Jon Lewis

American Film

A HISTORY

SECOND EDITION

AMERICAN FILM: A HISTORY

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Professor Lewis has appeared in two theatrically released documentaries on film censorship: *Inside Deep Throat* (Fenton Bailey and Randy Barbato, 2005) and *This Film Is Not Yet Rated* (Kirby Dick, 2006). Between 2002 and 2007, he was the editor of *Cinema Journal* and held a seat on the executive council of the Society for Cinema and Media Studies.

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Preface

Film history is a retrospective practice, and the objects of inquiry—films from both the distant and recent past—offer boundless opportunity for reflection. However, movies do not exist in an artistic void. They are objects of our culture's collective history and aspects of public discourse. We can study the stories films tell, the themes these stories engage and elicit, and the modes and techniques used to communicate these stories and themes. But because movies are by design public texts—produced, distributed, and exhibited in anticipation of an audience—any film history would be incomplete without an accounting of the medium as a spectacle crafted for public consumption and interpretation. Movies are objects of art, but they are objects that operate within the popular culture as well.

Films exist in and as history. With that in mind, the history of American cinema elaborated in this book encompasses the textual (the films themselves), the industrial (the myriad workings of Hollywood and the independent film industry), and the sociopolitical (how films intersect with, influence, and interpret the larger culture). I am keenly interested in certain groundbreaking films and specific moments of style and form within those films, but I also consider industrial intention, scientific and technological innovation, and the sociological, political, and psychological aspects of audience reception. As a historian, I work within, between, and among a network of approaches and methodologies.

The companies that finance and distribute movies are in the business of making money. This simple fact of Hollywood life at once complicates and enriches the task of a film historian. American movies can be entertaining, exhilarating, edifying, sentimental, sophisticated, gorgeous, grotesque—but they are all, at bottom, an artistic means to an economic end. I insist throughout this book that we cannot ignore that fact.

American Film: A History offers a perspective that allows the reader to take a close look at not only the important films and filmmakers of a given time (the focus of most film histories and an important part of this one) but also the complex and fascinating business that is conducted behind the scenes by producers, financiers, lawyers, technicians, politicians, and censors—a cast of characters as colorful and varied as one might find in any commercial movie.

A History in Ten Chapters

Each of the ten chapters that constitute this second edition of *American Film: A History* begins with a general cultural and historical overview of the particular era under review, an examination of the American zeitgeist—the prevailing spirit or mood—of the relevant place and time. Films participate in and comment on current events, fads, and fashions—life as it was and is lived and understood by the mass audience and by factions within that audience: men and women, young and old, separately and together. Movies are artifacts; they are revealing and hugely impactful audiovisual works of American cultural history.

After introducing a cultural, political, and historical framework for the era in question, each chapter progresses to a history of the movie business. This organizing strategy—this historical method—accommodates the notion that, from its very beginnings, American filmmaking has been a collaborative undertaking that requires the participation and organization of dozens

of talented people to produce a single film. With so many people involved, so much money at risk, and so many ideas and expectations influencing the production of every movie, we must examine both the work on-screen and the process that made that work possible. So we focus on the unique genius of the many artists and craftspeople who contribute to the production of a film, as well as the businessmen who finance, plan, and supervise that work. Of keen interest here, to borrow a phrase coined by the film historian Thomas Schatz, is the "genius of the system"—the fact that American movies emerge from a peculiar mix of corporate machination and artistic inspiration that is built into the Hollywood business plan. The goal throughout is to accommodate context and content, because, with regard to American film, the two are intrinsically related.

Next, each chapter segues into close readings of exemplary films of the era—discussions of their structure, style, and form—organized as the studios themselves organize them, by genre (for example: comedies, westerns, melodramas). I then closely examine the work of important and influential filmmakers, directors dubbed here and in other film histories as auteurs, or film authors.

Close reading is a cornerstone of this film history. To that end, the chapters include a new feature titled "A Closer Look," in which a key shot, sequence, or scene in a significant film is discussed in detail. The eighteen Closer Look features distributed throughout the book range from discussions of basic formal elements (lighting, mise-en-scène, camera placement) to behind-the-scenes crafts work (costuming, make-up, and hair); from tasks performed during production (the construction, dressing, and production-stage use of sets and settings) to postproduction work accomplished once the actors have moved on and the technicians take over (crosscutting, editing of sound and image). Two of the Closer Looks deconstruct observable story structure: one focuses on the "last-minute rescue" that typified the silent-film melodrama, and the other examines the "anatomy of a gag" by dissecting how a single comedy stunt is structured and executed. A later Closer Look exemplifies an industry adage—"Talk is cheap, action is expensive"—by exploring the differences between modern studio and indie production. Another, in the first chapter, highlights the role of camera placement in the aesthetic of the early-cinema one-shot actualities (minidocumentaries) that introduced moving pictures to American audiences at the turn of the twentieth century.

Taken together, these features offer a manageable screening list—fifteen full-length American films (plus a handful of early and silent era shorts) well worth seeing and studying. Each exemplifies a certain style, form, structure, or task that warrants a careful reading. Listed chronologically and by chapter, the Closer Looks include:

Chapter 1: Edison and the Lumière Brothers: The Aesthetics of Early Cinema
An Unseen Enemy: Crosscutting and the Last-Minute Rescue
Chapter 2: *Sunrise*: The Art of Antimontage
Cops: Anatomy of a Gag
Chapter 3: *It Happened One Night*: Sets and Settings
Chapter 4: *Rebecca*: Sound Design
Double Indemnity: Noir Lighting
Chapter 5: *The Big Knife*: Offscreen Space
The Big Heat: Props and Mise-en-Scène
Chapter 6: *Rebel without a Cause*: Camera Placement
Psycho: Subjective Camera
Chapter 7: *The Godfather*: Editing on Sound and Image
American Graffiti: Cine-Realism
Halloween: Subjective (First-Person) Camera
Chapter 8: *She's Gotta Have It*: Direct Address
Reservoir Dogs: Talk Is Cheap, Action Is Expensive
Chapter 9: *Far from Heaven*: Color
Marie Antoinette: Costumes, Makeup, and Hair

Case in Point: *Casablanca*

To demonstrate the historical method evinced in the chapters that follow, let's consider the following sample reading of the American film classic *Casablanca*, directed by Michael Curtiz for Warner Bros. in 1942. Although the film can be appreciated independently of its place and time, a full understanding of its narrative structure, its style and content, and its significance both when it was first screened and as an artifact of 1942 American popular culture requires an understanding and an accounting of the American zeitgeist in the first months after the attack on Pearl Harbor—the fateful events of December 7, 1941, that compelled the United States to enter World War II. It also requires insight into the role played by Hollywood at that time, as it made the transition from peacetime to war, from a singular commercial imperative to a more complicated

role in concert with the U.S. Office of War Information that involved producing entertaining films to help rally the populace in support of the war effort.

The hero in *Casablanca* is the club owner Rick (Humphrey Bogart), who at the start of the story is an isolationist; he's given up on politics and, for complicated and mostly personal reasons, he has abandoned hope for the future. He is an American who, at the start of the film, is for mysterious reasons living in North Africa, hiding from his past. But once the shady underworld character Ugarte (Peter Lorre) is killed after concealing stolen letters of transit (permitting anyone who holds them to travel to the United States) in Rick's club, Rick begins to discover that he can't hide from the rest of the world forever; indeed, by the film's climax, the war rather compels him—much as the attack on Pearl Harbor had compelled the United States—into action.

Standing with Ilsa (Ingrid Bergman), the woman he loves but cannot have, on an airstrip at the end of the film, Rick remarks that "it doesn't take much to see that the problems of three little people don't amount to a hill of beans in this crazy world." He tells Ilsa that she and her husband Victor (Paul Henreid) must use the letters of transit to continue their work (organizing the fight against the Nazis) in the United States. On a textual level, the remark and the gesture of handing over the letters of transit signify Rick's decision to forego romance and join the war effort. Given the larger historical imperative of the film, such a narrative closure makes clear that, after the attack on Pearl Harbor, all young men will have to do some version of the same thing. They will have to forestall or sacrifice short-term happiness (in Rick's case, a second chance with the woman he loves) for the future of their country and the free world.

Observations about the film's visual style or the performance of its cast must be contextualized as well with regard to the studio system that prevailed at the time. The neo-noir cinematography, for example, is credited to Arthur Edeson, who in 1942 was in the sixth year of an exclusive contract with Warner Bros. The lighting in *Casablanca* recalls Edeson's work in the neo-noir detective yarn *The Maltese Falcon* (John Huston), which he shot for the studio the previous year, and the neo-noir crime picture *They Drive by Night* (Raoul Walsh, 1940). Both Warner Bros. films feature the low-key lighting style that would later come to characterize film noir. Studio executives at Warner Bros. assigned Edeson to *Casablanca* because they wanted a similar look for the film.

The performances of Bogart (working with Edeson for the third time in two years) and Bergman, as well as the supporting performances by Lorre, Claude Rains, and Sydney Greenstreet, prompt taking a longer look at the studio that produced and distributed the film. After all, Curtiz, Edeson, Bogart, Rains, Lorre, and Greenstreet all worked for the studio under exclusive contract. As striking and appealing as the film may have been, in 1942 *Casablanca* was first and foremost a Warner Bros. film. It embraced and exhibited the studio's "house style" (a gritty realist look, thanks again to Edeson) and exploited a contracted talent pool ranging from the film's director and cinematographer to its movie stars, supporting actors, and bit players, as well as its craftspeople and laborers, including costumers, makeup artists, hair stylists, carpenters, and electricians.

As with most studio films of the time, *Casablanca* was conceived, developed, produced, and then advertised as a genre picture. But unusual for its time and place, *Casablanca* was conceived and later advertised as a genre hybrid. A close look at the trailer, for example, reveals that the studio envisioned and advertised the film as a political thriller *and* a romantic melodrama. A discussion of how the film evinced aspects of both genres at the same time foregrounds the film's unique appeal.

Finally, many moments in *Casablanca* offer an opportunity for a Closer Look feature. The film's memorable climax provides a useful example here, particularly Edeson's cinematography and how it highlights Rick's and Louis Renault's departure from the relative safety and neutrality of Casablanca. "The beginning of [their] beautiful friendship"—a friendship between an American expatriate and a French policeman that was meant to give filmgoers hope that the war could be won, so long as everyone did what was required of them—is not set against the dawn of a new day or the sunset of a day about to end, but instead amidst Edeson's back-lit fog, evocatively steeped in uncertainty. In 1942, the future for Rick and Louis (who agree to quit their jobs to join the fight), as well as the larger outcome of the war, was hardly certain.

We should also consider the film's sound mixing and sound editing, supervised by Francis Scheid. After all, by 1942 films had become an audiovisual medium. Scheid's work, too, comes into play in the climactic scene, especially when Max Steiner's lush arrangement of Herman Hupfield's jazz standard "As Time Goes By"—Rick and Ilsa's song from better days—enters the

sound mix at the very moment Rick sorts out precisely who will get on the plane to America and who will remain in North Africa to fight.

Writing, Teaching, and Studying Film History

The first film course offered at an American university dates to 1915, the year D. W. Griffith's blockbuster *Birth of a Nation* was released nationwide. There was no available textbook, no scholarly or disciplinary tradition from which to draw. Offered through Columbia University extended education, this first class focused on the "photoplay" (an early word for film) as a literary genre. A team composed of the university's literature faculty and local theater and film professionals taught the course, which was by design something of a hybrid: both an academic course (in literary studies) and a trade-school skills class (like auto repair).

A decade later a second film class was developed at Harvard University. This class dispensed with the notion that film might be an art form (that the photoplay was somehow like literature) and focused instead on the *business* of making movies. It was taught by a who's who among the executive ranks in silent-era Hollywood, including the studio heads Adolph Zukor, Marcus Loew, William Fox, Jack Warner, and Louis B. Mayer and the producer-director Cecil B. DeMille, all no doubt excited by the notion that the business they conducted out West had become interesting to scholars back East at Harvard.

Consistent with the Harvard class, several of the first published American film histories evinced a fascination not with movies as modern works of art, but instead with the intricacies of the newly established Hollywood film colony. The writers of these histories envisioned Hollywood as a unique American subculture, an economic and cultural phenomenon.

Others among this first wave of film historians appreciated the fact that technological advances often compelled industry development. Their study of technology focused on early and silent cinema with regard to the lauded Age of Invention at the turn of the twentieth (and so-called American) century, discussing the advent of motion pictures as a companion to and consequence of other new and exciting inventions that had ushered in modernity: the telephone, the phonograph, and the automobile.

Another group of early film histories were social-science inflected, focusing on the psychological impact of film and the medium as a whole, and anticipating the field of communications studies. These histories examined cinema as a mass medium. Employing methodologies from sociology and psychology, they explored the effect of cinema on the ever-impressionable masses, charting the inherently persuasive aspects of the new medium. What fascinated these historians was how cinema might be viewed as a social and psychological phenomenon, staged as it is in darkened theaters that bring together folks from all walks of life: rich and poor, urban and rural, educated and not.

Film histories concerned with formal or textual analysis—that is, the close reading of individual films—lagged behind those focused on the industry, technology, or audience reception, becoming popular mostly after World War II, after literature departments in American universities began adding film classes to their curricula. The Great Books–Great Authors tradition prevailed in most of these departments, a product of the then-popular New Criticism among literary historians and critics. The prevailing wisdom of the New Criticism was that there was a fixed set of canonical texts, the so-called classics, agreed upon by the well-read and educated. Proponents of this view put forth a roster of must-read authors as well, whose genius was evidenced by their work in the classic texts.

The acolytes of the New Criticism during the middle decades of the twentieth century viewed "great books" as objects to scrutinize line by line, word by word. Making the same claim for great films—that we might examine movies shot by shot, frame by frame—was not such an easy or simple matter, at least not at first, because it required an intellectual leap of faith affirming a relative equivalence in quality and in value between literature and cinema.

Literature has a long history and an accepted tradition of excellence. It also has a cultural significance long appreciated and studied by teachers and scholars alike. Motion pictures have, by comparison, little history. And the texts at issue are produced in concert with a crass, commercial enterprise. The New Criticism hinged on a clear distinction between high and low art—a distinction seen in the formal and commercial differences between great literature and popular genre fiction. Even for those scholars willing to put the question of relative quality aside, it was hard to ignore that films, unlike literature and other more traditional works of art, were produced collaboratively and (first

and foremost) commercially, akin to the production of automobiles on the assembly line.

In 2018 it is no longer necessary to argue that films can be works of art—like literature, like paintings—worthy (and that's the right word here) of close reading and of a careful historical accounting. It has taken a while to get here—to put the quality aspect of the debate (Is film art?) and the corporate-collaborative aspect of the debate (How can cinema be art if it is mass produced?) to rest. Today, universities around the world are home to widely respected film and media departments that offer programs and majors for students pursuing bachelor's, master's, master of fine arts, and even doctoral degrees.

A selective borrowing from more traditional academic fields of inquiry was the key to positioning film studies so securely in the academy. The methodologies of film studies in general, and film history in particular, now borrow liberally from the methodologies intrinsic to sociology, psychology, economics, art history, and literary studies. As a result, the study of film history traverses the social sciences and liberal arts. It is by design interdisciplinary.

Films are products of a creative, technological, and industrial process. They are also a phenomenon of a popular culture that hinges on a symbiotic relationship between producers and consumers. Who we are as individuals is revealed in part by what we choose to consume. Moreover, apparent in these choices are voluntary memberships in what the social scientist C. Wright Mills called publics, informally assembled like-minded groups within the mass culture. The movies we choose to view can reveal a lot about us as individuals—and as members of such a group or audience, a public that shares an admiration or appreciation, a public that shares a worldview, or a peculiar taste in art and entertainment.

The rewards of such a thorough methodology and approach to film history are immense. They allow us to go where the movies in our lives take us, and to understand more than just the fleeting meaning of things as they flicker by on the big screen—because movies are much more than that. As the historian Robert Sklar famously noted, "Movies made America." And they did so because we wanted them to, because there was something from the very beginning of moving pictures that spoke to a primal and simultaneously modern human desire, one that corresponded with a culture built upon technological and industrial innovation, common experiences, modes of discourse, and notions of art and commerce.

And Finally: A (More) Personal History

Our responses to specific movies grow out of our experience, knowledge, and temperament. Films can make us laugh, cry, wince, dig our nails into a friend's arm, walk out (and then peek back in), dream of a different life, make resolutions, and fall in love. Films can be exhilarating and euphoric, suspenseful, and remorseful. There are moments that can stay with us long after the lights come back up, that prompt empathy or regret, that speak profoundly to our experiences and memories.

What we make of the movies we watch is, finally, a product of a very personal history. And that personal history shapes us. It shaped me.

The arc of my life at the movies took its most significant turn on a snowy night at Hobart College in tiny Geneva, New York, in the winter of 1976. Bored and cold, I ducked into a free screening sponsored by a class in American studies of a 1947 film noir: *Out of the Past* (Jacques Tourneur). That night more than forty years ago marks the date on which—and the precise ninety-seven minutes during which—I fell in love with the movies. What brought me to that part of campus, to that screening that night, I will never know. But my life has not been the same since.

Movies have attended many of the most significant moments in my life: my first date, my first kiss. I got the courage to talk to Martha, the love of my life, in the moments before a screening of *The Blue Angel*. A week later, I asked her out during the intermission between *Now, Voyager* (coincidentally my mother's favorite film) and *Leave Her to Heaven*. In the thirty-plus years since that night, I have ignored the ominous signs: that our first significant conversation preceded the screening of a film about a professor who is ruined by a beautiful showgirl with a heart of stone and that our first date was set up during the intermission between two annihilating melodramas, one that ends with a reminder that love is sometimes not enough and another that cautions that love can be more trouble than it's worth.

If you ask me about the first movie I ever saw—*Pinocchio* in rerelease—though it was well over fifty years ago, memories of the movie and the whole day come easily to mind. I saw the film with my father at the Syosset Theater on Long Island, a thirty-minute drive from our house. As a seven-year-old living in a more innocent and very different mass-mediated

world, much of what happened to Pinocchio frightened me. That a physical transformation was possible when one lied, that I could be tricked and kidnapped on my way to school and then forced into joining a road show or circus, was a lot to consider. At one point in the film, Pinocchio is held captive in a birdcage. And he's swallowed by a fish. I read films less emotionally nowadays, but *Pinocchio* got under my skin; it found its way into my thoughts and dreams. Films can do that no matter how many you've seen, no matter how young or old you are.

In April 1963, just over a year later, my parents took me to see *Bye Bye Birdie* at the Radio City Music Hall in New York City, at the time the nation's most famous movie palace. And for the first time in my life, I fell in love—with Ann-Margret biting her lip as she sang the film's opening number.

This book grows out of a life spent at the movies. And as such it regards not only a long career's work—I have taught, researched, and written about American film history since 1982—but also a life's infatuation, a relationship with the movies I just can't (and have no desire to) kick. More than anything else, I hope that this book evinces my enthusiasm and love for American movies, my fascination with the industry that produces them, and my commitment as a scholar to the complex study of a medium and a popular culture that never ceases to hold me in its thrall.

Acknowledgments

First, I would like to acknowledge my debt to the film scholars whose work has influenced my teaching and my writing: Richard Abel, Tino Balio, Richard Barsam (who edited my first published essay back in 1983), André Bazin, John Belton, Gregory D. Black, David Bordwell, Eileen Bowser, Andrew Britton, Nick Browne, Kevin Brownlow, Robert L. Carringer, Noël Carroll, Stanley Cavell, Carol J. Clover, David A. Cook, Timothy Corrigan, Donald Crafton, Richard deCordova, Tom Doherty, Richard Dyer, Thomas Elsaesser, Neal Gabler, Douglas Gomery, Barry Keith Grant, Lee Grieveson, Alison Griffiths, Ed Guerrero, Tom Gunning, Miriam Bratu Hansen, Heather Hendershot, Brian Henderson, John Hess, Sumiko Higashi, J. Hoberman, Gerald Horne, Lea Jacobs, Pauline Kael, E. Ann Kaplan, Jonathan Kirshner, Chuck Kleinhans, Robert Kolker, Richard Koszarski, Julia Lesage, Peter Lev, Gerald Mast, Lary May, Toby Miller, Tania Modleski, Paul Monaco, Charles Musser, James Naremore, Victor Navasky, Bill Nichols, Constance Penley, Fred Pfeil, Dana Polan, Ruby Rich, Jonathan Rosenbaum, Andrew Sarris, Eric Schaefer, Tom Schatz, Robert Sklar, Eric Smoodin, Janet Staiger, Kristin Thompson, David Thomson, Andrew Tudor, Janet Walker, Gregory A. Waller, Robert Warshow, Janet Wasko, Linda Williams, Robin Wood, Will Wright, and Justin Wyatt. I hope that I have done your work justice and that this book will mean half as much to future film historians as your work has meant to me.

I also want to express my gratitude to my college and graduate school teachers, especially those who taught me how to read closely and write persuasively. So, big thanks to Jim Crenner, Talbot Spivak, Dan O'Connell, Eric Patterson, and Grant Holly at Hobart College; Brian Henderson, Raymond Federman, Alan Spiegel, and Stephen Fleischer at the State University of New York at Buffalo; and Nick Browne, Thomas Elsaesser, Howard Suber, Robert Rosen, and Steve Mamber at the University of California, Los Angeles.

This project dates to a casual dinner I had with David Cook, Peter Brunette, Dana Polan, and Pete Simon in Dallas in March of 1996. I forget who first suggested that I write a history of American film; I know it wasn't me. In fact, it took me a long time to get started—six years! The first edition took another five years to research, write, and produce. I wanted to be sure that *American Film: A History* fully represented how I think about and—more important—how I teach American film history.

I had considerable help during those five years. First and foremost, I want to thank my editor at W. W. Norton & Company, Pete Simon, for his unflagging confidence and unrelenting editorial commitment. Several colleagues read drafts of the first edition of the book and offered thoughtful, useful commentary: Eric Smoodin, Dana Polan, Tom Doherty, and Henry Sayre, all of whom contributed significantly (and differently) to the book. Thanks also to the formerly anonymous readers who waded through early drafts of the first edition: Todd Berliner, Cynthia Felando, M. Allison Graham, Brian Henderson (with whom, coincidentally, I took my first film theory class back in 1978 at the State University of New York at Buffalo), Charles J. Maland, and J. Emmett Winn. For the second edition, a new crew was called in: Thomas W. Bohn, Daniel Jacobo, Gerald Sim, and Rick Worland. You have all seen me naked, figuratively speaking, and were kind enough not to laugh.

From start to finish—that is, from 1996 to today—the editorial and production staff at Norton has been terrific. In addition to Pete Simon and the crew that worked on the first edition, I'd like to thank the managing editor, Marian Johnson; project editor, Jennifer Barnhardt; photo editor, Agnieszka Czapski; photo researcher, Jane Miller; interior and cover designer, Lissi Sigillo; production manager, Stephen Sajdak; and my intrepid copyeditor, Gwen Burda. Last, but by no means least: big thanks to the associate editor Gerra Goff, my guide for this second edition. For a full twelve months, she has proved to be a kinder, gentler version of the (I know, necessary) editorial taskmaster.

The first edition of this book took a while to plan out and then to research and write. The second edition has taken another year to compose, edit, and produce. *American Film: A History*, in one incarnation or another, has been on my desk for nearly half my professional life. I began writing the first edition when my sons, Guy and Adam, were in middle and grade school, respectively. They are both grown up now, done with college and out in the world. Looking back to that dinner in Dallas in 1996, I can safely say that the time has mostly flown by, thanks in no small part to Guy and Adam and their mother, Martha, my Q, who has been for the past thirty-three years my best friend and one true love.

For Martha and the boys, Guy and Adam

AMERICAN FILM: A HISTORY

SECOND EDITION

Lillian Gish (*left, facing the camera*) in D. W. Griffith's gangster film *The Musketeers of Pig Alley* (1912).

01

Early Cinema

1893–1914

By the end of the nineteenth century, the United States had become a major player on the world stage. The mid-nineteenth-century faith in "manifest destiny" had fueled the acquisition and conquest of a large portion of the North American continent, and colonial expansion beyond the nation's continental borders had increased the American sphere of influence. Accompanying this geographic expansion was an economic boom. In the first few years of the twentieth century, the total economic output of the country increased by more than 80 percent, and by 1913 the United States accounted for a third of the world's total industrial output. The American century—as the twentieth century would be called—had arrived.

The emergence of cinema as a modern American industry and pop-culture pastime at once accompanied and punctuated the nation's transformation into a mature industrial society. Emblematic of this transformation was a series of modern industrial inventions that culminated with the cinema: Alexander Graham Bell's telephone (1876), Thomas Edison's phonograph (1877), Henry Ford's first "horseless carriage" (1896), and finally Edison's first projected and screened moving pictures (also 1896). The rapid accommodation of these inventions in daily life came to symbolize America's newfound prominence and wealth.

The nation's embrace of industrial progress—the key to its transformation into a global superpower—prompted a number of changes in American social and economic life. First among those changes was a dramatic population shift. Between 1880 and 1920 the proportion of Americans living in urban centers grew from 26 to 51 percent. Modern city life was essential to the early development of the movies; indeed, cinema's initial appeal was keenest among the cities' newest and poorest inhabitants. Cultural historians routinely connect American industrialization and urbanization to the advent of a consumer society. For the urban poor participating only partially in this new American economy, cinema quickly became a cheap and accessible consumable product.

In the early years of the twentieth century, several of the nation's biggest cities absorbed huge new immigrant populations. By 1920, for example, 76 percent of New York City's population was foreign-born. Similar percentages were found in Boston (72 percent) and Chicago (71 percent). It was in those cities that the early studios made most of their money, and it was among the immigrant population that they found their most ardent moviegoers. For recent immigrants, the embrace of (silent) cinema—a medium that did not require a working understanding of English—was crucial to fitting in, to taking part in the popular culture of the day.

As the early filmmaking enterprises began to make money in the first few years of the new century, they modeled themselves on other successful companies operating within the burgeoning industrial sector of the American economy. Consolidation was commonplace at the time; between 1897 and 1904 over four thousand small companies were assimilated by a handful of conglomerates. By 1902 a select group of companies—including Northern Securities, Standard Oil, United States Steel, and International Harvester—controlled over half the nation's total financial and industrial capital. That imbalance applied to individuals too: at the turn of the century, the wealthiest 1 percent of Americans accounted for the same total income as the remaining 99 percent. Although such a concentration of economic resources and control over industrial production exaggerated the divide between labor and wealth, many in the business world viewed it as a necessary stage in the development of more efficient companies and industries. It was the age of Henry Ford, after all, and the dream of a streamlined assembly-line American economy was in vogue among the industrial elite.

The first move toward a consolidated, modernized, and standardized movie industry came as early as 1908, when a cartel headed by Thomas Edison, the Motion Picture Patents Company (MPPC), monopolized the production and distribution of American movies. The MPPC tried to make cinema fit the Fordist principles of standardization and efficiency, but in the end the trust failed to understand and appreciate the medium's audience. By the second decade of the twentieth century, the MPPC had lost its hold on the industry, and in its place arose another cartel, a group of first-generation immigrants, men quite like the audience they served, who ventured west and "invented" Hollywood.

The struggle between the MPPC and the so-called independents was a logical consequence of the industry's astonishing growth; it became clear early on that there was a lot of money to be made in the movie business. But success in moving pictures also brought increased public scrutiny. Film censorship became a fact of everyday life in this early period as two distinct American impulses—a spirit of social progressivism and a continued legacy of early-American Puritanism—contended with each other. As the industrial economy evolved, much of the nation embraced new ideas of social reform. But a late-Victorian social conservatism persisted. The movie industry felt the effects of both social realities from the very start.

Early efforts to regulate motion pictures were also characterized by the trenchant racism and ethnocentrism that were endemic to American life at the time. Initial attempts to censor American movies were based on stereotypical assumptions about impressionable, ignorant immigrants who constituted a significant portion of the silent-film audience. Even its opponents could see that cinema offered transcendence, or at least escape, for those who needed it most, but its very accessibility and its apparent persuasive power worried those in power, those for whom the sweaty masses were an appalling threat.

Censorship may well have been troublesome, but it did little to slow the development of the art of moving pictures. Indeed, the speed with which the industry achieved financial success and cultural importance was matched by the pace of the medium's artistic development. Although films made during the 1890s were mostly slices of everyday life or simple gags or skits lasting less than a minute, by 1902 innovative filmmakers such as Edwin S. Porter were producing longer and more ambitious story films, like the groundbreaking *Great Train Robbery* (1903). Pioneering filmmaking during the first decade of the twentieth century hinted at a future in which movies would take on even bigger subjects and more complex story lines.

A second wave of filmmakers, led by D. W. Griffith and Mack Sennett, emerged near the end of the century's first decade. Griffith explored a new cinematic grammar, a language composed of camerawork (changes in camera position and movement and expressive use of different lenses), lighting, set design, and editing to create more ambitious and more sophisticated films. Conversely, Sennett simply set bodies in motion and, in so doing, mined the commercial bottom line in American cinema: he entertained his audience.

In 1931 Edison remarked with astonishment at the amount of money being spent on the making of movies and the amount of money being made by the movie studios. Edison lived long enough to witness (and miss out on much of) the medium's rapid evolution—he witnessed the relatively short amount of time it took for cinema to advance from a technological novelty to a national pastime. The hectic pace of its development suited the age much as the medium itself—an undeniably industrial art—suited America at the time. By the end of the era of early cinema (1893–1914), movies had become so important to the national economy, so absolutely vital to the national identity, that it was hard to remember the time—not so long before—when they hadn't existed at all.

Pre-cinema

As an idea—the idea of triggering in people a sense of motion, action, and narrative—cinema's roots stretch all the way back to prehistory, to the drawings made thousands of years ago on the cave walls at Chauvet and Lascaux, in present-day France. What motivated the cave painters was not so different from what motivated early filmmakers: the fundamental human desire to express oneself, to preserve for posterity and for an anticipated audience images drawn from everyday life, to render tangible and real a particular and peculiar take on the world. There is, in both the paintings and motion pictures, an aesthetic and an attention to design and detail. In the long history of visual arts—in drawing, sculpture, and painting, for example—we find a common desire to represent time, space, and action visually. For much of that history, the technological problem of setting images in motion was a hurdle that forced visual artists to devise ingenious methods to suggest or simulate movement and the passage of time in their otherwise static images.

Minor successes in projecting realistic images and then putting them in motion date back at least five hundred years, to various parlor games and divertissements that, in one way or another, animated still images. Image projection began with the so-called magic lantern, a device employing a lens, shutter, and persistent light source that projects images on glass slides onto a flat white wall or cloth drape (hung like a screen) in the dark. At first the images were painted or etched on the slides. Later, photographs were printed on the glass and then highlighted with paint. The glass plates would then be mounted on a rudimentary slide projector that utilized a light source and a single lens to focus the picture on a distant screen. The faster the projector could be made to move from one image to the next, the more it simulated modern moving pictures.

During the nineteenth century, a variety of substances (most notably lime—hence the term *limelight*) were heated to create sufficient illumination to project the images. Other combustible substances were used as well: hydrogen, coal gas, ether, and oxygen. Needless to say, the heating of those substances required a degree of expertise on the part of the magic-lantern operator, and the risk of explosion or fire loomed over every show.

Magic lanterns were used as parlor entertainments for adults and as educational devices for children and occasionally by scientists to display scientific procedures (so-called live experiments). Missionary workers (for example, the Band of Hope mission in the United Kingdom) used the seeming magic of image projection to spread the "good word."

During the early nineteenth century, the magic lantern was modernized in conjunction with motion-toy technology. Motion toys included the thaumatrope (a round card bearing multiple images that appear as one when the card is spun), the phenakistoscope (a platelike slotted disc spun to simulate moving images), the zoetrope (a bowl-like apparatus with slots for viewers to peer through), and the praxinoscope (essentially a zoetrope using mirrors). The devices were marketed as children's toys—made for the entertainment of children if not for their own play—and as parlor entertainments (toys for wealthy adults). When the two technologies were combined—when glass magic-lantern plates were mounted and spun (or otherwise set in motion) to simulate movement—audiences got their first glimpse of multiple continuous moving images—their first glimpse of what would soon be a new mass medium.

The zoetrope, one of the early motion toys that prefigured cinema.

Photography

The advent of photography in the nineteenth century made pictorial representation a matter of mechanical precision. The next step—from images captured in time (photography) to images that moved and simulated real life (cinema)—was inevitable and was accomplished swiftly. A practical apparatus for the production of photographs preceded cinema by only about fifty years; the introduction of a consumer-grade camera preceded it by only about a decade. Cinema was in many ways the logical end point of photography, an end point reached in a hurry thanks in part to the spirit of industrial progress of the time and in part to the seemingly instinctual human desire to see images move.

Between 1816 and 1818 a Frenchman named Joseph Niepce produced the first fuzzy images from metal plates, what historians have come to regard as the first crude photographs. Along with Louis Daguerre, Niepce continued to experiment with the photographic process. In the early 1830s the exposure time was about 15 minutes: models had to hold a pose for that amount of time in order for the photographer to produce a clear photograph. Moving pictures were thus very much the stuff of science fiction, as they still were five years later when Daguerre reduced the exposure time to approximately 3 minutes.

Photography began as an industrial art best left to experts. But research and development worked to make the medium more accessible. When George Eastman introduced the first consumer-grade Kodak camera in 1888, he cleverly exploited a simple yet brilliant commercial slogan that signaled the shift from a technical and complicated process to a democratic art form: "You push the button, we do the rest." As the nineteenth century came to a close, photography was quite suddenly a proletarian medium, something pretty much anyone and everyone could engage in.

Simulations of movement using still photographs—the most direct antecedent of true motion pictures—date to 1828, just a decade after the first crude photograph was produced and only four years after the Frenchman Paul Roget first described the phenomenon of persistence of vision (or *positive afterimages*, the preferred term today). The phenomenon hinged on a fundamental trick or "lie" that acknowledged the tendency for one image to persist or linger on our retina as the next image enters our perception. Physicists use the terms *apparent motion* or *phi phenomenon* to describe this optical illusion that enables the perception of constant movement—the impression or perception of a single continuous moving image—from the accelerated presentation of a sequence of still images.

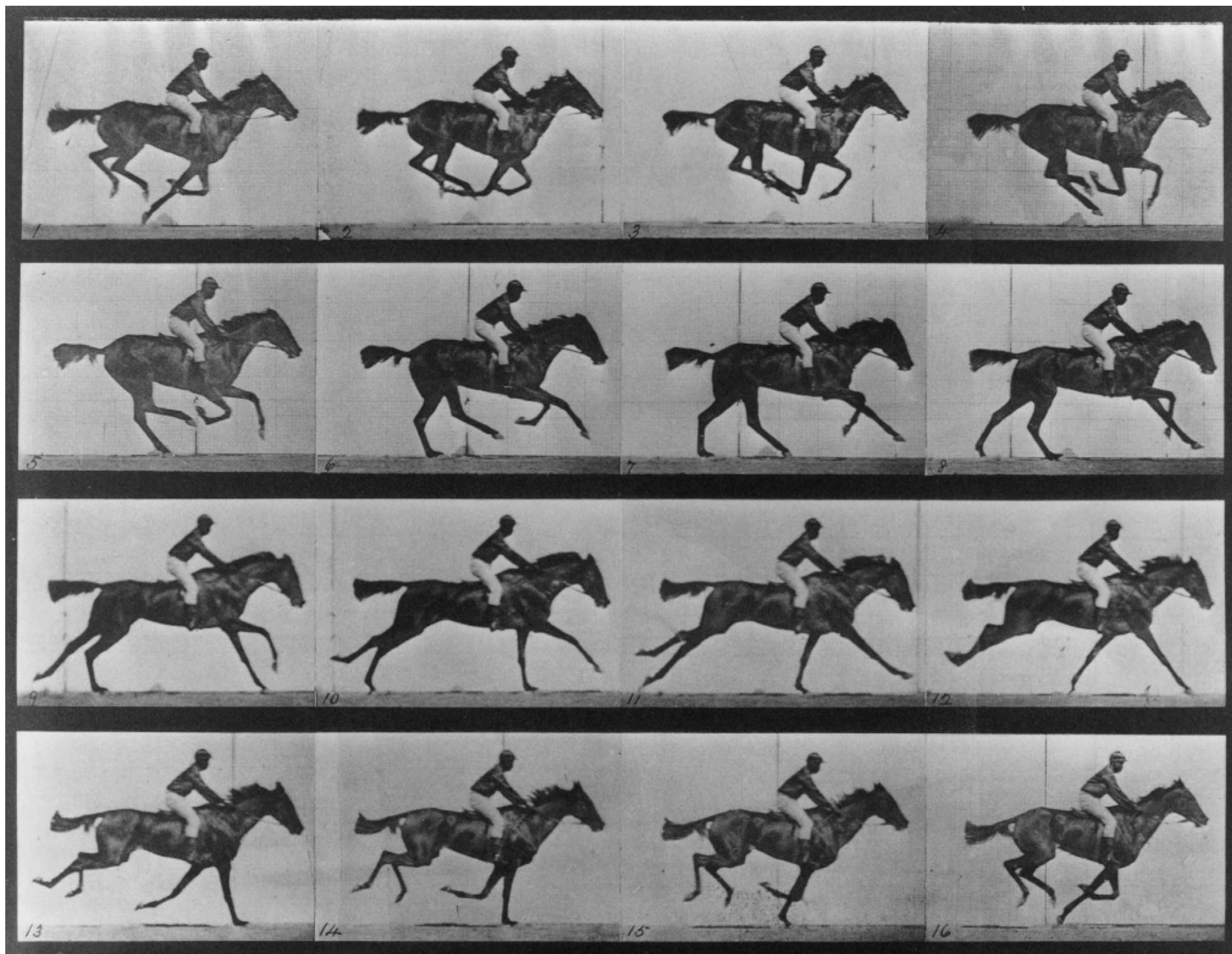
Another aspect of this misperception involves what is called critical flicker fusion, a phenomenon in which the light of the film projector flashes so rapidly with each new frame that we do not see it pulse but instead see a continuous beam of light. Motion toys and silent movies, the latter of which were shot and projected at the relatively slow speed of 16 frames per second (fps), displayed a distinct flicker, hence the early slang term *flickers* for silent movies and the occasionally used synonym *flicks* for movies today. Sound films do not display such a flicker because they are shot and projected at the significantly faster rate of 24 fps.

To dramatize his "discovery," Roget introduced the thaumatrope, a device composed of a disc and a string (so the disc could be twirled). Each side of the disc contains an illustration (let's say a bird on one side, a cage on the other). The act of twirling the disc merges the two illustrations (the bird appears to be in the cage), making it seem as though there's only one image.

In conjunction with a few other features of visual perception, persistence of vision explains why movies work, why we're able to see them as a continuous record of movement rather than a series of thousands of discontinuous still images. The hard work of matching Niepce's and Daguerre's innovations with Eastman's cameras and Roget's theory of physics would be accomplished with dispatch.

Eadweard Muybridge and Étienne-Jules Marey

The history of true moving pictures began with a silly moment in California history. None of the principals involved could have known that they would play a crucial role in what would become film history. Leland Stanford, a railway magnate, one-time governor of California, and inveterate gambler, got into a disagreement with a fellow horseplayer about whether all four hooves of a horse are ever off the ground at the same time. Stanford bet that they were; his rival insisted that they weren't. To settle the bet, Stanford hired Eadweard Muybridge, a British-born entrepreneur and renowned photographer. Muybridge set up a row of cameras along a racetrack straightaway and timed exposures to capture the many stages of a horse's gallop. It was Muybridge's good fortune that Stanford was right and that one of his photographs proved it. Stanford collected his cash, and Muybridge became a minor celebrity. More important, Muybridge's "battery-of-cameras" technique brought photography one giant step closer to cinema.

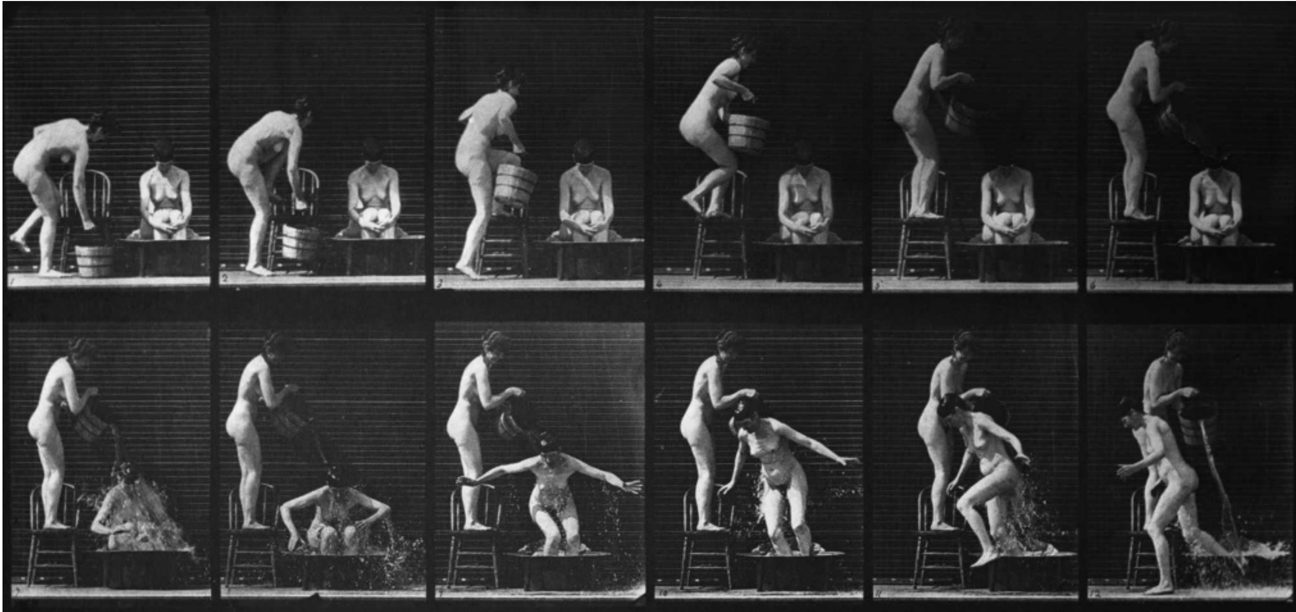


Eadweard Muybridge's series of photographs, taken with his "battery of cameras," simulated movement and thus foreshadowed cinema. The photographs, mounted on glass plates, could be affixed to a zoopraxiscope, a motion toy that doubled as a moving still-frame projector.

In 1875 Muybridge was involved in a scandal, the first of many in what would become the film colony in California: he caught his wife in an adulterous affair and killed her lover. He was eventually acquitted—the crime was deemed a justifiable homicide—and after a year in Central America (to allow the gossip to cool) he returned to the United States and began exhibiting his "series photographs."

Among other things, Muybridge's series photographs—printed, traced, or drawn on glass plates designed to enable projection on a screen—featured naked women performing simple household tasks and leisure-time activities. These early "motion pictures," with titles like *Woman Walking Downstairs* and *Woman Setting Down Jug*, were essentially cast as figure studies along the lines of high-art nudes rendered in pencil sketches and paintings. But whereas *Woman Walking Downstairs*, *Nude Woman Pouring Water on Another Woman*, and *Woman Setting Down Jug* seem at least superficially rooted in museum culture, series studies like *Woman Throwing a Baseball* and *Woman Jumping from Rock to Rock* veer toward the carny peep show. The models in the latter two titles smile, even laugh, as they look back at Muybridge's camera, at once acknowledging the act of voyeurism and taking an apparent exhibitionist's delight in being seen. Like many of cinema's pioneers, Muybridge was primarily an entrepreneur and only secondarily, even incidentally, an artist. His series photographs reveal a keen sense of his audience as well as a prescient understanding of the ways in which motion pictures might someday conflate the very different worlds of the museum and the midway.

In 1878 Muybridge took his show on the road, exhibiting and talking about his work and the technology



Eadweard Muybridge's *Nude Woman Pouring Water on Another Woman* (c. 1884–1887).

that produced it. So-called illustrated lectures had already become quite popular. Many of them were travelogues that included projected images of places that struck audiences as exotic and attractive (the islands of the South Seas were popular subjects, for example) or distant and foreboding (expeditions to the polar regions). Ostensibly educational, these illustrated lectures brought the world to the people in an era (prior to air travel) when bringing people to the farthest reaches of the world was impractical.

Muybridge was neither an explorer nor a performer by nature, so he was a curious fit in the illustrated-lecture circuit. Unlike the legendary explorer Robert Edwin Peary, whose slideshow "Land of the Eskimos" presented a sober study of an untamed wilderness and the "primitive" people who lived there, or Joseph Boggs Beale, who traveled with a slideshow presentation based on Edgar Allan Poe's "The Raven," Muybridge presented an act that was less about showmanship or the content of the pictures themselves than it was about the technology he'd "invented" to produce them. Although Peary's and Beale's slides were fascinating, they were just still photographs. Muybridge's sequential slides, although relatively mundane, simulated movement. There was a gee-whiz aspect to the early shows, and Muybridge cleverly exploited it.

Thomas Edison attended one of Muybridge's stage shows and met with Muybridge afterward. We will never know how much help Edison got from Muybridge, but we do know that Edison was interested in producing a more sophisticated simulation of movement on film than Muybridge's series photographs could ever have produced and that he had plans to develop a system that might sync serial images with recorded sound played back on the Edison phonograph.

After his meeting with Muybridge, Edison traveled to France to meet with Étienne-Jules Marey, who as early as 1882 had used a shotgun-shaped camera to shoot sequential photographs. Marey's invention seems a bit

By 1897, when James White directed his boss in *Mr. Edison at Work in His Laboratory,* Thomas Edison was more an entrepreneur than an inventor, routinely taking credit for work he had only loosely supervised (the motion-picture camera) or bought outright (the motion-picture projector). His public image as the "Wizard of Menlo Park" was nonetheless maintained and burnished by able public relations, like White's short film.

like the popular disc cameras of the 1980s. A single disc enabled him to shoot multiple images on a single load of film. But unlike the more refined 1980s version, Marey's shotgun camera produced overlapping images, often gorgeous but surreal impressions of movement.

Edison returned from France and immediately got to work on a camera that could take a sequence of pictures with a single load of film. To do so, in 1889 he enlisted the help of one of his employees, an electrical engineer and gifted photographer named William Kennedy Laurie Dickson, the man who would become the company's motion-picture expert. At Edison's behest, Dickson experimented with film size and speed in order to design a practical method by which film might be moved through a camera. After experiments with a smaller gauge that moved horizontally through the camera (as in Marey's shotgun), Dickson settled on the 35-millimeter (mm) uniform width (which is still the standard today) set in motion vertically through the camera at the astonishingly fast rate of 40 fps. The film speed was later reduced to 16 fps for silent film, 24 fps for sound.

Dickson also introduced sprocket holes (evenly spaced perforations running lengthwise along the sides of the film stock), enabling the stable movement of the film through the camera and the projector. This innovation was part of his work on an early version of sound film, in which sprockets helped regulate the speed at which the film moved through the gate in sync with recorded sound. William Heise, a telegraph expert and fellow Edison employee, helped Dickson develop the vertical-feed mechanism. It was Heise's idea to mimic the movement of paper tape through the stock-market Teletype to facilitate the movement of the perforated film stock through the camera. In 1891 Edison secured a U.S. patent on his company's version of moving-picture technology. And with that patent, movies in America were born.

The Edison Manufacturing Company and America's First Films

After securing the patent, in 1891, for his Kinetograph (the photographic apparatus that produced the pictures) and his Kinetoscope (the peephole-style viewing machine that exhibited them), Edison set out to reach

The Kinetoscope, a boxed peephole-style viewing device, was designed by Thomas Edison to show the films produced by Edison's early Kinetograph cameras.