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## CHAPTER FIFTY-SIX

### ADVENTURES OF KINEMACOLOR

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THE striving for natural color in motion pictures began with the beginnings of the picture itself. The course of color history in the films has been as romantically adventurous as the story of the screen.

Now in 1909 the dreams of the inventors came to flower with the first color picture on the screen.

Many had fancifully played with the idea of screen color, including William Friese Greene of London, whose dallying contact with the motion picture idea has been noted in earlier chapters. But among the first significant laboratory efforts were those of Edward R. Turner, an English chemist.

Turner, beginning as a student of processes for making still pictures in color, had been at work on the motion picture color problem several years when in 1901 he enlisted the aid of Charles Urban, as the most aggressive factor in the British film trade. Turner held a British patent, No. 6202, issued March 22, 1889, on a color film process. But it was in effect only an invention on paper, not reduced to practice.

Turner's first backer was F. Marshall Lee, a breeder of fast horses for the British turf. Lee's participation in this early effort in screen color has a flavor of coincidence when one recalls that it was another horseman, Leland Stanford of California, who financed the Isaacs-Muybridge researches in the '70's.

Urban acquired Lee's interest in Turner's work in behalf of the Warwick Trading Company, the picture concern which had developed out of his invasion of Britain in behalf of

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Maguire & Baucus, the Edison agents. Six months later, after £500 had been spent without tangible results, the company wearied of the quest and Urban took up the burden.

Turner was laboring with an effort to combine the three primary colors on the screen by projection, in an optical equivalent of the three color printing process. In time he succeeded just sufficiently to give hope. Perfection demanded three perfectly matched lenses, which the optical workers declared impossible.

Turner set to work to seek a new approach to the problem.

One day in 1902, as Urban sat at his desk nearby, there came a crash from the workshop where Turner was striving with his perplexities.

Urban ran into the room and found Turner dead on the floor.

Turner's notes, models and formulæ were scattered about in confusion. No one else knew the meaning of half of them. The most of what Turner had attained died with him.

Urban cast about for another researcher to continue the effort and retained G. Albert Smith, a photographer and scientific experimenter. Turner's materials were removed to Smith's workshop at Brighton.

Years slipped by, with Urban journeying down to Brighton at week-ends.

At last Urban and Smith decided that the three color process was hopeless. They were in despair. Then, in its usual eleventh hour manner, Fate intervened, this time in their behalf.

Urban was in Paris on one of his monthly excursions to look into the affairs of his Urban-Eclipse studio there, when, with that color problem uppermost in his mind, a street vender of novelty postcards arrested his attention.

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These cards, it must be blushinglly admitted, were Parisian. They were in two transparent parts, one red, the other green. Either, viewed alone, presented a commonplace view of scenery. When super-imposed and held to the light they presented not scenery but obscenery.

Urban invested a franc in these cards, hurriedly and furtively concealing them in his inside coat pocket. He strolled on down the boulevard, trusting that he had not been observed in this seeming frivolity, and wondering if here in these silly cards might not be something related to the secret that puzzled the week-end conferences at Brighton.

With these cards as the beginning Urban and Smith tried a new attack on the color problem. Instead of continuing the three primary color process, as Urban puts it, "we jumped over the fence of theory," and sought the same result with two colors. They had been working with red, blue and yellow. Now they divided the yellow between the red and the blue, thus getting two colors to play with, a red-orange, and a blue-green.

This, if it worked, would immensely simplify the process and all of its related devices. Five tedious years had now elapsed. The solution seemed close at hand.

A Sunday in July 1906, came and all was ready for the first test of the two color principle. Camera and projector were waiting. It was a beautifully sunshiny day in G. Albert Smith's garden at Brighton. He dressed his little boy and girl in gay clothes with a variety of colors. The little girl was in white with a pink sash, the boy in sailor blue and carrying the British Union Jack. They were posed on the green grass, with the red brick of the house as a background.

The camera was loaded with a fifty foot length of prepared color-sensitive film and in thirty seconds an exposure had been effected.

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Urban and Smith went together in the little darkroom in a corner of the red brick house and put their precious film into the developer.

Two feverish hours followed, while Smith and Urban dried their color negative and made, developed and dried a positive print for the projection test.

Then, with shades drawn to darken the experimental projection room, they put the test picture into the machine.

The projection machine was equipped with the same red and green filters as the camera, the color lesson learned from the absurd French picture cards. It was the hope that the picture just made, projected through these filters, would combine the colored light rays and endow the effect on the screen with the tints of nature.

The test film flashed through its fifty feet in half as many seconds. There on the screen for that half minute, was the little girl in white with a pink sash and the little boy with his sailor blue suit. And the grass was green and the bricks of the house were red.

For the first time in the world a motion picture in natural colors was projected on the screen.

The little picture was hardly half through the machine when Urban leaped up and yelled.

“We’ve got it—we’ve got it!”

The newborn process was christened “Kinemacolor.”

Urban withdrew from other film interests and set about exploitation of the invention. May Day of 1908 the first public demonstration of Kinemacolor was given at the opening of Urbanora House in Wardour street, London. Urbanora House, by the way, began the movement of the film trade from Warwick Court, known as “Flicker Alley” to the modern “Film Row” of Wardour street.

Kinemacolor was presented for scientific consideration at an

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exhibition on December 9, 1908, before the Royal Society of Arts. Then the new color pictures, following in the footsteps of the first films, went on the screen for the public at the Palace theatre, under the auspices of Alfred Butt, subsequently Sir Alfred. The commercial career of color began there with a matinee on February 26, 1909.

Now a new company was formed, Urban acquired Smith's interest in the patent, and a world-wide career for Kinemacolor ensued, with engagements in Berlin, Paris and all the capitals of Europe.

But the United States was the golden land of picture opportunity and Urban looked to America with a special interest.

In New York, with the film industry in the throes of the war of the Independents and the Patents Company, Urban showed his Kinemacolor pictures at Madison Square Garden December 11, 1909. The ten chiefs of the Patents Company attended the showing. They were outwardly filled with enthusiasm. A tentative deal was made to buy the American rights for \$250,000. It was to be closed the next morning.

There was a handshake all around. Among the Patents Company magnates was "Pop" Rock of Vitagraph. He remembered with some sincere appreciation the event of years before when Urban's plea to Maguire and Baucus, Edison agents, had saved the little Rock picture show, storm-stranded in the South. Rock edged up to Urban and spoke behind his hand.

"Charlie—let me slip you something straight. These fellows are just kidding you. I sat there along with the rest of them and promised to put up my twenty-five thousand, but they'll never ask me for it. They don't want Kinemacolor here and they won't go through with it. It's scared them. You'll never get away with it—you watch."

Urban was disturbed but not convinced.

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The next day he turned up for the appointment to close the deal and waited two hours. No one appeared. Word came that the Patents company crowd was in an important conference over the projected making of some prize fight pictures. They would see Urban later. Repeated efforts through the day resulted in an appointment for dinner with the executive committee, at the Republican club, that fated spot where so much of the secret history of the motion picture has been enacted.

Seated at dinner, Urban tactfully as may be, opened the subject.

“Let’s not talk shop at dinner,” they reproved him. “After dinner we’ll get at it and clean the thing up.” This from the captain of an industry which does all of its work over the lunch table.

After dinner Urban again tried to open the subject of Kinemacolor.

“Now we want to relax a little, first. We don’t like to talk business right after dinner. We’ll just have a few hands of poker first.”

Up in a private room in the club the august gathering seated itself for the consideration of what may happen with five cards, joker wild. The night wore on, with Urban more interested in his Kinemacolor contract than the cards.

“Just a couple of rounds more, and we’ll go into that.”

One in the morning came and the game broke up. Urban was conspicuous among the contributors of the evening’s diversion in the sum of perhaps five hundred dollars.

“Now about the Kinemacolor contract,” he remarked cheerfully.

“Oh, not now—we are all tired out now.”

Urban went away to his hotel, so annoyed that on second thought he decided to return to London at once and let the deal go hang.

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The next afternoon he sailed.

The facts were apparent. The motion picture chieftains of the United States did not want any ventures in color. They were making easy millions in black and white pictures. This color process was to them strange, complicated and speculative. The status quo suited them immensely. Why disturb it? They were making money, why be concerned about making pictures?

Urban's ship was hardly clear of Ambrose channel when a stranger and an unknown in the motion picture world dashed into New York in a heated quest of the proprietor of Kinemacolor.

This man was Gilbert Henry Aymar, a real estate dealer of Allentown, Pa., who had attended the Madison Square Garden show merely because someone had given him a pass. Aymar was now afire with a desire to exploit Kinemacolor.

Aymar and a friend James Klein Bowen, a wealthy wholesaler of groceries in Allentown, sailed for London where they overtook Urban and acquired Kinemacolor rights for the United States.

The Kinemacolor Company of Allentown, Pa., quickly encountered difficulties and was reorganized through a New York financial house, with J. J. Murdock, the vaudeville magnate, as president.

Ambitious production activities were instituted with a flourish. Studios were established at Whitestone Landing on Long Island, and at Los Angeles yet other studios were put in operation.

David Miles, to be remembered as an early member of the Biograph stock company, became the director in chief. It was about this time that David W. Griffith and his wife, Linda Arvidson Griffith, parted company, Mrs. Griffith went to Kinemacolor as the leading woman for the West Coast studios. In the East, at Whitestone Landing, William Haddock was the principal director.

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Many pretentious stories were put into production, among them Thomas Dixon's *The Clansman*, which, a few years later under Griffith's auspices, was destined to mark a great milestone of the screen as *The Birth of a Nation*. Kinemacolor produced *The Clansman* in the vicinity of New Orleans with the members of a traveling stock company in the cast. Legal complications concerning the right to the use of the story for the screen arose and the picture never saw the light of a theatre.

Lillian Russell, who, in 1912, was still the reigning queen of stage beauty, went to Kinemacolor to appear in *La Tosca* this season.

The first theatre showings of Kinemacolor pictures were, naturally enough, of pictures purchased from the British concern. Kinemacolor pictures were of necessity "Independent," being so thoroughly outside the pale of Patents Company sanction. Projection machines unaccountably got out of order. Films broke and burned. Operators made mistakes and so maladjusted their machines that the red and green images of the color picture were reversed with bizarre but trying optical effects on the screen. Licensed exhibitors who ventured to show Kinemacolor pictures found their licenses cancelled by the Motion Picture Patents company, which brooked no use of Independent film. Kinemacolor went through a career of costly failure in the United States in a period when it was making millions in a world success elsewhere.

The most pretentious effort of Kinemacolor was the picturing of the Royal Visit to India and the famous Durbar at Delhi, which Urban photographed under sanction of the British crown.

Rumors of hostile plots on the part of the black and white film competitors of Kinemacolor floated about. It was whispered that something would happen so that Kinemacolor would never reach London with its negatives. Whereupon a guard of British troops was stationed about the Kinemacolor tents, where

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Urban and Joseph du Frane, his chief of the camera staff, developed and guarded the precious films. A pit was excavated under Urban's tent and there the negatives were buried in sand. The tent floor rug was spread over the spot and over it Urban's bed stood. He slept with his treasure.

Back in London Urban made elaborate and pretentious arrangements for the presentation of the Durbar picture. A vast stage set reproducing the Taj Mahal was built at the Scala theatre. Special musical scores were written for the pictures. The orchestra was augmented to forty-eight pieces.

Urban was laughed at a bit by his competitors with their black and white films, which had reached London in advance of Kinemacolor and had run their life in a few weeks. But he had plunged on Kinemacolor and went on to see it through. The opening at the Scala was a brilliant success and five road shows went out to play the back country. In fifteen months the Durbar pictures grossed three-quarters of a million dollars.

Urban was on the high tide of success.

Royal favor beamed. Arrangements were made for a royal visit to the Scala to see the Durbar presentation. The date set was May 11, 1912.

The word was quietly passed to Mr. Urban that it would be well for him to acquire court robes, since knighthood awaited him.

May 10 came and all was prepared for the presentation. Then, abruptly, Urban was stricken desperately ill in his office and went away to a hospital, on the verge of death. It was a tragedy reminiscent of the unfortunate death of Turner, the first of the color inventors, in Urban's office years before.

The night that the royal party was seeing the Durbar in Kinemacolor Urban was coming out from under the ether.

The party at the Scala included King George V, Queen Mary,

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Queen Alexandra, the Dowager Empress of Russia and some thirty other royal personages.

Kinemacolor scored a triumph and an unkind fate cost Urban a knighthood.

The success of Kinemacolor inevitably attracted attack. A suit on the patent was brought by William Friese Greene, the perennial British claimant to film honors, Urban won the fight through the lower courts and lost at last on an appeal to the House of Lords, on the pin-point technicality that the patentee had failed to specify the colors used in the process with sufficient accuracy.

This decision was of no profit to Friese Greene. It threw the Kinemacolor process open to the world. The Kinemacolor method became in consequence the basis of practically all subsequent color processes.

The commercial career of Kinemacolor abroad was interrupted by the World War in 1914. Meanwhile in the United States inventors were at work evolving new applications of its principles.

Kinemacolor depended upon filters in a special projection machine to color the light rays reaching the screen. The newer and subsequent processes have embodied the color in the film. The first of these to command screen attention was the Prizma process, evolved by William Kelley, who appeared first in the early affairs of the Biograph company. In 1912 experimental work began and in 1918, after nearly three quarters of a million dollars had gone into the process, Prizma began its showings with scenic subjects. In 1921, J. Stuart Blackton used Prizma color for a full length feature drama, *The Glorious Adventure*, produced in England with Lady Diana Manners in the leading rôle.

Prizma for financial reasons went into a decline, and in the

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same period the Technicolor process, arriving at somewhat similar results by secret but not entirely unrelated methods, rose to conspicuous position among color enterprises. Also William Kelley engaged in production with Kelleycolor, an ingenious method of applying color to prints made on standard film stock.

As this chapter is closed the color processes appear to be definitely in the process of being made an integral part of the art of the motion picture, as exemplified by the color prologue of *The Ten Commandments*, and color sections in various dramas. Douglas Fairbanks after several years of tentative experimentation, in 1925 engaged in the production of an all color picture, *The Black Pirate*, making a special effort to subdue hues and tones to escape the bold garishness which has characterized most color film products.

Nearly ten years were required after the attainment of the screen before the photoplay was evolved. About an equal time has been required since the attainment of screen color to make it a part of the photoplay.

Meanwhile the quality of ordinary "black and white" screen photography is showing marked improvement through the gradual adoption of panchromatic negative, a film stock sensitized to record color values in truer relations of tone. It is estimated that ten percent of dramatic photography is now done with panchromatic film.

Extraordinary possibilities yet to be explored are offered in a special film stock, sensitive to infra-red, evolved by Dr. Kenneth Mees of the research staff of the Eastman Kodak Company. This enables a photographic record made with light entirely below the visual range of the human eye. In a landscape scene a picture made by the full light of day becomes a fantastic thing of black skies and ghostly trees, suggesting an unearthly moonlight.