Western Movie Culture Introduction

西方电影文化简史

周文革 编著

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CHAPTER 1
HISTORICAL HIGHLIGHTS

In the period previous to the 1930's, the predominant form of filmmaking was that of the crank camera. This is not to say that motor-driven cameras were not possible. However, the motors to advance the film were so large that they were simply to cumbersome to be effective. Thus, it was the cameraman himself who would crank the film at a steady rate to expose the frames. When it came to showing the film, on the other hand, motor driven projectors were quite convenient, and by the 1920's a standard 24-frame per second was established for projecting films. Filming, however, remained unstandardized due to the inherent variation in recording speeds, since it depended directly on the cameraman. An experienced cameraman was capable of filming an entire film at approximately the same speed, yet often variations were made in the recording speed for dramatic effect. Decreasing the number of cranks, for example, exposed fewer frames and thus when projected at the standard 24 frames created the frenzied action that characterized much of the Vaudeville cinema.

The French filmmaker Georges Melies was among the first to employ changing backdrops and costumes to tell his story. Up until that point many films were only a few minutes long taking place on a single set. Changing sets and costumes opened a vast range of new possibilities and spurred further growth in the fledgling industry. As the film industry expanded in America, filmmakers found an increasing need to establish a single location at which they could build sets and film undisturbed. The bright sunlight, relative stability of climate, and varied terrain found in California made it an ideal place to film, much of the reason for the industry's concentration there.

During this time, films were shot on a single reel, resulting in filmstrips that were only 15-20 minutes. Independent producers pioneered the use of double reel filmmaking during the years before the First World War. This allowed much longer films and opening the door for further opportunity, both financially and creatively, as well as bringing into being the double reel camera that became such an icon of movie production.

The major advance of the 1930's was the introduction of synchronous sound and dialogue in the late 1930's. First invented and shown in the 1920's, it became the standard by the early 1930's, partly due to the invention of a device based on the radio that could effectively amplify sound in the theater. Initially there were two available

systems with which to record sound. The first was similar to a phonograph, and recorded the sound to a separate disc. The second, more popular, system recorded the sound directly onto the celluloid strip. Initially sound hindered the filmmaking process, since the cameras had to be encased to muffle the noise of their motors and actors could not stray far from the stationary microphones. However, technological advances soon made up for this and the sound became an integral part of filmmaking. The incorporation of sound into film and the resulting movie theater draw triggered a number of mergers in Hollywood as companies tried to consolidate their power (and their wealth). The result of these unions was the creation of the first major studios that dominated the industry for decades, Fox Studios (later 20th Century Fox), Leow's Incorporated (later Metro-Goldwyn-Meyer), Paramount, RKO, and Warner Bros. These studios monopolized the industry through vertical consolidation, meaning they controlled every part of the production process. They owned the writers, the directors and producers, the actors, the equipment and crew, even the theaters. They controlled every step and dominated Hollywood until 1948 when the U. S. Government found them to be an illegal monopoly. It was also during this time that color in movies became possible through the use of the Technicolor system. Technicolor was created using a special camera that ran three strips of film, one in red, one in blue, and one in yellow. When the three strips were consolidated, the resulting image was in full color, though the colors were frequently very exaggerated as can be seen in two such films that were filmed in this manner, *Gone With The Wind* (1939) and *The Wizard of Oz* (1939). The 1940's also marked the beginning of the Italian movement known as "neorealism". This movement focused on portraying the non-fictional aspects of Italian society for entertainment, in contrast to many of the dream worlds that were being produced by Hollywood. Future generations of filmmakers would look to this movement as inspiration for their own films depicting their home countries in a style that is sometimes known as "slice-of-life." A novelty technique used during the 1950's was the introduction of 3-D. Filmed with special lenses and then viewed by the audience with special glasses, Hollywood released about 35 of these films during its brief popularity. Unfortunately, audiences quickly became bored with it and Hollywood soon dropped it. Another technique introduced in the 1950's was the widescreen format. It was introduced largely to distinguish movies from television in an effort to lure dwindling audiences back into theaters. Cinemascope was the first such technology, using a special lens to compress the wider image onto a 35mm film reel. A second lens on the projection piece would later decompress the image to create the widescreen format. It was later replaced by the Panavision system which did not require special lenses.

The 1950's brought hardship to the movie industry. It was during this decade that television first became popular and movie attendance plummeted.

By the end of the 1950's the movie attendance had dropped to only a quarter of the numbers that had been in theaters during the 1940's. British film-making was also revived during the 1950's. Both veteran and newer directors brought a burst of

creativity to the theaters of Great Britain. Unfortunately it was brief, and Hollywood took over again at the end of the 1950's. Seeking outlets elsewhere many British filmmakers came to America to create such classics as *The Bridge on the River Kwai* (1957) and *Lawrence of Arabia* (1962). Yet even after the reentry of Hollywood, Great Britain retained its strong tradition of documentary and realism cinema, continuing to this day to produce some of the best films of these genres.

The 1950's also saw the rise of the French "New Wave". The New Wave began with a group of French film critics who believed that the majority of French cinema was overly devoted to written aspects of a film. They believed that the director, the creator of the final visual image should be the true center and set out to direct their own films under this new theory. The French New Wave also sought in some ways to reconceptualize film. Though they were immersed in popular culture and striving to emulate Hollywood's success, they also incorporated new techniques and styles. One such example of this Jean-Luc Godard, who introduced the jump-cuts, temporal cuts to disrupt the continuity of a scene.

During the 1960's Germany began its own movement, similar to the Italian Neorealism and the French New Wave, known as "das neue Kino", translated as The New Cinema. Major aspects of the New Cinema were a focus on history and hardship Germany had endured, the effects of popular culture from America on German society, as well as the inclusion of feminist viewpoints on these subjects. A continuing decline in box office sales as movie-goers increasingly stayed home to watch their television program, coupled with a large wave of retirements as the directors and producers who had been at the helm since silent films began dropped out of the industry, left studios crippled. Corporate takeovers were commonplace and for a few years, studios remained financial corpses while larger entertainment companies (and occasionally unrelated corporations such as insurance companies) bought them up. The result was a more corporate and finance focused viewpoint throughout Hollywood and a void waiting to be filled by new talent as Hollywood entered the 1970's.

While other countries around the world had established film industries and cinematic movements, it was not until the 1970's that Australia and New Zealand were able to make a major break into the international film world. By providing government financial support for film projects, the country was able to boost not only the volume but quality of the films produced there resulting in films renowned not only for their artistic qualities, such as *Walkabout* (1971), but also their entertainment value, such as *Mad Max* (1979).

It was during the 1970's that the blockbuster as we now know it was officially born. The movie that started it all, if it has to go to a single movie, was *Jaws*. Though somewhat similar to the formula that had described blockbusters under the old studio system, it broke the mold in several major ways. First, its cast was, for the most part, unknown actors. Under the old model it was thought impossible to have a blockbuster without a recognizable cast. Second, and much more importantly, it used shocking special effects, namely a large mechanical shark, to thrill the audience. Audiences had

scene special effects before, but this was a whole new level of realism. Thus was born the era of the f/x blockbuster. A few years later the trend was reaffirmed when audiences were again captivated by special effects in one of the most popular movies of all time, *Star Wars*. Special effects surrounding romanticized and often simplistic characters became the core of the blockbusters, the new formula that brought back the large audiences and flowing cash to Hollywood.

By the mid-1970's the new formula for success had been reached. Whereas before a large number of movies were released and shown on the screens of the theaters that bought them, movies were now released in smaller numbers on thousands of screens at once and advertised with massive promotion campaigns to maximize gross on each film. It broke the financial slump of the 1960's and remains the formula today.

In 1978 a device was also developed that opened new doors for filmmakers. Dubbed the Steadicam, it was a camera mount that attached to the cameraman rather than a tripod or dolly. Thus, instead of being stationary or relying on a track or cart to move, the camera could go anywhere a cameraman could walk or run. Since then, numerous changes in the system have consistently improved its quality and ease of use. One of the most recent examples of a sequence filmed using the Steadicam were the Normandy battle sequences of *Spielburg's Saving Private Ryan.*

The only major change in the film industry that occurred in the 1980's (aside from the technological advances that occur constantly since the creation of the first camera but are for the most part too technical to be interesting to you or me) was the rise of new mediums. Cable companies exploded in the 1980's, wiring the country with a multitude of new entertainment possibilities. This wave of entertainment also started a trend of increasingly independent production. Up until that time, an independent film often had trouble finding an audience as major theater chains only dealt with studios. Cable opened up new audiences for independents and was a strong contributor to the growth of that sector of the industry.

The major technical advance of the 1990's has been the advent of the Digital Age. All across America people are going digital, with CD's having completely replaced vinyl and tapes, DVD's becoming increasingly popular, and camcorder's and camera's becoming sharper and sharper. Hollywood is not to be left behind, in fact they are far ahead. Though digital editors have been in use since the 1980's, it was not until the 1990's that the non-linear format of editing became a true standard, as even high school programs began to purchase consumer-grade non-linear devices. At the same time, advances in the 1990's have grown by leaps and bounds. Numerous breakthroughs in computer effects editing make it not only possible to alter the look of a film in a computer, but also extremely cost effective, as more productions use the computer to delete out mistakes in filming, or expand the grandeur of a scene (an example of this will be seen in an upcoming war movie as yet unnamed in which twenty extra charging across a battlefield will be digitally cloned into a thousand-man assault). Perhaps the most important step comes from the pioneer of the digital world, George Lucas. *Releasing Star Wars: E1* in three theaters uses completely digital projectors (no film reels

needed), making his preparations to film the next two using completely digital cameras and encouraging release on completely digital theaters. It is now clear to Hollywood and the rest of the world that digital is the next evolution in film.

CHAPTER 2
CHRONOLOGY OF MAJOR EVENTS

1830 - The invention of the zoetrope, a barrel with a strip of pictures around its inner surface which created the illusion of a moving image when the barrel was spun and the image reflected.

1870's - French inventor Emile Reynaud modifies the zoetrope to enlarge and project the images. Edweard Muybridge undertakes his now famous experiment to photograph a horse in motion by setting up twelve cameras in a row to record a running race horse.

1885 - American inventor George Eastman invents film on a paper roll, replacing the glass plates previously used.

1889 - Eastman replaces the paper roll with celluloid creating the earliest form of modern film.

1892 - British inventor William Dickson, working under Thomas Edison, perfects the kinetograph and the kinetoscope, the first to record a moving image, the second to view it. The motion picture camera is born.

1892 - Renaud begins public screenings using drawn images to create moving pictures as long fifteen minutes, such viewings were the precursor to the movie industry that would be born the next century.

1893 - Edison creates a studio on his laboratory grounds, where he shoots a number of motion shorts to be viewed in the kinetoscope, still problematic, as only one person could watch through the tiny window.

1895 - The Lumiere brothers create the first hand held camera. They soon realized that using a light source the image could be projected for an audience. The first public viewing of an actual recorded image takes place in Paris in December, 1895. Though other inventors created similar devices very shortly thereafter, the Lumiere brothers were also renowned for their work as film makers, gaining fame for their actuality films which depicted real life and not a staged story.

1908 - With the proliferation of nickelodeon theaters (empty storefronts that were cheaply and often unsafely converted into theaters) and the accompanying flood of small independent movies that played in them, Edison and other leading producers from ten major film companies form the Motion Picture Patents Company (MPCC) which extended its control over of distribution, prices, and other factors so as to

standardize the industry. Independent producers not associated with the MPCC often found their shoots disrupted by hired thugs, though their pictures remain the most popular with audiences.

1914 - Lois Weber becomes the first woman to direct a feature film, *The Merchant of Venice*.

1915 - The MPCC, though highly ineffectual in stemming independent movie production, drew attention from the U. S. Government as a monopoly and subsequently lost its power. At the same time independent producers began banding into studios that would soon dominate American cinema.

1914 - 18 - World War I. Prior to the Great War, the vast majority of films came from the cultural centers of Europe, primarily France, Germany, and Italy. As the continent was disrupted by the warfare, filmmaking slowed, and American companies stepped into the fill the void, producing almost 75% of the worlds films by the 1920's.

1919 - Oscar Micheaux becomes the first black producer with his feature film, *The Homesteader*.

1922 - The Motion Picture Producers and Distributors of America are formed. Headed by Will H. Hays, this is the organization later responsible for censoring movies.

1930 - The Production Codes set the standards for acceptable levels of taboo material such as sex and religion.

1934 - The Production Code Administration is formed to enforce and strengthen the Production Codes formed in 1930. It regulates content to ensure that acceptable levels of sex, drugs, and violence are maintained.

1932 - Walt Disney, whose first cartoon short, *Steam Boat Willie* first showed in 1928, becomes the first director to use the technicolor process in his animated short, *The Flowers and the Trees* (1932).

1941 - *Citizen Kane*, the most significant commercial American movie made is released.

1947 - The U. S. Congress, led by Senator John McCathy searches for connections to the Communist Party in all parts of American society, one such group especially targeted is Hollywood. Due to the secrecy of the so-called "blacklist", it can not be determined how many people stand accused, yet for many writers, directors, actors, and other industry professionals it is the end of their careers.

1948 - The Supreme Court rules that the studios exert an excessive amount of control on the movie industry and constitute a monopoly and are subsequently dismantled.

1951 - *Amendments to the Production Codes* forbids references to drugs, abortion, or venereal diseases.

1953 - *Bwana Devil*, the first totally 3-D movie is released.

1960 - *Spartacus*, by famed director Stanley Kubrick, is released.

1962 - James Bond makes his first appearance.

1965 - *The Pawnbroker*, directed by Sidney Lumet becomes the first movie with to

get a Production Code seal. Shortly thereafter the *Movie Production Codes* were abolished as old-fashioned and a hindrance to film-makers trying to create appealing cinema to a more liberal audience. For a few brief years films were made without any regulatory rating on them whatsoever.

1966 - The Motion Picture Association of America, under new president Jack Valenti, announces the need for a classification system created by members of the industry to avoid government censorship. Soon after the current system of 'G' through 'NC-17' was adopted.

1969 - *Midnight Cowboy*, wins the Best Picture Oscar despite its X-rating. It is later reevaluated and given an R-.

1970 - *M*A*S*H* is released, however, it is banned from Army and Air Force theaters.

1975 - *The Rocky Horror Picture Show* is released and quickly becomes the quintessential cult classic with weekly midnight screening commonplace around the country.

1976 - The Museum of Modern Art includes *The Texas Chainsaw Massacre* in its permanent collection.

1985 - Robert Redford's *Sundance Institute* takes over the United States Film Festival and later renames it the Sundance Film Festival.

1989 - The Cannes Film Festival Palme d'Or goes to American director Steven Soderbergh for sex, lies, and videotape. Competitor Spike Lee is annoyed.

1990 - At the Academy Awards, Kirosawa Akira is awarded the lifetime achievement award for his film which blended beauty, culture, and history into elegent depictions of his native Japan.

1991 - John Singleton's *Boyz N the Hood*, is blamed as the motivation for a number of inner-city deaths.

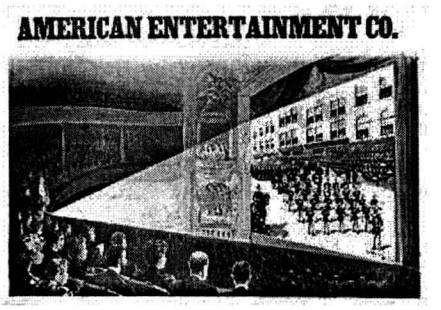
1996 - Stanley Kubrick films his last, *Eyes Wide Shut*, taking 15 months, one of the longest shoots in history.

1999 - George Lucas creates a stir among the actors of Hollywood by releasing *Star Wars: Episode 1*, which includes a number of characters that are completely digitally rendered.

CHAPTER 3
A LONG WAY TO MOVIES

This subject has a rich history attached to it. In order to understand the full discovery and development of moving pictures, we must study the various elements of not only this medium, but all others which are related to cinematography and especially photography. This timeline will provide more than a substantial glimpse into the discoveries of these elements which include; optics, pinhole images, camera obscura, persistence of vision, showmen, magic lanterns, light, lenses, light-sensitive substances, phantasmagoria, motion study analysis, photography, and stop-action series photography in the overall growth of photography and ultimately, the movement of pictures. The 19th Century Camera Obscura Room *(left)* is taken from a book entitled *'Wonders of Optics'* by F. Marion, 1868.

Marion reported in his book, of the work of GIOVANNI BATTISTA DELLA PORTA. In reference to the images that Porta observed through the camera obscura effect, Marion stated; "*this was the first attempt at the formation of a camera obscura, an instrument that has bestowed such incalculable benefits on humanity*". These were engaging words indeed, although the research involved was limited. However, like others before and since, Marion failed to delve deeper into the true history of the camera obscura, a discovery which would lead to photography, and ultimately, cinematography. We hereby take the liberty to present such a history...



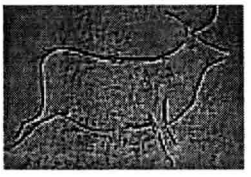
3.1 INTRODUCTION

This is a retrospective history of the dawn of film, and a pre-history of cinema itself. The body of this text deals with the origin of motion pictures and the ancestors of cinema beginning from approximately 900 years before the birth of Jesus Christ our Saviour, and culminating in the final decade of the 19th century.

Film historians differ in their opinion of what is the birth year of film. There are some who put it as early as the 1880's and others who claim it to be as late as 1897. Regardless, motion pictures were born when the technical aspects of the primitive camera, and projector were combined with celluloid. For instance, Donisthorpe and Le Prince both pre-date what is considered the premiere films of Lumiere. Yet they receive little attention due to the lack of commercialism. Our purpose here is not to induce controversy around the parentage of commercial cinema, or the year it finally came of age. It is to provide factual data on the grounds of well documented material. We will allow the reader to decide on the importance of genealogy.

3.2 A BRIEF HISTORY OF PRE-CINEMA

Cinematography is defined simply as the illusion of movement by projecting in rapid fashion. Also known as motion pictures, movies or moving pictures, cinematography is a product of the 19th century ingenuity and experimentation. Motion pictures came to be as the result of numerous other inventions. A large segment of the discoverers came from the new field of photography. Many more came from those who worked with magic lanterns. Some were interested in projecting images, and then others studied how images could be recorded on different materials such as leather and paper. But these were not the only men interested in watching real-life motion unfold before their eyes. People like Oliver Wendall Holmes desired to enhance prosthetics for post civil war amputees. Others like the scientist E. Jules Marey studied the motion of animals and particularly birds, in flight. British born American photographer Eadweard Muybridge also studied animals in motion but humans as well. By the end of the century, all of these discoveries, experiments and inventions came together to form the art we now call as movies, videos or cinema.



Since man was first created, he has had an insatiable thirst to re-create his own movements. His first attempts were simple drawings of animals, showing them in their natural stride. Primitive, but effective enough for his needs and desires. And it is in fact this driving desire to not only create and re-create, but to continually improve on his previous works that allows for man to produce a superior, more enhanced version of the original.

Even before men desired to capture images on paper, and make them move, humans have been fascinated by such simple pleasures as eastern shadow plays, pinhole images and lanthorns. Whether it was observing images of light cast upon the

ground through the intertwined leaves on trees, the ascending paper cut-outs from a flame or hand operated puppets in China and Greece, man has wanted to witness the reproduction of movement made by his own hands. Even Plato's cave images strike a tremendous similarity to today's movie.

3.3 PINHOLE IMAGES

Pinhole images have been seen since the time of Aristotle. What he saw was images and shapes flickering through the tiny holes made between several leaves crossing, and wickerworks. Pinhole photography on the other hand is the capturing of those images and shapes using no lens. A tiny hole replaces the lens. Light passes through the hole and an image is formed in the back wall of the camera. The image is of course upside down because light travels in straight lines and therefore crosses at the aperture (hole). If an outdoor scene is seen, the sky is at the bottom and ground at the top.

The basic optical principles of the pinhole are commented on in Chinese texts from the 5th century B. C. Chinese writers had discovered by experiments that light travels in straight lines. The philosopher Mo Ti was the first to record the formation of an inverted image with a pinhole or screen. Mo Ti was aware that objects reflect light in all directions, and that rays from the top of an object, when passing through a hole, will produce the lower part of an image. There is no further reference to the camera obscura in Chinese texts until the 9th century A. D., when Tuan Chheng Shih refers to an image in a pagoda. Shen Kua later corrected his explanation of the image. Yu Chao-Lung in the 10th century used model pagodas to make pinhole images on a screen.

In Greece, Aristotle (4th century B. C.) comments on pinhole image formation in his work *Problems*. In Book XV, 6, he asks: "*Why is it that when the sun passes through quadri-laterals, as for instance in wickerwork, it does not produce a figure rectangular in shape but circular?*" In Book XV, 11, he asks his readers: "*Why is it that an eclipse of the sun, if one looks at it through a sieve or through leaves, such as a plane-tree or other broadleaved tree, or if one joins the fingers of one hand over the fingers of the other, the rays are crescent-shaped where they reach the earth? Is it for the same reason as that when light shines through a rectangular peep-hole, it appears circular in the form of a cone?*" Aristotle found no satisfactory explanation to his observation; the problem remained unresolved until the 16th century.

The Arabian physicist and mathematician Ibn Al-Haitam, also known as Alhazen, experimented with images seen through the pinhole in the 10th century A. D. He arranged three candles in a row and put a screen with a small hole between the candles and the wall. He noted that images were formed only by means of small holes and that the candle to the right made an image to the left on the wall. From his observations he deduced the linearity of light. In the following centuries the pinhole technique was used by optical scientists in various experiments to study sunlight projected from a small aperture. Pinhole cameras are small or large, improvised or designed with great

care. Cameras have been made of sea shells, many have been made of oatmeal boxes, coke cans or any size of box. Cameras have been cast in plaster like a face mask, constructed from beautiful hardwoods, built of metal with bellows and a range of multiple pinholes. Even cars have been used as pinhole cameras and rooms in large buildings. In fact the camera obscura effect (pinhole images seen within a camera) was first seen inside large rooms. The showman Villanova performed scenes outside a room which had a small hole in one wall. Patrons sat inside and watched "cinema". The accompanying sounds heard outside matched the scenes viewed inside!

Pinhole images are softer and less sharp than pictures made using a lens. The images have nearly infinite depth of field and wide angle images remain absolutely rectilinear. On the other hand, pinhole images suffer from greater chromatic aberration than pictures made with a simple lens, and they tolerate little enlargement. Exposures are long, ranging from half a second to several hours. Images are exposed on film or paper-negative or positive; black and white, or color.

3.4 THE CAMERA OBSCURE EFFECT

We will look at the effect of the original 'camera' in its most obscure form being able to provide a picture, but not capable of retaining it. For three centuries alone, a fundamental piece of equipment, the camera obscura, had been known to man (not to mention pinhole images which pre-date the camera obscura and were the actual effect). A great new toy of sophistication and delight, but it had little to offer in the way of long-lasting enjoyment. It eventually found its place in history but not before being used as a simple drawing aid.

In the Renaissance and later centuries the pinhole was mainly used for scientific purposes in astronomy. But as time went by the pinhole image (now known as a camera obscura) was used more and more as a drawing aid for artists and painters. Even Leonardo da Vinci (1452-1519) described the pinhole image in his *Codex Atlanticus*. The pinhole image had come of age, and was placed in a box, or room. Giovanni Battista della Porta (1538-1615), a scientist from Naples, was long regarded as the inventor of the camera obscura because of his description of the camera obscura in the first edition of his *Magia Naturalis* (1558). His description has received much publicity, as his camera obscura shows, but he is not the true 'inventor'.

What appears to be the earliest ever illustration of the camera obscura is found in a book by Johannes De Fontana in 1420. The drawing shows a nun holding a vertically-shaped camera with an image on the inside. The image has been identified as a magic lantern by some but can only be attributed to the camera as the image is clearly on the inside. Magic lanterns projected their images.

Gemma Frisius, an astronomer, had used the pinhole in his darkened room to study the solar eclipse of 1544. He described it along with a description in his *De Radio Astronomica et Geometrica* (1545). The very term camera obscura ("dark room") was coined by Johannes Kepler (1571-1630). At his time, the term had come to mean a