

What is a Movie?



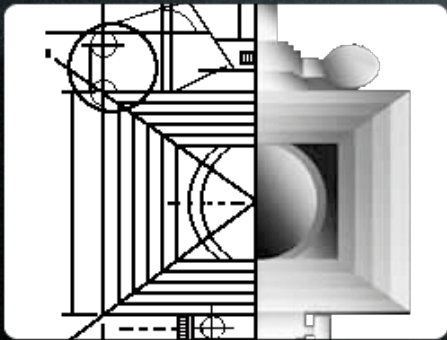
Chemistry



Optics



Photography



Precision
Machinery



Sound
Recording



Electricity

Technologies Movies Depend On

Five Movie Principles:

- Movies manipulate space and time in ways that other art forms cannot.
- Movies depend on light.
- Movies provide an illusion of movement.
- Movies can depict worlds convincingly.
- Movies generally result from a complex, expensive, and highly collaborative process.

Movies manipulate space
and time.

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- Some of the arts, such as architecture are mostly concerned with space; others, such as music, are mainly related to time.
- Movies manipulate space and time and are thus both a spatial and a temporal art form.



Architecture



Music



Painting



Sculpture



Photography



Play/Musical

Space or Time?

Movies manipulate space and time.

- Only movies, through editing, can thoroughly manipulate spatial relationships and temporal rhythms in such a way as to distort, transform, and heighten a scene.
- “After you have seen Saving Private Ryan, no stage production of Henry V, however spectacular, is ever going to look realistic” (O’Toole)



Saving Private Ryan (1998)

Movies Depend on Light

Movies Depend on Light

- Through the use of light and dark, filmmakers not only give their movies different styles, textures, and moods but also convey emotion and meaning in ways that can augment, complicate, or even contradict.



Grapes of Wrath (1940)

Photography

=

“writing with light”

Movies Depend on Light: Photography

- In 4th century B.C., Aristotle theorized about the camera obscura (Latin “dark chamber”)
- Light entering through a tiny hole (later a lens) on one side of the box or room projects an image from the outside onto the opposite side or wall.

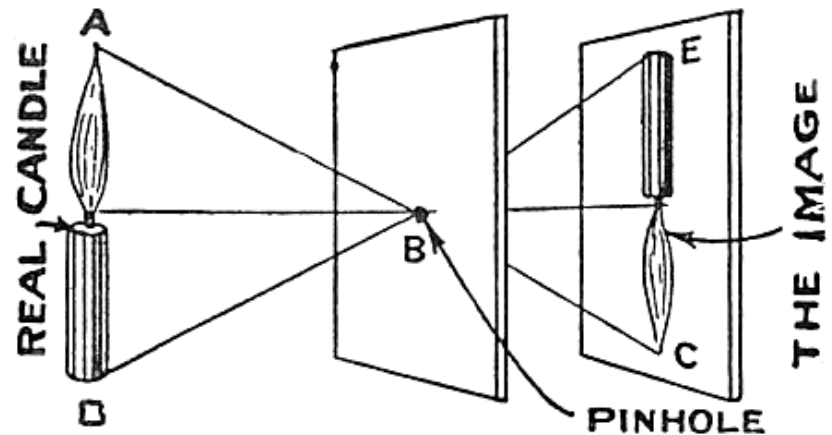


FIG. 131.—How Light and a Pinhole Form an Image

Movies Depend on Light: Photography

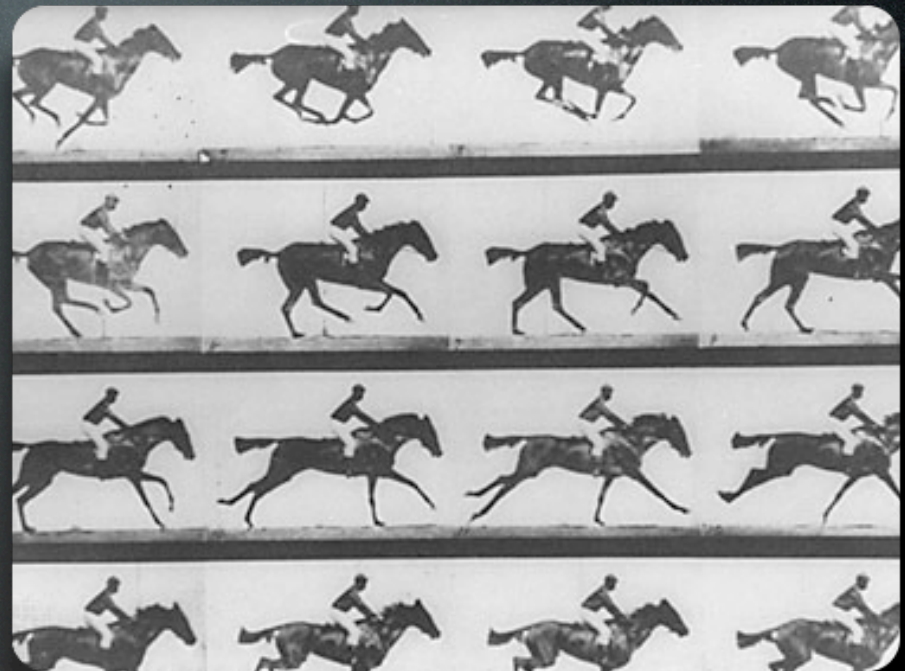
- Sir John Herschel perfected the compound that fixed an image on paper.
- Herschel first used the word “photography” in 1839 in a lecture at the Royal Society of London.
- In 1889, George Eastman substituted clear plastic (“film”) for the paper base.



Sir John Herschel

Movies Depend on Light: Series Photography

- The intermediary step between still photography and cinematography came with series photography.
- Series photography records the phases of an action.



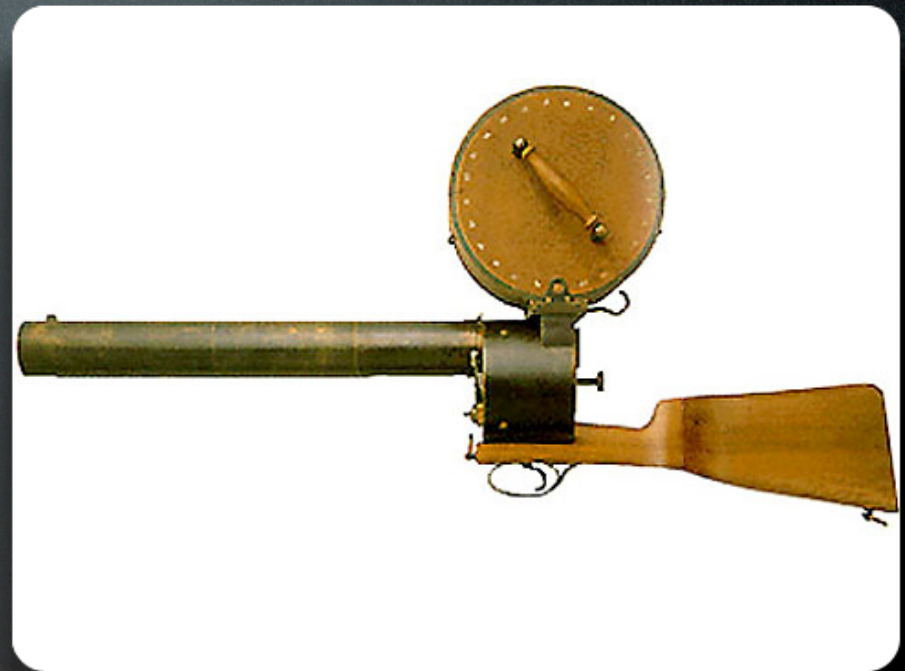
Edweard Muybridge's horse in motion created with elaborate setups.



Series photography has been revived
in movies like The Matrix (1999)

Movies Depend on Light: Series Photography

- 1874: Janssen, a French astronomer developed the revolver photographique or chrono-photographic gun.
- 1882: Marey, a French physiologist, made first series of photographs of continuous motion using the fusil photographique.



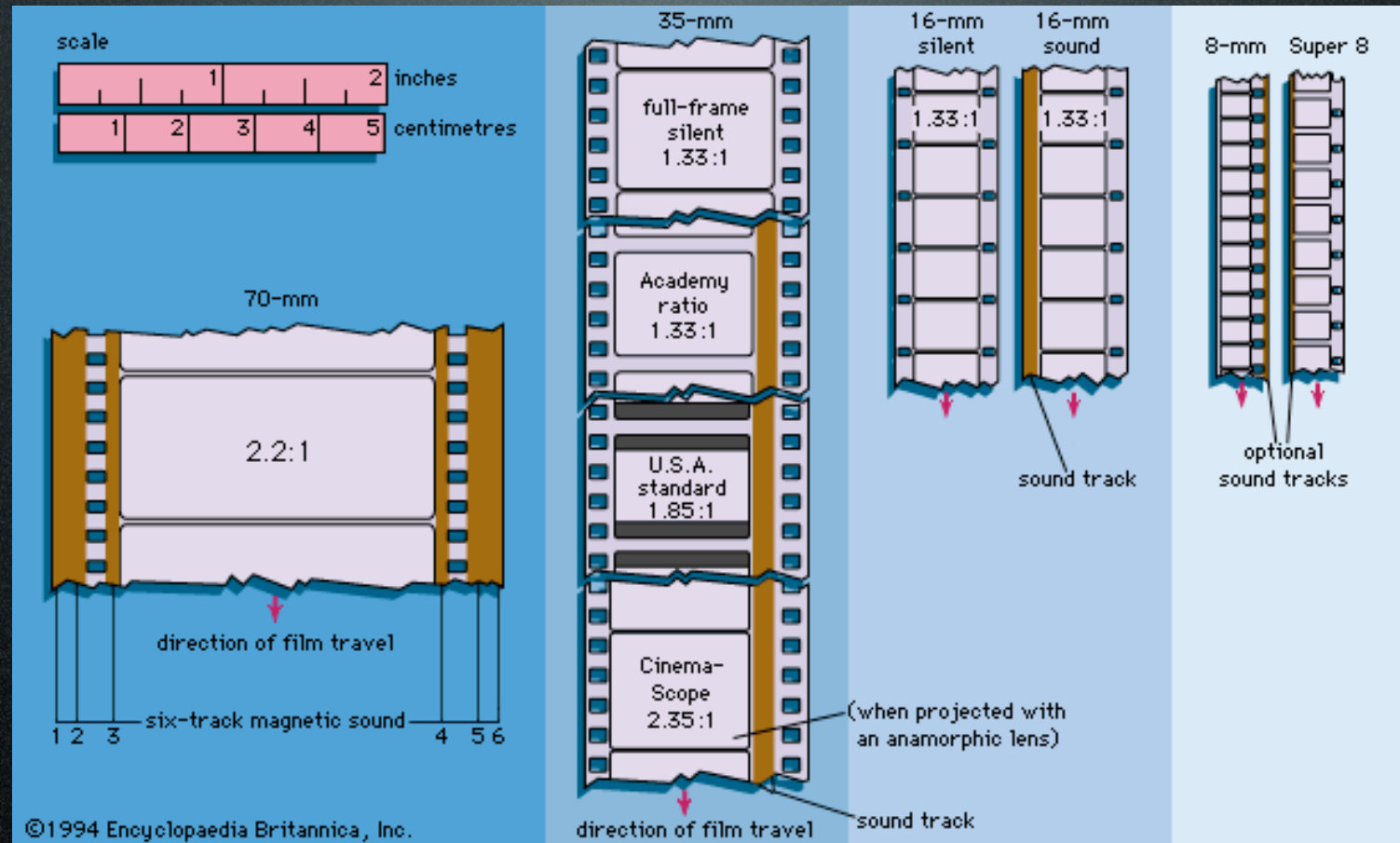
Marey's chrono-photographic gun enabled to shoot 12 frames with a single device.

Movies Depend on Light: Motion Picture Photography

- 1889: George Eastman began mass producing celluloid roll film, also known as motion picture film or raw film stock.
- Shooting is when a camera exposes film to light allowing that radiant energy to “burn” a negative image onto each frame.



A negative film is washed with processing chemicals and developed into a positive print



The most common variations on standard motion picture film gauges.

Movies Depend on Light: Inventing Motion Pictures

- 1891: William Kennedy Laurie Dickson, working with associates in Thomas Edison's laboratory invented the Kinetograph, the first motion picture camera and the Kinetoscope, a peephole viewer.



Kinetograph and Kinetoscope



1893: Edison and his staff began making movies inside the first motion picture “studio”-- a crude, hot, cramped, shack known as the Black Maria.

Movies Depend on Light: Inventing Motion Pictures

- 1895: Auguste and Louis Lumiere, French brothers, invented the Cinematographe, a remarkably compact, portable, hand-cranked device that was a camera, processing plant, and projector all in one.



Cinematographe

Movies Provide an
Illusion of Movement

Movies Provide an Illusion of Movement

- The movement we see on the movie screen is an illusion, made possible by persistence of vision and the phi phenomenon.
- Persistence of vision is the process by which the human brain retains an image for a fraction of a second longer than the eye records it.
- The Phi Phenomena is the illusion of movement created by events that succeed each other rapidly.

Movies Can Depict
Worlds Convincingly

Movies Can Depict Worlds Convincingly

- Between 1895 and 1905, the French filmmakers Auguste and Louise Lumiere and George Melies established the two basic directions that movies would follow: the Lumiere's realism and Melies's antirealism.

Realism: an interest
or concern for the
actual or real, a
tendency to view or
represent things as
they really are



Workers Leaving the Lumiere
Factory
by the Lumiere brothers

Antirealism: an interest
in or concern for the
abstract, speculative, or
fantastic



A Trip to the Moon
by George Melies

Movies Can Depict Worlds Convincingly

- However, realism and antirealism are not polar opposites. Whether a movie is realistic, antirealistic, or both, it can achieve a convincing appearance of truth: verisimilitude.
- Movies are verisimilar when they convince you that things on the screen are “really there” no matter how fantastic.



Jurassic Park (1993)

Movies Generally
Result From a
Complex, Expensive,
and Highly
Collaborative Process

- In 2000, the average Hollywood film cost about \$85 million: \$55 million to produce and about \$30 million to market.
- A great movie generally results from two factors: a good script and a director's inspiration, vision, intelligence, and supervision.
- The director holds the paramount role in the production process.

Types of Movies

Types of Movies: Nonfiction Films

- Factual: usually present people, places, or processes in straightforward ways without unduly influencing.
- Instructional: seek to educate viewers about common interests rather than persuading them to accept ideas.
- Documentary: their founding purpose was to address social injustice.
- Propaganda: systematically disseminate deceptive or distorted information produced by governments.

Types of Movies:

Narrative (Fiction) Films

- “Fiction” means that the stories these films tell--and the characters, places, and events they represent--were conceived in the minds of the films’ creators.
- Genre refers to the categorization of fiction films by the stories they tell or the ways they tell them.
- The major genres of narrative films are:
 - musical
 - comedy
 - romance
 - biography
 - western
 - action
 - thriller
 - horror
 - science fiction
 - crime

Types of Movies: Animated Films

- Animated (or cartoons) are based on drawings or other graphic images that are placed in a series to portray movement.
- There are several basic ways of making animated films: drawing, puppet animation, clay animation, pixilation, and computer animation.



Toy Story (1995)

Types of Movies: Experimental Films

- Experimental films are also known as avant-garde films, a term implying that they are in the vanguard, out in front of traditional films.
- A film that cannot easily be classified as nonfiction, fiction, or animated, and thus pushes the boundaries of what most people think the movies are or should be, falls into experimental.



Un Chien Andalou (1929)