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BEHIND THE SCREEN

The History and Techniques of the Motion Picture

BY KENNETH MACGOWAN

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The History and Techniques of the Motion Picture

Kenneth Macgowan

A Delta Book

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BEHIND THE SCREEN

To the memory of
ARTHUR RIPLEY
able and practiced film-maker
who became an inspired teacher

Preface

This book is a survey of many years and the work of many men. It is not a product of original research; its scope forbade this. A few researchers generously supplied materials. In the main it is an assemblage and sifting of published and sometimes contradictory facts, and of my own experience as a motion picture critic from 1914 to 1918, as a film producer in Hollywood from 1932 to 1946, and as a coordinator of film studies at UCLA from 1947 to 1956.

The writing of the book has been interrupted by collaboration on other publications, a sabbatical of travel in Europe, a Rockefeller grant to teach in Ankara, Turkey, and six months of illness. The manuscript would not have been completed if it had not been for the able and invaluable assistance of Robert G. Dickson. A special student at UCLA, he has had broad experience of different aspects of the film industry in his native Scotland. His wide reading, his historical knowledge, and his familiarity with the current film—plus his academic training abroad—fitted him to do a meticulous job of editing. The accuracy of my text, so often drawn from obscure sources, owes a very great deal to Dickson's probing and sagacious mind. He has saved me from a host of septuagenarian lapses.

I also owe a great deal to the detailed research in the first ten years of motion picture history that Gordon Hendricks, author of *The Edison Motion Picture Myth,* put at my disposal, and to his checking of the manuscript in the areas where he had special knowledge.

I am particularly indebted to Jean Vivié, Commission Supérieure Technique, Paris, for a long correspondence and many rare photographs, and to Rune Waldekranz of Stockholm for guidance as well as advertisements of early moving picture shows in Sweden.

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Library, Museum of Modern Art; Shirley Hood, UCLA Department of Theater Arts (one of whose important contributions was finding Dickson); Ernest Lindgren, British Film Institute; Esther Leonard Shatter, Special Collections, UCLA; and Kate Steinitz, Elmer Belt Library of Vinciana, UCLA.

Through the help of these and others that I shall name, I have been able to present illustrations and factual material not accessible to the general reader. Among these are: the sketch by which Roget first pictured the effect of persistence of vision; Leonardo da Vinci's drawing of his proposed camera obscura; many aspects of the developing arts of photography and the moving picture, including Sellers' posed stills of 1861; aspects of the wide screen from the completely circular Cinéorama of 1900 to Gance's triple screen of 1927, and the experiments of Hollywood that were stopped by the depression; studios and theaters from 1896 to 1902 as shown in photographs and advertisements; theater programs when DeMille, Pickford, and Gish were on the stage; production budgets and schedules as developed in Hollywood; sketches made by Delmer Daves, Alfred Hitchcock, and Lewis Milestone as they planned set-ups; specially made drawings to illustrate certain techniques of modern production.

Many interviews and much correspondence have provided aid of many kinds. Among those in and about the industry who have contributed, I can thank only a few: John E. Allen, William Fadiman, Sol Halprin, John Hampton, Gerald McDonald, Kenneth MacKenna, Roger Manvell, Fred Metzler, J. K. Peterson, Paul Raibaud, Loren Ryder, Georges Sadoul, Douglas Shearer, Mogens Skot-Hansen, Earl Sponable, Raymond Spottiswoode, Seymour Stern, Rémy Tessonneau.

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Frankie Porter made a valuable contribution in the creation of this book by her meticulous transcript of many of the chapters.

My gratitude to the members of the Dell Publishing Company for their assistance and especially to Richard Kennedy, who bore so patiently with me, despite delays and frustrations, until the successful completion of the book.

KENNETH MACGOWAN

Note to Book

Some of the dates in this book may be questionable and many of the financial figures only approximations. They are drawn from the few careful records that exist, but also—and of necessity—from the large body of myth and fantasy that makes up too much of the record of motion picture invention and the film industry. Dates in parentheses after the titles of films refer to the years in which they were completed. Usually these correspond to release dates.

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Chapter 1

What Makes Hollywood Run?

THE MOTION PICTURE IS, obviously enough, the only art created and developed wholly within historical times. Men were drawing pictures, carving sculptures, and making pottery in the Stone Age. They were composing lyric and epic poetry before they could write it down. The art of the fiction film, on the other hand, was almost entirely a product of the twentieth century, and what we call the "feature" developed only after 1910.

The Miracle of the Movies

The moving picture was very far from an art when men dropped a nickel in one of Edison's peep-show machines and saw girls dancing and cowboys busting broncos and prizefighters belaboring one another. Yet it was a fascinating and almost miraculous thing. We who have grown up in a world of movies can hardly conceive the amazement and the thrill that a man of the 1890's experienced. I can think of only one visual phenomenon that might today parallel the effect of those first movies. Imagine that you are looking at a picture in a newspaper, and that suddenly it takes on three dimensions without the use of special glasses.

No art form has ever fascinated so many people at the same time as the feature film. To dispose of mass competition in America, I need hardly say that the soap opera on radio was no art form, or that, in the main, television is essentially like film. In the early 1960's the popularity of the feature film was greater than anything now on the air;

it had a gigantic audience outside the United States. According to a report of the Department of Commerce, in 1961 there were 108,537 movie houses in 120 countries and territories across the world. They could seat 56,745,451 at a single performance; many more, of course, during the run of any one film.

Hollywood Still Dominant Abroad

World War I gave the United States an almost complete monopoly of movie production for four years. European film-making had only partially recovered when World War II dealt it a second blow, and renewed American supremacy. With peace, England, France, and Italy advanced once more. India had always led the United States in the number of feature films made each year; ten years after the war, resurgent Japan outdistanced India. Yet in the early '60s American movies filled 55 percent of the total film-playing time abroad. This was not quite as large a percentage as before, but through the spectacular nature of many of its pictures, Hollywood's income from overseas began, at last, to slightly exceed its profits from home rentals.

As in the past, the dominance achieved by our films continues in spite of the language barrier. Alien peoples throng to them even though they can't understand the spoken dialogue, and have to keep half an eye on superimposed subtitles. Unless they can see and hear films in which foreign actors match their words to the lips of the English-speaking players—such "dubbed" pictures are on the increase in a few countries—the members of this vast, world-wide audience gladly face the ordeal that we Americans must suffer when we see an Italian film and try to follow the action in the few moments left from reading each line of dialogue. In a sense, the moviegoer, in much of the world, is still seeing silent pictures, only there are ten times as many subtitles, and he cannot read them as he used to *between* scenes of silent action.

What Makes Hollywood Run?

You may say that Hollywood's conquest of the world, through two world wars, was a victory by default, but how did the American producers hold the advantages they had gained through lack of competition? Perhaps the answer is partly that the founders of Hollywood were, in the main, men who came from the masses and knew how to please without drawing on whatever imagination they themselves possessed. The level of the adult audience rose during the "talkie" period, but the number of juvenile moviegoers increased far more. In America today, the majority of spectators are children and adolescents. Various pollsters

produce various figures. The highest is 52 percent under age twenty, 72 percent under age thirty. The lowest isn't so very much lower. Said screen writer Robert Ardrey: "A little child shall lead us." Has the child led Hollywood toward continued domination over the cinema world?

A Little Child Shall Lead Us

Some wag remarked bitterly, in the early days of television, that TV in two years had arrived at a mediocrity that radio had taken a quarter of a century to achieve. The same cannot be said of the movies. The ambitious struggle to achieve an audience made up exclusively of children has been long and arduous. It has been over such resisting bodies as Chaplin and Garbo and Goldwyn and Lubitsch, even Walt Disney. But the heights have been won. And the same John Ford who once gave adults "The Informer" must now give children "The Searcher[s]."

—Robert Ardrey, in *The Reporter.*

Has he kept our sights low enough to draw a bead on the underprivileged abroad? I think that in catering more or less to a youthful audience, Hollywood has gained and held a mass audience from Spain to Japan that operates, in the main, on the emotional and intellectual level of our juveniles.

Of course, the whole picture is not so simple and it has been changing in the nineteen-sixties. Hollywood has held its own abroad partly by dramatizing the obvious, exploiting the glamorous, and using the wide screen to capitalize on the spectacular. Meanwhile, foreign films have been invading our screen in greater numbers; in 1962 the New York State censor licensed 604 of them. While "art theaters" have increased in number, French and Italian explorations of sex, and splendiferous "dubbed" spectacles from Italy have invaded first-run houses. This has been due partly to the fact that the major film companies, no longer owning chains of theaters, are not compelled to produce enough features to fill them, and partly to the fact that exhibitors are looking for something "different" to compete with television. Some major and many independent producers are making "adult" films to compete in the world market as well as in America.

Once the Costliest Art

The art of the motion picture suffers grievously from the high cost of production. Until the coming of radio and television, no means of artistic communication was so expensive.

The high cost is partly inherent. A camera and film are more expensive than a typewriter and paper; brushes, colors, and canvas; chisels and a piece of marble. A novel or poem, a painting or statue, can be turned out far more cheaply than even a 16mm film. A piano costs less than a professional camera, and a composer can work with pencil and paper and the casual use of a borrowed instrument. A young film-maker or an older experimenter is severely handicapped by the cost of equipment. Even if he is a student at the one of the few universities that teach production techniques and furnish camera, sound stage, and editing equipment, the costs of film stock and laboratory work are high. While a student may make one form of animation quite cheaply by painting directly on film as Norman McLaren and others have done, or at considerably more expense make films ranging from the "nuts and bolts" type of educational film to fully dialogued fictional exercises, the cost involved is far more than that of the tools and materials of any other art. A film with dialogue means a layout of much hard cash. *A Time Out of War*, the prize-winning two-reeler made by Terry and Denis Sanders at UCLA in 1953, cost about $2,000; some other student films have run from $4,000 to $5,000.

The costs of professional film-making are fantastic. Even the most rigid economies, here or abroad, put a floor of $100,000 to $150,000 under a feature-length picture. A well-made Hollywood film without stars or an expensive story may cost upwards of $800,000, and blockbusters run from two or three million to more than ten million dollars.

A Mass Art

Such costs are the product of mass appeal and mass profits. As you will see later on, between 1915 and 1920 producers began to hike the salaries of stars and directors and even the price of stories. The huge profit from a successful film made Hollywood ready to pay through the nose for anyone or anything that seemed responsible for its popularity. This inflationary pattern has continued. By 1962, Hollywood was paying more than a million dollars a film for the services of Marlon Brando or Elizabeth Taylor, and $1,250,000 for *Camelot* and $5,500,000 for *My Fair Lady*. Supporting players, directors, and set designers were paid more than they could have earned in the theater.

Mass production, mass distribution, and mass consumption stamp the motion picture as the only art that had become big business before radio and television—if radio or television can be called an art. The conse-