THE HISTORY OF CINEMATOGRAPHY

PART FOUR: THE GOLDEN AGE AND BEYOND

Kodak introduced the company’s first color negative film in 1950. It was designed for an exposure index of 16 in daylight. It was the beginning of a rapid transmission from black-and-white to color movies. The studios also focused on differentiating motion pictures from television by making movie-going a unique entertainment experience.


Biroc was born and raised in New Jersey in 1900. He saw his first movie when a barnstorming exhibitor set up a temporary theater on a vacant lot near his home. Biroc was fascinated. He started working at a film lab in New Jersey, and eventually became an assistant cameraman and camera operator on crews with Bitzer and other cinematographers.

Biroc served as a captain in a U.S. Army Signal Corps unit that filmed the liberation of Paris towards the end of the World War II. He earned his first cinematography credit in 1947, when he finished shooting *It’s a Wonderful Life* for Joe Walker, ASC, who began that project. Biroc won an Emmy in 1971 for the television movie *Brian’s Song*, and he shared an Oscar with Fred Koenekamp, ASC for *The Towering Inferno* in 1974. He received a Lifetime Achievement Award from the ASC in 1989.

Biroc said his biggest regret was that he never got to shoot another 3-D movie. *Bwana Devil* was a huge success at the box-office in 1952. The following year, *The House of Wax* was even more successful. It had an added dimension with six tracks of stereo sound.
Some 40 3-D movies were produced in 1953, and another 20 were started the following year, but only a few of those were released in 3-D format. The best were *Kiss Me Kate* and *Dial ‘M’ for Murder*. There are different theories about why 3-D failed. Some critics said that the format wasn’t conducive to dramatic storytelling, and that it relied too much on gimmicks. Many people in audiences complained about the heavy glasses they had to wear, and claimed that 3-D gave them headaches and eyestrain. Most of those problems were caused by misaligned projectors.

The brief flirtation with 3-D movies was followed by a hot romance with 65 mm and other wide format films that were screened in 70 mm format, augmented by stereo sound. Some 60 wide-format films were produced and released in 70 mm formats between 1953 and 1970. The short list includes *South Pacific*, *The King and I* and *The Robe*, all shot by Leon Shamroy, ASC; *Spartacus*, shot by Russell Metty, ASC; *Lawrence of Arabia* and *Ryan’s Daughter*, shot by Freddie Young, BSC, *Oklahoma*, shot by Robert Surtees, ASC; *2001: A Space Odyssey*, shot by Geoffrey Unsworth, BSC; *The Alamo* shot by Bill Clothier, ASC and *Patton*, shot by Koenekamp. The common denominator was that they were all successful, and the combination of compelling stories and artful cinematography left indelible impressions in the memories of audiences.

The end of the war attracted fresh talent to Hollywood. William A. Fraker, BSC, ASC and Conrad L. Hall, ASC both focused on cinematography in the film studies program at the University of Southern California (USC).

Fraker’s father and uncle were studio still photographers. He attended USC on the GI Bill of Rights. His grandmother encouraged him to become a cinematographer. Hall was born and raised on a tropical
island in Tahiti. His father was James Norman Hall, who co-authored the classic novel “Mutiny on the Bounty.” Hall enrolled at USC with instructions from his father to find a career.

Hall and Fraker both credited Slavko Vorkapich, head of the cinema program at USC, for putting them on the path to careers in cinematography. Vorkapich was a writer/director who started his career in his native Serbia. He migrated to Hollywood in 1922.

“He had the spirit and soul of an artist,” Hall said. “He taught us that filmmaking is a new visual language. He taught us the principles, but said that there were no rules in how you express yourself as an artist.”

Fraker went on to shoot some 45 feature films. He earned Oscar nominations for cinematography for Looking for Mr. Goodbar, Heaven Can Wait, 1941, War Games and Murphy’s Romance. Hall won Oscars for Butch Cassidy and the Sundance Kid, American Beauty and Road to Perdition, and other nominations for A Civil Action, The Day of the Locusts, Morituri, The Professionals, In Cold Blood, Tequila Sunrise and Searching for Bobby Fischer.

Haskell Wexler, ASC followed a different path to the same destination. He was born and raised in Chicago, and volunteered to serve as an ordinary seaman in the U.S. Merchant Marines during the start of the World War II. His ship was torpedoed and sunk off the coast of North Africa. After the war, Wexler returned to Chicago looking for meaning in his life. He started his career shooting 16 mm documentaries.

“I discovered that the moment of truth in filmmaking is a fleeting and delicate thing, but it is the stuff that touches the soul,” he reminisced.

Wexler eventually found his way to Hollywood, where he won Oscars for Who's Afraid of Virginia Woolf? and Bound for Glory, and other nominations for Blaze, One Flew Over the Cuckoo’s Nest and Matewan. That’s
just one dimension of his storied career. Wexler has shot as many non-fiction films as narrative films. He received a Lifetime Achievement Award from the International Documentary Association in 2006.

Cinematography has been a universal language since the days of silent movies. Tonino Delli Colli, A.I.C. was born in Rome in 1923, where his father worked at a motion picture lab. He went to work at Cinecittà Studios in 1938 with instructions from his father to find a career.

Delli Colli subsequently learned the craft and honed his artistic instincts while working on camera crews with various cinematographers at the studio, including Mario Alberti, Ubaldo Arata and Anchise Brizzi. He shot his first film, *Finalmente Si*, in 1944. Delli Colli subsequently collaborated with directors Federico Fellini, Dino De Laurentiis and Carlo Ponti, who are credited with pioneering the cinema of “neo-realism.”

“The defining characteristic of those films was that they were filmed in real environments, partially because the Cinecittà Studio was filled by displaced persons, because of the war,” he said. “We learned to use ambient light and what came through windows as the starting point.”

Sven Nykvist, ASC also worked at Cinecittà Studio during the dawn of his career. Nykvist was born in Moheda, Sweden, in 1922. His parents were missionaries who built a hospital in the Belgian Congo. Nykvist studied still photography during his teens and began his career as an assistant cameraman at Sandrews Studio in Stockholm.

He spent several years on camera crews at Cinecittà with the same cinematographers, directors and circumstances as Delli Colli. Nykvist returned to Sweden around 1943-44. He earned the first of his 120 cinematography credits in 1945. Nykvist collaborated with Ingmar Bergman on 22 films, including *Fanny and Alexander* and *Cries and*
Whispers. He earned Oscars for both of those films, and a third nomination for The Unbearable Lightness of Being.

“The audience gets to know the characters through their eyes and faces,” he said. “It is important to light so the audience can see the truth behind each character’s eyes, or to create shadows to conceal it. My tendency is to use bounce and indirect light with small units, but everyone should trust their own instincts. You light to get the right ambience.”

Nestor Almendros, ASC was born in Barcelona, Spain, in 1930. He moved to Cuba around 1947 after his father was exiled by the fascist Franco regime. Almendros went to Rome to study at the Centro Sperimente film school. His first film was a documentary that he shot in Cuba around the time of the revolution that brought Castro to power.

Almendros moved to France in 1962 after the Castro government banned two of his films. He shot 13 films with French New Wave directors Eric Rohmer and Francois Truffaut. Almendros moved to the United States in 1978, where he won an Oscar for Days of Heaven and other nominations for Kramer vs. Kramer, The Blue Lagoon and Sophie’s Choice, all in one five-year span. He also directed documentaries about human rights issues in Cuba and Africa. There are no words to accurately describe his extraordinary influence on the global art of visual storytelling.

Vilmos Zsigmond, ASC and Laszlo Kovacs, ASC were born and raised in small towns in Hungary during the Nazi occupation, and later when the Russian army imposed a puppet communist government.

They both got their first glimpse of Western movies while they were students at the Academy of Drama and Film Arts in Budapest. Sometimes on weekends, when the communist authorities weren’t around, their mentor, George Illes, would encourage his students to watch
Hollywood movies that were stored in a vault. Kovacs and Zsigmond were both impressed by *Citizen Kane* and Gregg Toland’s cinematography.

In October 1956, Zsigmond and Kovacs borrowed a 35 mm camera from the school and documented the brutal suppression of a spontaneous uprising against the communist regime on the streets of Budapest. They subsequently made a perilous journey carrying some 30,000 feet of film across the border to freedom in Austria.

Zsigmond and Kovacs migrated to the United States as political refugees 50 years ago in February 1957, with a shared dream of going to Hollywood and making films like Gregg Toland did.

It was a long and sometimes seemingly impossible journey, but they endured and ultimately succeeded in creating some of the most memorable films in the relatively short history of cinematography. The short list for Kovacs includes *Easy Rider, Paper Moon, Five Easy Pieces, Shampoo, Mask Ghostbusters* and *New York, New York*. Zsigmond’s films include *McCabe and Mrs. Miller, Deliverance, The Rose, The Deer Hunter, The River, Close Encounters of the Third Kind*, and *The Black Dahlia*.

When he was called on stage to accept the Oscar for his work on *Close Encounters of the Third Kind*, Zsigmond thanked Illes and his other mentors at the school in Hungary. Later, he and Kovacs established a summer workshop for film students around the world at their alma mater.

When Lajos Koltai, ASC earned an Oscar nomination for *Malena* in 2000, he spoke about being inspired by Kovacs and Zsigmond while he was a student at the school. Illes saw to it that his students had access to videocassettes of their films.

The ultimate objective of any movie-going or TV-watching experience is the ability that it provides the individual viewer to
temporarily suspend reality and embrace an illusion on a two-dimensional screen. That requires some understanding of how people see the world. The human eye is an incredible imaging device capable of recording vast amounts of visual information in a wide range of colors. What we actually "see" is the density of light in the visible spectrum as it is reflected off people and objects in a field of view that stretches over a 30 degree angle. Our brain translates the reflections of light, temporarily imprinted on our retinas during fleeting fractions of seconds, into a continuous stream of images. Conventional 35 mm movies projected at 24 frames a second are a reasonably close match to the human visual (eye/brain) system. The feeling of reality is more intense when there is additional visual information, for example, a 70 mm print.

The human viewing system is also discretionary. People aren't locked in static positions watching images passing by. They are mobile in a world that is both spatial and temporal. Our view of the world is constantly moving in space and time. This explains the dual role that the cinematographer plays in providing the audience with a visual perspective. They have to both master the craft and play an interpretive or artistic role, which requires making choices. They aren't just recording images. A cinematographer needs to be able to probe beneath the surface, and evoke emotional response from the audience.

People who work for Kodak have had a unique historic appreciation for the art of cinematography and for the artists who write with light on film, dating back to the historic first meeting between W.K.L. Dickson and George Eastman during the dawn of the industry in 1888.

In 1987, Kodak began publishing a series of monthly advertisements under the headline On Film. Each ad features a portrait of
a different cinematographer along with a philosophical observation by them about the art of visual storytelling. Kodak has assembled those quotes and is posting them under on the website under Publications > OnFilm.

This report is the first chapters of a history of the art, with sketches of some influential members of the first two generations of cinematographers in several Western countries. They had counterparts around the world who were watching and learning from each other’s work. The evolution of the art of cinematography is an unbroken chain, starting with Dickson, continuing with Porter and Bitzer, and continuing today. The next chapter will focus on the evolution of cinematography during the 1970s through contemporary times.