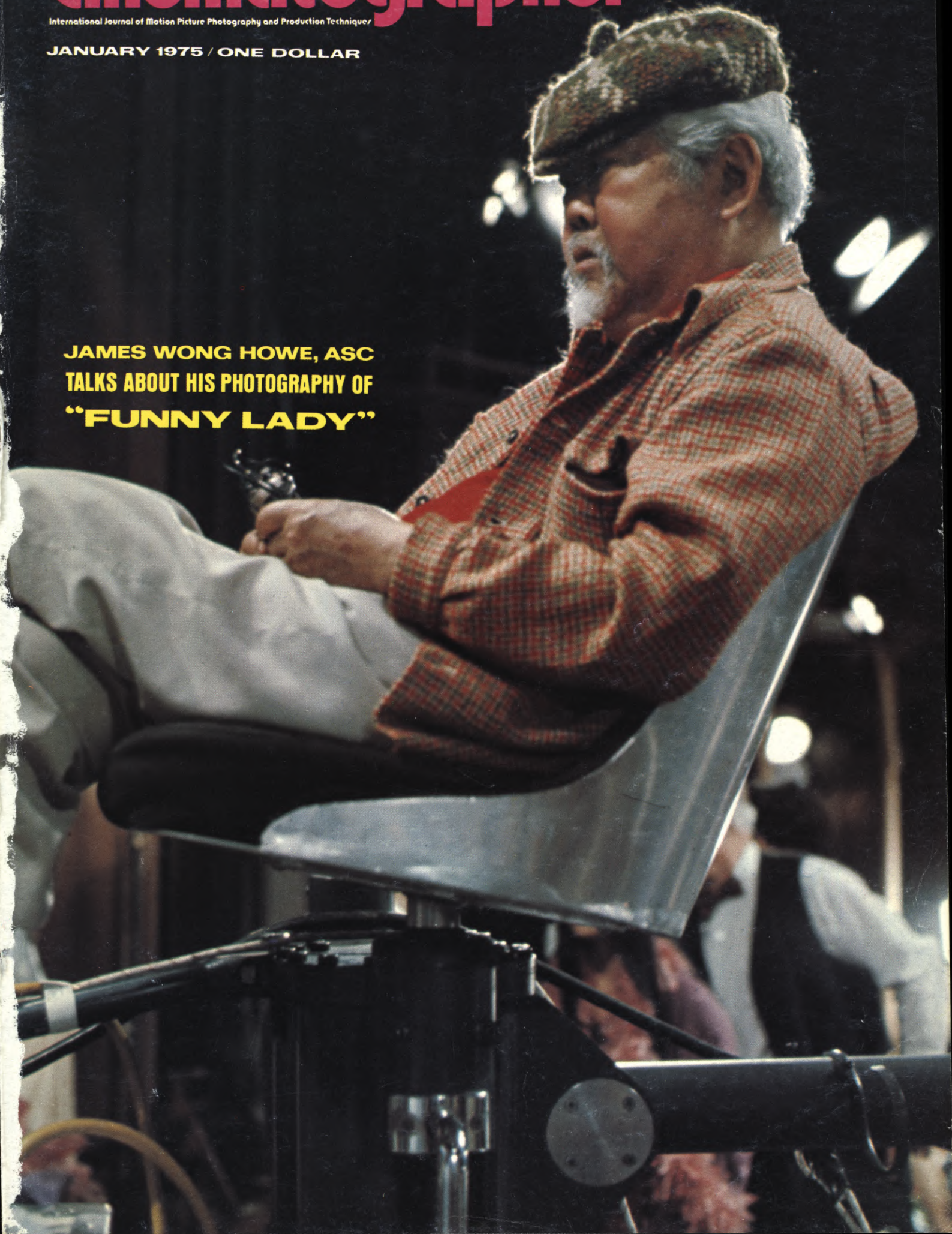


American Cinematographer

International Journal of Motion Picture Photography and Production Techniques

JANUARY 1975 / ONE DOLLAR

**JAMES WONG HOWE, ASC
TALKS ABOUT HIS PHOTOGRAPHY OF
"FUNNY LADY"**



F&B/Ceco says: “Don't buy a new camera now.”

Here's how inflation has hit this market:

	1970	1972	1974	1970-1974
ARRIFLEX 35IIC	\$5908.	\$6370.	\$9386.	+ 59%
ARRIFLEX 16BL	8390.	9426.	13,888.	+ 65%
ARRIFLEX 16 'S'	5543.	5883.	8654.	+ 56%
ECLAIR 16NPR	7830.	10,524.	14,700.	+ 88%
ANGENIEUX 12-120 ZOOM	895.	1140.	1995.	+ 123%
ANGENIEUX 25-250 ZOOM	2645.	3410.	5775.	+ 118%

If you want to beat this ridiculous inflation, you'll keep your present camera running longer and avoid the high cost of a new purchase. F&B/Ceco wants to help you fight these high costs. That's why we're offering a complete repair and service program.

Here's what we will do:

PREVENTIVE MAINTENANCE

- Check, clean and lubricate camera.
- Measure flange focal distance.
- Check ground glass depth.
- Check optical system.
- Inspect rollers.
- Clean film gate.
- Check lenses on collimator.
- Check motors for speed.
- Test batteries and cables.
- Test sync generator and cable.
- Clean and inspect magazine.
- Lubricate magazine rollers
- Set clutches.
- Check footage counters.
- PLUS — our recommendations for necessary repairs, adjustments or replacement of parts.

COMPLETE OVERHAUL

- Completely disassemble camera and inspect each part for wear or defect.
- Replace worn parts.
- Clean and lubricate totally.

- Reassemble camera to factory specifications.
- Adjust flange focal distance.
- Adjust ground glass depth.
- Adjust film gate.
- Set pressure plate.
- Align optical system.
- Set motors for proper speed.
- Check sync generator.
- Guarantee: Same as Manufacturers new camera guarantee.



Here's what it will cost:

	PREVENTIVE MAINTENANCE*	OVERHAUL**
16MM ARRI 'S'	\$45.00	\$210.00
16MM ECLAIR NPR	90.00	300.00
16MM SINGLE SYSTEM NEWS CAMERA	45.00	180.00
35MM ARRI	45.00	210.00
BNC REFLEX	120.00	750.00

*Includes Camera Body, 1 Magazine and Lenses in Turret.

**Includes Camera Body Only.

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We'll also rent you the same equipment at a 50% discount off our regular rental rates while your gear is being repaired. We can do it because F&B/Ceco maintains a \$6,000,000 inventory of motion picture production equipment.

And we rent and repair everything. Cameras, lights, tripods, sound readers, editors, and all accessories.

So we can put the identical equipment in your hands during the repair — and save you half the rental cost.

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If you are budget concious and tired of lugging around extra recording equipment, we've figured out a way to give you up to twice the recording time on your Nagra recorder with our 7" REEL COVER (with the cover closed), and while we're on the subject, we have a CRYSTAL SYNC for Nagra III and IV owners that is installed in the recorder with no external cables, is compatible with all camera crystal motors and is very accurate (10 ppm).

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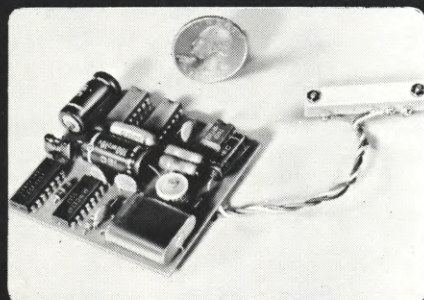
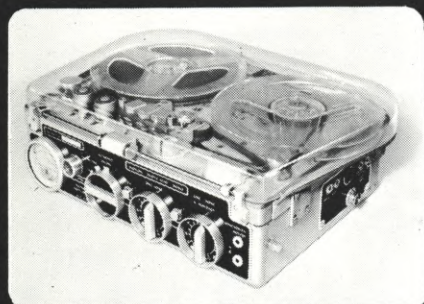
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American Cinematographer

International Journal of Motion Picture Photography and Production Techniques

The American Society of Cinematographers is not a labor union nor a guild, but is an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as Directors of Photography and have demonstrated outstanding ability. Not all cinematographers can place the initials A.S.C. after their names. A.S.C. membership has become one of the highest honors that can be bestowed upon a professional cinematographer, a mark of prestige and distinction.

JANUARY, 1975

VOL. 56, NO. 1

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ON THE COVER: The legendary James Wong Howe, ASC, winner of two Academy Oscars for Best Cinematography, enjoys a quiet moment between "takes" on the set of Columbia's "FUNNY LADY", lavish Barbra Streisand musical, on which he recently completed his work as Director of Photography.

AMERICAN CINEMATOGRAPHER, established 1920, in 56th year of publication, is published monthly in Hollywood by ASC Holding Corp., 1782 North Orange Drive, Hollywood, California 90028, U. S. A. **SUBSCRIPTIONS:** U. S. \$9.00; Canada, foreign, including Pan-American Union, \$10.00 a year (remit International Money Order or other exchange payable in U.S.). **ADVERTISING:** rate card on request to Hollywood office. **CHANGE OF ADDRESS:** notify Hollywood office promptly. Copyright 1975 ASC Holding Corp. Second-class postage paid at Los Angeles, California.

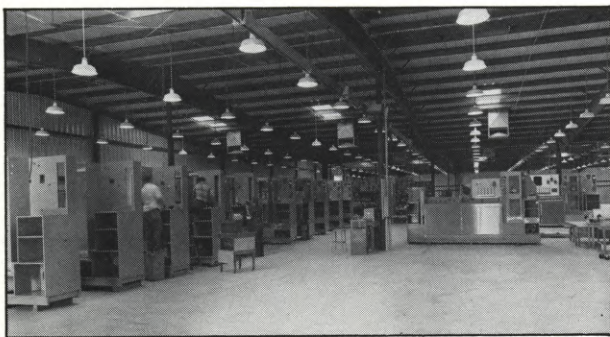
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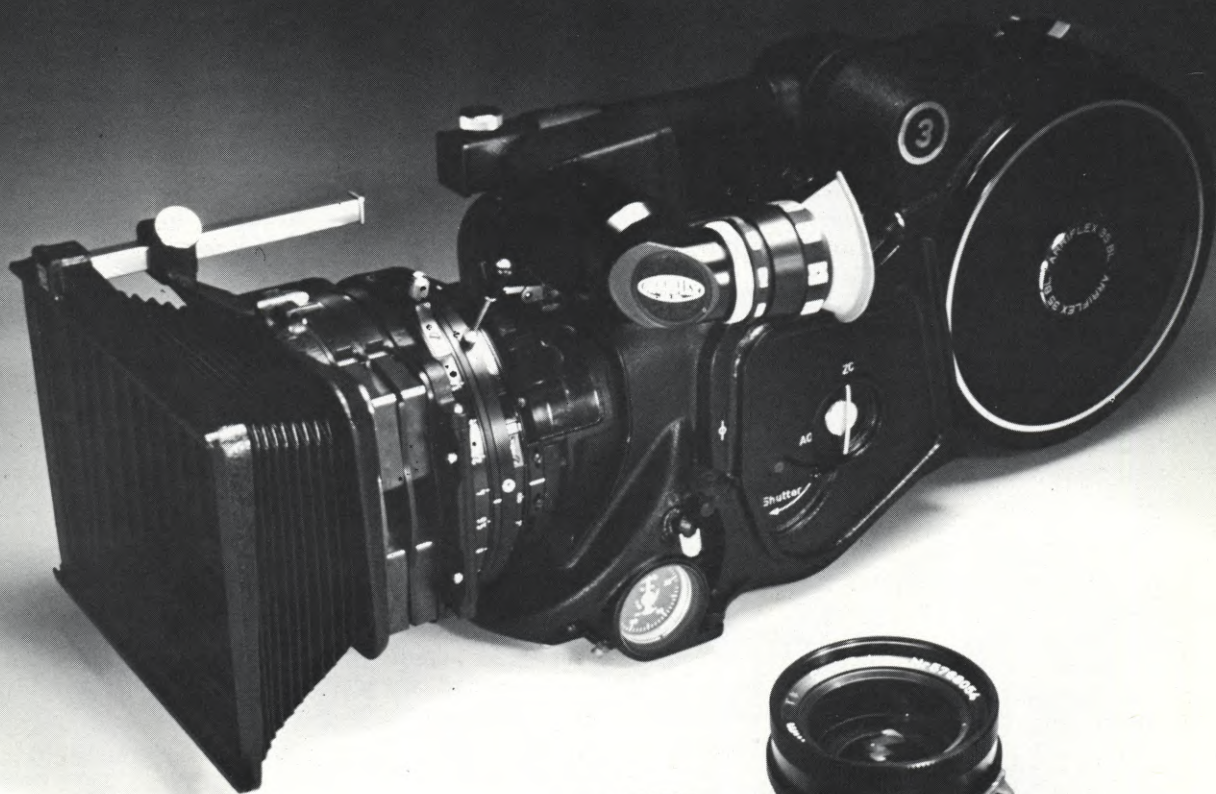
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The first set of Zeiss "Super Speed" lenses for the Arriflex 35mm BL and 35mm IIC/B cameras has been delivered to Birns & Sawyer, Inc. for their rental program. These lenses are designed for high performance at large apertures and for low light levels.

The set consists of a 25mm, 35mm, 50mm and 85mm lens and lens housing, and the lenses have a maximum aperture of T1.4. All "Super Speed" lenses are designed to focus down to exceptionally short working distances.

Their superlative performance is due to the use of one or more of such advanced techniques as: aspherical elements, coupled moving lens elements, and multi-layer coating on all glass to air surfaces.

With the "Super Speed" series, Zeiss has set a new standard of performance for fixed focal length motion picture lenses. They allow for shooting in difficult to light locations and render heightened realism at substantial production cost savings.

Additional information may be obtained by contacting BIRNS & SAWYER, INC., 1026 North Highland Avenue, Los Angeles, California 90038, (213) 466-8211.

ANNUAL ALAN GORDON AWARD FOR TECHNICAL EXCELLENCE GOES TO CINEMA PRODUCTS CORPORATION

The annual Alan B. Gordon Award for Technical Excellence has been presented to Cinema Products Corporation, designers and manufacturers of the CP-16 and XR-35 cameras and other professional motion picture equipment.

Presented in conjunction with the Information Film Producers of America, the 1974 award ceremonies took place at the recent IFPA Conference held in San Diego, Calif.

Accepting the award for Cinema Products Corporation was its president, Ed DiGiulio. In presenting the award, Ted Lane, sales manager for Alan Gordon Enterprises Inc., said, "Each year the Alan B. Gordon Award for Technical Excellence is presented

to a motion picture manufacturer who has provided consistent service and has demonstrated its response to the needs of the type of filmmaker of which the IFPA membership is comprised. We can think of no more deserving company than Cinema Products, which through the years has been a leader and innovator in the field of professional motion picture equipment."

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A Tracking Finder, ideal for use when photographing small, fast, illusive or evasive objects, is announced by Instrumentation Marketing Corp., exclusive distributors, Burbank, Calif.

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SMPTE PROGRESS MEDAL AWARD TO SIDNEY P. SOLOW

Sidney P. Solow, President of Consolidated Film Industries and Adjunct Professor of Cinema at the University of Southern California, has been awarded the Progress Medal of the Society of Motion Picture and Television Engineers for 1974. The Award was presented at the Annual Awards Presentation of the Society at the Four Seasons Sheraton Hotel, Toronto, Monday, November 11.

The Society's Progress Medal is awarded to Sidney P. Solow for his contributions to motion-picture laboratory technology, including the applications of chemical, of

mechanical, and of optical innovations for the improvement of laboratory techniques.

As President of Consolidated Film Industries and Adjunct Professor of Cinema at the University of Southern California, Sidney P. Solow has made outstanding contributions to the technology of the motion picture industry for more than forty years. As a manager and educator, he has provided leadership and continuing creative technical education not only to his associates and company personnel but to his many students from all over the world. He has been honored for his willingness to share his knowledge and experience with young people.

A graduate of the New York University in 1926, majoring in chemistry and physics, he has the scientific background that became significant when as General Manager of Consolidated Film Industries, he stimulated and encouraged research and development of new techniques and equipment among his colleagues which culminated in the recognition by the Academy of Motion Picture Arts and Sciences of Consolidated Film Industries and its Engineering Department with ten Scientific and Technical Awards at the annual "Oscar" presentations.

The Progress Medal Award was presented by SMPTE President Byron S. Roudabush at a ceremony following the Get-Together Luncheon that opened the Society's 116th Technical Conference at the Four Seasons Sheraton Hotel. The Conference was held November 10 -15 and included a Symposium on Television Commercial Monitoring. An Equipment Exhibit of professional motion-picture and television products of some seventy companies was held in conjunction with the Conference.

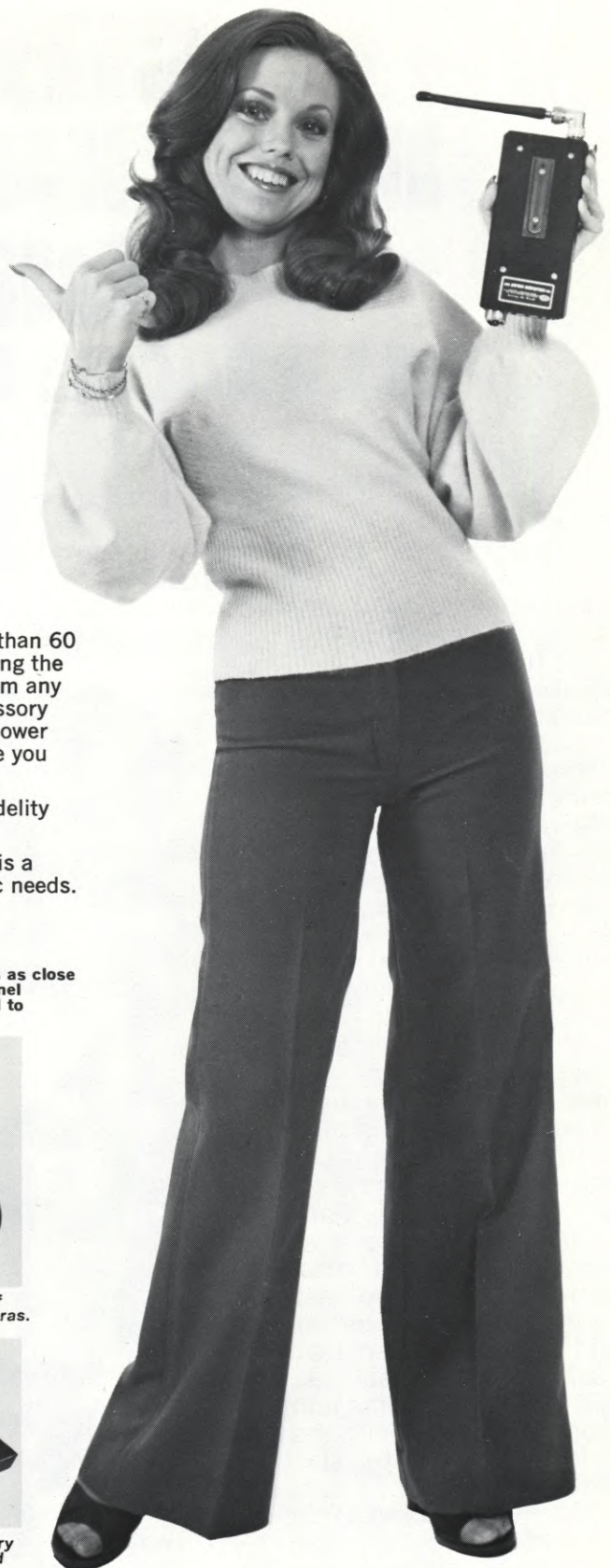
DR. FRANK P. BRACKETT, JR. RECEIVES HERBERT T. KALMUS GOLD MEDAL AWARD

Dr. Frank P. Brackett, Jr. has been given the Herbert T. Kalmus Gold Medal Award for 1974 by the Society of Motion Picture and Television Engineers. The Award was presented at the Annual Awards Presentation of the Society at the Four Seasons Sheraton Hotel, Toronto, Monday, November 11.

The Herbert T. Kalmus Gold Medal for 1974 is awarded to Dr. Frank P. Brackett, Jr., in recognition of his outstanding leadership, during the 37 years of his technical direction at Technicolor, Inc., in the advancement

Continued on Page 58

TAKE ME FOR A RIDE!



No, not the girl — the new Swintek "Hitchhiker" Cordless Microphone System she's holding in her hand. Like its big brothers, the Swintek Mark III and Mark IV, the "Hitchhiker" incorporates the latest highband VHF crystal controlled transmitter and an exclusive crystal front end receiver.*

The "Hitchhiker" is designed to ride on the side of most professional single system cameras, including the CP-16A, General and Frezzolini. It may also be attached to your Nagra recorder or your MA-11 amplifier and adds only 3/4" in width and 15 1/2 ounces in weight.

The "Hitchhiker" is engineered to draw its power (less than 60 milliamps) from your camera or recorder, thus eliminating the need for a receiver power supply. It also will operate from any external DC source from 12 to 30 volts or from an accessory AC base to which it may be attached. A DC base and a power supply to fit your pocket are additional options to insure you will never be without power.

The "Hitchhiker" will pay for its ride with the highest fidelity cordless sound you've ever recorded.

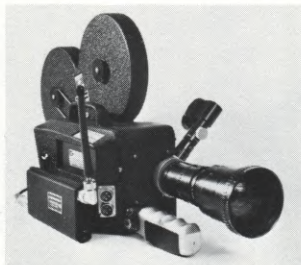
And, don't forget, in addition to the "Hitchhiker," there is a Swintek cordless microphone system to fit your specific needs. Write today for information.

Remember, Swintek is a sound investment.

*—Crystal front end receiver permits the use of multiple receivers as close as 50 KC in frequency to be operated contiguously without co-channel interference. Sideband interference and spurious noise are reduced to new lows.



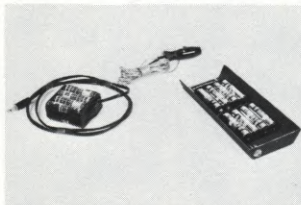
"Hitchhiker" weighs only 15 1/2 ounces and is only 3/4" thick.



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One More Good Thing. While we're at it, we've added another little feature you'll notice. A new housing design that's even more flexible and durable. (Which makes a good thing even better.)

All the Things You Take for Granted. Of course, all the heavy-duty features built into the Quickie Belt and its detachable fast-charge module, don't change the

features you've always relied on us for. Like superior comfort. Premium materials. Reliability. Durability. And a variety of belts engineered to match every professional camera and "sun gun."

Quick Information. For more information about the Quickie Belt, as well as the latest on our wide range of useful motion-picture accessories, please write or call us. We'll be quick to respond.



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FEATHERFLEX was designed specifically for application in cinematography for situations requiring a light, highly flexible yet efficient reflecting surface. It is not primarily a blanket, or a radar reflector, although it will satisfy both of those requirements. As it comes from the roll, it has a slightly textured, highly specular appearance. For a more diffuse reflecting surface, crumple the material. Various degrees of "softness" can be achieved by varying the amount of crumpling. This action changes the texture without decreasing the basic reflecting properties of FEATHERFLEX.

A full roll, 56 inches by 25 feet, weighs only a few ounces. This property allows the material to be put in place with masking tape, thumbtacks or even ordinary cellophane tape. A reflecting surface can be placed anywhere that can be reached. FEATHERFLEX will withstand rough handling, since the vacuum-deposited aluminum reflector is on tough polyester film.

FEATHERFLEX is applied in any situation where it is useful to have a reflecting surface for bounce light . . . in automobile interiors, taped to a sun visor to bounce-fill a performer's face from a light placed below the back of the front seat, or . . . under the dashboard for creating that glow on the floorboards with a small hidden light.

Tape FEATHERFLEX to the ceiling-wall corner of a room, and back light actors from the front when it is impractical to place fixtures on the wall. Cover the entire ceiling and make the room into a "soft-light" by bounce lighting for general fill.

Small wonder that FEATHERFLEX is becoming known as "the cameraman's friend". Another Rosco Cinegel product to solve some of the problems of cameramen everywhere.

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QUESTIONS & ANSWERS

Conducted by CHARLES G. CLARKE, ASC.
and WINTON HOCH, ASC.



(Inquiries are invited relating to cinematographic problems. Address: Q. & A., AMERICAN CINEMATOGRAPHER, P.O. Box 2230, Hollywood, Calif. 90028.)

Q I would like to have an old question answered. Why do we use the 85 type A filter for the Eastmancolor 5254 negative film to correct it for daylight balance, if in the mired nomogram for light source conversion we read that we must use the 85 type B to correct 3200°K for 5500°K?

A Regarding your question concerning the 85 type A filter versus the 85B for correcting the 5254 film to daylight, your observation is correct in that if we wish to obtain a correction from 3200°K to 5500°K we should use the 85B filter. However, the basic purpose of this filter is to correct the color of the light received on the film so as to have balanced H&D responses of the red, green and blue records. This satisfactory balance is obviously obtained with the 85 type A filter that also has 11% more transmission than the 85B. 5500°K is defined as average daylight. On occasion a stronger filter than 85B is desirable.

Q I found it necessary recently to compute the projected rate of an action when that action was shot at 18 fps and projected 24 fps. I have determined that the projected speed of an action equals the product of the real speed of the action multiplied by the inverse of the ratio of the camera rate to the projection rate. Is anything wrong with my equation?

A The basic formula for the apparent time of an event on the screen is: the observing time of the effect when projected is equal to the camera speed divided by projector speed times actual time of event.

It follows that the *speed* observed is the inverse of the above relationship that is, observed speed when projected is equal to projected speed divided by camera speed of occurrence. Your equation is correct.

Q What is the difference between a single and double system sound mode, as in the Beaulieu 5008S. Also, is it possible to cut Kodak Ektasound Super-8 film without the use of a lab?

A Single sound system, as the name implies, uses a single roll of film to photograph the picture and to record the sound simultaneously — usually on a magnetic stripe coated along the edge of the film by the manufacturer. Double system utilizes one roll of film to photograph the visual image and a separate roll of film or tape to record the sound.

Generally speaking, single system film, as employed in Ektasound, cannot be successfully edited unless the sound is (1) re-recorded onto a separate film or tape, or (b) moved into a "straight across" position (in relation to the corresponding picture frames) by means of an elaborate apparatus that successively reproduces, re-records and erases. In both methods, the sound is re-recorded back onto the film in "projection sync" after the editing is completed.

Sid Solow, CFI

Q I am preparing to make a film using Ektachrome Commercial and using two different cameras, a Cine Special with Ektar lenses and an Arriflex 16 with Schneider lenses. Tests filmed with both cameras show that the Schneider lenses give color results considerably bluer than that produced by the Ektars. Can this be corrected in printing?

A Most laboratories offer scene-to-scene color correction in printing, and thus should be able to compensate for color differences when making prints from your Ektachrome Commercial. However, if possible, have the lens or lenses producing the bluish cast corrected or use compensating filters on them when shooting.

Q How can I produce the effect of smoking, boiling liquids for a laboratory scene without using dry ice?

A Liquid smoke (Titanium Tetrachloride) has been used with caution. Do not, however, underestimate dry ice. It is excellent for such effects.



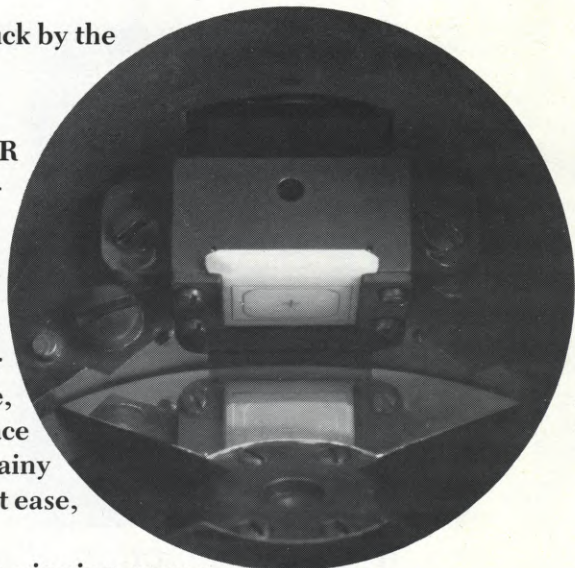
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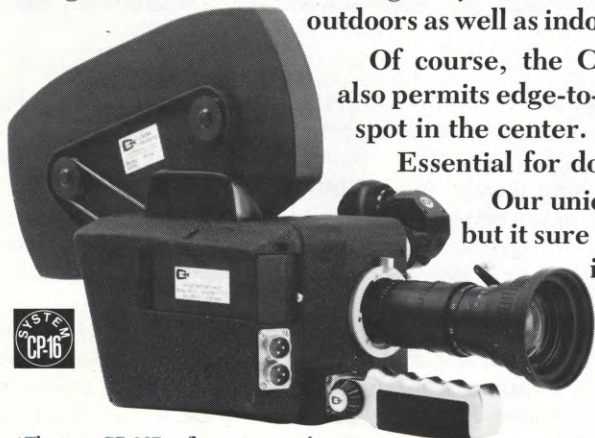
Its image enhancing properties make it a vital part of the CP-16R reflex viewing system — the most advanced viewing system available on any 16mm camera on the market today.

Our fiber optics viewing screen has the same image stopping properties as conventional ground glass. But without the same loss in light transmission. You will be truly amazed at the picture definition, the sharpness of detail in the image you get, whether the camera is running or not. Even in the brightest ambience, when the lens iris is stopped down. Since there is no ground surface on the fiber optics viewing screen, there is no dark, coarse and grainy image. And critical focusing may be accomplished with great ease, outdoors as well as indoors.



Of course, the CP-16R fiber optics viewing screen also permits edge-to-edge critical focusing over the entire field of view. No ground spot in the center. No guessing at the depth of field. Ideal for TV-news filming. Essential for documentary and studio* filming.

Our unique fiber optics viewing screen may look like a "little" thing — but it sure makes an important difference. And it is but one of the many innovative engineering features that make the CP-16R reflex the most outstanding 16mm camera system ever.



*The new CP-16R reflex was recently used by Wolper Productions in the filming of the prestigious six one-hour TV specials on Sandburg's "Lincoln" at Paramount Studios in Hollywood.

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With Tota-Light, a room is more than just an area to be lit: it becomes part of the lighting system.

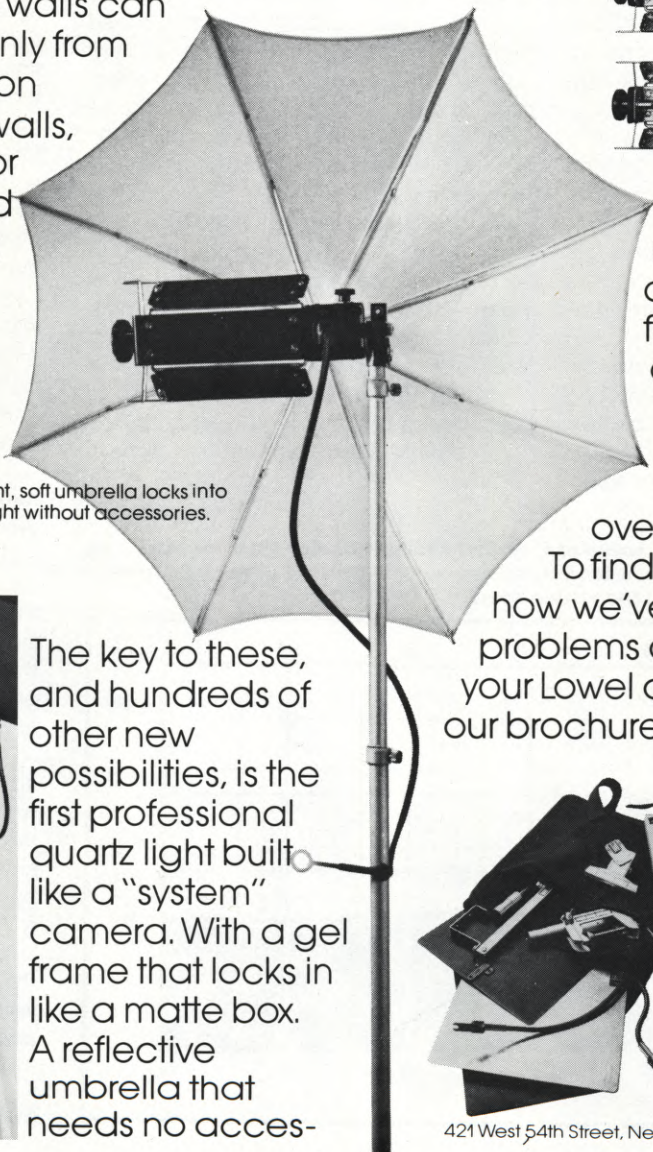
A system where three walls can be lit smoothly and evenly from a single light mounted on the fourth wall. Or four walls, ceiling and floor can be covered from a corner.



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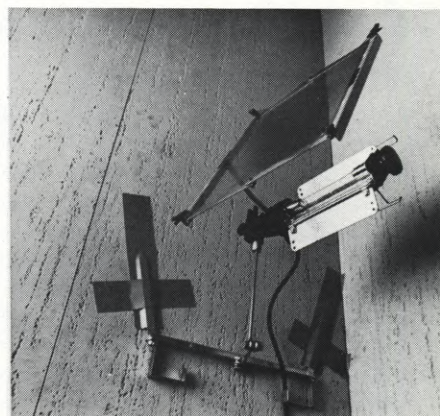
Locks atop doors, open or closed: flags control light precisely.



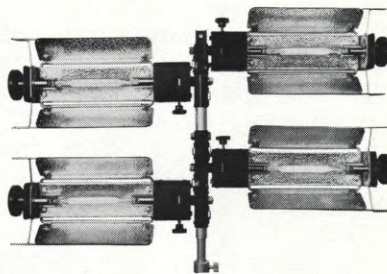
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CINEMA WORKSHOP



By ANTON WILSON

NEUTRAL DENSITY FILTERS

It has been established that every lens has a "best" aperture. This is usually two or three stops down from wide open. This is the point where the decreasing aberrations and increasing diffraction reach the best compromise in terms of image sharpness. Attempting to always film at this "best" aperture is not always practical or desirable. To begin with, there are many cases where there just isn't enough light and the lens must be used wide open. The iris is also the main means of controlling depth of field. For a given composition varying the iris is the *only* way to control depth of field. In those instances where there is plenty of light and a small aperture is not necessary for a deep field, the cinematographer should attempt to employ the best aperture for maximum sharpness.

The best method of achieving a particular aperture indoors is to control the lighting. By raising or lowering the foot candles on an interior, the cinematographer can obtain the aperture that will yield maximum sharpness. Outdoors there is usually less control over lighting (unless you have an in). On exteriors the problem on sunny days is usually too much light. When shooting 16mm, one can drop better than two stops by using ECO 7252 in lieu of ECN II 7247. On a bright sunny day aper-

tures of f/16 to f/22 are quite common with 7247 and 7242. By employing 7252 a more reasonable f/5.6 to f/11 can be obtained.

Many cinematographers prefer the greater flexibility that the higher ASA of the ECN II provides. While it is a bit fast for bright sunlight, the high ASA is welcome in the shade or on overcast days. There are many other situations where the extra speed comes in handy. This brings us back to the original question. How do you avoid the f/16-f/22 aperture when using the 100+ ASA films in the sun? The variable shutter maybe?

As we discussed some time ago, the variable shutter should seldom be used for exposure control. The decreased shutter opening will cause a very undesirable stroboscopic or jerky effect for both subject and camera movements. As it is, the standard 180° shutter records only half the action. By employing a 90° shutter (the smallest you would dare use for exposure control) only 1/4 of the action is recorded on the film while the remaining 3/4 is lost — and only one stop is gained. Except for a static shot involving no camera or subject movement, the variable shutter should not be used to reduce light levels. In almost all cases one should resort to neutral density filters.

Obviously the best quality N.D. filters should be chosen. It is ludicrous to be using a \$15,000 camera, and \$3000 lens and a grey lollipop wrapper for a N.D. filter. Whenever possible never use more than one filter to build up greater densities. Carry a complete set of N.D. filters; at least an 0.3, 0.6, and an 0.9 density. These will give one, two and three stops of reduction respectively. If an 85 filter must be used also, do not use two filters. An 85N3 or 85N6 will provide one and two stops of reduction respectively in addition to balancing type B films for daylight.

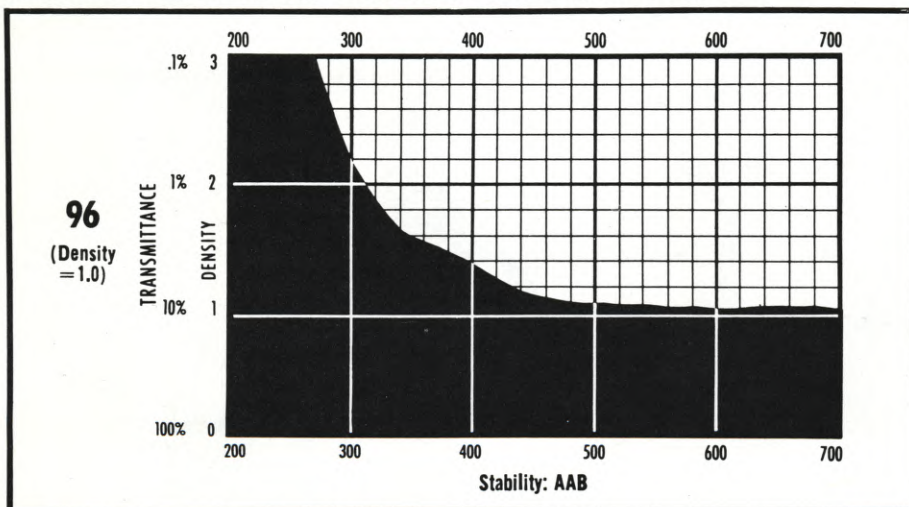
There is another question of filter placement — behind the lens or in front of it? There are two schools of thought here and I can only provide you with the pros and cons of each opinion. The final decisions will have to be made by the cameraman based on his own personal experiences or phobias. If the filter is placed in front of the lens, it should be a glass type filter. These are very expensive, more difficult to obtain and much larger than B.T.L. gels. A different size glass filter may be required for each lens. For extreme wide-angle lenses the size of the front glass filter may be prohibitive or downright impossible to mount. The glass filter is also vulnerable and prone to scratches and dirt.

The behind-the-lens gel, on the other hand, is protected from the elements — one gel will cover lenses of all sizes and shapes — the gel is small and easy to carry — it is cheap and readily available in a wide variety of types — if it is damaged it can be economically thrown out and replaced with a new one. So the B.T.L. gel looks like the way to go? Not so fast.

A neutral density filter is made of colloidal carbon dispersed in a gelatin with dyes. As the light beam passes through the filter there will be a certain amount of scattering effect due to the particle nature of the filter. The purists will argue that the small gel behind the lens will have a greater scattering effect than a large glass filter in front of the lens. Thus the glass in front method should provide the sharper image. Theoretically this is true; however, the amount of image degradation due to

Continued on Page 120

FIGURE 1 — The transmittance curve of a typical neutral density filter. In this case, the density is 1.0 — or a little more than three stops. Note that the density is more or less even throughout the range of the visible spectrum (400-700).



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What the pros say about the Bolex 16 Pro.

On the drawing board the Bolex 16 Pro out-performs every 16mm camera we can think of. Of course, the only test that really counts doesn't happen on the drawing board. It happens on location. Here's how the Bolex Pro did there.



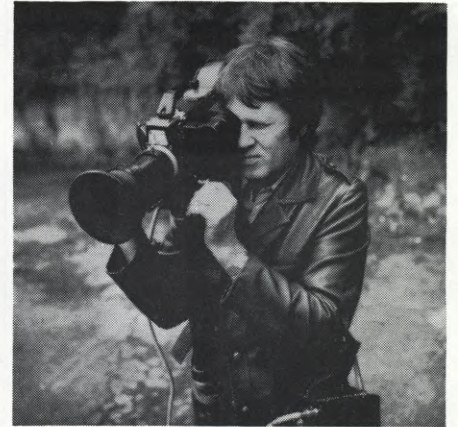
"We made an educational documentary about the Hindu Festival Thaipusam in Malaysia...the participants go into trance and are able to shut out any awareness of pain as they are pierced with small and large needles and hooks. Our shooting ratio during these tense moments...was one to one with only the head and tail frame getting lost in the splicing process matching original to work print...I must attribute these exciting moments in our films mainly to the uncanny abilities of the Pro to accept a new magazine, to thread itself and to film again in a fraction of the time usually needed with other cameras. This allowed me to roll nearly continuously at the most crucial moments..."

Gunter Pfaff, Filmmaker
Michigan State University



"... One year and 250,000 feet of film later...this camera has performed faultlessly. From the Peruvian Andes to the Arctic Circle, the ease of loading and the speed of operation afforded by the power systems have proven a tremendous boon. The automatic iris and the instant start and stop, without losing a single frame, are invaluable where lighting conditions cannot be controlled and time will not permit conventional editing. The self loading is so amazing that after more than six hundred magazines I occasionally peek into the take-up side, and sure enough—it worked."

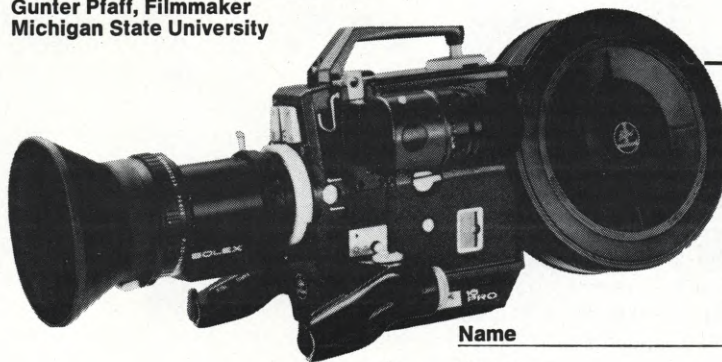
Tom McEnry, Staff Cameraman CBS News



"It is the first time I had a camera which I did not have to bring in for repairs during such a long period.... Of special advantage to me are... motorized zoom and motorized follow focus.... On my job in Alaska...where I had to work without assistance, I first discovered the advantages of the motorized focus. It was like having an extra hand. I also relied on many occasions on the automatic iris which is built in the camera and it worked more than satisfactorily..."

...in Rochester Heights Hospital I appreciated the quick changes of the magazine and automatic threading of the camera, which enabled me to film surgical operations without loss of any phase.... Many times I have occasion to use the camera handheld ...and find that the well balanced design of the camera enables me to work freely and relatively tireless in these confined areas."

Rudy Herrmann, Documatic Films, Inc.

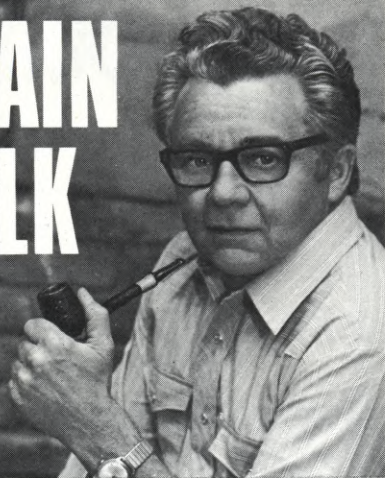


I am interested in a demonstration of the Bolex 16 PRO camera with its: Instant 400' magazine interchangeability, automatic threading from core to core in three seconds, electronically controlled instant start and stop motor (so quiet that no blimping is required), crystal control for wireless sound, variable speeds coupled to automatic exposure system, handgrip controls (power focus, start stop and powerzoom), 20X mirror reflex viewing, VF (can be rotated) with both ground glass or clear glass and no shutter black-out, outstanding zoom optics, and many more.

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PLAIN TALK



by *J. Carl Treise*

**"Honestly, do you believe
that everyone is the greatest?"**

If you accept what you read in most film processor ads, it seems that every manufacturer is the greatest. Honestly, do you believe that stuff?

Many manufacturers brag about their units being made of "stainless steel", as if it were a miracle metal.

Frankly, that makes me laugh. They don't tell you that some of the metal they use is so thin any sharp object can penetrate it.

And you can go right down the line . . .

For example, do you know that some manufacturers have to modify their processors beyond Kodak specifications, in order to reach the film speed they advertise? (Which means Kodak can't help you when you get into trouble!)

We get tired of false promises and misleading statements. Instead of boasting, a manufacturer should simply describe his processor and let you come to your own conclusion.

The best compliment we ever received was from a customer who thanked us for telling it "as it is".

Do yourself a favor. Don't believe everything you read or hear (—including what you find in this column). Check out any processor you're interested in. Talk to the customer who's actually using it. Find out what he thinks of it. That's how you can reach a sensible decision.

And that's when we think you'll come to Treise.

THE BOOKSHELF

By **GEORGE L. GEORGE**

THE WORLD OF MOVIES

A vigorously provocative book, Amos Vogel's *FILM AS A SUBVERSIVE ART* assesses the impact of cinema as a catalyst of social, cultural and intellectual changes. Each break with traditional concepts, each overthrow of accepted values is traced to the movies that may have caused or commented on these events significantly. Profusely illustrated and exhaustively researched, Vogel's work is an articulate explanation of the role of film in society's progress. (Random House \$15.)

In *THE MOVIE BOOK*, Steven H. Scheuer offers a comprehensive and superbly illustrated survey of all the films that marked the evolution of cinema, and of the creative personalities that participated in its growth. (Playboy Press \$19.95)

An exceptionally perceptive study of cinema's historic development, *THE LONG VIEW* is filmmaker and scholar Basil Wright's thoughtful and well-informed assessment of the forces that shaped this constantly renewed medium. Cultural and political aspects are knowledgeably appraised and fittingly integrated into its technology and esthetics. (Knopf \$15.)

From the Lumière Brothers to the Vietnam War, Erik Barnouw's *DOCUMENTARY* presents an authoritative history of the non-fiction film. This extensively researched work explores the boundaries of the genre, discusses the filmmakers who probed the social fabric of their times, and spotlights the influence of government and large corporate interests on the contents of films. (Oxford U. Press \$10.95)

In *THE GREAT BRITISH PICTURE SHOW*, George Perry displays, with an erudition that is both delightful and impressive, his familiarity with nearly 80 years of English film history which stumbled from crisis to crisis, yet always bounced back, ready for the next round. Film credits, biographical listings and a bibliography complete this valuable work. (Hill & Wang \$12.95)

Jeffrey Richards' *VISIONS OF YESTERDAY* sees film as a significant source of social history and a mirror of its evolutionary process. His convincing demonstration rests on careful and penetrating studies of American pop-

ulism, British imperialism and German Nazism, and the surfacing in various films of the hidden pressures of various social structures. (Routledge & Kegan Paul \$20.)

PERSONAL CINEMA

Film historian Kemp R. Niver, pursuing his investigation into Griffith's seminal contribution to cinema, examines his innovative techniques in *D. W. GRIFFITH: HIS BIOGRAPHICAL FILMS IN PERSPECTIVE*. Selecting 50 films, the author offers 200 frame enlargements to illustrate increased camera mobility and positioning, editing counterpoint, photographic composition, and enhanced directorial story-telling skills. Effectively edited by Bebe Bergsten, this is a book essential to a fuller appreciation of film history. (Historical Films, Box 46505, Los Angeles, CA 90049; \$10.)

A novelist's indebtedness, however unacknowledged, to the movies is the subject of *NABOKOV'S DARK CINEMA*, Alfred Appel Jr.'s intriguing study. Drawing on his acquaintance with the author of *Lolita*, Appel analyzes Nabokov's literary techniques and stylistic effects to show, with the help of numerous stills, the intense relationship between fiction and popular culture. (Oxford U. Press \$14.95)

The rewards of acting and its professional hazards — "I have never been cast on a couch" — are evoked by Chris Chase in *HOW TO BE A MOVIE STAR, OR A TERRIBLE BEAUTY IS BORN*. Her refreshing, uninhibited and humorously self-deprecating memoir offers amusing insights into her brief thespian experience. (Harper & Row \$6.95)

Ever since Mary Pickford's book, *Why Not Try God?*, introduced the Lord to Hollywood (and vice versa), many actresses have gone the religious road with inconclusive results. Now Anita Bryant and Dale Evans Rogers do their bit in *TWO STARS FOR GOD* by William J. Petersen. One wonders where faith leaves off and exhibitionism begins. (Warner Paperback \$1.25)

MOVIE DATA BANKS

An extensive compilation of vital statistics and screen credits of some 6000 deceased movie performers is provided in *WHO WAS WHO ON SCREEN*, Evelyn Mack Truitt's useful, if melancholy, footnote to movie history. (Bowker \$22.50)

As unit publicist attached to William Friedkin's trend-setting epic, Howard Newman reveals in *THE EXORCIST: THE STRANGE STORY BEHIND THE*

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FILM, the "Now - It - Can - Be - Told, Incredible - True - Story - Behind - The - Most - Controversial - Film - Of - The - Decade!" It's much better than it sounds. (Pinnacle \$1.50)
* * *

Two standard directories to television screen fare are available in revised, updated 1975 editions: Leonard Maltin's TV MOVIES (Signet \$2.50) and Steven H. Scheuer's MOVIES ON TV (Bantam \$1.95). Both are excellent guides, providing credits, year of production, length, national origin, synopsis and the editor's ratings, from "4 star to Bomb" (Maltin) or "4 star to 1" (Scheuer).
* * *

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The Marx Bros.' celebrated *Animal Crackers* displays its visual and verbal fireworks in HOORAY FOR CAPTAIN SPAULDING! Richard J. Anobile's hilarious frame-by-frame and pun-by-pun assemblage of that unforgettable movie. (Crown \$8.50)
* * *

John McCabe's informal and friendly book, THE COMEDY WORLD OF STAN LAUREL, offers valuable insights into the comic's style and technique, reproducing several favorite skits and original routines in a sensitive study of his career. (Doubleday \$7.95)
* * *

Bob Hope's reminiscences of wartime overseas trips fill THE LAST CHRISTMAS SHOW, a nostalgic tears-and-laughter memoir, as told to Pete Martin and replete with evocative illustrations. (Doubleday \$14.95)
* * *

In MILTON BERLE: AN AUTOBIOGRAPHY, written with Haskel Frankel, Uncle Miltie tells it all in an hilarious, candid and often poignant confession of unexpected depth. (Delacorte \$8.95)

Charles Higham's AVA: A LIFE STORY is a smooth, highly readable report on the stunning 51 year old Ms. Gardner's films, husbands, lovers and assorted pets. (Delacorte \$7.95)
* * *

A well-rounded and richly detailed account by Dick Sheppard, ELIZABETH: THE LIFE AND CAREER OF ELIZABETH TAYLOR takes 500 action-packed pages to relate the often incredible happenings that crowded the existence of the hard-hitting, rebellious star. (Doubleday \$10.)
* * *

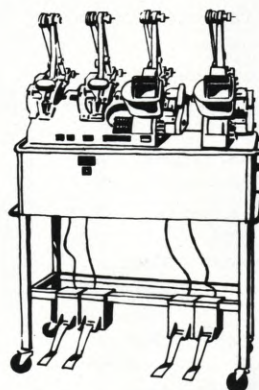
Jack Hawkins, in ANYTHING FOR A QUIET LIFE, writes compellingly about his life in the British entertainment world and the throat cancer that nearly brought to an end his successful acting career. (Stein & Day \$7.95) ■

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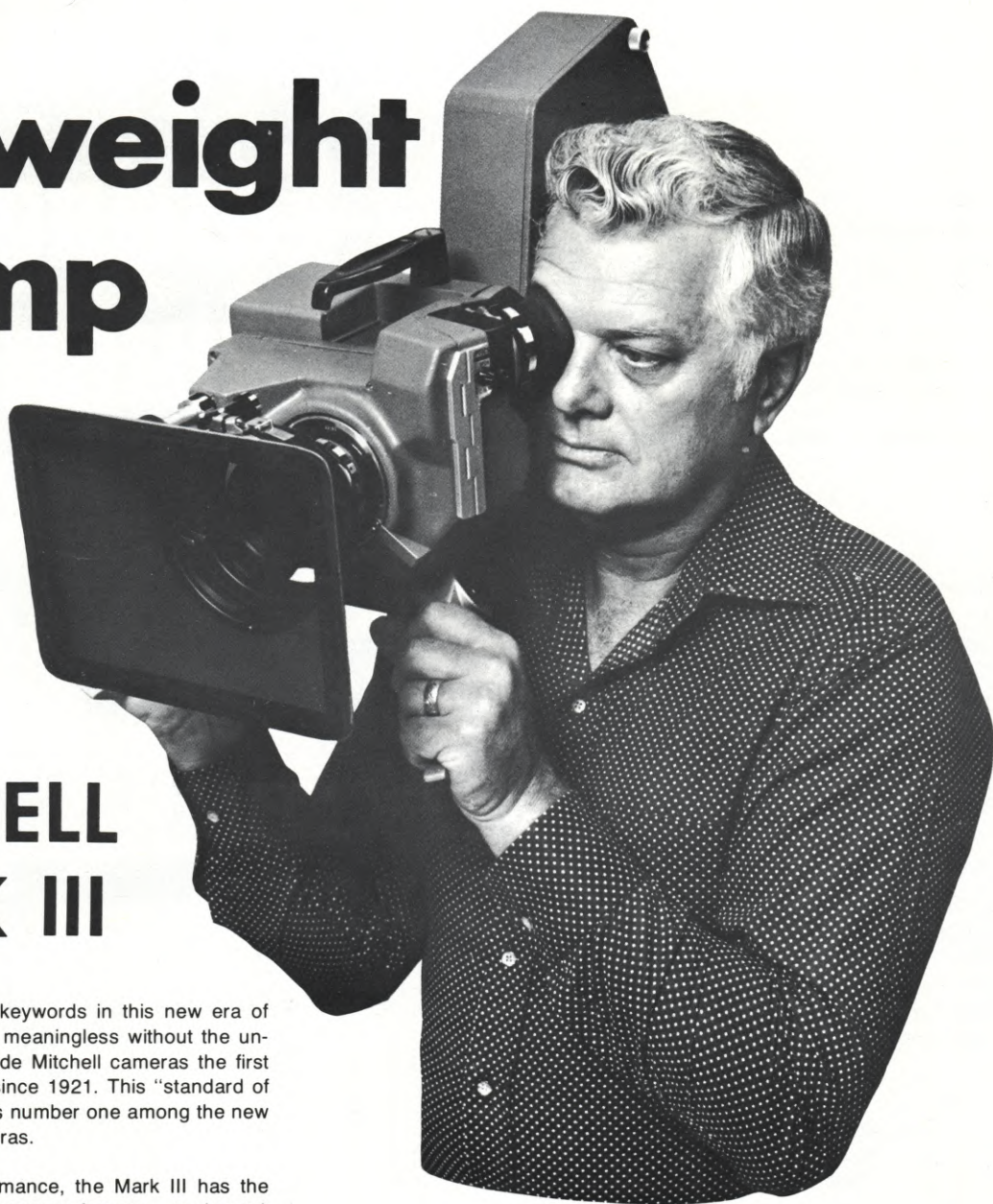
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PROFILE: A.S.C.

By JOHN ORMOND

GERT ANDERSEN, A.S.C.

One of Gert Andersen's prized possessions is a hard-cover copy of Frank Capra's best-selling book, "The Name Above The Title", bearing the inscription: "To Andy — A Man On The Cover — With the fondest of memories . . . Affectionately, Frank."

The mention of the "man on the cover" refers to Andersen being one of the group of moviemakers depicted in the photograph used for the cover illustration. It was from "The Younger Generation", one of five films in which Andersen worked with Capra.

Andersen, an articulate, knowledgeable craftsman who has spent a lifetime in Hollywood, will celebrate his 50th anniversary in the movie business in June, 1976. During that span of five decades, he has worked with virtually every big name star, director and producer — as well as an array of the greatest names in the realm of cinematography.

Currently, Andersen is working as director of photography for the highly-popular "Mannix" television series, starring Mike Connors. This is his eighth year with the "Mannix" company, which films at Paramount.

"I took over as director of photography on the fourth 'Mannix' show, back in 1966," says Andersen. "And I've been doing the series ever since."

Andersen, who is a great admirer of Connors, considers him "one of the best actors — and finest human beings — that I've ever worked with." That's quite a compliment, coming from a man who, over the years, has worked with the likes of Jean Hersholt, H. B. Warner, John Barrymore, Gary Cooper, James Stewart, Humphrey Bogart and James Cagney.

His first film assignment, as assistant cameraman, was in 1926, on a picture titled "Smoke Bellew". The movie was filmed at Mammoth, Calif., and starred Conway Tearle.

Andersen's association with Capra began in 1929, when he was the assistant on "The Younger Generation". Later, he teamed with the famed director on "The Miracle Woman" (1931); "Broadway Bill" (1933); the Oscar-winning "It Happened One Night" (1934); and "You Can't Take It With You" (1938).

Although the early 1930s were certainly depression years in the U.S., Andersen says it wasn't that way in

Hollywood.

"The depression was never really a depression for craftsmen in Hollywood," he reminisces. "I was getting \$55 a week then for a 54-hour week, and that was a lot of money in those days. The average guy was struggling to get \$25 a week."

"When I met my wife, Olive, she was supporting a family, working with the WPA (Works Project Administration). We were married in 1936, and with the money I was making, we lived quite comfortably."

Andersen worked steadily in motion pictures as an assistant and operator through the 1930s and 1940s. But it wasn't until 1953 that Gert Andersen emerged as a full-fledged first cameraman. That was when he took over as director of photography on television's "Ford Theatre".

Since then, he worked five years on "Ford Theatre", eight years with the "Donna Reed Show", a year with "Playhouse 90", and eight years with "Mannix".

"Nowadays, a man can become a first cameraman in six years," Andersen notes. "And I honestly think it's a good thing. A young man can start out, knowing that he has a good chance of rising to the top of his profession within a relatively short span of time."

"Attitudes have changed. A young guy learns fast, films are more sensitive, and he sees that it's no mystery. I have a son (Eric) who is a camera operator. He's 33. And he may be a first cameraman by the time he's 40. I think that's just fine."

Despite his remarks, Andersen acknowledges that many of the younger members of his profession are lacking in the ability to be problem-solvers.

"I'm thankful I've gotten the experience to solve problems," he comments.

Andersen says he started "getting experience" almost from the day he was born. That was in Elsinore, Denmark, back in 1907. His parents brought him to this country a year later. He was educated in New York, and was 19 when he arrived in Hollywood.

Naturally, a man who has worked with most of the stellar names of Hollywood is frequently asked about his likes and dislikes among the film great. He is understandably reluctant to list his "dislikes" but he readily names his

favorites.

"Among actors, I especially liked working with Lee Tracy, Buck Jones and Pat O'Brien. And certainly, Mike Connors. Mike is a man, incidentally, who really has both feet on the ground. I'm very fond of him."

"Carole Lombard was my all-time favorite actress. She was a marvelous human being, and a terrific personality. She could swear like a trooper, but coming from her, it sounded just fine!"

He also enjoyed working with Donna Reed ("after all, I photographed her for eight years") and Nina Foch.

His favorite directors include Capra, William Wellman, George Stevens and Fred Zinnemann.

Andersen has an interesting story to relate about another famous star: Marilyn Monroe.

"I first met Marilyn when she was 18 years old. She was Norma Baker then, a quite slender little thing. She was a normal blonde then, too."

"It was at my friend Jack Warren's house. He had asked me to come over to meet her. Norma arrived with musician Freddie Karger. He played piano, and she sang some songs for our group. But I can't say she actually knocked anybody over. At least, that was my impression."

About a year later, though, Andersen encountered her at a post-film premiere party at the Ambassador Hotel.

"What a transformation!" he recalls, grinning. "She had light red hair, and wore a gown that was really something."

When he isn't on the "Mannix" set, you'll find Gert at his comfortable single-level Sherman Oaks home, in the San Fernando Valley. He and his wife Olive built the house back in 1941, and have since enlarged it until now it's a three-bedroom-and-den dwelling. Their three children — sons Jon and Eric and daughter Christine — all grew up there.

His home, as you might expect, is filled with memorabilia of a career spanning five decades.

Like most film people, though, he likes to travel — and does. His favorite vacation destinations are Hawaii and Mexico, and he visits them frequently.

"One of the nicest things about doing a television series is that, while it's steady work, there's always a fairly lengthy hiatus," he says. "That's when Olive and I usually take off for Maui or the big island of Hawaii."

You might think Gert Andersen would be contemplating retirement.

"No, not really," he answers. "I've lived a full life, and I've enjoyed every bit of it. But there's still an awful lot left to do." ■

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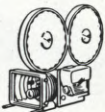
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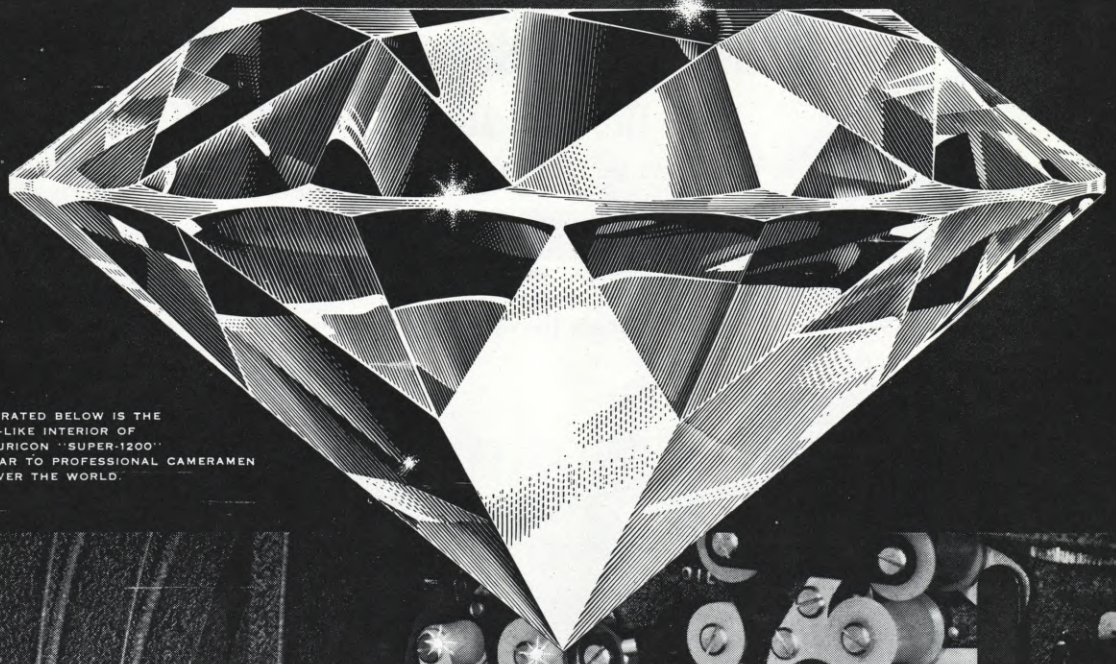
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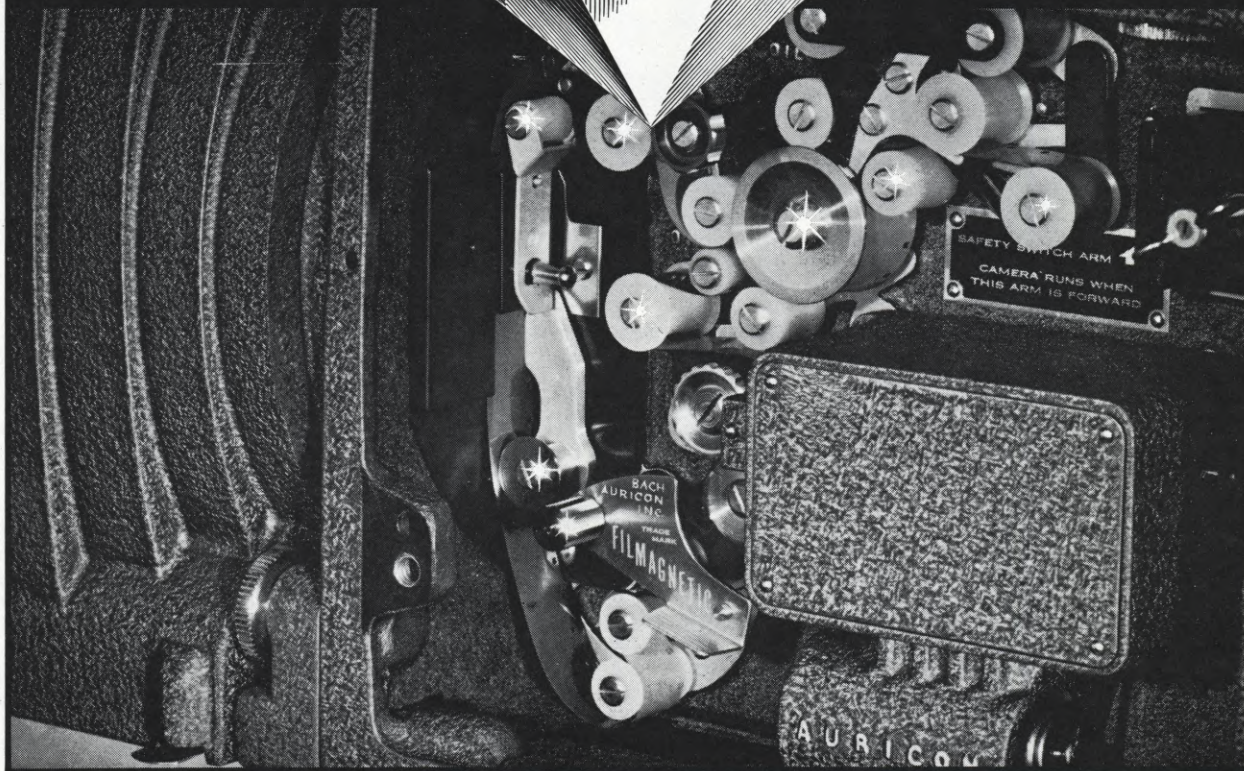
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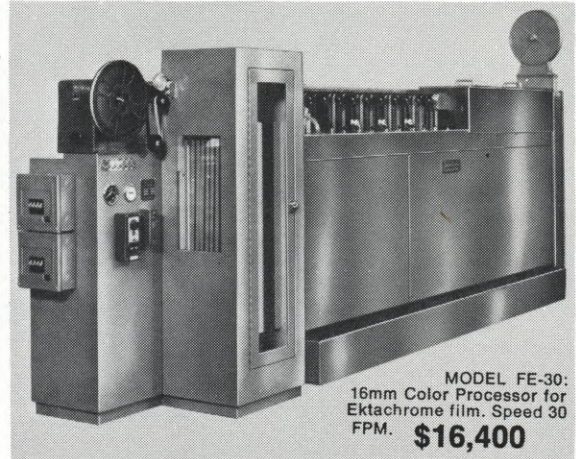
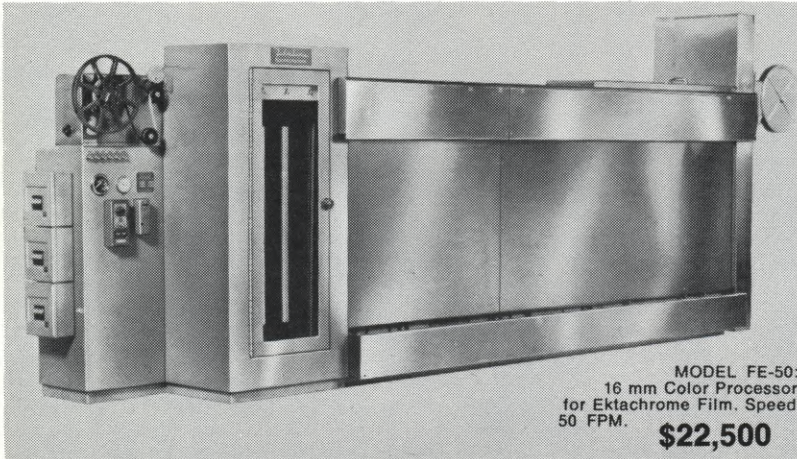
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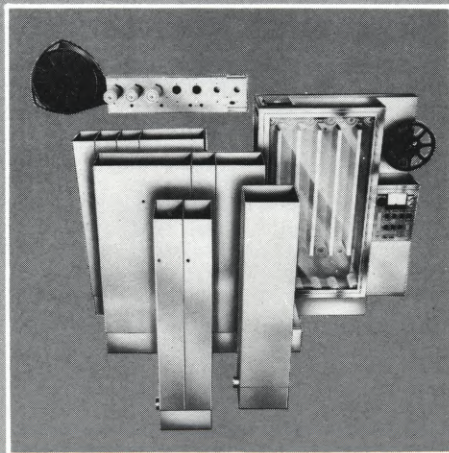
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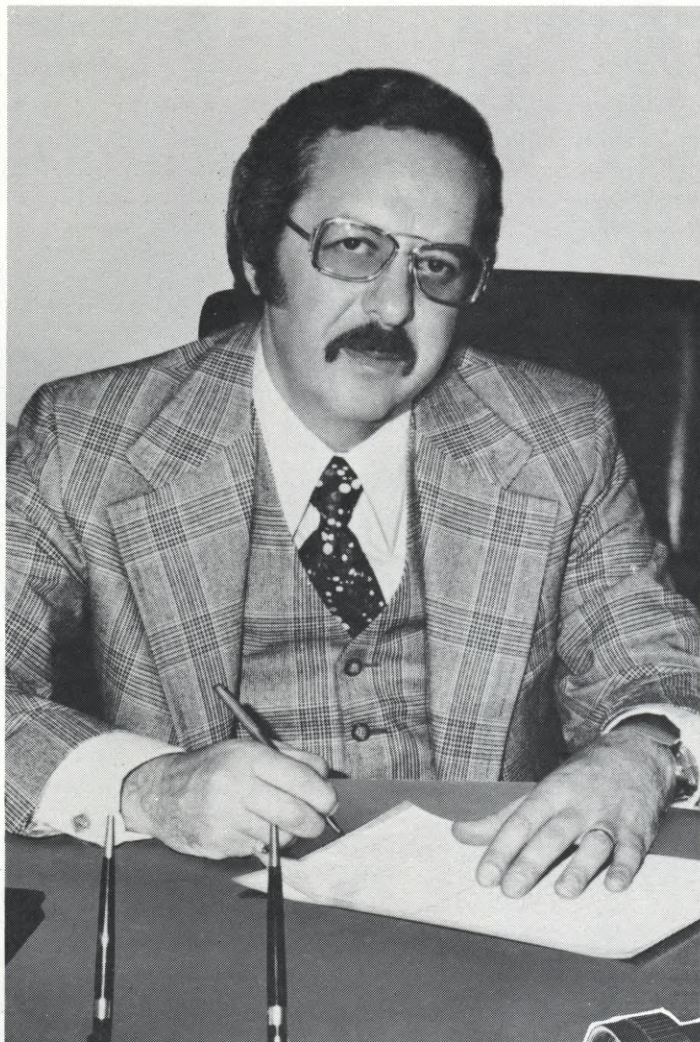
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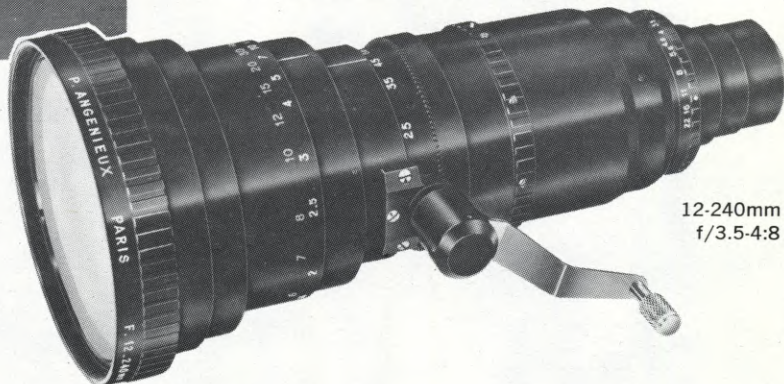


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JAMES WONG HOWE, ASC TALKS ABOUT HIS PHOTOGRAPHY OF “FUNNY LADY”

One of Hollywood's all-time great cinematographers comes out of retirement to lend his talents to the filming of a super-musical and finds it to be “a tremendous challenge — but very good therapy”

“FUNNY LADY” brings Barbra Streisand to the screen as Fanny Brice again in an extension of the “FUNNY GIRL” characterization for which she won the Academy Award as Best Actress in her screen debut.

James Caan and Omar Sharif, playing Billy Rose and Nick Arnstein, respectively, also star in “FUNNY LADY”, which is a fictionalized account of the romantic and business relationship of Fanny Brice and showman Billy Rose. A Rastar Pictures, Inc.

production for Columbia Pictures release, the musical romantic comedy-drama was produced by Ray Stark and directed by Herbert Ross from Jay Presson Allen's screenplay.

Principal photography began at M-G-M utilizing the studio's unique “theater” soundstage with fly gallery for in-the-theater musical sequences. Elaborately coiffed and costumed showgirls and more than 250 dancers participated in these production numbers, mounted in five different

theater settings of the Thirties and representing various versions of the show “*Crazy Quilt*”, from horrendous break-in performances to the final polished production.

Then the company relocated at The Burbank Studios for most of the interior scenes, including a re-creation of Fanny Brice doing one of her popular Baby Snooks shows from an authentically appointed 1930s radio studio, and James Caan making his screen singing debut vocalizing “*Does the Spearmint Lose Its Flavor on the Bed-post Overnight?*” and providing his own musical accompaniment — on a typewriter.

When the “FUNNY LADY” troupe moved outdoors, Miss Streisand, who earlier in the schedule had been hoisted by wire “up to heaven” in the comedy number “*So Long, Honey Lamb*”, endured more thrills on behalf of the film. Assured that it would mean only a few minutes aloft, she flew out of Santa Monica Airport in a fragile-looking 1937 open-cockpit biplane for the song “*Let's Hear It For Me*” and was caught in a sky traffic pattern that prevented the craft from landing for 30 windy and bumpy minutes. Another time, she shared the camera with a 2,153-pound buffalo that became startled when Rose yelled “Cut!” and thundered down the street, shaking up everything and everyone else.

In the Billy Rose's Aquacade sequence, Miss Streisand, costumed as a clown, took to the water with 25 champion female synchronized swimmers, the largest group of aquatic stars ever to perform ensemble. Performed to the song “*Me and My Shadow*”, the scenes were filmed at night in the Los Angeles Stadium's Olympic-sized pool, and production designer Jenkins devised a unique arrangement of arc lights and huge mirrors and screens for an extraordinary shadow-girl effect, with the images growing as high as 20 feet.

The polo game sequence was photographed at Will Rogers State Park, the humorist's original field. The

Between set-ups during the filming of “FUNNY LADY”, Director of Photography James Wong Howe, ASC takes a break with the star of the show, Barbra Streisand. Of her he says: “She's a fine talent and a very smart gal. She really knows what she wants. I admire her because of her honesty.”





A sequel to the highly successful "FUNNY GIRL", the current production of "FUNNY LADY" continues a fictionalized version of the life story of Fanny Brice. Visual emphasis is placed upon the 16 musical numbers which are an integral part of the story. Each was filmed with a different lighting style and varying colors of light in order to maintain variety of presentation.



One of Hollywood's best-loved and most highly respected cinematographers, James Wong Howe, ASC has twice won the Academy "Oscar" for Best Cinematography ("THE ROSE TATTOO" and "HUD").

scene proved especially enjoyable for Sharif, an expert horseman who actually took part in the competition. Of the more than 300 vintage cars in the film, two of the most noteworthy are seen at the polo grounds: Fanny's Rolls Royce, valued at \$85,000, and the vehicle owned by Norma, a Maybach Zeppelin touring car valued at \$250,000.

Other "FUNNY LADY" scenes were filmed at the Beverly Hills Hotel, Beverly Hills Courthouse, and Malibu Pier. The Pan Pacific Auditorium served as the broadcasting studio exterior, and the ornate interiors of several downtown Los Angeles movie houses doubled as the legitimate theaters in which "Crazy Quilt" was performed. Fanny Brice's home was "played" by a Bel-Air house, decorated for the occasion with \$1,000,000 worth of fine art, and the railroad station in Oakland, California substituted for the Cleveland depot in

which Fanny and Billy talk about lost love.

In the area of production design, George Jenkins drew on his early career for many of his "FUNNY LADY" ideas. When he was just out of school, he worked for the accomplished architect Paul Cret who at one time specialized in Art Deco design, so Jenkins subconsciously absorbed the architectural and decorative atmosphere of the Thirties and Forties. Additionally, Jenkins' broad background in the legitimate theater served him well for the picture's many onstage and backstage scenes. Interestingly, while most film versions of theatrical productions take spatial liberties, the "FUNNY LADY" theater numbers were staged within realistic proscenium dimensions, the better to capture the real feeling of the stage.

Herbert Ross has directed a quintet of major motion pictures since directing the musical sequences for the film

"FUNNY LADY" revives the Golden Age of Broadway, when Flo Ziegfeld reigned as czar of the Great White Way. Very much in evidence are the pretty girls (inevitably "like a melody"), who were a mainstay of such stage extravaganzas. The film captures very accurately the visual atmosphere of the period.



version of "FUNNY GIRL", in the process establishing himself as a film artist of taste, wit and imagination. To his credit are "GOODBYE, MR. CHIPS", which won Peter O'Toole an Oscar nomination; "THE OWL AND THE PUSSYCAT", Barbra Streisand's first non-musical film; "T.R. BASKIN", starring James Caan, Candice Bergen and Peter Boyle; the hit film, "PLAY IT AGAIN, SAM", starring Woody Allen, and last year's stylish "THE LAST OF SHEILA".

Ross brings a dancer's eye and art to his work, thanks to his beginnings in ballet. He once served as resident choreographer for the highly esteemed American Ballet Theatre and while with the troupe met and married prima ballerina Nora Kaye, who was his assistant on "FUNNY LADY". Ross has been a choreographer and musical director on Broadway for "I CAN GET IT FOR YOU WHOLESALE", and "ON A CLEAR DAY YOU CAN SEE FOREVER", and television's "THE BELL TELEPHONE HOUR". His first film assignment was choreographing "CARMEN JONES". He staged the musical sequences for "INSIDE DAISY CLOVER" and the dance for Elizabeth Taylor and George Segal in "WHO'S AFRAID OF VIRGINIA WOOLF?" Ross then choreographed "DOCTOR DOLITTLE" and followed with "FUNNY GIRL".

Of particular behind-the-camera interest is the fact that "FUNNY LADY" was photographed by the legendary James Wong Howe, ASC, one of Hollywood's most honored and respected cinematographers.

Howe photographed his most recent major feature, "THE MOLLY

MAGUIRES" in 1969, after which he withdrew into self-imposed retirement. However, the challenge of filming a lush period musical like "FUNNY LADY" proved irresistible to him. So, at the sprightly age of 75, he came out of retirement and took over the photography of the picture on one-day's notice, contributing enormously to the visual excitement of what appears on the screen.

James Wong Howe has won two "Best Cinematography" Academy Awards (for "THE ROSE TATTOO" and "HUD") and has been nominated seven other times. His credits include such outstanding features as "BODY AND SOUL", "COME BACK LITTLE SHEBA", "PICNIC", "THE OLD MAN AND THE SEA" and "THE LAST ANGRY MAN".

In the following interview, conducted by his longtime friend and neighbor, *American Cinematographer* Editor Herb Lightman, Howe discussed his work as Director of Photography on "FUNNY LADY", and talks about some of the things he's learned during his brilliant 57-year career as one of Hollywood's top artists of the camera:

QUESTION: Can you give me a bit of background to your assignment as Director of Photography on "FUNNY LADY"?

J.W.H.: It happened very suddenly. I got a telephone call at 10 o'clock on a Wednesday morning asking me to come out to MGM at two in the afternoon. I hadn't worked on a film for at least three years, being more or less

retired, and I wasn't sure I wanted to do anything. But they convinced me and I asked: "When do I start?" They said: "7:30 tomorrow morning." So I went out there at 7:30 the next morning and worked until four in the afternoon.

QUESTION: Without any preparation?

J.W.H.: Without any preparation at all. It was a good thing I had a gaffer that I'd worked with before, Bill Shaw. I also had a good operator, Richard Johnson, and a good assistant, Charlie Termini — but I'm sure that if I hadn't had 57 years of experience in the film industry I wouldn't have been able to jump into such a big project on 24-hours notice. First on the schedule was a big boom shot on the stage. The production company had rented space at MGM because it's the only studio that has such a big stage. I was a bit nervous. I get nervous anyway whenever I start a new picture. It's just like beginning all over again. There's a new director and new people and you aren't sure whether you've got the right style or mood for the scene. You're feeling around. What made it harder in this case was that I had no time to prepare, but I was fortunate in working with a director like Herb Ross. He is considered one of the great choreographers, but he's also a brilliant dramatic director — and a fine human being. He has a great feel for the medium. Although he hasn't directed too many features, he functions like a veteran and chooses very good camera angles. He's very calm and has such a nice simple way of explaining to you what he wants — and what he wants is invariably right. If you have an idea, you can suggest it to him. If he feels that it will make the scene a little better, he'll accept it. He's that cooperative. I found this very reassuring, because I haven't photographed many musicals — maybe three during my whole career. The last one I worked on was "ON YOUR TOES", with Zorina, and I didn't finish it because I had a commitment with John Cromwell to photograph "ABE LINCOLN IN ILLINOIS".

QUESTION: What would you say are the special demands of photographing a musical? In other words, how would your approach differ from that of photographing a dramatic film, for example?

J.W.H.: In general, I find that in making a musical you have to light it up a little bit more in order to give it a gay feeling and bring out the colors. In the case of "FUNNY LADY", we had a lot of zoom

Standing behind the Panavision R-200 camera, Howe gives hand signals to his gaffer in order to control the lighting. During the course of his incredible 57-year career as one of Hollywood's top cameramen, he has gradually simplified his lighting style — eliminating lights rather than adding more.



shots because Herb Ross likes to use the zoom. He says that he can get more dramatic shots with the zoom lens — and he uses it very well. He doesn't just have a stationary camera and zoom in or zoom back. He starts the movement and then starts the zoom, so that it isn't noticeable. I really learned a great deal from him about how to use zoom lenses.

QUESTION: Did all of that zooming create any special problems for you?

J.W.H.: Only in the respect that the zoom lens we had was an F/4.5 lens. I like to shoot at F/3 or F/3.5. This meant that every time the director called for a zoom shot I would have to build the light up to shoot at F/4.5 or F/5.6. This bothered me a little, because I kind of lose the feel when I boost the light. It may not change things photographically, but you feel it emotionally. Then, too, if you light it up higher, your color is going to change a little bit. If you light it lower, your color changes, also. These are things that a cameraman has to be aware of.

QUESTION: I know some cameramen who wouldn't boost the lighting in order to use the zoom lens. They'd simply force the development of those scenes or, perhaps, flash the film.

J.W.H.: That's true, but I don't believe in fooling around with the color. Eastman turns out a good product, so why try to change it chemically by pre-fogging it or forcing it?

QUESTION: During your long career you've photographed the biggest stars in Hollywood. Currently Barbra Streisand is the only woman on the list of top ten box office stars. That must have added to your responsibilities, didn't it?

J.W.H.: To me, Barbra Streisand is a fine talent and a very smart gal. She really knows what she wants. She's hep. I admire her because of her honesty. For example, she came to me one day and said: "Jimmy, you know they say I'm temperamental. I'm not really temperamental. I just want things to be right for me — and I know what's good for me and what's bad." Well, I think that's a wonderful trait. She protects herself — and she should, because she's one of the biggest stars in the business. She has a very interesting face — classical. When I was setting up to shoot my first closeup of her, I heard a voice say: "What, no dif-



Production designer George Jenkins, Cinematographer Howe and Director Herb Ross go over the sketches for a proposed set. Howe has always worked very closely with the Production Designer in order to make certain that the best possible visual result ends up on the screen.

fusion?" I turned around and said: "No, Miss Streisand. I'm not using any diffusion, because this is a beautiful lens. It must have cost five or six thousand dollars and it has wonderful resolution. I'm not going to ruin it by putting a \$2.50 piece of glass in front of it. I'd rather get the effect with lights." She didn't say anything else, and from then on we got along great.

QUESTION: I've noticed, in watching Miss Streisand's past films, that she's always photographed from the left side or full front, but never from the right side. Was that the case in "FUNNY LADY" also?

J.W.H.: Well she did say to me: "You know, my left side is the best. My right side doesn't photograph as well." However, there were a couple of occasions when Mr. Ross had to stage the action so that her right side was featured. I took a little more time to make sure that everything was right and when she saw the scene she said: "The right side isn't bad. I don't have a bad side." I said: "No, you don't, Barbra." Then she said: "Now I'll be able to concentrate more on my acting, because being photographed on the right side won't bother me." Actually, there are very few women stars who don't have a "good" and a "bad" side,

but a little extra care in lighting and camera angle will usually take care of the problem.

QUESTION: Are there any "helpful hints" in that respect that you could pass on to the budding cinematographers among our readership?

J.W.H.: Well, obviously, you would never use a wide-angle lens to shoot a closeup, especially of a woman. It distorts the features in an unflattering way and it forces you to shoot so close that you can't get the lights in. I use a 3-inch or 4-inch lens and back off. This results in a much more pleasing effect and allows you to place the lights anywhere you want them. I never like to shoot an unflattering shot of a woman. The one time I did it (for good reason, I thought), I ran into trouble. It was years ago when I was photographing a picture at MGM with Myrna Loy. There was a scene in which, after she'd been up all night coping with a rough situation, she looks in the mirror and says: "I'm so tired. I look awful." Well, she didn't look awful. She'd just come down from Makeup and every hair was in place. I persuaded her to rub a little of the makeup off and loosen her hair so that she'd look a little bit tired. The next day I was called into Eddie Mannix's office. He

Continued on Page 56

MAGICAM

A unique new electronic matting system which combines miniature sets with live action to create extraordinary scope and production value at low cost

By JOE MATZA

Magicam is a camera control system which allows complete freedom of camera movement during a matte shot. For example, under blue screen matting conditions, where one camera views the talent or object on a blue stage and the second camera views the scene the subject is to appear in, all modes of camera movement are possible. The capability of panning, tilting, dollying and booming, as under normal production conditions, was the design goal of the Magicam group at the onset of its development.

The invention of the system began in 1972 in a small room at Loyola University of Los Angeles, California and progressed through various backyards and garages, finally settling in Magicam's present Research and Development Center at Santa Monica Airport, California. Magicam also has a production facility housing the largest pre-lit blue screen matting stage in the world located at Paramount Pictures, Hollywood, California.

The design, development and initial financing of the system was a joint undertaking of Joe Matza (Executive Director of Magicam), Rob King (Marketing Director), John Gale (Technical Director), Dan Slater (Chief Design Engineer) and Doug Trumbull (Consultant). After successfully demonstrating the potential of the prototype system in November 1973, Paramount Pictures acquired Magicam as an important new subsidiary.

Matting and the use of miniatures have long been a part of the film industry as alternatives to construction of expensive sets, shooting unreachable or extravagant locations, and creating exotic nonexistent locales. Unfortunately the production techniques associated with matting have often been complex and at times disappointing. For this reason, many producers have bypassed exciting script ideas for those with a simpler photographic concept.

Continued overleaf

Artist's rendition of an elaborate futuristic space station designed for a proposed television series based on "WAR OF THE WORLDS". MAGICAM can easily make available sets like this, so massive that they could not possibly be built full-size, even if an astronomical budget were available. The resultant production value adds vast scope to an ambitious production.



The foreground camera views the actors.

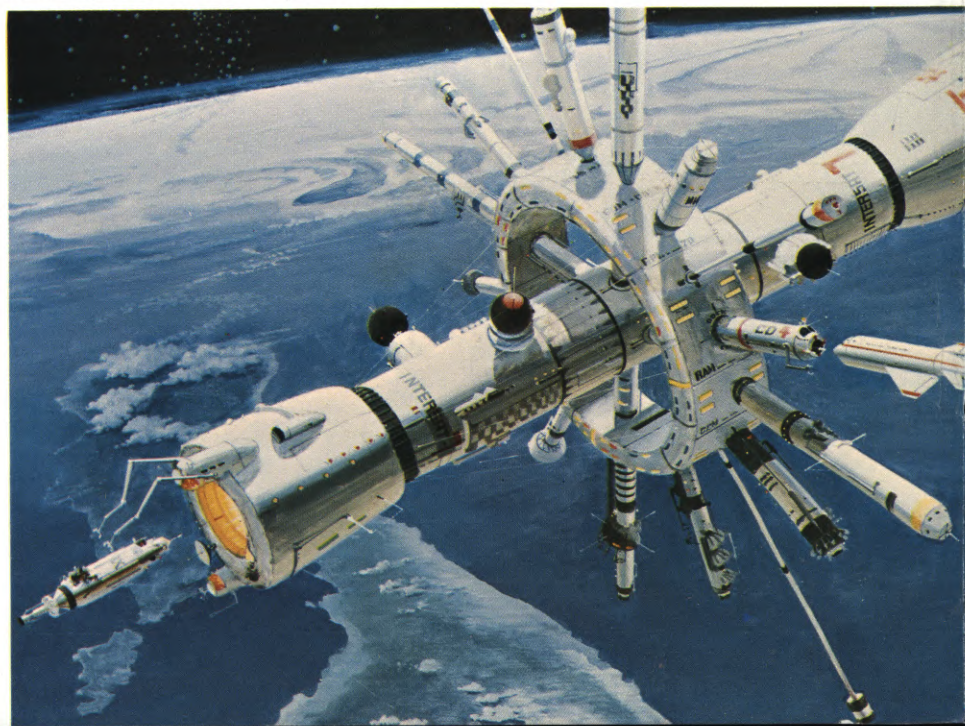


The background camera views miniature set.



Foreground and background create composite.

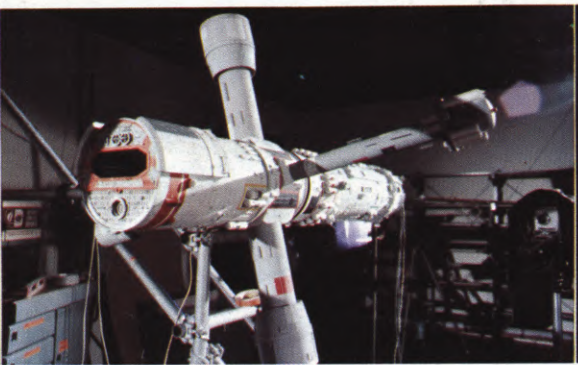
MAGICAM pushes in, pulls back, pans, tilts to follow action



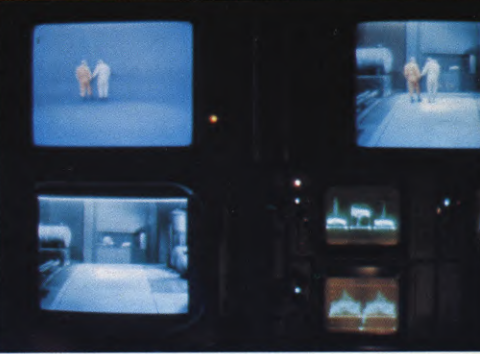


(LEFT) The background camera is a permanent installation in a room adjacent to the stage. **(CENTER)** Setting up the electronic camera that will photograph the background. **(RIGHT)** Precision lighting of the miniature sets is done with small units.

(LEFT) Periscope of the electronic background camera reaches into the miniature set. **(CENTER)** Space station model for proposed "WAR OF THE WORLDS" series. **(RIGHT)** Technician arranges dolls in a miniature set to be used as background for scene composited with live action.



(LEFT) Energetic dancers do their thing in front of an imaginative miniature set constructed of match sticks. **(CENTER)** A hand with a pencil reaches down into the miniature set, where full-size man, superimposed on the background, watches incredulously. **(RIGHT)** Girl looks into a doll house, where her little brother, photographed against the blue screen, seems to be sitting in miniature chair.



(LEFT) The giant cyclorama on Paramount Studios sound stage, shown halfway through the process of being painted blue. **(CENTER)** Ace cinematographer Kenneth Peach, Sr., ASC, emphasizes that the sign means what it says. **(RIGHT)** Control room monitors show background and foreground elements and final composite.

(LEFT) Dancing doll figures set in a miniature background. **(CENTER)** Live dancers performing in front of the blue screen. **(RIGHT)** In composite frame from film transfer, dancers seem to be moving among the dolls.



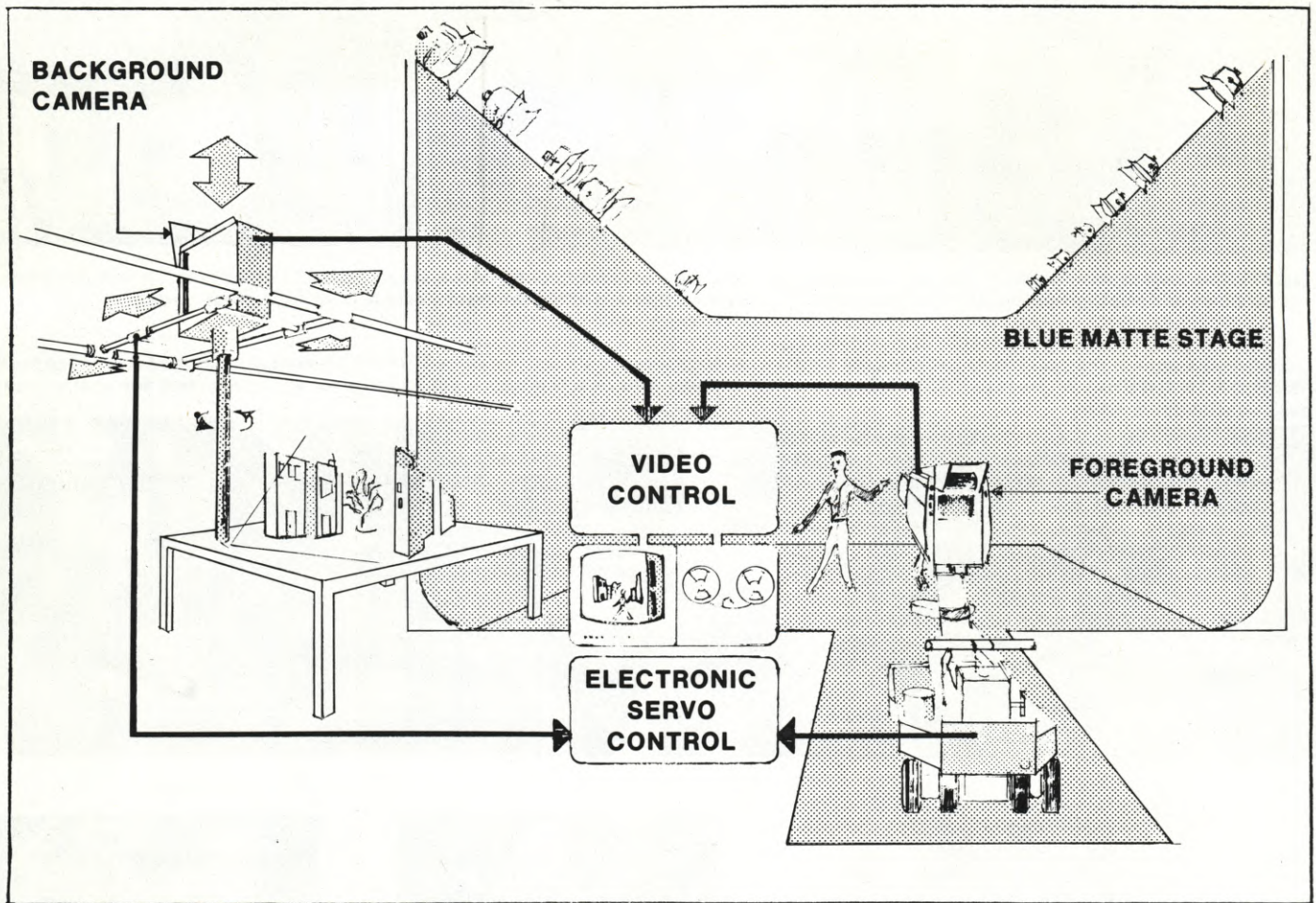


Diagram highlighting the features of the MAGICAM system. The background camera, at left, reaches into the miniature set by means of a periscope. In the center is the video control installation which permits the slaving together, by means of electronic servo devices, of the background camera and the foreground camera, shown operating on the blue screen cyclorama stage at right.

Inventors of the Magicam process suggest that their form of production will not only solve the vast majority of problems associated with matting, but also significantly change the direction and thinking of the TV and film industries. For example, imagine creating a 500-yard underground corridor blasted out of rock, housing futuristic space freighters, shuttle craft, catwalks full of cargo and people, or the recreation of the entire City of Camelot, or the Land of Oz, but all in miniature.

The Magicam system of production has been designed to provide the total mechanism for placing actors and objects in extravagant or strangely contrived environments through the use of miniature sets, yet with the ease of normal production.

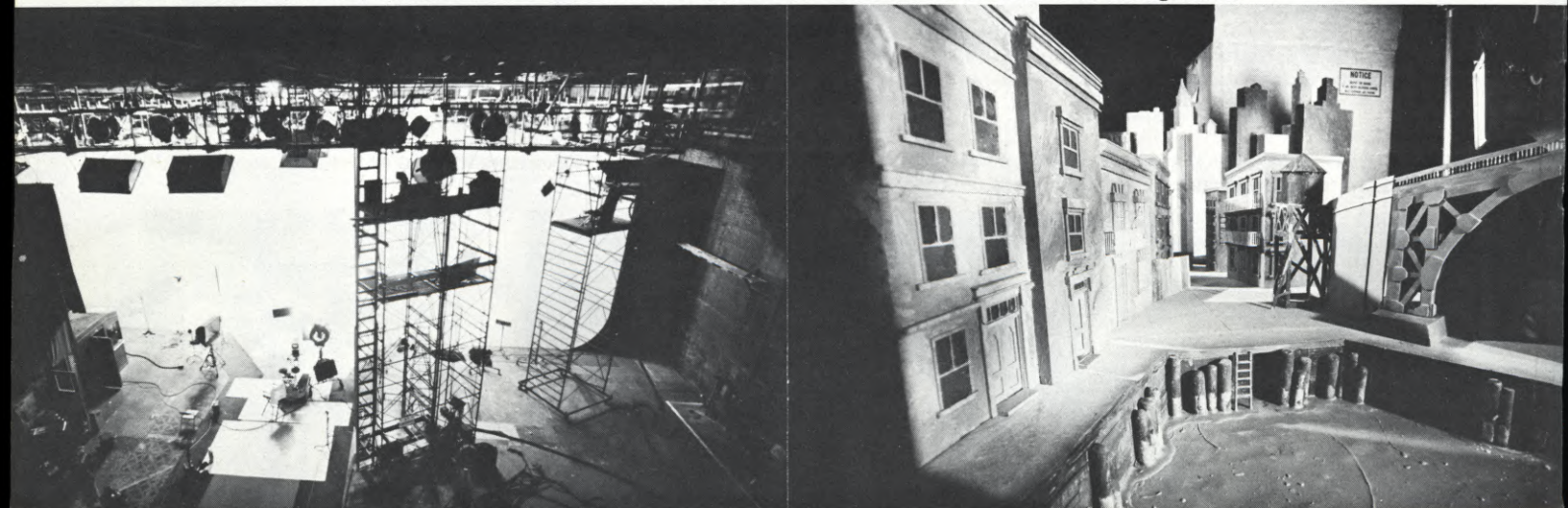
The creation of a realistic composite scene, combining picture elements from several sources, requires care in several technical areas: a quality matte, full camera mobility, precise miniature and/or background design and

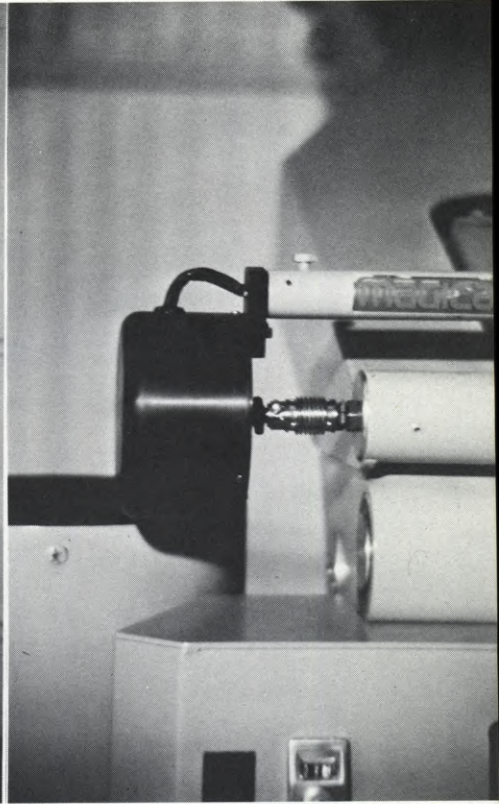
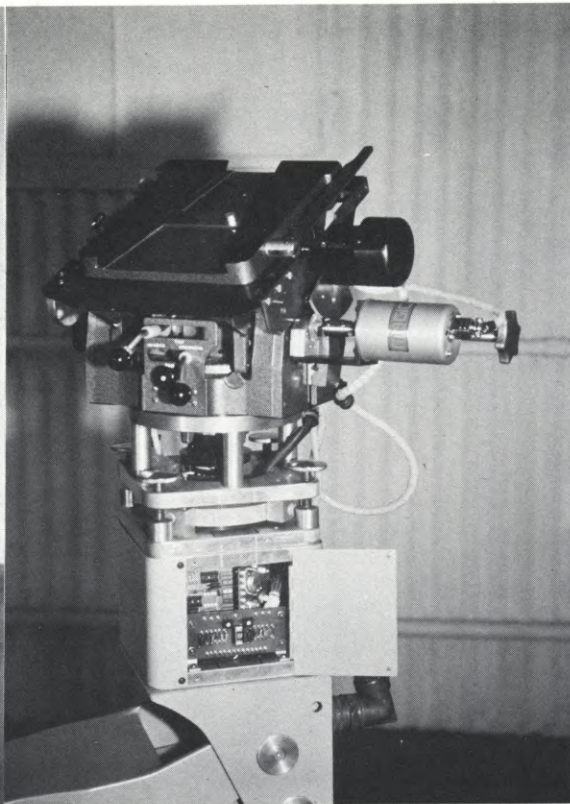
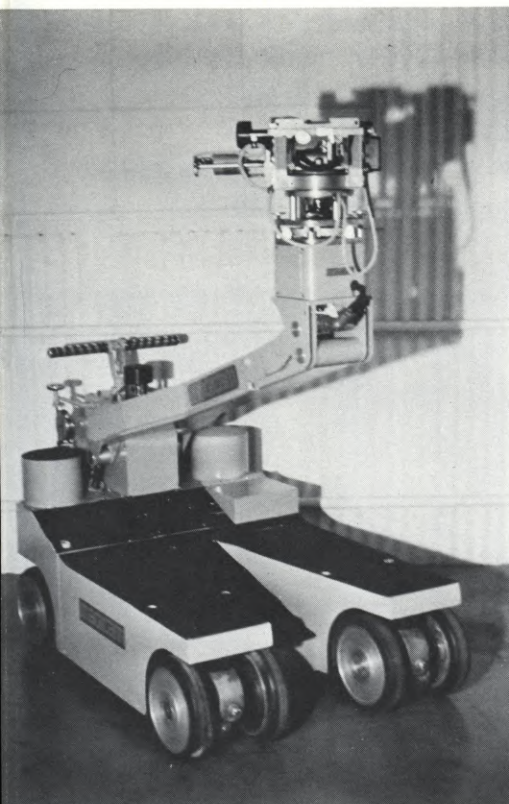
fabrication, and a controlled stage environment with skilled technicians in each area.

Matting

Blue screen photography, as well as the sodium screen system used by Disney, have been employed to produce matted or composite photography for several years. Sometimes the results are excellent and at other times not so good, due to the matte line or the "halo effect". The

(LEFT) The MAGICAM blue-screen matte stage at Paramount Studios is the largest of its kind in the world, with 4,000 square feet of floor and 30-foot-high cyclorama walls and a poured epoxy floor within $\frac{1}{32}$ -inch tolerances to assure smoothness of foreground camera moves. (RIGHT) A miniature set with forced perspective provides a realistic wharveside background.





(LEFT) The foreground dolly is a modified Chapman Sidewinder, specifically designed to sense all modes of camera movement, while viewing talent or objects on the matte stage. Pan, tilt, boom and dolly movement in any direction are sensed here. **(CENTER)** Pan and tilt must be measured to a precise degree of accuracy so that the background camera will respond in such a way that the camera movements appear real. **(RIGHT)** Boom movement is sensed throughout an 8-foot range. Thus, the background unit is free to respond within the range of movement at a pre-selected scale factor.

goal of most matte processes has been to selectively replace the unwanted area of the foreground picture with a desired background. For example, the foreground camera views a scene containing actors and objects, positioned in front of a screen which reflects, or in some cases emits, light in a narrow wavelength band, usually blue, since skin tones contain very little blue. A hole is cut in the foreground image in those areas where the selected screen color appears. Similarly, a hole is cut in the background where the actors and objects are to be placed, a beach in Puerto Vallarta, for example. The two images are then combined into the single composite of people on the

beach.

With the advent of quality electronic matting devices such as Technimatte, developed by Vidtronics of Hollywood, California; Imagematte by Image Transform, North Hollywood, California; and Magicmatte, the Magicam Matte system; most of the problems experienced with film mattes and previous electronic mattes (such as halo and matte lines) can be controlled with great accuracy.

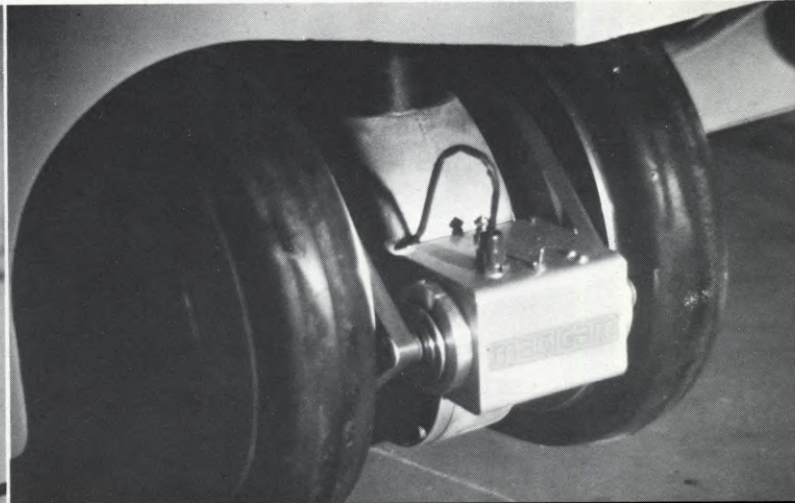
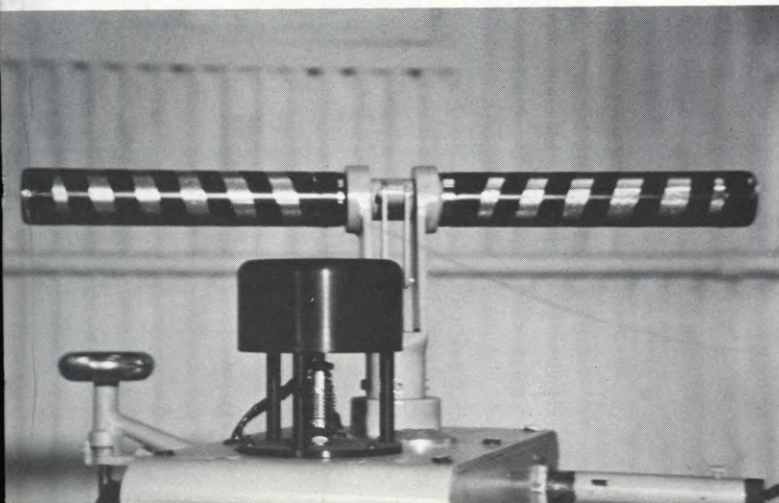
Advanced electronic matting systems are generally based on a proportional gating signal which mixes the foreground and background together. The systems are capable of producing images free of halo and

matte line. Another advantage is the ability to reproduce shadows and translucent objects in the composite scene. Finally, because the process is done live, the cameraman and director can evaluate the image immediately. The end result of the combined advantages of electronic matting is the capability of placing an actor into a background such as a miniature with striking realism.

To date, the electronic matting devices are limited to the use of television cameras. Thus, the film producer must ask himself if tape-to-film transfers will serve his purposes. However, in the near future, the quality

Continued on Page 72

MAGICAM frees the cinematographer to choreograph his dolly moves smoothly without the use of tracks. This is accomplished by combining directional **(LEFT)** and movement **(RIGHT)** information. The smoothness of the camera move is assured by the **MAGICAM** blue-screen stage floor, which has a smoothness within $1/32$ of an inch tolerance.





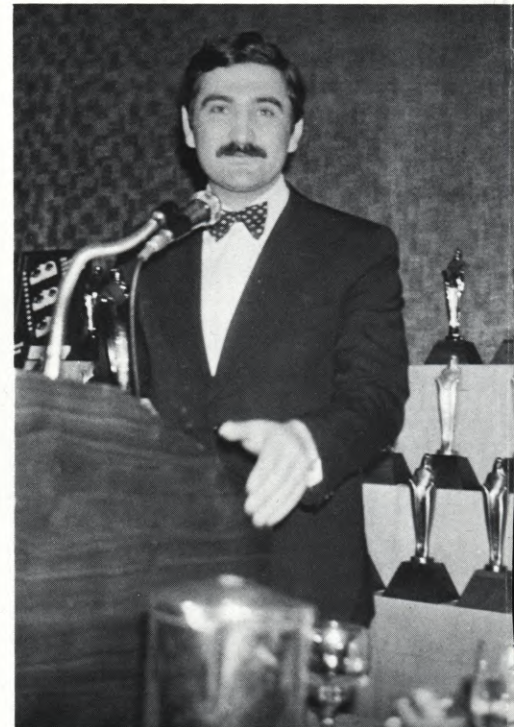
The organizers of the event did themselves proud on their 10th Anniversary by staging a Festival with more scope, class and style than ever before

By HERB A. LIGHTMAN

Although I have only one previous personal encounter with which to compare it (last year's event), it seemed quite obvious to me that the 10th Chicago International Film Festival (November 8 - 21, 1974) had made great strides during the past year. Its Founder and Director, Michael J. Kutza, Jr. and Executive Producer, Lois Stransky, together with their enthusiastic young staff, had worked very hard to make the Festival's 10th Anniversary a special event — and it

showed. In addition, the existence of an enthusiastic and dedicated Governing Board, headed by the very able Charles Benton, seemed to make a great deal of positive difference.

The gratifying result was that the Festival had a great deal more scope, class and style than was evident last year. The features selected for presentation were generally of a higher quality and, instead of being presented from the stage of a drafty university auditorium, the awards were handed



Georgian Director George Shengelaya accepts the top award of the 10th Chicago International Film Festival, the "GOLD HUGO" for Best Feature, in recognition of "PIROSMANI" (USSR), which he directed.

(LEFT) The Awards Banquet of the 10th Chicago International Film Festival was held in the Grand Ballroom of the new Hyatt Regency Hotel on Chicago's lakefront. The International Jury sat at the head table. (RIGHT) Popular Chicago columnist/TV personality Irv Kupcinet, who served as Master of Ceremonies at the Banquet, joins Governing Board Chairman Charles Benton at the podium.



out with a certain elegance at a formal banquet.

The main screening location was the Granada Theatre, a wonderful old true movie "palace", complete with all the architectural gingerbread that dedicated film buffs love so well. The secondary site, screening more or less the same films on an alternating basis, was the Biograph Theatre, notorious in police annals as the place where Public Enemy #1 John Dillinger enjoyed his last picture show — immediately after which he was fingered by "The Lady in Red" and dispatched to "That Big Double Feature in the Sky" by the blazing guns of waiting G-Men.

The manager of the Biograph, obviously very pleased and proud to have his theatre selected as a Festival screening site, had just completed an extensive renovation of the theatre and the spic and span result was a welcome improvement over the tacky Devon Theatre which served the same purpose last year.

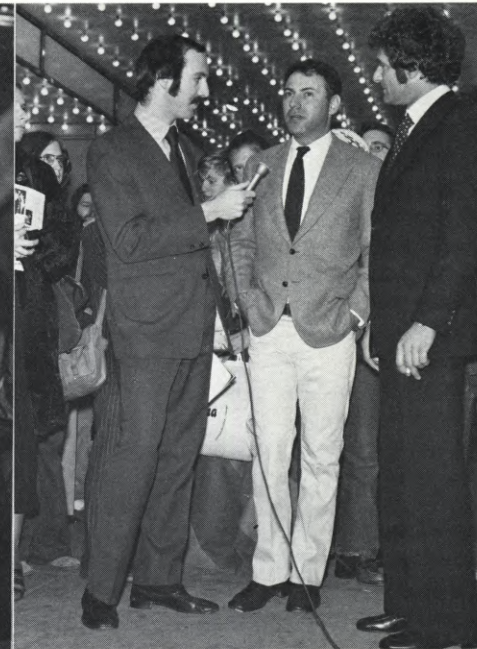
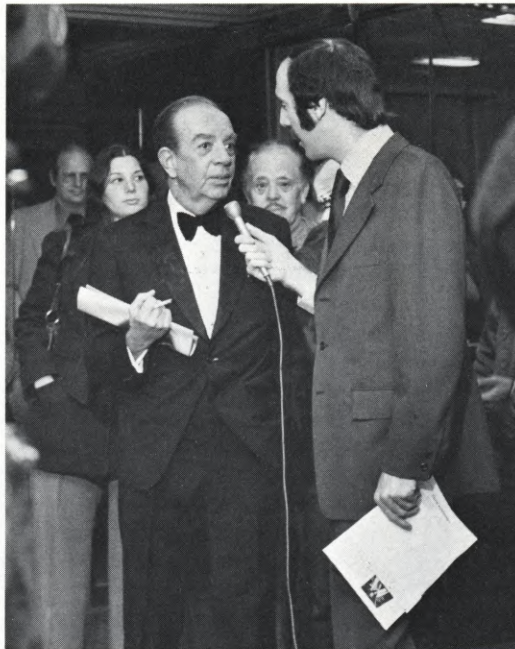
Two additional sites for screenings were the Rosary College Auditorium and Mundelein College's Galvin Hall. Together, these four widely separated locations covered the main areas of the sprawling Windy City quite well.

The main screening schedule included 34 features from 17 countries, many of them American Premiere films. In addition, among the special programs presented were: Films Made by Children, Short Subjects, Student Films, A Tribute to the NBC Documentary, A Tribute to the Japanese Cinema, A Tribute to Jan Kadar, Vincente Minnelli Retrospective and Robert Wise Retrospective.

The Festival was launched on the evening of November 8 with a Hollywood-style American Premiere of the Warner Bros. production, "FREEBIE AND THE BEAN", starring James Caan and Alan Arkin. Arkin was present, as was the film's director, Richard Rush, and visiting guest Vincente Minnelli.

My comments on the films shown are limited by the fact that lack of time precluded my seeing all of them, but among those I was able to see there were several that I found to be quite impressive.

For example, "PIROSMANI", made in the Georgian Republic of the USSR, is a very touching filmization of the tragic life of Niko Pirosmani, a great but unappreciated artist of the 1920's, who is forced by circumstances to eke out a living by painting signs on storefronts. This tortured soul survives on idealized memories of his childhood and his burning, but unexpressed, love for a café singer. His simple, sad story is told



(LEFT) Arriving at the Granada Theatre on opening night, famed Hollywood director Vincente Minnelli is interviewed out front. (RIGHT) Alan Arkin, one of the stars of "FREEBIE AND THE BEAN", which had its American Premiere on opening night of the Festival, is interviewed as he enters the theatre.

in a series of compositions, each of which echoes the flat perspectives of the artist's actual work. It is a stunning character study, executed with consummate technical skill in every department.

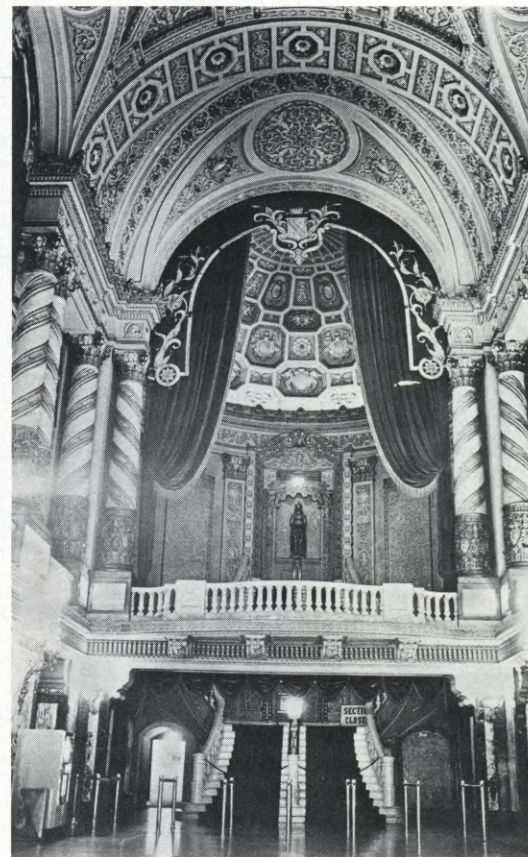
A genuine "sleeper" of the Festival was the Australian feature, "THE CARS THAT ATE PARIS", a film worthy of much praise for its shocking originality and smooth technical execution. The Paris of the title refers not to the French capital we all know and love, but rather to a tiny township in a remote area of Australia, where the locals survive by setting up lethal automobile accidents, after which they systematically strip the victims of everything of value. What makes this a genuine horror film is that the townspeople, including their unctuous mayor, are portrayed as very normal, church-going family types — except for their strange avocation. The only really bizarre people are a group of young crazies who ride around in strange get-ups and grotesquely modified old cars. It is they who, in an orgy of revenge, eventually "eat" Paris with their bulldozer-type cars, one of which is a Volkswagen completely covered by huge spikes, like a steel porcupine. Director Peter Weir and Cinematographer John McLean deserve great credit for their excellent work on this film, as do the actors. "PARIS" is the finest film I've seen from Australia to date and I hope it is indicative of that country's breakthrough into an international cinema.

Another truly excellent film was "FEAR EATS THE SOUL — ALI", an

entry from West Germany directed by that country's 29-year-old *wunderkind*, Rainer-Werner Fassbinder. It is the tale of a 60-year-old charwoman who, against all logical advice, falls in love

Continued on Page 68

The lobby of the fabulous Granada Theatre, a true movie palace with the elaborate decor that movie buffs love, was site of major screenings.



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Arri 400' forward run color mag.....	149.
Arri 400' geared color magazine.....	275.
B&H 1000' Bipack printer magazine.....	369.
B&H 2709 animation motor.....	449.
Eclair 400' horizontal magazine.....	495.
Eclair 100' magazine for CM3.....	149.
Eclair CM3 110v sync motor.....	275.
Eclair CM3 110v wild motor.....	175.
Eclair CM3 110v slow speed motor.....	375.
Eclair CM3 1000' studio blimp.....	2995.
Eclair CM3 Aquaflex housing w/acc.....	895.

POWER SUPPLY & LIGHTING

Frezzi 1000-DX transistor inverter.....	475.
Frezzi 1000-DXC crystal inverter.....	795.
Frezzi 100-D 110v inverter, rebuilt.....	349.
Frezzi 500-A 30v portable light.....	295.
Frezzi 500-A light pack only.....	249.
Magna Tech 16v to 110v inverter.....	295.
FMC vibrator type inverter, case.....	75.
Sun Gun 1000w head w/lamp.....	39.
Sun Gun 1000w handheld w/lamp.....	49.
Colortran two 5-lite pans, convtr.....	275.

SOUND EQUIPMENT

Amega 16mm portable recorder.....	795.
Amega 16mm recorder with Dolby.....	1695.
Ampex 351 1/2" rack mt. recorder.....	995.
Ampex 400 1/2" two case recorder.....	549.
EDI 1/4" tiny pocket recorder.....	69.
Magnasync 16mm 2-case recorder.....	1595.
Magnasync 16mm 1-case recorder.....	1195.
Magnasync 35mm rack mt. recorder.....	1595.
Magnasync 2-16mm dubbars w/rack.....	1795.
Magnasync 35mm 4-track recorder.....	1995.
Nagra III sync recorder w/case.....	1095.
Nagra IV-L sync recorder w/access.....	2295.
Stancil Hof. S7 16mm recorder.....	2295.
Tandberg 11-P 1/4" sync recorder.....	595.
Uher 1000-L sync recorder w/case.....	495.
Westrex 35mm magnetic recorder.....	Ask
Westrex 16mm magnetic recorder.....	Ask

SOUND ACCESSORIES

Auricon S galvo \$249. V-area galvo.....	49.
3-input Xtr. amplif. for Auricon.....	195.
Sennheiser wireless mic system.....	249.
Magnasync 4 channel mic mixer.....	195.

PRODUCTION ACCESSORIES

COMQUIP Animation Compound...New Item	
Features: 13x15x5" size, full 12	
fields, N-S E-W movement, 1/20"	
scales, 2 peg bars, glass platen	
& backing, all metal.....New Price	\$1195.
Bolex deluxe 2-light title stand.....	249.
Bolex 8mm title stand w/access.....	95.
Collimator, handheld, battery opn.....	495.
Directors finder, 10-75mm, case.....	69.
Honeywell 3 deg. spot meter.....	119.
Photospot 5 deg. Spectra attachmt.....	75.
Weston Master II meter w/case.....	19.
Leitz Reprovit 2A slidefilm stand.....	1900.
Leitz Reprovit 2 slidefilm stand.....	895.

EDITING EQUIPMENT

Atlas 16mm table, 2-pix, 2-sound.....	3495.
Moviola 16/16mm upright editor.....	2195.
Moviola URS mag/opt squawk box.....	49.
Camart 16mm opt. reader w/base.....	95.
Precision 16mm opt. reader w/amp.....	95.
Moviola differential rewinds.....	95.
Presto 35mm butt weld splicer.....	195.
Grissold 35mm hot splicer.....	59.
Hollywood 35mm tape splicer.....	95.
Synchros, 3-35mm \$110..... 4-35 mm	129.

LABORATORY EQUIPMENT

Cramer 16mm reversal processor.....	595.
Maurermatic monobath processor.....	595.
Houston A-2 16/35mm processor.....	995.
Telematic 16mm 21 light printer.....	1195.
Shuster 16mm to Super-8 printer.....	1495.
Film inspection machine 16mm.....	395.
Perforator 35mm standard pitch.....	1395.
Perforator Quad Super-8 pitch.....	3495.
Slitter, slits 16mm to 2 8mm.....	1295.
Perforator punch and die set..... Ea:	495.

PROJECTORS

Bauer Studio 16 interlock..... New	3795.
Siemens 16 sync interlock.....	2295.
B&H 302 16 magnetic/optical.....	575.
B&H 552 16 optical, autoloader.....	395.
B&H 399 16 optical Specialist.....	319.
B&H 385 16 optical, 1-case.....	295.
B&H 25w power speaker-amplifier.....	119.
Kodak AV085 16 optical, 1-case.....	219.
L&W 224-A Analyst 16mm 1-24 fps.....	449.
Kodak Busch 16mm continuous.....	179.

VIDEO EQUIPMENT

COMQUIP FIXED LENS ADAPTOR...New Pro.	
Adapts 35mm Cine and S-L-R lenses	
to color TV cameras. Permits wide	
angles, macro focusing and special	
effects not possible with conven-	
tional zoom lenses.....New Price	2350.
Craig-Victor 1/2" video recorder.....	495.
Sony U-matic colgr recorder.....	1149.
Sony U-matic color player.....	649.
RCA TK-26 color camera chain.....	6995.
Canon 25-100mm f/1.8 C mt. zoom.....	295.
CCTV 3 on 1 camera system B&W.....	275.
GBC security system w/intercom.....	249.
Hitachi B&W camera, 9" monitor.....	269.
Packard Bell B&W TV camera.....	249.
B&W monitors 25" \$195..... 27"	250.
Dry switcher 5 video-audio inputs.....	149.
Video screen 6'x8', frame, case.....	125.
Empty 1 hr. 2" video tape reels..... Ea	5.

MISCELLANEOUS

Gas generator 12/115/230v 3500w.....	495.
Angen. dove prism cnvsn adapter.....	125.
Milliken 500 fps 16mm camera.....	1995.
7242 film 16mm 400' mag-stripe..... Ea	29.
Mag tape 16mm 1200' full coat..... Ea	19.
Mag tape 35mm 1000' full coat..... Ea	19.
Sync motor 115v 1/75 HP 1800 rpm.....	49.
Scope lens for 16mm projectors.....	125.
Super Graphic 4x5 camera outfit.....	495.
DeKane filmstrip-audio projector.....	195.
Overhead transparency projector.....	129.
Pathe leather camera case..... New	39.
Kinetal 37.5mm T/2 Arri 16 mt.....	195.
Colortran 115v dimmers..... Ea	49.
Beaulieu 4008ZM2, 8-64 Angenieux.....	549.
Photoronics 500P camera outfit.....	7900.
Eclair NPR, 12-120, 2-mags, Xtl.....	7195.
Moviola 16 Editor 2x3 pix.....	1495.

WANTED

Wanted, all kinds of good equipment. We pay top dealer prices, top trade in values.

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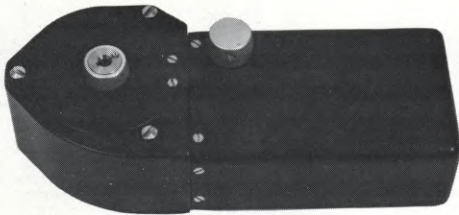
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In case there are any skeptics left.

We think there is convincing evidence that the French Eclair ACL is the finest 16mm camera of its kind in the world.

From the beginning, the ACL was designed to incorporate the most successful features of the world-famous Eclair NPR. But the ACL was designed to be even smaller and lighter. The simplicity with which it was engineered assures a compact, flexible, mechanically reliable camera.

Just in case we still haven't convinced you of its superiority, here are three impressive new developments.



The French ACL now boasts an all-new, heavy-duty, variable speed, crystal control motor that lets you film at speeds of 8, 12, 24/25, 50 or 75 fps. It is so incredibly accurate that within 400 ft. of continuous running, the maximum discrepancy between picture and sound is 1/12th of a frame.

In all, it is the finest motor ever developed for this camera.



The French ACL also has a new instant snap-on, 400 ft. coaxial magazine. It features a

proven drive and takeup system to insure silent operation and unquestioned reliability. It also borrows its double counter system from the NPR so it indicates the amount of unexposed footage remaining in both feet and meters.

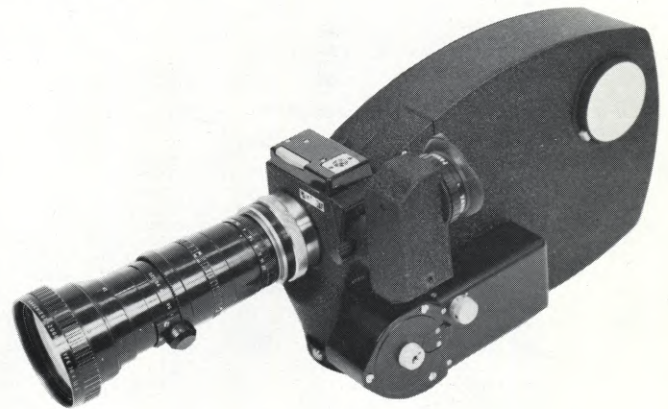


The French ACL features an exclusive new through-the-lens light exposure monitoring device called LED 7.

The LED 7 system incorporates seven light emitting diodes in the viewfinder which light up to alert you instantly to any deviation in exposure level from a given setting.

LED 7 allows you to readjust the aperture setting to compensate for changes in light without your eyes leaving the viewfinder.

Other manufacturers are continually forced to develop new models. The French Eclair ACL has been engineered so well that all we have to do to stay ahead is to add to our basic model.



The French Eclair ACL E-Cam Company

P.O. Box 3955, North Hollywood, Calif. 91609
(213) 466-3700

For the complete line of French Eclair cameras including the NPR, the ACL, the Cameflex CM-3, the GV-16 and the GV-35, contact your local dealer or the E-Cam Company.

ARRI FLEX

SAVE \$3,053 ON ARRI 16BL
OUTFIT COMPLETE WITH ZEISS
10-100 VARIO SONNAR LENS!

Here's the package!

	Suggested List Price
Arri 16BL w/10-100 Zeiss Vario Sonnar.....	\$11,040.00
Matte box	210.00
Universal motor	775.00
400' magazine	760.00
6-ft. power cable	68.00
Duro-Pack battery—12V/2AH with charger.....	196.00
Total	\$13,049.00
SPECIAL PRICE	\$ 9,996.00
YOU SAVE \$3,053.00	

Arri 16BL w/12 x 120 Ang., Universal motor, w/CP crystal control, 400' mag, matte box, battery, alum. case	used	\$5,600.00
Arriflex 16 S/B with 12 x 120 bay., lens	new	\$4,999.00
Arri AC synch. motor, 24fps w/AC power pack	used	450.00
Arri gov. controlled motor	used	299.00
Arri 400' Mag (for 16S)	new	321.00
Arri 400' torque motor	new	339.00
Arri 400' 16BL Mag	new	669.00
Arri 400' 16BL lens housing	used	299.00
Arri 400' 16BL Mag	used	299.00
Arri Schneider Xenon 50mm F2.0	used	200.00
Arri Schneider Xenon 28mm F2.0	used	100.00
Arri Schneider Cine Xenon 16mm F2.0	new	260.00
Arri Planar 50mm F2.0	used	300.00
Arri Ang. zoom 17.5 x 70mm	used	339.00
Arri Pan Cinor 17 x 85 F2.0	used	189.00
Arri Ang. 12 x 120 bay. (steel)	new	\$1,100.00

BEAULIEU

All our Beaulieu cameras are sold with one-year unconditional guaranty against mechanical and optical defects.

Beaulieu 16 electric body only	used	\$ 650.00
Beaulieu 16 auto w/12 x 120 Angenieux auto, elec. grip, 1000ma battery, charger, Haliburton alum. case	used	\$1,699.00
Beaulieu 16 auto w/12 x 120 Angenieux power zoom with electric grip, 1000ma battery, charger, Haliburton alum. case	like new, demo	\$1,999.00
Beaulieu 16 auto w/12.5 x 75 Angenieux with electric grip, 1000ma battery charger, Haliburton alum. case	used	\$1,499.00
Beaulieu 16 w/17 x 68 Angenieux w/electric grip, 1000ma battery, charger, Haliburton alum. case	used	\$1,199.00
Beaulieu 16ES w/12 x 100 Berthiot zoom w/1000ma battery, charger, electric grip, Haliburton alum. case	like new	\$1,399.00
Beaulieu 2008 w/8 x 64 Ang.	used	299.00
Beaulieu 4008 ZM w/8 x 64 Ang.	used	499.00
Beaulieu 4008ZM11 w/6 x 66 Ang.	used	639.00
Beaulieu Mar8G, w/6.5 x 52 Ang.	used	199.00
Beaulieu 200' 16mm magazine	used	199.00
Beaulieu electric grip	used	59.00
Beaulieu 500ma battery	used	59.00
Beaulieu 1000ma battery	used	89.00
Beaulieu 50ma charger	used	29.00
Beaulieu 90ma charger	used	35.00
Beaulieu 60-cycle synch pulse generator for 16 cameras	used	\$ 169.00
Beaulieu 60-cycle synch pulse generator for Super-8 cameras	used	\$ 169.00
Beaulieu AC adapter—can be used for Super-8 and 16 cameras	used	75.00
Beaulieu slide/title holder for 8 x 64	used	29.00
Beaulieu slide/title holder for 6 x 66	used	35.00
Beaulieu 16 news w/12 x 120 Ang. self-blipped auto exposure, power zoom, 200' film loads automatically in body (no magazines), quick-charge battery and quick charger with double-system module and synch pulse generator, large fitted case	like new—complete outfit	\$5,369.00
Beaulieu 16 news w/12 x 120 Ang. self-blipped auto exposure, power zoom, 200' film loads automatically in body (no magazines), quick-charge battery and quick charger with single-system sound module and amplifier for magnetic sound on film, fitted case	like new—complete outfit	\$5,899.00
Write for brochures on above cameras		
Century Custom Blimp (aluminum) for Beaulieu R168 with hand grip		\$ 299.00

BOLEX

Bolex H16 EBM Camera, complete w/power grip, battery, charger	new	\$1,289.00
Bolex H16 SBM body	new	669.00
Bolex H16 Rex 5 body	new	699.00
Bolex H16 M body	new	289.00
Bolex ESM motor	new	459.00
Bolex grip w/batt. compt.	new	179.00
Bolex 12 volt battery	new	72.00
Bolex battery charger	new	45.00
Bolex 400' Mag.	new	179.00
Bolex torque motor	new	115.00
Bolex MST motor w/rechargeable battery pack	like new	279.00
Bolex MST motor	new	239.00
Bolex rechargeable power pack	new	173.00
Bolex Unimotor	used	60.00
Bolex Rex-O-Fader	used	60.00
Bolex 16 body	from	49.00
Bolex H8 Rex-4 w/Vario-Switar 8 x 36		\$ 589.00
Bolex H8 Rx w/3 lenses, 12.5 Switar, 36 Switar, 75 Yvar	like new	449.00
Bolex 8-36 Switar EE		300.00
Bolex H8 Rex-4 w/3-Switar (macro)	mint	889.00
Bolex H8 Rex Rexofader		89.00
Pathe motor converted for Bolex		99.00
Stevens Intervalometer for Bolex		59.95
Pulsar	demo	89.95
Bolex Rex w/18-86 Switar OE		629.00
Bolex H16 Rex w/3 Switar: 16.25, 75mm optical finder, trigger handle, Unimotor, AC transformer, battery case, filters, custom case	complete outfit	\$ 599.00
Bolex H16 SBM with Angenieux 9.5 x 95 Electric trigger handle, MST motor, NI-CA rechargeable battery pack, torque motor, 400' magazine, Bolex exposure meter, aluminum case	complete outfit	\$2,390.00
Bolex REX5 w/16-100 POE Vario Switar, MST motor, NI-CA rechargeable battery pack, 400' Bolex mag., torque motor. Lge. Bolex alum. fitted case, never used		\$2,300.00
Bolex H16 EBM w/power grip, battery, charger, 3' cable	new	\$1,289.00
Bolex H16 Rex w/18-86 OE Vance Switar. Pistol grip, set of filters		\$ 589.00
Bolex H16 Supreme w/Octameter, 25mm Switar, 16 YVAR, 75 YVAR, Pistol grip, case		\$ 229.00
Bolex tripod w/adjustable column, ball joint and panhead	like new	\$ 139.00

ECLAIR PACKAGE

16mm NPR with 12 x 120 Angenieux 2 400' magazines, 2 motors: constant speed and Perfectone crystal battery, charger, case	used	\$4,600.00
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LENSES

"C" MOUNT

75mm Macro-Schneider C Mount	new	\$ 139.00
150 Kilar C Mount or Arri mount	new	129.00
18-86mm R X Switar OE F2.5	used	395.00
3-ft. closeup for Switar 86 lens	new	25.00
5 1/4-ft. closeup for Switar 86 lens	new	25.00
13mm F1.5 Elgeet wide angle	used	50.00
6" F4.5 Cooke Telekinic	used	39.00
6" F2.7 Angenieux	used	189.00
16mm F2 Schneider Xenon	used	69.00
50mm F1.4 Switar AR	used	69.00
25mm F1.5 Cooke Kinic	used	50.00
2.8" F2.8 Taylor Hobson Telekinic	used	79.00
2.8" F2.5 Cooke Panchroal	used	79.00
50mm F1.5 Angenieux	used	249.00
75mm F1.9 Switar	used	89.00
9.5-57mm Angenieux F1.6	never used	\$1,389.00
25mm F1.4 Cooke	used	59.00
40mm Macro Kilar	new	119.00
17 x 68 Angenieux Zoom w/finder	like new	689.00
50mm F1.5 Angenieux "C"	new	249.00
50mm F1.3 Angenieux "C"	new	249.00
100mm F2.5 Angenieux "C"	new	249.00
150mm F2.7 Angenieux "C"	new	349.00
75mm Macro Schneider H8 Rex Mount	new	139.00
Century Tele-Athenar 230mm F2.8	used	269.00
150mm F3.3 preset Macro Yvar	used	169.00
102mm Ciné Ektar F2.7	used	89.00
Angenieux 12 x 120 F2.2	like new	899.00
Angenieux 5.9mm	like new	599.00

SOM BERTHIOT SPECIALS

ALL "C" MOUNTS

13 x 100 F2.0 Pan Cinor Zoom	new	\$ 369.00
17 x 130 F2.7 Pan-Cinor Zoom	new	369.00
17 x 85 F2.0 Pan Cinor w/finder	new	499.00
17 x 85 Compact Zoom	like new	189.00
17 x 85 F2.0	new	269.00
100mm F3.5 Som Berthiot	new	89.00
145mm Som Berthiot	new	89.00
75mm Som Berthiot	new	69.00
25mm Som Berthiot	new	69.00
8 x 40 Zoom Som Berthiot (for Sup. 8)	new	49.00
QUESTAR OUTFIT w/cradle for Beaulieu and fitted case, quick focus	like new	\$1,389.00

LIGHT METERS

Spectra Combi-500	new	\$ 139.00
Spectra Combi-500	used	89.00
Spectra Professional	new	115.00
Spectra Professional w/Painter lock	new	124.00
Gossen Luna Pro	new	89.00
Minolta Autometer Professional	new	114.00
Minolta Auto Spot 1"	new	342.00
Honeywell Pentax 1"/21 Spotmeter	new	159.00
Sekonic Studio Deluxe	new	49.95

LIGHTING

Colortran Mini Pro Kit w/metal case	new	\$ 419.00
Colortran Mini-Lite 6	new	73.00
Colortran Mini-Lite 10	new	74.00
Colortran Broad	new	99.00
Colortran Multi Broad	new	119.00
Colortran Mini Soft Lite	new	129.00
Colortran Mini Broad	new	39.00

HERVI-QUARTZ LOCATION

LIGHTING EQUIPMENT

Hervi-Quartz Location Lighting Kit #6

Kit #6 consists of:
2 Hervi-Quartz JR/650 fill lights, with integral four-way barndoors, 12 ft. cord, in-line switch and parallel blade plug (#40-100)
1 Hervi-Quartz JF/650 focusing light with 12 ft. cord, in-line switch and parallel blade plug (#40-110)
3 Lightweight Professional Stands (#40-200) (1 lb. 12 oz.) "18" closed, 7" ext. (plus 5/8" adapters)
3 650-Watt, 3200°K "Quartz" Lamps, 125-hour (#FAD)—120V, AC/DC (for use with JR/650 & JF fixtures)
1 Fibre Carrying Case (#40-300) (20 1/2"x15"x5 1/2")

List—\$379.50 Our Price \$249.00

Hervi-Quartz Lighting Kit #6
 use | \$ 189.00 || Sylvania Rechargeable Sun Gun SG 77 | new | \$ 119.95 |

Aero-Kit (all-focusing "quartz" location lighting kit).

The Aero-Kit Aero-Kit which weighs less than 31 lbs., includes: two focusing spot lights with two detachable rotating four-way barndoors; one focusing fill light (miniature broad) with integral four-way barndoors; two scrims; three 10 ft. long three-wire cables (with in-line switches and parallel blade U-ground plugs); three 15 ft. long three-wire extension cables; one gator grip; three "Pro" professional-type stainless steel light stands; and a sturdy aluminum carrying case, measuring only 6 1/2"x12"x6 1/2". The Aero-Kit operates at 120-volts AC/DC with 600-watt lamps, and can be used with 250-watt lamps for 30-volt battery operation. (Lamps not included.)

List \$369.00 Our Price \$299.00

25% TO 35% DISCOUNT ON MOST LAMPS

EDITING EQUIPMENT

Guillotine 16mm straight and diagonal	used	\$ 139.00
Presto splicer 16mm heat splicer	used	139.00
Guillotine 16mm straight and diagonal	new	169.00
Guillotine super-8 splicer workshop	new	15.00
Maier-Hancock 816 splicer	new	239.00
Maier-Hancock 816-S splicer	new	289.00
Maier-Hancock 1635 splicer	new	333.00
Moviscop 16mm editor	new	189.00
Minette 16 editor	like new	143.00
Minette 16 rewinds (pair)	like new	36.00
Minette super-8 mode S5 editor	like new	69.00
S.O.S. 16mm editor	like new	189.00
Kodak 16mm editor w/rewinds all metal	oldie but goodie	\$ 119.00
Cinamex Super-8 cement splicer Swiss made	List \$29.50 new	\$ 12.00
HFC automatic tape splicer 16mm w/mylar tape	List \$225.00 used	\$ 99.00
ECCO #202 instant anti-static film cleaner and conditioner system 16/35mm	used	\$ 29.00

TRIPODS

Hervic (NCE) Tripod w/fluid head	like new	\$ 389.00
Hervic (NCE) Triangle	like new	32.00
Hervic (NCE) Triangle w/loops	like new	42.00
Hervic Sta Sets w/3 rubber pods	new	9.00
Hervic Hydrofluid head only	like new	289.00
Hervic "Super Mini Tripod" made by NCE, fluid head and lightweight wood/metal legs	new	\$ 389.00
Miller Super-8 fluid head	new	116.00
Miller Model "F" fluid head	new	256.00
Miller Model "Pro" fluid head	new	367.50
Miller Super-8 fluid head w/legs	new	239.00
Miller Model "F" fluid head w/ball joint, legs	new	\$ 489.00
Miller Model "Pro" tripod w/Pro head, ball joint	new	\$ 599.00
Bolex tripod, adjustable column, ball joint and pan head	new	\$ 169.00
Tri-Lock tripod quick-release	new	9.95
Jones Pro shoulder pod	new	50.00
Gun Stock for still or movie camera	new	10.95
Cinema Products CPT-24 fluid head tripod	new	\$ 449.00

GITZO

Super Studex Compact/Cremaillere	new	\$ 149.95
Tele Studex Giant/Cremaillere	new	\$ 229.95

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Sometimes the difference between a good film and a great film is "FLASHING."

Du Art has the capability to Flash High Speed EF7241 and 7242

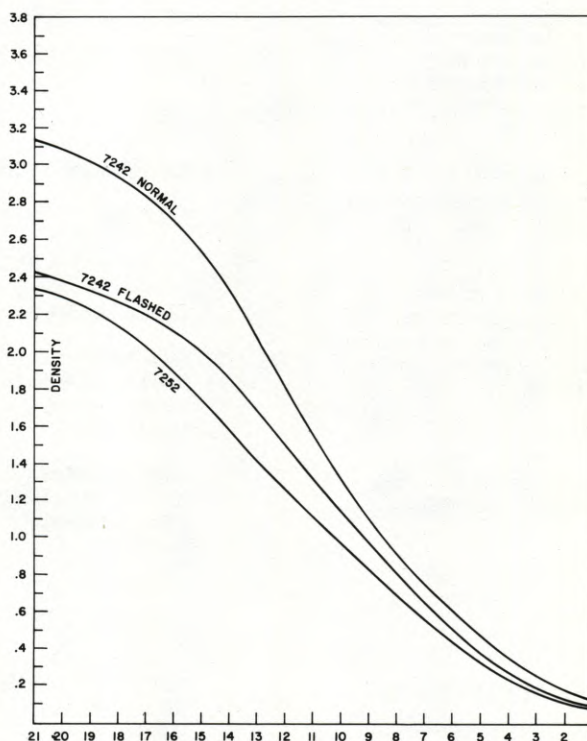
When Eastman Kodak introduced low-light high speed EF7241 and 7242 they solved many filming problems. And introduced a few new ones.

"Flashing" is a controlled laboratory re-exposure of EF7241 or 7242 original camera film to reduce contrast and bring up more detail in dark areas. Simply said, flashing makes the film look much better. It permits unrestricted intercutting with conventional footage for a near perfect color blend. It will also give you better release prints via color internegative.

Du Art has designed and built equipment that is used exclusively for flashing. What's more, it flashes the entire image area *plus* one perforated film edge, for the only permanent reference point of flash exposure in use today. We call it The Du Art "Permanent Flashing Reference" Reading. A mouthful, we'll admit. But it tells you exactly how your original was flashed. No one but Du Art can!

Cost is 2¢ per foot with Du Art processing. Allow an additional 24 hours for flashing.

For the Du Art flashing process, shoot at normal exposures. We'll take it from there. We'll be happy to answer any questions you might have. No obligation of course.



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AWARDS OF THE 10th CHICAGO INTERNATIONAL FILM FESTIVAL

FEATURE FILM WINNERS/1974

Golden Hugo for Best Feature Film

PIROSMANI
U.S.S.R.

Silver Hugo

FEAR EATS THE SOUL — ALI
West Germany

Bronze Hugo

LA PRIMA ANGELICA
Spain

Bronze Hugo for a First Feature

WHY ROCK THE BOAT
Canada

Golden Plaque

A BIGGER SPLASH
(England) Director: Jack Hazan
... For the originality of its conception
and the outstanding range of the
director's own color photography

Silver Plaques

THE CARS THAT ATE PARIS
(Australia) Director: Peter Weir
... For the power of its parable, which
represents a significant step for the Australian cinema.

THE DUEL

(U.S.S.R.) Director: Joseph Heifitz
... For maintaining the quality of Joseph
Heifitz's previous interpretations of
Chekhov.

ONCE UPON A TIME IN THE EAST

(Canada) Director: Andre Brassard
... For its evocation of a special world, and
the vigorous and spontaneous quality of its
ensemble playing.

PHOTOGRAPHY

(Hungary) Director: Pal Zolnay
... For its original and revealing fusion of
documentary and fictional material.

SALVATION

(Poland) Director: Edward Zebrowki
... For its successful portrayal of a
character in crisis.

DOCUMENTARY FILM AWARDS

THE ARTS

Gold Plaque

JAPANESE HAND-MADE PAPER
Japan National Tourist Organization
Shibui Motion Picture Company

Gold Plaque/Special Jury Award

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Continued on Page 60

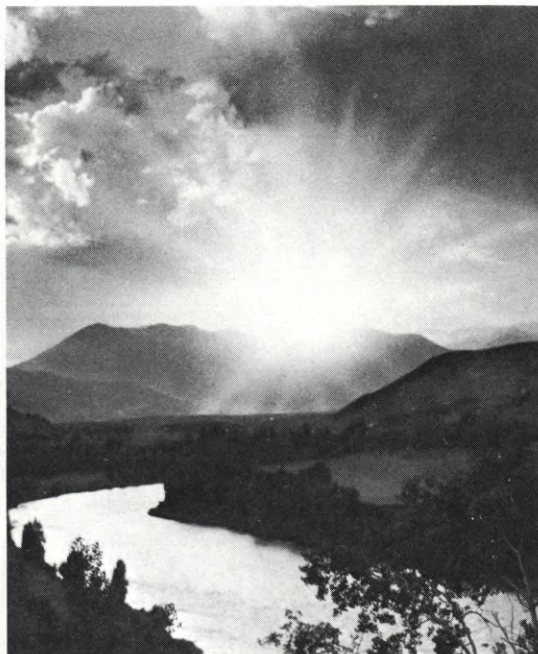
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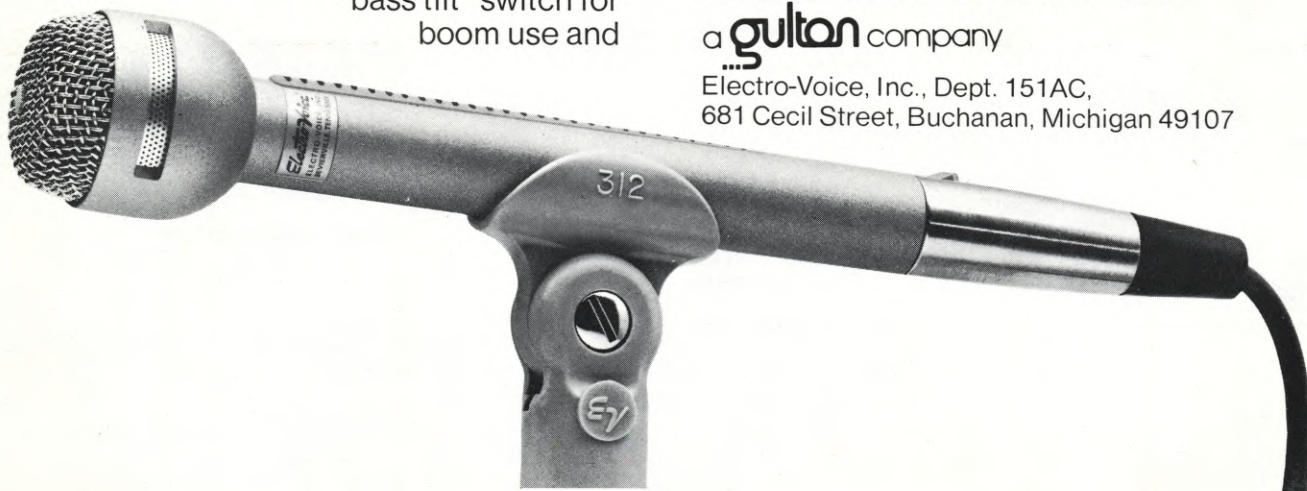
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DIRECTOR ROBERT WISE AT THE 10TH CHICAGO INTERNATIONAL FILM FESTIVAL

This man who has produced and directed some of our most successful films takes time off from his latest "epic" to appear at the Festival

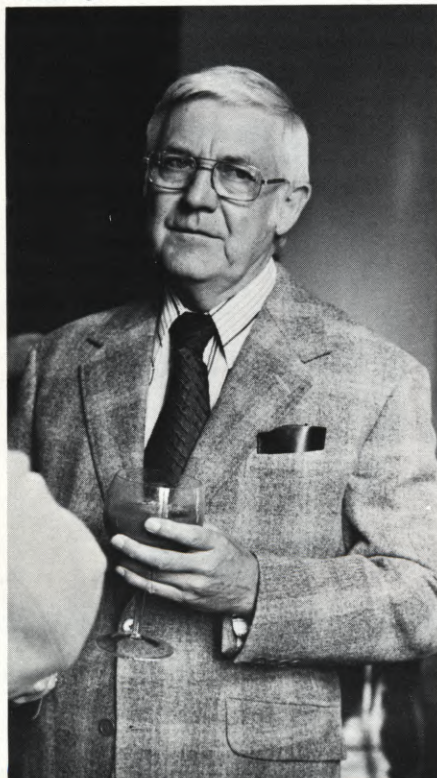
One of the highlights of the 10th Chicago International Film Festival was the personal appearance of famed Hollywood director Robert Wise. Though deeply involved in the completion of shooting of his current epic, "THE HINDENBURG", at Universal City Studios, he flew into Chicago on the last Sunday afternoon to be honored guest at "A Tribute to Robert Wise", held at the Granada Theatre. Immediately after the event, he flew back to Hollywood in order to be on hand for location shooting early the next morning.

Part of the program consisted of screenings of clips from a variety of Wise's films over the years, including: "CURSE OF THE CAT PEOPLE", "THE DAY THE EARTH STOOD STILL", "I WANT TO LIVE", "WEST SIDE STORY", "THE HAUNTING", "THE SOUND OF MUSIC", "THE SAND PEBBLES", "STAR!" and (most exciting of all for the audience) uncut clips from "THE HINDENBURG", showing some of the extraordinary special effects employed on that film.

Between groups of these clips, the highly intelligent and very amiable Wise was interviewed on the Granada stage by critic-lecturer John Russell Taylor.

The following are excerpts from that interview:

At a brunch given in his honor upon arrival in Chicago, Wise chats with local friends. He spent only a few hours in Chicago, then had to fly back to resume shooting.



TAYLOR: Outside of the fact that you started your career as a film editor and that one of your earliest editing assignments was Orson Welles' "CITIZEN KANE", most of us know little about your beginnings in the industry. Would you care to tell us about those early years?

WISE: Well, one doesn't just start in as a film editor. I started in the editing department of RKO Studios as a film porter. Then, over a period of years, I worked my way up through apprentice sound effects editor to sound effects editor to music editor. Then, wanting to move over to the picture side and work at editing films, I became an assistant editor and finally, five years after I started in the business, became an editor. I believe that the second or third full feature which I edited was "CITIZEN KANE", with Orson. I feel that the background acquired in working up through those various departments in the editorial scheme of things has served me very well during my years as a director, because it gave me a knowledge of sound effects, of music editing and of all the ingredients that go into the post-production phases of making a film. Certainly, in my editorial period (the span of which as a first editor was about five years), working with Orson Welles on "CITIZEN KANE" and "THE MAGNIFICENT AMBERSONS" was the highlight.

TAYLOR: How did you find it, working with Welles? He must have been a very hard taskmaster. Was he accepting of collaboration, or did he want to tell you what to do?

WISE: It was a mixture of everything with Orson. I must say that there was never any length of time when things were very much on an even keel. One moment you would be so angry at him that you'd want to tell him to shove it, and walk off the picture. But just about the time you were ready to do that, he'd come up with some brilliant idea that would leave you with your mouth gaping — so you stayed around. Actually, I had a very good experience with Orson. We wrangled a few times, but, like so many really creative people, I found him not one to be unapproachable in terms of discussing ideas or taking suggestions. Certainly, I always found that I could go to him with

a suggestion for editing the film without being concerned that he might be upset about it. Ninety percent of the time he might not accept my idea, but, nevertheless, he might take part of it and improve on it. I never really had any problem with him, nor did most of the other people on the creative end of the filming. I know that Hollywood tried to put him down at the time. They thought of him as the "Young Genius" who had come out from New York to show them how to make films — so he had a sort of chip-on-the-shoulder attitude in regard to Hollywood. But he was not at all that way toward the people working with him. As I've said, he could be outrageous in his behavior — and sometimes very apologetic — but he was always terribly stimulating. The fact was that, in those days, he came as close to being a genius as anybody I'd ever encountered. He was fascinating. "CITIZEN KANE" was nominated for five or six Academy Awards, I believe, and at the banquet, the first two or three times it was mentioned as a nominee there were some boos from the audience. That was an indication of Hollywood's putdown attitude toward Orson — which was not justified at all in terms of what he eventually did there.

TAYLOR: I've always wondered about the film-makers who come up within the industry doing something other than directing — in your case, editing. Do you find that your fingers itch, even after all these years, to edit the film yourself, or to tell your editor exactly what to do? Are you difficult?

WISE: No, I'm not difficult — but I do get a little itchy. For a while, when I first started directing, I would literally get into a lot of the actual editing myself — up through the period of "THE SET-UP", which I made in 1948. I did all the final editing on the fight sequences of that film, for example. But after a period of time I gave that up. I still work very closely with editors, but I doubt that I'm a very hard taskmaster. I work with them as most directors do. In other words, as we view the dailies, I make any comments on them to the editor that I feel might be justified. Then I let him go ahead and put the first cut together his way. He shows it to me and, from then on, we work together in collaboration, arriving finally at a result

that we both feel is right. I don't do any of the actual editing myself, but I often go into the cutting room and look over his shoulder. As a matter of fact, I'm presently in the midst of what is for me a very new editing experience. My current film "THE HINDENBURG", we are cutting on one of the new KEM flat-table editing machines, with big viewing screens. I've never had that experience and I thought this would be a good opportunity to get into it. I have a new editor on this film, a chap I haven't worked with before, but he'd cut a couple of films on the KEM. So I persuaded the studio to invest in one. It'll be an interesting experience for me to sit in his room and work with him on the film, using this new equipment.

TAYLOR: Now, when you began directing, you were working with that extraordinary unit run by Val Lewton that had a corner on really superior horror and supernatural films during the war years. How did you get your first chance as a director?

WISE: Val started, I think, in about 1940 and made three or four films. Actually, Mark Robson, who had been associated with me as assistant editor on "CITIZEN KANE" and "AMBERSONS", had cut two or three of those first films — "THE CAT PEOPLE", "I WALK WITH A ZOMBIE" and what not — and had gotten a chance to direct one of Val's films. I was between assignments and was asked to cut "CURSE OF THE CAT PEOPLE". I had been wanting a chance to direct. I had directed a few second units on films that I'd edited, but I was very much after the studio for an opportunity to do my own directing. The director assigned to "CURSE OF THE CAT PEOPLE" had made many fine documentary films, but this was his first feature. Lewton, who was known for giving newcomers a chance, had a lot of faith in this chap and gave him the opportunity to direct the picture. Unfortunately, those were the days of short budgets and limited time schedules and this chap was just unable to keep up the pace. He had used up all of the schedule, while shooting only half of the script. One Saturday I got a call from Lewton's office to meet him and the executive producer of the "B" Department and I was told that they were going to take the director off "CURSE OF THE CAT PEOPLE". They had talked to him and talked to him, but were unable to persuade him to speed up. He was going to be off the picture as of that weekend and they wanted me to take over as director on Monday. Well, I was eager for the chance, but I felt very badly

about the situation because I had been working with this man as his editor. I expressed this reservation to them. I felt it was very awkward to step in and take over from this man I'd been working with. They said: "Well look, you've been wanting a chance to direct, and here's your opportunity. We can only tell you that he won't be on the stage Monday morning; somebody else will be. It can be you or someone else — so take your choice." That was the situation. I finally realized that if there was going to be a replacement, it might as well be me. So I had from Saturday night until Monday morning to sweat out the butterflies and calm my nerves and get started.

TAYLOR: You made two or three films in this genre because that's where you were working in Hollywood at the time. But you must have found some special interest or enjoyment in it, because much later, with some really large-scale success under your belt, when you had a chance to make a little film for yourself, the vehicle you chose was "THE HAUNTING". You returned to the horror-supernatural type of subject. Do you indeed have a lasting interest in this type of subject?

WISE: Oh, yes. They're very much fun to do, and it was a deliberate move on my part to go back to that kind of film. I find that horror or supernatural films are not only fun, but they're a great challenge to a director in terms of what can be done with the camera, the lighting and the sets. I think that, more than the average film, they provide a director with a chance to experiment or "play" — really, literally, to have fun. That's why I went back to that type of film with "THE HAUNTING". I do enjoy them. From the audience standpoint, Lewton always said that the most important element to deal with is the fear of the unknown. That's what people fear the most, and it's that psychological innovation on which he built his greatest success during the forties.

TAYLOR: In practically every long-lasting Hollywood career, one finds a constant interplay between choice and necessity. In your career, obviously, the key is variety. There is hardly any kind of film that you haven't tried at some time. Obviously, in your later films, where you were your own producer, as well, choice must have had a lot to do with this. But in your earlier films at RKO and Fox, were the assignments more or less thrown at you, or did you have any sort of choice?

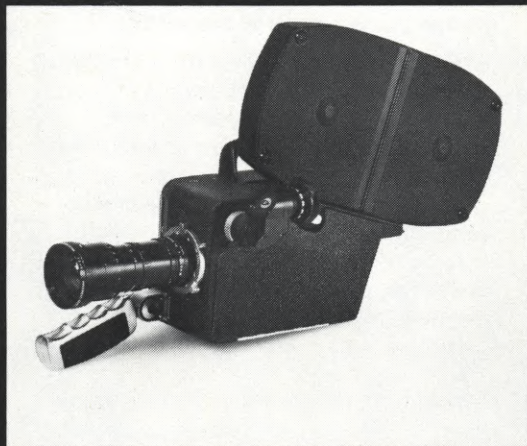



With Festival Director Michael Kutza, Jr., Robert Wise exchanges stories while waiting to "go on" in the foyer of the Granada Theatre.

WISE: In those early days, I was under stock contract to RKO, where I was given my chance to direct, so I signed one of those seven-year contracts with six-month options. I loved working with Lewton. He was terribly creative and tremendously helpful, so all the things I did for him I wanted very much to do and they worked out well. I did two or three films as a stock director — "CRIMINAL COURT" and a remake of "THE MOST DANGEROUS GAME" — and a few of those things I didn't want to do. I was anxious to move up from "B" pictures to major features, or "A" pictures. The first "A" feature I did (and the first Western) was "BLOOD ON THE MOON", with Bob Mitchum, Bob Preston and Barbara Bel Geddes. I had, in collaboration with an associate of mine, developed that script from one they had on the shelf. I was also mad to do "THE SET-UP". I was just dying to do that property. It wasn't my idea; we had an initial script when I was called in to do it. Just about that time Howard Hughes bought RKO Studios. All productions closed down. Everything coming up was put on the shelf. I was put on layoff. What I wanted to do badly was to get "THE SET-UP" revived and back on the production schedule, to get that picture done and then get out of RKO, because I had a feeling it was going to go no place with Howard Hughes running it. Things worked out well for me. They did, finally, reinstitute the project. Bob Ryan was under contract there at the time and was dying to

Continued on Page 64

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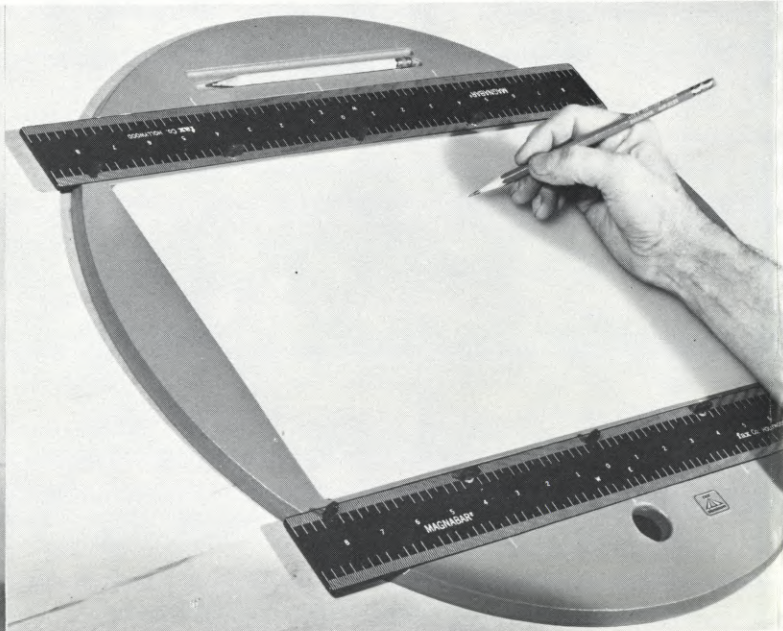
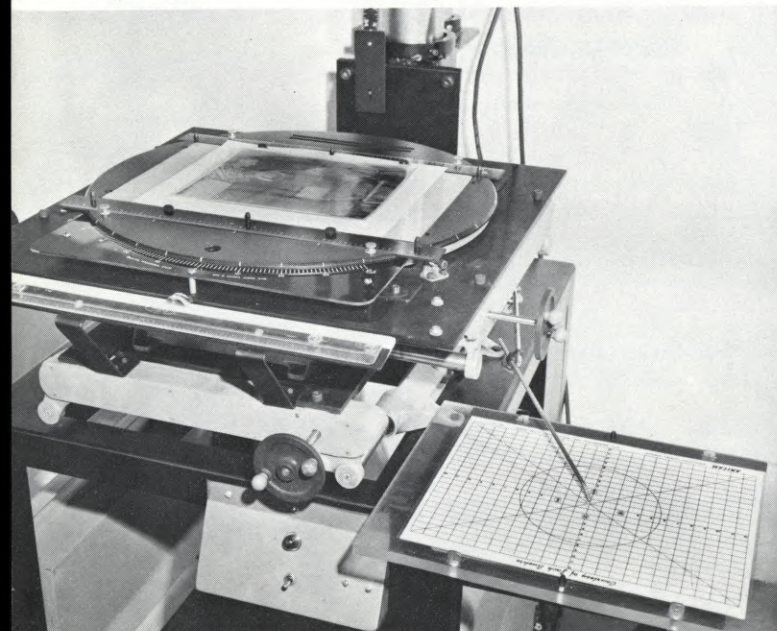
A plastic scale with a magnifying indicator makes it possible to read fine EW movements. These drafting scales are manufactured by the Vemco Co. in Pasadena and are obtainable in any scale including metric. In the more common movements the knobs equal 1/10 and 1/20th inches for a full or a half turn. NS movements are recorded by the pantograph pointer and scales can also be used. The pantograph, attached to the main frame, has standard pegs for either a field chart or other layouts. Either Acme or Oxberry pegs are available. Two field charts are supplied.

Heart of the stand is the Fax Disc, which also is available separately for animator's use. A special heavy duty cast aluminum disc having degree markings cast on the outer edge, it rotates a full 360° on four ball bearings, making "spin" shots and other effects possible. The supporting base is milled to assure concentricity of a field chart center during rotating shots.

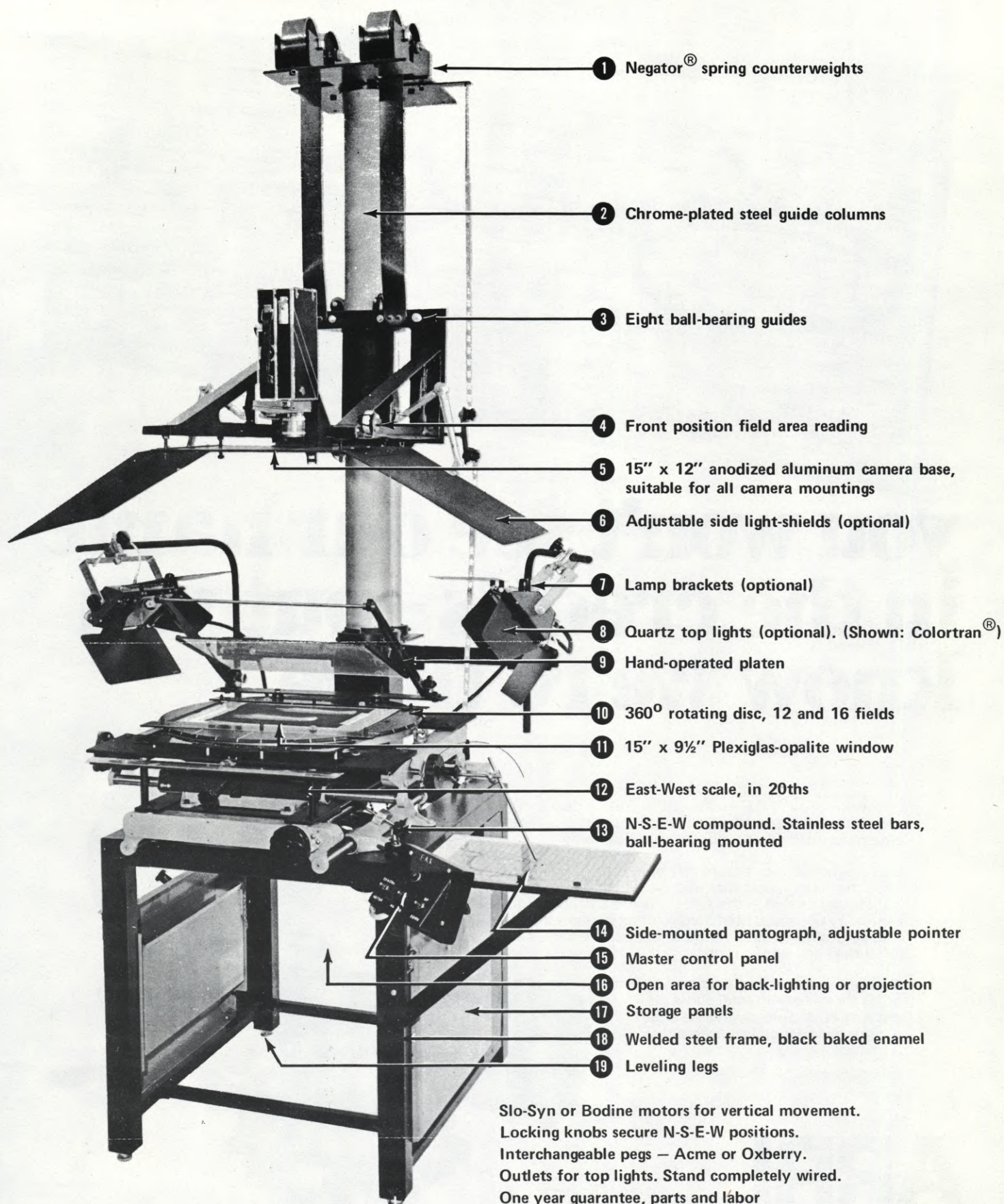
Both eighteen-inch top and bottom bars on the disc have two oblong and three round pegs. Positioning is assured with thumb screws. Oblong pegs are of the snap-in type and are

Continued on Page 96

(LEFT) NS movements are recorded by the pantograph pointer and scales can also be used. The pantograph, attached to the main frame, has standard pegs for either a field chart or other layouts. (RIGHT) The Fax Disc is a special heavy-duty cast aluminum disc having degree markings cast on the outer edge. It rotates a full 360° on four ball bearings, making "spin" shots and other effects possible.



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DIRECTOR SYDNEY POLLACK PICTURE NO. 132132 SHOOTING TIME 9A DATE Mon. 9/

SET #	LOCATION	PHO
SET #	LOCATION	PHO
SET #	LOCATION	PHO
SET #	LOCATION	PHO
SET #	LOCATION	PHO

Time	No.	MAKEUP	Time	No.	RESTAURANT
	4	Makeup Artist 2 NY	6:30A		Breakfast For:
		Extra MU		100	Lunches
		Extra MU		200	XXXXXX
		Body MU	6:30A		Suppers
	5	Hairstylist 4 NY			Gals Coffee FC
		Extra Hair			Doz. Donuts FC
		Extra Hair			Gals Coffee

Time	No.	WARDROBE	Time	No.	RESTAURANT
	4	Wardrobe Man 2 NY	6:30A		Flagman
		Extra Ward Men			

CAMERA

Arri-Z66K

Lenses: PANAVISION

Cameraman: (1-7A) (NY 8A)

Operator: 1-NY 8A

Assistant: 2-NY 7A

SPECIAL PHOTOGRAPHIC

Cameraman - Process

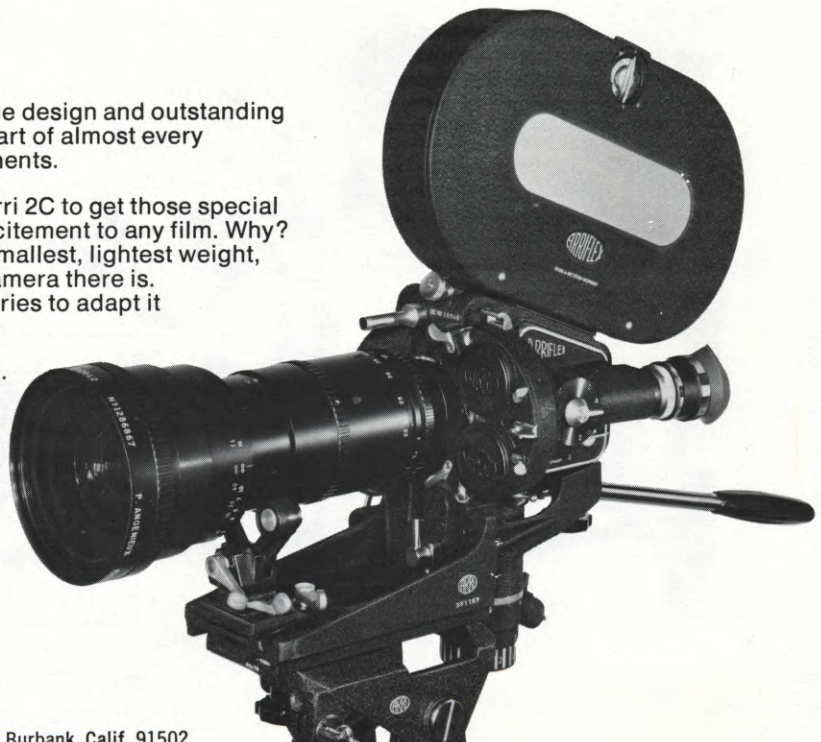
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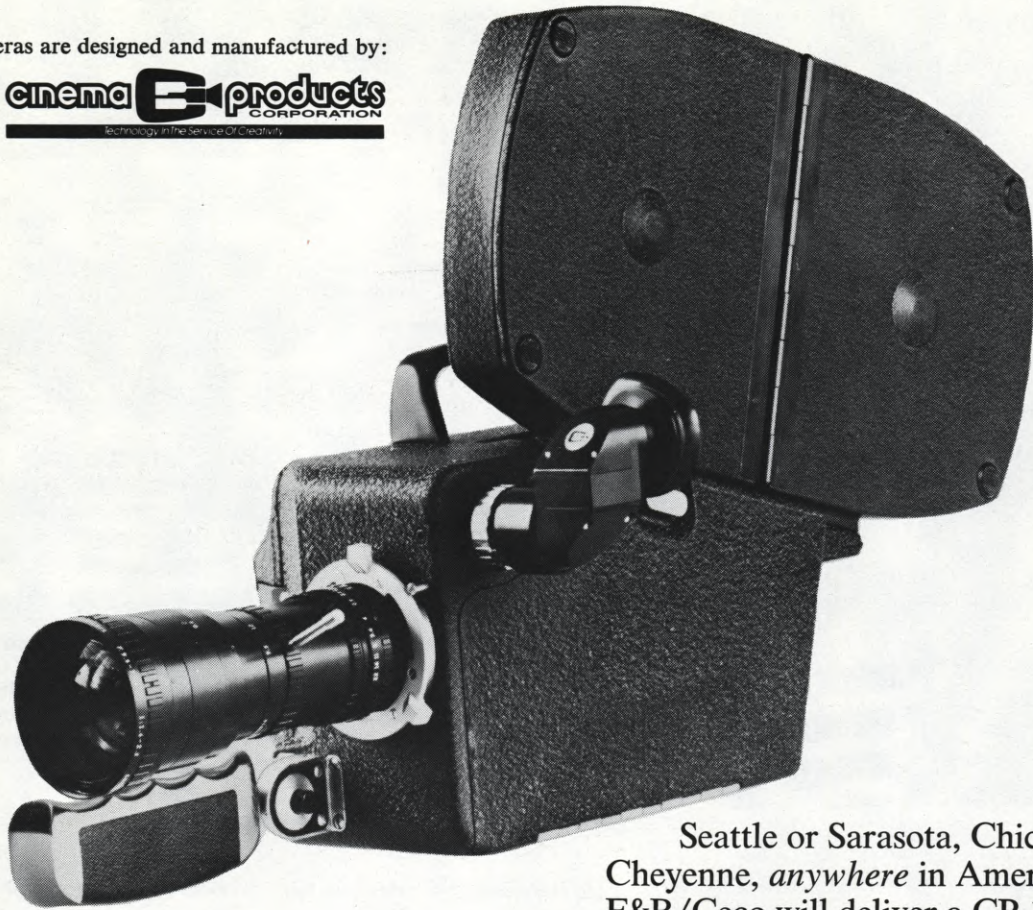
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(LEFT) No "armchair cameraman", James Wong Howe checks out the camera mounted on the hood of a car in preparation for filming a running shot. In former years, such a scene would have been filmed in front of a rear-projection process screen in the studio. (RIGHT) Away they go, clinging precariously to the camera mount structure, as the car whips around at high speed.

"FUNNY LADY"
Continued from Page 33

said: "What's the matter, Jimmy. Are you going blind? How could you shoot such a bad closeup of Myrna Loy." I explained that she was supposed to look tired, according to the script, and that I'd just tried to make her look that way. He said: "Look, Jimmy, we spend millions of dollars here to make stars. Now, go back and remake that closeup. Use all the diffusion you want, but make her look beautiful!" So I did. I had to.

QUESTION: It seems you can't win for losing. Isn't that true?

J.W.H. It certainly is true. People don't realize that a cameraman has to be more than just someone who can photograph a scene. His main job, really, is to try to keep everybody happy. He's got to keep the director and the stars happy. He's got to keep the lab happy. He's got to keep the art director happy (because he's built the sets and he wants them to show) and the same goes for the costume designer. On top of all that, he's got to stay on schedule so that the front office will be happy.

QUESTION: You mentioned before that the very first shot you made for the picture was a boom shot on the MGM stage. I would assume you were shooting a musical number.

J.W.H.: Yes. Because the company had rented the MGM stage, Herb Ross decided to shoot all of the musical numbers first and clean that phase up before moving back to the Burbank Studios. I understand that decision resulted in a saving of about \$600,000. Anyway, we shot 16 musical numbers in 14 days, as I recall.

QUESTION: Aside from the use of the zoom lens, was there much actual camera movement?

J.W.H.: Yes, we used a great deal of movement and it was difficult because the boom had to be on the stage floor and we were up above on a long extension arm. However, I must say that I had a wonderful crew — one of the finest I've ever had. They all knew their jobs and were enthusiastic about their work. The boom man's timing was just perfect, and he had his work cut out, because some of the moves had to be made right on the beat of a note.

QUESTION: What about the lighting of those musical numbers — and especially the need to achieve a certain variety, since there were so many of them?

J.W.H.: I tried to create the atmosphere of musical numbers being shot on an actual theatre stage. A stage, basically, has footlights and lights from the wings.

However, I had to get some fill lights in, too, but they had to be up high enough so that they wouldn't show. I never used a light straight from the audience. I always made it look like it was coming from the footlights. As for variety in the lighting, Herb Ross and I worked together very closely on that phase. He understands how light gels are used to add color on the stage. Each number was photographed with a different kind of color. We used amber, magenta, soft pink and a light blue. We didn't use green very much. I don't put filters on the camera lens, but I put them in front of the lights. You have to be careful, though, that your colors aren't too saturated, because it's sometimes very dangerous to use pure color on faces — unless you're trying for a special effect. Often it's best to light the clothing with pure color and then wash the faces out a little bit with another, lighter color in order to get the flesh tones to appear more normal. I like soft pink for women. One must always remember the face. For example, you can't have a green face unless you're going for some unusual effect. I like to keep the face clean and natural. Speaking of flesh tones, there was one special problem in that many of the dancers in the musical numbers were blacks. Because their faces absorb flat light, I tried lighting them with a bit of cross light. That picks up a little extra reflection from the skin and looks better.

QUESTION: Can you recall any particular lighting effect that you consider to be really unusual?

J.W.H.: We had a scene where Barbra comes onto the stage lit by a single hanging light (I believe I used a 1000-watt globe in it) and she gives the light a swing before sitting down under it. As the light swings around, you see the light changing on her and her shadow going around. Later in the scene she walks toward the footlights and into a light that is pure magenta — which is a lovely color. It's very effective.

QUESTION: Which musical number would you say was the most difficult to shoot, from the photographic standpoint, that is?

J.W.H.: Well, there weren't any easy ones, but the most difficult, I would say, was a number in which black dancers in very colorful costumes were dancing in front of a background that was colorful. Frankly, I didn't know what color to use on them. Fortunately, they all had a kind of nice copper skin tone, which provided color in itself — so we used mostly amber on them. Then, to give it a little bit more excitement, I had my lights on dimmers and they were always fluctuating. The dancers would go into shadow and come out of shadow. It was very subtle, not obvious, but Herb Ross liked it. Actually, one of the most interesting shots was suggested by Mrs. Ross — who is Nora Kaye, herself a great ballerina. There is a scene where Barbra is sitting in front of her dressing table, with the light globes all around it. Mrs. Ross suggested starting with the camera

Director Herb Ross and Howe developed an almost instant very close working rapport. Of this director, Howe says: "Besides being a great choreographer, he's a brilliant dramatic director — and a fine human being . . . He's very calm and has such a nice simple way of explaining to you what he wants — and what he wants is invariably right."



The 16 musical numbers for "FUNNY LADY" were shot on a huge stage at MGM Studios and the set had to be changed constantly to simulate the stages of various theatres. Considerable camera movement and many zoom shots were used to lend fluidity to the musical numbers, but they were so skillfully done that they never become obtrusive.

showing Barbra from one side. Then, beginning at the low angle, the camera keeps revolving and climbing up over the lights and down the other side, finishing up with the globes in the foreground and Barbra in a three-quarter light. When that scene was shown at the recent San Francisco Film Festival, the audience applauded. That idea came from Nora Kaye, but ideas come from many sources. Some of them work and some don't. If one doesn't work, you change it.

QUESTION: That scene you just described sounds like it was pretty difficult to execute.

J.W.H.: True, but there is never a shot so difficult that you can't try to make it — and make it work, if they'll give you the time. It's necessary to have the time and a good operator who understands what the director and cinematographer want. That communication is very important, and that's why, sometimes, I'd prefer to take the camera and make the shot myself, rather than try to explain it — because I know exactly where I want to crop and so on. If the operator doesn't quite understand and he misses the framing, the director gets unhappy when he sees it. What's the poor operator going to do? I don't want to blame it on him. I'd rather make the mistake myself and have them blame it on me. I think that's only fair.

QUESTION: Was there much location shooting on "FUNNY LADY"?

J.W.H.: There were location sequences shot at a polo field and at Malibu Beach (dressed to look like Atlantic City). Then there were some theatre fronts, which we shot at night, and a night sequence of Billy Rose staging his Aquacade, which was shot in the Olympic pool. But most of the shooting was in interior sets on the stage — dressing rooms, homes, a train. The train sequence was one I really enjoyed doing. On the oldtime Pullman cars, when the main lights were turned off at night, there was always a little blue light left burning on the side. I took advantage of that blue light. It became the key light for a long singing number by Barbra, but as the train supposedly passed

Continued on Page 94



WHAT'S NEW
Continued from Page 8

of the science of color in motion pictures. By applying recognized scientific principles and methods into the art of color photography, he has contributed greatly to the growth, improvement and use of this medium.

Dr. Frank P. Brackett, Jr., graduated from Pomona College in 1928, and received his M.A. (1929) and Ph.D. (1933) from Harvard University.

After two years at Paramount Laboratory as a sensitometrist he joined Technicolor in 1935 and until his retirement in 1972 was successful in positive control, negative control, solution department foreman, control supervisor, plant superintendent, technical director and director of research. These positions included work on the development of the varied control and operational systems procedures and equipment unique to Technicolor. Optics, photography, sound, chemistry, mathematics and statistics were also involved along with mechanics and other engineering requirements.

Dr. Brackett is the author and co-author of numerous technical papers published in the SMPTE Journal and the Journal of the American Chemical Society. Since his retirement, he has been engaged in consultation engineering work, specializing in color motion-picture laboratory technical operations and quality control, and photochemical process evaluation.

A member of SMPTE since 1944, Dr. Brackett was elected Fellow in 1967. He has been an active committee member, including the Chairmanship of the Color Committee, was Program Chairman for the 112th SMPTE Conference, and has been an instructor at several of the SMPTE-sponsored courses at USC.

The Honorary Membership Award was presented by SMPTE President Byron S. Roudabush at a ceremony following the Get-Together Luncheon that opened the Society's 116th Technical Conference at the Four Seasons Sheraton Hotel. The Conference, held November 10 to 15, included a Symposium on Television Commercial Monitoring. An Equipment Exhibit of professional motion-picture and television products of some seventy companies was held in conjunction with the Conference.

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Continued from Page 45

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Airborne Dolly

Pull back and round *in front* of train. It's on a trestle bridge, over water. Pull back again, and way up. Zoom out slowly. Trestle bridge is now a thin line surrounded by 1,700 square miles of blue water. Train is about 15 miles from shore, and barely visible below.

That's Barry Herron's establishing shot for the Great Salt Lake. Part of a series of ABC-TV Specials called "The American Idea," and produced by Alan Landsburg.

Sunken Treasure

For another documentary Special, called "Treasure," and sponsored by the National Geographic Society, Mr. Herron



J. Barry Herron using Arri 16S with 400 foot magazine inside Birns & Sawyer underwater housing.

shot divers searching for sunken Spanish Galleons off Key West. First, a three-hour, 60 mile boat ride to the search site. There, currents were so strong that he could shoot only at slack tide—about an hour.

Budget Strained

Helicopters cost up to \$200.00 an hour. It sometimes takes several hours to fly to the location. You frequently have to spend at least an hour teaching a new photo pilot how to maneu-

ver for the camera. Once you get there, you'd better get the shot.

"Did You Get It?"

"It's the same with underwater shooting," says Mr. Herron. "You call the producer, with the film in the can beside you, undeveloped. Almost always, the first thing he says is: 'Did you get it?' You say: 'Yes!' You hope you're right."

Depend On Arriflex

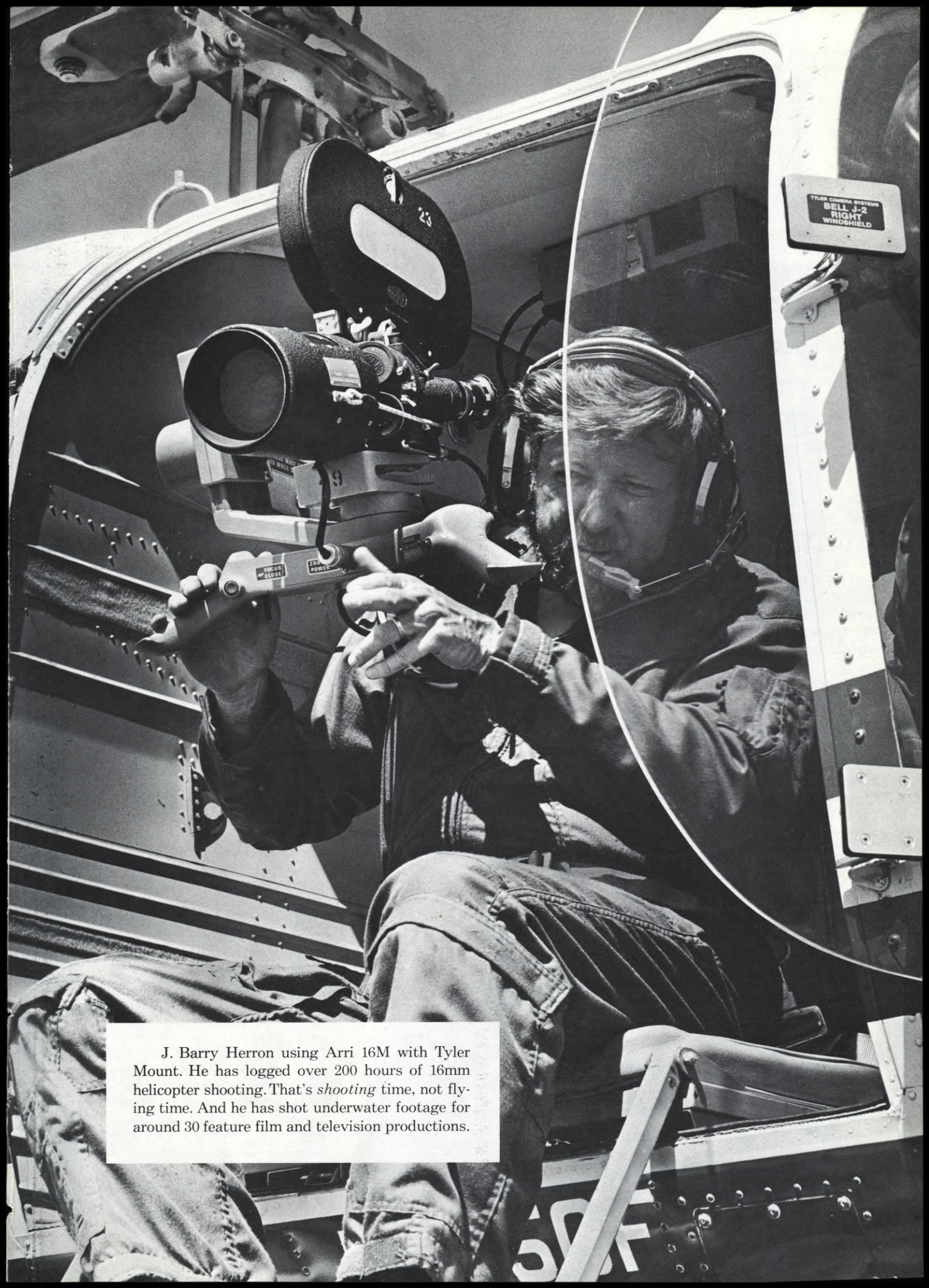
"On the ground," says Mr. Herron, "I've used several makes of camera. But up there and down there, I use *only* the Arri. Things can and do go wrong with helicopters, scuba gear, outboard motors—you name it. But in fifteen years, I've learned to depend on Arriflex."

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BACKED BY SERVICE



J. Barry Herron using Arri 16M with Tyler Mount. He has logged over 200 hours of 16mm helicopter shooting. That's *shooting* time, not flying time. And he has shot underwater footage for around 30 feature film and television productions.

ROBERT WISE TRIBUTE

Continued from Page 49

do it, too. It was ready to go. The new production head of the studio wanted something in the works under his aegis. I don't think he ever understood why we wanted to make "THE SET-UP", but it was ready and he could get it going fast and it wasn't too expensive. So I got to make it. I had an option coming up in September and, fortunately, it wasn't picked up. I finished the picture and blew RKO. When I went over to Fox I was offered two or three things that I turned down. In those days, if you were under contract to a major studio, you could go for a limited amount of time turning things down, but eventually they would say: "Now, wait a minute, boy. You've turned this one down and that one down. You're getting paid, so let's get a picture out of you." So I made three or four pictures at Fox at that time that I was not overly keen about doing. The one that I really wanted to do, of course, was "THE DAY THE EARTH STOOD STILL". It's always remained one of my favorite pictures. I was at Fox, non-exclusively, from '49 to '53 and I think that of all the films I did there, that was the one I really wanted most to make. Then I went abroad to make my one and only (and last!) adventure spectacle, "HELEN OF TROY". I came back to Metro under contract for three years and did two or three films I liked — although I didn't like the handling of some of them. I did "EXECUTIVE SUITE" at MGM. I loved doing "SOMEBODY UP THERE LIKES ME" — loved the script, loved working with Paul Newman. I left Metro in 1957 and that's the last time I've been under contract to a major studio. Since then I've been independent. I went over to United Artists, by choice, to do "RUN

Interviewed on the stage of the Granada by author/critic/lecturer John Russell Taylor, Wise talked freely about his early years in Hollywood, his successes and failures. Anyone else with his tight schedule might have begged off, but he kept his promise to appear at the Festival.

SILENT, RUN DEEP" with Burt Lancaster, and then I did "I WANT TO LIVE" for Walter Wanger. My first film as producer/director was "ODDS AGAINST TOMORROW" — doing both jobs. That was in 1959, and since that time I've done all of my own producing, as well. From that point on, anything that I've elected to do has been by my sole choice — including the good, the bad and the terrible flops that I've had. The decision has been solely on my shoulders. Some of us do better than others in choosing a property, handling the script and casting the actors, but none of us ever escapes the strength or the weakness of the original choice. That's really where it's all at.

TAYLOR: I'm very pleased to hear that you liked very much doing "THE DAY THE EARTH STOOD STILL", which was my favorite science-fiction film. This was done during a period when science-fiction was very popular, but usually handled on a kind of "B" feature level. There were lots and lots of very tacky films made with monsters of some kind. How did this property develop?

WISE: While I was at work at 20th, Julian Blaustein got hold of a first-draft screenplay of it and I was asked if I would be interested. I read it and fell for it immediately. I said: "Yes, I want to do it. This is for me!" The reason it was my very favorite is because it was not only a science-fiction story about things from outer space, but it had a hell of a lot to say about world conditions — which haven't improved very much, I must say. It was an effort in that direction. All of us liked the fact that it was directed toward a very strong theme and message.

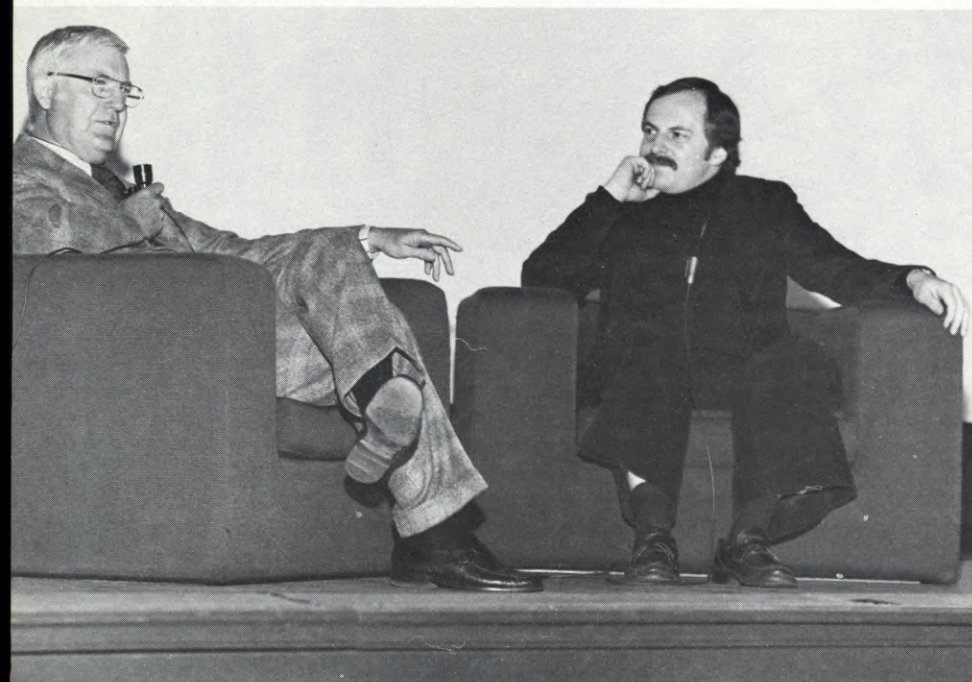
TAYLOR: I would imagine that you had an entirely different set of problems with "THE ANDROMEDA STRAIN", even though that could be classified as science-fiction, also.

WISE: Yes, although "THE ANDROMEDA STRAIN" falls into the rough category of science-fiction, there is a great deal of contrast between the two vehicles. Everything is much more integrated, much more worked out within the total structure. You see machines, but there is absolutely no overt appearance of a creature. It's much more interior, something that is working much more within the mind of man. And I think it's much more pessimistic.

TAYLOR: I think it would be nice if we could now bring the audience into this discussion. I'm sure there are a lot of people out there who have questions they'd like to ask you.

QUESTION: Mr. Wise, I'm very much impressed with that last sequence in "I WANT TO LIVE", where Susan Hayward looks so real in terms of dying. Did you ever witness a person's death in a gas chamber?

WISE: Yes, I did. I felt that this sequence had to be a very honest portrayal of what it means to be put to death in the gas chamber in California. I felt that I couldn't deal with the subject matter honestly and truthfully without knowing what it was about, so I went to the Warden of San Quentin (who was also interested in having our story told as honestly and truthfully as possible) and I said: "I don't feel that I can do an honest job on this unless I know what it is all about. I feel like a ghoul in asking, but I believe that I must see an execution to know what to put up on the screen." I promised that I would not use the knowledge of it for any promotional reasons, and I never did. So I went there and I saw a young black boy . . . (I can hardly talk about it.) I was on the inside with the Warden and the doctor. I didn't know what to expect. I was prepared not to be able to watch at all . . . or to get ill . . . I didn't know. I didn't know what kind of emotion would be displayed by the condemned man. Fortunately, the young man was very quiet. There were no hysterics, no emotion or anything, and I found that I could force myself to watch it. Therefore, in putting it on the screen, I tried to do what I could to make it as truthful as possible — except for cutting it down in time about twenty-fold. The gory fact is that you watch the body in the chamber



go through writhing motions and gasping for nine or ten minutes before being pronounced dead. So I tried to get the initial impact up to a point and then get away from it. I don't think I've ever gotten so deeply involved in a film, in every sense, as I did with this one. I did a lot of interviewing and gathered a lot of material that ended up in the script, and I met a lot of real people who actually saw this execution. Those of you who have seen the film may recall the episode when she is in jail and she is entrapped by a law enforcement officer who pretends to be her friend and offers to give her an alibi — while he's really taking the conversation down on a tape recorder. Actually, two years after that incident, this same officer got a leave of absence to go up there and watch her execution. He was out there in the crowd of witnesses. Well, we had this in our script, but we felt that it was just too much. We were afraid that the audience would think the scriptwriters dreamed that up and that they wouldn't believe it. We thought it was such a ghoulish thing that this man, who was largely responsible for her being in that spot, would want to go up and watch her die. It was a horrible, fascinating film to do.

QUESTION: I have a question about "CITIZEN KANE". The whole premise of the film is based upon Kane's last word, "Rosebud". Yet, when he says the word, there is no one else in the room. Has it ever been explained how they knew what his last word was, when there was no one there to hear it?

WISE: I was never able to get a successful answer to that from Orson. The best that we could come up with was that the nurse was standing just off camera.

QUESTION: Mr. Wise, I realize the importance of initially choosing the material for a proposed motion picture, but I'm wondering what sort of things go through your mind when you're faced with such a choice — other than, of course, whether it will make money for the studio?

WISE: That last fact is usually something that is considered in a secondary position. The basic requirement of a property is whether it grabs you and might be made to grab an audience. Is the material interesting, fascinating, involving? Does it offer cinematic opportunities that we think are possible to realize? Certainly, for me — and I think for most directors — it's a matter of satisfying yourself first as to the

quality of the story and its ingredients. Then, inevitably, you must address yourself to that other point — the commercial end of it. You have to look at the project objectively and ask yourself: "Is there going to be a sufficient audience for this? Can we make something that audiences, in great enough numbers, will come to see, in order to pay back the cost?" If you don't ask yourself that, you're going to get faced with it somewhere down the line by the money people, and you'd better have an answer. We do constantly make these judgments and assessments — but sometimes in the wrong way — "STAR!" being an example. There was a lot of money put into that picture. We all thought we had a chance for a big moneymaker, but it didn't turn out that way. Many times you'll read something you love and you'd really like to make a picture from it, but you're forced to say to yourself: "There is just no audience for this. There is no way I'm going to get the money to make this, because it's very special, too confined and too restricted in its audience appeal." In the past I've had to turn down any number of things that interested me as a director, because I felt there wasn't sufficient audience out there for it. All of us have.

QUESTION: Why did you shoot the beginning of "THE SOUND OF MUSIC" almost exactly as you did "WESTSIDE STORY"?

WISE: Because I thought it was the best opening, but I'll admit that I asked myself the same question. The whole opening of "WEST SIDE" was my own concept. I cooked it up and put it on film. Then, when I went over to 20th-Fox to do "THE SOUND OF MUSIC", I looked at the first draft script (which had been written before I came onto the picture) and saw that same kind of helicopter approach. The first thing I said to the executives and to the writer was: "Now, wait a minute. I can't repeat myself like that." But, literally, we could not find anything else that was as nearly correct or as effective as an aerial opening — so that's why we went back to it. While I questioned it, for the same reason you did, I can't tell you how many people think it's the most thrilling opening of a film they've ever seen. So, in my view, we made the right decision in going back to it.

QUESTION: I'd like to ask what kinds of problems confronted you in filming "THE HINDENBURG"?

WISE: There were two major problems. The first was to find a "handle", a

dramatic approach to the story. I think it's a little unjust to call this a disaster film, even though it has a tragic ending — but in the normal disaster film, the actual disaster happens fairly early on and then the rest of the film is taken up with how people deal with it. Whereas, in "THE HINDENBURG", our tragic ending develops during the last ten minutes of the show. So, we've had the whole challenge of dramatically constructing a screenplay that would, hopefully, keep an audience involved and interested in the suspense for 90% of the film, while moving towards an ending that they knew was inevitable. So, that was the Number One challenge. Number Two, of course, was the actual creation in technical terms. How would we put on the screen this giant airship, when one no longer existed — or anything like it. That was the greatest technical and physical problem we had — and we realized right off the bat that it would be. We solved that problem with a 25-foot miniature — an exact replica of the original airship. There were some great newsreels made of the downing of the actual "Hindenburg", and there was no way that even our wonderful technicians in Hollywood could duplicate the impact of that newsreel footage. We

started by seeing if we could convert those newsreel scenes into color. That lab did a pretty good job of tinting it. The effect wasn't bad. But the minute that newsreel footage went onto the screen in color, it was no longer the real thing; the reality of it had been destroyed. It looked like heavy-handed Hollywood had stepped in in some way that was obtrusive — so we backed off and decided to see if there was some way of using the newsreel scenes in black and white. Our film starts with a black and white newsreel featurette of the history of airships, because we found out that most youngsters didn't know what a lighter-than-air dirigible was. They thought it was the Goodyear Blimp. So, we'll give them a succinct story of the development of dirigibles and the building of the "Hindenburg". This will be done at the beginning, before the titles. The titles and the body of the picture will be in color, but about five or ten seconds before the explosion we will slowly, imperceptibly bleed the color out of our film, so that by the time the explosion occurs we will be in black and white. I believe that the audience will never be conscious of the change — won't realize at all that it's happened. The picture will start in black and white and end in black and white.

I sure hope it works!

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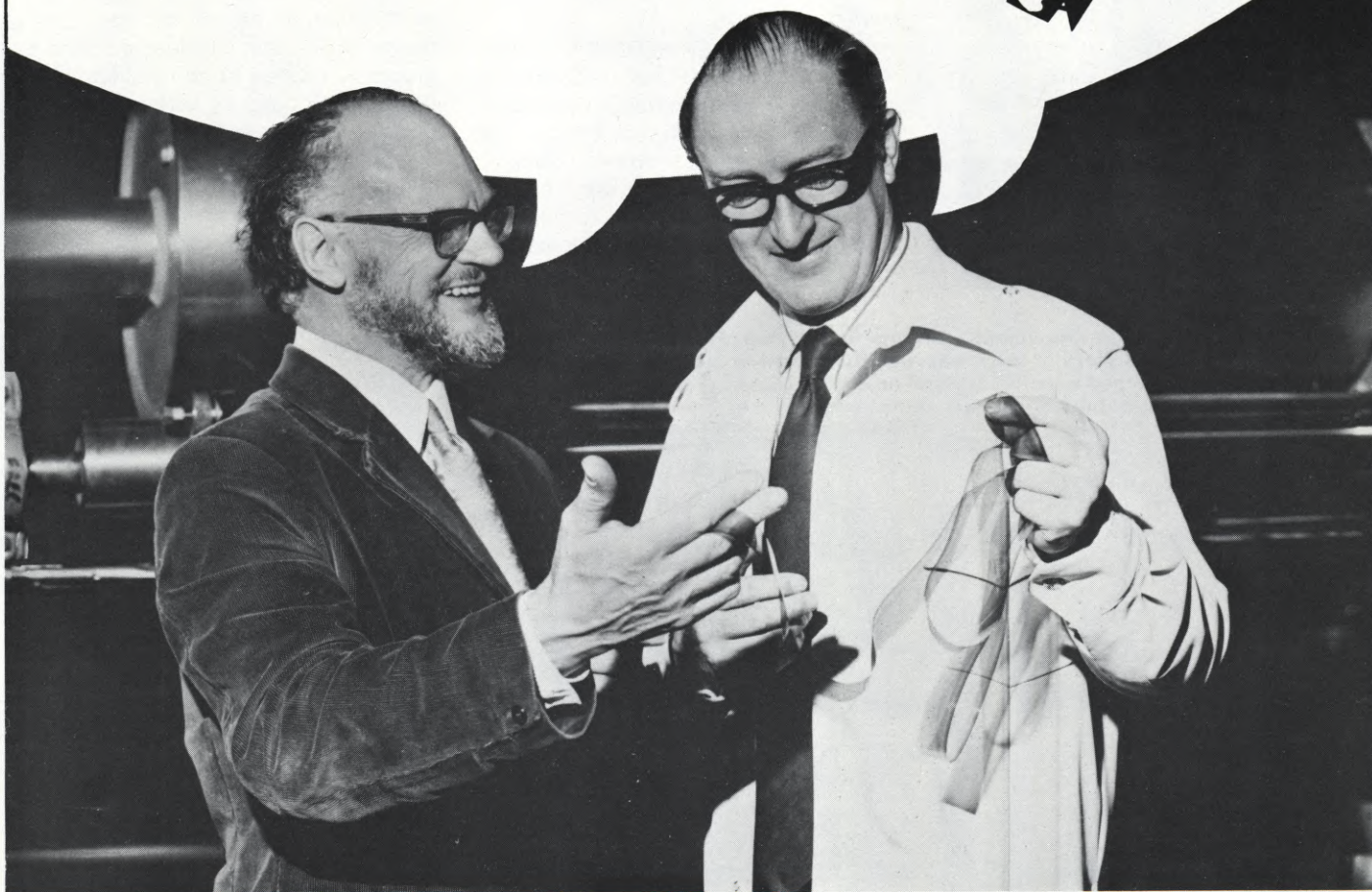
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Light with Lee





A quite unusual location for a cocktail party to welcome out-of-town and foreign visitors to the Festival was Hugh Hefner's Playboy Mansion (East), which turned out to be just as fabulous as advertised. (BELOW LEFT) Madame Kawakita of Tokyo — Author, Film Producer and Distributor, as well as Festival Jury member, chats with Chicago Festival Founder and Director Michael J. Kutza, Jr. at the Playboy Mansion.



with and marries a strong-but-gentle young Moroccan immigrant laborer. Fassbinder has somehow managed to take these totally improbable soap opera elements and weave them into a deeply touching and totally credible screen drama. In the hands of someone even slightly less skilled, those same elements could have added up to disaster.

"I'M A STRANGER HERE MYSELF: A PORTRAIT OF NICHOLAS RAY" proved to be not so much a portrait of this veteran American film director as an X-ray of a rather tormented soul. A 60-minute documentary, directed by David M. Halpern, Jr., with competent photography by Austin de Besche, the film highlights some of Ray's more

A scene from the top award-winning feature film of the Festival, "PIROSMANI" (USSR), which tells the story of the great Niko Pirosmiani, a great Georgian artist of the 1920's, who is reduced to painting signs on storefronts in order to survive. It is a stunning character study, beautifully executed in every phase.



successful films — such classics as "THEY LIVE BY NIGHT", "JOHNNY GUITAR", and "REBEL WITHOUT A CAUSE". There is a filmed interview with Francois Truffaut and comments by Natalie Wood and John Houseman.

We see Ray, who was once at the top of the Hollywood heap, on location shooting "WE CAN'T GO HOME AGAIN" (a title that seems sadly prophetic) with an all-college-student crew — a project he has been working on for several years. He is clearly their guru, a gentle lion of a man, sharing communal living with his disciples. Despite their obvious love directed toward him, however, he appears restless and insecure. I don't know whether it was the film-maker's intent to awaken sympathy for Ray, but his film certainly succeeds in doing so.

Another highlight of the Festival was the British film "STARDUST", the print of which unfortunately arrived too late for the film to be considered in competition. As it turned out, "STARDUST" proved to be a sequel to "THAT'LL BE THE DAY", a film produced a couple of years ago with rock-star David Essex making an impressive appearance as a restless bumpkin from a rustic village who deserts wife and child (and the monotonous rut they represent) to run off in hopes of becoming a famous rock star. In "STARDUST" he makes it — but big. His success, however, proves to be a hollow mockery. For him there is no satisfaction, no happiness, no ultimate peace (in life, that is). He is pursued by groupies, fawned upon by sycophants, used and abused by various parasites until there is no escape, except through the solace of the overdose needle.

Though somewhat overlong (at least in the version shown at the Festival), the film is very well made, with incisive direction by Michael Apted (this is only his second feature) and an even more versatile acting skill displayed by Essex than he demonstrated in "THAT'LL BE THE DAY".

Along with these pleasant film experiences, there were, in my opinion, a few disappointments. For example, I had looked forward with great expectation to viewing Spain's official entry, "LA PRIMA ANGELICA", directed by Carlos Saura. Yet, despite a brilliant performance by that marvelous Spanish actor, Jose Luis Lopez Vazquez, I found that the form of the film worked against sustaining interest. Its endless flashbacks, murky symbolism (unless you happen to be Spanish, that is) and consistently plodding pace added up to a monotony that was almost sleep-inducing. I know this will not be a popular opinion, because Saura, of late, has become something of a cult figure among the rarefied set,

and if you don't like his films there must be something wrong with *you*. That's it, I guess. There's definitely something wrong with me.

Another film that I really wanted to like (especially since it was produced by my favorite group of film-makers, the National Film Board of Canada) was "WHY ROCK THE BOAT?" — but, in my opinion, it didn't come off at all. Described in the Festival catalogue as "a gentle comedy", it is, in fact, so chronically gentle that it inspires not even chuckles, let alone the belly laughs one might expect from a film whose blurb reads: "Stop the presses! Pass the printer's ink! A super newspaper film!"

Yeah, well . . . What attempts there are at humor fall into the simple-minded category characteristic of comic strips like "Blondie and Dagwood" where you have an amiable idiot (in this case, a rookie reporter) who keeps blundering into all kinds of moronic misery that is supposed to trigger laughter in the audience. I didn't notice any at the well-attended screening I caught. This film is a first feature by director John Howe, who apparently has never been told that comedy is the most difficult type of dramaturgy to stage successfully. Back to the drawing board!

"AFFAIRS OF THE HEART", a Soviet film with all the earmarks of having been produced with the aim of commercialism, despite its high-minded "dedication to Soviet physicians", is little more than a soap opera in structure and execution. The film concerns four people assigned to a special-duty ambulance team, and there is a certain quasi-documentary interest engendered by showing how they operate. But basically, the drama revolves about the fact that two of the girls are hot for the serious young doctor, who doesn't seem to know his stethoscope from his hypodermic — at least when it comes to women. This picture is photographed in a peculiar color process (or perhaps it was just a poor print) that looked for all the world like one of the old-time two-color systems come to life again.

In spite of these few films, which I personally felt failed to score as intended, the general level of excellence was very high this year. Even the duds had a definitely professional technical finish.

Aside from the screenings, the Festival did, of course, have its social side — the expected round of receptions, cocktail parties and brunches. One of the more interesting such events (mainly because of its unusual location) was a reception given for visiting film-makers and celebrities at Hugh Hefner's Playboy Mansion.



Author, Film Critic (London Times News) and Festival Jury member David Robinson interviews famed Czechoslovakian director Jan Kadar ("THE SHOP ON MAIN STREET", "THE ANGEL LEVINE") during the course of "An Evening with Jan Kadar" at Chicago's Biograph Theatre.

Even the more *blasé* among us felt a kind of curiosity about this fabulous pad, with its film theatre, indoor swimming pool, underwater bar (you slide down a fireman's pole to peer at the pretties in the pool through a plate glass port), the billiard room and the bowling alley. It was strictly as advertised, and the food was on the gourmet level. Just like Bel Air — but stocked with Bunnies.

The Awards Banquet, a black-tie affair, was held in the Grand Ballroom of Chicago's new Hyatt Regency Hotel on the lakefront. The Gold, Silver and Bronze "Hugos" (main awards of the Festival), as well as plaques and certificates, were awarded in 84 different categories of film-making — but, mercifully, the organizers of the affair had arranged to present the main awards first, so that those who didn't want to sit through all 84 categories could make graceful early exits.

All in all, Chicago's 10th Anniversary Film Festival was a smashing success.

Onward and upward! ■

FEATURES PRESENTED AT THE 10th CHICAGO INTERNATIONAL FILM FESTIVAL

Australia:	The Cars That Ate Paris
Bulgaria:	The Last Summer
Canada:	Once Upon A Time In The East
	Why Rock The Boat?
England:	A Bigger Splash
	Stardust
	My Ain Folk
Finland:	The Earth Is Our Sinful Song
France:	Les Enfants Terribles
	The Infernal Trio
	Eglantine
	The Lumiere Years
West Germany	Alice In The City
	Fear Eats The Soul — Ali

Hungary:	Photography
	25 Fireman's Street
Italy:	The Circumstance
	Il Saprofita
Japan:	The Assassination of Ryoma
Norway:	My Mother's House
Poland:	Salvation
Spain:	La Prima Angelica
Switzerland:	La Paloma
U. S. A.:	If It Itches
	The Wild And The Brave
	Freebie And The Bean
	I'm A Stranger Here Myself:
	A Portrait Of Nicholas Ray
U.S.S.R.:	The Duel
	Pirosmani
	Affairs Of The Heart
Yugoslavia:	Village Performance Of Hamlet

1974 FEATURE FILM JURY

Armando Robles Godoy (Peru) Producer, Director. President of the Jury

John Russell Taylor (England) Film Critic, Author, Lecturer (University of Southern California). Vice President of the Jury

Roger Ebert, Film Critic, Chicago Sun-Times

David Elliott, Film Critic, Chicago Daily News

John Gillett, British Film Institute, London, England

Madame Kawakita (Tokyo, Japan), National Film Library, Author, Film Producer, Distributor

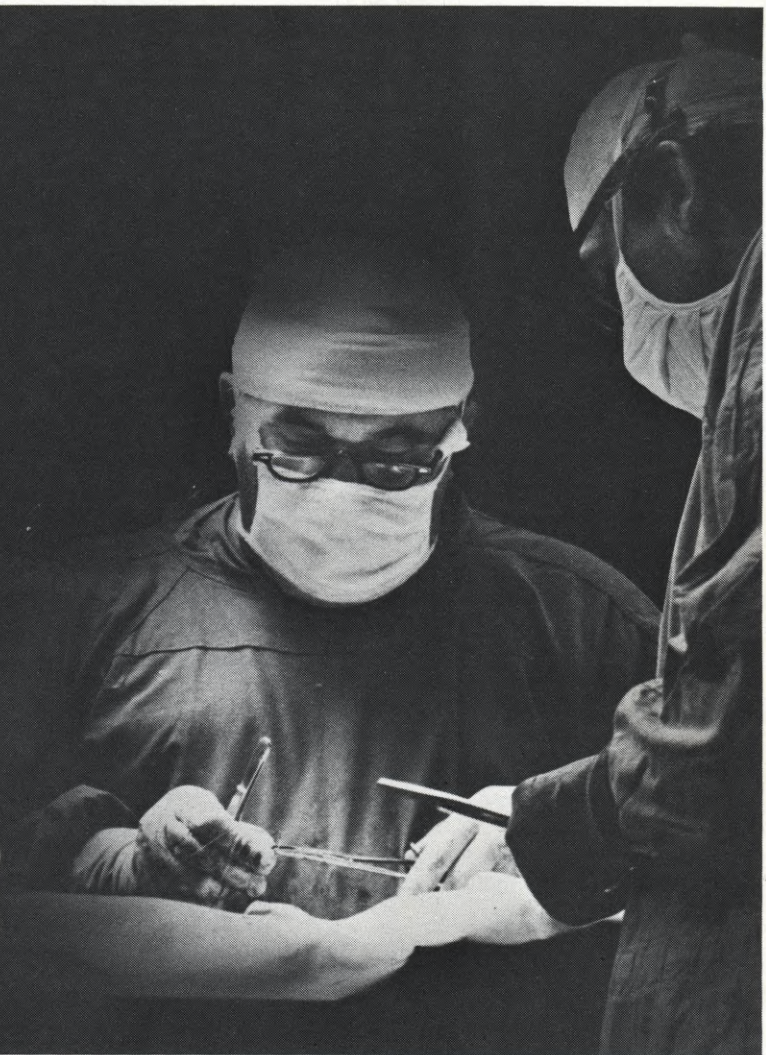
Gerald Pratley (Canada) Film Critic, CBC

T. M. Ramachandran (Bombay, India) Editor, Publisher, *Film World*, Film Critic

David Robinson (London, England) Film Critic, London Times News, Author

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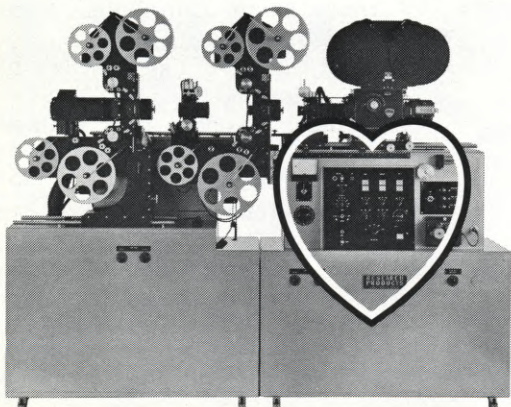
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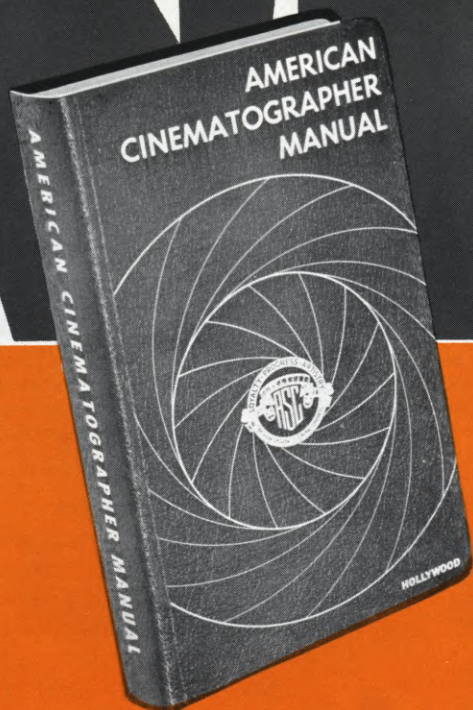


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"MAGICAM"
Continued from Page 37

matte now available to the tape medium will also be available in film, with all the sharpness any cinematographer could ask for. The AMPTP has a patent on such a system which they recently licensed Image Transform, Inc. to develop. Vidronics also has a patented system which, when operational, will yield a quality film composite. Frank Van der Veer of Hollywood, California, plans the completion of his electronic composite printer in the next few months.



(ABOVE RIGHT) All the information sensed by the foreground dolly is transmitted by cable to the electronic control and signal processing unit which provides the means for selecting scale factors from 1:1 to 100:1, and remote control of the background camera system. **(BELOW LEFT)** The MAGICAM design and fabrication staff creates any type of miniature, from architectural to futuristic environments. **(RIGHT)** Cinematographer Ken Peach, Sr., ASC views the electronic image of the foreground camera.

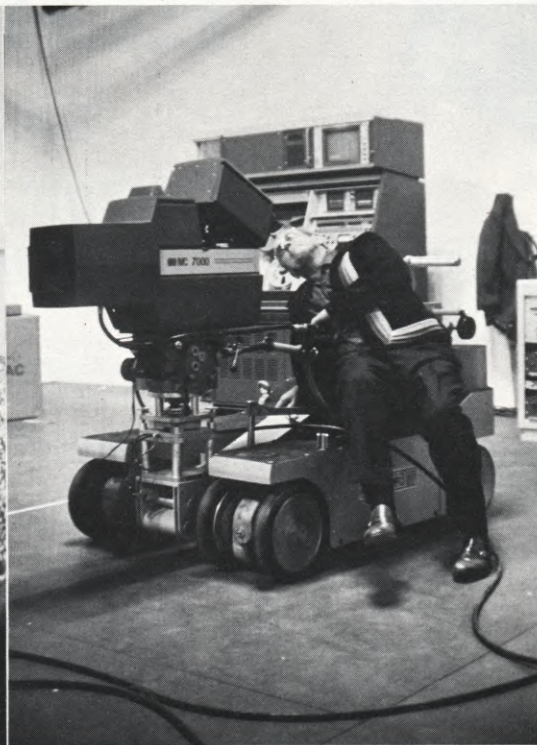
Camera Movement

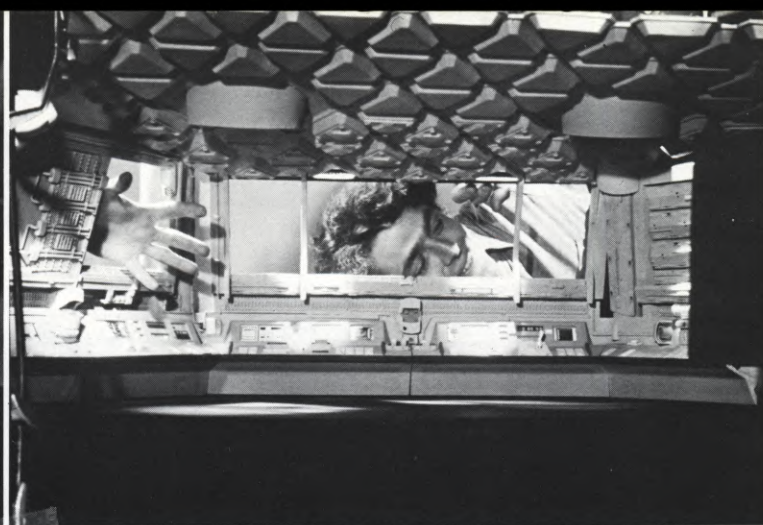
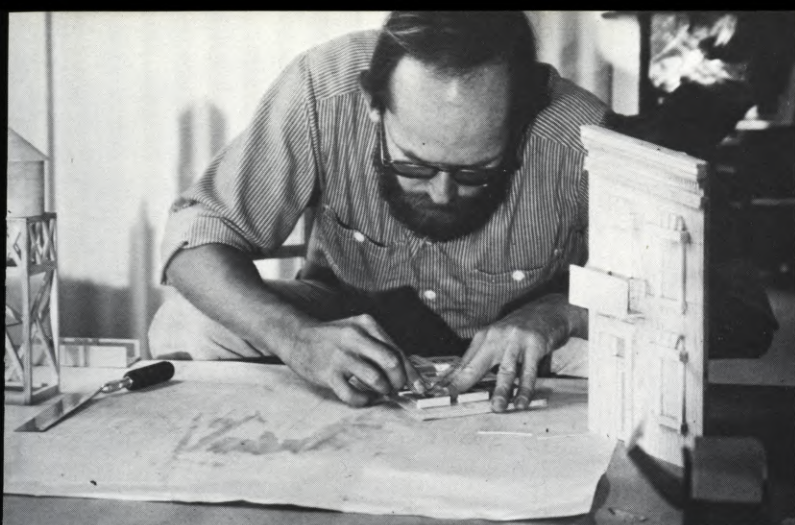
Complete freedom of camera movement during a matte shot simply means that if two images are to appear as one, then the perspectives of the two images must be matched. Magicam accomplishes this by slaving the camera which views the talent or object (foreground camera) to the camera viewing the miniature set (background camera), in such a way that no matter what move the foreground camera makes, the background camera replicates the move in the scale of the miniature.

Magicam will slave together film cameras or television cameras depending upon whether the product is to be used for theatrical release or TV broadcast. When performing with film cameras, Magicam provides a video monitoring system which enables the production staff to view the composite scene as it is being filmed.

The Magicam system is divided into three basic sub-systems: The

(LEFT) Illustrated Bible, serving as a scene background, is placed under the MAGICAM background unit to be viewed by a periscope lens. **(RIGHT)** Here, from the cameraman's point of view, we see the actors on the matte stage and the composite image in the viewfinder, which shows the actors apparently standing in front of a gigantic Bible. The tremendous advantage of using electronic systems, either by themselves or in conjunction with film cameras, is the capability of viewing the composite scene immediately.





(LEFT) Model builder works on elements of a miniature set. Each miniature is designed and fabricated to specific tolerances which are optimized for the MAGICAM system. (RIGHT) Joe Matza peeks through space at the rear of miniature spaceship control set. To make rear-projection possible within such sets, MAGICAM has developed rear-projection units one cubic foot in size which can be neatly placed within almost any miniature.

foreground dolly, electronic control and signal processing, and the background unit. Mounted on the dolly are various kinds of motion transducers which produce electrical signals corresponding to dolly movement. Any movements of the dolly (and hence any movement of the foreground camera) are sensed via these transducers, and the signals are sent down a cable to the electronic processing and control circuitry. Back and forth movement is defined as "x" movement, forward movement is defined as "y", vertical as "z", and complementing this x, y and z spatial motion are the rotational movements of pan and tilt. After the signals are processed, they are sent to the background unit upon which the background camera is mounted. There is a corresponding servo motor for each of the five basic movements (x, y, z, pan and tilt) also mounted on the frame. Since the electronic processing circuitry tells these motors how fast or how far to move in the various axes, the background camera can be made to exactly duplicate the movements of the foreground camera, even with the foreground-to-background scale factor automatically taken into consideration. In fact, the scale factor (5:1 to 100:1) is simply "dialed in" via a front panel control. The tracking capability of this system is held to a high degree of accuracy due to the various types of transducers and servo motors used, and most important to the design of the electronic processing and control circuitry. Manual control of the background unit can be switched in at any time via the control panel, thus overriding signals from the dolly. This frees the background unit and provides local control for testing or positioning of the background axes.

Precise calibration of the foreground

camera to the background camera must take place for the talent to appear within the miniature when movement occurs. For example, the scale factor of the miniature must be dialed into the spatial coordinate system, tilt and pan angles, and viewing of the two cameras matched and, finally, relative position of the foreground camera to the

background camera set. Magicam accomplishes this through the use of sensing devices which locate themselves automatically when activated. For example, when a new miniature is installed, the effective camera height above the floor is set by means of a program which slowly

Continued on Page 112

The team of young technicians responsible for the development of MAGICAM, a Paramount subsidiary. (ABOVE LEFT) Rob King (Marketing Director), (RIGHT) Joe Matza (Executive Director), (BELOW LEFT) John Gale (Technical Director), (RIGHT) Dan Slater (Chief Design Engineer). Not pictured here is Doug Trumbull (Consultant).



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— Peter Jessop, Lighting Cameraman.

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*On location with “Dual Blade.”
Tom McGuinness and gaffer Frank Heeney
discuss the HMI lamps with cameraman
Peter Jessop and Producer/Director Michael Papas.*



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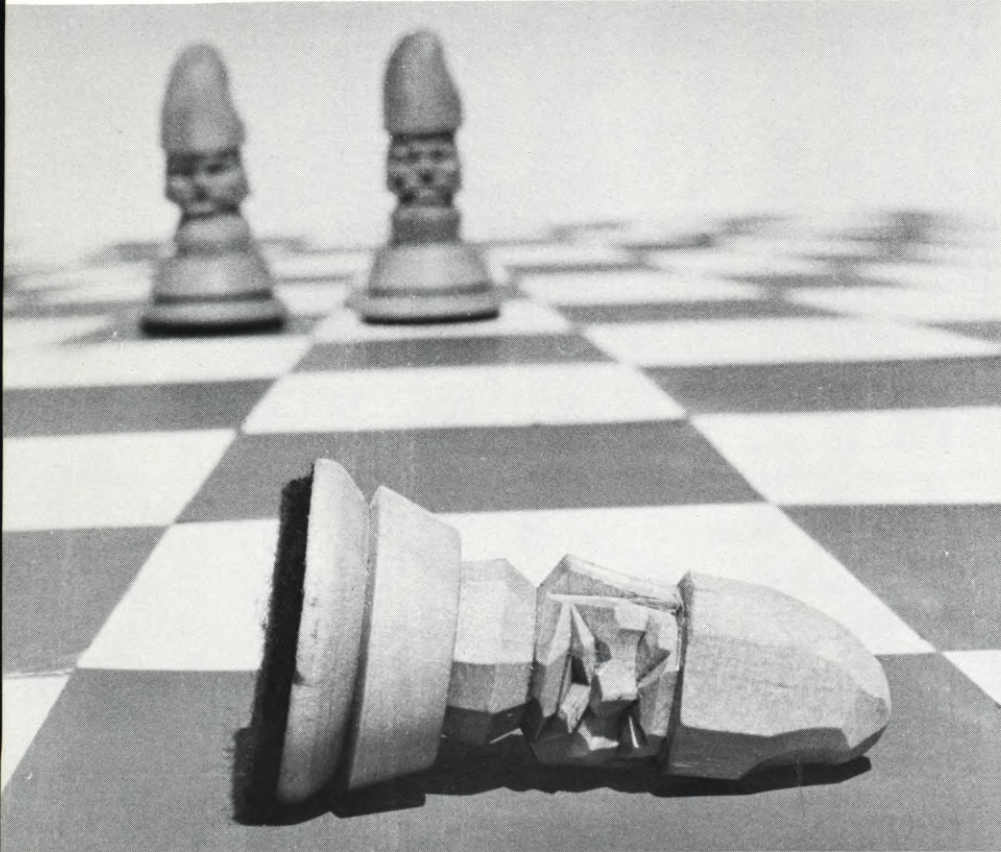
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“REFLECTIONS OF MAN”

A GRAPHIC FILM TOUR DE FORCE

A “cast of thousands”, the largest of which was but six inches tall, served USC student film-makers well in the creation of a stunning visual experience

By BRUCE A. BLOCK and JAMES NICHOLS



For the filming of the University of Southern California student film project, “REFLECTIONS OF MAN”, many of the chess sets were built in forced perspective to give the compositions exaggerated depth. Each segment of the film was given its own graphic design and color scheme. The entire production was heavily storyboarded in advance and technical criteria established — including the resolve that the film footage would be totally first generation, with all effects (no matter how complex) made in the camera.

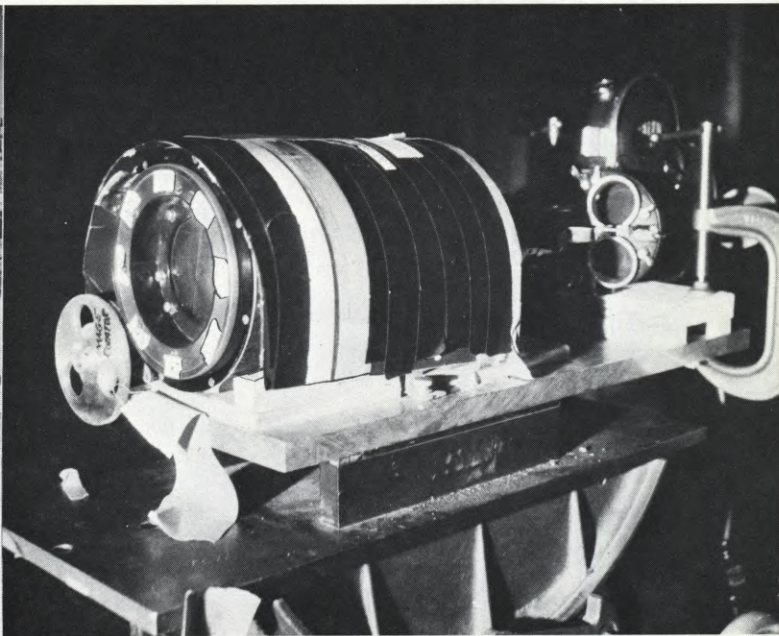
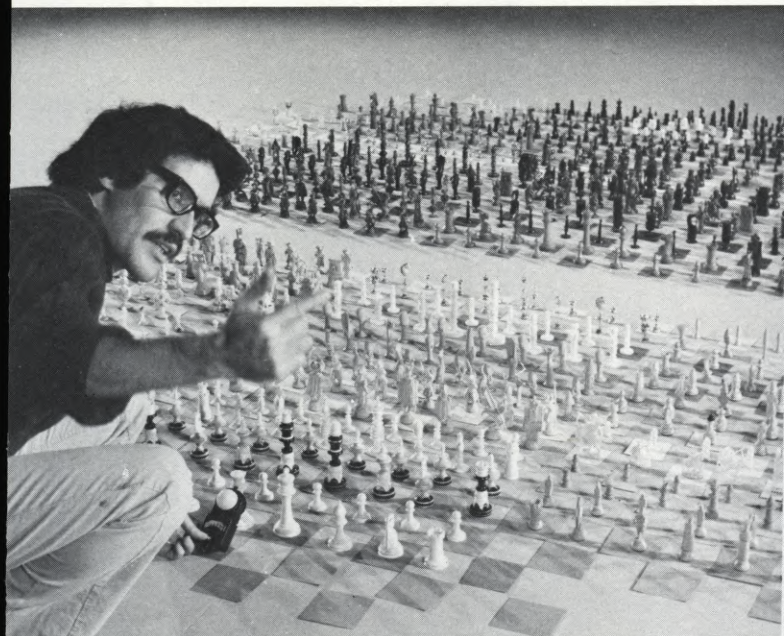
(LEFT) The necessity for small T-stops (in order to achieve maximum depth of field) demanded large lighting units. Here the juniors and seniors seem to dwarf the tiny chess pieces being readled for a typical shot. (RIGHT) Working space often became very cramped. In order to get accurate readings, the light meter had to be sighted through the lens of the camera. Fractions of an inch would throw off the composition.

Our largest actor stood but six inches tall, None of the one-thousand-member cast could move or speak. The film would have no director. This was the situation facing four student film-makers at the University of Southern California's Division of Cinema. The result is a highly visual thirteen-minute film entitled “REFLECTIONS OF MAN”. Completed in July, 1974 the film has already earned several awards, including a Cine Eagle from Washington, D.C.

The film explores the character links between all men, using antique and modern chess pieces from all over the world, that yields a tour-de-force of film graphics. Each member of the crew was responsible for executing the structural unities of the basic script: cinematography, Bruce A. Block; production, Vahan Moosekian; sound, James Nichols; editing, Eric A. Sears. The original score was composed and conducted by Tony Humecke.

Concepts for the film were worked out in tedious storyboard sessions involving all four crew members. At that time, the graphic style for each section of the film was decided and basic storyboards were drawn. Final storyboards not only indicated composition and orientation, but also color, texture, background elements and movement. The crew felt that many filmmakers do not take advantage of the control elements available in film. This project was designed to give





(LEFT) Cameraman Bruce Block begins setting light levels for the final shot in the film. This assemblage of the entire "cast" shows more than 1,000 chess pieces. **(RIGHT)** The double-prism lens unit, graciously loaned by a professional cinematographer. Mounted on a geared head in front of the Arri-S, the lens made possible unusual control of movement, such as the spinning of the chess pieces.

unusual control in as many areas as possible.

It was decided early in production that the entire film would be first generation. Any effects, no matter how complex, would be executed in the camera. (These eventually included two glass mattes and multiple exposures with as many as thirteen passes through the camera.)

"REFLECTIONS OF MAN" was photographed almost entirely on the USC sound stage. Two cameras were used: an Arriflex-S and a Mitchell 16 with rack-over viewing. Besides the usual complement of fixed-focal-length lenses, some sequences were filmed using a 75mm Kinoptik Macro lens with a 1:1 focusing capability.

One major concern was keeping the picture from looking like a flat series of *tableaux*. We wanted to endow the chess pieces with movement and character. In order to achieve depth in macro, certain rules were laid down. All sets would be built in forced perspective whenever possible. Wide angle lenses would be used to further force perspective and aid depth of field. Small T-stops would be used with lighting ratios of 4:1 or greater, avoiding flat lighting. Color, tone and texture would be chosen to cue depth. Motion was achieved in the following ways: stop motion displacement animation, mechanical controls (motors, wires, etc.), motion transfer from camera to object, and lighting changes.

Since the film depends heavily on visual elements, great care was taken in getting the film's emulsion (7252) to

accurately reproduce, and in some cases enhance, the inherent color of the pieces and sets. ECO has a particular affinity to red, but its ability to record a deep saturated blue is not as great. In general, the film stock responds very well to additive light sources. To take advantage of this quality, rear-lighted plexiglass was used for many of the colored backgrounds. Using the plexiglass with a 5K provided an even background. Colored gels over the 5K added color and various amounts of underexposure gave a deeper saturation to the final film.

Lighting for macro photography

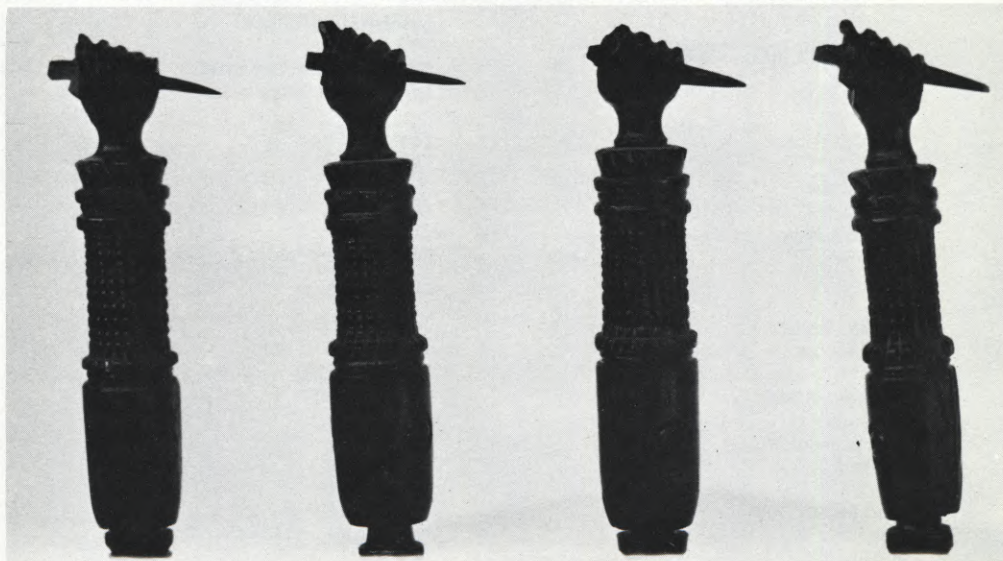
posed many complex problems beginning with the subjects themselves. The chess pieces had been fashioned from many different materials: cut crystal, bone, ivory, various woods, metals and ceramics.

Each new material posed problems in reflectance and absorption of light.

The multi-faceted crystal pieces demanded a kaleidoscopic treatment. Lights were pumped through the glass itself, much like sending light through a lens. This gave the glass depth and surface without the tell-tale reflection of the source light. Many other pieces were not as easy to work with.

Continued on Page 97

Parts of the film contrast sharply with other sections. Here a duel begins, as pawns battle for the final space on the chess board. Although stop-motion was used in filming most of the scenes, several had to be photographed in "real time" because of the presence of smoke or other elements that would be uncontrollable in stop-motion.



CHICAGO AWARDS
Continued from Page 61

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Continued on Page 88

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Flatbed equipment for 16mm work, designed to provide the editor with a practical working tool at a lower cost than that of most similar units

The Magnasync/Moviola M-86 Flatbed Console Editor, unveiled to the industry for the first time at the recent *Photokina '74* "World Fair of Photography" in Cologne, was designed to incorporate significant technological and engineering advancements and offer the motion picture editor a practical working tool at considerably lower cost than most other six-plate models currently available.

Flatbed-type editing equipment by now has made a definite place for itself in the motion picture industry. Its development stemmed from the need of some production companies for a faster and possibly more efficient means of editing greatly increased volumes of motion picture film and magnetic sound track (particularly in 16mm), which fortunately coincided with major advancements in available technology.

While the familiar "upright" Moviola continues as the standard and quite adequate editing unit in most cutting rooms, as it has for the last fifty years or more, the flatbed offers several

The Magnasync/Moviola M-86 is a clean, simply designed six-plate horizontal editing console. It features quick threading with no loops; conveniently placed, clearly marked controls; and an adequate clear work area for the splicer, etc. There are no critical precision adjustments or lubrication required.

meaningful advantages for 16mm productions which involve unusually large amounts of footage or on which post-production time savings can be an important factor. The Magnasync/Moviola people believe that the new Moviola M-86 Flatbed offers an excellent example of the rapid development of this type of equipment, combining as it does the latest in highly sophisticated technology with extreme simplicity of operation and maintenance. According to Carl Nelson, vice president of Engineering, the same technological breakthroughs that have allowed simplification of mechanical components also have resulted in a notable cost reduction.

Practical Working Features

Optical and magnetic sound track on picture head, plus two 16mm magnetic sound heads. Separate gain controls for each sound head for preview mixing. Very quiet operation. Large (8-1/2" x 11") viewing screen, image bright and sharp in normal room lighting. Variable speeds from single-frame inching to ten times sound speed (240/250 fps).

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Picture Projection

Undistorted clarity of the picture projected on the large viewer screen is accomplished through a combination of folded mirrors and a synchronous 12-sided prism optical intermittent. Unusual brightness for this size screen under daylight or normal room lighting conditions is achieved by use of a long-life Quartz Halogen lamp with a dichroic cold mirror, providing high efficiency illumination while protecting the film from any possibility of heat radiation from the light source. The dichroic mirror is pivoted and spring-loaded to permit convenient access to film for marking.

Picture and Sound Transport

The transports are powered and controlled by a digital Servo-Drive system, which provides precise speed control throughout the full range, while permitting remarkably simple mechanical design. Picture and sound transports are operable in synchronous interlock or independent in both forward and reverse modes.

The digital Servo-Drive system of the M-86 utilizes the same digitacircuitry that is currently incorporated in the M-77 Flatbed which has proven accurate and reliable. The drive motor is of the low inertia permanent magnet type and includes a special digital tachometer to sense position, speed and direction. A unique phase lock incorporates a digital-type memory to prevent error accumulation. Stable sound speed of 24 or 25 frames per second, $\pm .01\%$ or 24 ten-thousandths fps, is derived from

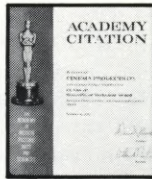
Continued on Page 110





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J-4 Zoom Control shown in use with XR35 Studio Camera, Canon K-35 Macrozoom 25-120mm Lens, and 150XR Fluid Head.

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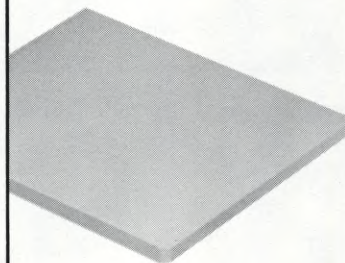
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For almost as long as film has been running through cameras, cinematographers have been faced with the necessity of learning to deal with mathematical functions. It seems as though every time we turn around there are a few more numbers to face — footage, focal length, camera speed timing, exposure compensation, optical formulae, squeeze ratios, projection ratios and so on, *ad infinitum*.

Of course, we have had a great deal of help from such things as tables and charts, but generally this relationship with higher math has been less than comfortable or, at least, capable of consuming valuable time that could have been spent dealing with what was in front of the camera and how it looked through the viewfinder. And, now we are faced with the great changeover to the metric system. Many people are getting a bit worried about that. After all, it is going to mean that someone will have to spend even more valuable time converting all those wonderful charts and tables into millimeters, centimeters and meters. Can you imagine the time that will consume?

In answer to this (and a few other) problems, Rockwell International is

offering what they call the Universal Converter Electronic Calculator, Model 51R. This gem makes all those complicated conversions as simple as pushing a few buttons. It will perform 224 fixed conversions, including our biggest concern: inches, feet, yards and miles into their metric equivalents. Also included in the conversion capabilities are U.S. to metric equivalents for liquid measure, weight and temperature.

The temperature conversions should be of special interest to motion-picture people who find themselves abroad and have difficulty with Centigrade degrees in relation to how a camera will perform in low temperatures, or how long it might be safe to store raw stock and exposed footage in high temperature conditions. With this calculator simply enter the temperature in Centigrade degrees, push a couple of buttons and you have the temperature on the more familiar Fahrenheit scale.

The Universal calculator also does the usual math calculations of addition, subtraction, multiplication and division and has a choice of fixed two-place decimal or floating decimal, automatic

constants, fraction calculation, TWO fully addressable memories (useful for holding the results of one or two sets of calculations while you work on a second or third set of numbers). There is also a feature called the programmable conversion, which deserves your attention.

The programmable conversion is potentially a very valuable tool for motion-picture people. This feature will allow you to enter conversion factors for any special problem you might have to deal with. For instance, you can enter the information that one foot of 70mm sound speed film is equal to .54 seconds' running time. When you need to convert your footage into running time simply enter the footage, punch the CONV button, the "A" button, then the "B" button and there is the running time in seconds. If you want it in minutes divide by 60. Divide by 60 again and the time is in hours. Interesting? you bet, and we'll bet that you can find many more interesting applications for this little beauty.

For the crew on location in a foreign country this programmable conversion feature is worth nothing short of its weight in expense reports because of its ability to convert the amount of foreign currency spent into its equivalent in U.S. bucks (if you have ever tried to convince an accountant that it's his job to figure this kind of thing and your job to spend the money and make the picture, you'll appreciate the value of this feature).

For those who enjoy their hard-earned time off on the water and around boats there is also another feature of interest — the ability of the machine to work in either land or nautical miles, and to convert from one to the other. The calculator also deals easily with U.S. or Imperial measure.

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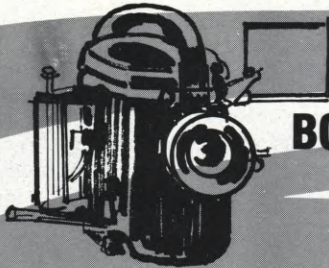


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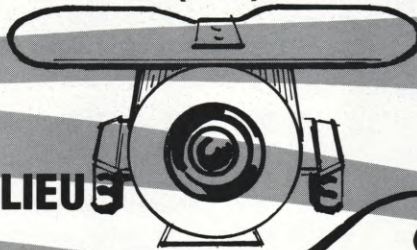
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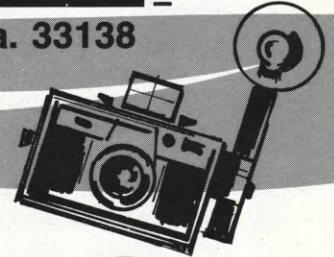
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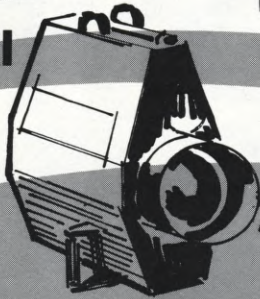
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HOW TO CONVERT A 16mm ZOOM LENS INTO A 35mm ZOOM LENS

By HASKELL WEXLER, ASC

I've been working with a secret too good to keep, and I want to share it. Ron Dexter, a fellow cameraman, discovered that by using a 2X extender in back of the 16mm format 9mm-to-90mm zoom, or the 12mm-to-120mm zoom, the resultant image would cover the full 35mm frame. You then have 18-to-180mm or 24mm-to-240mm 35mm dual-purpose zoom lenses with several outstanding advantages.

Hand-holding the 25mm-to-250mm zoom, bracket and all, is not too practical, but using the small, lightweight 16mm format 9mm-to-90mm or 12mm-

to-120mm is a cinch.

Focusing close is also better (3½ feet on the 9mm-to-90mm) than with the 25mm-to-250mm.

I have used the 9mm-to-90mm extensively for shooting inside cars, where the range of 18mm-to-180mm is excellent.

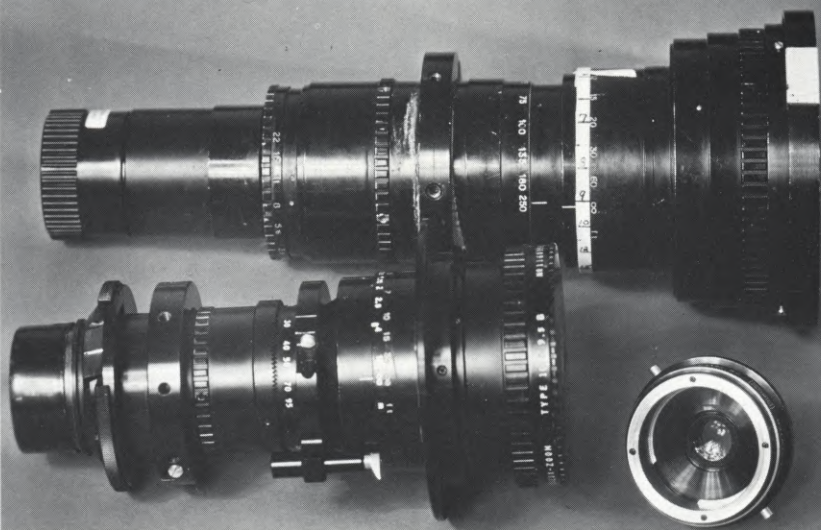
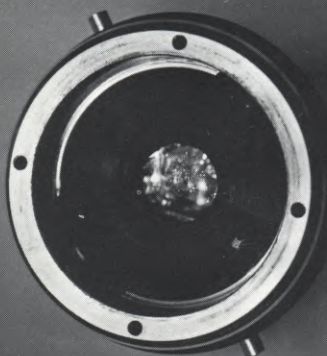
The only possible drawback to the use of the extender in this way is a two-stop light loss, but since the 16mm zooms are generally faster to begin with than the 25mm-to-250mm, this is usually not a serious problem. I figure a

Discovery of an unbelievably simple way to double the focal length of a 16mm zoom lens, so it will cover the field of the 35mm format

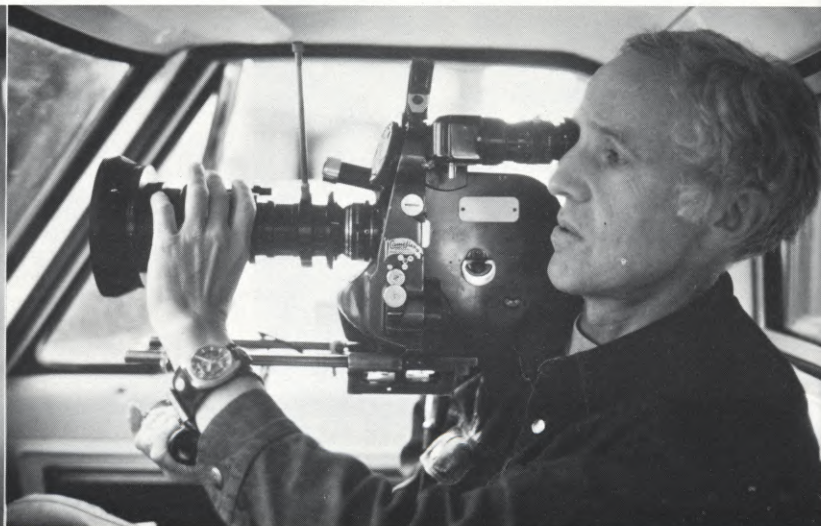
16 ASA speed for 5254 daylight, using a straight 85 filter, which comes out to the way it would ordinarily be (minus extender) with an 85N6 filter.

There is no loss of sharpness when this method is used. Of course, as is always true in reference to zoom lenses, it is important to have the lens, extender and camera all in one place for collimation.

The camera shown in the accompanying photographs is my Eclair CM3. The lenses are Angenieux, and the extender is from Birns & Sawyer. ■



(ABOVE LEFT) The simple 2x extender, which, without any further modification, converts a 16mm zoom lens so that it will cover the 35mm frame. (RIGHT) Comparison between the Angenieux 25mm-to-250mm zoom lens (for 35mm photography) and the 12mm-to-120mm 16mm zoom lens, which almost duplicates its coverage of the 35mm format (24mm-to-240mm), when converted by means of the 2x extender. (BELOW) Haskell Wexler, ASC, Academy Award-winning cinematographer ("WHO'S AFRAID OF VIRGINIA WOOLF?"), shown shooting inside car with his Eclair CM3 camera. Reduction in size and weight of converted 16mm lens is considerable.



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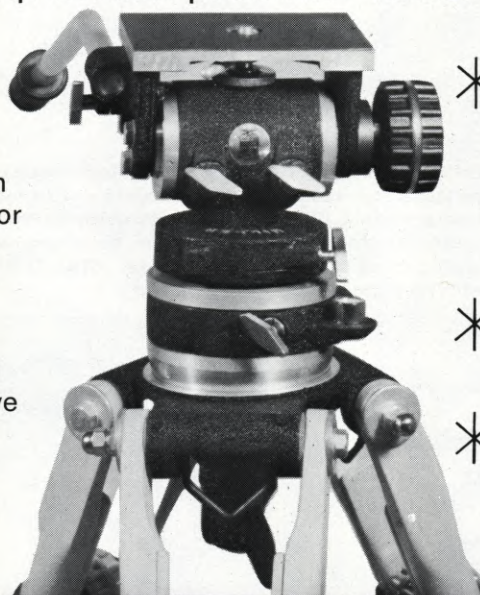
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A FILM TO SHOW WHAT THE BLIND SEE

A most unusual and challenging assignment — that of attempting to reproduce on film, in a precisely realistic way, how the world looks to people suffering from different types of eye disorders

By ARTHUR ZIGOURAS, Director

There is a general misconception that blind people see nothing, a blackness or, at best, a greyness. Film-makers have probably contributed to this false picture by invariably showing the blind person as either seeing nothing or seeing a slightly out-of-focus image. The American Foundation for the Blind set about clearing up this misconception by making an educational film — the first of its kind — which would show exactly what people with the most common types of blindness

actually see.

The Foundation decided that in this film, the audience would see the world as the person with visual impairment would actually see it. In other words, we'd be looking through the eyes of so-called "blind" people and, hopefully, the audience would see that blindness is not blackness or simply a vague out-of-focus state. The Foundation's objective was to dispel the misconception that blindness equals blackness equals helplessness.

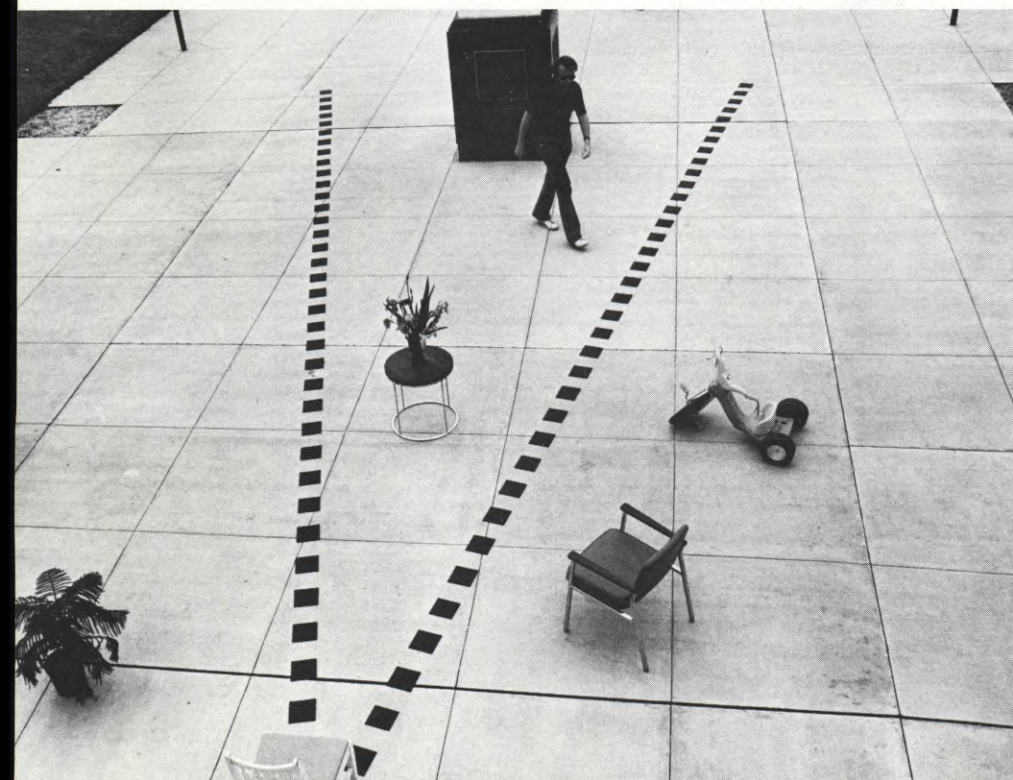
The types of blindness we dealt with were selected with the aid of our medical consultant, Eleanor E. Faye, M.D., a leading ophthalmologist. The diseases are macular degeneration, diabetic retinopathy (with and without hemorrhaging), retinitis pigmentosa, cataracts and glaucoma. Each disease affects the eye in a different way and causes a different type of visual impairment.

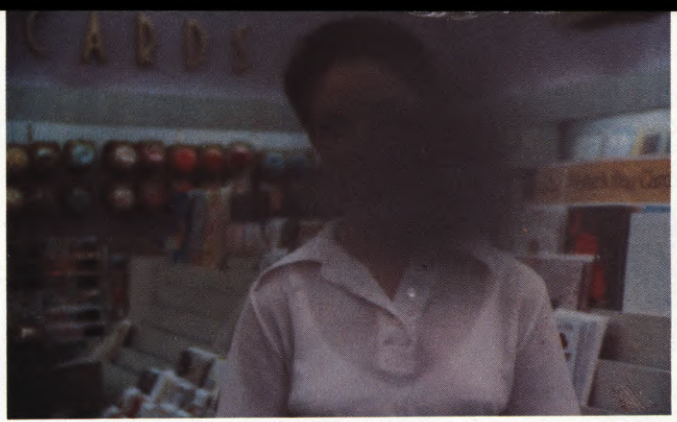
Each impairment called for a different effect and I wanted to create those effects in the camera for two reasons. One was control. We planned to go on location and shoot the environment of the person with the impairment, and I wanted to see his environment as he saw it on location. I felt that if we did the effects optically, I would lose that control. Also, shooting the effects in camera would be considerably less expensive and for a non-profit organization, this was an important consideration.

I had worked with Richard Shore, ASC, before and knowing him to be a cinematographer who loves a challenge, I approached him with the idea. He agreed to do it and immediately began the research for the tests which would require the approval of Dr. Faye.

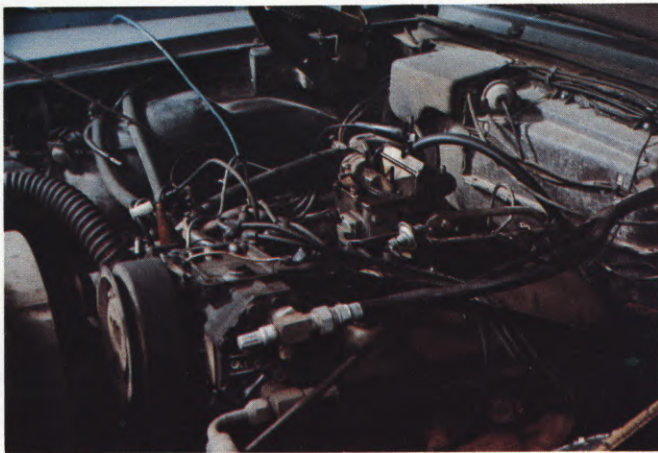
Richard and I talked with different patients, recorded what they could see, read technical books on the subject and consulted with Dr. Faye. We agreed on two things, the effects had to be medically accurate and that we should try to illustrate the diseases in a manner that the sighted audience could relate to in everyday ways.

(ABOVE LEFT) "Live" animation was used, instead of conventional animation techniques, to illustrate tunnel vision. In the courtyard of the Alabama School of Optometry, tile squares represent the field of vision of tunnel vision. The tricycle, chair and palm tree would not be seen by those affected with tunnel vision. **(BELOW LEFT)** Director Arthur Zigouras sets up a sequence with Andrea Baligian, as she reads with the aid of a magnifying glass. She has macular degeneration, resulting in a dark spot in the center of vision, and must read "around" small print with the aid of a magnifying glass. **(RIGHT)** Director of Photography Richard Shore, ASC preparing a disc of frosted gel to illustrate retinitis pigmentosa (tunnel vision).





(LEFT) A scene in a Rhode Island drug store, as it would appear when seen through the eyes of a person with normal vision. **(RIGHT)** The same scene as it would be perceived by someone suffering with macular degeneration. The effect was made in the camera and the technique is explained in the accompanying story.



(LEFT) An automobile engine, as someone with normal vision would see it. **(RIGHT)** The same engine, as seen by a mechanic suffering from retinitis pigmentosa — tunnel vision. The same effect, with the peripheral vision obscured, is sometimes caused by glaucoma.



(LEFT) An antique chest of drawers, as seen by a person with average or normal vision. **(RIGHT)** The same chest of drawers, as seen by someone suffering from cataracts. Creating the latter effect posed a special problem, because cataracts not only cloud the vision, but often cast a yellow tint over the field of view.

The key to the solution of this problem was devising a series of tests which most closely approximated what had, up to that moment, existed only as verbal accounts of these conditions. Some of these accounts came from people who had normal vision in one eye and a particular blind state in the other eye. Their and others' accounts made a verbal record of what outsiders had never seen. Thus, the problem was how to translate words into images —

an interesting variant on a universal problem for the film-maker.

Judging the tests properly was as delicate a matter as comparing fine wines. You must sip water between each to clear the taste buds. A control scene, shot normally, served the same purpose for our eyes and alternated with the test scenes. The tests would have meant nothing if we couldn't reproduce exactly the optical conditions through which they were filmed.

In each test, we noted the focal length, T-stop and all the other relevant information so that later we could exactly reproduce what we so carefully arrived at.

For the tests and the film itself Richard chose a Camera Service Center hard-front Arri 35 with a marvelous modification. Several years ago, Fellini had an Arriflex door re-worked with Mitchell-like optics. The

Continued on Page 118

CHICAGO AWARDS
Continued from Page 78

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THE FILMING OF "GOLD" IN SOUTH AFRICA

Shooting a mile-and-a-half underground in a flooded gold mine is not the most tempting prospect, but there was lots of excitement — including some that wasn't in the script

By DAVID SAMUELSON

When one visits film production units which are "on location" anywhere in the world, one develops an inner sense which tells how things are going, if the unit is happy and efficient, if they are on schedule and within the budget and if they are at one with the Producer and Director, and so on.

When I visited the GOLD Unit, for the first time, appropriately at the Buffelsfontein Gold Mine, I quickly realised that here was a crew with exceptionally high morale. They came from Britain, the United States and South Africa and consisted of dedicated film makers of all races, colours, sects, religions, cultures, political views and income brackets. In film-making such barriers should be, and were, left behind.

Arriving at Buffelsfontein just before lunch time, I was invited to join the queue for the midday meal, a good time to get to know people.

The commissary facilities were being provided by a local company which normally provides food for Weddings and Barmitzvahs. As one member of the crew put it, "None of us have breathed a word to the caterers that his

food is way above the usual."

With me in the queue were Roger Moore, Susannah York, Bradford Dillman, Ray Milland, Zulu actor Simon Sabela, Producer Michael Klinger (genial and paternalistic), Director Peter Hunt, Director of Photography Ousama Rawi and the entire Unit, including electricians, stage hands and labourers.

Ossie Rawi (who has a Russian mother and a Persian father) is one of a new generation of young British Directors of Photography who have reached the top through shooting TV commercials. GOLD, with a budget in excess of \$3,000,000 was only the fourth feature film he has been involved in in any way. He started as a newsreel cameraman for a very small local TV station and did not serve an apprenticeship as a Clapper Loader — Assistant — Operator, as is the usual form of progression in the U.K.

Indeed, his third picture THE BLACK WINDMILL was produced by Richard Zanuck and David Brown and Directed by Don Siegal, connoisseurs of talent if ever there were.

Ossie must be the only Director of

Photography who can say to a Producer, "Of course I need a Panaflex. I have had one on at least half of all the pictures I have ever shot."

In my interview with him that follows, Rawi discusses some of the techniques he used — and unique problems he encountered — in photographing GOLD on location in South Africa:

DWS. Ossie, just for the record, GOLD was produced by Michael Klinger, Directed by Peter Hunt, written by Wilber Smith. Who were your crew?

OR. Operator Alec Mills, Focus Dewi Humphreys, Loader Chris Tanner. Second Unit: Jimmy Davis Cameraman, Colin Davidson Focus, Mike Burts Loader.

D. Just tell me briefly Ossie, what is the basic story of GOLD?

O. It's the story of a man who is married to a mine company Chairman's daughter and who has big plans. He's involved with businessmen all over Europe and the States. The plan is to

(LEFT) Not a king-size silk net, but an effect shot made through a metal grid at the gold mines. **(CENTER)** Director of Photography Ousama Rowie takes a light reading before shooting a closeup of South African actor Simon Sabela in a Pinewood Studios set reproducing the flooded mine in which much of "GOLD" action takes place. **(RIGHT)** Cinematographer Rawi, shown against one of the large white polystyrene sheets used effectively as reflectors.



(LEFT) Actor Ray Milland waits patiently while the cinematographer takes a light reading. **(CENTER)** A large butterfly net is used to control and diffuse the brilliant South African sunlight. **(RIGHT)** A true curiosity is this "two-eyed" eye-piece. The explanation: Camera operator Alec Mills cannot close his left eye properly, so he always uses a blanked-off dummy left-hand eye-piece.





(LEFT) The Panaflex camera being used to film a scene with Ray Milland and Bradford Dillman. Note that lights are being employed to provide only bounce light. (CENTER) Filming on a rooftop overlooking the city of Johannesburg. Note the white cover used to protect the camera magazine from the intense heat. (RIGHT) Ground level at the gold mine location. Note the white cover used to protect the camera magazine from the intense heat.



(LEFT) Shooting at the surface level of the gold mine. Note two-camera operation, with Director of Photography Ossie Rawl operating the left-hand camera. (CENTER) Shooting a children's party sequence. (RIGHT) Filming at the Kyalami Ranch Country Club. (Left to right) Susannah York, Director Peter Hunt, Roger Moore and Bradford Dillman.



(LEFT) In a temporary escape from the James Bond mold, actor Roger Moore is shown deep in the heart of the South African gold mine. (CENTER) Hand-holding the Panaflex camera in the crowded confines of the gold mine. Note the light beam emanating from the 12-volt helmet lamp. (RIGHT) Filming at the Johannesburg air terminal. Note wraparound filter on lighting unit.

sabotage his father-in-law's mine and force it to close down by flooding, while, meanwhile, he will have sold his shareholding in that mine, as will all the other businessmen, and bought shares in other mines. When the catastrophe happens, the value of the shares will drop to nil, while the shares of other mining companies will rocket sky high and in that way they will be instantly worth a fortune. The film itself is a series of cuts between what's going on down the mine and what's happening in London. Although it is inevitable that a lot of lives will be lost, they don't care and reckon that within four hours of flooding the mine, it would be totally lost. They have a false plan of the mine made and tell the shift bosses to start drilling a certain section of the mine, hiding the fact that there is an underground lake behind that particular

rock face. Of course, the day comes when they burst through, the wall collapses and the water from the underground lake starts coming in, taking lives with it. Roger Moore, who plays the part of Rod Slatter, manages, in the nick of time, to save the mine from total disaster. Many of the men are dead and a lot of the mine is damaged, but it's not a total loss. Entwined there is also a love affair that develops between the character who Roger Moore plays and the villain's wife, played by Susannah York.

D. The excitement in the film is the flooding in the mine isn't it?

O. Yes. You know halfway through the film what is going to happen and, as an audience, you are aware that it is about to happen. I think there is a lot of ten-

sion there, mainly due to Peter Hunt. He's a fantastic Director.

D. Peter did the Bond picture, OHMSS?

O. Yes, he directed *ON HER MAJESTY'S SECRET SERVICE* and *GULLIVER'S TRAVELS* and before that he was supervising editor on all the previous Bond pictures and also directed the second units for all of the Bond pictures up to his own. Then he departed from the Bond scene.

D. When you were working down in the mine, weren't you some phenomenal depth down?

O. In fact we were something like 5,600 feet down below sea level which, where we were in Africa, was 7,800 feet below



am a little guy, so I was alright and could stand upright, but Roger Moore who is something like 6 feet tall, most of the time had to duck. If we had taken a PSR or any other studio sound camera, every shot would have had to be a low-angle shot, which may have been effective sometimes, but occasionally you want to have an eye-level shot.

D. You were using the magazine on the back all the time?

O. Almost. And 90% of the time in the Mine, it was hand-held. There was plenty of dialogue down below. Had it not been for the Panaflex, it would have meant using a wild unblimped camera, which would have meant post-sync looping later. Apart from Roger and two other actors down the mine, all the rest were local South African artists. Post-synchronization would have meant taking them all to Pinewood to do it and when you work out the cost of the air fares, hotel expenses and pay for them to come to England to do the post-synching later, you can imagine how much money we saved by using a Panaflex. Down the mine the camera height was very important, especially on two of the days when we were where the miners were actually working. They were blasting away and we were working at this scene. The continuity girl calculated at the end of the day that we spent 6 hours virtually doubled up. From the ground to the ceiling was something like three and a half feet at average. Some sections we could unbend a little bit to a four-foot height.

D. What lighting did you use down there?

O. I anbeam 800-watt units. Certainly I couldn't take anything bigger because there was no room for it.

The Newman-Sinclair "clockwork" (wind-up) camera, a sturdy workhorse that carries a 200-foot magazine, was considered "expendable". Fitted with an early Panavision anamorphic attachment, it was used to film two of the most potentially dangerous (to the equipment) sequences in the picture. Luckily, it survived the first, only to be demolished by the second.

ground level. It was almost 1½ miles down.

D. And did you go all the way down in one cage?

O. No, two. We went down 5,000 feet in one cage then took a train which went down at a 45° angle, a "skip" they call it. It takes 10 men, squashed like sardines, at a time. You can't stick your head up because the wall is something like 6 inches above the top. So when you're sitting in the skip you have to dive down. You mustn't forget you can't lift your head up. That went down a further 2,000 feet plus, to what they call the 52nd level. In fact, the mine itself is 55 levels deep, so we were pretty near the bottom of the mine.

D. Any gas down there?

O. No, it's very well-ventilated, but very humid, very warm — not hot but uncomfortably warm.

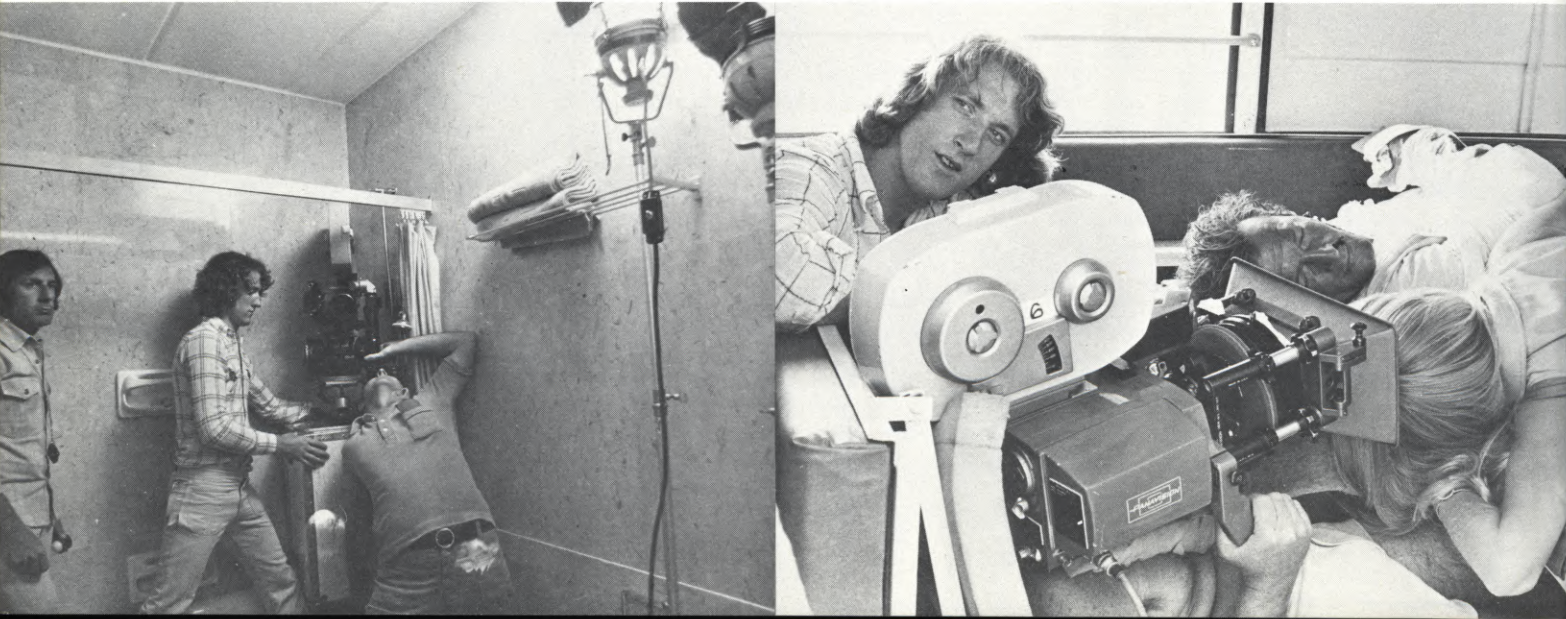
D. What camera gear did you take down there.

O. Well, luckily we had the Panaflex and, of course, we were shooting in the anamorphic format. Certainly without that particular camera we wouldn't have been able to shoot direct sound.

D. Why were you able to shoot direct sound with the Panaflex and not anything else?

O. Because of the height of the ceiling. I

(LEFT) The Panaflex camera, its orientable eyepiece pointed downwards, is tucked away in the corner of a bathroom. Quarters were so close in this actual interior and mirrors so prominent that the entire crew had to leave the room when the scene was shot. (RIGHT) Sorting out this tangled mass of humanity, one sees that there is actually a camera operator under the Panaflex. When space behind the camera is tight, the Panaflex is operated with the magazine on top.





(LEFT) The script called for a car (in this case, a Rolls Royce) to careen down a cliffside and explode at the bottom. **(CENTER)** The once elegant car is a battered wreck at the end of its run. **(RIGHT)** The Newman-Sinclair camera had been mounted at a spot where it was calculated the Rolls would end up. It turned out to be a bull's eye, because the car ran right over it. The camera was found to have exploded inside its case, with only the film magazine, anamorphic attachment and case intact.

D. What colour is the rock in the mine?

O. The walls of a gold mine are dark grey to beige — rusty colour. And where they work it's very dark grey.

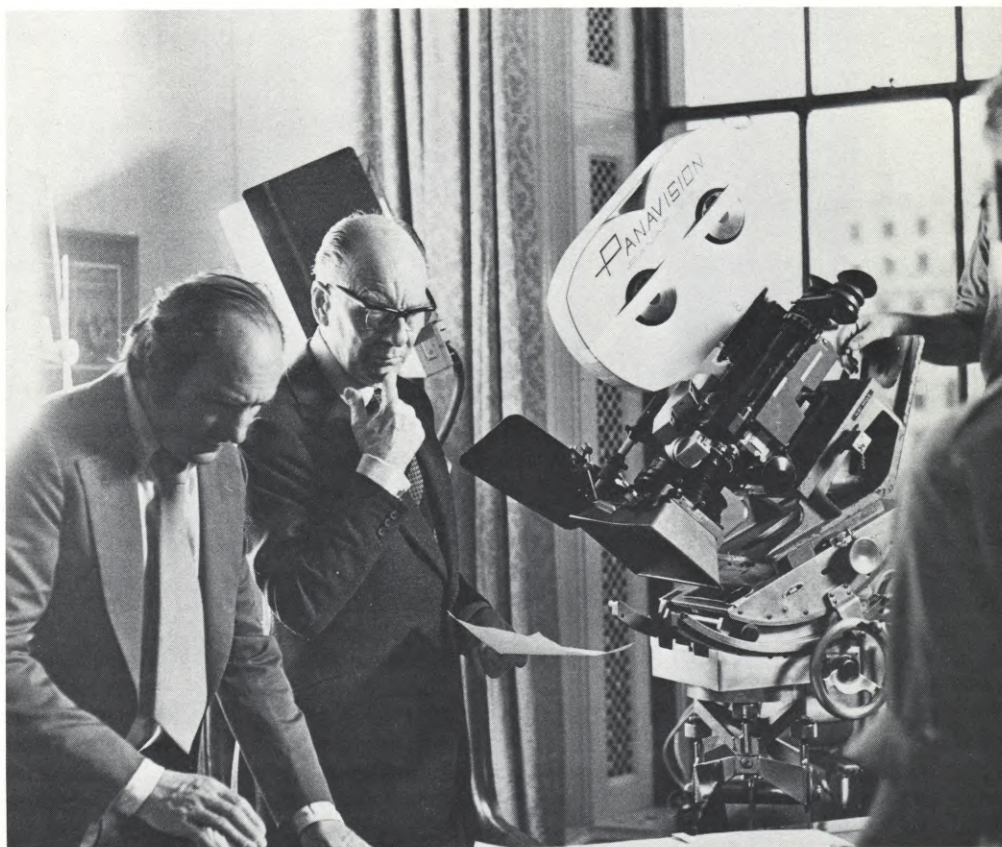
D. Didn't somebody suggest that to save going to South Africa, you could shoot the film down a local coal mine, and that nobody would know the difference?

O. Yes, it was suggested, but how would we have got 3,000 black Africans in a Welsh coal mine — not to mention the terrain and the sun?

D. The lanbeams are fairly uncontrollable lighting, aren't they?

O. True. They're not like Juniors or Pups. In fact, they were too bright. I made a decision before the wrecking of the mine sequence not to force-develop the film. Down the mine the brightest thing is the helmet light — 12-volt battery-operated little torches — just glorified torches. They obviously

Continued on Page 100



(ABOVE RIGHT) Director Peter Hunt gives instructions to Sir John Gielgud, prior to the filming of a scene. **(BELOW LEFT)** The hand-held Panaflex is operated with the film magazine mounted on the back, in order to cope with the limited headroom inside the mine. **(RIGHT)** With the Panaflex on the floor of the gold mine, the orientable eyepiece is pointed almost straight up in order to make viewing of the scene possible.





The sequence simulating Billy Rose's Aquacade (above) was staged in the Los Angeles Olympic Pool, with a great deal of style and glamour. This sequence and several other location sequences were photographed by A.S.C. President Ernest Laszlo, who kindly stepped in to carry on when Howe was hospitalized for several days.



"FUNNY LADY"

Continued from Page 57

switches, flashes of light came into the car — some red and some green. This gave the scene movement. Otherwise you wouldn't know the train was moving, except for the sound. Barbra did her song in a kind of bluish overall light, with occasional flashes of red and green coming through the windows. It was very low key, but it's amazing what you can get with color. If you have a black room and you light a match, you can get what seems to be a lot of light. I've lit scenes with only a match dipped in lighter fluid — or birthday candles dipped in lighter fluid (as in "THIS PROPERTY IS CONDEMNED"). It's a gamble, but you've got to gamble. You've got to take chances. That's the only way you're going to learn. If you make a mistake... well, who doesn't make mistakes?

QUESTION: You mentioned before that you shot 16 musical numbers in 14 days. That strikes me as a tremendous lot of work to do in a relatively short time. Did you find it somewhat of a strain after having been away from the camera for so long?

J.W.H.: There's no doubt that "FUNNY LADY" was a difficult picture to make, but it was a pleasant assignment in many ways and good therapy for me. There's only one thing I would have changed, if I could have, and that is I wish Barbra Streisand would come to work at 9 o'clock in the morning and go home at 6 or 7, rather than coming in at 10:30 or 11 and going home at 9 or 10 at night. The cameraman still has to be there early in the morning to get things ready and we worked such long hours that it finally put me in the hospital for 8 or 10 days. I was very fortunate to have Ernie Laszlo, our A.S.C. president, come in and take over for me. He did a wonderful job of matching. He did most of the location sequences, including the night shooting of the Aquacade in the Olympic pool. I'm very, very grateful to Ernie for helping out like he did. He's a great guy and a fine cameraman. When I came back to work the company was very nice to me. They gave me a dressing room so that I could rest after lunch, and they furnished a car to pick me up and take me home. I really appreciated that and, all in all, I really enjoyed working on the picture.

QUESTION: Since you were shooting Panavision on "FUNNY LADY", I'm wondering if you had occasion to use any of the new ultra-fast Panavision lenses?

J.W.H.: No, because there was nothing in the picture that called for such fast lenses. I never use them unless the situation demands it. There are some cameramen who use a fast lens outdoors and stop it down to F/5.6. If you go down that far, you're just using a little pinpoint of glass. You're not taking full advantage of the lens. Of course, the fast lenses can be very helpful in shooting night exteriors. A lot of them are shot with just available light and no fill. I think that's alright for certain scenes, but I still like to do something with lights. I like to be able to put the light where I want it and leave it out where I don't. When you're shooting in the streets at night, most of your light

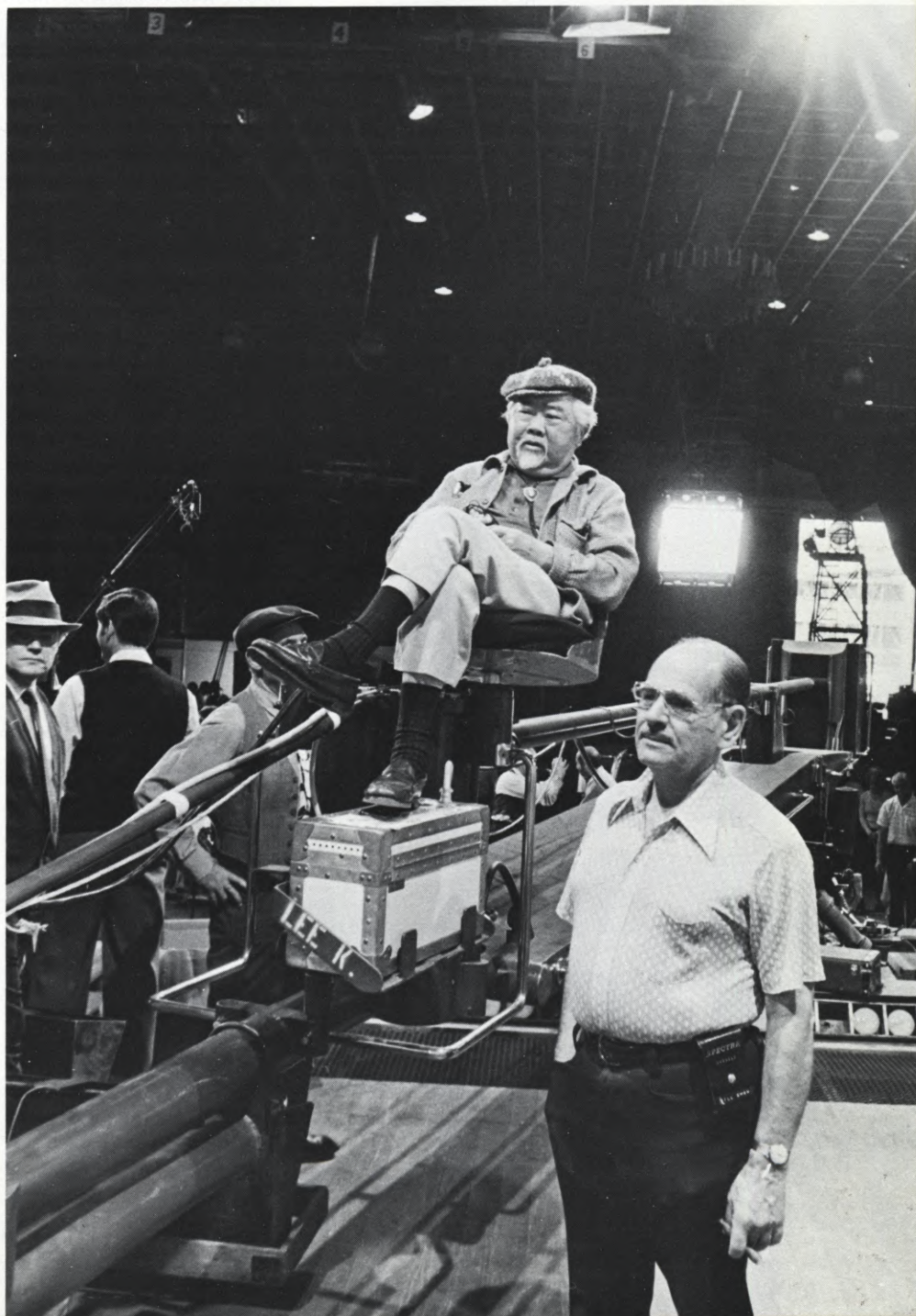
often comes from store windows. I love reflections in the windows. They provide an extra dimension and create atmosphere. You must never lose atmosphere. It's very important to a picture.

QUESTION: As long as I've known you — and that's been a good long time — you've always been a student of light. Do you still find that study as interesting as you used to?

J.W.H.: In these late years I still find the study of light very interesting, because without light we have no photography. I especially like to study the qualities of

Continued on Page 114

A favorite perch for James Wong Howe during shooting was a seat on the Chapman crane, because it offered an excellent vantage point for viewing what was going on. Howe found the long hours on "FUNNY LADY" somewhat wearing, but the experience itself an exciting challenge.



THRIFTFAX CAMERA STAND
Continued from Page 52

fitted into brass bushings. Round pegs screw in and have slots for a screwdriver. As in the standard Fax animator's disc it is possible to change field areas by interchanging the bars from top to bottom grooves. BOTH TWELVE AND SIXTEEN FIELD WORK CAN BE PHOTOGRAPHED ON THE DISC. Acme or Oxberry pegs can be used on all Fax bars.

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To eliminate reflections, all pegs, discs, platen and camera bases are

finished either in dull black baked enamel or anodized. The entire stand is finished in baked enamel for durability.

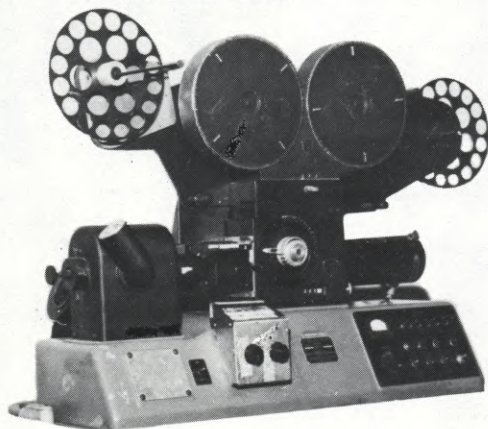
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Basic stand of steel, Heliarc welded. Leveling legs are supplied. Main and back guide columns of Shelby steel chrome-plated. Camera base supports, vertical gibs, motor base support, 20" disc and platen and main control panel are of cast aluminum. Eight Fafnir bearings on eccentric shafts ride on the columns. Slo-Syn motors driving ball chains are used for vertical positioning. Larger Bodine gear reduction motors for heavier units are available. Three field peg bars both top and bottom. Longer bars available. 360° disc rotation under camera. 'Spin' shots, etc. Platen remains in 'open' position for cel and background changing. All shafting and platen operating arm of stainless steel. Area under disc open for back light units, Rotoscope or rear projection. Large 15½ x 10½" window with Plexiglass plate. Interchangeable with glass for projected image. Pantograph with pegs and adjustable pointer included. Tape for vertical positioning in front of operator for easy reading. Operating knobs lock NS/EW compound carriages in any desired position. Interchangeable pegs, Acme or Oxberry. Two outlets for top lights. Master control panel, switches and wiring complete. Camera switch furnished but not wired. Camera trip foot-switch and bracket available. (Mounting holes in lower front bar.) Side panels in frame for storage. Entire frame and component parts finished in black baked enamel. One year guarantee on all components.

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The greatest problem was encountered with the ceramic pieces. All of these sets were white or off-white. Direct lighting could not be used, due to the intense specular highlights which flared the lens. A polarizer was ruled out because it could not remove all the specular lights, and, also caused light loss. The most successful solution proved to be bouncelight, often from miniature, pastel colored cards placed just out of camera range. The largest lighting instrument available to us was a 5K. Three seniors used as sources for the bounce usually gave enough depth of field to execute most shots. A baby with a snoot was often used to kick in a controlled highlight.

Tenting was tried for several shots, but it had several drawbacks. Mechanical hardware necessary to manipulate the chess pieces was sometimes so complex it prohibited a full tent from being close enough to the subject. This meant a loss of light coupled with the reduction of light coming through the diffusion material. The tent also caused the lighting to go flat. Generally, the tent was unable to give us the proper character and direction.

Depth of field became a great problem on many shots. Some of the pawns were only one inch high. We had two choices in attaining depth: revert to a stop-motion motor, making T/16 easy to reach, or shoot at 24 fps and pour in light. Usually the nature of the shot determined what route we would take.

The tiny size of the chess pieces often made stop motion impractical. Sometimes the shot called for smoke which, again, eliminated stop-motion. Consequently, many of the shots demanded a real-time approach.

An example of the real-time approach is the final scenes of the film involving the Kings's flight from a looming wall of red smoke. The storyboards called for master shots showing great depth as the King runs across the chess board. Since the actual King was six inches high, a smaller King from another set was substituted for this shot to help force perspective. A special chess board measuring five-by-seven feet was built in forced perspective. A 10mm lens placed low on the board was stopped down to give a depth of field from four inches to twenty feet. The smoke was piped in around the lens. The lighting was balanced so that the white and red smoke did not steal attention from the tiny King. Finally the shot was over-cranked to add scale. The King was manipulated

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The limbo "floating chessmen" sequence which opens the film presented one of the most complex problems in lighting and movement. It was also the sequence which established the graphic pattern and color for each subsequent segment. The spinning of the pieces was accomplished with a double prism lens system. One-half rotation of the prisms turned the image 360 degrees. This unit was calibrated in increments for single frame shooting. The chess pieces were suspended on monofilament. Additional spinning lights were 250-watt fresnels moved by hand between each frame. The camera was mounted on a crab dolly with a geared head. To make the chess pieces grow in size, the dolly was trucked in, one frame at a time. Transitional light changes were added in a separate camera pass. The sequence was preplanned with exposure sheets and accomplished in five camera passes.

The most difficult shot in the film was the knight's circular chess board. After a "ballet of knights" spinning and splitting in circular patterns, the entire chess board rotates, eventually making a three-dimensional sphere. The shot, lasting under a minute on screen, was filmed in one eighteen-hour session.

A large scaffold unit was constructed allowing the camera to look straight down on the circular chess board. Again, the double prism was used to achieve the two-dimensional spinning effect. The third-dimensional spin was accomplished by mounting the chess board on a pivotal axis incremented for single-framing. Using exposure sheets and incremented maps, the small pieces were displaced one frame at a time for almost one thousand frames. Great care was taken to avoid strobing, especially when the chess board began to spin.

To solve the strobing problem, several decisions were made to counter the effect. First, the sequence was animated in "ones". Next, the colors of the chess board were coordinated. Two colors were picked in the blue-purple family that had the greatest affinity of tone, that is, two colors that share the same position of the grey scale. The colors would then reflect the same amount of light reducing the chance for strobing to occur. It was also necessary to light contrary to our basic scheme. The lighting for this shot was soft, diffused light balanced at 1:1. This meant that only color would delineate depth and shape.

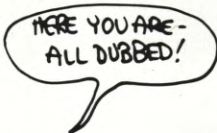
Since many shots involved long, complex set-ups and difficult exposure calculations, careful notes were kept

concerning T-stops, focal lengths, lighting positions, ratios, colors and gels. This made errors in the dailies easier to correct. Usually the errors were in faulty manipulation of single-frame action. Any difficult movement was tested by means of black and white negative "slop tests".

The finished film provided very difficult timing problems; there was no reference skin tone. Some portions of the film ran on normal lights, while other scenes would be saturated with blue, the red and green levels remaining low. CFI worked long and hard to retain and enhance the color.

The basic problems and limitations set forth by the crew proved to be an unusually educational experience. The film presented many of the problems encountered on feature films, only on a smaller scale. Most importantly, we were able to deal with the much-neglected area of film graphics. The crew's introduction to the graphic film came through Les Novros and Woody Omens of the USC faculty. Through their teachings, the film became a multi-leveled visual statement. Additional support came from Robert Kaufman and Gene Peterson of the camera faculty. The crew members are now applying their past experiences to live-action dramatic productions. ■

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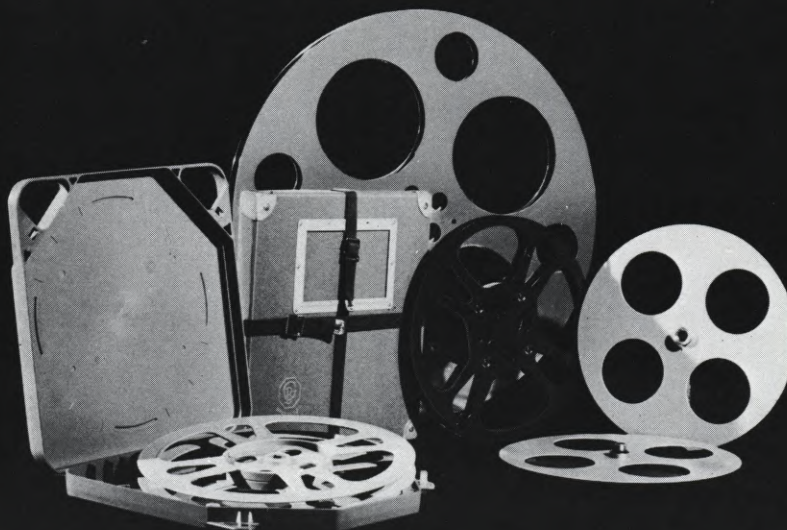
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THE FILMING OF "GOLD" Continued from Page 93

had to be the brightest light in the picture. So it was a matter of converting them to take quartz lights, force-developing the film and thereby doubling their intensity—or shooting at normal exposure with no conversion and no force development. Converting the helmet was out of the question, because if you are going to convert one, you have to convert all, and we had some scenes down the mine where we had 500 miners rushing down tunnels. It would have been very strange to have the leading actor and three of the supporting cast having very bright helmet lamps and all the other African miners rushing with dim lamps. Somebody would have said, "There you are, the African actors are given dim lights, whereas the white men get the bright ones." Certainly we couldn't have converted 500 lamps. Really, I like photographing things as they are, and so I decided to go normal without converting any of the lamps. We just used the existing helmet lamps that they had down the mine. I measured the intensity and from about three feet away, I could get 30 foot-candles from the best and 10 foot-candles from the dodgy ones and there were plenty of dodgy ones. We weren't allocated any lamps, because they had to go into the charging bay, which holds something like 10,000 of these helmet lamps. We just picked up as many as we needed for that day, depending on which scene we were doing. The electricians picked them, so I had to emphasize to them that they had to check every single one. Most of the time it was alright. When we had five or six actors that particular day I would get four good ones and two dodgy ones. When we had something like 100 or 500 lamps, of course, the majority were pretty poor. But I still decided against force-developing because of the halation you get from bright light sources. Since I'd started the film trying to make it as "glossy" as possible, I didn't want to spoil the scenes down the mine, although they were photographed to look a little rougher. But I didn't want it to be exaggerated to the extent that force-developing can give you. I wanted to show more detail than you'd normally get with force-developing. When you force-develop one stop, you are gaining about 1/3 stop more information and the other 2/3 is just fog. Although you're basing an exposure on 200 ASA, you're only gaining a 33-1/3% increase in information. I arranged with the Director that when the actors talked to each other they would actually shine

their respective helmet lights in each other's faces and so it would, firstly, enable us to see their faces and secondly, add to the dramatic feel of the scene. In other words, when they turned their faces away — say Roger Moore would turn and move his helmet light with him — the actor he was talking to would go into darkness — but not blackness.

D. So at three feet you had 30 foot-candles?

O. Which was a stop of F/1.9, but I was underexposing 1-1/2 stops to 1-2/3 stops so that with my key light, which was the helmet light, I was photographing up to 1-2/3 stops underexposed. So the lanbeam 800's were really filling in or lighting the background and I invariably found them to be too bright, so I softened them by putting something like four layers of tracing paper over them.

D. And how many foot-candles did you have then?

O. Sixteen.

D. Half the key light.

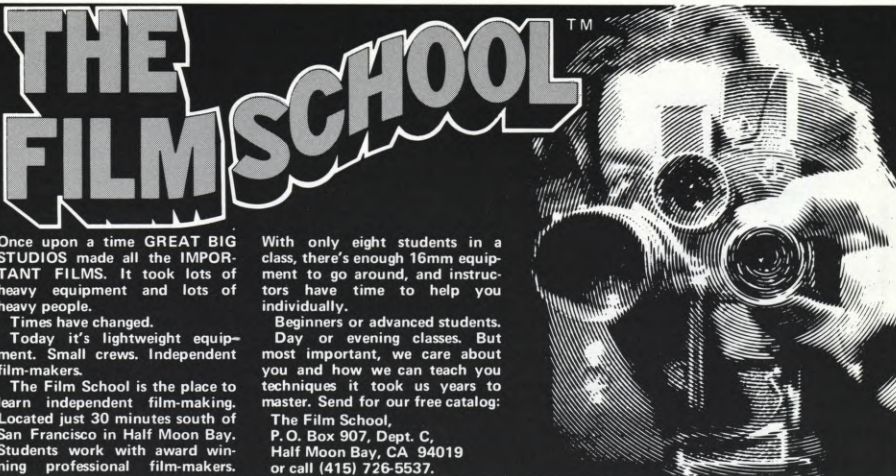
O. And the key itself was underexposed 1-1/2 to 1-2/3 stop. So it's pretty low-key really and if I was going to work like that I didn't want to force-develop. It was bad enough as it was.

D. How long were you down in the Mines?

O. Two and a half weeks.

D. So up to a point you could do the mine sequence in South Africa, but when you had the actual flooding you got into trouble, didn't you?

O. Yes. The Art Director attempted to convert the training centre that is above ground, to look like the mine down below. In fact, he did succeed in making it look almost exactly the same. Certainly, for low-key photography, it was near enough like the tunnel we were shooting down below. He had tanks built — everything was working fine. In fact, in the finished film the scene of the water actually bursting through was done in the training centre in Africa but the trouble was because of the ground; it wasn't waterproof. He did concrete it and tried very hard to make it waterproof but just couldn't retain the water. Within 20 minutes of releasing 66,000 gallons of water it would go dry. The ground just swallowed all the water up. We had many attempts and spent



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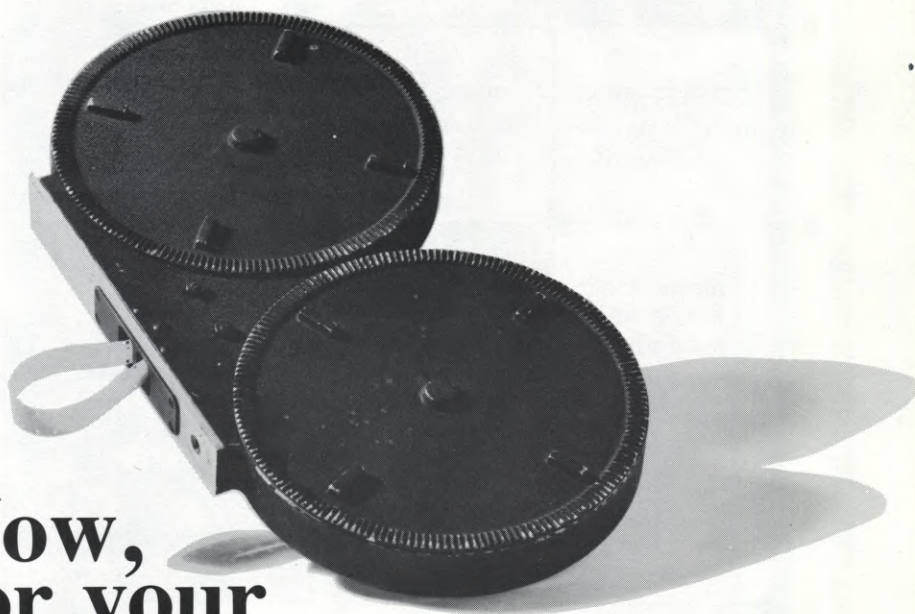
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something like a week and a half trying day after day to waterproof it. It just didn't work. In the end it was decided that, having done the water actually bursting, the section with the actual flooded tunnel would be better done in Pinewood.

D. It's interesting that although there is an enormous tendency to location shooting, there are still some things that you can't beat a studio for. A flooded gold mine is one of them.

O. That's right.

D. Would you just like to describe the set-up that you had in the Studio at Pinewood.

O. A jolly good set.

D. Was it the same Art Director?

O. No, Sid Cane took over for the studio section at Pinewood. All he saw were rushes and a lot of stills. He didn't go to Africa to have a look at the mine. But, based on the stills and rushes, he built what he thought two of the tunnels looked like as one S-shaped tunnel. We used A Stage at Pinewood, which has a tank under it and kept recycling the water in the tank. It just kept going round and round again. It was winter time, but luckily the water was heated — quite warm. That gave us another problem, the condensation of the lenses. I had to match the same lighting obviously, though I now had the comfort of a studio and could put lamps on stands and light from outside the tunnel.

D. And, of course, you could take the lid off.

O. Right. But I felt that I shouldn't change the intensity because I was still using the same helmet lights, so I carried on with the same lanbeams, using the occasional Pup or 2K to light the background.

D. Working at light levels of 16 foot-candles for fill light and 30 foot candles from three feet, at what aperture were you working?

O. T/2.8

D. Did you use fast lenses at all?

O. I didn't in this case. I had super-speed lenses, but I find there is a quality difference between a super-speed 55mm and a standard 50mm. The 50mm at T/2.8 is better than the

super-speed 55 at T/5.6 and, bearing in mind the low key, the dingy atmosphere and thinking all the time that this could be blown up on a huge screen, I needed a crispy image on the original negative.

D. Perhaps we could talk about the other disaster in the Mine. You were filming a mining disaster . . .

O. Yes, and created one of our own. We placed the Panaflex on some steps. They must be the steepest steps I have ever seen in my life. They went up 45°, rather like the skip — at the same angle. And the Panaflex was going to be looking up the steps. The top of the steps was something like 100 yards away. Roger Moore and others were going to be rushing down and saying a few lines of dialogue. Behind where the Panaflex was placed, just near the bottom of the steps, we had flooded a section of the set. That was for another scene to follow immediately. It was supposed to be another section of the mine where one of the miners struggles because it is flooded. He finds the steps and comes up. However, the set was already flooded and there it was. At the time it was very noisy — everybody making a great deal of noise. I say this as an overture, really, because it's relevant to what happened subsequently. The camera Assistant slid the dovetail of the Panaflex onto the tripod head but because of the ambient noise in the mine he could not hear the clicking noise that the lip makes when it fits into the groove and so he thought it was pushed home and safe. The camera was on, and, indeed, it stayed on. We had rehearsals. I looked through it. The Operator had more rehearsals and I did my lighting. We calculated it must have been over 20 minutes that the camera was there, tilted up at 45°. And then we were very near shooting time. The Assistant Director shouted "Quiet — Get Ready." The Operator walked towards the camera to get behind it and suddenly the camera just slid away. He hadn't even touched it yet. It just went past him. The Focus Assistant who was near the lens, jumped past the Operator in a split second and together he and the camera landed in the flooded section of our set. So the camera was in the water for 2½ seconds at the most.

D. But it was fairly acid water.

O. Yes. The water down the mine is used for cooling purposes and, as it is recycled, it becomes dirtier and dirtier and is fairly corrosive. Our geared head, for instance, was really very rusty

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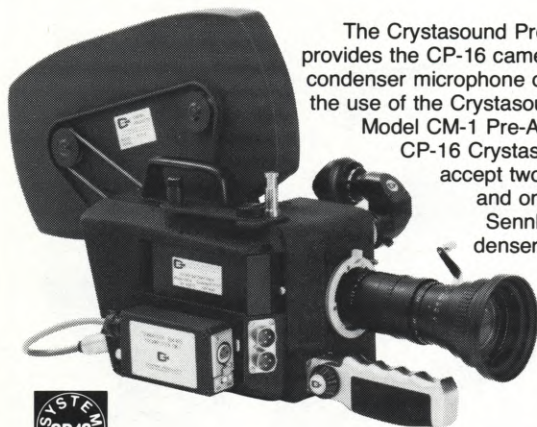
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after being down three days even though it was wiped every night.

D. So you fished it out?

O. We fished it out, less a matte box. The matte box vanished and to this day we haven't found it. We thought that when the set was dried out after we had done the scene, the matte box would be found underneath, but it was never found.

D. Perhaps the water was so acid, it dissolved.

O. I'd hate to think that because we were in that water for a long time. We felt terrible, since it was Christmas Eve or the day before. It was the worst present we could have had.

D. That camera was not a total write-off though.

O. Well I must say that all the credit is due to just one man, Dewi Humphreys, our Focus Puller. It was like his child had just had an accident.

D. What did he do?

O. We had an instant maintenance room there, a converted storeroom. We dried it as much as we could. We debated whether we should put it in another bucket of water so it wouldn't corrode, so air wouldn't get into it, or not and we quickly decided the best thing to do was smother it with oil until we got out. Once you are down the mine, you can't get out. It's like being in prison for six hours. The mine carried on working and there were no cages available to take it up. So we smothered it in oil and dried it. Then we had to wait another 1½ hours before we could actually get out. When we got out we took the Camera to Genop's maintenance room but that's why I think it was Christmas Eve because there was nobody there. John Harrison had to actually go to the office and open it and let Dewi in. Dewi spent till two or three in the morning doing the first stage of the maintenance work, virtually taking the movement out and putting it in a bowl of oil. He also opened up the viewfinder system because a lot of water had got in there and dried that out. The mirror was carefully dried with a chamois — you can't do much with a mirror. As for the motor, we tried but didn't succeed in opening the cover. We did phone London and spoke to Sydney.

D. That spoilt his Christmas.

O. Yes, plus the telex. So that's all we

could do. Everything was wrapped up in plastic bags, put together again, put in a case and shipped. It took two days actually of work on it and then it was shipped to Los Angeles.

D. It's not an experience you'd want to repeat.

O. No. It certainly spoilt our Christmas. Another thing, when you drop an Arriflex everyone says 'What the hell, we'll send for another one.' But the Panaflex is such a rare camera — and shooting down the mine we really needed it. I couldn't believe my luck when we got a telex from your office saying a replacement was on its way. We had another Panaflex within 36 hours of losing one. It was just unbelievable.

D. And Christmas too.

O. It certainly was a Christmas present. It was such a personal thing. We all loved that little camera. It was the pride and joy of the unit.

D. It is interesting how, when that camera is on a unit, even the actors take a pride in the camera.

O. Because they know they have the latest piece of equipment — it's a psychological thing.

D. Watching you work was quite interesting. For instance in hardly a single shot did you have the viewfinder in the conventional, horizontal position.

O. Lets face it, the only time you want the viewfinder to be straight out the back is when the camera is at your eye level. But it's not very often that you design a set-up that happens to fit your eye level. Unless you're lazy you usually try to pick the camera height that best suits the scene you're photographing. It was ideal because a lot of the time the camera was low — I just turned the eyepiece upwards and didn't have to grovel on the ground or find a seat or something — you just look down. And similarly, when the camera was up very high, I could just bend the eyepiece down and look up into it. Really, it was tremendous.

D. What use do you as a Director of Photography make of the magnifying system in the eyepiece?

O. A great deal. I use it a lot of the time. I prefer the magnifier that is built into the eyepiece extension to the one that is built into the optical system of the

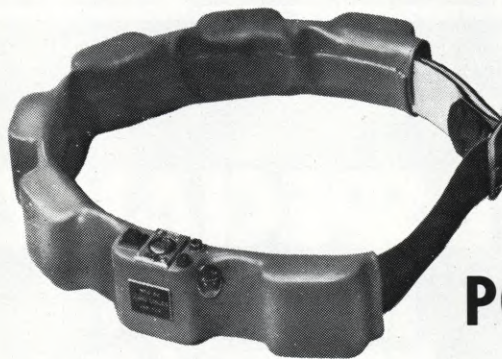
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camera because when you magnify, it brings up the whole image. I can concentrate more on what I'm seeing. An unmagnified image is alright for composing the picture, but when you're lighting you need an enlarged image to see the effect of a far light or judge the fill light.

D. In other words, you can use it to magnify a part of the scene when you're using the lighting filters. Do you have any particular like or dislike for those filters in the optical system?

O. Yes, the blue is the one I use. Just blue without neutral density, so it's still bright. Through a blue filter I get a better impression of what I'm doing.

D. What magazines do you tend to use mostly?

O. 500's. We use 1,000's where we can — exteriors or where there is a lot of room, but we find that the 500 is the ideal one because you can easily put it on the back if you have to go too high and you've got a low ceiling.

D. How long does it take you to reload?

O. A very short time. The Focus Assistant can do it blindfold now. He's doing it faster and faster. It's a real Western reload now — a matter of seconds. I'd like to see a spirit level on the camera body.

D. I think you'll find that now has been done. Going from the sublime to the other, why did you also use a Newman-Sinclair clockwork camera on the picture?

O. We had to film an explosion scene down the mine and I wasn't going to risk the Panaflex camera there, so we used the Newman-Sinclair fitted with an early Panavision anamorphic attachment. We wound up the camera which has a 200-foot magazine and when we knew the explosion would happen within a minute, switched it on and ran away. The camera was enclosed in a specially made steel box, so we really used it to protect the other cameras and certainly the Panaflex and the lenses. We had another scene to do with the camera which was a Rolls Royce coming down a cliff and that was being covered by our PSR, the Panaflex, two hard-front Arriflexes and, in its steel box, the Newman as a fifth camera which we placed in the most dangerous position, right where we thought the Rolls was going to end up.

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And as it turned out, it was a bull's eye, because the Rolls Royce actually ran over it. Then we had to wait, we couldn't go and rescue the case or the camera until after the explosives in the Rolls Royce had been made safe. When we got the go-ahead to get the camera out, we found that the Newman-Sinclair was in something like 20 pieces, it had virtually exploded inside the case. The only thing that was left intact was the magazine holding the film, the Panavision attachment, and the steel case.

D. Very selective. And the film was OK?

O. The film was OK, but naturally enough, it's not in the finished film because it wasn't the most exciting shot. Funnily enough, when it came on the screen you saw the Rolls coming closer and closer to the camera until you saw the bumper coming right up to the lens and then nothing — just a mess. And really was not as effective as the shot done with the Panaflex from yards and yards away, pretty safe, showing the whole thing. Just because the camera is in the most dangerous position doesn't necessarily follow that it is going to get the best shot and this was just one of those things.

D. It's a fairly exotic car to crash — a Rolls, isn't it? How did you come to do that?

O. The script called for Steiner's car to fall down this cliff and explode at the bottom. Peter Hunt said, "Yes, that's fine but how about it if the car is a Rolls Royce?" You don't often see a Rolls Royce coming down a cliff and exploding and, of course, Michael Klinger the Producer, will do anything if it's going to show on the screen and immediately said, "Yes, let's get going." And then the Production Manager with the Art Department had to shop around to try to find a Rolls Royce going cheap for one reason or another. He found one locally. A Rolls Royce Silver Shadow owner in Johannesburg had taken his car to the one and only Rolls Royce servicing station in Johannesburg for a routine service. At lunch time, one of the African workers decided to cook his lunch and placed his Primus stove very close to the Rolls Royce. While he was cooking his meal, the Rolls caught fire. Can you imagine when the Manager of the Garage had to ring up the owner and say "You can't collect your car because it is burnt out. It's a write-off." It was a godsend for us. As soon as we heard about it the Production Manager made a deal and we got the car. Then the Art Department built a 100-foot

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ramp, just out of shot for the Rolls to come down. There was a short upturn at the bottom of the ramp to tip the nose of the car upwards just before it appears into shot and gives it that extra shove forward. I think it is a very effective shot. Many shots, in fact, because out of the five cameras that turned over on this scene, they all were OK and four of the angles were used. The most dangerous one, of course, wasn't used, because it didn't look very dangerous.

D. I noticed you were using some unusual filters.

O. I use ultraviolet whenever I am in a sunny location. I have the ultraviolet on all the time in front of every lens. I do find there is a tremendous difference. I did tests, shooting the same scene with and without ultraviolet. I know a lot of people say that the 85 filter includes an ultraviolet, but I really found there is a difference between using an 85 on its own and an 85 plus an ultraviolet. You do cut through haze and lose the bluish effect.

D. When do you use the 81EF?

O. Late afternoons. If I'm still on the same scene that I started on the morning, as soon as the sun starts getting warm then I switch to the 81EF. I take colour temperature readings first thing in the morning when I start a scene and then forget it until it's obvious that the sun is beginning to get warm in the afternoon, then I take another reading and, depending on the results, I'll use the necessary filter so that I can at least give the laboratory as near as possible a balanced colour temperature negative.

D. I noticed another "Idiosyncrasy" about your shooting, or shall we say an area in which you were taking particular care, and that is when you have blue gelatines put in front of lights, you have the whole thing wrapped up like a parcel so that no low colour temperature light leaks out anywhere.

O. It's a bit expensive on filters. I have had trouble in the past with leak lights, the warm colour going up to the ceiling and down to the ground. I'd light a scene and all is well for say a 50mm or 100mm lens and then suddenly the Director wants to go super wide and we put on a 20mm lens. Now I may have part of the ceiling or the floor in shot. Just before saying I'm ready to go, I look through the camera and there it is, a warm coloured white ceiling and a warm floor. Then we would have to

waste time getting flags or some additional blue gelatine to stick on top or underneath the lamps. It's so much simpler just to wrap the lamp with the blue gelatine. Then it doesn't matter. You can tip the lamp up, down, sideways or whichever way you like.

D. Earlier on, you were telling me about the problem you had with condensation.

O. Yes, at Pinewood. It was a freezing cold winter and for the actors to be able to perform and not freeze to death they had to heat the water considerably. We found that, because of the enclosed set, the ceiling was about five feet high; the water was steaming. As soon as we brought a camera into the tunnel the lenses steamed up straight away. We had tremendous difficulty getting rid of this condensation. Normally, if you leave a camera in a place like this, within say 15 to 20 minutes, it climatizes itself and clears. But we found in our situation it just didn't clear. Maybe it would have done so if we had left the equipment there overnight, but we weren't able to do that. We had to get on with it. We found the answer was to have a light shining onto the lenses, just to give them a little bit of extra warmth. ■

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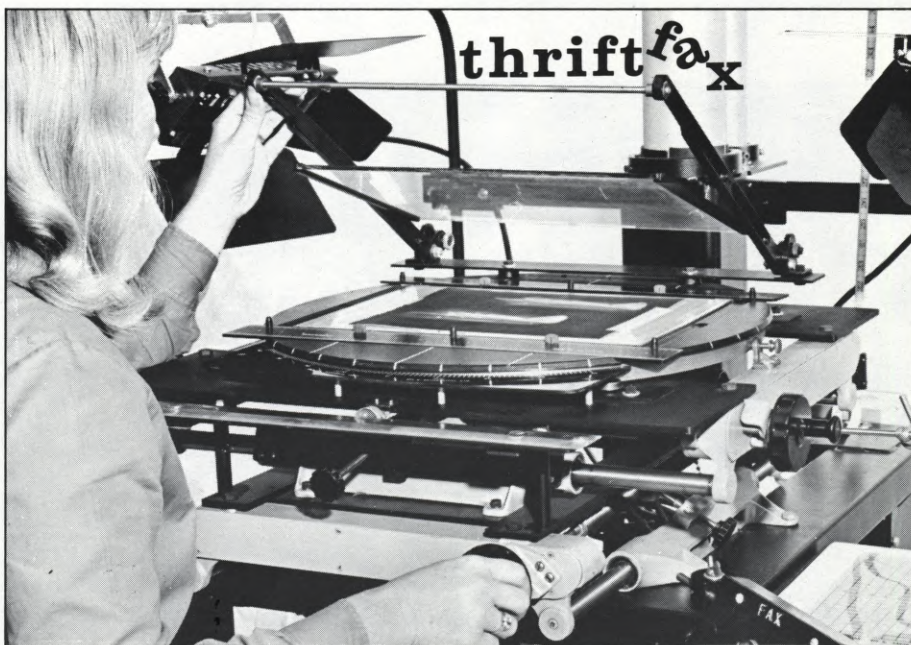
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Continued from Page 80

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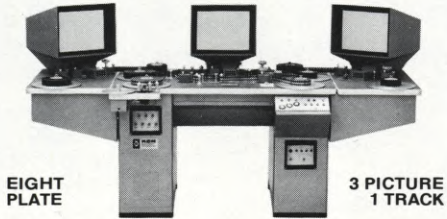
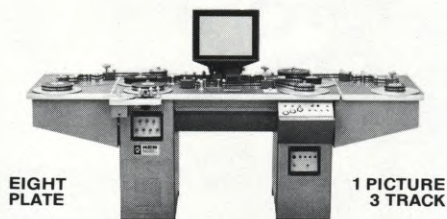
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torque motor control is automatic;
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and ON when the transport is in the
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The unit functions very simply with
three card drive electronics, one card
for each transport; these are
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Performance

The manufacturer reports that con-
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In a week of uninterrupted, day-long
running, its operation was observed as
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free. The simplicity and location of the
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actions tend to become reflexive, and
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In this unit, Magnasync/Moviola
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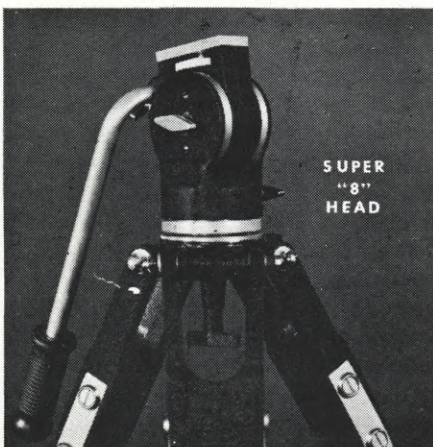
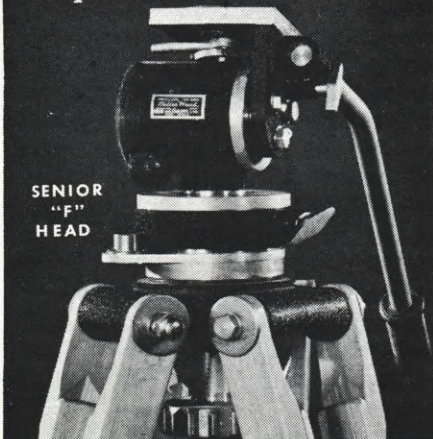
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"MAGICAM"
 Continued from Page 73

moves the background camera down, searching for the floor. Finding it, the program memorizes the location. Information from the foreground camera height is sensed, processed for scale factor and finally transmitted to the background system where the periscope lens automatically counts up from the stored floor height to the scaled foreground camera height. Once all modes of movement are slaved, the camera operator is capable of maneuvering his camera in any fashion he would employ under normal shooting conditions. Coupled with a quality matte, camera movement provides an image which makes it nearly impossible for the keenest eye to detect anything but a one-camera scene.

Magicam provides an expanded means for creating special effects and trick photography. Creating productions like "LAND OF THE GIANTS", "TOM THUMB", "MARY POPPINS", or "KING KONG" becomes enormously simplified with Magicam.

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The Magicam stage facility at Paramount Pictures has been designed and constructed to provide the optimum conditions for the new process: 4,000 square feet of floor with 30-foot-high cyclorama walls, a poured epoxy floor within +1/32 of an inch tolerances to assure the smoothness of foreground camera moves. The background camera system is also housed on the stage in a separate room containing all the necessary equipment for rigging and lighting most any miniature. Rigging and lighting of the blue cyc area was designed on a permanent basis, such that the optimum levels for matting would be a matter of turning a switch for any production. Key lights which provide the source of shadow and modeling are the only elements which require adjustments per production. The Magicam foreground lighting scheme is the design of Mr. Ken Peach, Sr., ASC, whose years of experience have brought to Magicam the necessary refinements for creating imagery as employed by the finest cinematographers.

The initial repercussions of the Magicam system are already being experienced from all levels of the television and film industries — technicians, executives, producers, directors, writers, cinematographers.

Magicam means not only vastly expanded creative horizons, but also an economical alternative to conventional production. Moreover, it means production methods that are aimed at freeing the creative personnel from logistical worries, allowing them to concentrate fully on the story values.

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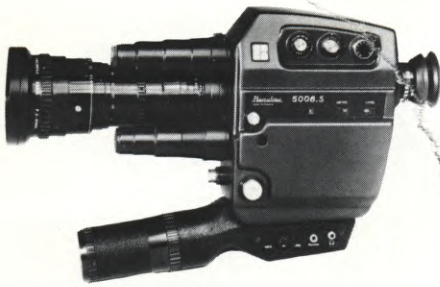
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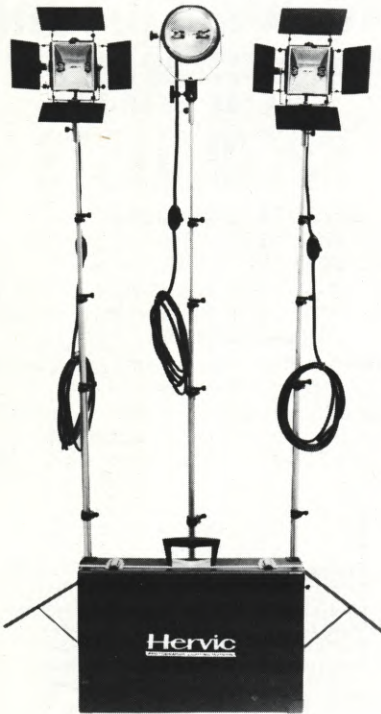
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"FUNNY LADY"
 Continued from Page 95

outdoor light — early morning, sunrise, high noon, late afternoon, evening and on into night. Then there are the special qualities that go with foggy nights, rainy nights, when it's snowing and when there are clouds. Interiors you can light any way you want, because you have more control — but exterior light is quite another thing. It's always changing. You may start with sunlight and then clouds will come over and create overcast. If you could rely on overcast all day long it would be fine, because it's a lovely light. But bright sunlight is always clean and it gives you brilliance. I like to use it as three-quarter crosslight or direct backlight. If I'm shooting in the woods I might have someone burn a few green leaves off-camera to get a little shift of grays floating through. This is helpful. It separates the trees and gives you a kind of soft background without using gauzes. I notice that a lot of the cameramen are now using light fog filters, but I feel that any time you drop something in front of a lens, you're putting something in front of the audience — whether it's color or diffusion or whatever. I didn't use any diffusion on "FUNNY LADY", except for one scene where Barbra looked into a mirror. She must have been nervous that day because she had a few little bumps on her chin. I told her that I was going to use a little diffusion and explained why. She said: "Then, would you make one without it, too?" She's wonderful.

QUESTION: You've mentioned atmosphere as being very important to the motion picture, and there's certainly no argument about that. But to what extent does atmosphere depend upon the cameraman's skill, rather than the sets and locations he's given to photograph?

J.W.H.: I think a good example to answer that question is the film "HUD", which I photographed for Marty Ritt and which won an Academy Award for cinematography. Before the start of the picture, Marty said to me: "Jimmy, this is a picture that I don't think a cameraman will like to photograph." I wanted to know why, and he said: "Texas — flat, hot sky — and we've got to have a location where you can't see a building for miles because this man owns so much land." He asked me if we could double-expose clouds in the sky, and I said: "Sure, our special effects technicians can do anything, but it will mean that we've got to find eerie clouds, storm clouds, and it's going to handicap you and slow you down." We

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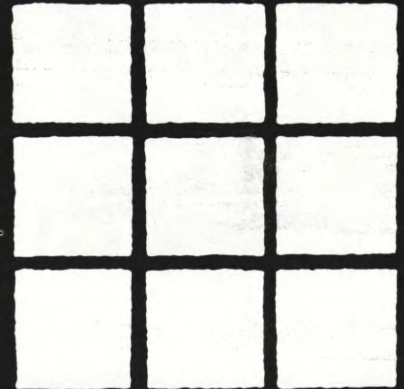
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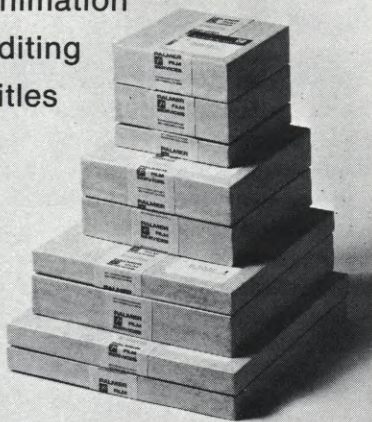
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went down to look at the location. The sky was white and the ground was white. I said: "This is great! How often do you get a picture with this kind of atmosphere? The wind is blowing now, but let's take along a couple of wind machines in case the wind doesn't blow and we'll just throw a little dust through it to preserve that desolate feeling." On several days we had clouds, but being that the picture was photographed in black and white, I could throw a little filter in to lose the clouds and make the sky go white. I've seen pictures where people are walking through the desert and are supposed to be dying of thirst, but there's a beautiful sky and beautiful clouds and they're walking through beautiful scenery. You just don't feel the suffering they're going through. In "HUD" I tried to preserve a stark visual atmosphere to emphasize the point that there is a loneliness in the way those people live.

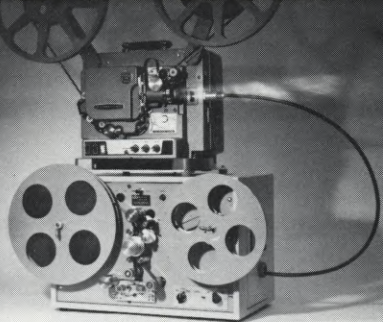
QUESTION: Would you say that your basic photographic style has changed significantly over the years and, if so, in what ways?

J.W.H.: I've tried to simplify my lighting more and more by eliminating light, rather than adding more light. Now, you take an artist who makes a sketch. He doesn't draw a complete outline. He draws a partial outline and your imagination fills in the rest. Applied to film, that approach makes the audience work a little and the effect doesn't become too literal. Most of the time I like a kind of subjective lighting — suggestive, rather than literal. I try to do my lighting in the simplest form and not complicate things — unless the dramatic situation calls for complication. But that fine simplicity is not always easy to achieve. You have to have a director who will work with you. Just keep it simple. Get the clutter out of the background. Don't be afraid to use an empty space. If you have a plain wall, don't go and throw a kookaloris shadow on it. You can get a nice effect out of it simply by letting the light fall off. In the end, what you're trying to say with your photographing is dictated by the way the scene is written in the screenplay and the way the director chooses to interpret it.

QUESTION: Do you feel, then, that technique can sometimes get in the way of the cinematic statement?

J.W.H.: Yes — if it's overemphasized. Getting down to basics, unless you have a good story, you can't really have a good picture — and all the technique in the world won't help. The main job of the cameraman is to help achieve the

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correct interpretation of the script. Any time he diverges from that to show off what he can do he's defeating the purpose. I'm speaking of things like kookaloris shadows on the wall, random camera movement, etc. Much of that has to be attributed to directors because, after all, a cameraman takes his instructions from the director. A lot of young directors use the hand-held camera and all that business for no logical reason. The zoom lens is often used improperly and it can actually destroy some of the scenes they're trying to save. How many directors really know what focal length lenses to use for certain dramatic effects that relate to the story? Some of them say: "Aw, let's put a zoom on." And they just zoom in and out. I once shot a picture called "TRANSATLANTIC" and I photographed it entirely with only two lenses — a 25mm and a 35mm. You never did lose your background; you always knew where you were. But now they'll shoot a long shot with a wide-angle lens. Then, suddenly, they'll zoom in to a closeup — and what's happened to the background? It's disappeared, changed perspective. This can be disturbing to the audience. It's hard enough to tell a story and hold the audience's attention, without letting them become aware of the mechanics. Orson Welles and Gregg Toland made one of the great films, "CITIZEN KANE". They would play a scene through in a long shot and the scene would hold because it had atmosphere. But when Gregg came in for a closeup, that big room was still a big room. Let's say that you bring an actor into a big, beautiful cathedral. Then you do a reverse closeup that's supposed to show that the back of the cathedral is as big as the front. But if you use a 4-inch lens, what happens to the cathedral? It disappears in a blur.

QUESTION: If you were to advise young would-be cameramen these days, what would you tell them that they ought to learn?

J.W.H.: First, they should learn technique — all about lenses, exposure and lighting. They should simplify lighting and avoid multiple shadows — those little soft shadows that sneak around, so that every time a person moves three or four shadows move. I would advise them to experiment, buy a little Instamatic or any 35mm camera and go out on Sundays to shoot pictures — all kinds of pictures. They should experiment with back-lighting, cross-lighting, front-lighting — go out in the rain, go out in the fog, go out early in the morning. They should run their pictures through the lab and study

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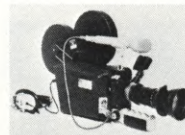
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them. It's a continuous study. They should, by all means, study good photographs made by other people. They may even emulate those people at first, until they eventually find their own style. I would like to emphasize that there should never be just one style, because every film has its own style that conforms to the story. Your style should change to suit the vehicle, but you should know your technique so well that you can make these changes easily. I think young film-makers can learn a lot from studying the work of some of the great masters of the past — directors like John Ford and Howard Hawks, for example. They really knew how to use the camera. The thing is that in the film medium you never stop learning. It's a continuous process. After 57 years in the industry I'm still learning.

QUESTION: At this point in time, how do you regard the future of the motion picture industry?

J.W.H.: Making pictures today is a gamble because they cost so much, but a good picture makes more money today than ever before. I really think that the motion picture industry is going to get bigger — so much so that I wish I could start all over again. There aren't many of us old-timers left. A lot of the great cameramen are gone — people like Billy Bitzer, Arthur Miller, Hal Mohr and Harry Stradling, Sr. But there are some fine talents among today's younger cameramen — Conrad Hall, John Alonzo, Vilmos Zsigmond and several others. I admire Conrad Hall's work. His "IN COLD BLOOD" had some of the finest black and white photography I've ever seen. Vilmos Zsigmond is a very fine cameraman. I saw his picture called "DELIVERANCE". It was shot mostly outdoors and I liked it because of its great consistency. Making pictures outdoors is much more difficult than shooting indoors because of the light changes, but that man did a terrific job. I respect him very much as a cameraman.

QUESTION: Getting back to "FUNNY LADY", do you have any final comments you'd like to make?

J.W.H.: As I said before, photographing "FUNNY LADY" was great therapy for me and, even though I was sick for several days, I started it, I finished it, and we came in on schedule. I don't know how many pictures I have left in my time. I hope to make a couple more. But if it turns out that "FUNNY LADY" is the last one I'll make, I hope that it's good — not just my work, but the whole picture.

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WHAT THE BLIND SEE
Continued from Page 87

result combines the advantages of the Arri's small size and flexibility with Mitchell-like bright, larger viewing optics. Richard knew that the added clarity of the Fellini door would make the task of judging the effects before his lens that much easier. At the time there were only two Fellini doors available in this country; the one used was acquired through Ferco, New York.

To re-create the different types of blindness, Richard picked five basic materials, nylon and cotton netting material, vaseline, frosted gel and dulling spray. He ingeniously used these materials to create three basic ways that vision can be obscured, totally, where the sides of vision are obscured, and where the center of vision is obscured.

Richard selected cotton and nylon netting material because they produce slightly different effects. Nylon net has rather smooth edges — that is, the individual holes or cells don't have little fabric hairs softening their edges. Cotton does, and so for a given mesh size the cotton will diffuse more. In addition the density naturally affects the amount of diffusion. Black netting is quite different in look from white netting which tends to soften and ghost out the image. Prior to beginning the tests Richard cut a series of paper discs from 5mm in diameter to 138mm in diameter in 5mm increments. These served as templates for constructing our vari-layered netting effects. The nets were assigned code letters and numbers for our test references. Thus, WN3 for example was a white nylon net of a given mesh size which we called #3.

Macular degeneration is a visual impairment in which the center is obscured. The person has a dark spot in the center of vision. To achieve this effect, we did six tests. The set-up finally used was 22mm focal length with a stop of T4. In the center a disc of frost gel 12mm in diameter. Then

- 2 layers of WN-1 20mm in diameter
- 2 layers of WN-1 30mm in diameter
- 1 layer of WN-1 35mm in diameter
- 1 layer of WN-1 45mm in diameter

This effect, illustrated here, created the fuzzy, darkish spot people see and yet not the black spot commonly thought. In order to illustrate this disease in a manner which would be recognizable to an average audience, we created a scene in which a still cameraman shot a strobe very close to a young woman's face. The image of the strobe remained in her vision —

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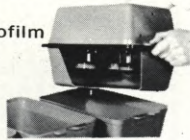
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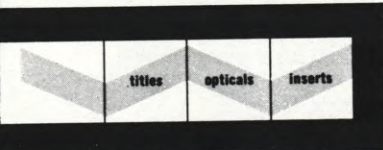
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obscuring the center of her sight — much as it happens in macular degeneration.

Retinitis pigmentosa creates the opposite visual defect — the center of vision is clear and the sides are obscured. This is often called tunnel vision and happens in both retinitis pigmentosa and glaucoma. We illustrated this simply by showing how kids like to use tubes to play with but they soon tire of it because they don't like to lose their peripheral vision.

The problem was to show this on film. You're not aware of where your peripheral vision ends. For example, stare straight ahead and move a hand from the center of your vision to the edges, after a point it disappears, but there isn't a blackness, just an ending, a nothingness. We didn't want to show a blackness since it would only confuse the audience. After many tests, we settled on a 20mm circle cut out of double layers of frost gel. Of course, this was as close as we could come to the 'nothingness' which exists outside your peripheral vision.

Cataracts, a general clouding of overall vision, were a unique problem, since we had to not only cloud the vision but change the color because cataracts often cast a yellow tint over vision. We likened cataracts to trying to look through a dirty windshield and after tests we settled upon a 40 Y gel and different levels of dulling sprays over the glass. The interesting thing here was we were fighting our own desire to see and what we called the heaviest effect wasn't heavy enough according to Dr. Faye and we increased it.

Diabetic retinopathy is a severe disease which is created in two ways, one, where there is hemorrhaging in the eye itself, and the second where there is scar tissue on the retina of the eye. Richard created a novel way in which to show the hemorrhaging. We shot through a clear fish-tank filled with water, and we then injected red ink into the water (Pelikan-waterproof scarlet). We had tested other liquids and other dyes but this best created the effect. People who viewed the film say it is unsettling since they see a bucolic country scene and slowly the scene fills with the red, blood-like tint.

Dr. Faye, once, in describing the second type of diabetic retinopathy, said it was like looking through a pizza pie. We tried different methods to achieve that concept but none of them came close to what the patient with diabetic retinopathy might see since through the "pizza" pie there might be clear patches of vision and there might not be. This one defect was the only

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But I think the best compliment was
from a man who had had his cataracts
removed. He said, "I don't know how
you did it, but that's exactly what I saw
when I had cataracts." ■

CINEMA WORKSHOP Continued from Page 16

this scattering or diffusion effect is
minute in the first place and it is
debatable whether the effects of either
filter would be visually apparent to the
audience. The cinematographer should
make his own tests under specific cir-
cumstances rather than rely on the
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effect may be debated, there is another
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lenses (9.5-95, 10-100, 12-120, etc.) is
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plane distance off by as much as *three*
times the normal allowable tolerance.
There is no debate here — the image is
going soft!

If you plan on using B.T.L. gels, the
camera should be collimated with a
Wratten #0 (clear) gel in the filter slot.
Likewise, when shooting with no filter,
the Wratten #0 should be placed in the
filter slot (or possibly a Wratten #1A
skylight).

There are several other precautions
that should be noted. Periodically
inspect the gel in the camera by remov-
ing the lens from the camera. Check
the positioning of the gel and ascertain
that no oil or grease has been thrown
onto the gel by the camera mechanism.
Take care inserting and retracting the
gels as they are easily scratched.
Always carry spare gels and replace
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SURPLUS STUDIO EQUIPMENT SALE. A complete re-recording and editing facility, consisting of 35mm and 16mm interlock equipment. Complete to the last detail. All RCA and Westrex components. Inventory far too much to list here. Send for our complete inventory list. WARREN SOUND STUDIOS, 35 N.E. 62nd St., Miami, Fla. 33138 — 754-9539.

16mm ARRI S, 2 mags, variable speed motor, 16-25-50 lenses, case, \$2,500. 16mm Eclair NPR, Pilotone motor, magazine, battery, case, \$3,500. 35mm Eclair CM3, 2 motors, 4 mags 18, 32, 50, 100 lenses, cases, \$1,800. 35mm Mitchell, 3 mags. 25, 35, 40, 75, 100, 152, lens, cases, \$1,000. Call Goldsholl Associates, TOM FEESE, (312) 446-8300.

BEAULIEU R16BA, 12.5-75 Angenieux zoom, 500MA handgrip, charger, AC adapter, Halliburton case, matte box, excellent condition, \$1500. JEFF WEISEND (216) 923-2892.

WESTREX 16mm, 35mm magnetic studio recorders; Amega 16mm, 35mm optical magnetic studio dubbers; RCA 16mm optical film recorder; Xenon 500W lamp house; Depue 35/16 printer w/B&H additive lamphouse; Additional laboratory projection equipment available. NEPTUNE CORPORATION, 115 W. 45th St., NY, 10036, (212) 765-4785.

ARRI 35-2B with motor \$625. Auricon Pro-600 special 12-120 mag. & optical sound, 2 magazines, \$2850. 2619 Ahekolu St., Honolulu, Hawaii (808) 533-7551.

NEWS/DOCUMENTARY, Auricon 16mm, Filmagnetic sound, MA-11 amplifier, microphones/cables, Angenieux 12-120, two 400' Mitchell magazines, shoulder braces, rechargeable battery, \$2500. (206) 285-3466.

BEAULIEU R16B auto 17-68 zoom, case, battery, charger, \$950. Absolutely mint (213) 277-9031.

BEAULIEU ACCESSORIES ON SALE NOW! WORLD CAMERA & SOUND, 1580 South Woodward Avenue, Birmingham, MI—35555 Plymouth Road, Livonia, MI (313) 642-6975.

MOTION picture strobe, power pack with four heads, 1-96 fps sync capability. Sample reel available. SID AVERY, 820 N. La Brea, LA 90038, (213) 465-7193.

ARRI S, 16, 25, 50mm, 17 to 70, matte box, filters, VS motor, 400' mag & torque motor, belt, charger, Miller tripod, cases, \$2995. BAR B Q GUEST RANCH, Box 70, Melrose, Mont. (406) 835-2941.

FILM: Camera stock 35mm 5251 color 100' rolls, \$5.00@. 2484 panchromatic 500' 200 ASA \$8.50@. Infrared 100' \$2.00@. Chemical E-A4 first developer replenisher makes 106 gal. per case, \$40. 400' lab reels new case, forty, \$20. All types preview room equipment, 35 Arriflex 2B w / matte box 400-200-mags, power cable battery belt, filters, 75mm, 55mm, 28mm lenses, shoulder pod, carrying case, complete, \$1150. ROBERT M. DOMINIC, 2529 Nordell Ave. Castro Valley, CA 94546. (415) 537-1887.

NPR BATTERIES \$135

New battery packs for Eclair NPR 7 plus magazine capacity. Charger included. 6 1/4 x 8 1/4 x 2 3/4, 6 lbs. RAMSGATE, 704 Santa Monica Blvd., Santa Monica, CA 90401 (213) 394-8819.

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UNDERWATER 16mm Arriflex system complete. Call STANTON WATERMAN (609) 921-7204 or Write: 16 Hunter Rd., Princeton, NJ 08540.

SIERRA NEVADA COLLEGE has a HOUSTON-FEERLESS type all automatic film processor. All offers accepted. DESPERATE. DELIVER FREE within 600 miles. Sierra Nevada College, Box 4269, Incline Village, Nev. 89450 (702) 831-1314. Attn: Alex.

WOULD LIKE to dispose of approximately \$75,000 of Arriflex equipment. This merchandise is brand new and carries new camera warranty. Priced for immediate sale. Write or call PAUL ODOM, JR., 7204 South Pennsylvania, Oklahoma City, Okla. 73159, (405) 685-5541.

CANON SCOOPIC 16 complete with case, filter, charger, one battery, all in perfect condition, \$675. ART (717) 238-8920.

MAGNASYNC X-400, Type I, (With 1200' capability), 16mm magnetic film recorder, \$650. AKG condenser shotgun microphone — CK-9 capsule, C-451E pre-amp, power supply, Windscreen, stand adapter and pistol grip, \$250. L. LOEWINGER, (212) 691-2154.

BOLEX 16mm SALE, write for prices. WORLD CAMERA & SOUND, 1580 South Woodward, Birmingham, MI — 35555 Plymouth Road, Livonia MI. (313) 642-6975.

MITCHELL GC camera, high speed, w/400' and 1000' magazines, motor, good cond., Arri-S & lenses, complete Bolex Pro outfit. IPEC, (213) 462-1297.

17 1/2mm Magnacorder tape recorder, 2 cases, microphone, sync motor, 5 reels tape. P.O. Box 2345, Sarasota, FL 33578.

300mm F3.5 KINOPTIK Arri mount, 25 filter, fibre case, rigid lens mount, (mint condition) photo available on request. BO DOT FILM PRODUCTIONS, 709 Holly Road, Beloit, WI 53511 (608) 365-8618.

RCA PR-33 (35mm) Optical film recorder with solid state amplifier, latest galvo, \$3000. WANTED, 35mm DeBrie Super Parvo camera. WANTED, Reeves Baby P-10 magnetic film recorder. IMAGE DEVELOPMENT CO., Box 1014, Parsons, KS 67357 (316) 421-2904.

SYSTEMS: \$5,500 — ACL, 200 ft. mags, 3 lenses. \$4,400 — Nagra 4.2, stereo (loaded) 6 mikes, crystal sync. \$3,400 — Camera accessories: 12-120 Angenieux, Miller Pro, etc. DUGGAL COLOR (212) 924-6363.

NAGRAS, Model III with crystals, slate lights and other extras, \$1300-1500. Sennheiser & Comrex wireless mikes, \$150-325. Sennheiser Lav. mikes. Rivas Splicers, 35mm straight, 16mm diagonal. 35mm synchronizer. Miscellaneous audio & test equipment. (212) 741-2989.

ACME Animation stand and camera outfit, \$12,000. ARRI-35 IIC, 2 motors, 2 mags., 3 lenses, \$3800. Eclair NPR, 12-120 zoom, mag. and case, \$4950. Paromel 35mm Theater projectors with change-over, xenon lamps and bulbs, \$7950. VAN GUARD LEASING CO., Los Angeles. (213) 461-5437.

ECLAIR ACL Minic package: 2-200' magazines, battery, charger, case, Angenieux 9.5-57 f/1.6 CA-1 mount. One owner camera, like new: \$6500. REUBEN TRANE, INC., 751 North Greenway Drive, Coral Gables, FL 33134. (305) 445-5703.

HI SPEED camera sale, 16mm Vought, Fast-air, Fairchild; up to 600 fps. Selling out, lowest prices. IPEC (213) 462-1297.

RATES: Ads set in lightface type 40¢ per word. Minimum ad, \$4.00. Text set in lightface capital letters (except 1st word and advertiser's name) 50¢ per word. Modified display format (text set in boldface type, capitals or upper-and-lower-

case) \$4.00 per line. Send copy with remittance to cover payment to Editorial Office, American Cinematographer, P.O. Box 2230, Hollywood 28, Calif. Forms close 1st of month preceding date of issue.

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COLORTRAN crab dolly — rebuilt, \$4,250. 25/250 Angenieux, excellent condition, Arri mount w/shade, \$3,450. UC-20-S Moviola reconditioned, \$2,250. 2 ea., Simplex 35mm dbi system projectors w/rectifiers, w/dousers, excellent, \$5,250. M/R Seniors, excellent, \$199.50. McAllister Seniors, excellent, \$150. Miller Pro w/slip pan, like new, \$425. Used Pro tripods, stds., & babies, good, \$75. Used "C" stands, \$45. Nagra SNN Used once w/crystals, mike, cables, \$1,650. Arri IIC — 3 lenses, 4 mags, V/S motor, matte box, case, cables, guaranteed parts and labor, 6 months, \$4,500. O'Connor "C" fluid head, used, \$275. CECO friction head w/legs, \$99.50. Arri 16S w/3 std. lenses, V/S motor, torque motor, 2 400' mags., 120 day parts and labor guarantee, \$3,750. DeVry portable 35mm projector w/pedestal, completely reconditioned, \$1,495. Cine Voice flat top conversion w/3 400' mags., 12-120 w/finder, filmagnetic, power supply, cases, like new, \$3,495. JACK PILL & ASSOCIATES 6370 Santa Monica Blvd., Hollywood, CA 90038 (213) 466-3238.

ARRI M 2 400' mags, wild & constant speed motors, 2 batteries, 17mm to 70 Berthoit zoom, three prime Schneiders, Halliburton case, used very little, \$2,750 firm. (215) EV7-4406.

WHITE ELEPHANT: Richardson Film Viewer (analytical system for serial footage, etc.) 24" x 24" screen, 35/16mm. \$3,000. LAURENCE, (415) 841-0818.

ECLAIR ACL with 2 400' mags, 2 BAP batts. w/charger, 2 Arri adapters, Samcine aluminum case, all excellent, \$6,350 firm. (215) EV 7-4406.

ADD SYNC POWER to your editing. Build your own power-editing bench at a fraction of the cost. You receive detailed instructions along with complete diagrams on how to build & assemble a power unit that will attach to any standard synchronizer. Send your name and address along with \$10.00 check or money order to: L.N. Clayton Prod., 11 W. Huntington Dr., Arcadia, CA 91006.

WANTED

16mm **COLOR FILMS** wanted for national education distribution. For further information contact: Vaughn Obern, RAMSGATE FILMS, 704 Santa Monica Blvd., Santa Monica, CA 90401.

REDUCTION PRINTER-DePew 35/16mm. Will consider machines in any condition. Supply photo, complete technical description and price for immediate reply. ALAN GORDON ENTERPRISES INC., Attn: Bert Carlson, 1430 N. Cahuenga Blvd., Hollywood, CA 90028 (213) 466-3561.

RAW STOCK FILM NEEDED. Highest cash paid for 16 or 35mm color negative or reversal film, including any EF (7242) mag. stripe. B&W reversal also wanted. FILMEX, (Filmbrokers) (416) 964-7415 (collect).

WANTED: Nagra (any model). Especially SN series, or other portable recorder with accessories. Also desire regular and wireless mikes. J.H. WICKENS, 411 E. 10th St., NY 10009 (212) OR3-1777 evenings and weekends or (212) RA6-6832 days.

WANTED: 1,000mm Tele Anthenar lens. RTI, 1749 Fern St., Honolulu, HI 96814.

NAGRA recorders and accessories, in any condition. We pay top prices for used Nagra III or Nagra IV. AUDIO SERVICES CO., — 565 Fifth Avenue, NY (212) 972-0825.

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MISCELLANEOUS

\$1,000 Reward for recovery of: 1-Eclair ACL-16mm camera and attachments, Serial #C10115. 1-Eclair NPR-16mm camera and attachments, Serial #2737. 1-Sennheiser M1-12 condenser mike, Serial #02969, w/SK 1007 transmitter, Serial #1776, w/RK 1010 receiver, Serial #09001. Phone collect (612) 831-4595, or write CONTINENTAL WESTERN INSURANCE CO., 4600 W. 77th St., Suite 328, Minneapolis, Minn. 55435.

FILMS FOR SALE — 8mm, Super 8mm, 16mm, 35mm sound and silent. Posters and items of nostalgia. Send name and address for future mailing list. HOLLYWOOD FILM EXCHANGE, 1534 N. Highland Ave., Hollywood, CA 90028.

ORIGINAL music for filmscores, commercials, logos, etc. ELECTRONIC MUSIC ASSOCIATES, 3400 Wyman Street, Oakland, CA 94619, (415) 532-5034.

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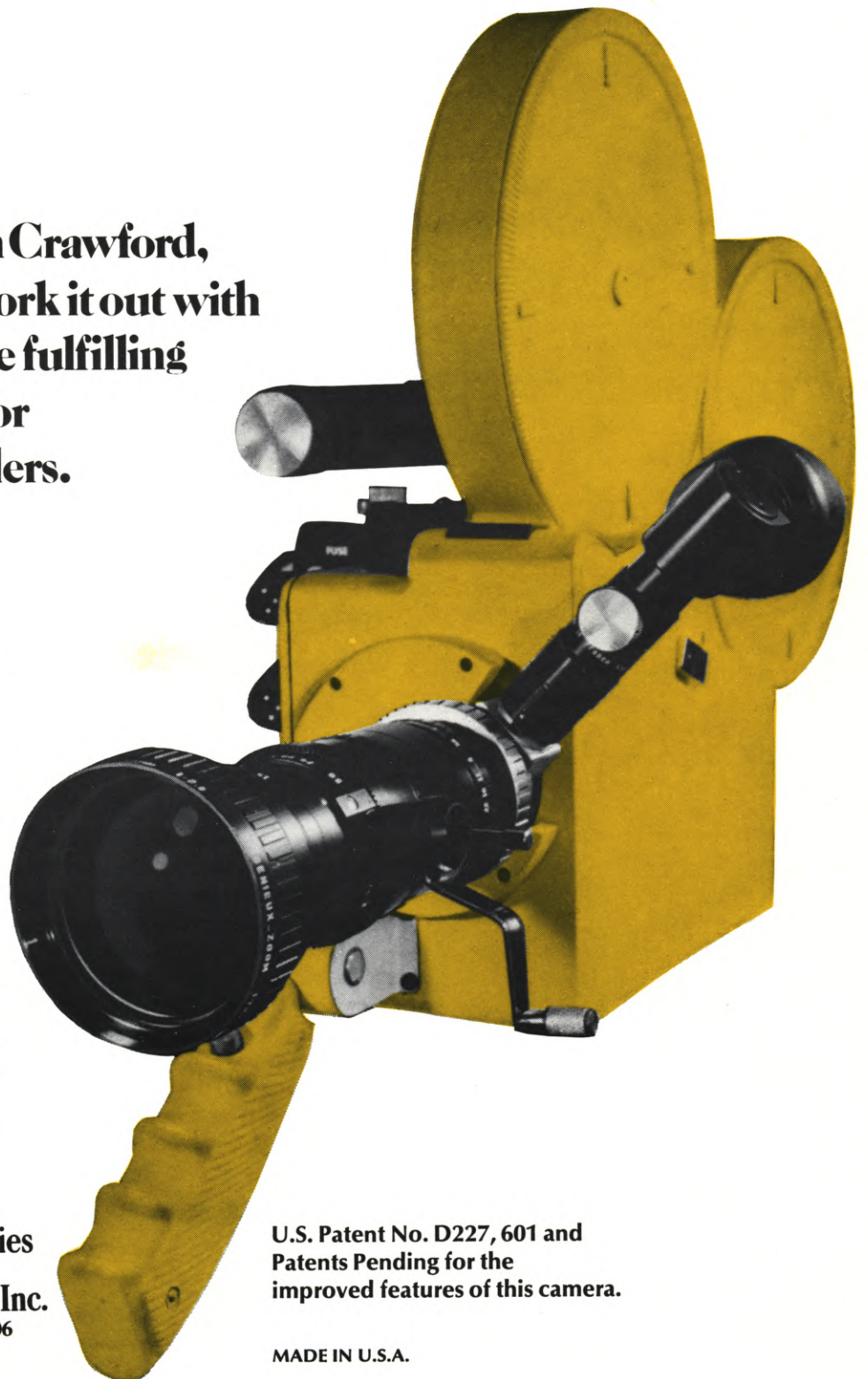


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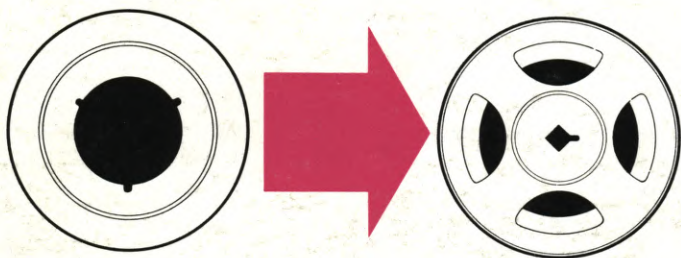
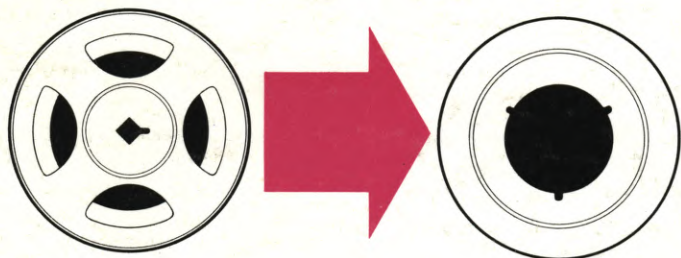
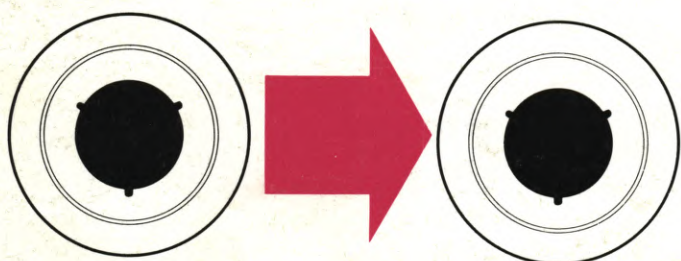
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