

## **Short history of film making**

A film, also called a movie or motion picture, is a series of still images which, when shown on a screen, creates the illusion of moving images due to the phi phenomenon. This optical illusion causes the audience to perceive continuous motion between separate objects viewed rapidly in succession. A film is created by photographing actual scenes with a motion picture camera; by photographing drawings or miniature models using traditional animation techniques; by means of CGI and computer animation; or by a combination of some or all of these techniques and other visual effects. The word "cinema" is often used to refer to the industry of films and filmmaking or to the art of filmmaking itself. The contemporary definition of cinema is the art of simulating experiences to communicate ideas, stories, perceptions, feelings, beauty or atmosphere by the means of recorded or programmed moving images along with other sensory stimulations.

The process of filmmaking is both an art and an industry. Films were originally recorded onto plastic film, which was shown through a movie projector onto a large screen (in other words, an analog recording process). The adoption of CGI-based special effects led to the use of digital intermediates. Most contemporary films are now fully digital through the entire process of production, distribution, and exhibition from start to finish. Films recorded in analog form traditionally included an optical soundtrack, which is a graphic recording of the spoken words, music and other sounds that are to accompany the images. It runs along a portion of the film exclusively reserved for it and is not projected.

Films are cultural artifacts created by specific cultures. They reflect those cultures, and, in turn, affect them. Film is considered to be an important art form, a source of popular entertainment, and a powerful medium for educating - or indoctrinating - citizens. The visual basis of film gives it a universal power of communication. Some films have become popular worldwide attractions by using dubbing or subtitles to translate the dialog into the language of the viewer. Some have criticized the film industry's glorification of violence and its sexist treatment of women.

The individual images that make up a film are called frames. During projection of traditional films, a rotating shutter causes intervals of darkness as each frame in turn is moved into position to be projected, but the viewer does not notice the interruptions because of an effect known as persistence of vision, whereby the eye retains a visual image for a fraction of a second after the source has been removed. The perception of motion is due to a psychological effect called phi phenomenon.

The name "film" originates from the fact that photographic film (also called film stock) has historically been the medium for recording and displaying motion pictures. Many other terms exist for an individual motion picture, including picture, picture

show, moving picture, photoplay and flick. The most common term in the United States is movie, while in Europe film is preferred. Terms for the field in general include the big screen, the silver screen, the movies and cinema; the latter is commonly used in scholarly texts and critical essays, especially by European writers. In early years, the word sheet was sometimes used instead of screen.

Preceding film in origin by thousands of years, early plays and dances had elements common to film: scripts, sets, costumes, production, direction, actors, audiences, storyboards, and scores. Much terminology later used in film theory and criticism apply, such as *mise en scene* (roughly, the entire visual picture at any one time). Owing to the lack of any technology for doing so, the moving images and sounds could not be recorded for replaying as with film.

In the mid-19th century, inventions such as the phenakistoscope and zoetrope demonstrated that a carefully designed sequence of drawings, showing phases of the changing appearance of objects in motion, would appear to show the objects actually moving if they were displayed one after the other at a sufficiently rapid rate. These devices relied on the phenomenon of persistence of vision to make the display appear continuous even though the observer's view was actually blocked as each drawing rotated into the location where its predecessor had just been glimpsed. Each sequence was limited to a small number of drawings, usually twelve, so it could only show endlessly repeating cyclical motions. By the late 1880s, the last major device of this type, the praxinoscope, had been elaborated into a form that employed a long coiled band containing hundreds of images painted on glass and used the elements of a magic lantern to project them onto a screen.

The use of sequences of photographs in such devices was initially limited to a few experiments with subjects photographed in a series of poses, because the available emulsions were not sensitive enough to allow the short exposures needed to photograph subjects that were actually moving. The sensitivity was gradually improved and in the late 1870s Edward Muybridge created the first animated image sequences photographed in real-time. A row of cameras was used, each in turn capturing one image on a glass photographic plate, so the total number of images in each sequence was limited by the number of cameras, about two dozen at most. Muybridge used his system to analyze the movements of a wide variety of animal and human subjects. Hand-painted images based on the photographs were projected as moving images by means of his zoopraxiscope.

By the end of the 1880s, the introduction of lengths of celluloid photographic film and the invention of motion picture cameras, which could photograph an indefinitely long rapid sequence of images using only one lens, allowed several minutes of action to be captured and stored on a single compact reel of film. Some early films were made to be viewed by one person at a time through a "peep show" device such as the Kinetoscope. Others were intended for a projector, mechanically similar to the camera

and sometimes actually the same machine, which was used to shine an intense light through the processed and printed film and into a projection lens so that these "moving pictures" could be shown tremendously enlarged on a screen for viewing by an entire audience. The first public exhibition of projected motion pictures in America was at Koster and Bial's Music Hall in New York City on the 23rd of April 1896.

The earliest films were simply one static shot that showed an event or action with no editing or other cinematic techniques. Around the turn of the 20th century, films started stringing several scenes together to tell a story. The scenes were later broken up into multiple shots photographed from different distances and angles. Other techniques such as camera movement were developed as effective ways to tell a story with film. Until sound film became commercially practical in the late 1920s, motion pictures were a purely visual art, but these innovative silent films had gained a hold on the public imagination. Rather than leave audiences with only the noise of the projector as an accompaniment, theater owners hired a pianist or organist or, in large urban theaters, a full orchestra to play music that fit the mood of the film at any given moment. By the early 1920s, most films came with a prepared list of sheet music to be used for this purpose, and complete film scores were composed for major productions.

The rise of European cinema was interrupted by the outbreak of World War I, while the film industry in the United States flourished with the rise of Hollywood, typified most prominently by the innovative work of D. W. Griffith in *The Birth of a Nation* (1915) and *Intolerance* (1916). However, in the 1920s, European filmmakers such as Sergei Eisenstein, F. W. Murnau and Fritz Lang, in many ways inspired by the meteoric wartime progress of film through Griffith, along with the contributions of Charles Chaplin, Buster Keaton and others, quickly caught up with American film-making and continued to further advance the medium.

In the 1920s, the development of electronic sound recording technologies made it practical to incorporate a soundtrack of speech, music and sound effects synchronized with the action on the screen. The resulting sound films were initially distinguished from the usual silent "moving pictures" or "movies" by calling them "talking pictures" or "talkies."<sup>[citation needed]</sup> The revolution they wrought was swift. By 1930, silent film was practically extinct in the US and already being referred to as "the old medium."

Another major technological development was the introduction of "natural color," which meant color that was photographically recorded from nature rather than added to black-and-white prints by hand-coloring, stencil-coloring or other arbitrary procedures, although the earliest processes typically yielded colors which were far from "natural" in appearance.<sup>[citation needed]</sup> While the advent of sound films quickly made silent films and theater musicians obsolete, color replaced black-and-white much more gradually. The pivotal innovation was the introduction of the three-

strip version of the Technicolor process, first used for animated cartoons in 1932, then also for live-action short films and isolated sequences in a few feature films, then for an entire feature film, *Becky Sharp*, in 1935. The expense of the process was daunting, but favorable public response in the form of increased box office receipts usually justified the added cost. The number of films made in color slowly increased year after year.

In the early 1950s, the proliferation of black-and-white television started seriously depressing North American theater attendance. In an attempt to lure audiences back into theaters, bigger screens were installed, widescreen processes, polarized 3D projection and stereophonic sound were introduced, and more films were made in color, which soon became the rule rather than the exception. Some important mainstream Hollywood films were still being made in black-and-white as late as the mid-1960s, but they marked the end of an era. Color television receivers had been available in the US since the mid-1950s, but at first they were very expensive and few broadcasts were in color. During the 1960s, prices gradually came down, color broadcasts became common, and sales boomed. The overwhelming public verdict in favor of color was clear. After the final flurry of black-and-white films had been released in mid-decade, all Hollywood studio productions were filmed in color, with rare exceptions reluctantly made only at the insistence of "star" directors such as Peter Bogdanovich and Martin Scorsese.

The decades following the decline of the studio system in the 1960s saw changes in the production and style of film. Various New Wave movements (including the French New Wave, Indian New Wave, Japanese New Wave and New Hollywood) and the rise of film-school-educated independent filmmakers contributed to the changes the medium experienced in the latter half of the 20th century.[citation needed] Digital technology has been the driving force for change throughout the 1990s and into the 2000s. Digital 3D projection largely replaced earlier problem-prone 3D film systems and has become popular in the early 2010s.

Film theory seeks to develop concise and systematic concepts that apply to the study of film as art. The concept of film as an art-form began with Ricciotto Canudo's *The Birth of the Sixth Art*. Formalist film theory, led by Rudolf Arnheim, Béla Balázs, and Siegfried Kracauer, emphasized how film differed from reality, and thus could be considered a valid fine art. André Bazin reacted against this theory by arguing that film's artistic essence lay in its ability to mechanically reproduce reality not in its differences from reality, and this gave rise to realist theory. More recent analysis spurred by Jacques Lacan's psychoanalysis and Ferdinand de Saussure's semiotics among other things has given rise to psychoanalytical film theory, structuralist film theory, feminist film theory and others. On the other hand, critics from the analytical philosophy tradition, influenced by Wittgenstein, try to clarify misconceptions used in theoretical studies and produce analysis of a film's vocabulary and its link to a form of life.

## **Industry**

The making and showing of motion pictures became a source of profit almost as soon as the process was invented. Upon seeing how successful their new invention, and its product, was in their native France, the Lumières quickly set about touring the Continent to exhibit the first films privately to royalty and publicly to the masses. In each country, they would normally add new, local scenes to their catalogue and, quickly enough, found local entrepreneurs in the various countries of Europe to buy their equipment and photograph, export, import and screen additional product commercially. The Oberammergau Passion Play of 1898[citation needed] was the first commercial motion picture ever produced. Other pictures soon followed, and motion pictures became a separate industry that overshadowed the vaudeville world. Dedicated theaters and companies formed specifically to produce and distribute films, while motion picture actors became major celebrities and commanded huge fees for their performances. By 1917 Charlie Chaplin had a contract that called for an annual salary of one million dollars.

From 1931 to 1956, film was also the only image storage and playback system for television programming until the introduction of videotape recorders.

In the United States today, much of the film industry is centered around Hollywood, California. Other regional centers exist in many parts of the world, such as Mumbai-centered Bollywood, the Indian film industry's Hindi cinema which produces the largest number of films in the world. Though the expense involved in making movies has led cinema production to concentrate under the auspices of movie studios, recent advances in affordable film making equipment have allowed independent film productions to flourish.

Profit is a key force in the industry, due to the costly and risky nature of filmmaking; many films have large cost overruns, a notorious example being Kevin Costner's *Waterworld*. Yet many filmmakers strive to create works of lasting social significance. The Academy Awards (also known as "the Oscars") are the most prominent film awards in the United States, providing recognition each year to films, ostensibly based on their artistic merits.

There is also a large industry for educational and instructional films made in lieu of or in addition to lectures and texts.