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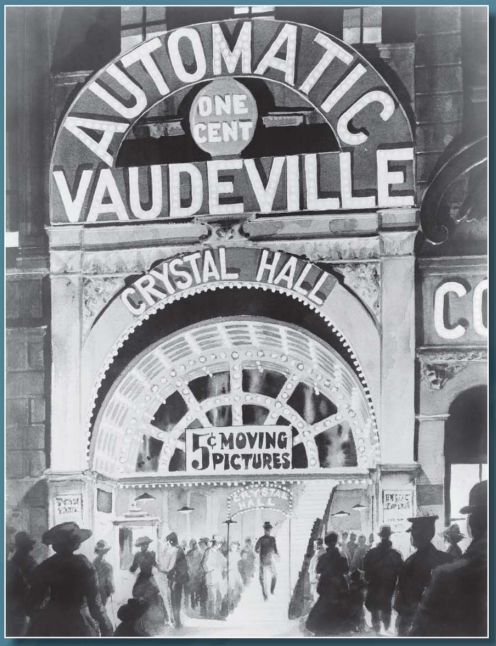
Fifth Edition

FILM HISTORY

AN INTRODUCTION



KRISTIN THOMPSON
DAVID BORDWELL
JEFF SMITH

Mc Graw Hill

FILM HISTORY

An Introduction

Fifth Edition

Kristin Thompson
David Bordwell
Jeff Smith

University of Wisconsin–Madison

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To Gabrielle

Chez Léon tout est bon

CONTENTS

ABOUT THE AUTHORS

Kristin Thompson and David Bordwell are married and live in Madison, Wisconsin.

Kristin Thompson is an Honorary Fellow in the Department of Communication Arts at the University of Wisconsin–Madison, where she earned her Ph.D. Her books include *Eisenstein's Ivan the Terrible* (1981), *Exporting Entertainment: America's Place in World Film Markets 1901–1934* (1985), *Breaking the Glass Armor: Neoformalist Film Analysis* (1988), *Storytelling in the New Hollywood: Understanding Classical Narrative Technique* (1999), *Herr Lubitsch Goes to Hollywood: German and American Film after World War I* (2005), and *The Frodo Franchise: The Lord of the Rings and Modern Hollywood* (2007).

David Bordwell is Jacques Ledoux Professor Emeritus of Film Studies in the Department of Communication Arts at the University of Wisconsin–Madison. He also holds a Hilldale Professorship in the Humanities and an Honorary Doctorate from the University of Copenhagen. He has also held the Kluge Chair in Modern Culture at the Library of Congress. His books include *Narration in the Fiction Film* (University of Wisconsin Press, 1985), *On the History of Film Style* (Harvard University Press, 1997), *Planet Hong Kong: Popular Cinema and the Art of Entertainment* (Harvard University Press, 2000; 2nd ed., Irvington Way Institute Press, 2011), *Figures Traced in Light*: *On Cinematic Staging* (University of California Press, 2005), *The Way Hollywood Tells It: Story and Style in Modern Movies* (University of California Press, 2006), *The Rhapsodes: How 1940s Critics Changed American Film Culture* (University of Chicago Press, 2016), and *Reinventing Hollywood: How 1940s Filmmakers Changed Movie Storytelling* (University of Chicago Press, 2017). He has also written books on Carl Theodor Dreyer, Yasujiro Ozu, Sergei Eisenstein, digital cinema, and Hong Kong film.

Jeff Smith is a Professor of Film Studies in the Department of Communication Arts at the University of Wisconsin–Madison, where he earned his Ph.D. He is the author of two books: *The Sounds of Commerce: Marketing Popular Film Music* (1998) and *Film Criticism, the Cold War, and the Blacklist: Reading the Hollywood Reds* (2014). He has also published several articles and book chapters on the role of sound and music in American cinema. He is currently at work on a book that traces development of the classical Hollywood film score during the 1930s that examines how studios allocated musical resources to films based on their position within the hierarchy of prestige pictures, programmers, and "B" films.

The authors have previously collaborated on *Film Art: An Introduction* (McGraw-Hill, 11th ed., 2017). Bordwell and Thompson are coauthors of *Minding Movies: Observations on the Art, Craft, and Business of Filmmaking* (University of Chicago Press, 2011), *Christopher Nolan: A Labyrinth of Linkages* (Irvington Way Institute Press, 2013), and, with Janet Staiger, *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (Columbia University Press, 1985).

All three authors have been active in digital media culture. Thompson has contributed supplements for Criterion DVD/Blu-ray releases of *The Only Son/There Was a Father*, *A Man Escaped*, and *Cluny Brown*, as well as a booklet essay for the Kino Lorber Blu-ray release of the restored *Das Cabinet des Dr. Caligari*. Also for Criterion discs, Bordwell has provided DVD notes and commentary for *Alexander Nevsky*, *An Autumn Afternoon*, *Notorious*, *His Girl Friday*, *The Flavor of Green Tea over Rice*, and *The Grand Budapest Hotel*. Smith has done supplements focusing on music for three other Criterion discs: *Shoot the Piano Player*, *Odd Man Out*, and *Now Voyager*.

All three authors host an ongoing series, "Observations on Film Art," for the Criterion Channel streaming service. The many entries offer video essays on films from all eras, including *The Phantom Carriage*, *L'Avventura*, *Memories of Underdevelopment*, *My Brilliant Career*, *Girl Shy*, *Vampyr*, *Hiroshima mon amour*, *Shock Corridor*, *Vagabond*, *The Long Day Closes*, *Chungking Express*, and many other classics. The service is available by subscription at https://www.criterionchannel.com.

For their weblog and other online information, visit www.davidbordwell.net.

PREFACE TO THE FIFTH EDITION

Around the world, at any instant, millions of people are watching movies. They watch mainstream entertainment, serious "art films," documentaries, cartoons, experimental films, educational shorts. They sit in air-conditioned theaters, in village squares, in art museums, in college classrooms, in their homes before a television screen, in coffee shops before a computer monitor or cellphone screen. Through the 2010s, the world's movie theaters sold about 8 billion tickets each year. With the availability of films on video—whether broadcast, fed from cable or satellites or the Internet, or played from disc or digital file—the audience has multiplied far beyond that. In 2019, the combined global market for theatrical, home, and mobile entertainment exceeded $100 billion for the first time.

Nobody needs to be convinced that film has been one of the most influential media of the past hundred years. Not only can you recall your most exciting or tearful moments at the movies, you can also probably remember moments in ordinary life when you tried to be as graceful, as selfless, as tough, or as compassionate as those larger-than-life figures on the screen. The way we dress and cut our hair, the way we talk and act, the things we believe or doubt—all these aspects of our lives are shaped by films. Films also provide us with powerful artistic experiences, insights into diverse cultures, and new ways of thinking.

In this book, we introduce the history of film as it is presently conceived, written, and taught by its most accomplished scholars. *Film History: An Introduction* is not, however, a distillation of everything that is known about film history. Researchers are fond of saying that there is no film *history*, only film *histories*. This partly means that there can be no single survey that puts all known facts into place. The history of avant-garde film does not match neatly up with the history of color technology or the development of the Western or the life of Alfred Hitchcock. For this reason, the enterprise we call "writing film history" is a big tent housing people who work from various perspectives and with different interests and purposes.

So there is no Big Story of Film History that will list, describe, and explain everything that took place. We think that writing film history involves asking a series of *questions* and searching for *evidence* in order to answer them in the course of an *argument*. When historians focus on different questions, they select different evidence and formulate different explanations. For example, the historian who wants to know how European cinema developed in the Cold War will not pay much attention to why Marilyn Monroe had career problems near the end of her life. For this reason, historians create not a single, infinitely extended history but a diverse set of specific historical arguments.

Three Questions

In writing this book, we have focused on the following three key questions.

1. *How have uses of the film medium changed or become normalized over time?* Within "uses of the medium," we include matters of film form: the overall organization of the film. Often this involves telling a story, but a film's overall form might also be based on an argument or an abstract pattern. "Uses of the medium" also include matters of film style, the patterned uses of film techniques: mise-en-scène (staging, lighting, setting, and costume); camerawork; editing; and sound. In addition, any balanced conception of how the medium has been used must also consider film modes (documentary, avant-garde, animation) and genres (such as Westerns, thrillers, musicals). So, we also examine these phenomena. All such matters are central to most college courses in film history.

A major purpose of *Film History: An Introduction* is to survey the uses of the medium in different times and places. Sometimes we dwell on the creation of stable norms of form and style, as when we examine how Hollywood standardized certain editing options in the first two decades of filmmaking. At other times, we examine how filmmakers have proposed innovations in form, technique, and genre.

2. *How have the conditions of the film industry—production, distribution, and exhibition—affected the uses of the medium?* Films are made within *modes of production*, habitual ways of organizing the labor and materials involved in creating a movie. Some modes of production are industrial. In these circumstances, companies make films as a business. The classic instance of industrial production is the *studio system*, in which firms are organized in order to make films for large audiences through a fairly detailed division of labor. Another sort of industrial production might be called the *artisanal*, or *one-off*, approach, in which a production company makes one film at a time. Other modes of production are less highly organized, involving small groups or individuals who make films for specific purposes. In any event, the ways in which films are made have had particular effects on the look and sound of the finished products.

So have the ways in which films are distributed and consumed. For example, the major technological innovations associated with the early 1950s—widescreen picture, stereophonic sound, increased use of color—were actually available decades earlier. Each could have been developed before the 1950s, but the US film industry had no pressing need to do so. Theater attendance was so high that spending money on new attractions would not have significantly increased profits. Only when attendance dropped in the late 1940s did producers and exhibitors feel compelled to introduce new technologies to lure audiences back into theaters. Exhibition in turn changed film styles and genres, with new approaches to staging and a trend toward more spectacle.

3. *How have international trends emerged in the uses of the film medium and in the film market?* In this book, we try to balance the consideration of important national contributions with a sense of how international and cross-cultural influences were operating. Many nations' audiences and film industries have been influenced by creators and films migrating across borders. Genres are vagabond as well. The Hollywood Western influenced the Japanese swordplay film and the Italian Western, genres that in turn influenced the Hong Kong kung-fu films of the 1970s; Hollywood films then began incorporating elements of the martial arts movie.

Just as important, the film industry itself is significantly transnational. At certain periods, circumstances closed off countries from the flow of films, but in general there has always been a global film market, and we understand it best by tracing trends across cultures and regions. We have paid particular attention to conditions that allowed people to see films made outside their own country.

Each of these *how* questions accompanies a great many *why* questions. For any event in the processes we focus on, we can ask what conditions caused it to turn out the way it did. Why, for instance, did early Soviet filmmakers undertake their explorations of disturbing, aggressive narrative? Why did Hollywood's studio system begin to fragment in the late 1940s? Why are more films produced now with international investment than in the 1930s or 1940s? Historians are keen to investigate causes and effects, as you will see in this text.

If film history is a generative, self-renewing activity, then we cannot simply offer a condensation of "all previous knowledge." We are, in a sense, casting what we find into a new form. Throughout the thirty years spent researching and writing and rewriting this book, we have come to believe that it offers a unique version of the shape of film history, both its overall contour and its specific detail.

Answering the Questions: Our Approach

We divide film history into five large periods: early cinema (to about 1919), the late silent era (1919–1929), the development of sound cinema (1926–1945), the period after World War II (1946–1960s), and the contemporary cinema (1960s to the present). These divisions are fairly conventional, and they have the advantage of capturing important developments in the areas that our questions address—form and style, the film industry, and international trends.

But our book differs significantly from most other surveys. For one thing, it is very comprehensive. Some books restrict themselves to the most famous films. This probably made sense in an era when access to films was more restricted. Today, however, people can obtain DVDs or stream files from all over the world, and our sense of film history has expanded enormously. As the field of film studies has grown, small countries and little-known films are now objects of intense research. A textbook should reflect our new vision of world cinema and introduce readers to great films that have been rediscovered.

For similar reasons, we have not confined ourselves just to live-action fiction films. Documentary and experimental cinema are important in their own right, as vehicles for innovations in form and style. In this text, we consider these modes from the earliest efforts to the recent work of

William Greaves, Wang Bing, Phil Solomon, and Christian Marclay.

Organization and Distinctive Features

Film History: An Introduction is comprehensive in another way. Most textbooks are organized as a chronological string of national cinema chapters. Each major producing country typically gets a single chapter summarizing its accomplishments across many years. Sometimes we also take this tack, usually when a country's contribution to a period is very significant. But a unique feature of our book is the way we try to relate developments in one nation to parallel developments elsewhere.

Why is this important? Cinema began as an international art, and for most of its history, it has functioned that way. Filmmakers in one country are often well aware of what their counterparts elsewhere are doing. And several national film industries are often responding to the same conditions at the same time. For example, during the 1930s, many countries were working to meet the challenge of making sound films. Today, filmmakers face shared problems of global distribution and digital convergence. To trace each country's cinematic history in isolation would miss the common features at work in a particular period.

As a result, most of our chapters compare developments across different national film traditions. Instead of devoting a single chapter to the French cinema of the 1960s, Chapter 20 situates the French New Wave within the emergence of New Waves and Young Cinemas around the world. Similarly, instead of treating major directors of the 1950s and 1960s such as Fellini and Bergman solely as individuals, Chapter 19 explains that they rose to prominence thanks to an international film culture driven by festivals, magazines, and a new idea of the filmmaker as a creative artist. Most chapters of our book use this comparative approach because it helps answer our general question of how cinema has developed as an international art. By presenting broad patterns rather than isolated facts, the strategy also helps the reader make new connections.

A concern for this broader view informs another unique feature of our book. Filmmaking and the film industry operate within a broad social, economic, and political context. We cannot fill in all the details of that context, of course, but most chapters do point out this wider frame of reference. For example, the development of Soviet cinema, in both the silent period (Chapter 6) and the sound era (Chapters 9 and 18), cannot be understood outside the political imperatives at work in the USSR. Less obviously, the rebuilding of European cinema after World War II owes an enormous amount to the Marshall Plan, a new emphasis on central planning and regional cooperation, and shifts in the world economy (Chapter 17). Our need to situate film history within broader trends is just as pressing in recent eras. What we call the "critical political cinema" of the 1960s (Chapter 23) developed in response to postcolonialism, the rise of a new generation, America's involvement in the Vietnamese civil war, and other wide-ranging conditions. Likewise, economic and cultural factors are at the center of our discussion of globalization (Chapter 29). Our treatment of digital convergence in Chapter 30 considers overarching technological changes from the 1990s into the 2010s.

Film History: An Introduction relies on another unusual feature. For illustrations, many textbooks are content to use photos that were taken on the set while the film is being shot. These production stills are often posed and give no flavor of what the film actually looks like. Instead, nearly all of our illustrations are taken from the films themselves. Collecting frame enlargements has obliged us to pursue elusive prints in film archives around the world, but the results are worth it because we are able to study exactly what viewers see on the screen. Thanks to these images, we can enrich our historical argument and focus on a short sequence of images that is typical or innovative, as when we study 1910s techniques of precision staging versus continuity editing (Chapter 3), cutting patterns in Soviet montage cinema (Chapter 6), and typical Neorealist sequences in *Umberto D.* and *Open City* (Chapter 16). These moment-by-moment analyses bring important films alive for readers, who can step through video versions frame by frame.

Yet another distinctive feature of our text is that it rests on fifty years of our research. Putting aside our two textbooks, we have published several books on cinema, many of them devoted to film history. *Film History: An Introduction* is deeply indebted to the work of many other scholars, but to a considerable extent it reflects the breadth and depth of our original research into silent film, the history of US, European, and Asian cinema, and contemporary film trends across the world. We have done research in many of the world's major film archives. We have written books on films and filmmakers from Germany, Russia, Japan, France, Denmark, China, and the United States. One of us has written a book on the historiography of film. *Film History: An Introduction* is the fruit of decades of watching films, studying them, and thinking about their relations to other arts, to culture, and to the larger world.

Changes in the New Edition

As film history develops, we not only confront new films and filmmakers, but we often reconsider the past. In most chapters, we have corrected errors and added material reflecting recent research. Some of these small changes

reflect new perspectives on innovations related to film sound, early cinema, documentary film practice, and cycles of exploitation cinema.

The major revisions in this fifth edition reflect our rethinking of post-1970 film history. Most of the changes introduce fresh information and ideas. Chapter 22 updates the box on Francis Coppola, Steven Spielberg, and George Lucas to reevaluate their later business ventures. It also includes new material on Martin Scorsese. We show how a new generation of directors cite his work in much the same way that Scorsese himself paid homage to his predecessors. Similarly Chapter 24 on documentary and experimental film updates our coverage of the surging demand for nonfiction films released outside the mainstream theatrical market.

The biggest changes have been made to the last five chapters. These chapters reflect the fact that cinema continues to grow as a worldwide medium. Although American movies are the best known, other countries are becoming global players. The most obvious emerging industries are in India and China, but other countries are also finding (or refinding) their voices. In Chapter 25, we consider the continued legacy of art cinema modernism through brief discussions of Berlin school directors Thomas Arslan, Angela Schanelac, Christian Petzold, and of Greek filmmaker Yorgos Lanthimos. Chapter 26, which focuses on continental and subcontinental cinemas, spotlights rising talents from Africa, Egypt, Iran, Argentina, and Mexico.

Chapter 27, "Cinema Rising: Pacific Asia and Oceania Since 1970," shifts to another epicenter of change. In the new millennium, two regional powers have ascended, South Korea, replacing Hong Kong as a source of major genre and arthouse films; and mainland China, whose explosive economic expansion fueled the fastest growing film industry in postwar history. Since our previous edition, South Korea has solidified its place, largely on the strength of new work by Hong Sang-soo, Lee Chang-dong, and Bong Joon-ho. Bong's *Parasite* (2019) garnered acclaim as no Korean film before it had, winning the Cannes Film Festival's Palme d'Or and the Oscar for Best Picture. China, meanwhile, consolidated its position as one of the world's most important film markets. The chapter highlights the continued importance of Chinese blockbusters made both domestically and as coproductions. It also examines new films produced in the independent sector by directors Bi Gan and Hu Bo.

Where does American cinema fit into all this? Part Six, "Cinema in the Age of New Media," opens with a consideration of this problem. Chapter 28 discusses how Hollywood adjusted to new forms of entertainment—notably cable television and home video. We also consider Hollywood's continued emphasis on blockbusters and franchises. A box devoted to Disney shows its supremacy in those domains. With its acquisition of 20th Century Fox and a new streaming service, Disney reinforced its status as Hollywood's most powerful studio. The chapter also revises its take on the industry's search for synergy, focusing on the most recent round of mergers and acquisitions. Finally, throughout the chapter, we address the increased visibility of minority and women filmmakers.

The book ends with two wide-ranging surveys of the contemporary film landscape. Chapter 29, "Toward a Global Film Culture," examines the effects of globalization on contemporary cinema. We offer fresh information and ideas about Hollywood's domination, regional responses to it, cinemas of the diaspora, film festivals, and piracy. We also expanded our coverage of fan subcultures. Here we not only underscore the myriad ways filmmakers provide fan service, but also how fans sometimes function as a source of friction, either through their criticism on social media or their creation of unofficial versions of studio classics.

The final chapter, Chapter 30, "Digital Technology and the Cinema," explores the degree to which digital technology has almost completely taken over film production, distribution, and exhibition. We trace this process in many domains, from computer animation to 3D projection, from production methods to mobile distribution and Virtual Reality. We've also updated our coverage of America's major tech companies (Facebook, Apple, Amazon, Netflix, and Google). With the exception of Facebook, all of these companies have established streaming services, emerging as significant competitors to Hollywood's existing oligopoly. More importantly, by producing their own content, these tech companies effectively revamped the classic strategy of vertical integration to fit the era of digital convergence. We hope that our readers will recognize the current media landscape in the story we tell here.

Throughout the fifth edition, we've also tried to address the coronavirus pandemic's manifold effects on cinema. Obviously, this is a daunting task, as the situation in every country in the world has proven to be fluid. Yet, as COVID-19 cases proliferated, film production ceased, theaters closed, and release schedules were shuffled in the hopes that the industry's normal business operations would eventually resume. The short-term impacts of the pandemic were devastating. Yet, even as theaters gradually reopen and film production restarts, the pandemic casts a huge shadow over cinema's future. None of us have a crystal ball, and it would be rash to suggest that cinema won't continue in some form or other. But the calamity caused by COVID-19 outbreak seems likely to wreak havoc on the world's film industries for years to come.

We trust that teachers and students will go beyond what the book offers and explore film history on their own. To this end, we offer many supplements that try to tease you into byways we could not pursue in an already wide-ranging text.

New to the fifth edition is a collection of one hundred video clips that bring the text and images on the printed page to life. The clips present entire sequences, typically running from five to eight minutes. They cover the entire history of world cinema with most chapters featuring three to four video examples. The extracts survey a broad spectrum of cinematic modes, styles, genres, movements, and traditions. We also spotlight the work of comparatively new voices, such as Lucrecia Martel, Greta Gerwig, and Sean Baker, alongside directors well established within the canon.

Next, we have prepared a broad background essay, "Doing Film History," which is available online at www.davidbordwell.net. A version of this served as an introductory chapter in earlier editions of this book, and in order to expand the essay's availability, we have moved it online. In addition, many of the bonus materials that appeared in earlier editions can be found in the Student Resources section at the end of the eBook. There you will find bibliographies keyed to each chapter as well as a bibliography for more general topics.

Just as important are the "Notes and Queries" sections we had appended to chapters in earlier editions. Now those and new ones reside in the Student Resources section at the end of the eBook. We urge both teachers and students to consult them. The Notes and Queries discuss general issues of historical research as well as topics we find intriguing. (How did Japanese anime become so popular in the United States? Why do some Italian critics think that Neorealism never existed?) The advantage of moving the Notes and Queries online is that we can update them and add others as the need arises.

Finally, we invite everyone to visit our blog, *Observations on Film Art*, at www.davidbordwell.net/blog, which often considers historical topics relevant to the questions, evidence, and explanations we present in this book.

Acknowledgments

One thing has remained constant from earlier editions: our gratitude to other scholars. Their research helped us rethink the history of the art form we love, and we look forward to learning more from them. Specifically, many individuals have helped us on this project.

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Our coverage of silent cinema was enhanced by the annual "Giornate del cinema muto" events at Pordenone, Italy. These gatherings have revolutionized the study of silent cinema, and we are grateful to Davide Turconi, Lorenzo Codelli, Paolo Cherchi Usai, David Robinson, and their associates for inviting us to participate in them. In similar fashion, "Il cinema ritrovato" in Bologna has expanded our knowledge of film history, and we thank Gian Luca Farinelli, Guy Borlée, the late Peter von Bagh, and Patrizia Mighetti for inviting us to this annual gathering.

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Kristin Thompson
David Bordwell
Jeff Smith
Madison, WI
September 2020

PART
ONE

EARLY CINEMA

As the twentieth century began, Western Europe seemed to many the center of the world and the pinnacle of modern civilization. New inventions, economic expansion, and rising standards of living suggested that society had begun a new phase of progress. Yet in a few years Europe would be ravaged by war, and the United States of America would take Europe's place as a global power.

The late 1800s saw a dazzling procession of new technologies. Steam power and train transport had already revolutionized industry, but now life was radically changed by electricity and the internal combustion engine. The "second industrial revolution" of the 1890s transformed fields as diverse as pharmaceuticals (aspirins, disinfectants, anesthetics), metallurgy (the steel industry), and motor power (the Diesel engine). Breakthroughs in synthetic chemistry enabled scientists to devise plastics, the basis of the motion picture film.

Industrialization led to the growth of cities. European capitals were packed with migrants from the countryside and from other countries. Paris grew to nearly three million residents, London to almost seven million. Inequality was severe, with most people becoming factory workers, servants, or home-based artisans. Noise, pollution, traffic accidents, and poor sanitation were common. Still, urbanization created a distinct mass culture. Electricity turned major streets into dazzling displays of shop windows and advertising. Publishing boomed, with books and magazines joined by newspaper comic strips. Many people could sample entertainments—sports events, dance halls, cabarets, stage shows, amusement parks, and motion-picture theaters.

The major Western European countries continued to rule vast colonial empires. In 1901, the British Empire controlled India, Egypt, Hong Kong, Burma, Malaya, several areas of Africa, and other regions, while granting "dominion" status to Canada, Australia, and New Zealand. Nearly all portions of Africa became colonies of Belgium, Spain, Italy, Portugal, or

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France. Southeast Asia was similarly carved up. Britain, along with Russia and Japan, seized areas of China.

Territories were split up with little concern for natural divisions of local cultures. The Western powers used their technological superiority to extract resources from their territories and subjugate the populations. Throughout the twentieth century, colonized peoples would struggle to throw off foreign rule.

The role of colonies was chiefly to supply rare items (tea, silk) or raw materials for European manufacturing. Even the nominally independent countries of South America depended upon European markets to buy their exports of copper, tin, nitrate, wool, wheat, coffee, and cocoa. Britain was central to the entire system of trade and manufacture. It controlled the strongest navy and merchant marine, and London was the world's center of finance.

As the nineteenth century was ending, Europe had a new rival. The Spanish-American War of 1898 resulted in the United States gaining control of Puerto Rico, the Philippines, Guam, Hawaii, and part of Samoa. England had been known as the "workshop of the world," turning raw materials into consumer goods. But US manufacturing and service industries took the lead. During the late nineteenth century, railroad, oil, tobacco, and other industries were expanding rapidly.

Owing to hard times in Southern and Eastern Europe, a new wave of immigrants arrived on American shores after 1890. The population grew to 75 million in 1900, about the same as in France and far more than in Germany or England. America's enormous economic takeoff in the next three decades is partly attributable to this influx of new workers. Living mostly in ethnic communities within cities, these non-English speakers would form a sizable audience for the silent cinema.

The first decade of the new century saw a progressivist impulse in America, under the presidency of Theodore Roosevelt. There were movements to give women the vote, to prohibit child labor, to enforce antitrust laws, and to institute regulations to protect consumers. This era was also one of virulent racism, scarred by many lynchings. African American progressives formed the National Association for the Advancement of Colored People in 1909.

American expansion came at a time when major European powers were continuing to jockey for global influence. Such maneuvering, as well as mutual distrust, led to the outbreak of World War I in 1914. This conflict gradually drew in countries from all over the globe. Although many Americans wanted no involvement, the United States entered hostilities in 1917 and broke the stalemate that had developed, ultimately forcing Germany to surrender in 1918.

The global balance of power had shifted. Germany lost all of its colonies, and the United States replaced Britain as the world's leading financial force. President Woodrow Wilson tried to expand progressivist principles on an international scale, proposing a League of Nations to foster world unity. The League, formed in 1919, helped to build a spirit of international cooperation during the 1920s, but it proved too weak to prevent lingering tensions from eventually causing a second international conflict.

During the two decades before World War I, the cinema was invented and grew from a small amusement-arcade business to an international industry. Films began as brief moving views presented as novelties, and, by the mid-1910s, the lengthy narrative feature became the basis for cinema programs.

The invention of cinema was a lengthy process, involving engineers and entrepreneurs in several countries. Struggles among patent holders in the United States slowed the development of the industry there, while French companies quickly seized the lead in markets throughout the world (Chapter 1).

From 1905 on, a rapid expansion in demand for motion-picture entertainment in the United States led to the spread of small movie theaters called nickelodeons. This demand was fueled in part by the rising immigrant population and in part by the shorter work hours gained by the increasingly militant labor-union movement. Soon America was by far the world's largest market for films—a situation that would allow it to increase its selling power abroad as well.

During the period of the "nickelodeon boom," the story film became the main type of fare offered on programs. Films made in France, Italy, Denmark, the United Kingdom, the United States, and elsewhere circulated widely around the world. Narrative traits and stylistic techniques changed rapidly as influences passed back and forth among countries. Movies grew longer, employed more editing, added explanatory intertitles, and featured a greater variety of camera distances. Adaptations from literature and lavish historical spectacles added prestige to the new art form (Chapter 2).

World War I had enormous effects on the cinema. The outbreak of hostilities triggered a severe cutback in French production, and the country lost its leading position in world markets. Italy encountered similar problems. The growing Hollywood film industry stepped in to fill the gap, expanding its distribution system abroad. By the war's end, American films had an international grip that other countries have struggled ever since to loosen.

During this era, filmmakers in many countries explored film form. Film editing grew subtle and complex; acting styles became varied; and directors exploited long takes, realistic decor, and camera movement. By the end of World War I, many of today's cinematic conventions had been established (Chapter 3).

CHAPTER 1

A Trip to the Moon

THE INVENTION AND EARLY YEARS OF THE CINEMA, 1880s–1904

The Big Swallow

The nineteenth century saw a vast proliferation of visual forms of popular culture. The industrial era offered ways of mass-producing lantern slides, books of photographs, and illustrated fiction. The middle and working classes of many countries could visit elaborate *dioramas*—painted backdrops with three-dimensional figures depicting famous historical events. Circuses, "freak shows," amusement parks, and music halls provided other forms of inexpensive entertainment. In the United States, many dramatic troupes toured, performing in the theaters and opera houses that existed even in small towns.

Hauling entire theater productions from town to town, however, was expensive. Similarly, most people had to travel long distances to visit major dioramas or amusement parks. In the days before airplane travel, few could hope to see firsthand the exotic lands they glimpsed on display in books of travel photographs or in their *stereoscopes*, handheld viewers that created three-dimensional effects by using oblong cards with two photographs printed side by side.

The cinema was to offer a cheaper, simpler way of providing entertainment to the masses. Filmmakers could record actors' performances, which then could be shown to audiences around the world. Travelogues would bring moving images of far-flung places directly to spectators' hometowns. Movies would become the most popular visual art form of the early twentieth century.

The cinema was invented during the 1890s. It appeared in the wake of the Industrial Revolution, as did the telephone (invented in 1876), the phonograph (invented in 1877), and the automobile (developed during the 1880s and 1890s). Like them, it was a technological device that became the basis of a large industry. It was also a new form of entertainment and a new artistic medium. During the first decade of the cinema's

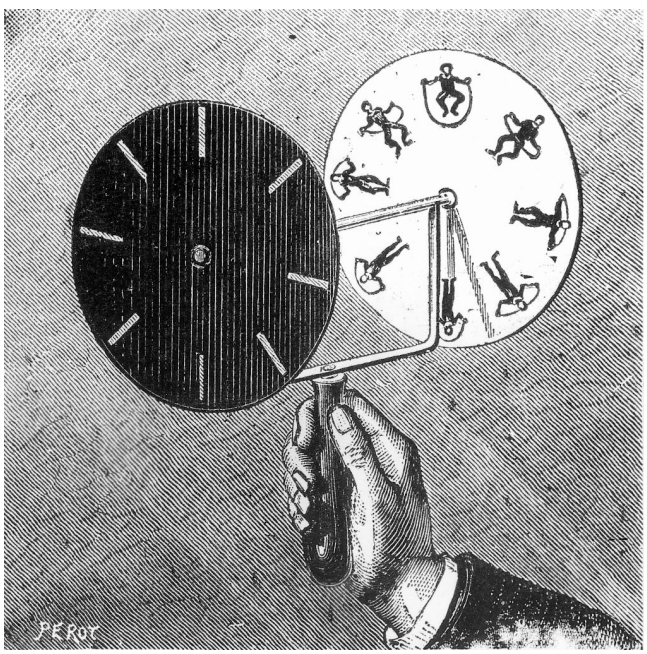
existence, inventors worked to improve the machines for making and showing films. Filmmakers also had to explore what sorts of images they could record, and exhibitors had to figure out how to present those images to audiences.

THE INVENTION OF THE CINEMA

The cinema is a complicated medium, and before it could be invented, several technological requirements had to be met.

Preconditions for Motion Pictures

First, scientists had to realize that the human eye will perceive motion if a series of slightly different images is placed before it in rapid succession—minimally, around sixteen per second. During the nineteenth century, scientists explored this property of vision. Several optical toys gave an illusion of movement by using a small number of drawings, each altered somewhat. In 1832, Belgian physicist Joseph Plateau and Austrian geometry professor Simon Stampfer independently created an optical device called the Phenakistoscope (**1.1**). The Zoetrope, invented in 1833, contained a series of drawings on a narrow strip of paper inside a revolving drum (**1.2**).



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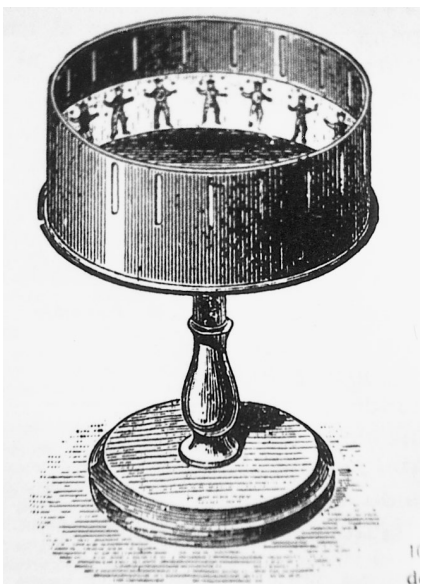
1.1 A Phenakistoscope's spinning disc of figures gives the illusion of movement when the viewer looks through a slot in the stationary disc.

The Zoetrope was widely sold after 1867, along with other optical toys. In these toys, the same action was repeated over and over.

A second technological requirement for the cinema was the capacity to project a rapid series of images on a surface. Since the seventeenth century, entertainers and educators had been using "magic lanterns" to project glass lantern slides, and some could rapidly flash two or three changes of a figure's position. But there had been no way to show a large number of images fast enough to create a sustained illusion of movement.

If it had been easy to make a long series of drawings on some support, cinema would not have needed photography. Photography, however, was the simplest way to produce many lifelike images. The problem was that the illusion of movement needed at least sixteen photographs exposed per second. It took inventors several years to achieve such a short exposure time. The first still photograph was made on a glass plate in 1826 by Claude Niépce, but it required an exposure time of eight hours. For years, photographs were made on glass or metal, without the use of negatives, so only one copy of each image was possible; exposures took several minutes each. Not until 1878 did split-second exposure times become feasible. Rapid photography became the third precondition for cinema as we know it.

Fourth, the cinema would require that photographs be printed on a base flexible enough to be passed through a camera rapidly. Strips or discs of glass could



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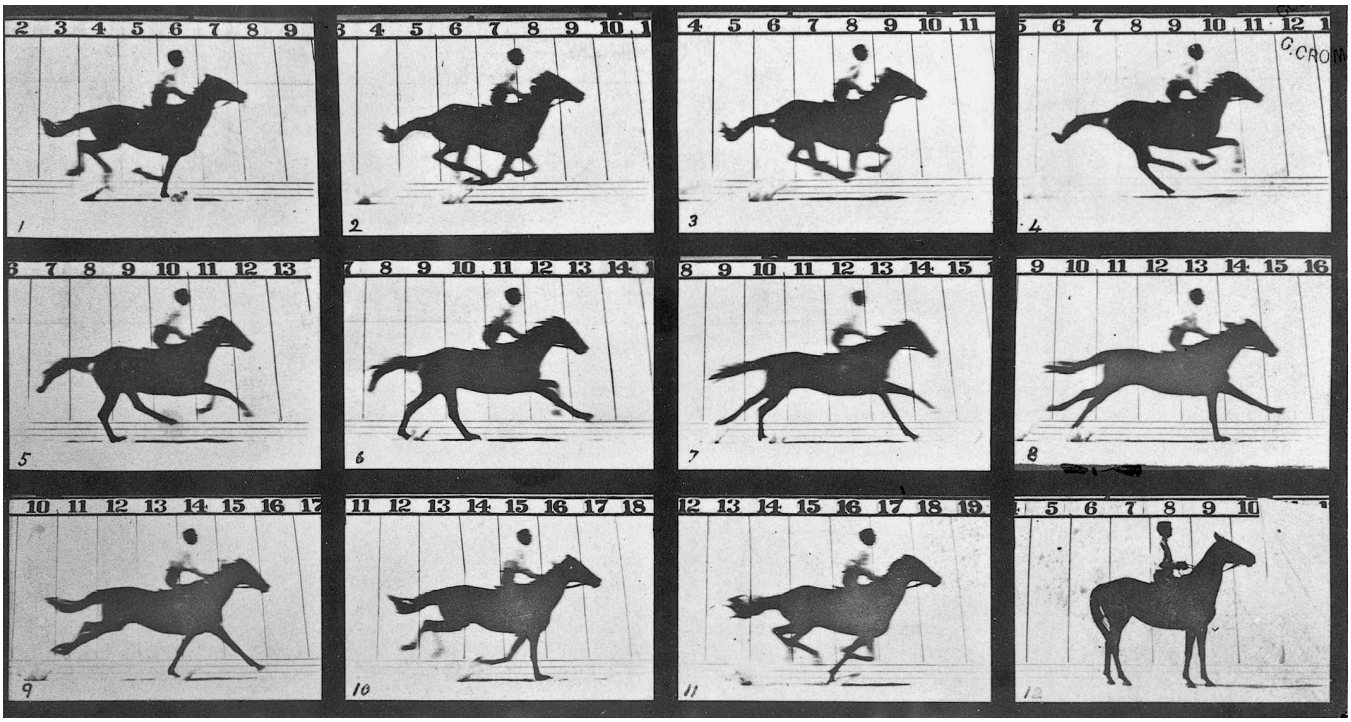
1.2 Looking through the slots in a revolving Zoetrope, the viewer receives an impression of movement.



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1.3 One of Muybridge's earliest motion studies, photographed on June 19, 1878.

be used, but only a short series of images could be registered on them. In 1888, George Eastman devised a still camera that made photographs on rolls of sensitized paper. This camera, which he named the Kodak, simplified photography so that unskilled amateurs could take pictures. The next year Eastman introduced transparent celluloid roll film, creating a breakthrough in the move toward cinema. The film was intended for still cameras, but inventors soon used the same flexible material in designing machines to take and project motion pictures.

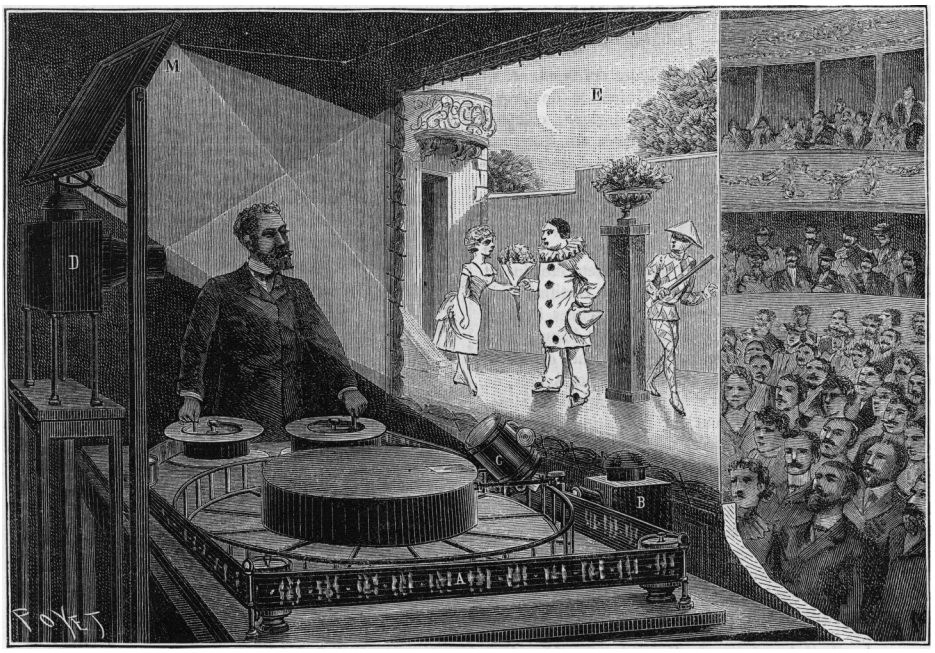
Fifth, and finally, experimenters needed to find a suitable intermittent mechanism for cameras and projectors. In the camera, the strip of film had to stop briefly while light entered through the lens and exposed each frame. A shutter then covered the film as another frame moved into place. Similarly, in the projector, each frame stopped for an instant in the aperture while a beam of light projected it onto a screen. Again a shutter passed behind the lens while the filmstrip moved. At least sixteen frames had to slide into place, stop, and move away each second. (A strip of film sliding continuously past the gate would create a blur.) Fortunately, other inventions of the century also needed intermittent mechanisms to stop and start quickly. For example, the sewing machine (invented in 1846) advanced strips of fabric several times per second while a needle pierced them. Intermittent mechanisms usually consisted of a gear with slots or notches spaced around its edge.

By the 1890s, all the technical conditions for the cinema existed. But who would bring the elements together in a way that could be exploited on a wide basis?

Major Precursors of Motion Pictures

Some inventors made important contributions without creating moving photographic images. Several men were simply interested in analyzing motion. In 1878, ex-governor of California Leland Stanford asked photographer Eadweard Muybridge to find a way of photographing running horses to help study their gaits. Muybridge set up a row of twelve cameras, each making an exposure in one-thousandth of a second. The photos recorded one-half-second intervals of movement (**1.3**). Muybridge later made a lantern to project moving images of horses, but these were drawings copied from his photographs onto a revolving disc. Muybridge did not go on to invent motion pictures, but he made a major contribution to anatomical science through thousands of motion studies using his multiple-camera setup.

In 1882, inspired by Muybridge's work, French physiologist Étienne-Jules Marey studied the flight of birds and other rapid animal movements by means of a photographic



Chronicle/Alamy Stock Photo

1.4 Using long flexible bands of drawings, Reynaud's Praxinoscope rear-projected cartoon figures onto a screen on which the scenery was painted.

gun. Shaped like a rifle, it exposed twelve images around the edge of a circular glass plate that made a single revolution in one second. In 1888, Marey built a box-type camera that used an intermittent mechanism to expose a series of photographs on a strip of paper film at speeds of up to 120 frames per second. Marey was the first to combine flexible film stock and an intermittent mechanism in photographing motion. He was interested in analyzing movements rather than in reproducing them on a screen, but his work inspired other inventors. During this period, many other scientists used various devices to record and analyze motion.

A fascinating and isolated figure in the history of the invention of the cinema was Frenchman Émile Reynaud. In 1877, he had built an optical toy, the Projecting Praxinoscope. This was a spinning drum, rather like the Zoetrope, but one in which viewers saw the moving images in a series of mirrors rather than through slots. Around 1882, he devised a way of using mirrors and a lantern to project a brief series of drawings on a screen. In 1889, Reynaud exhibited a much larger version of the Praxinoscope. From 1892 on, he regularly gave public performances using long, broad strips of hand-painted frames (**1.4**). These were the first public exhibitions of moving images, though the effect on the screen was jerky and slow. The labor involved in making the bands meant that Reynaud's films could not easily be reproduced. Strips of photographs were more practical, and in 1895 Reynaud started using a camera to make his Praxinoscope films. By 1900, he was out of business, however, due to competition from other, simpler motion-picture projection systems. In despair, he destroyed his machines, though replicas have been constructed.

Another Frenchman came close to inventing the cinema as early as 1888—six years before the first commercial showings of moving photographs. That year, Louis Le Prince, working in England, was able to make some brief films, shot at about sixteen frames per second, using Kodak's recently introduced paper roll film. To be projected, however, the frames needed to be printed on a transparent strip; lacking flexible celluloid, Le Prince apparently was unable to devise a satisfactory projector. In 1890, while traveling in France, he disappeared, along with his valise of patent applications, creating a mystery that has never been solved. His camera was never exploited commercially and had virtually no influence on the subsequent invention of the cinema.

An International Process of Invention

We cannot attribute the invention of the cinema to a single source. There was no one moment when the cinema emerged. Rather, the technology of the motion picture came about through an accumulation of contributions, primarily from the United States, Germany, England, and France.

Edison, Dickson, and the Kinetoscope In 1888, Thomas Edison, already the successful inventor of the phonograph and the electric light bulb, decided to design machines for making and showing moving photographs. Much of the work was done by his assistant, W. K. L. Dickson. Because Edison's phonograph worked by

recording sound on cylinders, the pair tried fruitlessly to make rows of tiny photographs around similar cylinders. In 1889, Edison went to Paris and saw Marey's camera, which used strips of flexible film. Dickson then obtained some Eastman Kodak film stock and began working on a new type of machine. By 1891, the Kinetograph camera and Kinetoscope viewing box (**1.5**) were ready to be patented and demonstrated. Dickson sliced sheets of Eastman film into strips 1 inch wide (roughly 35 millimeters) and spliced them end to end. He punched four holes on either side of each frame so that toothed gears could pull the film through the camera and Kinetoscope. Dickson's early decisions influenced the entire history of the cinema; 35 mm film stock with four perforations per frame remained the norm for more than a hundred years. Initially, however, the film was exposed at about forty-six frames per second—much faster than the average speed later adopted for silent filmmaking.

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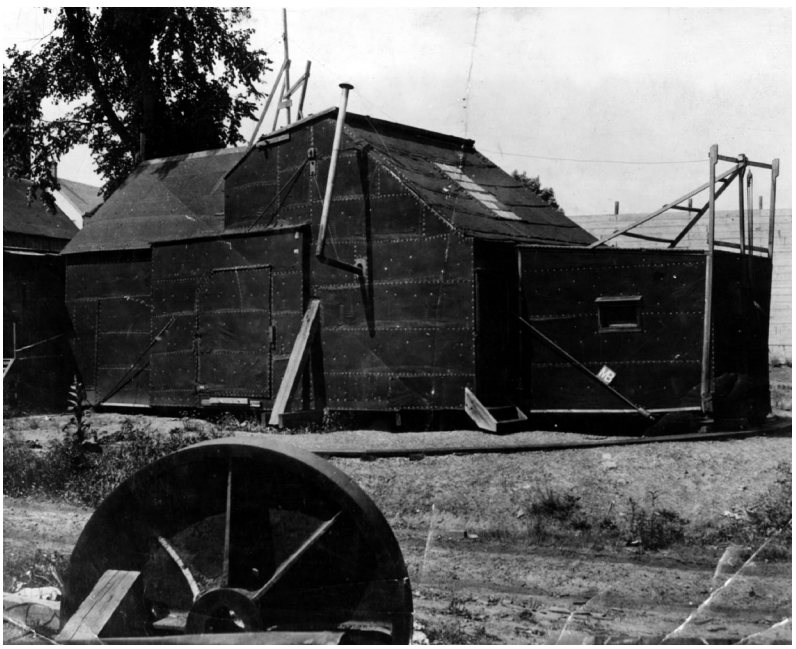
1.5 The Kinetoscope was a peephole device that ran the film around a series of rollers. Viewers activated it by putting a coin in a slot.

Before Edison and Dickson could exploit their machine commercially, they needed films. They built a small studio, called the Black Maria, on the grounds of Edison's New Jersey laboratory and were ready for production by January 1893 (**1.6**). The films lasted only twenty seconds or so—the longest run of film that the Kinetoscope could hold. Most films featured well-known sports figures, excerpts from noted vaudeville acts, or performances by dancers or acrobats (**1.7**). Annie Oakley displayed her riflery, and a bodybuilder flexed his muscles. A few Kinetoscope shorts were knockabout comic skits, forerunners of the story film.



Everett Historical/Shutterstock

1.6 Edison's studio was named after the police paddy wagons, or Black Marias, that it resembled. The slanted portion of the roof opened to admit sunlight for filming, and the whole building revolved on a track to catch optimal sunlight.

Library of Congress Motion Picture, Broadcasting and Recorded Sound Division Washington, D. C. 20540 USA dcu [LC_00694109]

1.7 Amy Muller danced in the *Black Maria* on March 24, 1896. The black background and patch of sunlight from the opening in the roof were standard traits of Kinetoscope films.

Department of the Interior/PhotoQuest/Getty Images

1.8 A typical entertainment parlor, with phonographs (note the dangling earphones) at left and center and a row of Kinetoscopes at right. Later videogame arcades would operate on the same business model.

Edison had exploited his phonograph by leasing it to special phonograph parlors, where the public paid a nickel to hear sound through earphones. (Only in 1895 did phonographs become available for home use.) He did the same with the Kinetoscope. On April 14, 1894, the first Kinetoscope parlor opened in New York. Soon other parlors, both in the United States and abroad, exhibited the machines (**1.8**). For about two years the Kinetoscope was highly profitable, but it was eclipsed when other inventors, inspired by Edison's new device, found ways to project films on a screen.

European Contributions Another early system for taking and projecting films was invented by the Germans Max and Emil Skladanowsky. Their Bioscop held two strips of film, each 3½ inches wide, running side by side; frames of each were projected alternately. The Skladanowsky brothers showed a fifteen-minute program at a large vaudeville theater in Berlin on November 1, 1895—nearly two months before the famous Lumière screening at the Grand Café. The Bioscop system was too cumbersome, however, and the Skladanowskys eventually adopted the standard 35 mm, single-strip film used by more influential inventors. The brothers toured Europe through 1897, but they did not establish a stable production company.

The Lumière brothers, Louis and Auguste, invented a projection system that helped make the cinema a commercially viable enterprise internationally. Their family company, Lumière Frères, based in Lyon, France, was the biggest European manufacturer of photographic plates. In 1894, a local Kinetoscope exhibitor asked them to produce short films that would be cheaper than the ones sold by Edison. Soon they had designed an elegant little camera, the Cinématographe, which used 35 mm film and an intermittent mechanism modeled on that of the sewing machine (**1.9**). The camera could serve as a printer when

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1.9 Unlike many other early cameras, the Lumière Cinématographe was small and portable. This 1930 photo shows Francis Doublier, one of the firm's representatives who toured the world showing and making films during the 1890s, posing with his Cinématographe.


Workers Leaving the Lumière Factory


Rough Sea at Dover

1.10, *left* The Lumière brothers' first film, *Workers Leaving the Factory*, was a single shot made outside their photographic factory. It embodied the essential appeal of the first films: realistic movement of actual people.

1.11, *right* Birt Acres's *Rough Sea at Dover*, one of the earliest English films, showed large waves crashing against a seawall.

the positive copies were made. Then, mounted in front of a magic lantern, it formed part of the projector as well. One important decision the Lumières made was to shoot their films at sixteen frames per second, rather than the forty-six frames per second used by Edison. Sixteen frames per second became the most commonly used rate for about twenty years. The first film made with this system was *Workers Leaving the Factory*, apparently shot in March 1895 (**1.10**; **Video 1.1**). It was shown in public at a meeting of the Société d'Encouragement pour l'Industrie Nationale in Paris on March 22. Six further showings to scientific and commercial groups followed, including additional films shot by Louis.

On December 28, 1895, one of the most famous events in film history took place. The location was a room in the Grand Café in Paris. In those days, cafés were gathering spots where people sipped coffee, read newspapers, and were entertained by singers and other performers. That evening, fashionable patrons paid a franc to see a twenty-five-minute program of ten films, about a minute each. Among the films shown were a close view of Auguste Lumière and his wife feeding their baby, a staged comic scene of a boy stepping on a hose to cause a puzzled gardener to squirt himself (later named *L'arroseur arrosé*, or "The Waterer Watered"), and a shot of the sea.

Although the first shows did moderate business, within weeks the Lumières were offering twenty shows a day, with long lines of spectators waiting to get in. They moved quickly to exploit this success, sending representatives all over the world to show films and make more of them.

At the same time that the Lumière brothers were developing their system, a parallel process of invention was going on in England. The Edison Kinetoscope had premiered in London in October 1894, and the parlor that displayed the machines did so well that its owners asked R. W. Paul, a producer of photographic equipment, to make some extra machines for it. For reasons that are still not clear, Edison had not patented the Kinetoscope outside the United States, so Paul was free to sell copies to anyone who wanted them. Because Edison would supply films only to exhibitors who had leased his own machines, Paul also had to invent a camera and make films to go with his duplicate Kinetoscopes.

By March 1895, Paul and his partner, Birt Acres, had a functional camera, which they based partly on the one Marey had made seven years earlier for analyzing motion. Acres shot thirteen films during the first half of the year, but the partnership broke up. Paul went on improving the camera, aiming to serve the Kinetoscope market, whereas Acres concentrated on creating a projector. On January 14, 1896, Acres showed some of his films to the Royal Photographic Society. Among those was *Rough Sea at Dover* (**1.11**), which became one of the most popular first films.

Seeing such one-shot films of simple actions or landscapes today, we can hardly grasp how impressive they were to audiences who had never seen moving photographic images. A contemporary review of Acres's Royal Photographic Society program hints, however, at their appeal:

> The most successful effect, and one which called forth rounds of applause from the usually placid members of the "Royal," was a reproduction of a number of breaking waves, which may be seen to roll in from the sea, curl over against a jetty, and break into clouds of snowy spray that seemed to start from the screen.[1]

Acres gave other demonstrations, but he did not systematically exploit his projector and films.

Projected films were soon shown regularly in England, however. The Lumière brothers sent a representative who opened a successful run of the Cinématographe in London on February 20, 1896, about a month after Acres's first screening. R. W. Paul went on improving his camera and invented a projector, which he used in several