FILM HISTORY

An Introduction

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Second Edition

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University of Wisconsin-Madison

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To Gabrielle

Chez Léon tout est bon

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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. She holds a master's degree in film from the University of Iowa and a doctorate in film from the University of Wisconsin—Madison. She has published *Eisenstein's Ivan the Terrible* (Princeton University Press, 1981), *Exporting Entertainment: America's Place in World Film Markets, 1901–1934* (British Film Institute, 1985), *Breaking the Glass Armor: Neoformalist Film Analysis* (Princeton University Press, 1988), *Wooster Proposes, Jeeves Disposes; or, Le Mot Juste* (James H. Heinemann, 1992), a study of P. G. Wodehouse, and *Storytelling in the New Hollywood: Understanding Classical Narrative Technique* (Harvard University Press, 1999). She is currently at work on a study of Ernst Lubitsch's silent features. She is also an amateur Egyptologist and a member of an expedition to Egypt.

David Bordwell is Jacques Ledoux Professor of Film Studies in the Department of Communication Arts at the University of Wisconsin—Madison. He also holds a Hilldale Professorship in the Humanities. He completed a master's degree and a doctorate in film at the University of Iowa. His books include *The Films of Carl-Theodor Dreyer* (University of California Press, 1981), *Narration in the Fiction Film* (University of Wisconsin Press, 1985), *Ozu and the Poetics of Cinema* (Princeton University Press, 1988), *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema* (Harvard University Press, 1989), *The Cinema of Eisenstein* (Harvard University Press, 1993), *On the History of Film Style* (Harvard University Press, 1997), *Planet Hong Kong: Popular Cinema and the Art of Entertainment* (Harvard University Press, 2000), and *Visual Style in Cinema: Vier Kapitel Filmgeschichte* (Verlag der Autoren, 2001).

The authors have previously collaborated on *Film Art: An Introduction* (McGraw-Hill, 6th ed., 2001) and, with Janet Staiger, on *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (Columbia University Press, 1985).

PREFACE

Summing up a hundred years in the development of a major mass medium is a daunting task. We have tried, within the compass of a single volume, to construct a readable history of the principal trends within mainstream fictional filmmaking, documentary filmmaking, and experimental cinema. Our Introduction, "Film History and How It Is Done," lays out in more detail the assumptions and frame of reference that have guided our work. We hope this book will prove a useful initiation to an endlessly fascinating subject.

We have been studying film history for over thirty years, and we are well aware of how much a historian owes to archives, libraries, and individuals. Many archivists helped us gain access to films and photographs. We thank Elaine Burrows, Jackie Morris, Julie Rigg, and the staff of the National Film and Television Archive of the British Film Institute; Paul Spehr, Kathy Loughney, Patrick Loughney, Cooper Graham, and the staff of the Motion Picture, Television, and Recorded Sound Division of the Library of Congress; Enno Patalas, Jan Christopher-Horak, Klaus Volkmer, Gerhardt Ullmann, Stefan Droessler, and the staff of the München Filmmuseum; Mark-Paul Meyer, Eric de Kuyper, and the staff of the Nederlands Filmmuseum; Eileen Bowser, Charles Silver, Mary Corliss, and the staff of the Film Study Center of the Museum of Modern Art; Ib Monty, Marguerite Engberg, and the staff of the Danish Film Museum; Vincent Pinel and the staff of the Cinémathèque Française of Paris; Robert Rosen, Eddie Richmond, and the staff of the UCLA Film Archive; Bruce Jenkins, Mike Maggiore, and the staff of the Walker Art Center Film Department; Robert A. Haller, Carol Pipolo, and the staff of Anthology Film Archives; and Edith Kramer and the staff of the Pacific Film Archive. We owe special thanks to Jan-Christopher Horak and Paolo Cherchai Usai of the Motion Picture Division of George Eastman House, who assisted our work "beyond the call of duty." Finally, this book could not have been as comprehensive and detailed as it has become without the generosity of the late Jacques Ledoux and his successor Gabrielle Claes. Along with their staff at the Cinémathèque Royale de Belgique, they kindly supported our work in innumerable ways.

In addition, we wish to thank others who shared information and films with us: Jacques Aumont, John Belton, Edward Branigan, Carlos Bustamente, Chen Mei, David Desser, Michael Drozewski, Michael Friend, André Gaudreault, Kevin Heffernan, Richard Hincha, Kyoko Hirano, Donald Kirihara, Hiroshi Komatsu, Richard Maltby, Albert Moran, Charles Musser, Peter Parshall, William Paul, Richard Peña, Tony Rayns, Donald Richie, David Rodowick, Phil Rosen, Barbara Scharres, Alex Sesonske, Alissa Simon, Cecille Starr, Yuri Tsivian, Alan Upchurch, Ruth Vasey, Marc Vernet, and Chuck Wolfe. Jerry Carlson went out of his way to assist our work on eastern European and Latin American topics, while Diane and Kewal Verma helped us get access to obscure Hindi films. Tom Gunning waded through the entire manuscript and offered many valuable suggestions.

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.

We are also grateful to our readers in the discipline, who provided helpful criticism and suggestions: Jonathan Buchsbaum, Queens College; Jeremy Butler, University of Alabama; Diane Carson, St. Louis Community College; Thomas D. Cooke, University of Missouri; David A. Daly,

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This project could not have come into being without the resources and people of the University of Wisconsin–Madison. Much of this volume derives from our teaching and scholarly work, activities that have been generously supported by the Department of Communication Arts, the Graduate School, and the Institute for Research in the Humanities. Moreover, we have come to rely on the Wisconsin Center for Film and Theater Research, its collections and its staff supervised by our archivist, the ever-cooperative Maxine Fleckner Ducey. Joe Beres and Brad Schauer helped us immeasurably with the new illustrations.

In addition, our Madison colleagues lent their expertise to this book. Tino Balio's suggestions improved our coverage of the film industry; Ben Brewster scrutinized our chapters on early cinema; Noël Carroll offered detailed comments on experimental cinema and Hollywood film; Don Crafton supplied suggestions and photographic materials on animation and early French cinema; Lea Jacobs improved our understanding of Hollywood film and women's cinema; Vance Kepley advised us on Russian and Soviet film; J. J. Murphy informed our discussion of the avant-garde; Marc Silberman helped us nuance our treatment of German film history. Our newest colleagues, Kelley Conway, Michael Curtin, and Ben Singer, have helped us refine this edition. Our intellectual debts to these colleagues are deepened by our admiration and affection.

Kristin Thompson
David Bordwell

INTRODUCTION
Film History and How It Is Done

WHY DO WE CARE ABOUT OLD MOVIES?

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, or in their homes before a television screen. The world's film theaters attract around 15 billion customers each year. With the availability of films on video—whether broadcast, fed from cable or satellites or the Internet, or played back from cassette or DVD—the audience has multiplied far beyond that.

Nobody needs to be convinced that film has been one of the most influential media for over one 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 aesthetic experiences, insights into diverse cultures, and glimpses of new ways of thinking.

So we aren't surprised that people rush to see the latest hit or rent a cult favorite from the video store. Why, though, should anybody care about *old* movies?

For one thing, they provide the same sorts of insights that we get from watching contemporary movies. Some offer intense artistic experiences or penetrating visions of human life in other times and places. Some are documents of everyday existence or of extraordinary historical events that continue to reverberate in our times. Still other old movies are resolutely strange. They resist assimilation to our current habits of thought. They force us to acknowledge that films can be radically different from what we are used to and that we must adjust our own field of view to accommodate what was, astonishingly, taken for granted by others.

Film history encompasses more than just films. By studying how films were made and received, we discover the range of options available to filmmakers and film viewers. By studying the social and cultural influences on films, we understand better the ways in which films may bear the traces of the societies that made and consumed them. Film history opens up a range of issues in politics, culture, and the arts—both "high" and "popular."

Yet another answer to our question is this: studying old movies and the times in which they were made is intrinsically fun. As a relatively new field of academic research (no more than forty years old), film history has the excitement of a young discipline. Over the past few decades, many lost films have been recovered, little-known genres explored, and neglected filmmakers re-evaluated. Ambitious retrospectives have revealed entire national cinemas that had been largely ignored. Even television, with cable stations devoted wholly to cinema, brings previously rare and obscure silent and foreign films into viewers' living rooms. And much more remains to be discovered. Simply put, there are more old movies than new ones and, hence, many more chances for fascinating viewing experiences.

In the space of this one volume, we aim to introduce the history of film as it is presently conceived, written,

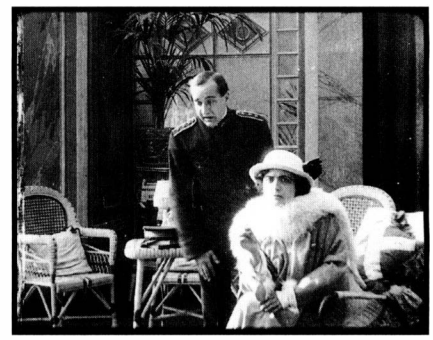
and taught by its most accomplished scholars. This book assumes no specialized knowledge of film aesthetics or theory, although some acquaintance with these areas would certainly benefit the reader.[1] We limit our scope to those realms of filmmaking that are most frequently studied. We consider theatrical fiction films, documentary films, experimental or avant-garde filmmaking, and animation. There are other types of cinema—most notably educational, industrial, and scientific films—but, whatever their intrinsic interest, for the moment they play secondary roles in most historians' concerns.

Film History: An Introduction is not, however, exactly a distillation of an "essential" film history. Researchers are fond of saying that there is no film *history,* only film *histories.* For some, this means that there can be no intelligible, coherent "grand narrative" that puts all the facts into place. The history of avant-garde film does not fit neatly into the history of color technology or the development of the Western or the life of John Ford. For others, *film history* means that historians work from various perspectives and with different interests and purposes.

We agree with both points. There is no Big Story of Film History that accounts for all events, causes, and consequences. And the variety of historical approaches guarantees that historians will draw diverse and dissenting conclusions. We also think that film history is more aptly thought of as a set of film histories, because research into 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, turn up different evidence, and formulate different explanations, we derive not a single history but a diverse set of historical arguments. In this introduction we will explain what film historians do and the particular approach *Film History: An Introduction* takes.

WHAT DO FILM HISTORIANS DO?

While millions are watching movies at this moment, a few thousand are studying the films of the past. One person is trying to ascertain whether a certain film was made in 1904 or 1905. Another is tracing the fortunes of a short-lived Scandinavian production company. Another is poring over a 1927 Japanese film, shot by shot, to find out how it tells its story. Some researchers are comparing prints of an obscure film to determine which one can be considered the original. Other scholars are studying a group of films signed by the same director or



set designer or producer. Some are scrutinizing patent records and technical diagrams, legal testimony, and production files. And still others are interviewing retired employees to discover how the Bijou Theater in their hometown was run during the 1950s.

Why?

Questions and Answers

One reason is evident. Most film historians—teachers, archivists, journalists, and freelancers—are *cinephiles,* lovers of cinema. Like bird-watchers, fans of 1960s television, art historians, and other devotees, they enjoy acquiring knowledge about the object of their affection.

Movie fans may stop there, regarding the accumulating of facts about their passion as an end in itself. But whatever the pleasure of knowing the names of all the Three Stooges' wives, most film historians are not trivia buffs.

Film historians mount *research programs,* systematic inquiries into the past. A historian's research program is organized around questions that require answers. A research program also consists of assumptions and background knowledge. For a film historian, a fact takes on significance only in the context of a research program.

Consider the image at the top of the page, from a film of the silent era. A film archivist—that is, someone who works in a library devoted to collecting and preserving motion pictures—often finds a film she cannot identify. Perhaps the title credit is missing or the print carries a title that differs from that of the original film. The archivist's research program is, broadly, identification. The film presents a series of questions: What is the date of production or of release? In what country was it made? Who made the film? Who are the actors?

Our mysterious film carries only the title *Wanda l'espione* ("Wanda the Spy")—most likely a title given to it by a distributor. It was probably imported rather than made in the small country in which the print was discov-

ered. Fortunately there are some clues in the print itself that a knowledgeable historian can spot. Its lead actress, seated in the foreground, is a famous star, Francesca Bertini. Identifying her makes it almost certain that the film is Italian, made during the height of her career in the 1910s. The film's style allows the researcher to narrow the range of dates even more. The camera frames straight toward the back wall of the set, and the actors seldom move closer to the camera than they are seen here. The editing pace is slow, and the action is staged so that performers enter and exit through a rear doorway. All these stylistic features are typical of European filmmaking of the mid-1910s. Such clues can be followed up by referring to a *filmography* (a list of films) of Bertini's career. A plot description of a 1915 film in which she starred, *Diana l'affascinatrice* ("Diana the Seductress"), matches the action of the unidentified print.

Note that the identification depended on certain assumptions. For example, the researcher would have assumed that it is extremely unlikely, if not impossible, for, say, a 1977 filmmaker to scheme to bedevil archivists and make a fake 1915 Italian film. (Film historians seldom need worry about forgeries, as art historians must.) Note, too, that background knowledge was indispensable. The researcher had reason to believe that films staged and cut a certain way are characteristic of the mid-1910s, and the researcher recognized a star from other films of the period.

Consider another possibility. An archive holds many films made by the same production company, and it also has numerous filing cabinets bulging with documents concerning that company's production process. Its collection also includes scripts in various drafts; memos passed among writers, directors, producers, and other staff; and sketches for sets and costumes. This is a rich lode of data—too rich, in fact, for one researcher to tackle. The historian's problem is now selecting relevant data and salient facts.

What makes a datum relevant or a fact salient is the historian's research program and its questions. One scholar might be interested in tracing common features of the company's production process; he might ask something like, "In general, how did this firm typically go about making movies?" Another historian's research program might concentrate on the films of a certain director who worked for the company. She might ask, "What aspects of visual style distinguish the director's films?"

Some facts would be central to one program but peripheral to another. The historian interested in the company's production routines might not particularly care about a daring stylistic innovation introduced by the director who is the focus of the other historian's inquiry. Conversely, the latter historian might be uninterested in how the company's producers promoted certain stars.

Again, assumptions exert pressure on the researcher's framing of questions and pursuit of information. The company historian assumes that he can trace general tendencies of production organization, largely because film companies tend to make films by following fairly set routines. The director-centered researcher assumes—perhaps initially only as a hunch—that her director's films do have a distinct style. And both historians would mobilize background knowledge, about how companies work and how directors direct, to guide their research.

Historians in any discipline do more than accumulate facts. No facts speak for themselves. Facts are interesting and important only as part of research programs. But facts help us ask and answer questions.

Film History as Description and Explanation

Inevitably, a historian needs at least a little information to prod him to ask questions. But the historian does not necessarily sift through mountains of facts and then judiciously ask a question. A historian may begin with a question, and sometimes that question might be better described as a hunch or an intuition or even just an itch.

For example, one young historian saw a few of the "anarchic" American comedies of the 1930s and noticed that their vulgar gags and absurd situations were very different from the more sophisticated comedy of the period. Suspecting that stage comedy might have been a source, he framed a question: "Might vaudeville and its performance style have shaped these particular comedies of the early 1930s?" He began to gather information, examining films, reading coverage of the comedians in the Hollywood trade press, and studying shifts in American taste in humor. The process of research led him to refine his question and to mount a detailed account of how comedians introduced a vaudeville aesthetic into sound films but then muted it in accord with Hollywood's standards of taste.[2]

Nonhistorians often visualize the historical researcher as a cousin to Indiana Jones, braving library stacks and crawling through attics in quest of the treasure-lode of documents that overturn popular opinion. Certainly new documentation has a key role to play in historical research. One scholar gained entry to the long-inaccessible files of Hollywood's self-censorship agency, the Hays Office, and she was able to put forth a new account of the office's procedures and functions.[3]

Similarly, the increasing availability of films from cinema's earliest era has created an entire subfield of cinema history.[4]

Still, many research programs rely more on asking new questions than on unearthing new data. In some cases, the research question seems to have been answered by previous historians, but another researcher comes along and suggests a more complete or complex answer. For example, no historian disputes the fact that Warner Bros. was quick to invest in talking pictures in the mid-1920s. For a long time most historians believed that the firm took this risky step because it was on the verge of bankruptcy and was desperate to save itself. But another historian with more knowledge of economics and how to read companies' balance sheets concluded that evidence—which had long been publicly available to researchers—strongly indicated a quite different situation. He argued that, far from facing bankruptcy, Warners was quickly expanding and that investing in sound films was part of a carefully planned strategy for breaking into the ranks of the major studios.[5]

Our examples all indicate that the historian's research program aims to do at least two things. First, the historian tries to *describe* a process or state of affairs. She asks *What* and *who* and *where* and *when*. What is this film, and who made it, and where and when? In what ways does this director's work differ from that of others? What was the vaudeville comedic style? What evidence is there that a studio was nearly bankrupt? Who is the actor in this shot? Who was responsible for scripts at this company? Where was this film shown, and who might have seen it? Here the historian's problem is largely one of finding information that will answer such questions.

Accurate description is indispensable for all historical research. Every scholar is indebted to descriptive work for identifying films, collating versions, compiling filmographies, establishing timelines, and creating reference works that supply names, dates, and the like. The more sophisticated and long-lived a historical discipline is, the richer and more complete its battery of descriptive reference material is.

Second, the historian tries to *explain* a process or state of affairs. He asks, How does this work? and Why did this happen? How did this company assign tasks, lay out responsibilities, carry a project to completion? How did this director's work influence other films from the company? Why did Warners pursue talkies when larger companies were reluctant to do so? Why did some sound comedians adopt the vaudeville comedic style while others did not?

The film historian, like a historian of art or politics, proposes an *explanatory argument*. Having asked *how* or *why*, she puts forward an answer, based on an examination of evidence in light of assumptions and background knowledge. In reading historical writings, we need to recognize that the essay or book is not just a mass of facts but an argument. The historian's argument consists of evidence marshaled to create a plausible explanation for an event or state of affairs. That is, the argument aims to answer some historical question.

Evidence

Most arguments about empirical matters—and the history of film is principally an empirical matter—rely on evidence. Evidence consists of information that gives grounds for believing that the argument is sound. Evidence supports the expectation that the historian has presented a plausible answer to the original question.

Film historians work with evidence of many sorts. For many, copies of the films they study are central pieces of evidence. Historians also rely on print sources, both published (books, magazines, trade journals, newspapers) and unpublished (memoirs, letters, notes, production files, scripts, court testimony). Historians of film technology study cameras, sound recorders, and other equipment. A film studio or an important location might also serve as a source of evidence.

Usually historians must verify their sources of evidence. Often this depends on the sort of descriptive research we have already mentioned. The problem is particularly acute with film prints. Films have always circulated in differing versions. In the 1920s, Hollywood films were shot in two versions, one for the United States and one for export. These could differ considerably in length, content, and even visual style. To this day, many Hollywood films are released in Europe in more erotic or violent versions than are screened in the United States. In addition, many old films have deteriorated and been subject to cutting and revision. Even modern "restorations" do not necessarily result in a film identical to the original release version. (See "Notes and Queries," Chapter 4.) Many current video versions of old films have been trimmed, expanded, or otherwise altered from their theatrical release format.

Often, then, the historian does not know whether the print she is seeing represents anything like an original, if indeed there can be said to be a single "original" version. Historians try to be aware of the differences among the versions of the films they are studying and

try to account for them; indeed, the fact that there are different versions can itself be a source of questions.

Historians generally distinguish between *primary* and *secondary* sources. As applied to film, *primary* usually refers to the people directly involved in whatever objects or events are being studied. For example, if you were studying Japanese cinema of the 1920s, films, interviews with filmmakers or audience members, and contemporary trade journals would count as primary material. Later discussions concerning the period, usually by an earlier historian, would be considered secondary.

Often, though, one scholar's secondary source is another's primary source, because the researchers are asking different questions. A critic's 1960s' essay about a 1925 film would be a secondary source if your question centered on the 1925 film. If, however, you were writing a history of film criticism during the 1960s, the critic's essay would be a primary source.

Explaining the Past: Basic Approaches

There are distinct types of explanation in film history. A standard list would include

Biographical history: focusing on an individual's life history

Industrial or economic history: focusing on business practices

Aesthetic history: focusing on film art (form, style, genre)

Technological history: focusing on the materials and machines of film

Social/cultural/political history: focusing on the role of cinema in the larger society

This sort of inventory helps us understand that there is not *one* history of film but many possible histories, each adopting a different perspective. Typically, the researcher begins with an interest in one of these areas, which helps him to formulate his initial question.

Nevertheless, such typologies can be restricting if they are taken too rigidly. Not all questions the historian may ask will fall neatly into only one of these pigeonholes. If you want to know *why* a film looks the way it does, the question may not be purely aesthetic; it might be linked to the biography of the filmmaker or to the technological resources available when the film was made. A study of film genres might involve both aesthetic and cultural factors, and a person's life cannot easily be separated from his or her working conditions within a film industry or from the contemporary political context.

We propose that the student of film history think chiefly in terms of questions, keeping in mind that these might well cut across typological boundaries. Indeed, one could argue that the most interesting questions will.

Explaining the Past: Organizing the Evidence

Finding an answer to a historical question may involve both description and explanation, in different mixtures. The techniques of descriptive research are specialized and require a wide range of background knowledge. For example, some experts on early silent cinema can determine when a film copy was made by examining the stock on which it is printed. The number and shape of the sprocket holes, along with the manner in which a manufacturer's name is printed along the edge of the film strip, can help date the print. Knowing the age of the stock can in turn help narrow down the film's date of production and country of origin.

Historical explanation also involves concepts to organize the evidence produced by specialized knowledge. Here are some of them.

Chronology Chronology is essential to historical explanation, and descriptive research is an indispensable aid to establishing the sequence of events. The historian needs to know that this film was made before that one or that event B took place after event A. But history is not mere chronology. A chronology stops short of explanation, just as a record of high and low tides gives no hint as to why tides change. History, as we have already seen, centrally involves explanation.

Causality Much historical explanation involves cause and effect. Historians work with conceptions of various kinds of causes.

Individual Causes People have beliefs and desires that affect how they act. In acting, they make things happen. It is often reasonable to explain a historical change or a past state of affairs in light of the attitudes or behavior of individuals. This is not to say that individuals make everything happen or that things always happen as people originally intended or that people always understand just why they did what they did. It is simply to say that historians may justifiably appeal to what people think and feel and do as part of an explanation.

Some historians believe that *all* historical explanation must appeal to person-based causes sooner or later.

This position is usually called *methodological individualism.* A different, and even more sweeping, assumption is that only individuals, and exceptional individuals at that, have the power to create historical change. This view is sometimes called the Great Man theory of history, even though it is applied to women as well.

Group Causes People often act in groups, and at times we speak of the group as having a kind of existence over and above the individuals who compose it. Groups have rules and roles, structures and routines, and often these factors make things happen. We speak of a government's declaring war, yet this act may not be reducible to more detailed statements about what all the individuals involved believed and did.

When we say that Warner Bros. decided to adopt sound, we are making a meaningful claim, even if we have no information about the beliefs and desires of the individual decision makers at the company; we may not even fully know who they were. Some historians assert that any historical explanation must, sooner or later, ground itself in group-based causes. This position is usually called *holism,* or *methodological collectivism,* as opposed to methodological individualism.

Several sorts of groups are important to the history of cinema. Throughout this book we will be talking about *institutions*—government agencies, film studios, distribution firms, and other fairly formal, organized groups. We will also be talking about more informal affiliations of filmmakers. These are usually called *movements* or *schools,* small assemblies of filmmakers and critics who share the same interests, beliefs about cinema, conceptions of film form and style, and the like. (Movements are discussed in more detail in the introduction to Part 2.)

Influence Most historians use some notion of influence to explain change. Influence describes the inspiration that an individual, a group, or a film can provide for others. Members of a movement can deliberately influence a director to make a film a certain way, but a chance viewing of a movie can also influence a director.

Influence does not mean simple copying. You may have been influenced by a parent or a teacher, but you have not necessarily mimicked his or her behavior. In the arts, influence is often a matter of one artist's getting ideas from other artists' work but then pursuing those ideas in a personal way. The result may be quite different from the initial work that stimulated it. The contemporary director Jean-Luc Godard was influenced by Jean Renoir, although their films are markedly different. Sometimes we can detect the influence by examining the films; sometimes we rely on the testimony of the filmmaker.

A body of work by a group of directors may also influence later films. Soviet cinema of the 1920s influenced the documentary director John Grierson. The Hollywood cinema, as a set of films, has been enormously influential throughout film history, although all the directors influenced by it certainly did not see exactly the same films. Influences are particular kinds of causes, so it is not surprising that influences may involve both individual activity and group activity.

Trends and Generalizations Any historical question opens up a body of data for investigation. Once the historian starts to look closely at the data—to go through a studio's records, examine the films, page through the trade press—she discovers that there is much more to explore than the initial question touches on. It is like looking into a microscope and discovering that a drop of water teems with organisms of confounding variety, all going about very different business.

Every historian omits certain material. For one thing, the historical record is already incomplete. Many events go unrecorded, and many documents are lost forever. Further, historians inevitably select. They reduce the messy complications of history to a more coherent, cogent story. A historian simplifies and streamlines according to the question he is pursuing.

One principal way historians go about such simplification is by postulating *trends.* Lots of things are going on, they admit, but "by and large" or "on the whole" or "for the most part," we can identify a general tendency. Most Hollywood films of the 1940s were made in black and white, but most Hollywood films today are in color. On the whole, there has been a change, and we can see a trend toward the increasing use of color film stock between the 1940s and the 1960s. Our task is to explain how and why this trend occurred.

By positing trends, historians generalize. They necessarily set aside interesting exceptions and aberrations. But this is no sin, because the answer to a question is necessarily pitched at a certain level of generality. All historical explanations pull back from the throbbing messiness of reality. By recognizing that tendencies are "for-the-most-part" generalizations, the scholar can acknowledge that there is more going on than she is going to explain.

Periods Historical chronology and causation are without beginning or end. The child who incessantly asks

what came before that or what made that happen soon discovers that we can trace out a sequence of events indefinitely. Historians necessarily limit the stretch of time they will explore, and they go on to divide that stretch into meaningful phases or segments.

For example, the historian studying American silent cinema already assumes that this period within film history ran from about 1894 to around 1929. The historian will probably further segment this stretch of time. She might break it down by decade (the 1900s, the 1910s, the 1920s), by changes external to film (say, pre–World War I, World War I, post–World War I), or by phases in the development of storytelling style (say, 1894–1907, 1908–1917, 1918–1929).

Every historian periodizes according to the research program he adopts and the question he asks. Historians recognize that periodization can't be rigid: trends do not follow in neat order. It is illuminating to think of the American "structural" film of the early 1970s as a kind of response to the "underground" film of the 1960s, but underground films were still being made well into the 1970s. Histories of genres often mark periods by innovative films, but this is not to deny that there may be a great deal of continuity in less innovative works across periods.

Similarly, we ought not to expect that the history of technology or styles or genres will necessarily march in step with political or social history. The period after World War II was indeed distinctive, because this global conflict had major effects on film industries and filmmakers in most countries; but not all political events demarcate distinct periods in relation to changes in film form or the film market. The assassination of President Kennedy was a wrenching event, but it had little if any effect on the film world. Here, as ever, the historian's research program and central question will shape her sense of the relevant periods and parallel events. (This is one reason that scholars often speak of film *histories* rather than a single film history.)

Significance In mounting explanations, historians of all arts make assumptions about the significance of the artworks they discuss. We might treat a work as a "monument," studying it because it is a highly valued accomplishment. Alternatively, we might study a work as a "document" because it records some noteworthy historical activity, such as the state of a society at a given moment or a trend within the art form itself.

In this book, we assume that the films we discuss have significance on any or all of the following three criteria:

Intrinsic excellence: Some films are, simply, outstanding by artistic criteria. They are rich, moving, complex, thought-provoking, intricate, meaningful, or the like. At least partly because of their quality, such films have played a key role in the history of cinema.

Influence: A film may be historically significant by virtue of its influence on other films. It may create or change a genre, inspire filmmakers to try something new, or gain such a wide popularity that it spawns imitations and tributes. Since influence is an important part of historical explanations, this sort of film plays a prominent role in this book.

Typicality: Some films are significant because they vividly represent instances or trends. They stand in for many other films of the same type.

A particular film might be significant on two or even all three of these counts. A highly accomplished genre film, such as *Singin' in the Rain* or *Rio Bravo,* is often considered both excellent and highly typical. Many acclaimed masterworks, such as *The Birth of a Nation* or *Citizen Kane,* were also highly influential, and some also typify broader tendencies.

OUR APPROACH TO FILM HISTORY

Although this book surveys the history of world cinema, we could hardly start with the question What is the history of world cinema? That would give us no help in setting about our research and organizing the material we find.

Following the aspects of film history outlined here, we have pursued three principal 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 part/whole 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. The term "uses of the medium" also includes matters of film style, the patterned uses of film techniques (*mise-en-scène,* or 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, fiction, animation) and genres (the Western, the thriller, the musical). So we also examine these phenomena. All such matters are central to most college and university survey courses in film history.

A central 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 innovative ways of structuring form or using film technique.

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 (perhaps only one film, period). 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 shown and consumed. For example, the major technological innovations associated with the early 1950s—wide-screen picture, stereophonic sound, increased use of color—were actually available decades earlier. Each could have been developed before the 1950s, but the U.S. film industry had no pressing need to do so since film attendance was so high that spending money on new attractions would not have significantly increased profits. Only when attendance dropped precipitously in the late 1940s were producers and exhibitors impelled to introduce new technologies to lure audiences back into theaters.

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 directors and films that have migrated across their borders. Genres are vagabond as well. The Hollywood Western influenced the Japanese samurai film and the Italian Western, genres that in turn influenced the Hong Kong kung-fu films of the 1970s; interestingly, 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 most often there has 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 part of the processes we focus on, we can ask what conditions caused them to operate as they did. Why, for instance, did Soviet filmmakers undertake their experiments in disturbing, aggressive narrative? Why did Hollywood's studio system begin to fragment in the late 1940s? Why did "new waves" and "young cinemas" arise in Europe, the Soviet Union, and Japan around 1960? Why are more films produced now with international investment than in the 1930s or 1940s? Historians are keen to know what factors made a change occur, and our general questions include a host of subquestions about causes and effects.

Recall our five general explanatory approaches: biographical, industrial, aesthetic, technological, and social. If we had to squeeze our book into one or more of these pigeonholes, we could say that its approach is predominantly aesthetic and industrial. It examines how types of films, film styles, and film forms have changed in relation to the conditions of film production, distribution, and exhibition within certain countries and within the international flow of films. But this summary of our approach is too confining, as even a cursory look at what follows will indicate. Sometimes we invoke the individual—a powerful producer, an innovative filmmaker, an imaginative critic. Sometimes we consider technology. And we often frame our account with discussions of the political, social, and cultural context of a period.

Take, for example, our central question: How have uses of the film medium changed or become normalized over time? This is a question about aesthetic matters, but it also impinges on factors of technology. For instance, conceptions of "realistic" filmmaking changed with the introduction of portable cameras and sound equipment in the late 1950s. Similarly, our second question—How have the conditions of the film industry affected the uses of the medium?—is at once economic, technological, and aesthetic. Finally, asking how inter-

national trends have emerged in the uses of the film medium and in the film market concerns both economic and social/cultural/political factors. In the early era of cinema, films circulated freely among countries, and viewers often did not know the nationality of a film they were seeing. In the 1910s, however, war and nationalism blocked certain films from circulating. At the same time, the growth of particular film industries, notably Hollywood, depended on access to other markets, so the degree to which films could circulate boosted some nations' output and hindered that of others. In addition, the circulation of U.S. films abroad served to spread American cultural values, which in turn created both admiration and hostility.

In sum, we have been guided, as we think most historians are, by research questions rather than rigid conceptions of the "kind" of history we are writing. And what we take to be the most plausible answer to a given question will depend on the strength of the evidence and the argument we can make for it—not on a prior commitment to writing only a certain kind of history.

History as Story

Our answers to historical questions are, however, not simply given in a list or summary. Like most historical arguments, ours takes a narrative form.

Historians use language to communicate their arguments and evidence to others. Descriptive research programs can do this through a summary of findings: this film is *Diana l'affascinatrice*, made in Italy by Caesar-Film in 1915, directed by Gustavo Serena, and so on. But historical explanations require a more complicated crafting.

Sometimes historians frame their explanations as persuasive arguments. To take an example already cited, a historian investigating the development of sound by Warner Bros. might start by considering the various explanations already offered and taken for granted. Then he might set forth the reasons for believing his alternative interpretation. This is a familiar form of rhetorical argument, eliminating unsatisfactory beliefs before settling on a more plausible one.

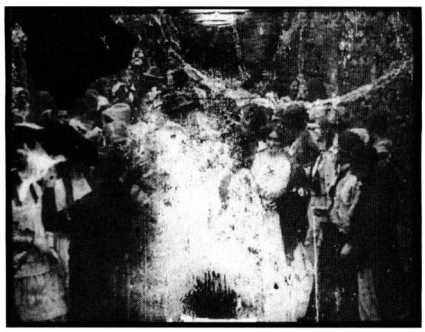
More often, historians' explanations take the form of stories. *Narrative history,* as it is called, seeks to answer *how* and *why* questions by tracing the relevant circumstances and conditions over time. It produces a chain of causes and effects, or it shows how a process works, by telling a story. For instance, if we are trying to answer the question How did the Hays Office negotiate with firms to arrive at an agreement about an acceptable film? we can frame a step-by-step narrative of the censorship process. Or, if we are seeking to explain what led the Hays Office to be created, we might lay out the causal factors as a story. As these examples indicate, the story's "players" might be individuals or groups, institutions or even films; the "plot" consists of the situations in which the players operate and the changes they initiate and undergo.

Narrative is one of the basic ways in which humans make sense of the world, and so it is not surprising that historians use stories to make past events intelligible. We have accordingly framed this book as a large-scale narrative, one that includes several stories within it. This is partly because of custom: virtually all introductory historical works take this perspective, and readers are comfortable with it. But we also believe that there are advantages to working on a wide canvas. New patterns of information may leap to the eye, and fresh connections may become more visible when we consider history as a dynamic, ongoing process.

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 reflect developments in (1) film form and style; (2) major changes in film production, distribution, and exhibition; and (3) significant international trends. The periodization cannot be exactly synchronized for all three areas, but it does indicate approximate boundaries for the changes we try to trace.

In our attempt to systematically answer the three principal questions outlined earlier, we have relied on secondary sources, principally other historians' writings on the matters we consider. We have also used primary sources: trade papers, the writings of filmmakers, and films. Because films constitute our major primary source, we need to say a few more words about how they serve as evidence in writing film history.

Although the cinema is a relatively young medium, invented only a little over a century ago, many films have already been lost or destroyed. For decades, movies were seen as products with temporary commercial value, and companies did little to ensure their preservation. Even when film archives were founded, beginning in the 1930s, they faced a daunting task of collecting and sheltering the thousands of films that had already been made. Moreover, the nitrate film stock, upon which most films up to the early 1950s were shot and printed, was highly flammable and deteriorated over time. Deliberate destruction of films, archive and warehouse fires,



A frame from *Knocknagow* (Film Company of Ireland, 1918)

and the gradual decomposition of nitrate stored in bad conditions have led to the loss of many titles. (In the frame above, severe nitrate deterioration has all but obliterated the figures.) According to rough estimates, only about 20 percent of silent films are known to survive. Many of these are still sitting in vaults, unidentified or unpreserved due to lack of funds.

Even more recent films may be inaccessible to the researcher. Films made in some small countries, particularly in Third World nations, do not circulate widely. Small archives may not have the facilities to preserve films or show them to researchers. In some cases, political regimes may choose to suppress certain films and promote others. We have attempted to examine a great range of types of international films. Inevitably we could not track down every film we hoped to see, and sometimes we were unable to include photographs from those we did see.

Nevertheless, we have surveyed a large number of films, and we offer this book as both an overview of the history of cinema and an attempt to see it in a somewhat new light. Film history, for us, is less an inert body of knowledge than an *activity* of inquiry. After a researcher has made a serious argument in an attempt to answer a question, "film history" is no longer quite what it was before. The reader gains not only new information and a new point of view. New patterns emerge that can make even familiar facts stand out with fresh force.

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 years spent researching and writing this book, we have come to believe that it offers a fairly novel version of the shape of film history, both its overall contour and its specific detail. We have relied on the research of a great many scholars in gathering the information and arguments presented here, but we are chiefly responsible for the particular story we tell.

Recognizing that there are many stories to be told about cinema, we have appended to each chapter a section titled "Notes and Queries." In these we raise side issues, explore recent discoveries, and trace some more specialized historiographic matters.

We have taken the opportunity of this second edition of *Film History: An Introduction* to update its coverage and to take into account historical work that has appeared since its initial publication in 1994. We thank the scholars whose research initially made it possible for us to rethink the history of the medium we love, as well as those who contributed to this revision and those who will continue to challenge us to hone the ideas we offer here.

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PART
ONE

EARLY CINEMA

The medium of cinema appeared in the mid-1890s, an era when the United States was still expanding into one of the world's major colonialist powers. The Spanish-American War of 1898 resulted in the United States' gaining control of Puerto Rico, the Philippines, Guam, Hawaii, and part of Samoa. The United States itself was still in the process of formation. Idaho, Montana, and North and South Dakota had become states in 1889, and Arizona and New Mexico would not enter the Union until 1912. During the late nineteenth century, railroad, oil, tobacco, and other industries were expanding rapidly, and, in 1890, the Sherman Antitrust Act was passed in an attempt to limit the growth of monopolies.

Due to hard times in southern and eastern Europe, a new wave of immigrants arrived on American shores after 1890. Living mostly in ethnic communities within large 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 the major European powers had already established far-flung empires and were engaged in an intricate game of jockeying for further power in such unstable areas as the Balkan States and the decaying Ottoman Empire. Tensions over such maneuvering, as well as mutual distrust, especially between France and Germany, led to the outbreak of World War I in 1914. This conflict gradually drew countries from all over the globe into the fighting. Although many citizens

wanted no involvement, the United States entered the fray 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 many of its colonies, and the United States emerged 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 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 three 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 film became the basis for cinema programs.

The invention of the 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 here, 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 far and away 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 soon encountered similar problems. The growing Hollywood film industry stepped in to fill the gap in supply, expanding its distribution system abroad. By the war's end, American films had an international grip that other countries would struggle, usually with limited success, 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 film conventions had been established (Chapter 3).

CHAPTER 1

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

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, numerous 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 in static view in books of travel photographs or in their *stereoscopes*, hand-held 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 the sights of far-flung places, with movement, directly to spectators' hometowns. Movies would become the most popular visual art form of the late Victorian age.

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 (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.

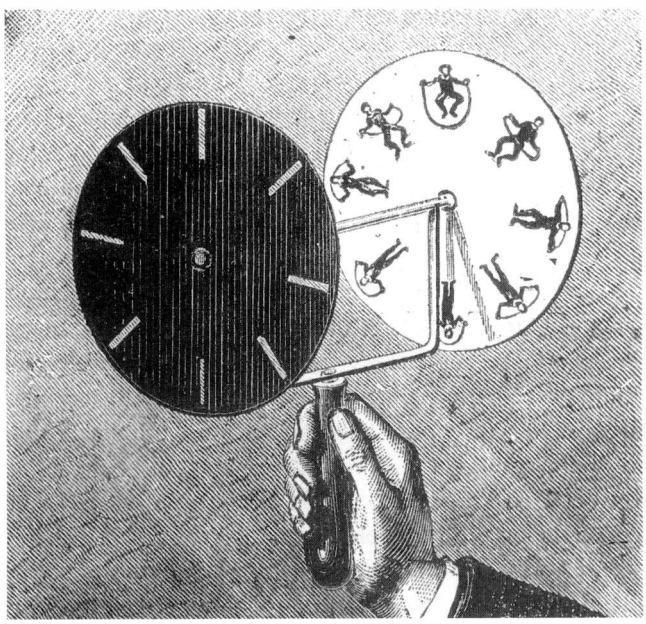
Preconditions for Motion Pictures

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 were marketed that 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 the optical device that came to be 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**). The Zoetrope was widely sold after 1867, along with other optical toys. Similar principles were later used in films, but in these toys, the same action was repeated over and over.

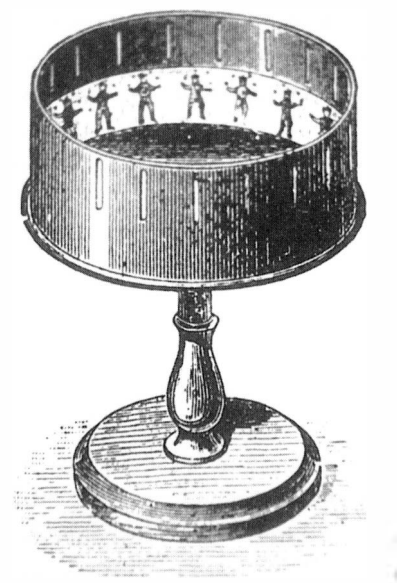
A second technological requirement for the cinema was the capacity to project a rapid series of images on a surface. Since the seventeenth century, entertainers and educators had been using "magic lanterns" to project glass lantern slides, but there had been no way to flash large numbers of images fast enough to create the illusion of motion.

A third prerequisite for the invention of the cinema was the ability to use photography to make successive pictures on a clear surface. The exposure time would have to be short enough to take sixteen or more frames in a single second. Such techniques came about slowly. 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. In 1839, Henry Fox Talbot introduced negatives made on paper. At about this same time, it became possible to print photographic images on glass lantern slides and project them. Not until 1878, however, did split-second exposure times become feasible.

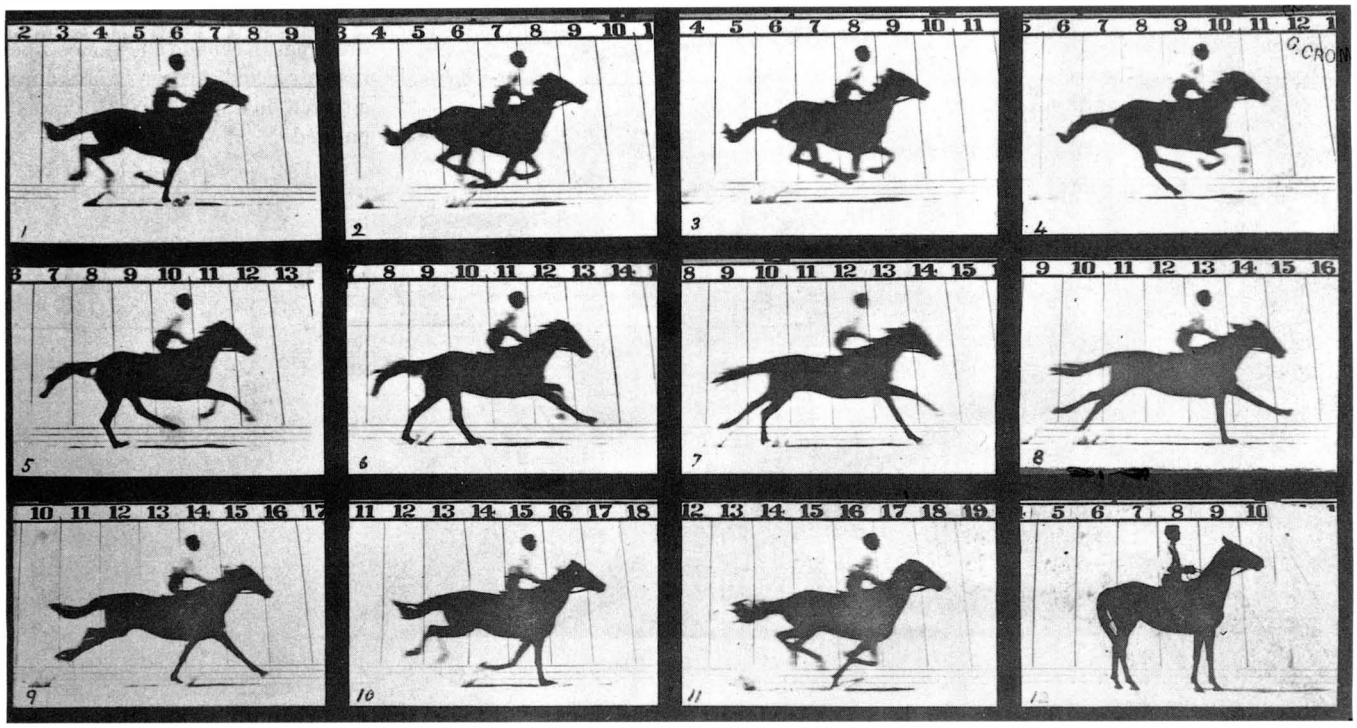
Fourth, the cinema would require that photographs be printed on a base flexible enough to be passed through a camera rapidly. Strips or discs of glass could be used, but only a short series of images could be registered on them. In 1888, George Eastman devised a still camera that made photographs on rolls of sensitized paper. This camera, which he named the Kodak, simpli-



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.



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



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

fied 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 could use the same flexible material in designing machines to take and project motion pictures (though it was apparently about a year before the stock was improved enough to be practical).

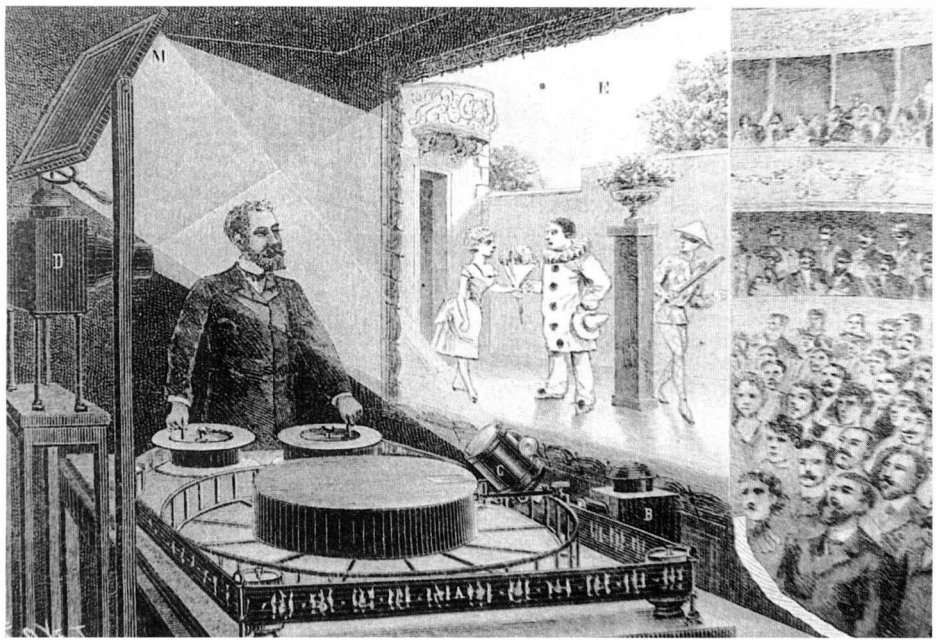
Fifth, and finally, experimenters needed to find a suitable intermittent mechanism for their cameras and projectors. In the camera, the strip of film had to stop briefly while light entered through the lens and exposed each frame; a shutter then covered the film as another frame moved into place. Similarly, 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 unless the light source was quite dim.) 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 necessary for the cinema existed. The question was Who would bring the necessary elements together in a way that could be successfully 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 gun. Shaped like a rifle, it exposed twelve images around the edge of a circular glass plate that



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

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 same period, many other scientists used various devices to record and analyze movement.

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.

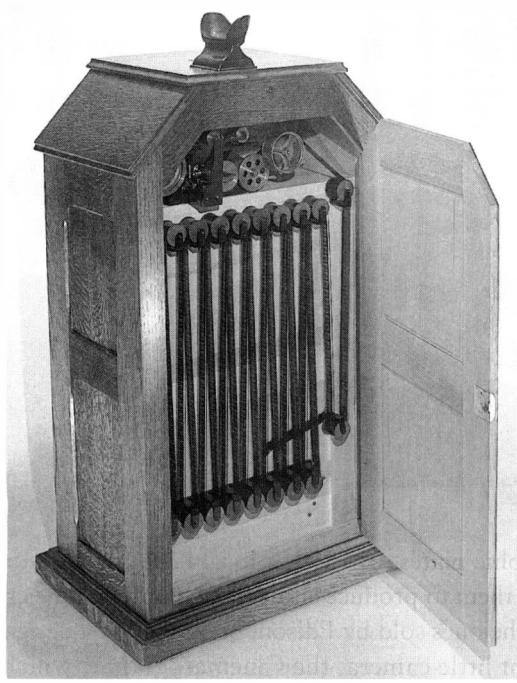
Another Frenchman came close to inventing the cinema as early as 1888—six years before the first commercial showings of moving photographs. That year, Augustin Le Prince, working in England, was able to make some brief films, shot at about sixteen frames per second, using Kodak's recently introduced 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. Thus his camera was never exploited commercially and had virtually no influence on the subsequent invention of the cinema.

An International Process of Invention

It is difficult to 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.

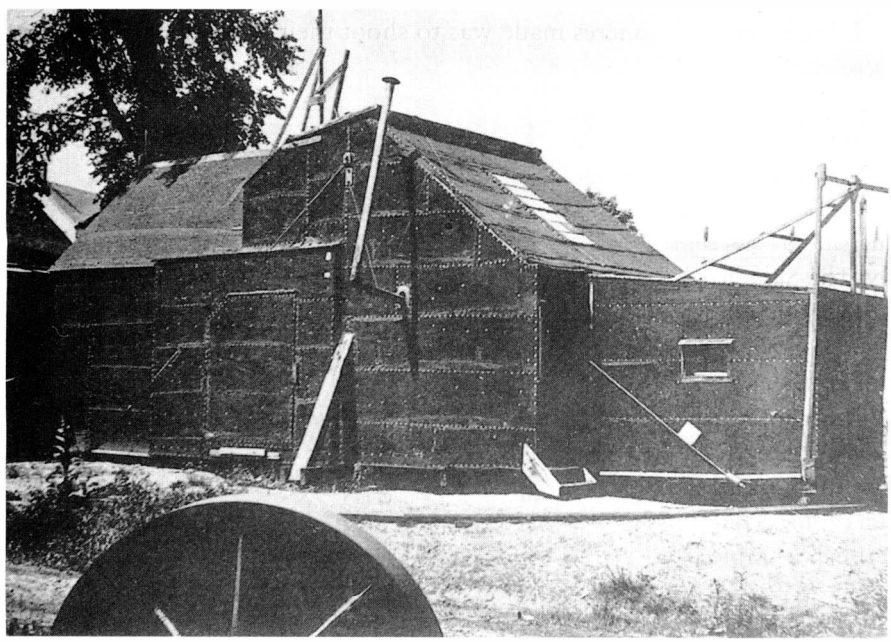
Edison, Dickson, and the Kinetoscope In 1888, Thomas Edison, already the successful inventor of the phonograph and the electric lightbulb, decided to design machines for making and showing moving photographs. Much of the work was done by his assistant, W. K. L.

Dickson. Since 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), spliced them end to end, and 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; 35mm film stock with four perforations per frame has remained the norm. (Amazingly, an original Kinetoscope film can be shown on a modern projector.) Initially, however, the film was exposed at about forty-six frames per second—much faster than the average speed later adopted for silent filmmaking.

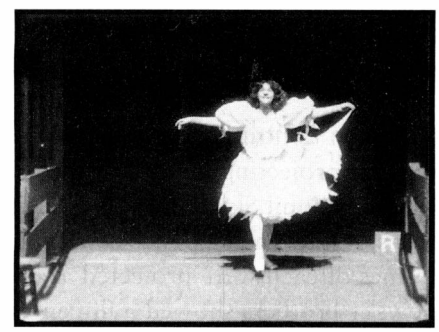


1.5 The Kinetoscope was a peephole device that ran the film around a series of rollers. Viewers activated it by putting a coin in a slot.

Edison and Dickson needed films for their machines before they could exploit them commercially. 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.



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.



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.

1.8 A typical entertainment parlor, with phonographs (note the dangling earphones) at left and center and a row of Kinetoscopes at the right.

Edison had exploited his phonograph by leasing it to special phonograph parlors, where the public paid a nickel to hear records 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 (see below). The Bioscop system was too cumbersome, however, and the Skladanowskys eventually adopted the standard 35mm, 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 35mm film and an intermittent mechanism modeled on that of the sewing machine (**1.9**). The camera could serve as a printer when 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

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.

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.

per second (rather than the forty-six frames per second used by Edison); this rate became the standard international film speed for about twenty-five years. The first film made with this system was *Workers Leaving the Factory,* apparently shot in March 1895 (**1.10**). It was shown in public at a meeting of the Société d'Encouragement à 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 film screenings in 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 *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 and make more short films.

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 it 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. Since 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, while Acres concentrated on creating a projector. On January 14, 1896, Acres showed some of his films to the Royal Photographic Society. Among these was *Rough Sea at Dover* (**1.11**), which would become 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. Paul went on improving his camera and invented a projector, which he used in several theaters to show copies of the films Acres had shot the year before. Unlike other inventors, Paul sold his machines rather than leasing them. By doing so, he not only speeded up the spread of the film industry in Great Britain but also supplied filmmakers and exhibitors abroad who were unable to get other machines. Among them was one of the most important early directors, Georges Méliès.

American Developments During this period, projection systems and cameras were also being devised in the United States. Three important rival groups competed to introduce a commercially successful system.

Woodville Latham and his sons Otway and Gray began work on a camera and projector in 1894 and were able to show one film to reporters on April 21, 1895. They even opened a small storefront theater in May, where their program ran for years. The projector did not attract much attention, because it cast only a dim image. The Latham group did make one considerable contribution to film technology, however. Most cameras and projectors could use only a short stretch of film, lasting less than three minutes, since the tension created by a longer, heavier roll would break the film. The Lathams added a simple loop to create slack and thus relieve the tension, allowing much longer films to be made. The Latham loop has been used in most cameras and projectors ever since. Indeed, so important was the technique that a patent involving it was to shake up the entire American film industry in 1912. An improved Latham projector was used by some exhibitors, but other systems able to cast brighter images gained greater success.

A second group of entrepreneurs, the partnership of C. Francis Jenkins and Thomas Armat, first exhibited their Phantoscope projector at a commercial exposition in Atlanta in October 1895, showing Kinetoscope films. Partly due to competition from the Latham group and a Kinetoscope exhibitor, who also showed films at the exposition, and partly due to dim, unsteady projection, the Phantoscope attracted skimpy audiences. Later that year, Jenkins and Armat split up. Armat improved the projector, renamed it the Vitascope, and obtained backing from the entrepreneurial team of Norman Raff and Frank Gammon. Raff and Gammon were nervous about offending Edison, so in February they demonstrated the machine for him. Since the Kinetoscope's initial popularity was fading, Edison agreed to manufacture Armat's projector and supply films for it. For publicity purposes, it was marketed as "Edison's Vitascope," even though he had had no hand in devising it.

The Vitascope's public premiere was at Koster and Bial's Music Hall in New York on April 23, 1896. Six films were shown, five of them originally shot for the Kinetoscope; the sixth was Acres's *Rough Sea at Dover,* which again was singled out for praise. The showing was a triumph, and although it was not the first time films had been projected commercially in the United States, it marked the beginning of projected movies as a viable industry there.

1.12 At the right, a Mutoscope, a penny-in-the-slot machine with a crank that turned a drum containing a series of photographs. The stand at the left shows the circular arrangement of the cards, each of which flipped down and was briefly held still to create the illusion of movement.

The third major early invention in the United States began as another peepshow device. In late 1894, Herman Casler patented the Mutoscope, a flip-card device (**1.12**). He needed a camera, however, and sought advice from his friend W. K. L. Dickson, who had terminated his working relationship with Edison. With other partners, they formed the American Mutoscope Company. By early 1896, Casler and Dickson had their camera, but the market for peepshow movies had declined, and they decided to concentrate on projection. Using several films made during that year, the American Mutoscope Company soon had programs playing theaters around the country and touring with vaudeville shows.

The camera and projector were unusual, employing 70mm film that yielded larger, sharper images. By 1897, American Mutoscope was the most popular film company in the country. That year the firm also began showing its films in penny arcades and other entertainment spots, using the Mutoscope. The simple card holder of the Mutoscope was less likely to break down

than was the Kinetoscope, and American Mutoscope soon dominated the peepshow side of film exhibition as well. (Some Mutoscopes remained in use for decades.)

By 1897, the invention of the cinema was largely completed. There were two principal means of exhibition: peepshow devices for individual viewers and projection systems for audiences. Typically, projectors used 35mm film with sprocket holes of similar shape and placement, so most films could be shown on different brands of projectors. But what kinds of films were being made? Who was making them? How and where were people seeing them?

EARLY FILMMAKING AND EXHIBITION

The cinema may have been an amazing novelty in the 1890s, but it came into being within a larger and varied context of Victorian leisure-time activities. During the late nineteenth century, many households had optical toys like the Zoetrope and stereoscope. Sets of cards depicted exotic locales or staged narratives. Many middle-class families also owned pianos, around which they gathered to sing. Increased literacy led to the spread of cheap popular fiction. The newfound ability to print photographs led to the publication of travel books that took the reader on vicarious tours of distant lands.

A great assortment of public entertainments was also available. All but the tiniest towns had theaters, and traveling shows crisscrossed the country. These included dramatic troupes putting on plays, lecturers using magic-lantern slides to illustrate their talks, and even concerts featuring the newly invented phonograph to bring the sounds of big-city orchestras to a wide public. Vaudeville offered middle-class audiences a variety of acts on a single program, ranging from performing animals to plate-spinning jugglers to slapstick comedians. Burlesque offered a similar potpourri of acts, though less family-oriented with their vulgar comedy and occasional nudity. People living in large cities also could go to amusement parks, like Coney Island in New York, which offered such attractions as roller coasters and elephant rides.

Scenics, Topicals, and Fiction Films

The new medium of film moved smoothly into this spectrum of popular entertainment. Like the early films that we have already mentioned, most subjects were nonfiction, or *actualities*. These included *scenics*, or short travelogues offering views of distant lands. News events might be depicted in brief *topicals*.

In many cases, cinematographers covered news events in the locations where they occurred. Often, however, filmmakers recreated current events in the studio—both to save money and to make up for the fact that cameramen had not been on the scene. In 1898, for example, both American and European producers used model ships in miniature landscapes to re-create the sinking of the battleship *Maine* and other key occurrences relating to the Spanish-American War. Audiences probably did not believe that these faked scenes were actual records of real incidents. Instead, they accepted them as representations of those incidents, comparable to engravings in newsmagazines.

From the beginning, *fiction films* were also important. Typically these were brief staged scenes. The Lumières' *Arroseur arrosé*, presented in their first program in 1895, showed a boy tricking a gardener by stepping on his hose. Such simple jokes formed a major genre of early filmmaking. Some of these fiction films were shot outdoors, but simple painted backdrops were quickly adopted and remained common for decades.

Creating an Appealing Program

Looking at the earliest films, we may find them so alien that we wonder what sort of appeal they held for audiences. With a little imagination, though, we can see that people then were probably interested in films for much the same reasons that we are. Every type of early film has some equivalent in contemporary media. The glimpses of news events, for example, may seem crude, yet they are comparable to the short clips shown on television news programs. Early scenics gave viewers glimpses of faraway lands, just as today college and church lectures and televised documentaries utilize films to show similarly exotic views. An evening of television offers a mix of shows that is somewhat comparable to early film programs. Despite the variety of early genres, fiction films gradually became the most popular attraction—a position they have held ever since.

Most films in this early period consisted of a single shot. The camera was set up in one position, and the action unfolded during a continuous take. In some cases, filmmakers did make a series of shots of the same subject. The resulting shots were then treated as a series of separate films. Exhibitors had the option of buying the whole series of shots and running them together, thus approximating a multishot film, or they might choose to buy only a few of the shots, combining them with other films or lantern slides to create a unique program. During this early period, exhibitors had considerable control over the

The Spread of the Cinema around the World: Some Representative Examples

1896	
March 1	A Lumière program premieres in Brussels, Belgium.
May 11	A magician, Carl Hertz, shows R. W. Paul films at the Empire Theatre in Johannesburg, South Africa, using a projector purchased from Paul.
May 15	A Lumière program begins a run in Madrid, Spain.
May 17	A Lumière operator shows films in St. Petersburg, Russia.
July 7	Lumière operators show films in a rented room in Watson's Hotel, Bombay, India.
July 8	A Lumière program opens in a fashionable district of Rio de Janeiro, Brazil.
July 15	The first Lumière screening in Czechoslovakia takes place in the Casino in Karlovy Vary.
August	Carl Hertz shows his R. W. Paul program at the Melbourne Opera House, Australia. (The first Lumière program in Australia begins in Sydney on September 28.)
Aug. 11	A Lumière operator shows films as part of a Shanghai vaudeville program.
Aug. 15	A highly successful run of Lumière films begins at a rented hall in Mexico City.
December	A Lumière program shows at a café in Alexandria, Egypt.
1897	
Jan. 28	Lumière films are shown in a fashionable theater in Maracaibo, Venezuela.
Feb. 15	Under the supervision of a Lumière representative, a Japanese entrepreneur premieres the Cinématographe in a theater in Osaka. (Edison's Vitascope was shown a week later, also in Osaka.)
Late February	A Lumière program premieres in Ruse, Bulgaria.
July	An Edison representative toured Chinese tea-houses and amusement parks.

shape of their programs—a control that would gradually disappear from 1899 onward, as producers began making longer films consisting of multiple shots.

Quite a few of these early exhibitors had experience running lantern-slide programs or other forms of public entertainment. Many mixed scenics, topicals, and fiction films in a single, varied program. The typical program had musical accompaniment. In the more modest presentations, a pianist might play; in vaudeville theaters, the house orchestra provided music. In some cases, exhibitors had noises synchronized with the actions on the screen. The exhibitor might lecture during part of the program, describing the exotic landscapes, the current events, and the brief stories passing across the screen. At the least, the exhibitor would announce the titles, since early films had no credits at the beginning or intertitles to explain the action. Some showmen mixed films with lantern slides or provided musical interludes using a phonograph. During these early years, the audience's response depended significantly on the exhibitor's skill in organizing and presenting the program.

During the first decade of cinema, films were shown in many countries around the world. But the making of films was concentrated largely in the three principal countries where the motion-picture camera had originated: France, England, and the United States.

The Growth of the French Film Industry

The Lumières' early screenings were successful, but the brothers believed that film would be a short-lived fad. As a result, they moved quickly to exploit the Ciné-

1.13 Lumière operator Eugène Promio influenced many filmmakers by placing his camera in moving boats to make several of his films, including *Egypte: Panorama des rives du Nil* ("Egypt: Panorama of the Banks of the Nile," 1896).

matographe. They initially avoided selling their machines, instead sending operators to tour abroad, showing films in rented theaters and cafés. These operators also made one-shot scenics of local points of interest. From 1896 on, the Lumière catalogue rapidly expanded to include hundreds of views of Spain, Egypt, Italy, Japan, and many other countries. Although the Lumière brothers are usually remembered for their scenics and topicals, they also produced many staged films, usually brief comic scenes.

Some of the Lumière operators' films were technically innovative. Eugène Promio, for example, is usually credited with originating the moving camera. The earliest cameras were supported by rigid tripods that did not allow the camera to swivel and make panorama, or panning, shots. In 1896, Promio introduced movement into a view of Venice by placing the tripod and camera in a gondola. Promio and other filmmakers continued this practice, placing their cameras in boats and on trains (**1.13**). Traveling shots of this type (and soon panning movements as well) were associated mainly with scenics and topicals during this era.

Because the Lumières quickly began exhibiting their films abroad, the first showings of projected motion pictures in many countries were put on by their representatives. Thus the history of the cinema in many nations begins with the arrival of the Cinématographe. This is apparent from the previous box, which samples the earliest known public screenings in several countries.

Of course, the Lumières and their rivals concentrated on the more lucrative markets and avoided some smaller countries. No screenings are known to have taken place in Bolivia, for example, until 1909, when two Italian entrepreneurs took films there. Ideological pressures kept the cinema out of some markets. In 1900, Iran's royal family obtained a camera and projector in Europe and began making home movies. A theater that opened in Tehran in 1905, however, was soon forced by religious leaders to close.

On the whole, though, the Lumières and a few other firms made the cinema an international phenomenon. The Lumières further aided the spread of cinema when, in 1897, they began selling their Cinématographes.

The same year saw a setback for their firm, however. On May 4, 1897, during a film screening at the Charity Bazaar in Paris, a curtain was ignited by the ether being used to fuel the lamp of the projector (which was not a Cinématographe). The resulting blaze was one of the worst tragedies in the history of the cinema, killing about 125 people, most of them from the upper class. As a result, the cinema lost some of its attraction for fashionable city dwellers. In France, for several years, films were mainly exhibited in less lucrative traveling fairground shows (*fêtes foraines*). The Lumières continued producing films, but gradually more innovative rivals made their films seem old-fashioned. Their firm ceased production in 1905, though Louis and Auguste remained innovators in the area of still photography.

Following the initial success of the Lumière Cinématographe in 1895, other film production firms appeared in France. Among these was a small company started by a man who was perhaps the single most important filmmaker of the cinema's early years, Georges Méliès (see box).

Two other firms that were to dominate the French film industry were formed shortly after the invention of the cinema. Charles Pathé was a phonograph seller and exhibitor in the early 1890s. In 1895, he purchased some of R. W. Paul's imitation Kinetoscopes, and the following year formed Pathé Frères, which initially made most of its money on phonographs. From 1901, however, Pathé concentrated more on film production, and profits soared. The firm expanded rapidly. In 1902, it built a glass-sided studio and began selling the Pathé camera, which became the world's most widely used camera until the end of the 1910s.

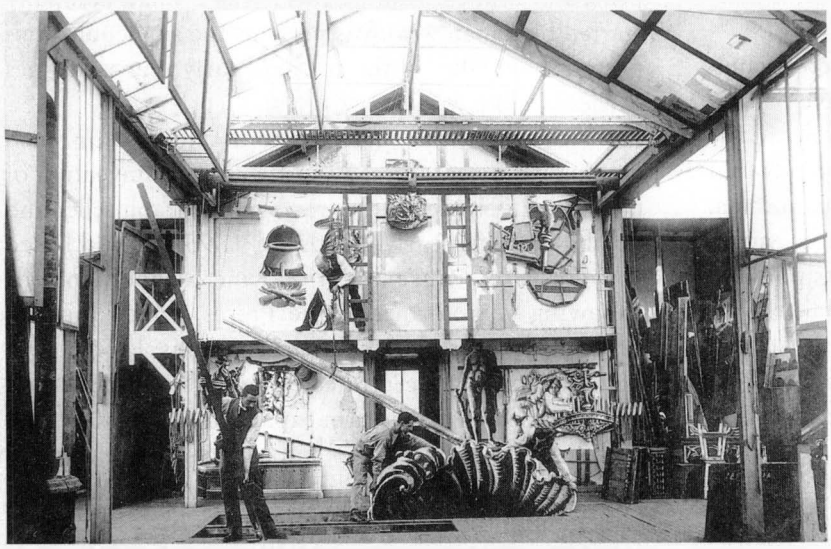
At first Pathé's production was somewhat derivative, borrowing ideas from Méliès and from American and English films. For example, in 1901, Ferdinand Zecca, the company's most important director, made *Scenes from My Balcony*. It picked up on the vogue, recently started in England, for shots presenting things as if seen through telescopes or microscopes (**1.17, 1.18**). Pathé's films were extremely popular. While it only took a sale of 15 prints of a film to break even, actual sales averaged 350 prints. Pathé expanded abroad, opening sales offices in London, New York, Moscow, Berlin, and St. Petersburg in 1904 and 1905 and others in later years. Selling both projectors and films, Pathé encouraged people to

GEORGES MÉLIÈS, MAGICIAN OF THE CINEMA

Méliès was a performing magician who owned his own theater. After seeing the Lumière Cinématographe in 1895, he decided to add films to his program, but the Lumière brothers were not yet selling machines. In early 1896, he obtained a projector from English inventor R. W. Paul and by studying it was able to build his own camera. He was soon showing films at his theater.

Although Méliès is remembered mainly for his delightful fantasy movies, replete with camera tricks and painted scenery, he made films in all the genres of the day. His earliest work, most of which is lost, included many Lumière-style scenics and brief comedies, filmed outdoors. During his first year of production, he made seventy-eight films, including his first trick film, *The Vanishing Lady* (1896). In it, Méliès appears as a magician who transforms a woman into a skeleton. The trick was accomplished by stopping the camera and substituting the skeleton for the woman. Later, Méliès used stop-motion and other special effects to create more complex magic and fantasy scenes. These tricks had to be accomplished in the camera, while filming; prior to the mid-1920s, few laboratory manipulations were possible. Méliès also acted in many of his films, recognizable as a dapper and spry figure with a bald head, moustache, and pointed beard.

In order to be able to control the mise-en-scène and cinematography of his films, Méliès built a small glass-enclosed studio. Finished by early 1897, the studio permitted Méliès to design and construct sets painted on canvas flats (**1.14**). Even working in this studio, however, Méliès continued to create various kinds of films. In 1898, for example, he filmed some reconstructed topicals, such as *Divers at Work on the Wreck of the "Maine"* (**1.15**). His 1899 film, *The Dreyfus Affair,* told the story of the Jewish officer convicted of treason in 1894 on the basis of false evidence put forth through anti-Semitic motives. The controversy was still raging when Méliès made his pro-Dreyfus picture. As was customary at the time, he released each of the ten shots as a separate film. When shown together, the shots combined into one of the most complex works of the cinema's early years. (Modern prints of *The Dreyfus Affair*



1.14 The interior of the Star studio, with Méliès on the balcony lifting a rolled backdrop while assistants arrange a large painted shell and trapdoors. Painted theater-style flats and smaller set elements are stored at the right rear or hang on the back wall.

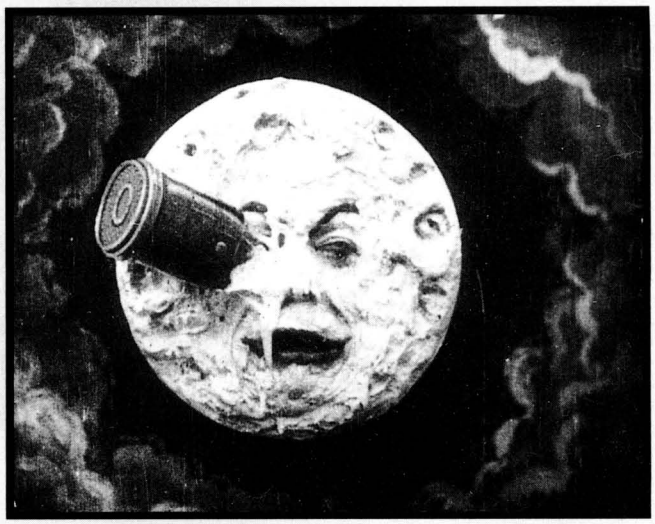
enter the exhibition business, thus creating more demand for Pathé films. As we shall see in the next chapter, within a few years, Pathé Frères would be the single largest film company in the world.

Its main rival in France was a smaller firm formed by inventor Léon Gaumont. Like Lumière Frères, Gaumont initially dealt in still photographic equipment. The firm began producing films in 1897. These were mostly actualities made by Alice Guy, the first female filmmaker. Gaumont's involvement in film production remained limited in this era, since Léon was more concerned with technical innovations in film equipment. Building a production studio in 1905 made Gaumont more prominent, largely through the work of director Louis Feuillade.

England and the Brighton School

After the first public film screenings in early 1896, film exhibition spread quickly in England, largely because

1.15 One of many reconstructed documentaries relating to the sinking of the American battleship *Maine,* which began the Spanish-American War. Georges Méliès's *Divers at Work on the Wreck of the "Maine"* used a painted set with actors playing the divers. A fish tank in front of the camera suggested an undersea scene.



1.16 The space capsule lands in the Man in the Moon's eye in Méliès's fantasy *A Trip to the Moon.*

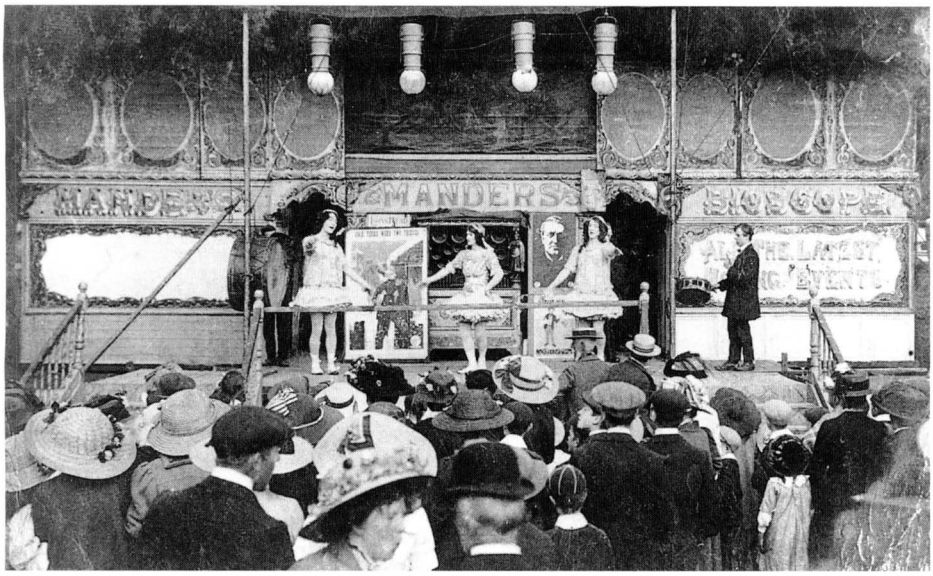
typically combine all the shots in a single reel.) With his next work, *Cinderella* (1899), Méliès began joining multiple shots and selling them as one film.

Méliès's films, and especially his fantasies, were extremely popular in France and abroad, and they were widely imitated. They were also commonly pirated, and Méliès had to open a sales office in the United States in 1903 to protect his interests. Among the most celebrated of his films was *A Trip to the Moon* (1902), a comic science-fiction story of a group of scientists traveling to the moon in a space capsule and escaping after being taken prisoner by a race of subterranean creatures (**1.16**). Méliès often enhanced the beauty of his elaborately designed mise-en-scène by using hand-applied tinting (**Color Plate 1.1**).

Except in Méliès's first years of production, many of his films involved sophisticated stop-motion effects. Devils burst out of a cloud of smoke, pretty women vanish, and leaping men change into demons in midair. Some historians have criticized Méliès for depending on static theatrical sets instead of editing. Yet recent research has shown that in fact his stop-motion effects also utilized editing. He would cut the film in order to match the movement of one object perfectly with that of the thing into which it was transformed. Such cuts were designed to be unnoticeable, but clearly Méliès was a master of one type of editing.

For a time, Méliès's films continued to be widely successful. After 1905, however, his fortunes slowly declined. His tiny firm was hard put to supply the burgeoning demand for films, especially in the face of competition from bigger companies. He continued to produce quality films, including his late masterpiece *Conquest of the Pole* (1912), but eventually these came to seem old-fashioned as filmmaking conventions changed. In 1912, deep in debt, Méliès stopped producing, having made 510 films (about 40 percent of which survive). He died in 1938, after decades of working in his wife's candy and toy shop.

1.17, 1.18 One of many mildly risqué films made in this early period, Zecca's *Scenes from My Balcony* shows a man looking through a telescope, followed by shots of what he sees, including a woman undressing.

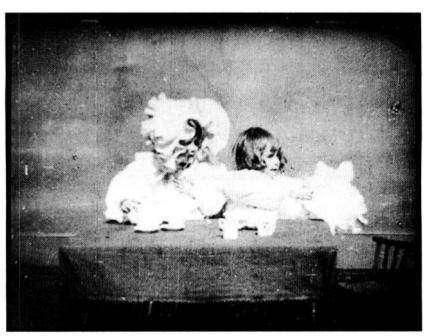


1.19 A typical fairground film show in England, about 1900. Behind the elaborate painted façades, the auditoriums were simple tents. Note here the picture of Thomas Edison in the center and the use of a drum to attract spectators.

R. W. Paul was willing to sell projectors. At first, most films were grouped together to be shown as a single act on the program of a music hall (the British equivalent of American vaudeville theaters). Beginning in 1897, short, cheap film shows were also widely presented in fairgrounds, appealing to working-class audiences (**1.19**).

At first, most English filmmakers offered the usual novelty subjects. For example, in 1896, Paul made *Twins' Tea Party* (**1.20**). Topicals showing the annual Derby were popular, and both the parade celebrating Queen Victoria's Jubilee in 1897 and events relating to the Boer War in South Africa were widely circulated. Some of these early newsreels consisted of more than one shot. The operator might simply stop and restart the camera to capture only highlights of the action, or he might actually splice bits of film together to hurry the action along. Similarly, some scenics were influenced by the Lumière films' placement of the camera on moving vehicles. *Phantom rides,* designed to give the spectator the illusion of traveling, became popular in England and other countries (**1.21**). As elsewhere, in England exhibitors gathered many types of films into a varied program.

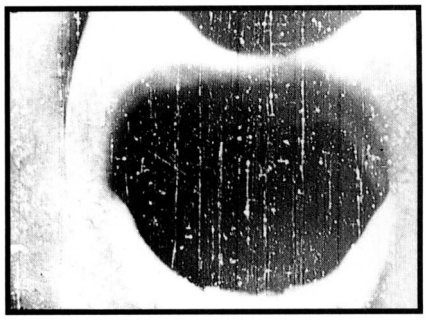
Early English films became famous for their imaginative special-effects cinematography. For example, Cecil Hepworth began producing on a small scale in 1899. At first he concentrated on actualities, but he soon directed trick films as well (**1.22**). Hepworth went on to become the most important British producer from 1905 to 1914.



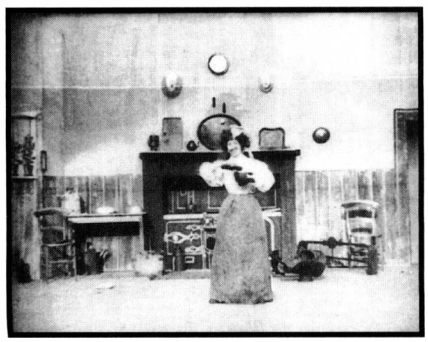
1.20 Paul's *Twins' Tea Party* appealed to audiences by showing two cute toddlers squabbling and then kissing and making up. It was typical of many films of this era: a single shot taken on an open-air stage in direct sunlight, against a neutral backdrop.

1.21 *View from an Engine Front—Barnstaple,* made by the Warwick Trading Company in 1898, was typical of a popular genre, the phantom ride.

1.22 In Hepworth's *Explosion of a Motor Car* (1900), stop-motion changes a real car into a fake one, which promptly blows up. A passing bobbie dutifully inventories the body parts that rain in from above, creating a grim but amusing film.



1.23, 1.24 Two stages of Williamson's *The Big Swallow,* as the irritated subject "eats" the cinematographer and camera.



1.25, 1.26 In *Mary Jane's Mishap,* close views alternate with long shots to show such detail as the maid's accidentally smearing a "moustache" on her face while shining some shoes.

There were other producers scattered around England, but the most notable were those in the small, but influential, group later dubbed the Brighton School because they worked in or near that resort town. Chief among them were G. A. Smith and James Williamson, both of whom were still photographers who branched into filmmaking in 1897. They also built small studios that opened at one side to admit sunlight. Both explored special effects and editing in ways that influenced filmmakers in other countries.

Williamson's 1900 film *The Big Swallow* is a good example of the ingenuity of the Brighton filmmakers. It begins with a view of a man, seen against a blank background, gesturing angrily because he does not want his picture taken. He walks forward until his wide-open mouth blots out the view (**1.23**). An imperceptible cut then substitutes a black backdrop for his mouth, and we see the cinematographer and his camera pitch forward into this void. Another concealed cut returns us to the open mouth, and the man backs away from the camera, laughing and chewing triumphantly (**1.24**).

Smith's 1903 grotesque comedy *Mary Jane's Mishap* uses editing in a remarkably sophisticated way. One basic distant framing of a slovenly maid in a kitchen is interrupted by several cut-ins to medium shots that show her amusing facial expressions (**1.25, 1.26**). Although the actor's position is usually not matched well at the cuts, there is a general attempt to create a continuous action while using closer shots to guide our attention. This principle would become one basis for the dominant continuity style of filmmaking that developed over approximately the next fifteen years (see Chapter 2)

The English cinema was innovative and internationally popular for several years early in the history of motion pictures, though it would soon weaken in the face of French, Italian, American, and Danish competition.

The United States: Competition and the Resurgence of Edison

The United States was by far the largest market for motion pictures since it had more theaters per capita than any other country. For over fifteen years American and foreign firms competed vigorously here. Although American films were sold abroad, U.S. firms concentrated on the domestic market. As a result, France and Italy were soon to move ahead of the United States and control the international film trade until the mid-1910s.

Exhibition Expands After the first New York presentation of Edison's Vitascope in April 1896, film venues spread rapidly across the country. The Vitascope was not for sale, but individual entrepreneurs bought the rights to exploit it in different states. During 1896 and 1897, however, many small companies marketed their own projectors, all designed to show 35mm prints. Since movies were not yet copyrighted and prints were sold rather than rented, it was difficult to control the

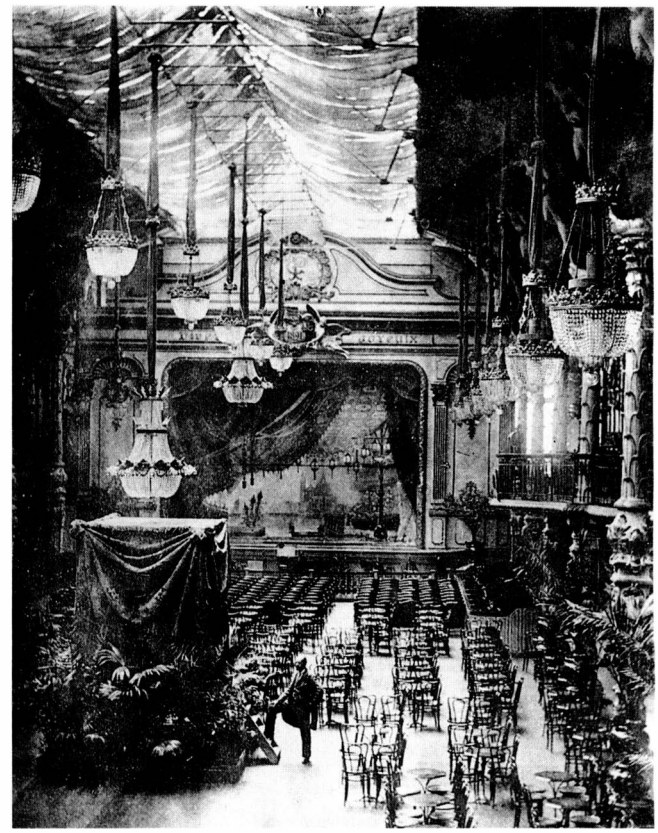
1.27 "The Messiah's Entry into Jerusalem," one of the single-shot tableaux that made up *The Passion Play of Oberammergau,* produced by the Eden Musée, an important New York entertainment establishment.

circulation of films. Edison's pictures were often duplicated and sold, while Edison profited by duping films imported from France and England. Firms also frequently made direct imitations of each other's movies.

Soon hundreds of projectors were in use, and films were shown at vaudeville houses, amusement parks, small storefront theaters, summer resorts, fairs, even churches and opera houses. The years from 1895 to 1897 were the novelty period of the cinema, because the primary appeal was simply the astonishment of seeing movement and unusual sights reproduced on the screen. By early 1898, however, films' novelty had worn off. As attendance declined, many exhibitors went out of business. One event that helped revive the industry was the Spanish-American War of 1898. Patriotic fervor made audiences eager to see anything relating to the conflict, and companies in the United States and abroad profited by making both authentic and staged films.

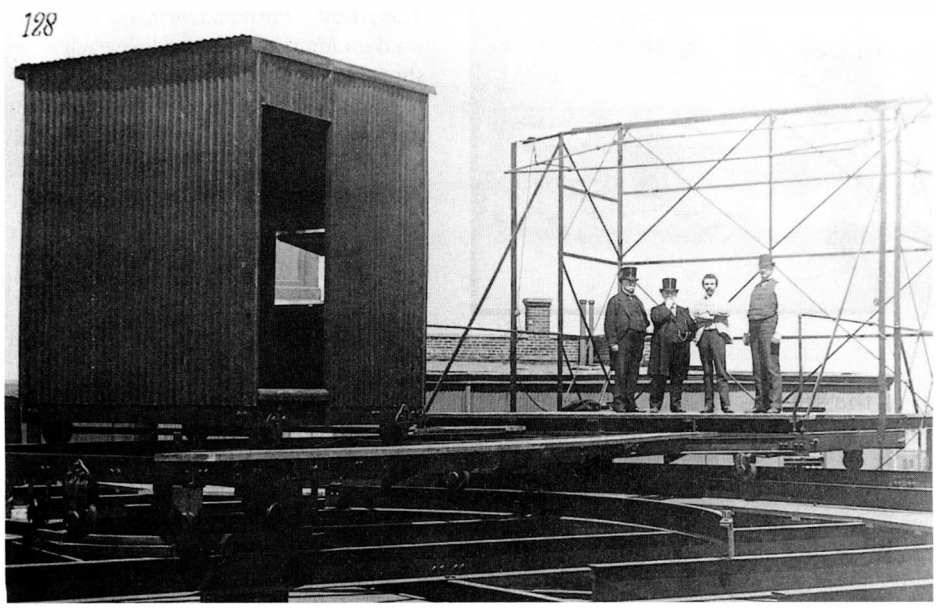
Another type of film that helped revive the industry was the Passion Play. Beginning in 1897, filmmakers made series of single-shot scenes from Jesus' life—views that resembled illustrations in Bibles or magic-lantern slides. One such series of shots was released in February 1898 as *The Passion Play of Oberammergau* (**1.27**). (The title lent the film respectability, though it in fact had no connection with the traditional German spectacle.) As with many of the more elaborate films of the day, the exhibitor had the option of buying some or all of the shots and combining them, along with lantern slides and other religious material, to make a lengthy program. Prizefight films were also popular, especially since they often could be shown in places where live bouts were prohibited.

From 1898, then, the American film industry enjoyed a certain stability, with most films being shown in vaudeville theaters. Production increased during this period to meet the high demand.



1.28 Eugène Lauste, an American Mutoscope Company employee who had helped invent the Biograph camera, by the camera booth in the Casino de Paris, where he showed films in 1897 and 1898. The hall, with its potted palms and chandeliers, indicates the sort of elegant venue in which some early film screenings were held.

Growing Rivalry The American Mutoscope Company did particularly well during the late 1890s, partly because of its clear 70mm images, displayed by the company's own touring operators in vaudeville houses. By 1897, American Mutoscope was the most popular film company in America, and it attracted audiences abroad as well (**1.28**). American Mutoscope began filming in a new rooftop studio (**1.29**). The firm changed its name in 1899 to American Mutoscope and Biograph (AM&B), reflecting its double specialization in peepshow Mutoscope reels and projected films. Over the next several years, AM&B was hampered by a lawsuit brought against it by Edison, who consistently took competitors to court for infringing patents and copyrights. In 1902, however, AM&B won the suit, because its camera used rollers rather than sprocketed gears to move the film. The company's prosperity grew. In 1903 it began to make and sell films in 35mm rather than 70mm, a change that boosted sales. Beginning in 1908, it employed one of the most important silent-era directors, D. W. Griffith.

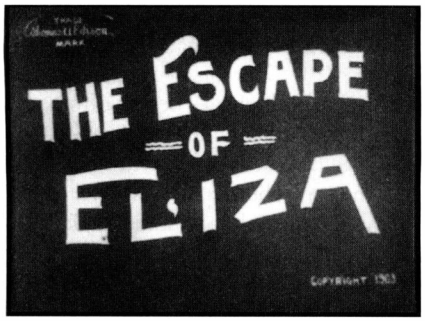


1.29 Officials of the American Mutoscope Company (including W. K. L. Dickson, second from right) in the firm's new rooftop studio. Like the Black Maria, the studio rotated on rails to catch the sun. The camera was sheltered in the metal booth, and simple painted sets were built against the framework.

1.30 At the City Hall in New York, Vitagraph personnel (J. Stuart Blackton, to the right of the central camera, and Albert E. Smith, second from left) ready to film an important topical event: the triumphal return of Admiral George Dewey after the Battle of Manila, 1898.

Another important company that got its start during the early years of the cinema was American Vitagraph, founded in 1897 by J. Stuart Blackton and Albert E. Smith as an advertising firm. Vitagraph began producing popular films relating to the Spanish-American War (**1.30**). Like other production companies of this period, Vitagraph was threatened with patent- and copyright-infringement lawsuits by Edison, who hoped to control the American market. Vitagraph survived by agreeing to cooperate with Edison, making films for the Edison firm and in turn dealing in Edison films itself. AM&B's 1902 legal triumph over Edison briefly reduced the risk of lawsuits throughout the industry by establishing that Edison's patents did not cover all types of motion-picture equipment (see Chapter 2). As a result, Vitagraph expanded production. Within a few years, it would emerge as an important firm making artistically innovative films. Blackton would also make some of the earliest animated films.

Edwin S. Porter, Edison's Mainstay The rise in production at AM&B and Vitagraph in the wake of Edison's failed lawsuit obliged Edison's company to make more films to counter their competition. One successful



1.31, 1.32 Porter's *Uncle Tom's Cabin* used an intertitle to introduce each shot. Here "The Escape of Eliza" leads to a single shot of the famous episode in the novel in which Eliza flees across the ice floes on a river.

tactic was to make longer films shot in the studio. In this endeavor, it had the assistance of the most important American filmmaker of this early period, Edwin S. Porter.

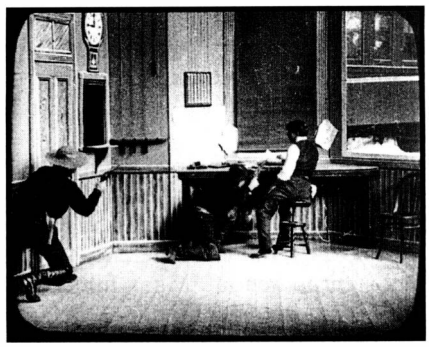
Porter was a film projectionist and an expert at building photographic equipment. In late 1900, he went to work for Edison, whom he greatly admired. He was assigned to improve the firm's cameras and projectors. That year the Edison Company built a new glass-enclosed rooftop studio in New York, where films could be shot using the typical painted stage-style scenery of the era. In early 1901, Porter began operating a camera there. At this point in cinema history, the cameraman was also the film's director, and soon Porter was responsible for many of the company's most popular films.

Porter has often been credited with virtually all the innovations of the pre-1908 period, including making the first story film (*Life of an American Fireman*) and inventing editing as we know it. In fact, he often drew upon techniques already used by Méliès, Smith, and Williamson. He imaginatively developed his models, however, and he undoubtedly introduced some original techniques. His position as the foremost filmmaker of the preeminent American production company gave his works wide exposure and made them popular and influential.

There had been many, indeed hundreds, of staged fictional films made before *Life of an American Fireman* (1903). Porter himself had done several, including a version of *Jack and the Beanstalk* in 1902. He had access to all the foreign films that the Edison Company was duping, so he could study the latest innovations. He examined Méliès's *A Trip to the Moon* closely and decided to copy its manner of telling a story in a series of shots. From 1902 on, many of his films contained several shots, with significant efforts to match time and space across cuts.

Porter's *Life of an American Fireman* is a notable attempt at such storytelling. It begins with a long shot of a dozing fireman dreaming of a woman and child threatened by fire; the dream is rendered as a sort of *thought balloon,* a circular vignette superimposed in the upper part of the screen. A cut to a close-up shows a hand pulling a public fire alarm. Several shots, mixing studio and location filming, show the firemen racing to the scene. The film ends with two lengthy shots that show the same action from two vantage points: in the first, a fireman comes in a bedroom window to rescue a mother and then returns to save her baby; in the second, we see both rescues again, from a camera position outside the house. To a modern audience, this repetition of events may seem strange, but such displays of the same event from different viewpoints were not uncommon in the early cinema. (In Méliès's *A Trip to the Moon,* we see the explorers' capsule land in the Man in the Moon's eye [see 1.16] and then see the landing again from a camera position on the moon's surface.) *Life of an American Fireman* was based on earlier films and lantern slides depicting fire-fighting techniques. Brighton School director James Williamson had made a similar film, *Fire!,* in 1901.

Porter made several significant films in 1903, among them an adaptation of the popular stage version of the novel *Uncle Tom's Cabin.* Porter's film was a series of one-shot scenes of famous episodes in the novel, linked by printed intertitles—the first known to have been used in an American film (**1.31, 1.32**). (Porter derived this technique from a G. A. Smith film.) His most important film, *The Great Train Robbery,* also made in 1903, used eleven shots to tell the story of a gang of bandits who hold up a train. A telegraph operator, whom they tie up at the beginning, alerts authorities, and a posse ambushes the thieves as they divide the loot. After the lengthy robbery scene, the action returns to the telegraph office seen earlier, then moves to a dance hall as the telegraph operator runs in to alert the local townspeople, and finally switches back to the robbers in a forest. Although Porter never cuts back and forth among these locales, a few years later filmmakers would begin to do so, thus creating a technique called *intercutting* (see pp. 46–48). Porter's film was, nonetheless, gripping in its depiction of violent action (**1.33**). Indeed, a novel extra shot, showing one of the robbers in a close



1.33 To make this shot for *The Great Train Robbery,* Porter exposed the film twice, showing most of the action of the holdup staged in the studio, with the view of the train as seen through the window filmed separately.

view firing a gun toward the camera, was included; exhibitors had the option of placing it at the beginning or end of the film. Perhaps no film of the pre-1905 period was as popular as *The Great Train Robbery.*

Porter worked for Edison for several more years. In 1905 he directed *The Kleptomaniac,* a social critique that contrasted the situations of two women who commit theft. The first part shows a rich kleptomaniac stealing goods at a department store; we then see shots of a poor woman impulsively taking a loaf of bread. The final courtroom scene shows the poor woman being sentenced, while the rich one is let off. In Porter's 1906 film *The Dream of a Rarebit Fiend,* superimposition and a rocking camera depict a drunkard's dizziness while Méliès-style special effects show his dream of flying above a city. In 1909, Porter left Edison to become an independent producer, but he was soon outshone by others just entering the field.

From 1902 to 1905, Porter was one of many filmmakers who contributed to an industrywide concentration on fiction filmmaking. Unlike topicals, which were dependent on unpredictable news events, fiction films could be carefully planned in advance. While scenics involved expensive travel to distant locales, fiction films allowed their makers to stay at or near the studio. Both of these factors enabled companies to create films steadily and on schedule. Moreover, audiences seemed to prefer films with stories. Some of these were still one-shot views, but filmmakers increasingly used a series of shots to depict comic chases, extravagant fantasies, and melodramatic situations.

By 1904, major changes were taking place in the new medium and art form of the cinema. Fiction films were becoming the industry's main product. Increasingly, movies were rented to exhibitors, a practice that established the division among production, distribution, and exhibition that was to shape the expansion of the film industry. Exhibition was spreading internationally, so films would soon be seen in most countries.

Although we have stressed production in France, England, and the United States, small-scale production also occurred in other parts of the world from an early date. Enterprising exhibitors made scenics and topicals of local interest to mix into their programs of imported films. In Spain, for instance, the first films were taken by Eugène Promio when he brought the Lumière Cinématographe to Madrid in June of 1896. By October of the same year, however, Eduardo Jimeno shot the first Spanish-made film, *Worshippers Leaving the Noon Mass at Pilar de Zaragoza;* similar imitations of Lumière actualities and even fiction films were produced in 1897. In India, exhibitor Harishchandra Sakharam Bhatwadekar ordered a European camera and filmed wrestling matches, circus monkeys, and local events, showing these actualities alongside imported films beginning in 1899. Entrepreneurs in other countries made similar films, but since only one or a few prints were made, hardly any survive.

During the first ten years of the commercial exploitation of the cinema, conditions were established for international growth of the industry. Moreover, filmmakers had begun to explore the creative possibilities of the new medium. These explorations were to intensify over the next decade.

Notes and Queries

IDENTIFICATION AND PRESERVATION OF EARLY FILMS

In the silent era, there were no archives devoted to preserving films. The great majority of films from the first decade of the cinema are lost or incomplete, and even those that survive are often difficult to identify. Many had no title at the beginning, and there were seldom stars or other distinctive traits that would provide clues to the source.

Fortunately, however, some segments of this era of film history have been preserved. In the United States, there was a method of copyrighting films by printing every frame on a long roll of paper. This practice lasted from 1894 to 1912,

although only a small proportion of films produced were copyrighted in this fashion. These "paper prints" were discovered in the 1940s at the Library of Congress and rephotographed onto film. In France, many negatives of the Lumière company were preserved, and even now hundreds have yet to be printed as positive viewing prints. In some cases, release copies of early films were stored away and found later, so archivists can now duplicate them.

Historians have also combed catalogues of early sales and distribution companies, trying to create filmographies of the movies made in a country or by a single studio. For a description of the paper prints, see Kemp Niver, *Early Motion Pictures: The Paper Print Collection in the Library of Congress* (Washington, D.C.: The Library of Congress, 1985), and Charles "Buckey" Grimm's "A Paper Print Prehistory," *Film History* 11, no. 2 (1999): 204–16. Niver's *Biograph Bulletins 1896–1908* (Los Angeles: Locare Research Group, 1971) reproduces the American Mutoscope and Biograph catalogues for this era; it provides a good example of the type of material historians work with. Denis Gifford's *The British Film Catalogue 1895–1985: A Reference Guide* (London: David & Charles, 1986) represents one of the most ambitious attempts to document a country's entire fiction-film production.

REVIVING INTEREST IN EARLY CINEMA: THE BRIGHTON CONFERENCE

For many years, the earliest period of the cinema was treated as relatively unimportant. Historians dealt with the invention of cameras and projectors but dismissed early films as crude. Overgeneralizations abounded. Edwin S. Porter, for example, was credited with being virtually the only stylistic forerunner of the American cinema's system of editing.

A major event in 1978 helped change many notions about the early cinema. The Fédération International des Archives du Film (FIAF, the International Federation of Film Archives) held its annual conference in Brighton, as a salute to the Brighton School. Many film historians were invited, and nearly six hundred pre-1907 films were screened. The result was a new appreciation of the variety and fascination of early films. To this day, the silent cinema remains one of the liveliest research areas of film history.

The proceedings of the Brighton Conference, along with a tentative filmography of surviving prints, were published as *Cinema 1900/1906: An Analytical Study,* 2 vols., ed. Roger Holman (Brussels: FIAS, 1982). For a description of the Brighton Conference and its effects on historians' work, see Jon Gartenberg, "The Brighton Project: Archives and Historians," *Iris* 2, no. 1 (1984): 5–16. *Early Cinema: Space, Frame, Narrative,* ed. Thomas Elsaesser, with Adam Barker (London: British Film Institute, 1990) contains several essays influenced by the Brighton event and written by historians who participated, including Charles Musser, Tom Gunning, André Gaudreault, Noël Burch, and Barry Salt.

Since 1982, the Cineteca de Fruili has carried on the Brighton tradition by holding an annual festival of silent cinema, Le Giornate del Cinema Muto ("The Days of Silent Cinema") in Pordenone and later Sacile, Italy.

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