# CINEMASCOPE



Pioneered and Developed by 20th Century-Fox

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The demonstrations of CinemaScope for the industry and press include scenes both from "The Robe" and "How To Marry A Millionaire," which have now finished production.

Also included are shots of New York's skyline, harbour and streets; winter sports at Sun Valley; airplane shots featuring David Wayne and Charlotte Austin; speedway automobile races; the full Twentieth Century-Fox orchestra directed by Alfred Newman, and a musical number from "Gentlemen Prefer Blondes," specially recorded with stereophonic sound.

CINEMASCOPE SCREEN SIZE

STANDARD SCREEN SIZE

TABLE STANDARD SCREEN SIZE

STANDARD SCREEN SCREEN SIZE

STANDARD SCREEN SCREEN

CinemaScope, with its revolutionary new lenses, achieves the illusion of depth without use of glasses. Its life-like, panoramic scope, plus stereophonic sound effect provided by strategically placed speakers permitting sound to originate from the part of the screen where the action takes place, combine to make the audience experience complete engulfment and participation in the action. Dotted lines show size of conventional screen as compared to new concave, all-purpose CinemaScope screen.

TWENTIETH Century-Fox's revolutionary CinemaScope has successfully passed a long series of exacting tests and has proved itself one of the greatest technological advancements since motion pictures found their voice 20 odd years ago.

Following President Spyros P. Skouras' and Production Chief Darryl F. Zanuck's momentous decision to go all out for the life-like curved screen process with stereophonic sound, the studio also announced that directors, cameramen and technicians had moved with speed, confidence and efficiency to make CinemaScope pictures available to cinemas this autumn.

After the audience-participation medium had been subjected to experiments to master the improved technique which it makes possible, it was put to work on the studio's biggest production for years, the \$5,000,000 "The Robe," a Technicolor film of Lloyd C. Douglas' best-seller. At the same time several other films were scheduled for CinemaScope treatment while samplings of every conceivable action and locale were photographed to demonstrate the advantages of the new medium for every type of film — action, drama, musical or comedy.

Simple and inexpensive and not requiring glasses for viewers, CinemaScope achieves with one camera and one projector the

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A scene with Richard Burton and Jean Simmons from the Technicolor production "The Robe" as it is compressed (left) on the regular 35 mm. film and (right) with image restored to normal proportions on the panoramic CinemaScope screen.

audience participation qualities of more costly and complicated methods using three cameras and three projectors. From its huge panoramic screen, scientifically designed to present scenes in the wide but low field the eye is adapted to see, audiences are made to feel they are part of the exciting action — the goal of the earliest Greek dramatists — instead of merely watching it. Of equal importance, both to the spectator and the exhibitor, images are crystal clear no matter where the viewer sits — front, middle, side or rear — making one seat in a cinema as good as another for the first time in film history.

Behind this startling development which has monopolised Hollywood and exhibitors' conversation and bred new confidence in motion pictures throughout the world, are imaginative men of science.

For years the film industry has wanted to enlarge its screens to increase audience enjoyment. In September 1929 Fox Films released a 70 millimetre picture, "Grandeur," twice the width of the conventional 35 mm. film, at the Gaiety Theatre, New York. But the great American depression prevented the adoption of this system. Then, war and material shortages continued to confine the industry to its outdated, optically incorrect, small square screen,

Meantime, optical scientists in America and Europe strove to overcome these obstacles by finding ways to make the standard 35 millimetre camera and 35 millimetre projector do the work of wider angled equipment and thus avoid costly changes in cinemas and studios.

In France, M. Henri Chretien, an honorary professor at the Sorbonne and at the Optical Institute, had developed by 1937 a so-called anamorphoscope, a lens which returns to its original shape an image previously distorted. This lens made it possible for a 35 mm. camera to "reach out" to each side as the eye does and "compress" a wide angle scene on to a narrow strip of film. When this film was projected through a compensating lens it spread the image horizontally to its original shape. By projecting this panorama on a curved screen a feeling of being surrounded by things to see was given the viewer. No longer was the action on the screen imprisoned by a small proscenium — there was so much to see that the viewer was not conscious of the limitations of the framework.

By September 1951, Professor Chretien had made and patented improvements on his anamorphoscope, which he designated a Hypergonar process at a lecture given to the Congres Technique International at Turin.

Shortly after his revelations, Earl Sponable, 20th Century-Fox research director, flew to Paris on Mr. Skouras' orders to obtain rights to the process for the company. Obtaining these rights, Sponable returned to America with a camera lens and projector lens with which experiments were begun under the direction of Sol Halprin, head of the studio's camera department. Success of these experiments led to adoption of the process, which was called CinemaScope.

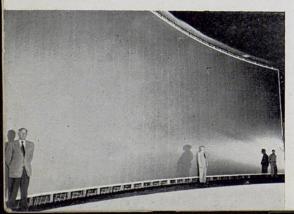
This optical technique, combined with stereophonic sound—that is, horns strategically placed behind and at either side of the screen to make sound seem to come from its exact point of origin—give a life-like quality to motion pictures.

A special CinemaScope screen, designed to give added brilliance, is two and a half times as long as it is high. These are approximately the proportions of the eye's field of vision, the eye being capable of seeing more from side to side than up and down.

The new medium calls for improvements both in acting and in physical operation. Because of the immensity of the screen, continuous action between players can be seen large enough to eliminate close-ups in many cases as well as frequent cutting of scenes. This gives CinemaScope productions the life-like fluidity of the stage and makes acting more competitive as the audience's attention is called to first one player then another by the sound of their voices coming seemingly from their own lips.

The medium was not without problems. Because three microphones are used to record sound on the sets instead of one, the cameraman had three times as many microphone shadows to eliminate in his lighting which had to be brighter for the larger sets used. Recording sound on the film posed difficulties which sound engineers have finally solved by the use of four magnetic sound tracks on one strip of 35 mm. film.

The single-film system will become an integral part of 20th-Fox's CinemaScope process which embraces the anamorphic lens and the Miracle Mirror Screen.



Curved all-purpose CinemaScope screen dwarfs men standing in front of it



Spyros P. Skouras with Professor Henri Chretien, French scientist and inventor, at the latter's laboratory in Nice.

To accommodate the quartet of magnetic sound tracks, Earl I. Sponable, research director, and his staff narrowed the sprocket holes on the standard 35 mm. film from .110 to .078 inches. Two of the tracks are placed on either side of the picture. Changes required in the projector are a slight reduction in width of the teeth of the intermittent and other sprockets and the addition of a simple multiple film-driven sound head installed between the upper magazine and the regular projection head. The new tracks reduce the screen ratio from 2.66 to 1 to 2.55 to 1.

Heretofore it has been necessary to project stereophonic sound, as used with CinemaScope, from a separate track on a separate reproducer, creating problems of synchronisation. Feasibility of the four-track single-film system stems from the present day utilisation of acetate film which, unlike nitrate film, has practically no shrinkage and therefore permits the use of smaller sprocket holes.

Fewer camera set-ups are required for CinemaScope because of the wide scope of the lens. Also fewer panning shots are used, although when they are used the extreme width of the field makes these smoother to the viewer.

The medium enhances the importance of background detail, both as regards sets and actors. Their increased size on the big screen permits of closer scrutiny of them if the viewer chooses to look at them. As a result more actors will be used in all scenes in order to fill the screen.

CinemaScope is being made available to all cinemas and studios throughout the world as soon as equipment permits.

#### THE ROSTEROF 20TH CENTURY-FOX CINEMASCOPE PRODUCTIONS.

# IN COLOUR BY TECHNICOLOR, NOW BEING FILMED OR

#### SCHEDULED TO GO BEFORE THE CAMERAS SOON

### Completed and Scheduled for October Release

THE ROBE Based on Lloyd C. Douglas' world-renowned novel and starring Richard Burton, Jean Simmons, Victor Mature, Michael Rennie. Produced by Frank Ross and directed by Henry Koster from a script by Philip Dunne.

# Completed and Scheduled for November Release

HOW TO MARRY A MILLIONAIRE A rollicking comedy with music, with a cast including Betty Grable, Marilyn Monroe, Lauren Bacall, William Powell, Rory Calhoun, David Wayne. Written and produced by Nunnally Johnson and directed by Jean Negulesco.

# In Production and Scheduled for December Release

**TWELVE MILE REEF** An unusual drama of human conflict set against the colourful sponge-fishing coast of Florida, filmed entirely off Key West and in the Bahamas. Produced by Raymond Klune and Robert Bassler, directed by Robert D. Webb with a cast including Terry Moore, Robert Wagner, Gilbert Roland.

# To be Followed by

In Production

PRINCE VALIANT Dramatisation of an adventure newspaper serial.

THE QUEEN OF SHEBA Based on the Biblical Book of Solomon.

**DESIREE** The No. 1 best-seller by Annemarie Selinko.

THREE COINS IN THE FOUNTAIN Based on the sensational novel by John Secondari.

**SIR WALTER RALEIGH** The stirring story of the celebrated Englishman.

THE RACER To be filmed in Italy during the world-famous Gold Cup races.

PRINCE OF PLAYERS Eleanor Ruggles' Book-of-the-Month biography of the fabulous Edwin Booth.

KING OF THE KHYBER RIFLES An adaptation of Talbot Mundy's widely read novel.

THE WANDERING JEW The world-famous play by E. Temple Thurston.

Irving Berlin's THERE'S NO BUSINESS LIKE SHOW BUSINESS A smash musical with a great cast.

HELL AND HIGH WATER Exciting story of a mission to destroy a secret enemy air installation in Korea.

THE STORY OF DEMETRIUS
Carrying forward the life and adventures of the focal slave character created in "The Robe."

THE EGYPTIAN A Darryl F. Zanuck production, based on the best-selling novel by Mika Waltari.

JEWEL OF INDIA From the story by Morton Grant and John Humphrey.

THE GUN AND THE CROSS From a novel by Isabelle Gibson Ziegler.

THE CANNIBALS Based on a play by Jed Harris and Tom Reed.

THE STORY OF JEZEBEL From the Old Testament Book of Kings.

