Hal., ed. *Cinematographic Annual*, vol. II. Los Angeles: American Society of Cinematographers, 1931.
- Hansen, Miriam. "'With Skin and Hair': Kracauer's Theory of Film, Marseille 1940." *Critical Inquiry* 19, no. 3 (Spring 1993): 437 – 469.
- Hanson, Helen. *Hollywood Soundscapes: Film Sound Style, Craft and Production in the Classical Era*. London, BFI/Palgrave, 2017.
- Harrison, Brett. "Steadicam Talks with MoVI: Garrett Brown with Tabb Firchau." The Steadicam Forum: General Discussion/
<http://www.steadicamforum.com/index.php?showtopic=20334>
- Harlan, Jan. "Jan Harland to Stanley Kubrick." displayed in *Stanley Kubrick* special exhibition, Los Angeles County Museum of Art, November 1, 2012 – June 30, 2013.
- Hartsough, Denise. "Studio Labor Relations in 1939: Historical and Sociological Analysis." PhD diss., University of Wisconsin-Madison, 1987.
- Hastie, Amelie. *Cupboards of Curiosity: Women, Recollection, and Film History*. Durham: Duke University Press, 2007.
- Hatch, Kristen. "Cutting Women: Margaret Booth and Hollywood's Pioneering Female Film Editors." In *Women Film Pioneers Project*. Jane Gaines, Radha Vatsal, and Monica Dall'Asta, eds. Center for Digital Research and Scholarship. New York, NY: Columbia University Libraries, 2013. Web. September 27, 2013.
<https://wfpp.cdrs.columbia.edu/essay/cutting-women/>
- Havens, Timothy and Amanda D. Lotz. *Understanding Media Industries*. Oxford: Oxford University Press, 2012.
- Hershfield, Joanne and Anna McCarthy. "Media Practice: Notes Toward a Critical Production Studies." *Cinema Journal* 26, no. 3 (Spring 1997): 108 – 112. <https://doi.org/10.2307/1225679>
- Higham, Charles. *Hollywood Cameramen: Sources of Light*. Bloomington: Indiana University Press, 1970.
- Hollyn, Norman. "President's Corner." University Film and Video Association. December 27, 2013; January 31, 2014; March 1, 2013.
<http://www.ufva.org/default.asp?page=PresidentsCorner>
- Holway, Jerry and Laurie Hayball. *The Steadicam Operator's Handbook*. 2nd ed. New York: Focal Press, 2013.
- Honen, Matthew. "Lights, Bots, Action. Former Car-Assembly Droids Get Reboot." *Wired*,

- April 19, 2010. https://www.wired.com/2010/04/st_robotfilmmaking/
- Horne, Gerald. *Class Struggle in Hollywood, 1930 – 1950: Moguls, Mobsters, Stars, Reds, & Trade Unionists*. Austin: University of Texas Press, 2001.
- Huie, William O. “Style and Technology in Trouble in Paradise: Evidence of a Technicians' Lobby?” *Journal of Film and Video* 39, no. 2 (Spring 1987): 37 – 51.
- “Immigrants from the Future.” *The Economist*, March 29, 2014.
<https://www.economist.com/news/special-report/21599522-robots-offer-unique-insight-what-people-want-technology-makes-their>
- Jacobs, Bob. “Yes, Virginia, There is an Oshkosh.” *The Cinemeditor* 31, no. 2 – 3 (Summer/Fall 1981): 18, 26 – 27.
- James, David E. *The Most Typical Avant-Garde: History and Geography of Minor Cinemas in Los Angeles*. Berkeley: University of California Press, 2005.
- Jewell, Richard and Vernon Harbin, *The RKO Story*. New York: Crown Publishers, 1982.
- Jones, Pamela. Oral history interview by Jacqueline Stewart, transcribed by Michael Kmet, May 29, 2011. L.A. Rebellion Oral History Project (LAROH), UCLA Film & Television Archive.
- Jurisdictional Disputes in the Motion-Picture Industry: Hearings Before a Special Subcommittee of the Committee on Education and Labor*, 80th Cong. (September 2 – 3, 1947).
- Keating, Patrick. “The Rhetoric of Light: Discourse and Practice in Hollywood Cinematography, 1931 – 1940.” PhD diss., University of Wisconsin-Madison, 2004.
- Keating, Patrick. “The Silent Screen, 1894 – 1927” In *Cinematography*, edited by Patrick Keating, 11-33. New Brunswick, NJ: Rutgers University Press, 2014.
- Keating, Patrick. *Hollywood Lighting from the Silent Era to Film Noir*. New York: Columbia University Press, 2010.
- Kirkland, Mark. “The Fotokem Cinema Camera Collection.” *Fotokem Newsletter* 34. ND: 8-10.
https://www.fotokem.com/projects/news/pdf/FotoKem_Cinema_Camera_Collection.pdf
- Kirkus, Billy. “Halloween Panaglide Test, Pre-Production before Principal Photography Began.” Vimeo Video, 4:26. 16mm footage filmed in 1978. Posted July 27, 2013.
<https://vimeo.com/71166481>.
- Kleist, Heinrich von and Christian-Albrecht Gollub. “On the Marionette Theatre.” In *German Romantic Criticism*, edited by A. Leslie Wilson, 241 – 44. New York: Continuum, 1982.

- Koszarski, Richard. "The Men with the Movie Cameras: 60 Filmographies." *Film Comment* 8, no. 2 (Summer 1972): 27 – 57.
- Koszarski, Richard. *An Evening's Entertainment: The Age of the Silent Feature Picture, 1915 - 1928*. History of American Cinema, edited by Charles Harpole, vol. 3. Berkeley: University of California Press, 1994.
- Koszarski, Richard. *Hollywood on the Hudson: Film and Television in New York from Griffith to Sarnoff*. New Brunswick, N.J: Rutgers University Press, 2008.
- Kracauer, Siegfried. *Theory of Film: The Redemption of Physical Reality*. Princeton, N.J: Princeton University Press, 1997.
- Kuhn, Annette and Thomas Schatz. "The Studios." In *The Cinema Book*, 2nd ed, edited by Pam Cook and Mieke Bernick, 11 – 33. London: BFI, 1999.
- Landau, Erwin. "Historic Pictures II . . ." The Steadicam Forum: Pictures and History Archives, posted February 10, 2004.
<http://www.steadicamforum.com/index.php?showtopic=219&hl=panaglide>
- Lastra, James. "Standards and Practices: Aesthetic Norm and Technological Innovation in the American Cinema." In *The Studio System*, edited by Janet Staiger, 200 - 225. New Brunswick, NJ: Rutgers, 1995.
- Lastra, James. *Sound Technology and the American Cinema: Perception, Representation, Modernity*. New York: Columbia University Press, 2000.
- Lefebvre, Henri. *Dialectical Materialism*. London: Cape, 1968.
- Lefebvre, Henri. *The Sociology of Marx*. New York: Vintage Books; 1968.
- Lefebvre, Henri. *The Production of Space*. Translated by Donald Nicholson-Smith. Malden, MA: Blackwell, 1991.
- Lewis, Howard T. "Organization." *The Classical Hollywood Reader*, edited by Steve Neale, 147 – 166 . New York: Routledge, 2012.
- "lisagav1." "Steadicam Op vs Director." YouTube video, 1:57, posted August 16, 2010. <https://www.youtube.com/watch?v=7wVEPVz2SSs>.
- Lopez, Jessica. "Liz Ziegler's Vest." The Steadicam Forum. Posted January 26, 2015.
<http://www.steadicamforum.com/index.php?showtopic=21825>
- Lotz, Amanda. "Assembling a Toolkit." *Media Industries* 1, no. 3 (2015): 18 – 21.
<http://dx.doi.org/10.3998/mij.15031809.0001.304>

- MacDougal, David. *The Corporeal Image: Film, Ethnography, and the Senses*. Princeton: Princeton UP, 2006.
- MacWilliams, Paul M. "The Motion Picture Studio Safety Association." *The Montana Standard*, April 13, 1941. 30
- Maher, Karen Ward. "'Doing a Man's Work': The Rise of The Studio System and The Remasculinization of Filmmaking." In *The Classical Hollywood Reader*, edited by Steve Neale, 79 – 93. New York: Routledge, 2012.
- Malkiewicz, J. Kris. *Cinematography: A Guide for Film Makers and Film Teachers*. New York: Van Nostrand, 1973.
- Maltby, Richard. "The Production Code and the Hays Office." In *Grand Design: Hollywood at a Modern Business Enterprise, 1930 – 1939*, edited by Tino Balio, 37 – 72. Los Angeles: University of California Press, 1995.
- Maltin, Leonard. *The Art of the Cinematographer: A Survey and Interviews with Five Masters*. New York: Dover, 1978.
- Marx, Karl and Frederick Engels. *Capital: A Critical Analysis of Capitalist Production*. Moscow: Foreign Languages Pub. House, 1957.
- Marx, Karl. *Economic and Philosophic Manuscripts of 1844*. New York: International Publishers; 1964.
- Marx, Karl. *The German Ideology*. New York: International Publishers, 1970.
- Marzola, Luci. "A Society Apart: The Early Years of the Society of Motion Picture Engineers." *Film History* 28. no.4 (October 2016): 1 – 28.
<http://dx.doi.org/10.2979/filmhistory.28.4.01>
- Marzola, Luci. "Engineering Hollywood: Technology, Technicians, and the Science of Building the Studio System, 1915-1930." PhD diss., University of Southern California, 2016.
- Mascelli, Joseph V. *The Five C's of Cinematography: Motion Picture Filming Techniques Simplified*. Hollywood: Cine/Grafic, 1965.
- Mauss, Marcel. "Techniques of the Body." In *Incorporations*, edited by Jonathan Crary and Sanford Kwinter, 70 – 88. New York: Zone Books, 1992.
- Mayer, Vicki and Miranda Banks, John T. Caldwell, eds., "Introduction." In *Production Studies: Cultural Studies of the Media Industries*, 1 – 12. New York, NY: Routledge, 2009.
- McConkey, Larry. "The Long Steadicam Shot." In *The Steadicam Operator's Handbook*. 2nd

- ed., edited by Jerry Holway and Laurie Hayball, 430 – 437. New York: Focal Press, 2013.
- McKenna, Denise. “Picturing Uplift: Cartoon Commentary in Early American Film Journals.” *Early Popular Visual Culture* 12, no. 3 (2014): 357—377.
<https://doi.org/10.1080/17460654.2014.924422>.
- McMurry, Glenn D. “The University of Southern California.” *The Autobiography of an Unimportant Man*. Accessed July 10, 2018.
<http://www.gregssandbox.com/mcmurry/sec10/10-usc.htm>
- Menand, Louis. Foreword to *To The Finland Station*, by Edmund Wilson, Vii – xviii. New York: Phoenix, 2004.
- Merleau-Ponty, Maurice. “Cézanne’s Doubt.” In *Sense and Non-Sense*, translated by Hubert L. Dreyfus and Patricia Allen Dreyfus. 9 – 25. Evanston, IL: Northwestern University Press, 1964.
- Merleau-Ponty, Maurice. *Primacy of Perception: And Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, Translated by James M. Edie. Northwestern UP, 1964.
- Merleau-Ponty, Maurice. “Eye and Mind.” In *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, edited by Galen A. Johnson and Michael B. Smith, 121 – 150. Evanston, Ill: Northwestern University Press, 1993.
- Merleau-Ponty, Maurice. *Phenomenology of Perception*, translated Donald A. Landes. New York: Routledge, 2012.
- Monticone, Paul. “Classical Hollywood, 1928 – 1946: Editing.” In *Editing and Special/Visual Effects*, edited by Charlie Keil and Kristen Whissel. 51 – 67. New Brunswick, NJ: Rutgers UP, 2016.
- Moran, Dermot. *Introduction to Phenomenology*. New York: Routledge, 2000.
- Morgan, Daniel. “Max Ophuls and the Limits of Virtuosity: On the Aesthetics and Ethics of Camera Movements.” *Critical Inquiry* 38, no. 1 (2011): 127 – 163.
<https://doi.org/10.1086/661646>
- Morgan, Daniel. “Where Are We? Camera Movements and the Problem of Point of View.” *New Review of Film and Television Studies*. 14, no. 2 (2016): 222 – 248.
<https://doi.org/10.1080/17400309.2015.1125702>
- Morris, William. “Art, Labor, and Socialism.” *Marxism and Art*, edited by Maynard Solomon, 83-90. New York: Vintage Books, 1974.

- Murch, Walter. "Comments: Sonic Realism." Transom.Org. updated April 1, 2005. <https://transom.org/2005/walter-murch/>.
- Murch, Walter. "Dense Clarity – Clear Density." *The Transom Review* 5, no. 1 (April 2005): 7 – 23.
- Muse 10 Photography. "Film and Video Grip – Getting a Handle on Grip." YouTube Video, 3:10, posted January 10, 2011. <https://www.youtube.com/watch?v=GDuu68dL8u8>
- Musser, Charles. "Pre-classical American Cinema: Its Changing Modes of Film Production." In *Silent Film*, edited by Richard Abel, 85 – 108. New Brunswick, NJ: Rutgers UP, 1996.
- Nicholas, Bernard. Oral history interview by Allyson Field, Christopher Jan-Horak, and Jacqueline Stewart, transcribed by Diamond L. McNeil and Yasmin Damshenas, June 17, 2010, L.A. Rebellion Oral History Project (LAROH), UCLA Film & Television Archive.
- Nielsen, Michael and Gene Mailes. *Hollywood's Other Blacklist: Union Struggles in the Studio System*. London: BFI, 1995.
- Nielsen, Michael. "Motion Picture Craft Workers and Craft Unions in Hollywood: The Studio Era, 1912-1948." PhD diss., University of Illinois Urbana-Champaign, 1985.
- Oral History with Fredrick Y. Smith*, interviewed by Douglas Bell, Academy Oral History Program, AMPAS (Academy Foundation, 1994), Margaret Herrick Library, Beverly Hills.
- Oral History with Gene Fowler, Jr. and Marjorie Fowler*, interviewed by Douglas Bell, Academy Oral History Program, AMPAS (Academy Foundation, 1993), Margaret Herrick Library, Beverly Hills.
- Oral History with Rudi Fehr*, interviewed by Douglas Bell, Academy Oral History Program, AMPAS (Academy Foundation, 1998), Margaret Herrick Library, Beverly Hills.
- O'Reilly. "Tobias Kinnebrew: 'Robotics & The Natural Language of Creatives' - Solid 2014 Keynote." YouTube video, 3:00, posted May 22, 2014. <https://www.youtube.com/watch?v=feXWLuyns6I>
- Orr, Gregory. *Movie Magic*. Season 2, episode 7, "Motion Control: Unforgettable Shots." Aired 1994 on Discovery Channel.
- Pearlman, Karen. *Cutting Rhythms: Shaping the Film Edit*. New York: Focus Press, 2012.
- Peterson, Jennifer. "Atop of the World in Motion." In *Education in the School of Dreams: Travelogues and Early Non-Fiction Films*. 137 – 174. Durham: NC, Duke UP, 2013.
- Pintar, Laurie Caroline. "Herbert K. Sorrell as the Grade-B Hero: Militancy and Masculinity in

- the Studios.” *Labor History* 37, no. 3 (1996): 392 – 416.
- Pirandello, Luigi. *Shoot!*, translated by C.K. Scott Moncrieff. Chicago, IL: University of Chicago Press, 2005.
- Polan, Dana. “Postwar Hollywood, 1947 – 1967: Editing.” In *Editing and Special/Visual Effects*, edited by Charlie Keil and Kristen Whissel, 78 – 90. New Brunswick, NJ: Rutgers UP, 2016.
- Polan, Dana. *Scenes of Instruction: The Beginnings of the U.S. Study of Film*. Berkeley: University of California Press, 2007.
- Powdermaker, Hortense. *Hollywood, The Dream Factory*. New York: Little, Brown and Co, 1950.
- “Combined Convention Proceedings of IATSE of U.S. and Canada (reel 230).” In *American Labor Unions’ Constitutions, Proceedings, Officers’ Reports and Supplementary Documents. Part II*. Microfilming Corporation of America, and University Microfilms International (1970).
- Rhodes, John David. “Belabored: Style as Work.” *Framework: The Journal of Cinema and Media* 53, no. 1 (2012): 47 – 64. <https://doi.org/10.1353/frm.2012.0005>.
- Rancière, Jacques. *The Names of History: On the Poetics of Knowledge*. Minneapolis, MN: University of Minnesota Press, 1994.
- Rosenberg, Harold. “The American Action Painters.” *London Magazine* 1, no. 4 (1961): 45 – 56.
- Ross, Murray. *Stars and Strikes: Unionization of Hollywood*. New York: Columbia, 1941.
- Ruskin, John. *Stones of Venice*. vol. 2, London: Smith Elder, & Co, 1867. *Internet Archive*. <https://archive.org/details/stonesvenicevol00ruskgoog>
- Salt, Barry. *Film Style and Technology: History and Analysis*, 2nd ed. London: Starword, 1992.
- Salt, Barry. “A Very Brief History of Cinematography.” *Sight & Sound* 19, no. 4 (April 2009): 24, 26.
- Sandberg, Mark B. “Location, ‘Location.’” In *Silent Cinema and the Politics of Space*, edited by Jennifer M. Bean, 23 – 46. Bloomington, IN: Indiana University Press, 2014.
- Schatz, Thomas. *The Genius of the System: Hollywood Filmmaking in the Studio Era*. New York: Pantheon Books, 1988.
- Schauer, Bradley. “The Auteur Renaissance, 1968 – 1980.” In *Cinematography*. ed. Patrick

- Keating. 84-105. New Brunswick, NJ: Rutgers University Press, 2014.
- Sennett, Richard. *The Craftsman*. New Haven: Yale University Press, 2008.
- Shorris, Sylvia and Marion Abbott Bundy. *Talking Pictures: With the People Who Made Them*. New York: New Press, 1994.
- Smith, Albert E. and Phil A. Koury. *Two Reels and a Crank*. Garden City, NY: Doubleday, 1952.
- Smith, Bruce R. *The Key of Green: Passion and Perception in Renaissance Culture*. Chicago: University of Chicago Press, 2009.
- Smith, Bruce R. "E/loco/com/motion." In *Script to Stage in Early Modern England*, edited by Peter Holland and Stephen Orgel, 131 – 150. Basingstoke: Palgrave Macmillan, 2004.
- Smith, Fredrick Y., ed. *American Cinema Editors: First Decade Anniversary Book*. Hollywood, CA: American Cinema Editors Inc., 1961.
- Smith, Fredrick Y., ed. *American Cinema Editors: Second Decade Anniversary Book*. Los Angeles, CA: American Cinema Editors Inc., 1971.
- Smoodin, Eric. *Regarding Frank Capra: Audience, Celebrity, and American Film Studies, 1930-1960*. Durham, NC: Duke UP, 2004.
- Snyder, Terry. "Re: Gunsmoke dailies (or any dailies)." Avid Community Web Forum, posted August 18, 2011. <http://community.avid.com/forums/p/99761/574649.aspx>
- Sobchack, Vivian. "Toward Inhabited Space: The Semiotic Structure of Camera Movement in the Cinema." *Semiotica* 41, no. 1-4 (1982): 317 – 35.
<https://doi.org/10.1515/semi.1982.41.1-4.317>
- Sobchack, Vivian. *The Address of the Eye: Phenomenology of Film Experience*. Princeton: Princeton UP, 1992.
- Staiger, Janet, ed. *The Studio System*. New Brunswick, N.J: Rutgers University Press, 1995.
- Steadicam Guild. "SG Life Achievement Award: Garrett Brown." YouTube video, 4:08, premiered at the Steadicam Guild Life Achievement Awards on April 8, 2013.
https://www.youtube.com/watch?v=v8_jgfiZfg&list=PL8QcVDaAA3Mk_5cBZKrv95e_yl2mv2rU&index=2.
- Steedman, Carolyn. *Dust: The Archive and Cultural History* New Brunswick, NJ: Rutgers UP, 2002.
- Steen, Mike. "Film Editor: Fred Y. Smith," In *Hollywood Speaks an Oral History*. 302 – 313.

- New York: G.P. Putnam's Songs, 1974.
- Sullivan, Dan. "Going Steadi: 40 Years of Steadicam." Film Society of Lincoln Center, December 16 – January 3, 2017. <http://www.filmlinc.org/series/going-steady-40-years-of-steadicam/>.
- Thelin, John R. *A History of American Higher Education*. Baltimore: John Hopkins UP, 2004.
- Tokumitsu, Miya. "In the Name of Love." *Jacobin*, January 12, 2014. <https://www.jacobinmag.com/2014/01/in-the-name-of-love>.
- Turnock, Julie. *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics*. New York: Columbia University Press, 2015.
- Udel, James C. *The Film Crew of Hollywood: Profiles of Grips, Cinematographers, Designers, a Gaffer, a Stuntman, and a Makeup Artist*. Jefferson, NC: McFarland & Co, 2014.
- Vance Jr., Dale. "Ted Churchill Steadicam Demo." YouTube video, 53:50. Filmed at Victor Duncan Camera Rental Chicago, IL (c. 1980). posted by "dr1vancejr," June 10, 2015. <https://www.youtube.com/watch?v=TFDFcFPC28I>
- Vertov, Dziga. *Kino-Eye: The Writings of Dziga Vertov*. Berkeley, CA: University of California Press, 1984,
- Vico, Giambattista. "The New Science." In *Critical Theory Since Plato*, edited by Hazard Adams and Leroy Searle, 314 – 321. Stamford, CT: Thomson/Wadsworth, 2005.
- Wasson, Haidee. "Researching Film Formats." In *The Arclight Guidebook to Media History and the Digital Humanities*, edited by Charles R. Acland and Eric Hoyt, , 31 – 44. Falmer: REFRAME/Project Arclight, 2016. <http://projectarclight.org/book>.
- White, Hayden. *Tropics of Discourse*. Baltimore, MD: Johns Hopkins UP, 1978.
- Wilkman, John. "Brother Can You Spare a Dream?: 1929-1941." *Moguls and Movie Stars: A History of Hollywood*. Aired 2010. Turner Classic Movies. DVD, 2011.
- Williams, Don G. and Luella V. Snyder, *Motion Picture Production Facilities of Selected Colleges and Universities*. 15. OE-51005. University Film Foundation/U.S. Department of Education, Bulletin, 1963.
- Williams, Raymond. "Culture is Ordinary." In *Resources of Hope: Culture, Democracy, Socialism*, 3 – 14. New York: Verso, 1989.

Wollen, Peter. "Cinema/Americanism/the Robot." In *Modernity and Mass Culture*, edited by James Naremore and Patrick Brantlinger, 42-69. Bloomington, IN: Indiana UP, 1991.

Wright, Benjamin. "The Auteur Renaissance, 1968-1980: Editing." In *Editing and Special/Visual Effects*, edited by Charlie Keil and Kristen Whissel. 103 – 115. New Brunswick, NJ: Rutgers UP, 2016.

Zyrd, Michael. "Experimental Film and the Development of Film Study in America." In *Inventing Film Studies*, edited by Lee Grieveson and Haidee Wasson. 182 – 216. Durham: Duke UP, 2008.