

A full-page photograph of an underwater film set. In the center, a diver in a yellow shirt and dark pants is being held horizontally by another diver. Bubbles rise from the divers. In the foreground, two white scuba tanks with 'MOON' labels sit on the sandy seabed. To the left, another diver is partially visible. In the background, more equipment and a person are visible on the seabed. The scene is lit with blue and white lights, creating a cinematic atmosphere.

# American Cinematographer

International Journal of Motion Picture Photography and Production Techniques

MARCH 1977 / ONE DOLLAR

ON LOCATION WITH

# THE DEEP

# The Electronic Bolex H-16 EL.

## By any other name it would cost twice as much.

Having built professional 16mm cameras for close to 40 years, we can offer this assurance about our H-16 EL:

There isn't another 16mm camera within thousands of dollars of the EL that gives you anything like its quality, its reliable performance, and its up-to-date all-round capabilities.

You have crystal control of the motor for wireless sync sound. Sync-pulse generator permits automatic slating. Solid-state electronics control other motor speeds from 10 to 50 fps forward and 18 fps reverse, single-frame exposures, and LED exposure readout in the reflex finder.

The silicon-cell metering system responds instantly, with spectral all-color uniformity, and has no memory problems. The shutter starts and stops instantly, in closed position.

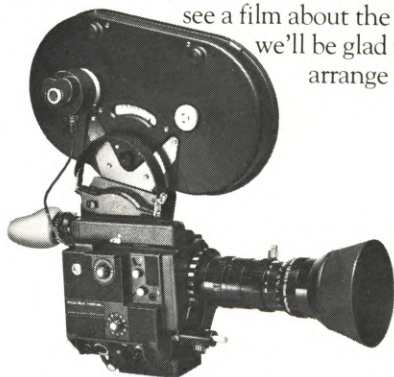
As an example of all-over EL ruggedness, you can carry it safely by the lens. Automatic threading and spool ejection are typical of its built-in, time saving convenience.

Choose among hundreds of lenses, including the most advanced types. Add any accessories you need—400-ft. magazine, blimp, matte box, underwater housing, and more—all available in the Bolex system.

And, save enough on everything to pay for hundreds of extra rolls of film, or additional equipment you thought beyond your budget!

For full-color literature about the EL, as well as the other Bolex 16 cameras and sound projector, write for Lit/Pak P-77. And if you'd like to

see a film about the EL,  
we'll be glad to  
arrange it.



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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 or 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.*

**MARCH 1977**

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ON THE COVER: Director Peter Yates (yellow wet-suit) holds legs of cameraman to steer him into position to film scene of Jacqueline Bisset and Nick Nolte for film version of Peter Benchley's latest best-selling novel, "THE DEEP". "Underwater gaffers" illuminate the scene with portable quartz lights. Photograph courtesy of Columbia Pictures.

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# THE 16mm EVOLUTION.

You're looking at more than a decade of close cooperation between professional cinematographers and a camera company that's attentive and responsive to their needs: Canon's evolutionary new Scoopic 16MS.

Latest generation of a motion-picture camera which has become the most popular self-contained news and documentary model in the world. Now, far more versatile and flexible than ever.



Sound economy with built-in crystal sync.

Our latest Scoopic embodies and refines the most popular qualities of the famous original Scoopic 16: Compactness. Light weight. Extreme ruggedness and reliability. Easy point-and-shoot handling. Economy. Features that quickly

made it the 'standard' camera for networks and documentaries, as well as many educational and industrial applications.

We also built on the proven advances of the Scoopic 16M. Like the 12.5-75mm f/1.8 Macro Zoom that rack focuses down to 3 1/2" and provides unique 'optical dolly' effects. The brighter finder with built-in T-stop indication. The wider auto exposure range. As well as a single-frame control and improved frame/footage counter (boons to animation and time-lapse). The efficient, dependable battery/transport system that doubled capacity to 1600' on a single charge of its removable battery. Plus many other features, too numerous to mention.



Wider wides and tighter telephoto shots.

**Then, even though no camera at twice the price offers all these features, we added more.**

Scoopic 16MS features a magazine adapter that boosts continuous capacity to 400', without losing the camera's internal 100' capability. For sync sound, there's an optional internal crystal control, accurate

to .003% over -20 to +50°C. Plus a refined metering system that functions over a wider range of ambient conditions. And more.



Easier-to-add, built-in filtration.

Our new Scoopic also boasts built-in quick-change filtration. Supplementary lenses for 9mm wide-angle and 112.5mm telephoto shots with no f-stop loss. And a host of other accessories, including: Remote control. Sound barneys for use with and without magazines. Cold weather shooting case. Even a light-mounting stud to eliminate extra brackets and bulky adaptors.

But whether you consider the basic Scoopic 16MS with lens, battery charger, sunshade, CdS cell hood, gel filter holders, lens cap and deluxe hard case (*all standard!*)...or fully-loaded, with all its accessories, perhaps the best news is that it's still *priced to be one of the best values on the professional market today*. For news documentaries, educational and industrial films...and now, even features and commercials. Why not see your Canon dealer for a demonstration...or contact us for more information.



A brighter way to carry your lighting.



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# WHAT'S NEW

IN PRODUCTS, SERVICES AND LITERATURE



## CANON ANNOUNCES 400 FT. MAGAZINE ADAPTER FOR SCOOPIC 16M AND 16MS CAMERAS

The Professional Motion Picture Products Division of Canon U.S.A., Inc. has announced the availability of a 400' magazine adapter, which greatly increases the capacity and versatility of Canon's popular Scoopic 16M and new Scoopic 16MS cameras. Designed to quickly attach to the top of either camera, the new 400' adapter permits snap-on, snap-off use of either Cinema Products' new lightweight 400' Lexan™ magazine, or a standard 400' Mitchell Magazine. Power is furnished by the camera's own battery, which can run four 400' magazines through the camera on a full charge.

In operation, the Scoopic's battery cover and battery are removed, and the 400' adapter is fastened onto the top of the camera, locked in place with a single screw. The battery is placed inside the adapter, and film is fed through an opening in the battery compartment, into the camera mechanism, and back out to the magazine. A separate, highly efficient motor within the adapter powers the magazine, eliminating loading of the camera's film drive system. Footage is read on a resettable counter, located on the side of the adapter. (When only the camera's 100' capacity is needed, the adapter is simply removed and the battery replaced in the camera, which functions in a completely self-

contained manner. Other camera features function normally in either mode of operation, including the camera's external battery connector.)

While the Scoopic MS is factory-equipped for use with the 400' adapter, Scoopic 16M models must be factory-modified to provide a new film path between camera and magazine. Cost of the Scoopic 16M factory modification is \$140.00. Price of the 400' adapter is \$470.00 list. For more information, contact Canon Professional Motion Picture Division, 10 Nevada Drive, Lake Success, NY 11040 (516) 488-6700.

## NEW FILTERS AND ACCESSORIES FROM TIFFEN MANUFACTURING CORP.

### COLOR-GRAD FILTERS

Tiffen Color-Grad Filters, are part clear, and part gradually denser color. This combination enables the user to selectively adjust the color of light intensity of a segment of the scene, leaving the remainder untouched. Dramatically colored skies, shifts in lighting contrasts can easily be created by the use of color-grad filters. Supplied in neutral densities and selected colors in rotating mounts, or square and rectangular sizes.

### VARI-BURST FILTER

Now — a new dimension in color effects with endless possibilities. This unique cine filter's effects are formed when light is passed through its multi-axis transmission diffraction grating. This filter produces a spectral array of color indoors or out with all color films. Vari-Burst is supplied in a rotating mount or square and rectangular sizes.

### PROFESSIONAL FILTER HOLDER

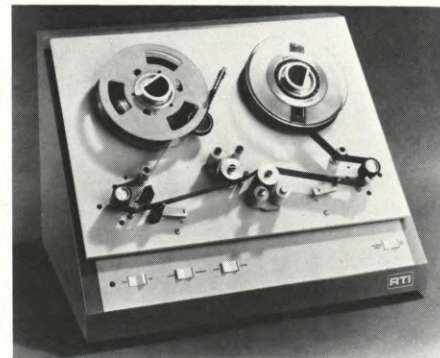
Holds square glass, gelatin and round series-size glass filters — separately or together. Permits accurate alignment of oblong or square lens shades. Filters are held firmly in holder by side clips — ejection pin in base facilitates removal. Available for 3 or 4 inch square and series 7, 8 or 9 round filters. Holders will easily mount on your lens with standard adapter rings.

### HALF-DIFFUSION FILTERS

Half-Diffusion filters are one half clear glass and half-diffusion, enabling selective diffusion of a portion of the

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For further information, contact: TIFFEN, 71 Jane Street, Roslyn Heights, N.Y. 11577, (516) 621-2700



## RETEC VIDEO TAPE CONDITIONER REDUCES DROPOUTS, HEAD CLOGGING

Recently introduced by Research Technology Inc. is the RETEC Video Tape Conditioner. Said to reduce tape dropouts as much as 70% and virtually eliminate head clogging, the machine burnishes and polishes the oxide surface, removing dirt, chips and loose particles. The RETEC VTC Conditioner can be ordered in a variety of formats designed to treat tapes 1.5 or 1.0 mils thick and 1/2, 1 or 2 inches wide.

Straight-line threading and automatic shut-off at the end of the conditioning cycle are said to have made the RETEC VTC valuable to the professional user. The RETEC VTC machine conditions a 10½-inch reel of tape in less than four minutes without solvents and without harming the recorded program. Not widely known is the fact that pre-recorded tape performance can also be improved significantly by conditioning. For further information write Research Technology Inc., 8260 Elmwood Avenue, Skokie, Illinois 60076, or call toll-free 800/323-7520 (if busy or calling from Illinois, Alaska, or Hawaii call 312/677-3000 collect). Cable: RETEC. Telex: 28-9414.

## NEW CATALOG AVAILABLE FROM CINE 60

A 20-page 2-color catalog of professional accessories for electronic and film news gathering systems (ENG) is now available from Cine 60. The catalog describes and pictures Battery Belts, Battery Packs, Shoulder Pods, Sun-Guns, Sun-Gun Kits, Fast Action

Continued on Page 335



# what's the real name of this camera?

G.S.A.P.     GZAP     ZAP     GAZAP     Minicam-16     Gun Camera

If you picked any of the above, you're right, because this famous little World War II veteran is known by many names. Technically, G.S.A.P., for Gun Sight Aiming Point camera, or, as it is now known, Minicam-16, is correct. But no matter what you call it, here's one camera that has made a fantastic transition from war to peace.

Originally manufactured in the 1940s by two major companies, Fairchild Camera

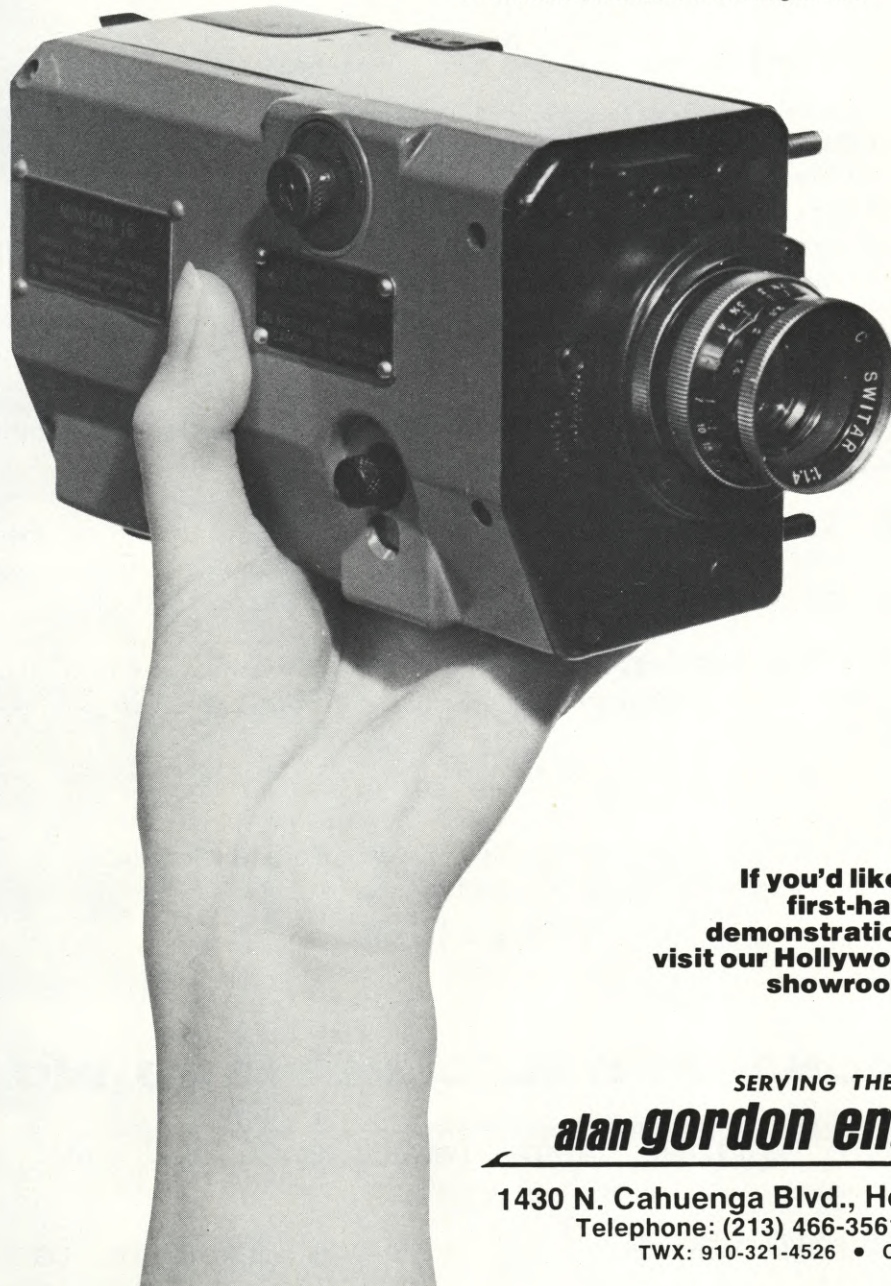
and Instrument and Bell and Howell, G.S.A.P. cameras were produced by the thousands during the war. They were most often mounted in the wings of fighter aircraft, aligned to coincide with the firing pattern of machine guns, and used to provide factual and dramatic records of air-to-air and air-to-ground sorties. The ruggedly constructed, electrically-operated (24V DC) 16mm G.S.A.P. cameras use standard pre-loaded Eastman Kodak 50-foot magazines.

No new G.S.A.P. cameras have been manufactured since World War II. But the cameras are still around and more active than ever. Alan Gordon Enterprises Inc. has taken the Bell and Howell G.S.A.P. camera, remanufactured it, and retitled it the Minicam-16, a name, incidentally, we were using long before it became popular with the television ENG people.

It's obvious the Minicam-16 is not a brand-new camera. What it is, however, is an outstandingly versatile camera that has been converted by our expert technicians to make it a favorite piece of equipment for the cinematographer who wants that shot that is otherwise unattainable. We've taken the G.S.A.P., completely stripped it down, discarded the original lens and mount and replaced it with our exclusive C-mount or Arri-mount front plate, removed internal components that applied only to aircraft use and recalibrated the motor to professional filming speeds of 24 and 48 fps. (Some of our customers have cranked the camera as high as 96 fps, although we don't recommend it.) The camera has been refinished in an attractive red, white and blue color scheme with a tough, baked urethane paint. It is reassembled, tested and is then ready for use.

The Minicam-16 has the enviable record of having been attached to almost anything that moves and coming back with fantastic pictures. It has filmed point-of-view shots attached to missiles fired from Cape Canaveral, autos, racing cars, cycles, hang gliders, boats, race horses, ice skates, water and snow skis, sleds and camera-helmets. It's a perfect mate for our Gordon/Bell Camera Helmet and, in fact, was used to photograph free-fall scenes for the television series, "Ripcord," back in 1961, and has been a popular camera with sports photographers ever since, including those who filmed the recent summer and winter Olympic Games.

If you're a cinematographer who is looking for that unusual shot or angle, you should investigate the Minicam-16. There's not a more popular camera among today's daredevil cameramen. It's available for \$325.00 with C-mount front plate, less lens, and \$395.00 with Arri-mount front plate, less lens.



**If you'd like a first-hand demonstration, visit our Hollywood showroom.**

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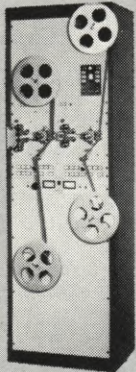
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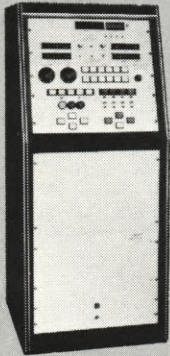
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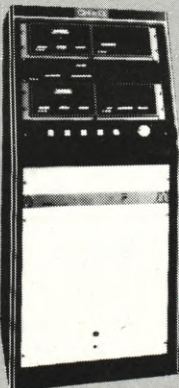
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Multi-Lok Console

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- Crystal controlled electronic drive Recorders and Reproducers

**MTE, The Leader,** is winner of two "Academy of Motion Picture Arts and Sciences" awards for Technical Achievement.

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**MTE, The Leader,** is ready to fulfill your needs in sound and projection equipment from a single transfer recorder to a complete re-recording facility.

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**Individual cell modules**—custom-matched nickel-cadmium cells in high-impact protective containers.

**Prime material**—Most durable material known for imperviousness to extremes of temperature, humidity and abrasion.

**Patented design**—U.S. Pat. No. 3,274,476 and German Pat. No. D.B.P. 1,264,001 awarded to Cine 60 president, Paul Wildum.

**Form-fitting compartments**—cells cannot shift or move regardless of Powerbelt position; minimizes undesirable flexing of belt wiring.

**Heavy-duty zipper**—Assures easy access to wiring and cell modules for on-the-spot internal inspection.

**Powerpacks**—all Powerbelt models also available in compact battery packs.

**Heavy-duty wiring**—with AMP friction-lock connectors. For extra protection against loose connections due to shock and vibration. AMP connectors are additionally soldered to cell tabs for increased security and reduced internal resistance.

**Vacuum-formed seamless compartments**—deep-molded, with rounded corners and uniform wall thickness to reduce stress on material.

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Optional coiled power cord shown.

**Riveting and double-stitching**—provides heavy-duty reinforcement.

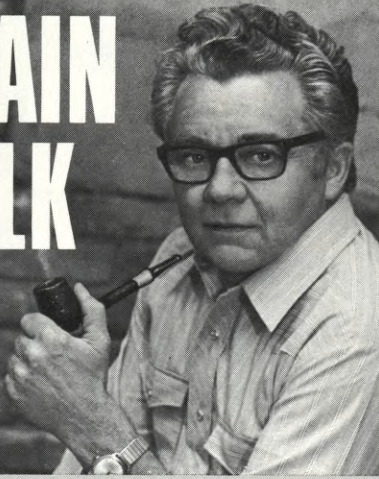


**CINE 60**

INCORPORATED

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# PLAIN TALK



by *J. Carl Treise*

## "The one thing no processor manufacturer talks about"

I've read a lot of film processor ads and haven't found any manufacturer who's willing to say how long it takes to install his unit and get it working.

It's not hard to guess why.

The usual installation often takes up to 3 or 4 weeks and can cost a bundle.

So a man would have to be a fool to bring the subject up, right? — Wrong.

I'm more than happy to talk about it.

Any processor that's any damn good should be adaptable enough to be installed in a hurry. In fact, we'll position a unit, connect systems, and have it working in 2-5 days, depending on its size.

If you think our customers don't love us for it, guess again.

There's no foot-dragging. We're in and out before they know it, and they're back in operation, making money again!

These are important things to consider (— which a lot of folks don't do). And they're every bit as much a cost factor as the price of the processor itself.

When you buy a film processor, look at the whole "picture." It makes a helluva lot of sense to buy a quality unit that costs a bit more but can be installed in a fraction of the normal time. The money you save is your own, and that ain't hay!

**TREISE**  
**ENGINEERING, INC.**

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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, Holly-  
wood, Calif. 90028.)



**Q** We understand that world film manufacturers are discontinuing the manufacture of acetate-based film and are changing to polyester film. Such a move would pose problems for cine cameras. Apart from base thickness, the main problem has been film toughness and the mechanical damage which would result as a pile-up in the film movement. We understand that one of the Continental film manufacturers has instigated a film course for the use of polyester-based film and the modification of cine cameras for its use.

**A** Eastman Kodak advises us that they have no present plans for the discontinuance of acetate base film in preference to polyester-base film. They have, however, for many years past, manufactured a line of instrumentation film, both in black and white and color. These films have been successfully used at aerospace facilities in specialized cameras. Likewise many of the in-flight movies have been projected from polyester prints by many airlines.

**Q** I have had satisfactory experience filming on ECO (7252) and mixing in EFB (7242) when necessary, compensating for the high contrast of EFB by post flashing. Can I expect to get similar results in the future by post flashing the new VNF (7240) film?

**A** You will get similar results by post flashing 7240 Eastman Film since it responds exactly the same way as does 7242 to this kind of treatment. Flashing is considered by most technicians as being a compulsory step if the material is to be used for photographic printing. Otherwise, the contrast, intended for direct projection, is too high.

**Q** Are there any techniques besides Steadicam for smoothing out handheld or otherwise jarring photography? Can a lab do anything?

**A** It is possible that a scene could be helped by a frame-by-frame

realignment on an optical printer. This would be an expensive method only to be used when a satisfactory negative could not be obtained.

**Q** When I attempt to film through the window of a commercial plane, even if the translucent material does not appear tinted, I wind up with a poor exposure although I may be using a through-the-lens meter. Please advise as to exposure and color-correction.

**A** Aerial shots made at high altitudes are seldom satisfactory because the aerial haze destroys definition. Aircraft windows generally are of double-thickness plastic which also impairs definition. A meter reading made through the windows should indicate proper exposure, but for the above reasons you cannot always get a satisfactory picture. Using a haze filter could help a little.

**Q** If one is using a spot meter wherein the EV number and the F-number are indicated (readings taken from a 1° center spot), is there any formula which can be used to convert the F-number reading to reflected lumens from a projection screen, taking the readings from the projector?

**A** There is no formula that relates F-Number or EV to reflected lumens from a projector. The EV number of F-number indicated on a spot-meter designed to determine photographic exposure cannot be used to determine lumen output of a projector. However, if the manufacturer provides a table of luminance values (in either "foot-Lamberts" or "candelas/square meter"), you can calculate lumen output by using a reflectance target with approximately 100% reflectance (like barium sulphate or magnesium oxide) at the screen position to determine the average illuminance on the screen. The useable lumen output can be determined by using the following equation: \* Lumen output = Average illuminance (footcandles or lux) X screen area.

\*Refer to "Motion Picture Projection and Theatre Presentation Manual" S.M.P.T.E. New York 1969, Page 85. ■

# FREE SOUND TRANSFER

We're not in business to give things away, but we firmly believe that a film maker should be able to complete much of his film at one facility. DuArt provides these extra services to assure you of better quality, lower costs and faster service. That's why we offer free transfer of your Sound Dailies on 35mm and 16mm when you bring your 1/4" tapes with your undeveloped picture original for processing and work print. Pay only for the low noise 3M mag stock at .027 per foot for 16mm and .034 for 35mm. For more information, call Paul Jaeger at DuArt.

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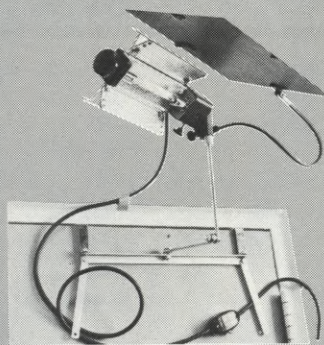
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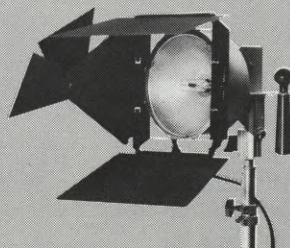
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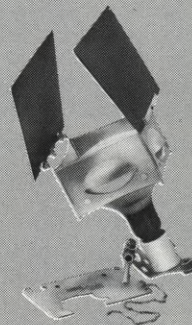


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# CINEMA WORKSHOP



By ANTON WILSON

## AUDIO BASICS "dbx" PROCESS

The "dbx" type noise-reduction system is, in reality, a dynamic range expander. Its circuits allow the tape to accept almost twice the normal dynamic ratio. Under most circumstances this also translates into a major reduction in residual tape noise. The benefits of such a system should be obvious to the studio multi-track recordist who must cope with the cumulative noise problem associated with multiple-track mixdowns. Likewise, a classical concert recordist can surely appreciate a dynamic range of 90 dB. (No longer must he live with the guilt of performing those cardinal sins of limiting peaks and riding gain.)

The motion picture soundman benefits from the "dbx" system in a slightly different manner. The biggest problem facing the location motion picture recordist is the unexpected. Particularly on documentary and industrial films, it is difficult to predetermine exactly what the sound will be during the actual take. If levels are set close to 0 dB to gain the best signal-to-noise ratio, most assuredly someone will raise his voice or yell once the take has begun, resulting in a 15 dB overload of the tape. The problem is even more acute for documentary or news style filming. Usually employing a Sennheiser 815 shotgun or similar microphone, the documentary soundman must cover an entire group of people with just one microphone. It is almost impossible to ride gain during the conversation as it shifts back and forth from persons close to the mike who speak loudly, to soft-spoken people

(who are invariably farthest from the microphone.) The soundman usually compromises, or attempts to ride gain, but inevitably some loud voices will distort or some soft sections will be lost to the noise, and the net result will be a disaster. In almost all cases the swishing effect of gain riding will be heard, as the soundman can't possibly react instantaneously to level changes.

The "dbx", under these circumstances, is a godsend. The technique I use with the "dbx" is quite simple and the results consistently excellent. The recordist adjusts the level in such a way that the loudest peaks normally encountered do not exceed -10 dB. The Nagra or similar professional recorder is capable of delivering clean sound up to a recording level of +4 or +5 dB on the modulometer, when used with the newer tape formulations. By restricting the peaks to -10 dB, there is, thus, a total of 15 dB of "headroom". But the dbx compresses the signal 2:1 resulting in a total of 30 dB of effective headroom instead of the usual 4 to 5 dB (without dbx and the normal 0 dB maximum levels). Thus, by restricting "normal" peaks to -10 dB, an unexpected super peak, such as a shout or yell, can exceed normal maximum levels by as much as 30 dB and still be recorded undistorted on the tape. Moreover, the signal-to-noise ratio, even at this -10 dB level, is superior to a 0 dB level without dbx.

At a 0 dB level, the signal is typically 50 dB or better above residual noise. Assuming this 50 dB ratio, recording at a -10 dB level would reduce this s/n figure to only 40 dB. But the dbx will

effectively double this to 80 dB. Thus, by employing dbx and a -10 dB reference, the recordist has a whopping 30 dB of headroom and an exceptional signal-to-noise ratio of 80 dB relative to the -10 dB point. (The signal-to-noise ratio would actually exceed 100 dB relative to a 0 dB peak if one should occur.) Armed with this system, the soundman has a dynamic range that exceeds almost any sonic situation that could possibly arise (with the possible exception of a New York City subway train).

In practice, by employing the dbx and a maximum level of -10 dB, the soundman is ready for just about anything. He can almost forget about gain adjustments and concentrate on optimum microphone placement and establishing a closer rapport with the cameraman. (Most cameramen will welcome this aspect. On a recent documentary my soundperson was preoccupied to the point of walking right in front of the camera.)

Using this dbx technique, the recorder will easily accept signals both 30 dB above and more than 60 dB under the -10 dB reference point. A faithful recording of almost any location situation is thus facilitated without having to manipulate the gain during the recording. Once back in the transfer room, the signal can be compressed, expanded, or otherwise processed at will. In essence, the soundman delivers to the transfer a precise and unadulterated recording of the sound exactly as it existed on location. The sound can then be tailored for the final soundtrack in the transfer department under controlled conditions and with the proper equipment. ■

FIGURE 1 — The compact "dbx" unit is a boon to the sound recordist. By simply adjusting the level in such a way that the loudest peaks normally encountered do not exceed -10 dB, he can avoid overload of the tape caused by sudden loud sounds, and he is relieved of the necessity of riding gain.



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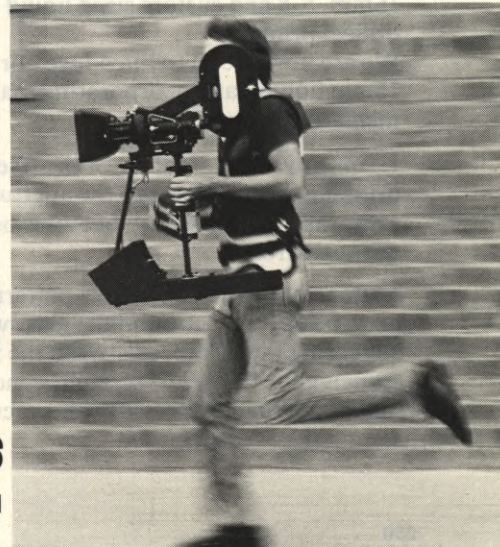


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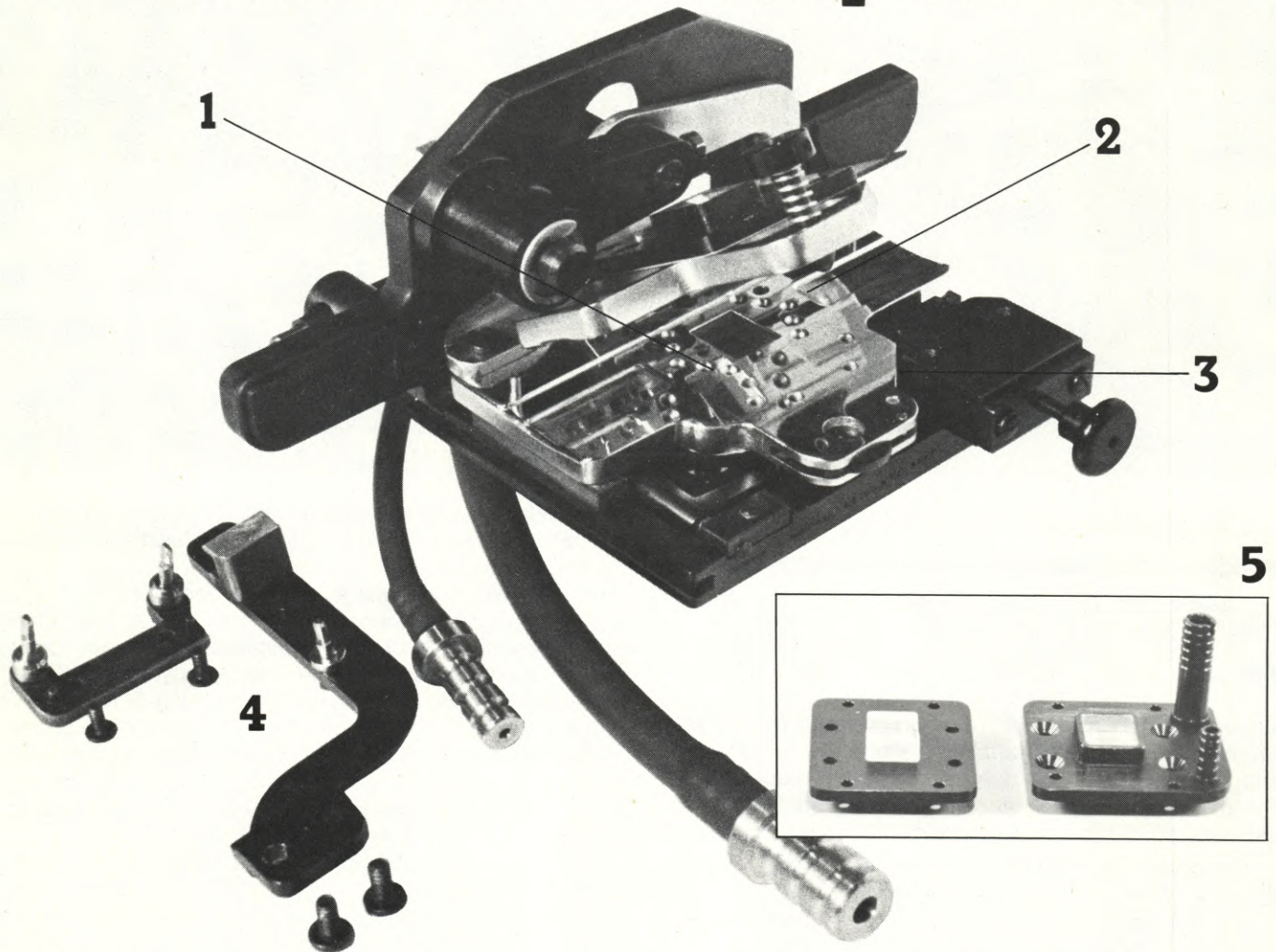
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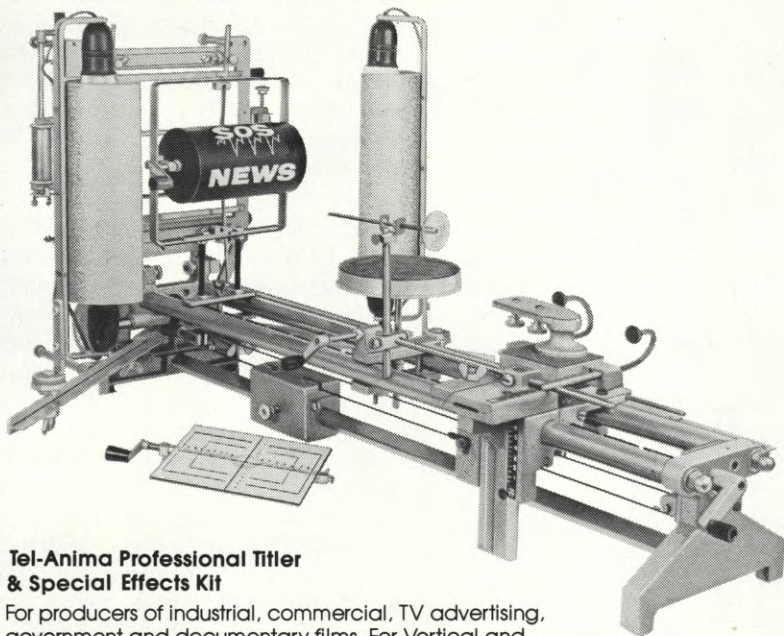
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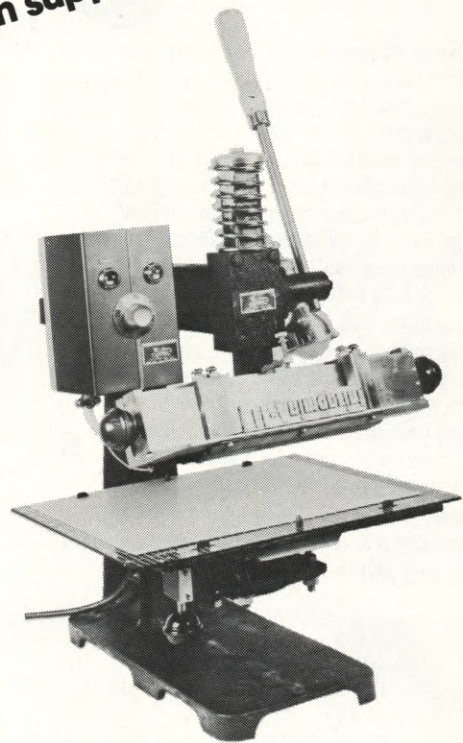
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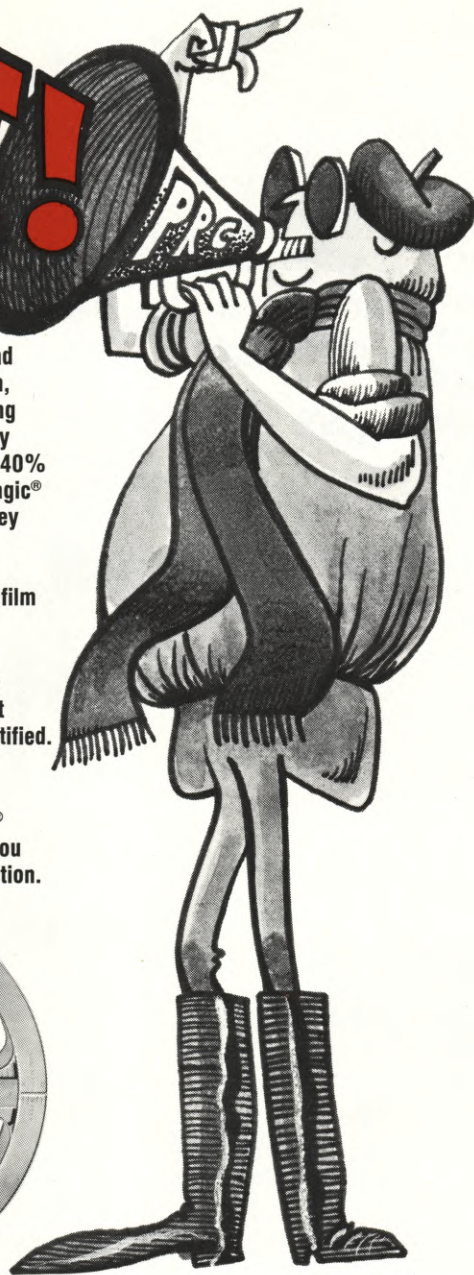
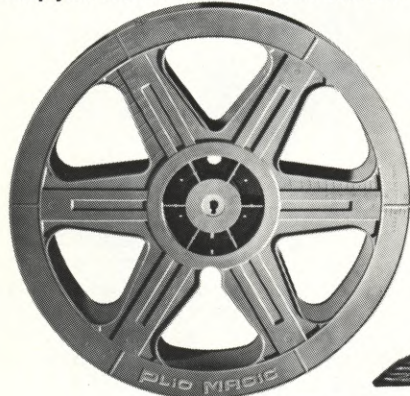
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## THE BOOKSHELF

By GEORGE L. GEORGE

### NATIONAL CINEMAS

Joan Mellen offers an informative survey of the Japanese contribution to film in *THE WAVES AT GENJI'S DOOR*. Through interviews with Nipponese directors, Prof. Mellen perceptively assesses the connection between Japan's socio-cultural patterns and their representation in film. (Pantheon \$15./7.95)

Peter Cowie's knowledgeable study, *FINNISH CINEMA*, probes Finland's expanding production, stimulated by an enthusiastic group of young filmmakers concerned with nature and the social scene. (Barnes \$6.95)

In *THE MEXICAN CINEMA*, Beatriz Reyes Nevares interviews 13 of that country's outstanding directors, Luis Bunuel, Arturo Ripstein, Emilio Fernandez and Jorge Fons among others. They expertly appraise their own work and the problems confronting the Mexican film industry. (U. of New Mexico Press \$9.95/4.50)

Compiled by Julianne Burton, *THE NEW LATIN AMERICAN CINEMA* is a well researched annotated bibliography of English-language texts on the militant Latin American film movement and the availability here of its movies. (Cineaste \$1.)

In the *CANADIAN FILM PRODUCTION INDEX 1976*, all features made in Canada in 1974-75, all shorts produced in Quebec and by the National Film Board in the same period are listed with full cast-&-credits data. (Cinémathèque Québécoise \$5.95)

A thorough and well organized guide to the British film industry, *KEMPS FILM AND TELEVISION YEAR BOOK 1976-77* fully details facilities, services and technical personnel available in England and, less extensively, in 30 other countries. (Kemps £6.50)

An inestimable treasure trove of data on worldwide motion picture activities, Peter Cowie's *INTERNATIONAL FILM GUIDE 1977*, now in an expanded, attractive new-look format, comprehensively surveys production, distribution, new films and related services in 40 lands. (Barnes \$5.95)

\* \* \*

### TECHNIQUES OF THE CRAFT

Writing screenplays for both documentaries and fiction films is discussed by Dwight V. Swain in *FILM*

SCRIPTWRITING. Aimed mainly at beginners, this is a well organized and detailed text that covers the various stages of story development and the use of the medium's techniques. (Hastings House \$14.50)

A strikingly illustrated volume, **FILM AND TV GRAPHICS 2** explores animation design in the screen arts. Edited by Walter Herdeg, it covers animation in entertainment and TV films, commercials and sponsored movies, titles, captions and experiments. (Hastings House \$28.)

In **FILMING FOR TELEVISION**, two BBC staffers, A. Arthur Englander and Paul Petzold show how to adapt film techniques to video. It is a highly professional manual with a practical approach to overall production procedures and specific filming situations. (Hastings House \$19.50)

Also from Hastings House, three technical books in the excellent Media Manuals series examine significant areas of film/tv production. **THE LENS IN ACTION** by Sidney Ray covers in detail optical systems in cinematography (\$8.95); **USING VIDEOTAPE** by J. F. Robertson and P. H. Beards stresses the versatility and expanded utilization of this recording process (\$7.95); **EFFECTIVE TV PRODUCTION** by Gilbert Millerson deals technically with the essentials of the medium (\$8.95). All 3 volumes are highly practical, written in a direct style and abundantly illustrated.

The 5th edition of **THE TELEVISION PROGRAM** brings up to date techniques of production, direction, camera work, equipment and procedures connected with a video show. Authoritative and substantial, it is written by Edward Stasheff, Rudy Bretz, John Gartley and Lynn Gartley. (Hill & Wang \$12.95)

In **A GUIDE TO INDEPENDENT FILM AND VIDEO**, edited by Hollis Melton, craftsmen will find useful information on production and distribution, programming and exhibition, research and funding. Compact and specific, this brochure provides indispensable data in an expanding field. (Anthology Film Archives \$4.)

How to bankroll an independent production is discussed by Andrzej B. Moszynski and Robert C. Nichol in a manual called (optimistically) **FORTUNE IN FILMS**. Procedures are efficiently outlined and generally useful advice is dispensed. (Film Finance Publ. \$15.)

## FILM GENRES

A Master's Degree thesis by Douglas Menville, **A HISTORIC AND CRITICAL SURVEY OF SCIENCE-FICTION FILM** discusses the rise of the genre from its early manifestations to its established and popular acceptance. A scholarly and useful reference work. (Arno \$11.)

Thomas Cripps' **SLOW FADE TO BLACK** is a thoughtful and well documented study of the black man's image in American films from 1900 to 1942, and its significant evolution during those years. (Oxford U. Press \$19.95)

The progress of film design from primitive backdrops to the elaborate effects of *Earthquake* are discussed in fascinating detail in Léon Barsacq's **CALIGARI'S CABINET AND OTHER GRAND ILLUSIONS**, a French original expertly edited and updated by Elliott Stein. (Little, Brown/New York Graphic Society \$19.95)

\* \* \*

## PERSONALITIES

Turning the tables on 82 top directors, photographer Maureen Lambray catches them in informal poses for revealing portraits. Her stunning album, **THE AMERICAN FILM DIRECTORS** often tells more about them than fancy words. (Rapoport Press/Whirlwind \$25.)

A massive compendium of biographical references, **WHO'S WHO IN HOLLYWOOD 1900-1976**, edited by David Ragan, contains some 20,000 entries covering living, late and "lost" players with a sampling of screen credits and relevant data. (Arlington \$25.)

Issued by Anthology Film Archives, **THE ESSENTIAL CINEMA** (Vol. 1) offers essays on the films in their collection of "monuments of cinematic art" regularly screened in their facilities. Ranging from D. W. Griffith to avant-garde Stan Brakhage, these texts underline the filmmakers' contributions to the medium. (New York U. Press \$11.95)

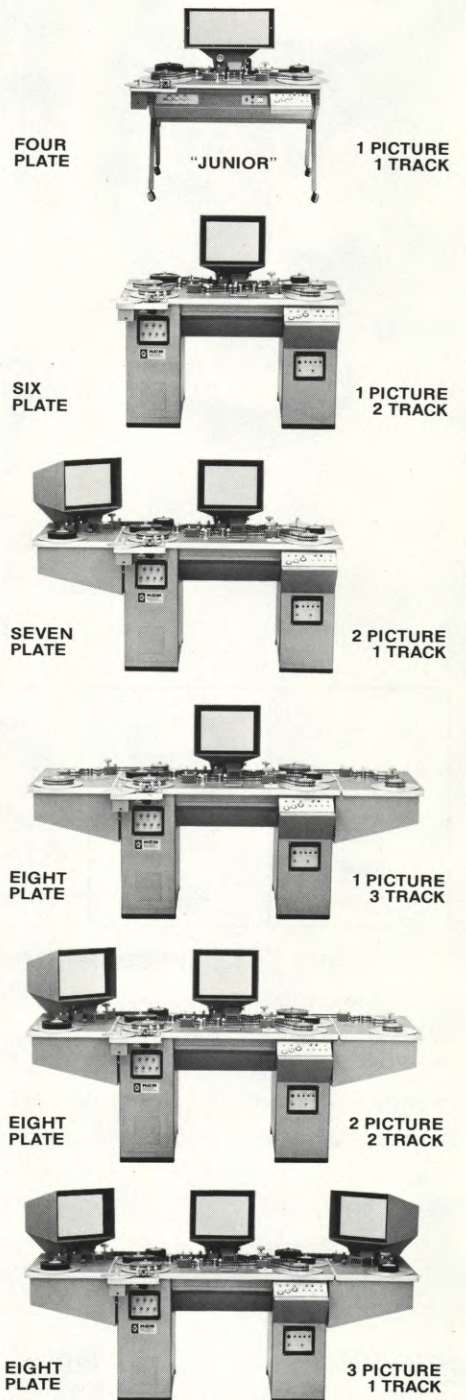
In **CAST OF THOUSANDS**, Anita Loos glances back with wit and feeling on 50 years of celebrity among her favorite and not-so-favorite entertainment world people. (Grosset & Dunlap \$15.95)

Carefully documented through extensive original sources and personal interviews, **LONG LIVE THE KING** is a full-length biography of Clark Gable by Lyn Tornabene, with a credible analysis of the actor's personality. (Putnam \$10.95)

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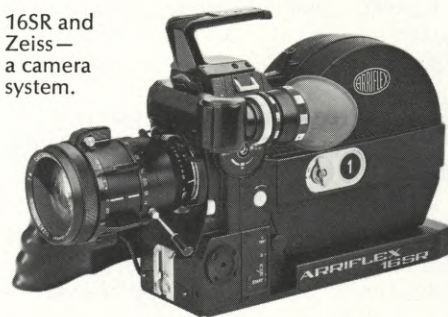
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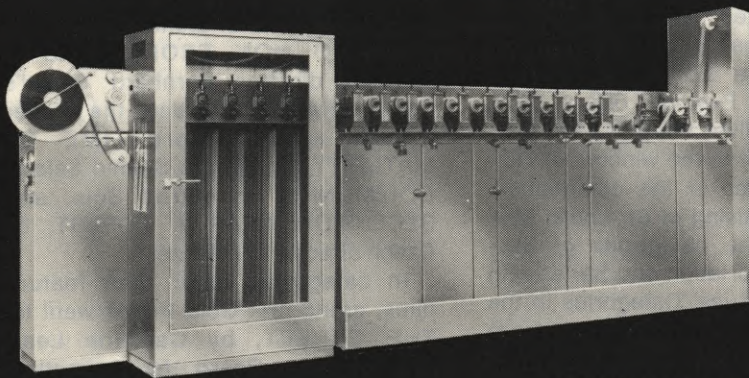


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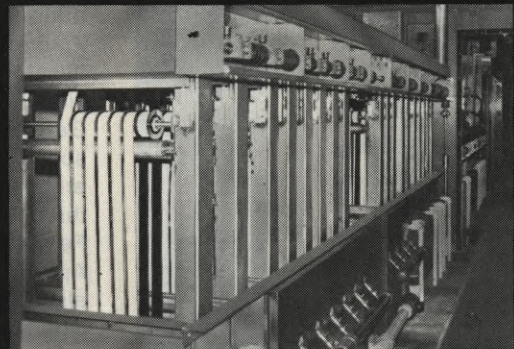
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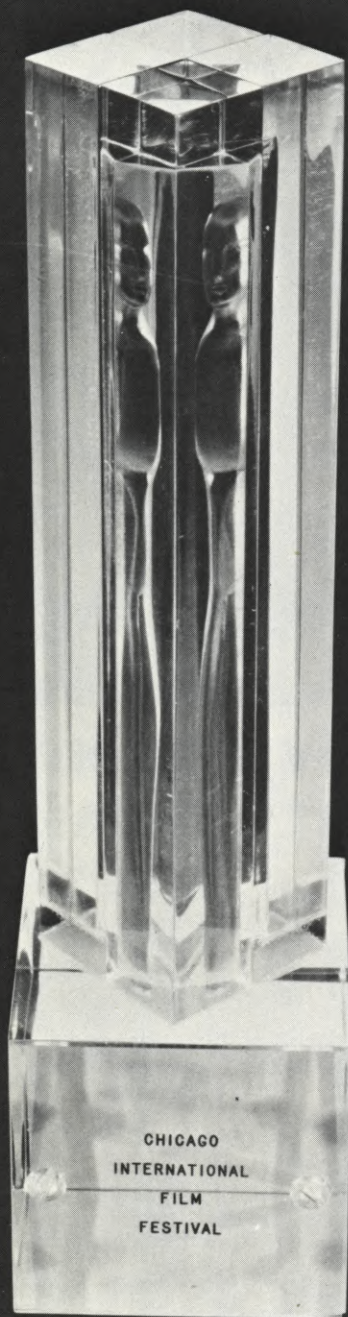
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# INDUSTRY ACTIVITIES



## A HUGO IS BORN!

The Hugo, well-known Symbol of Discovery and the Grand Prix of the Chicago International Film Festival, has been newly designed. Now an elegant lucite statuette created by sculptor Zelda Werner, the new Hugos are being individually constructed by three manufacturers: Patte Manufacturing for the metal work, Studio Specialties for the lucite and Harco Company for the lucite engraving. The first statues will be coming off the press soon and are being presented to the Television

Commercial winners.

The Gold Hugo was awarded to Swanson/Bailin, Studio City, California, for their Camay Soap commercial, "So Beautiful Baby". This was the unanimous choice of the judges of the 12th Chicago International Film Festival for the Best All Around TV Commercial in the competition.

Fontana Films, of Turrella, Australia, walked off with the coveted Silver Hugo for their spirited jeans commercial, "Jailhouse Blues". In addition to overall winners, the 12th Chicago International Film Festival offers Gold Plaques and Silver Plaques, and Certificates of Merit to the winners of individual categories in the competition. Gardner Advertising of St. Louis, Missouri, swept the categories of Beverages, Transportation and Series with three Gold Plaques! Categories in the Festival include everything from Apparel to Utilities. Commercials are also eligible to win prizes for music, cinematography, animation and special effects.

## GERMANY, JAPAN, HUNGARY & U.S.A. FILMMAKERS WIN TOP AWARDS IN CHICAGO

The *Gold Hugo*, grand prix of the 12th Chicago International Film Festival, November 5-18, was awarded to *KINGS OF THE ROAD*, a three-hour feature film by German director Wim Wenders. Wenders' previous films, "Alice In The Cities", and "False Movement", have been represented in the Chicago Film Festival, and he is considered one of the fastest rising young directors of the new German cinema.

## JEANNE MOREAU PRESENTS AWARDS

The Awards Ceremony took place at the historic Biograph Theatre in Chicago, where Jeanne Moreau, French actress and director, presented the *Gold Hugo* to Ray Blanco who accepted on behalf of Mr. Wenders.

## CONTROVERSIAL FILM WINS

Surprise award of the Festival was the Special Jury Prize *Gold Hugo* for Nagisa Oshima's controversial erotic film, *IN THE REALM OF THE SENSES*, which had its Western Hemisphere premiere to an audience of 4,000 on November 17 at the Chicago Festival.

In addition, Silver Hugos were awarded to Norwegian director Anja

Breien for *WIVES* and to young American director Gregory Nava, whose Medieval drama, *THE CONFESSIONS OF AMANS* was judged Best First Feature

A Hungarian feature, *WHEN JOSEPH RETURNS*, directed by Zsolt Kezdi Kovacs, won the Bronze Hugo.

## OTHER AWARDS

Gold Plaques were awarded to Bruno Bozzetto's animated feature *ALLEGRO NON TROPPO* and to German director Bernhard Sinkel's *LINA BRAAKE*. Among the Silver Plaque winners were *TIME OF MATURITY*, by Sohrab Shahid Saless; *COMMUNION* by Alfred Sole; and *SECLUSION NEAR A FOREST*, by Czech director Jiri Menzel.

In categories other than feature films, grand prix Gold Hugos went to: *THE STREET*, by Caroline Leaf, National Film Board, for Animation; *ANGEL AND BIG JOE*, entered by The Learning Corporation of America, for Entertainment Films For Children; *PYSANKA: UKRAINIAN EASTER EGG*, by Slavko Nowytski, for Educational Films; *AMERICAN SHOE SHINE*, by Sparky Greene for Documentary Films; in the Television Production category: *FAREWELL TO MANZANAR*, by NBC, Best Network Production, and *BEYOND OUR CONTROL*, Dave Williams, WNDU-TV, best Local Production. Top award-winning Television Commercial was judged to be *SO BEAUTIFUL BABY*, Swanson Bailin Productions. A Gold Hugo for Best Student Film also went to Ray Karp for *SUNDAY FUNNIES*.

Other top awards went to David W. Hahn, for *IN A REHEARSAL ROOM*, a Silver Hugo for Best Short Subject; and to David Lebrun for *TANKA* a Bronze Hugo for Best Experimental Film.

Members of the Feature Film Jury for the 12th Chicago International Film Festival were: Arthur Knight, President, film critic for "Playboy Magazine," "Sex & Cinema," the "Hollywood Reporter," and a Professor of Film Criticism at the University of Southern California; David Stratton, Director of the Sydney Film Festival, Australia; John Russell Taylor, author and critic, and Professor of Film Criticism at the University of Southern California; Roger Ebert, Pulitzer Prize-winning critic of the Chicago Sun-Times; and Christine Nieland, film critic for the Chicago Daily News.

Continued on Page 338



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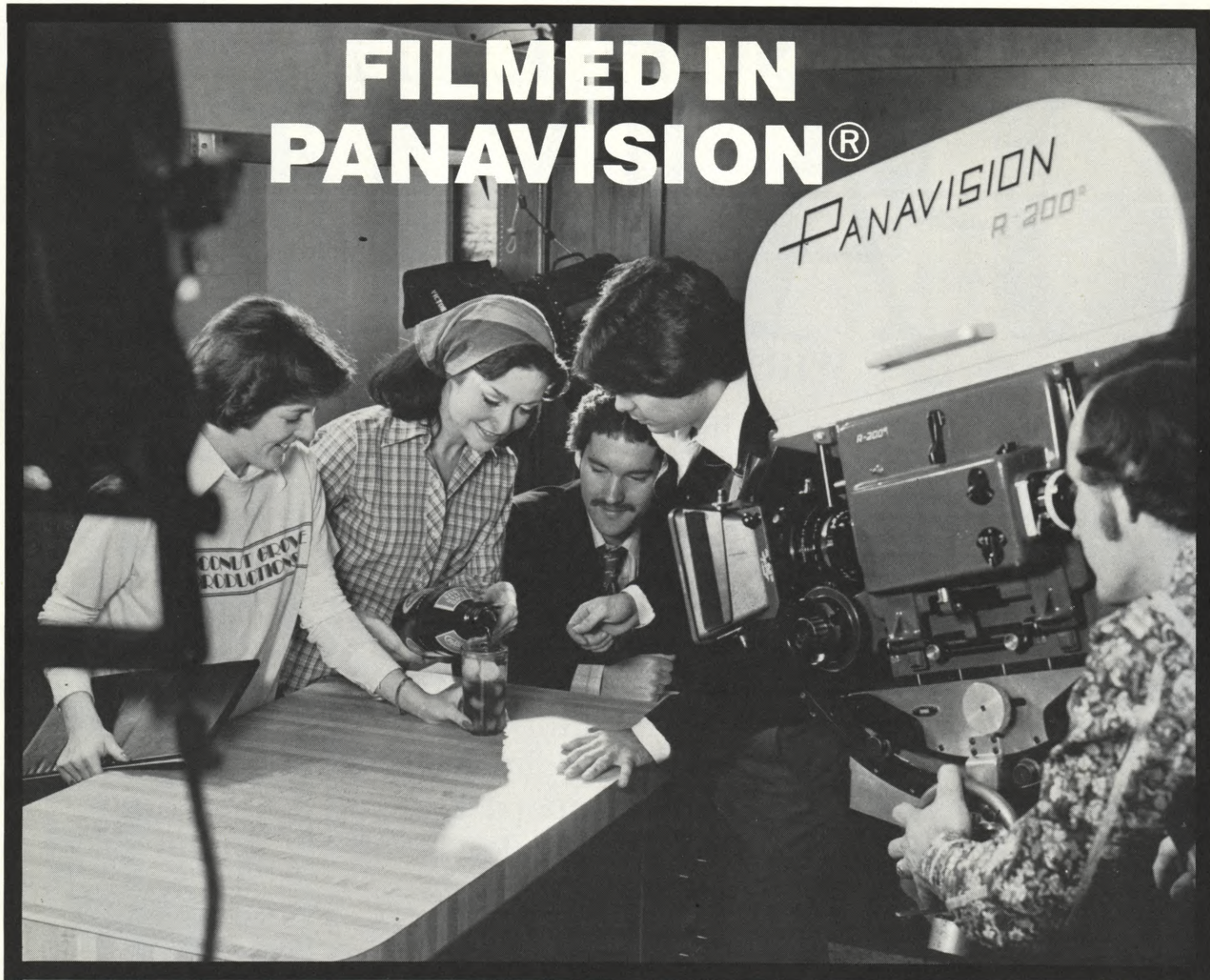
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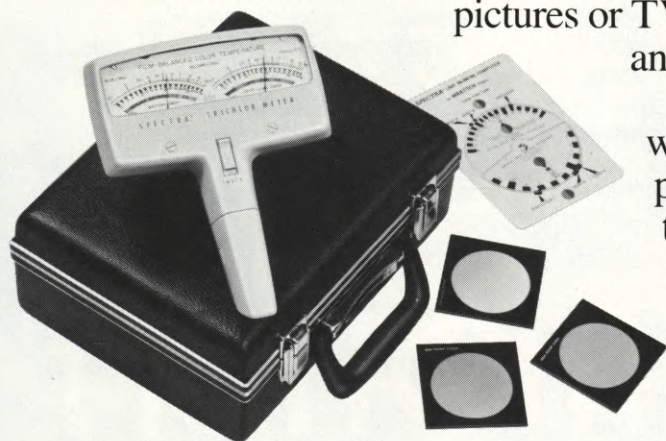
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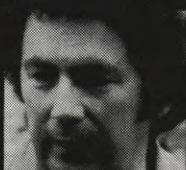
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volume 4 number 5

# MOTION



Canadian film - theatre - tv

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"It was therefore decided to set up a program where Sesame Street could be viewed, and where trained inmates could tutor the kids in educational activities.

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"Naturally, prison presented us with terrible lighting conditions. We had neither the time nor the permission to install additional lights, yet we had to shoot inmates' cells, mess halls, shops, recreation areas and down long bleak corridors lit only by a few fluorescents and tiny amounts of daylight

filtering through barred windows.

"Thanks to Chem-Tone we were able to handle the worst lighting conditions without excessive expense and set-up time.

"Chem-Tone enabled us to push ECN 7247 one stop to ASA 250, and even two stops to ASA 500 without grain increase or loss of resolution.

"What's more, TVC's lab color corrections created a soft, natural look without the excessive contrast and brightness associated with 7247.

"And shooting thousands of miles from New York didn't make us a bit nervous. We knew that TVC's daily lab phone call would immediately pinpoint any exposure or color problems.

"The film will be aired in early '77. We think TVC should be as proud of it as we are."

Peter Rosen—Producer/Director/Cameraman  
Peter Rosen Productions, Inc. New York City.



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## ON LOCATION WITH

# THE DEEP

Filming of Peter Benchley's new best-selling novel required construction of a vast underwater "studio" — and the world's largest underwater "set"

By MICHAEL SAMUELSON

"When you are down there, there is no one else you can ask." So commented Peter Yates when he was discussing with me the shooting of Peter Benchley's (of "JAWS" fame) new film, "THE DEEP".

A third of the action takes place underwater in the wreck of an old ship. For Peter, most of the stars and most of the technicians, it has meant that they have had to learn to dive for the first time in their lives. This has produced a set of problems that none of them have experienced before.

For Director of Photography Chris Challis, those problems have included lighting the underwater set to match a real wreck that was sunk so deep that it was just not practical to take artists

down to it, or indeed, to film one-third of a major movie around it.

For the principal artists, Robert Shaw, Nick Nolte and Jacqueline Bisset, it meant learning an entire new set of rules; for Art Director Tony Masters, the problems included producing an underwater set which he solved, in fact, by building a studio — the largest underwater studio in the world.

But for Peter Yates, as he said, "Once you are down there, there is no one else you can ask." He did not realize how much he knew about filming until he had to make all the decisions. He could speak to everybody else down there through a loud-speaker system, but there was no way

Members of the filming crew for "THE DEEP" dive on the wreck of *R.M.S. Rhone* (Royal Mail Ship) which sank in 1865 with a loss of 125 lives. The vessel, which lies on the bottom in 80 to 90 feet of water off the British Virgin Islands, was filmed in establishing shots for the feature, with a duplicate of part of its structure later built in a large tank in Bermuda.

they could answer back. In many ways, being the only person on the set who can speak is an advantage, but to quote him: "You have to be extremely well-organized and pre-planning is all-important. Tony Masters, our Art Director, prepares storyboards for us to cover every setup and we discuss them very carefully before donning our Aqua-Lungs, flippers and masks and descending to the depths.

"Once down there it is great that nobody can answer me back. But equally, there is nobody whose advice I can take. It's an enormous test of one's knowledge. I am surprised to find out how much I know about basic film-making, because when you are 80 feet down and wondering whether you should be looking left or right and how the next cut should be — right to left or left to right — you make the decision and suddenly you realise you know the answers. It's nice to think that something has sunk in over all the years. It's a wonderful challenge. It is like making a film in the dark, a completely new environment.

"It has been wonderful working with Robert Shaw, Nick Nolte and Jacqueline Bisset. We have used doubles to the absolute minimum so that we could get their own personalities through. Even underwater it is important that the audience know it is Jacqueline Bisset. We have had a special diving mask made for her so that we can see more of her face and eyes. We had to make sure that, by their own individual idiosyncrasies, the public knows who they are. Closeups which aren't linked into the action and tied to the proper set are boring and the fact that we have had to make it believable underwater should be considered a plus, rather than an excuse for not being able to get perfection."

### About the Novel . . .

Peter Benchley's novel, "*The Deep*", from which the film is being adapted, was published in the United States last May by Doubleday & Co. and became an immediate best-seller. In England, published by Andre Deutsch Ltd., it raced to the number-one position on the best-seller lists within two weeks of publication and was subsequently set for publication in 39 countries around the world. Additionally, excerpts have been serialized in leading magazines and newspapers in America and abroad.

The Book of the Month Club, which selected "*The Deep*," has reported that it is one of the fastest-selling books of the year.

The novel has, from the very first, been selling at a top pace, reaching the





(LEFT) On location in Bermuda, a bit of public relations to apprise the world of a famous first. (CENTER) In the interest of preserving the essential clarity of the water in the huge tank, some unique prohibitions were enforced. "Sandy feet" were a particular non-no. (RIGHT) One of the stars of the show, Nick Nolte (recently of "RICH MAN, POOR MAN") surfaces in the tank. Like most cast and crew members, he learned to dive especially for this project.

Exterior topside views of the vast tank built in Bermuda to contain "The World's Largest Underwater Set". It was a dish-shaped excavation with sloping, rather than vertical, sides, built above sea level on a Bermuda hilltop to avoid seepage of unwanted water. Thirty feet deep and 120 feet across, it was dug out of solid coral. The bottom was covered with a thick coating of urethane to prevent leakage of water through the highly porous coral.



exceptional 200,000 mark within six weeks, surpassing the entire hard-cover sale of "Jaws", Benchley's first novel. "The Deep" also has been accumulating a succession of reviews that have made it one of the year's most acclaimed novels. "Yields the maximum in suspense. Perfect escape," said the New York Times Book Review. "Peter Benchley is a master of the escape genre. A superbly suspenseful story. Tightly woven, fast-paced and the finish is frightening," said the Los Angeles Times.

Bantam Books has acquired the paperback rights and will publish their edition in advance of the film's premiere engagement.

#### About the Story . . .

How many of us have plunged into a

friendly-appearing pond, only to find ourselves in eerily-deep water?

Discovering themselves in just such a situation are David and Gail Sanders (NICK NOLTE and JACQUELINE BISSET), a vacationing young couple who frolic into the waters off Bermuda to explore a sunken wreck, only to find themselves drawn into a whirlpool of jeopardy and intrigue involving a lost cargo of dangerous drugs, a fortune in Spanish treasure, ocean predators and those of the far-more-ruthless human variety.

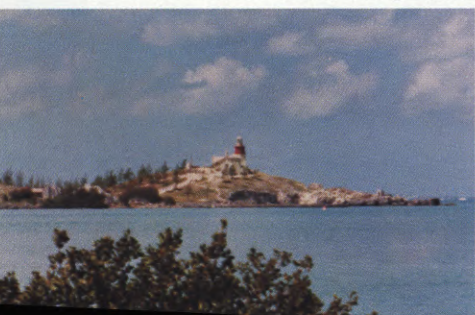
Their adventure begins when David and Gail find a strange ampule and a coral-encrusted Spanish medallion near the storm-shifted wreck of a World War II freighter. Before long, they are approached by Henri Cloche (LOU GOSSETT), a local underworld figure

with his own brand of menace. Cloche first offers to buy the ampule, then shifts to rougher tactics . . . for he knows that the ampule holds the clue to a rumored and long-sought cargo of morphine, convertible into millions of dollars worth of street heroin.

As David and Gail proceed to seek out answers to the mysteries they have stumbled upon, they find themselves allied with Romer Treece (ROBERT SHAW), a rugged, ocean-wise recluse and keeper of St. David's lighthouse, who has his own axe to grind and harbors a simmering vendetta against Cloche whom he believes responsible for the death of his wife.

Spurred by their own individual motivations — not all of them mutually compatible — Treece, David and Gail dive  
Continued on Page 316

(LEFT) The fake St. David's Lighthouse, which was built on Bermuda specially for the film, does not flash its light and, hopefully, doesn't confuse passing shipping. (CENTER) The author on his Rent-a-Moped, the only self-drive vehicle he could hire during his visit to the location. Maximum speed: 20 mph — and considerably less going uphill. (RIGHT) Looking soaked, actor Robert Shaw emerges from the tank. Unlike the other stars who took to diving enthusiastically, he "gritted his teeth" to do it.



# SPECIAL UNDERWATER FILMING EQUIPMENT FOR "THE DEEP"

To meet the special demands of this project, super-sophisticated underwater housings offering complete external camera control were designed and built

Absolutely essential to the successful filming of a highly specialized vehicle like "THE DEEP" are the "underwater people" — the experts in various areas of sub-oceanic activity. Such experts on this project include Al Giddings, who is credited as "In Charge of Underwater Production" and shares credit as 2nd Unit Director with Stan Waterman.

AL GIDDINGS is an expert diver and underwater cinematographer. He has been filming in the deep for the past fifteen years. He has been associated with some of the most significant television specials dealing with the world under the sea, and worked with Peter

Gimbel on the *Andrea Doria* television special. Last June, NBC-TV presented another Giddings special involving an underwater search. A contributor to the National Geographic magazine, he most recently did the cover story and 36 pages (May '76 issue) on the Truk Lagoon.

STAN WATERMAN has been diving since 1938 and is considered by many to be the dean and pioneer of underwater cinematographers.

Since 1956, he has been a film lecturer, bringing his extraordinary footage and expertise to audiences across the country and throughout the world.

He was associate producer and underwater cinematographer on "BLUE WATER, WHITE DEATH" and has been the underwater photographer for three ABC-TV specials as well as a group of National Geographic television specials.

His photography and his diving have taken him to virtually every corner of the globe, including a dive *under* the North Pole.

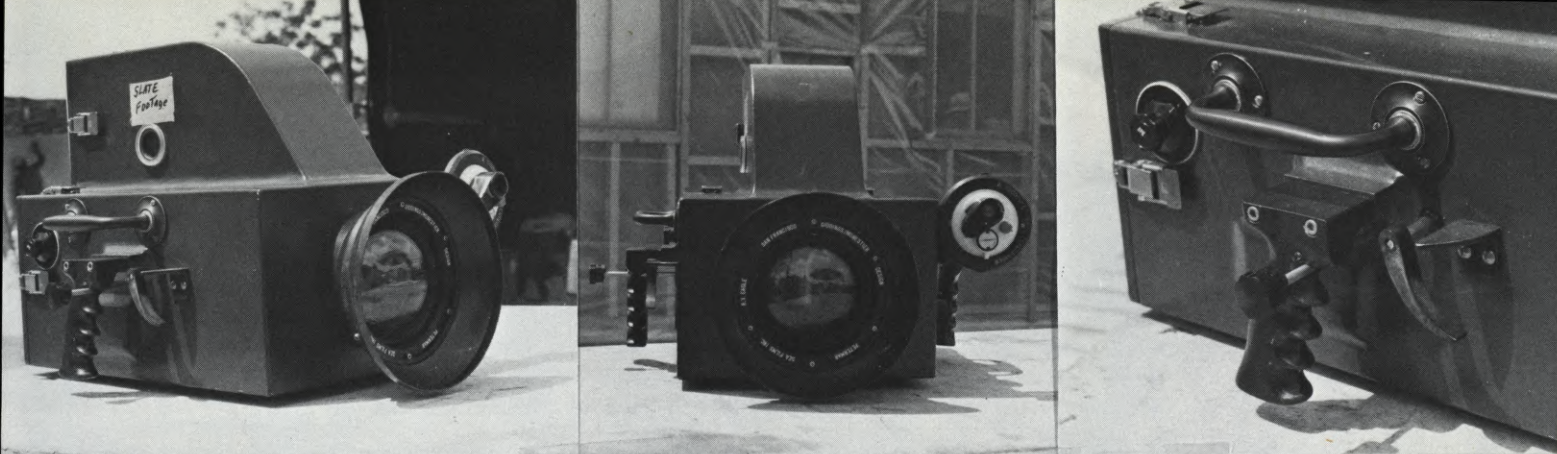
In the discussion that follows, Michael Samuelson first interviews Al Giddings, and then Stan Waterman:

**MICHAEL SAMUELSON:** Can you tell me a bit about the development of special technology for the underwater filming of "THE DEEP"?

*GIDDINGS:* When we started talking about this project last year with Producer Peter Guber and other Columbia Pictures executives they immediately established the fact that they wanted to utilize the latest state of the art and that they wanted to shoot in Panavision. Well, when you consider the magnitude of this film and the theatrics that they hoped to attain, it becomes pretty obvious that we would need a reflex camera system that embodied multiple-lens capabilities and interchangeability of magazines — and not just one such camera, but two or three. Panavision, as you know, has an underwater unit, but it is a one-lens, non-reflex affair and weighs 115 pounds. We discussed the anticipated problems among ourselves and the Columbia people said, "Well, let's just go out and rent the kind of units you need." And I said, "Fine — but they don't really exist." In any case, the results of several meetings are the special camera units we developed and which you now see in front of you. These units (including housing and Arriflex 2C camera with Panavision lenses) weigh about 75 pounds in air and 8 ounces in water. They offer all the controls one would use topside, including those for aperture and focus, plus reflex viewing, view of the tachometer and view of the footage-counter. In addition, there is a small light that goes on when you roll the unit sideways to look through a small window to double-check aperture and actually look at the lens settings. Also, if you change concentration from right eye to left eye, you see a direct-reading meter, and you can make really critical exposure

A flurry of activity on the sunken wreck of *R.M.S. Rhone*, as operators film a scene using the special housing unit designed by Al Giddings. The "underwater gaffers" swim around with 1,000-watt sealed-beam quartz lighting units, which proved highly mobile, but hardly bright enough to augment the ambient light filtering through the water, except in close shots.





(LEFT) The special housing for the Arriflex 2C camera, designed by Giddings because similar equipment was not available in the rental market, weighs 75 pounds in air, 8 ounces in the water. (CENTER) A front view of the unit. (RIGHT) Side view, showing the inclining knob protruding, as well as the on/off switch for the camera. (BELOW RIGHT) Close view of the exposure meter mounted on the side of the housing.

adjustments by rolling the unit on its side so that the light goes on. There's a small mercury ball in a glass tube and when the camera is turned on its side, the mercury moves and turns the light on over the lens. When you are shooting level, of course, the light is off.

There is also a water indicator. If you look through this fibre optics piece here, a little red light goes on to tell you if you have any water inside. In the British Virgin Islands, 14 of us made about 1,400 dives in a period of 33 days, with each camera being in the water an

In response to the need for more light to illuminate the underwater set built in Bermuda, ordinary 5,000-watt ("Senior") luminaires were specially modified by sealing the cable ends directly onto the terminals of the lamps, making them waterproof. Contrary to general suspicions that lamps thus rigged would not work and might prove dangerous, the units performed very satisfactorily.



average of six times each day, and we have yet to have our first drop of water inside. We are quite pleased with the results.

**QUESTION:** Did you actually make these units — or have them made?

**GIDDINGS:** I designed them and did probably 60% of the machine work, working with several friends, including one fellow who's here, Jack Monestier. We would build a special part and then give it to Jack to duplicate it twice over. That's really the way the three units were put together. They have welded cases, with the welds actually ground off, and are made of 1/2-inch high-grade aluminum plate. One of the advantages of these units, over any other system in the world, is the use of a hemisphere rather than a flat port. Continued on Page 308

# PHOTOGRAPHING "THE DEEP" ABOVE AND UNDER THE WATER

Famed studio cinematographer, originally assigned to direct topside, dry-land photography only, is called upon to also lend his expertise to underwater filming — and takes to it like the proverbial duck to water

Veteran cinematographer **CHRIS-TOPHER CHALLIS, BSC**, first gained international recognition for his camerawork on the two famous ballet films, "THE RED SHOES" and "THE TALES OF HOFFMAN". English-born Challis has been a cinematographer for forty years, including an association with David O. Selznick. Among his other film credits are: "MARY, QUEEN OF SCOTS", "CHITTY CHITTY BANG BANG", "THE MAGNIFICENT MEN IN THEIR FLYING MACHINES", "SINK THE BISMARCK", "THE LONG SHIPS", "QUILP", "THE LITTLE PRINCE" and "THE INCREDIBLE SARAH".

In the following interview he discusses what may well turn out to be his most challenging assignment yet — photographing "THE DEEP".

**MICHAEL SAMUELSON:** From the photographic standpoint, what would you say is the most unusual aspect in filming "THE DEEP"?

**CHALLIS:** I suppose the most unusual aspect is the underwater photography. I know an awful lot of that has been done before — we've all seen thousands of feet of it — but I think this is a little different in that about a third of the

film's action takes place underwater, and this does pose special problems in terms of photography and direction. All of the principal artists have learned to dive and they're all very good at it now. We've got two underwater specialist cameramen: Stan Waterman and Al Giddings, and Stan and Al and I have all sort of got together on the project. I went out to the Virgin Islands where I learnt to dive and I think I've learnt an awful lot from them. I hope they've learnt a certain amount from me, also.

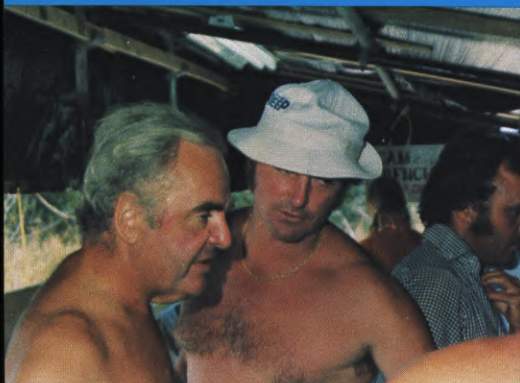
**QUESTION:** What do you feel are the basic differences between lighting topside and lighting underwater?

**CHALLIS:** Oddly enough, the main thing I found out is something that I suspected before — namely, that lighting underwater is not very different to lighting anywhere else, except that it's much more difficult physically to get lamps into the positions where you want them. But actually, the same sort of rules apply. One of these pertains to day-for-night photography. We've had a lot of night sequences to do which originally we were attempting to do night-for-night, but we worked together and I explained about day-for-night shooting, so that we were able to film

the night sequences that way. In fact, one has an ideal situation for that type of shooting underwater, as I quickly discovered, because you have a uniform, soft, flat light with no extremes of contrast — which is the sort of thing you pray for when you shoot day-for-night on the surface. That condition exists all the time underwater, and if you just work at a depth of 70 or 80 feet — which is what they were working at on the actual wreck — you have an overall ambient light of around  $f/4$ . We underexposed two stops and then flared the practical lights, which the divers were carrying, into the lens. It really works very well. I think it's very, very successful on the film and it more or less solves the problem.

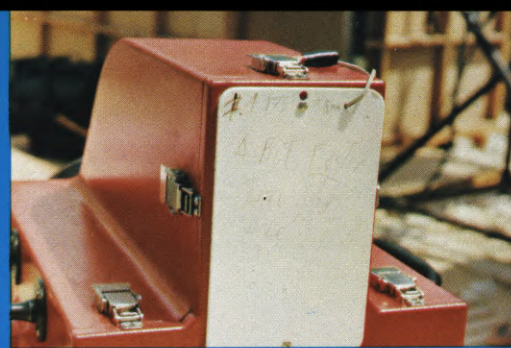
**QUESTION:** What about your problems in shooting above the water?

**CHALLIS:** Of course, on the orthodox part of the film, which takes place above the surface of the water, we have a lot of stuff to shoot at sea — some of it in very small boats only 24 feet long and quite a way offshore. I made the decision at the beginning of the picture, with Peter Yates' agreement, that we wouldn't have any vast armada of ships lashed together, with lights and cables

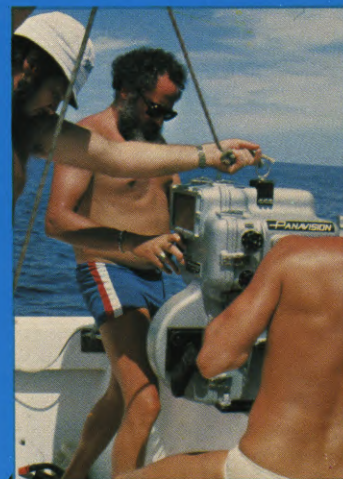
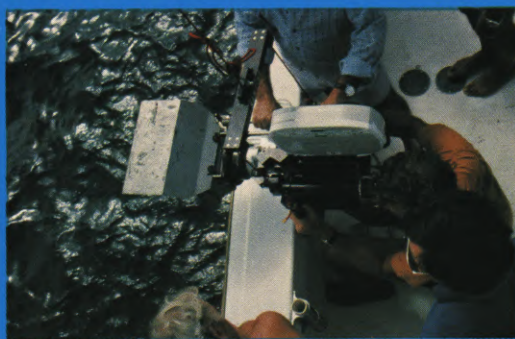
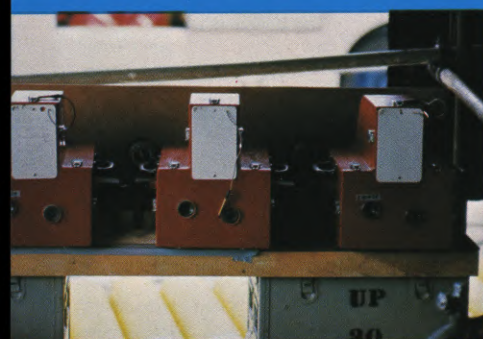


(LEFT) Director of Photography Christopher Challis, BSC, discusses setups with cameraman/2nd unit co-director Al Giddings, credited as "In Charge of Underwater Production". (CENTER) In wet-suit and SCUBA gear, Challis prepares to dive into underwater "studio". (RIGHT) A surface confab between takes. (BELOW LEFT) The latest thing in camera cars — Bermuda style. The relatively small, though highly sophisticated, Samcine camera car was banned from Bermuda by island authorities, who insisted that this much larger bus be rigged out as a camera vehicle instead. (CENTER) An unusual sign for a camera car: Smoking and hamburgers not allowed. (RIGHT) Blackboard kept handy for pre-shooting directions.





(LEFT) The specially modified (for underwater filming) Arriflex 2C camera, shown with the unique, highly sophisticated housing designed and partially built by Al Giddings, after it was discovered that no such equipment existed in the rental market. (CENTER) A front view of the camera. (RIGHT) One of the only ways of communicating underwater between director, actors and camera crew was to write on the back of the camera. The message here reads: "A bit faster through the hole."



(LEFT) The three camera/housing units lined up side-by-side. Because of the intricate underwater action, and difficulty in matching precisely, multiple cameras were used for a majority of the filming. (CENTER) Special camera rig in use on a boat. (RIGHT) Camera originally used for underwater shooting, prior to completion of innovative housings. The new units (including housing, Arriflex 2C camera and Panavision lenses) weighed 75 pounds in air and 8 ounces in the water. They offered all the controls one would use topside.

*in the water — which, I think, just doesn't work. I've seen this attempted so many times and it always ends in disaster. We decided instead to shoot everything virtually hand-held, using the special hand-held rigs which your company made for us, and which are developments of a thing which I worked out many, many years ago for "H.M.S. DEFIANT" with Johnny Jordan. We produced one with you for the Panaflex which enables us to shoot hand-held sync-sound on a small boat and still get a stable picture. We've shot tests on such rigs out here in quite rough weather — rougher weather, in fact, than I think the actors can actually work in — and they're very successful. The result is that mechanically, photographically, we can shoot in much worse conditions than they can actually make the picture in — and we're self-supporting.*

**QUESTION: Could you describe those rigs a little bit?**

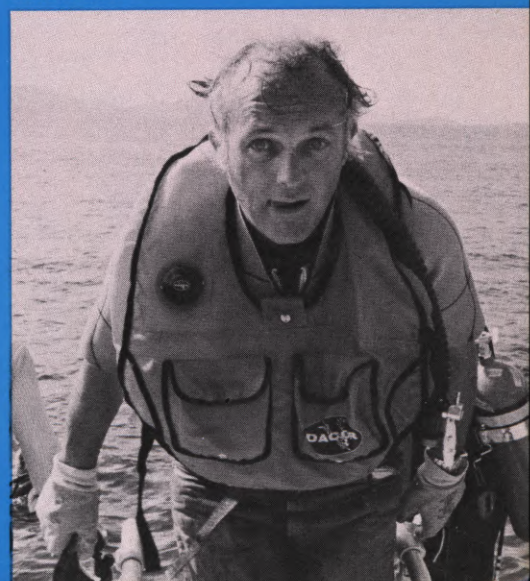
*CHALLIS: Well, the basic rig is a very simple thing. It started, as I said, on "H.M.S. DEFIANT", where we discovered that we had actors who were keen and capable of going aloft on those old period sailing ships and we could actually play scenes with them*

*100 feet up in the rigging. (Anthony Quayle was one of them; he was absolutely marvelous.) We had to have some means of supporting the camera, because you couldn't hand-hold it; you needed one hand for yourself, so to speak, and one for the camera. Johnny and I devised this sort of simple yoke, as it then was, which Johnny built in Spain at the local blacksmith's. It was just a sort of yoke that the camera hung in with a centre suspension point, which we then just hooked or lashed onto any convenient point of the ship. He made an adjustable plate which the camera sat on, so that you could move it backwards and forward and get a balance point. That was the beginning of it, but when we came home we developed it still further, and we decided that if you hung it on a counterbalanced weight from the suspension point that was very far above you, you could actually then walk about and even do crane shots with it. Since then it's become much more sophisticated and the mountings are now castings and they're well made. All the balance points are worked out. Then this latest one, which you made for us to hold the Panaflex, goes even a step further forward. It's a little more sophisticated than the others were and I think that it's got lots of possibilities, because we've*

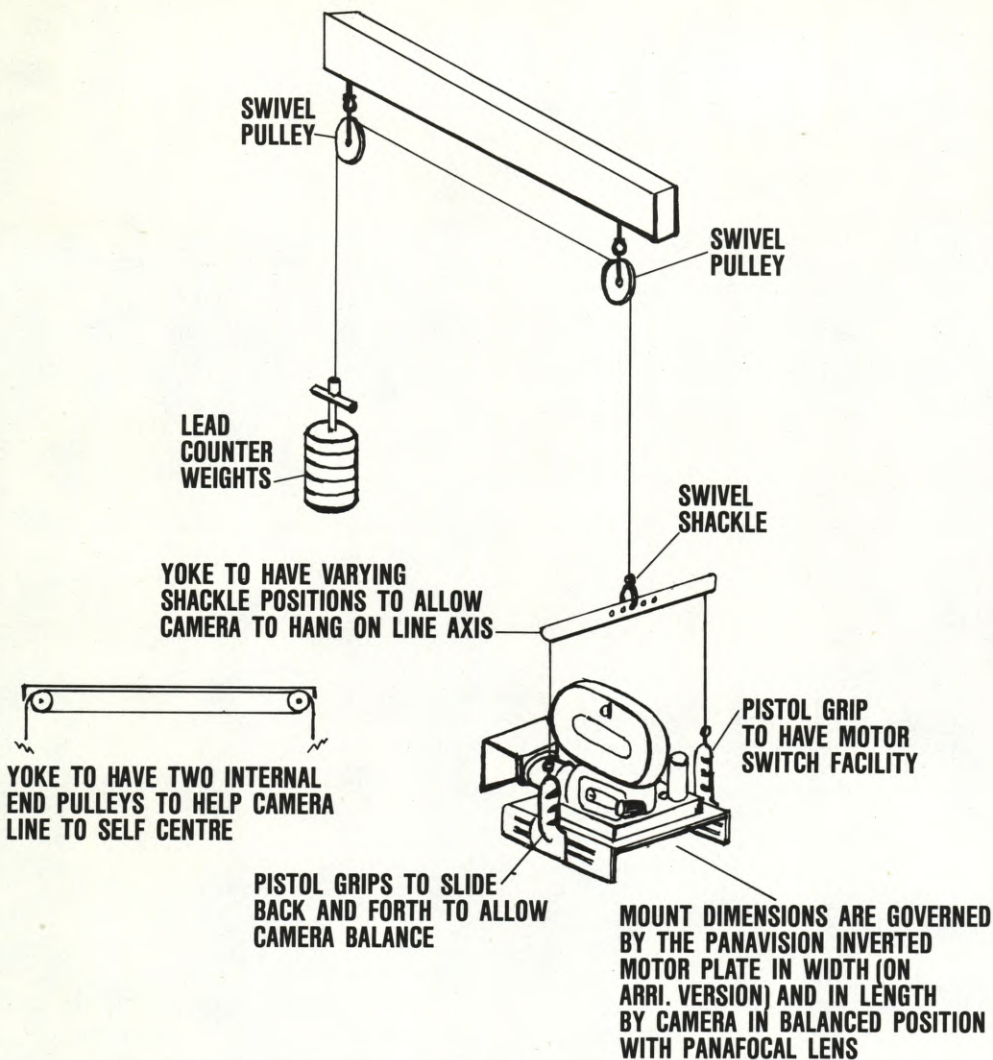
*used it in the backs of cars and, in the past, for tracking shots and things like that. It's amazing where you can put the camera. We've also used it a lot in the studios. For example, on pretty well half, I should think, of "ARABESQUE" we used it actually on the stage, literally walking about with it — of course, with an Arriflex.*

**QUESTION: Can you tell me what sort of lights you've been using underwater?**

**Director Peter Yates (of "BULLITT" fame) did his directing where the action was — underwater.**



# SUSPENDED CAMERA RIG



Original diagram by John Palmer detailing requirements of special camera rig built by Samuelson Film Service Ltd. (London) for "hand-held assist" in filming on small boats and other unstable platforms during production of "THE DEEP". The device served admirably for smoothing out wildly pitching motion often encountered at sea. Though slanted mainly to mount the Panaflex, it could accommodate other cameras, as well.

Filming with the special rig aboard a small boat. The device, as constructed for work on "THE DEEP", is a much more sophisticated outgrowth of a unit devised many years ago by Christopher Challis and the late Johnny Jordan for filming high in the rigging of sailing ships during the production of the feature film, "H.M.S. DEFIANT".

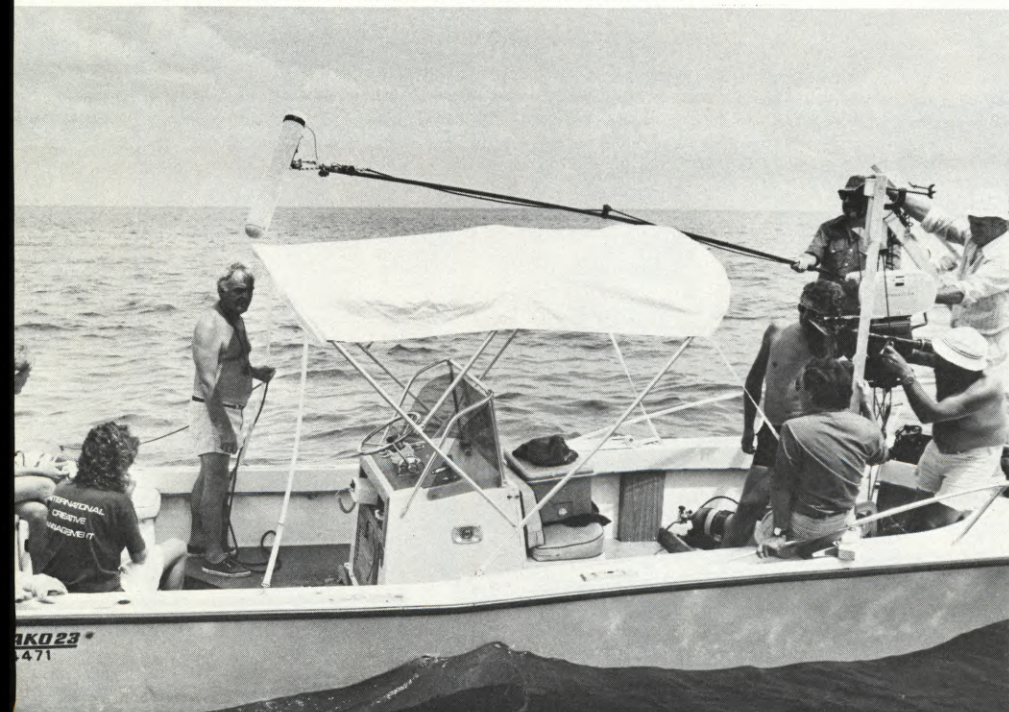
**CHALLIS:** That's quite an interesting story, really, because the underwater people, who originally were meant to be absolutely self-supporting (as, indeed, they were) used sealed-beam AC lamps. But these were very small — only 1,000 watts. I talked to people back home about it and now they are using regular 5-kilowatt lamps. These are ordinary 5K's, but they've just done away with the switches and sealed the cable ends straight onto the terminals of the lamps, which makes the terminals waterproof. Provided that the lamps are immersed in the water before they are lighted, they work perfectly well underwater. I didn't believe this, even though the gaffer said they would. I was suspicious and all the underwater people said they would never work and that they would be dangerous. Anyway, everyone is now convinced that they do work and they're very successful.

**QUESTION:** Where is your negative being processed and what stock are you using?

**CHALLIS:** The negative is being processed at the TVC Laboratories in New York, and we're using Eastman 5254 for the surface shooting because we feel that it's less contrasty. They're using 5247 underwater because they want more contrast, but I want less. I found out one rather interesting thing when I talked to the lads about this initially. When I met them, they said, "Which stock do you want to use?" I didn't really know what they meant, because in England there is virtually nothing but 5247. We've gone over to it exclusively and most of the labs no longer process the other stock. But they said, "In America some cameramen don't like to use it because they don't like the contrast." Well, in England we've gotten past that years ago because we've been printing on Gevaert and other positive stocks. I have, in fact, used the 5247 on my last four or five pictures and three of them have been low-contrast subjects. I think it's been absolutely fine. At any rate, I've had to revert to 5254 on this picture.

**QUESTION:** Would you prefer to be shooting on 5247?

**CHALLIS:** Well, to be quite honest, I would, because I think that 5247 — provided that you can get it to print right, and you can — is a step forward. I mean, that's why they brought it out. It's no faster than the other stock, but it has higher resolution and I think you gain in the post-production stages of the picture, when you start to make CRI's. You get better quality with it. I find it





rather strange that in the States they haven't welcomed it as we have.

**QUESTION:** It was never your intention, I'm sure, to get so involved in the photography in the underwater set. Isn't that so?

**CHALLIS:** Theoretically, I wasn't supposed to. In fact, I was told that I wouldn't be expected to dive or anything like that. They said they would like me to go to the Virgin Islands just to be around — to help in any way I could — and, when we saw the rushes, to offer suggestions. But I've somehow got involved in it all.

**QUESTION:** Are you enjoying it?

**CHALLIS:** Yes, I'm thoroughly enjoying it. I would say it's a very interesting experience.

**QUESTION:** Can you tell me about your problems of matching colour-balance underwater?

**CHALLIS:** Well, of course, the overall colour-cast you get varies with the depth that you're working at. The deeper you go, the bluer it gets. The first interesting thing that you find when you start to dive is that it all looks very monochromatic. Perhaps "monochromatic" isn't the right word, but it has a sort of overall greeny-blue cast and there is very little colour until you get very close to things. Documentary people and stills photographers, when shooting underwater in daylight, use an 85 filter for correcting the stock, but then they use uncorrected incandescent lamps to light the foreground, which, they say, brings the colour up. Well, of course it does — but, in fact, it does much more than that. I mean, it distorts the colour, because you are photographing with a stock which has been balanced to daylight and you are lighting immediate foreground objects with raw tungsten. The result, of course, looks quite effective as a still or as an unrelated shot in a documentary, but when you start to cut these scenes together in an action film, it doesn't work. We've ended up having to colour-correct all our lighting, just as we would on the surface.

**QUESTION:** How are you doing that?

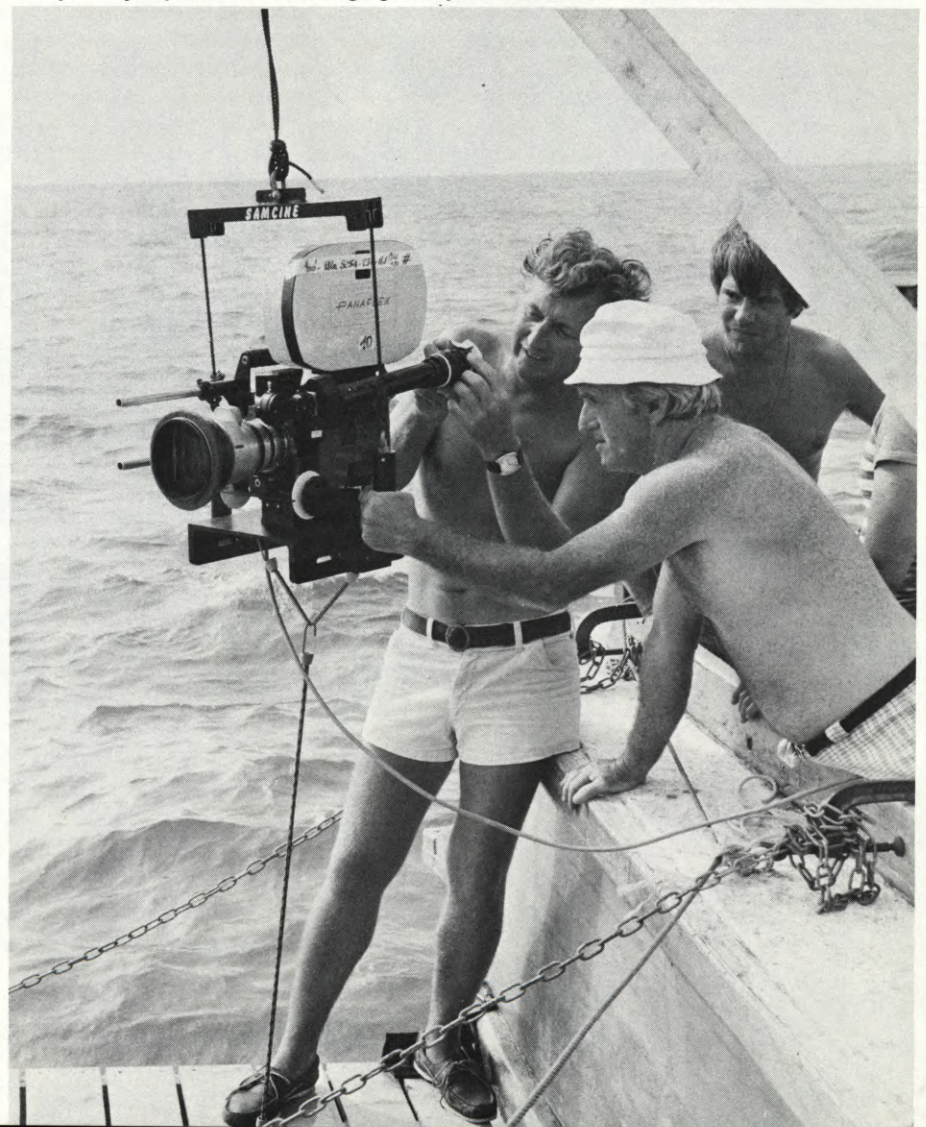
**CHALLIS:** We're using regular colour-correcting filters on all the incandescent lamps, as well as regular diffusers (spun glass), which are perfectly alright underwater. We've also got barndoors on the lamps. I said to

Continued on Page 322



Christopher Challis, looking like a proper aquanaut, clears his mask in preparation for a dive, while leading lady Jacqueline Bisset buckles on her SCUBA gear. Most of the actors and technicians had never dived before the production of this film, but having been well and patiently taught by Al Giddings and his associates, they were soon diving like professionals and enjoying every minute of it.

The Samcine special camera rig operator and designer, John Palmer, with key grip (in white hat) Pat Newman and clapper-loader David Budd in the background, shown rigging the unit for use on a small boat. Pistol grips facilitated sliding camera back and forth to vary balance — especially important when changing from prime to heavier zoom lenses.





# They made it

(with a little help from Lee)

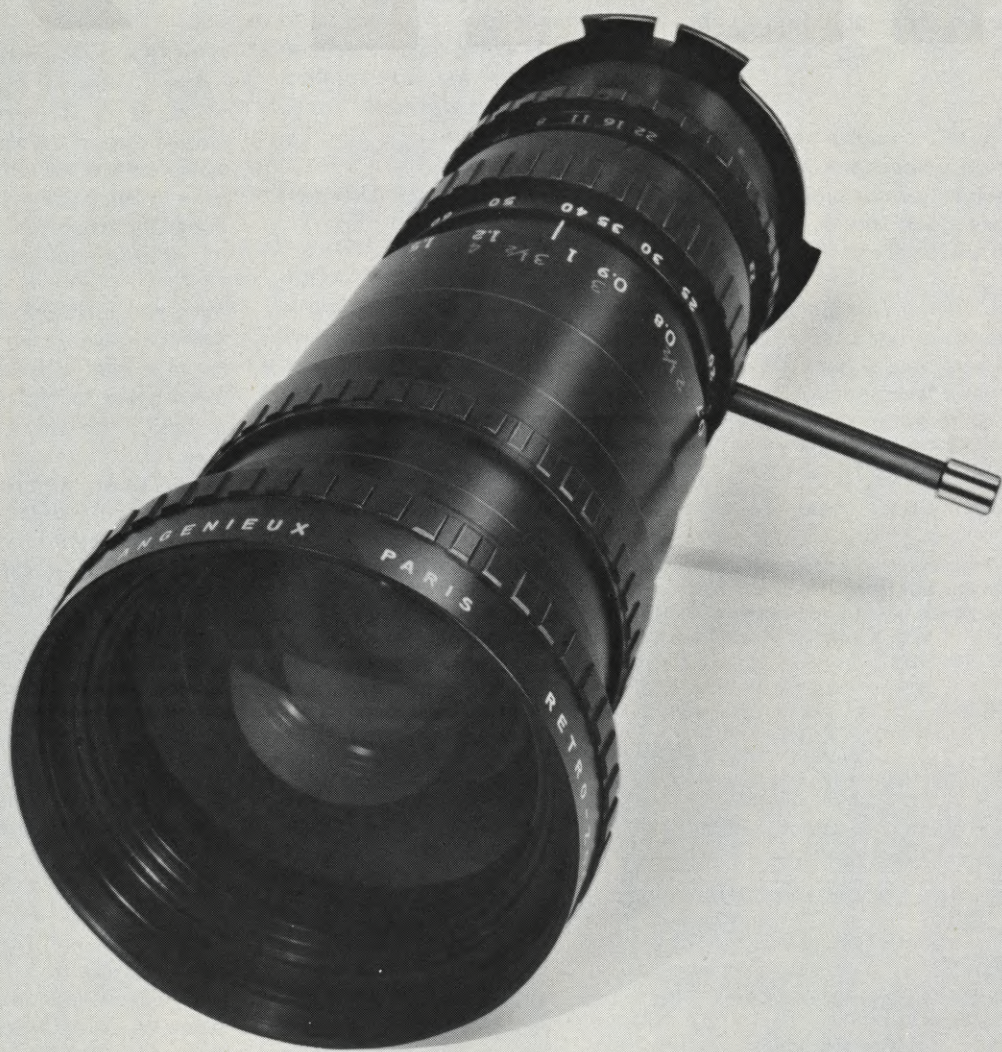
1. Peter Fetterman... 'Full Circle'
2. Peter Beale... 'Star Wars'
3. Bob Chartoff... 'Valentino'  
Irwin Winkler
4. Jack Wiener... 'The Eagle has Landed'
5. Peter Guber... 'The Deep'

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# PRODUCTION DESIGN FOR "THE DEEP"

Production Design requirements included: the world's largest underwater set (in a huge tank), a fake lighthouse, and a "hairy-looking" elevator

Production Designer **TONY MASTERS** won the British Film Academy Award and an Oscar nomination for his work on "2001: A SPACE ODYSSEY". Among the other major films on which he has functioned as Production Designer is one of the biggest international successes of recent years, "PAPILLON". His next assignment will be the production design of "RAGTIME" for Dino De Laurentiis.

In the following interview he discusses the most unusual demands and challenges posed in designing "THE DEEP".

**MICHAEL SAMUELSON:** You've been out here in Bermuda, I believe, longer than anybody. Obviously, your biggest problem must have been the underwater set. Can you tell me about it?

**MASTERS:** Yes, I think so. This picture required an underwater set representing a shipwrecked vessel lying on the ocean floor. After a few meetings in Hollywood we came to the conclusion that it would be impossible to shoot all the difficult scenes that we had to do inside actual wrecks in the open ocean. It

A side view of the tank under construction and before being filled with water. Note the sloping sides, designed in this fashion to avoid the crumbling caused by water, which vertical "swimming pool-type" walls might have suffered. Scooped out of a hilltop of solid coral, the tank bottom was "paved" with a coating of urethane ranging from one foot to 18 inches in order to prevent water leakage.

became obvious that if we had to get into a boat every day and go maybe eight miles out to sea and then dive to a wreck 80 feet down, we would never get the film shot. In searching for alternatives, we speculated that it might be possible to build a set inside a big tank. The members of the underwater fraternity were a little bit against that idea from the start because they had never thought about doing such a thing and they were used to working with the real thing. But the more they discussed the problems of lighting a real wreck and shooting it, while losing time at sea, the more they conceded that it might be a good idea to shoot it in a tank. That's when my real work began.

**QUESTION:** What did you tackle first — the tank or the set?

**MASTERS:** The first thing I had to design was the set that we were going to put inside the tank. We needed a wreck — but what kind of wreck? We needed one with three or four compartments, so that the actors could swim from one to the other. Estimating the size of the set, we then knew how big a tank would be needed — and it appeared that we

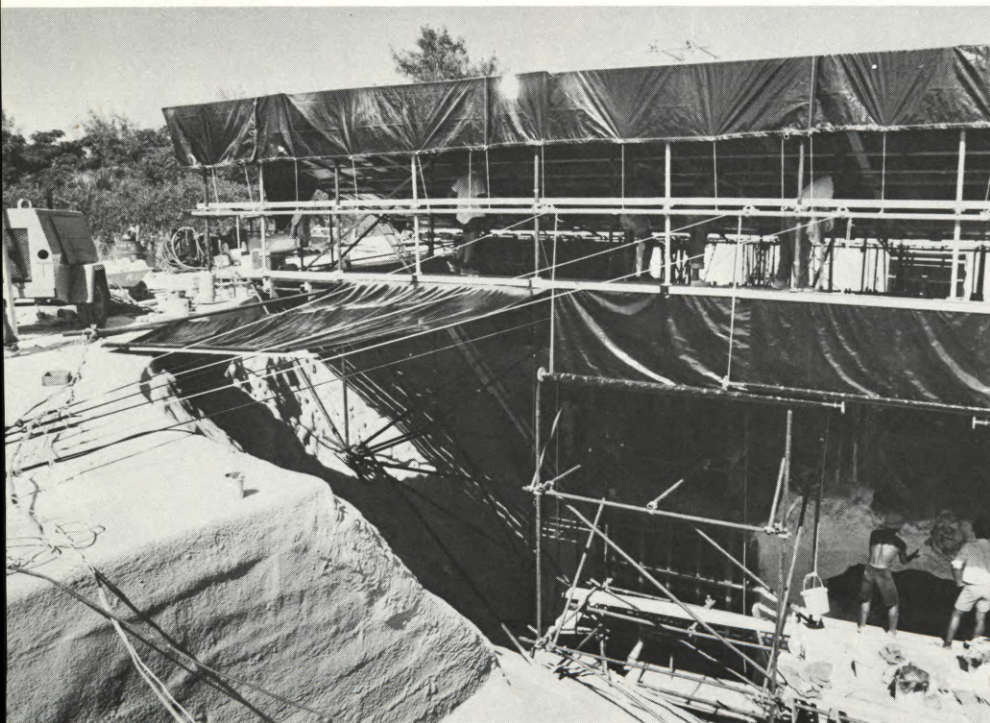
would need a vast tank with acres of space. We discussed the problem with specialists who make tanks and pools for installations like Marineland, and it seemed that the best and cheapest shape would be a big "dish", a bit of a soup plate, rather than a square hole or a rectangular tank like a swimming pool. It would be a sort of deep dish with sloping sides.

**QUESTION:** Why sloping sides rather than vertical walls?

**MASTERS:** Because sloping sides would not need reinforcing. In other words, if you do vertical walls, there is always the possibility that when the water isn't in the tank everything might cave in, but if you make a dish the water holds the whole thing down. However, it's obvious that you need much more room for a dish than you would need for a rectangular tank. We went out to Bermuda, where we would be shooting some of our main scenes, and looked for a place to dig this big hole in the ground. After lots of people had offered ideas and suggestions, we ended up on the hill where we are now, with the idea of digging down far above sea level — the reason being that if you dug at sea level, you would hit water before you needed it. One might think that it would be simple to build a set in a hole and fill it up with water, but there were so many things that had to be gone into. We had long meetings with marine biologists and other experts on this kind of work and we had to consider all of their requirements and list everything they talked about that might be necessary. We finally wound up with this conglomeration — I can only call it a "thing" — in that hole there. It's an amazing contraption, but it works. The filtration plant is really complicated, but it changes a million gallons of water every 12 hours and the fish can live in there because the water is absolutely pure and clean.

**QUESTION:** How big is the "dish"?

**MASTERS:** It's about 130 feet long, 85 feet wide and 30 feet deep — and it's actually carved out of the solid coral. The coral being highly porous, we then, of course, had to coat it with something to keep the water from leaking. We explored all sorts of ways of doing this — some of them very expensive —



and we ended up by spraying it with urethane, which proved to be a very quick, economical and efficient way of doing it. There is a layer of urethane one foot to 18 inches thick all over the bowl, which makes it completely water-proof.

**QUESTION: Did you know how to dive before being assigned to this film?**

**MASTERS:** No, a lot of us learnt to dive on this picture. The underwater team, Stan Waterman and Al Giddings, taught us to dive when we were looking at wrecks over in the Cayman Islands. After a couple of dives in the pool, I went straight down to 60 feet — although I was terrified out of my life. But now it's all very easy and we dive all the time.

**QUESTION: When you were location hunting in the first place, how did you decide on the wreck in the Virgin Islands?**

**MASTERS:** We were told a lot about wrecks all around the world, and it became a matter of deciding where the best wrecks were and whether it would be possible to work in those spaces. We knew it would be better if it was a place that was reasonably economical to work in, with a friendly government and the facilities that would be needed — hotels and that kind of thing. There were many considerations that steered us toward the Virgin Islands. One was the clarity of the water; it was sup-

A few of the many storyboard sketches provided by Production Designer Tony Masters to help plot the intricate action visually. Such sketches were especially helpful in underwater shooting, where lack of fixed reference points tends to make camera orientation more difficult.



The re-designed and specially constructed St. David's lighthouse. The real one was too tall for the Panavision anamorphic format and would have resulted in an unemphatic composition, if used. Also, it was surrounded by other buildings that did not fit the story. In addition, it required to be blown up — which the Bermudans might not have appreciated.

posed to be the best in the area. That, plus the fact that there was a very, very big wreck on the sea bottom near there, "R.M.S. RHONE". The only trouble with this wreck was that it was lying in water 70 or 80 feet down — quite a deep dive.

**QUESTION: And when you saw it, did you know it was what you wanted?**

**MASTERS:** It seemed alright to me, because it was a complete half of a ship — a complete hull which had several openings into which people could swim according to the script. Once they swam into these holes, of course, we planned to cut to scenes shot in the set in the underwater tank.

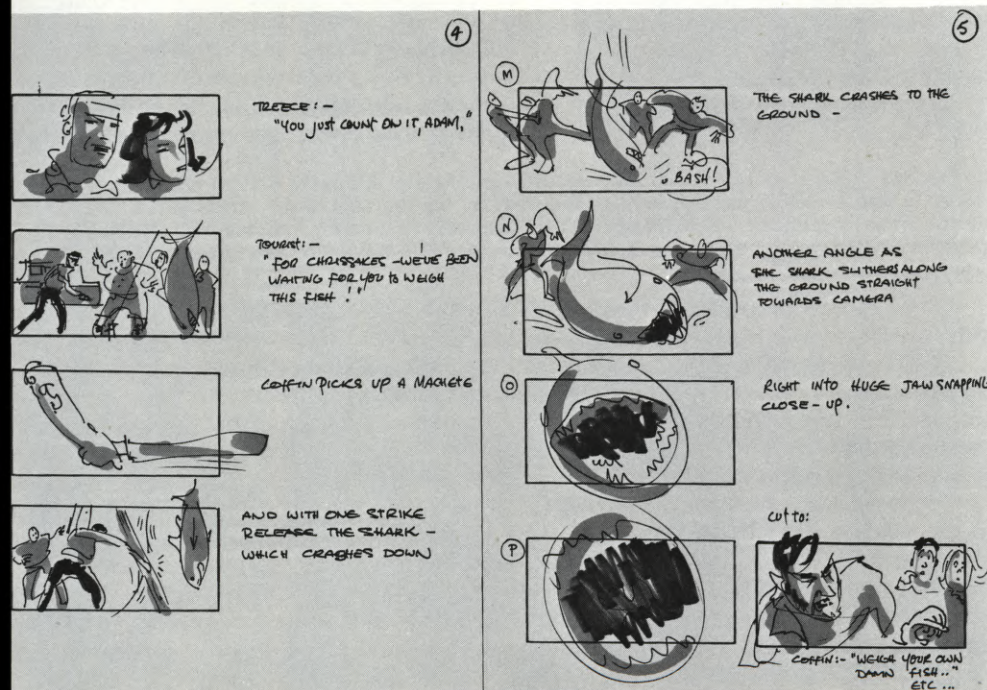
**QUESTION: How much of the action takes place in and around the wreck?**

**MASTERS:** About a third of the story transpires actually underwater, with the other two-thirds being on land or on the boat. Some of the land action takes place in the lighthouse, and the rest in a holiday hotel called the Orange Grove, where the elevator is. Those are the main locations.

**QUESTION: Can you tell me about the studio that you've taken over?**

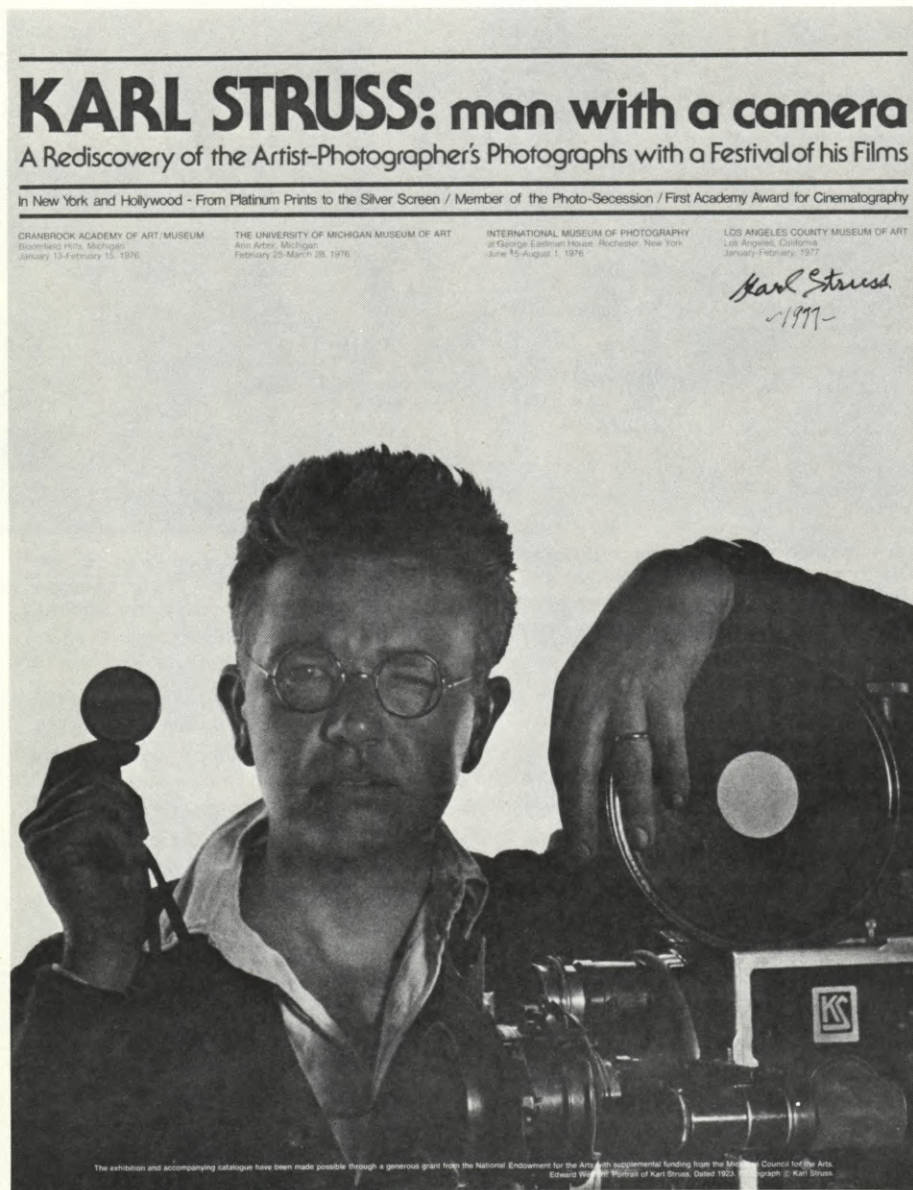
**MASTERS:** We went right over the whole area and saw everything. When we went to Ireland Island, where the Naval Yard is, we saw those huge stone buildings built by the British years ago, the old Royal Navy. They were absolutely fantastic, with three-foot stone walls — most of the stone having been brought over from Portland in England, and that kind of thing. Since it was all empty and not being used, it struck me immediately that this was a film studio, just in the waiting. Somebody just had

Continued on Page 310



# KARL STRUSS: MAN WITH A CAMERA

In a stunning dual retrospective, fitting tribute is paid a man who is a great artist of both still and motion picture photography, and the co-winner of the first Academy Award for Cinematography



In February, 1976 veteran Hollywood cinematographer Karl Struss, ASC, and his wife Ethel traveled to Ann Arbor, Michigan, for the opening of "KARL STRUSS: MAN WITH A CAMERA" — a major exhibition at The University of Michigan Museum of Art, reviving Struss' all-but-forgotten still photography.

Accompanying the exhibit was a Struss film festival sponsored jointly by campus film societies. Highlighting the festival were vintage 1930's film prints on loan from the UCLA Film Archive.

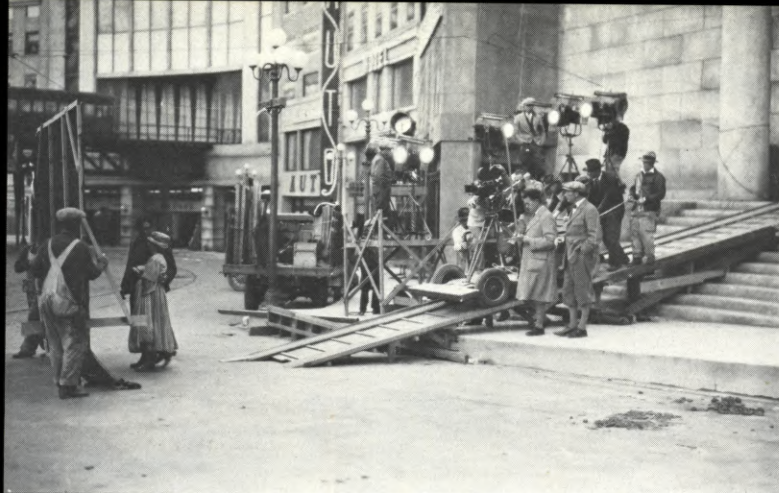
During his Michigan visit Struss addressed film history courses, spoke to film audiences both in Ann Arbor and at the Cranbrook Academy of Art (where the exhibition had premiered in January), and gave lecture/workshops in both still photography and cinematography at U-M.

On January 5, the same exhibition and film festival opened in 90-year-old Struss' adopted hometown, at the Los Angeles County Museum of Art. Continuing through February 23, this tribute to a great artist of the camera included, in addition to the still photograph exhibition, retrospective screenings of 15 of the most famous feature films on which he functioned as Director of Photography.

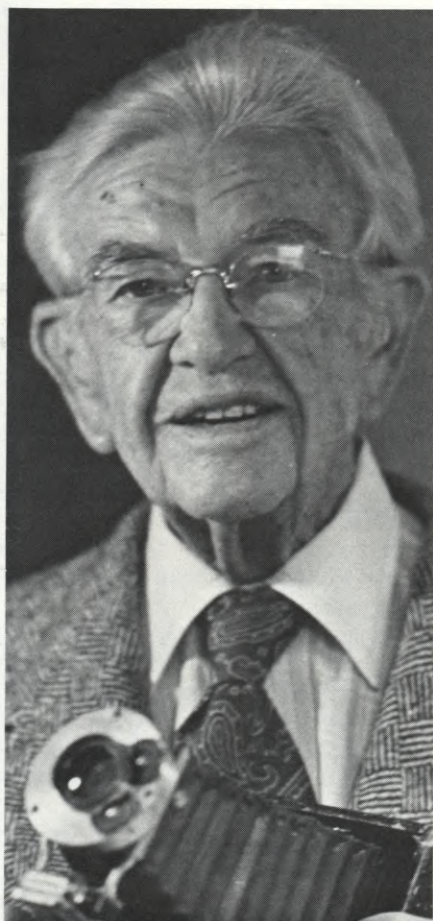
On the night of the exhibition's premiere, hundreds braved a driving rain to attend the reception and stayed on to view a screening of "Sunrise". Struss, spry and sharp of wit, was in fine form — holding court, greeting old friends and fresh-faced cinema students with warm cordiality. Adding to the nostalgia was the appearance of

(ABOVE LEFT) Poster designed to herald the retrospective of the work of Karl Struss, ASC, in both the still and motion picture media. A handsome catalogue of the still photography exhibition is also available through the Los Angeles County Museum of Art. (BELOW LEFT) George O'Brien is soundly seduced under a luminous full moon by brunette "vamp" Margaret Livingston in a scene from F.W. Murnau's "SUNRISE", (1927), for which Karl Struss and co-Director of Photography Charles Rosher, ASC, won the first Academy Award for Cinematography. (RIGHT) O'Brien and Janet Gaynor in another scene from the same film.





(LEFT) Shooting a scene for "SUNRISE" on backlot of the old Fox Studios. (RIGHT) One of the fanciful sets from the Carnival sequence of the film. Of Struss' and Rosher's photography Los Angeles Times film critic Kevin Thomas writes: "Every frame of 'SUNRISE' is visually awesome, with its frenetic montages of urban life, its terrifying storm and its exquisite vistas of rural beauty, all of which are expressed with the utmost rhythmic grace. It should be recalled that 'SUNRISE' was made in the days before optical printers, which means that virtually all its stunning effects were created in Struss' and Rosher's cameras." (BELOW LEFT) Karl Struss, ASC, as he is today — a very youthful 90 years old.



magazines ever produced.

The early Struss photographs include views of Europe, Long Island, and his birthplace — New York City. "Struss was one of the great photographers of New York," commented New York Times Photography Critic Gene Thornton in November's *Art News*, "and some of his Whistleresque impressions of the city at twilight rank with anything in that mode by Stieglitz and Steichen."

Why did an exhibition devoted to a long-time Hollywood resident and revered elder of the film community first take place in Michigan?

Because none of the film-oriented interviewers who had crossed Struss' threshold in recent years appeared interested in seeing his many early still photographs that had lain dormant in his home for several decades.

None, that is, until University of Michigan alumni Susan and John Harvith visited Struss in December, 1974, determined to see his photographs. Susan was curator of exhibitions at Cranbrook Academy, John an arts critic in Ann Arbor, and both historians

of film and photography.

"We were stunned when Karl told us that he had been a member of the Photo-Secession, studied with Clarence White, and had exhibited in Stieglitz's historic 1910 Albright Art Gallery show in Buffalo," the Harviths state. "None of his interviewers had even hinted at such a distinguished photographic pedigree."

"Our amazement turned to wonderment when we recognized the exceptional quality of Struss' vision in tightly composed photographs of Europe, Long Island, and New York City that bore an unmistakable resemblance to his cinematic style. We resolved on the spot that these unknown images had to be exhibited."

The Harviths proceeded to organize the show, but without any assurance that it would travel outside their home state. "It was only at The University of Michigan and at Cranbrook that the idea of a Struss photography exhibit won immediate acceptance, and this acceptance was supported financially by the National Endowment and Michi-

At the recent premiere of the Exhibition in Los Angeles, Mr. Struss greeted many old friends and colleagues, including Joseph Ruttenberg, ASC, (left) and Paul Ivano, ASC.

George O'Brien, the male star of "Sunrise".

The show features vintage photographic prints from the early years of this century, when Struss studied with renowned American photographer Clarence White, and was one of the youngest members of Alfred Stieglitz's Photo-Secession. From 1903 to 1917 Stieglitz's coterie of artist-photographers (including 25-year old Struss) had their work illustrated in the journal *Camera Work*, now considered by many to have been one of the finest art



# CINEMATOGRAPHY IN IRAN

By HUSHANG BAHARLU

Director of Photography

As a working Iranian cinematographer, I have been asked by the *American Cinematographer* Editor to comment on the current state of the cinema art in my country.

First, in terms of equipment, I must regretfully state that the situation is poor. We don't really have what we should have to work with as an industry. In recent years, things have improved a little bit in this respect, due mainly to the influence of television. Since television is a government institution, those who are making films for this medium are in a position to buy what they want, and they have bought some very good equipment. They do actually rent it out to other people, but not to everyone; they are very selective. The equipment which they have, while much better than that available to the film industry in general, is nothing to be compared with what is enjoyed by technicians working, let us say, in the United States. This is partly due to the simple economic fact that the returns of our films are not comparable. Therefore, we cannot afford to have the sophisticated equipment that actually exists and is continually being developed.

**Hushang Baharlu, acknowledged by his colleagues to be the top cinematographer in Iran, learned his craft in Italy, and is one of the very few Iranian film technicians to have studied abroad. Though he feels "out of the mainstream" of professional cinematography, he tries to keep current on the latest technical developments in the film industry.**



**Iran's foremost cinematographer discusses producing techniques and working methods in his country — and suggests several ways in which the technical quality of the local film product might be improved**

Of course, this state of affairs being what it is, we have to do our best with minimum equipment, and there is actually a funny irony in this — because what we used to do some years ago because of lack of facilities is now becoming fashionable. For example, let's consider the technique of putting complicated filters on windows in order to balance the lighting inside and out. We used to leave them off because of a lack of means, but now it has become the fashion to do so, and nobody bothers with them. It is the same in other aspects of production. Because we don't have the means to do certain things, we have to make do with what we have — our shoelaces, so to speak — and this is actually happening on location, as well as in studio situations.

In one way, this is a positive thing, because when you get used to giving your best with the minimum of equipment, you have to make a greater effort. It probably does spur the creativity of technicians. But there is a negative aspect to the situation, in that the work drags on for a very long time when you don't have the proper facilities. Since we don't have unions to regulate such things as working hours,

we just simply work on into exhaustion. We keep on working as long as we have a drop of energy left in us.

In Iran there are only two film processing laboratories worthy of the name. But even so, one of them is not really good. So if something happens to the one good laboratory — such as a fire — there is nowhere else to go. Also, if, for some reason, a cinematographer does not want to work with these laboratories, he is not able to do his work at all. So he has to put up with what there is, and it's very limited. This, too, is a handicap.

From my personal point of view as a cinematographer, I feel like a man on a rusty bicycle trying to compete with people in every comfortable fast cars. However, since this seems to be my destiny, I keep on trying, even with the lack of means, to catch up. I know this is not logical, but nevertheless I continue to do it. What the result is — that's not for me to judge.

Ideally, any artist or technician working in the film industry must be in constant contact with the best that is being done. My only contact with the mainstream of cinematography comes from the occasional trip I make to Europe, whenever I can afford it, in order to see what is going on in the industry, in order to become aware of new developments and higher standards.

Of course, during the course of the Tehran Film Festival each year, we get a chance to see some really good films from around the world. This is in welcome contrast to the films regularly shown in the Iranian market, which are usually third or fourth-rate. A lot of silly potboilers are shown here and you rarely get the chance to see the really good films that set standards of quality. Therefore, I make my own efforts in order not to miss what is going on in the mainstream.

I have been asked how aspiring cinematographers in Iran learn their craft and the answer is that they learn mainly by themselves. They begin as assistant cameramen and work their way through to becoming operating cameramen and, eventually, chief cameramen. There are also some cinema schools, the main one belonging to the television facility, but the cameramen that they produce are usually swallowed up by television and actually do not become a part of the general film profession. There are



other schools belonging to the Ministry of Fine Arts and they also produce some cameramen, but we haven't had any professional cinematographers from them either, because television sucks them up.

Normally, here in Iran — again, because of various limitations — the camera operator and the chief cameraman are one and the same. The person who does the lighting — the Director of Photography — is also the operating cameraman. On two recent films I have been able to persuade my Producer, who is an enlightened person in the field, to allow me to have a camera operator and this has left me free to function truly as a chief cameraman — but this is the first time such a thing has happened in the history of our industry.

A camera crew in Iran is very limited. There is the chief cameraman/operator, who does the lighting and actual photography. Then there is his assistant, who does everything else — the follow-focus, the moving of lights, the pushing of the dolly. All of these things are done by just a couple of people; whereas, in other countries, you would have individuals responsible for each part of the operation. The fact is that we simply can't afford to do it that way.

The roots of our problem are economic. Cinema tickets are very cheap in Iran and they cost the same as they did two years ago. But even though the tickets are cheap, some of the better films that are made do not necessarily draw large audiences. I have worked on some features that are not very commercial — yet my demands on the Producer, in terms of achieving quality, are greater than those of the people making the commercial films, which sell much better. I cannot push much more, because I know that these people must get their money back.

I think that the solution to the problem would be to find some sort of subsidy, some help for films which try to be good but just cannot afford it. I think that the government can help in this way — by making good films available to the people who want to see them, while assuring the producers that they will retrieve part of their loss — if there is one.

While an effort has been made to cultivate the taste of the film-going public, no attempt has been made to present them with good films regularly, so that they would have the chance to develop a taste for better things. The situation is the same all over the world. It is the cheap, trashy pictures that make the most money. In



**Baharlu on the set of "CHESS OF THE WIND", one of the two features he photographed which were entered in competition in the Vth Tehran International Film Festival. The other was "THE DIVINE ONE". "CHESS", filmed entirely in a large home belonging to the Empress, has been superbly photographed in a misty low-key style.**

a country as large as America, if only 10% of the people like good films and go to see them, an enterprising producer stands a chance of getting his money back. But in Iran, with only 30,000,000 people, even 50% might not be enough.

Getting back to the technical aspects of film production in Iran, while there are a few so-called studios — really just halls that are "studios" in name only — practically everything nowadays is shot on location. We really don't have any studios in the true sense of the term.

One of the features I photographed that was shown in the latest Tehran Film Festival, "CHESS OF THE WIND", was shot in an empty house that belongs to the Empress. She bought it in order to preserve it, and we made use of it as a "set". It was furnished for the sake of this film.

In photographing "CHESS OF THE WIND", I tried to use as much natural light as possible, but whenever I needed fill light I usually projected the light onto a white screen and bounced it back into the scene in diffused form. Actually, I could not have done it any other way. The rooms were so large and we were not allowed to put nails into anything in order to hang lights. We had to adapt to the conditions that were set for us. In order to use the minimum available light on this film, I had to ask my Producer to buy a special T/1.4 lens.

As far as camera equipment is concerned, the camera that is mainly used in 35mm production is the Arriflex. Occasionally, the Cameflex (which I personally prefer) is also used. Lately

some Cinema Products cameras have also been purchased, as well as STEADICAM units, but they have not yet arrived. Our lighting equipment is usually Italian, by Ianiro, and we use the Elemack dolly and crane.

On "CHESS OF THE WIND" I used the new Eastman 5247 negative and it marked the first time that this film stock was processed in our local laboratory. I found it to be a little more contrasty than 5254, but superior in several other respects. The wonderful thing about it is its latitude. It can take a lot of light without washing out. In some cases, in order to get a certain effect, I overexposed it three stops and it was still printable, which is very good. Inside a room you could shoot toward a window that was three-and-a-half stops hotter than the interior, and the outside wouldn't be washed out; it would balance itself. The film has a wonderful range.

"CHESS OF THE WIND" was shot in a soft low-key style, but the director wanted it even darker, so he had the laboratory print it way down. I disagreed with him on that; I wouldn't have brought it that far down. In the first print that was made the images were lighter and I thought the effect was much better — but the director wanted it dark. What makes things worse is that the projectors in Tehran have very dim lighting, so that when a film reaches the audience it is completely transformed. Of course, this doesn't eliminate the right of people to say that the photography is bad. They have the right to say it is my fault and I accept that fact. In saying these things, I don't want to evade my responsibility. ■

# THIS IS LENFILM STUDIOS

By **JOSEPH ALEXANDER**

*Chief Engineer, Lenfilm Studios*

Eighty years ago on a spring day in 1896 the St. Petersburg residents promenading along the Kamenooostrovsky (Stone Island) Avenue were attracted by a poster of the "Aquarium" theatre, which announced the opening of the summer season. The programme along with a French musical comedy featured a novelty —

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So, as it happened, May 4th, 1896 became the day of the first commercial film show in Russia.

By a striking coincidence the former "Aquarium" theatre has now become a sound stage of Lenfilm — the oldest film studio in the Soviet Union.

Lenfilm's history started on April 30th, 1918, when People's Commissar for Education A. V. Lunacharsky signed an act which decreed the setting up of the first Soviet center of film-making. Its work began with newsreel production, but it was as soon as November 7th — the first anniversary of the Great October Socialist Revolution — that the first feature film under the title of "Uplotnenie"\* was released. It was directed by A. Pantelev and

based on script written by Lunacharsky.

In the early 20's, romantically-minded young men of the Revolution came to work at the Studios. They were attracted by enormous possibilities suggested by the film medium as a means of propaganda and influence upon the masses. Grigory Kozintzev, Leonid Trauberg, Fridrich Ermler, and others, who emerged upon the scene with satirical agitational films, very quickly started to make pictures which placed them among the leading Soviet directors, whereas such films as "THE NEW BABYLON" and "THE FRAGMENT OF AN EMPIRE" became known far beyond the limits of the USSR.

In the course of the 30's, some films which have marked an era in the history of Soviet movie-making were created, among them "THE COUNTER-PLAN", "THE MAXIM TRILOGY", "PETER THE GREAT", "THE DEPUTY OF THE BALTIC", "THE GREAT CITIZEN". Side by side with Kozintzev, Trauberg, and Ermler worked other distinguished directors, such as the Vassiliev Brothers, Alexander Zarchy, Iosif Heifitz, Sergei Gera-

simov, Sergei Yutkevich, Vladimir Petrov.

In January of 1935 Lenfilm became the first among the Studios of the country to be decorated with a high state award — the Order of Lenin — and in February of the same year it won a victory at the Moscow International Film Exposition in a contest with the pictures of such internationally acclaimed film-makers as René Clair, King Vidor and Alexander Korda, and received the Main Prize for a programme of pictures including "CHAPAYEV", "MAXIM'S YOUTH", and "PEASANTS".

With the improving skill of directors, screen-writers, cameramen, art directors and actors of the Studios, which made it possible to create a number of outstanding, artistically superior films, grew their technical quality. Of enormous influence in this respect were the experience and high professionalism of such outstanding cameramen as Andrei Moskvin and Vyacheslav Gordanov, and such production designers as Yevgeni Yenei and Nikolai Suvorov. Not less important was the indefatigable activity of the Studio engineers, foremen and workers. By the outbreak of the Great Patriotic War, Lenfilm Studios represented a fully up-to-date enterprise with an annual output of 12-13 films. Parallel with the production work the Studios conducted serious research in color films, in developing the technique of sound recording, and designing camera equipment.

During the hard War years, the work of Lenfilm personnel did not stop even for as much as a day. Patriotic films, which called for struggle against the enemy, were shot in Alma-Ata (capital of the Kazakh Soviet Socialist Republic) where the main body of the Studios had been evacuated. At the same time, a small group of engineers and workers remaining in Leningrad under the most difficult conditions of the Siege, not only valiantly fought to rescue the buildings and the equipment, but was also able to set up the production of military ammunition, using the facilities left in the Studios' workshops.

In 1944, when the Siege was lifted, a new period in Lenfilm's history began. Along with the restoration work was started on reconstruction and expansion of the Studios' production facilities, which made it possible to

**The building of Sound Stage 2 at Lenfilm Studios in Leningrad. Lenfilm is the oldest studio in the Soviet Union, its history having begun on April 30th, 1918. Designated as the first Soviet center of film-making, it began with newsreel production, but by the following November, the first feature film made there was in release.**



embark shortly on the production of such major pictures as Grigory Kozintzev's "Pirogov" and Sergei Vassiliev's epic "Heroes of the Shipka".

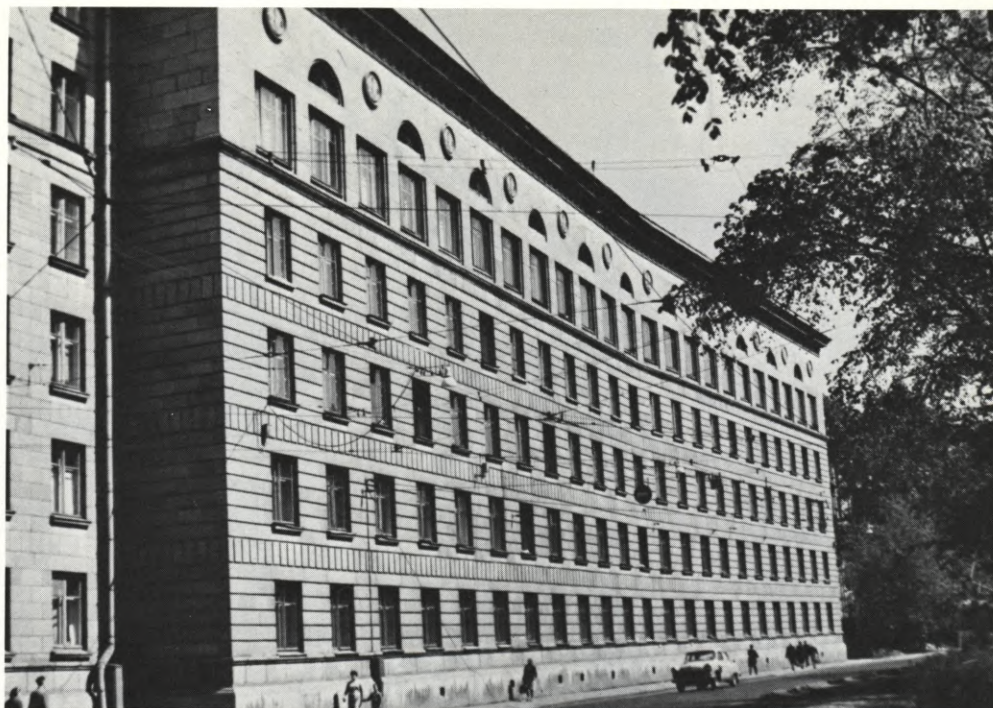
Quite soon the Studios' operations went into full swing, and it did not take long before its films again started to receive awards at international film events ("BIG FAMILY", "LADY WITH THE DOG" etc.).

The last 10-15 years is undoubtedly one of the most fruitful periods in the creative history of Lenfilm. Combinations of the older film-makers' ample experience and the creative quest of young directors and cameramen have materialized into such distinguished pictures as Grigory Kozintzev's "HAMLET" and "KING LEAR", Gleb Panfilov's "THERE IS NO FORDING THROUGH FIRE" and "THE DEBUT", Iosif Heifitz's "THE BAD GOOD MAN", Aleksandr Ivanov's "PERVO-ROSSIYANE", Ilya Averbach's "MONOLOGUE" and "SOMEBODY ELSE'S LETTERS", Michail Ershov's "THE SIEGE", Vitaley Melnikov's "THE ELDER SON", Viktor Tregubovich's "WAR IS WAR" and "OLD WALLS", Vladimir Motyl's "THE WIVES", Sergei Mikaelyan's "THE BONUS".

These years have also been marked with wide international co-operation of Lenfilm Studios. Co-productions were made with Yugoslavia ("FARE THEE WELL, BLUE BIRD"), Norway ("THE RED TENT" and "UNDER THE STONE SKY"), German Democratic Republic ("GOYA" and "BLACK RUSKS"), Hungary ("FERENTZ LIST"), Finland ("TRUST"). Finally, the first Soviet-American coproduction "THE BLUE BIRD" was completed in 1976.

\* \* \*

The Lenfilm of today is one of the biggest Studios in the Soviet Union as well as in Europe. It annually releases more than 30 full-length feature and television films. Apart from that, the Studio is responsible for dubbing (re-voicing) of some 30 pictures produced abroad and at local Republican Studios



**The Production Building at Lenfilm Studios. In the early 20's romantically-minded young men came to work at the Lenfilm Studios. They were attracted by the enormous possibilities suggested by the film medium as a means of propaganda and influence upon the masses. They emerged upon the scene with satirical agitational films which placed them among the leading Soviet directors.**

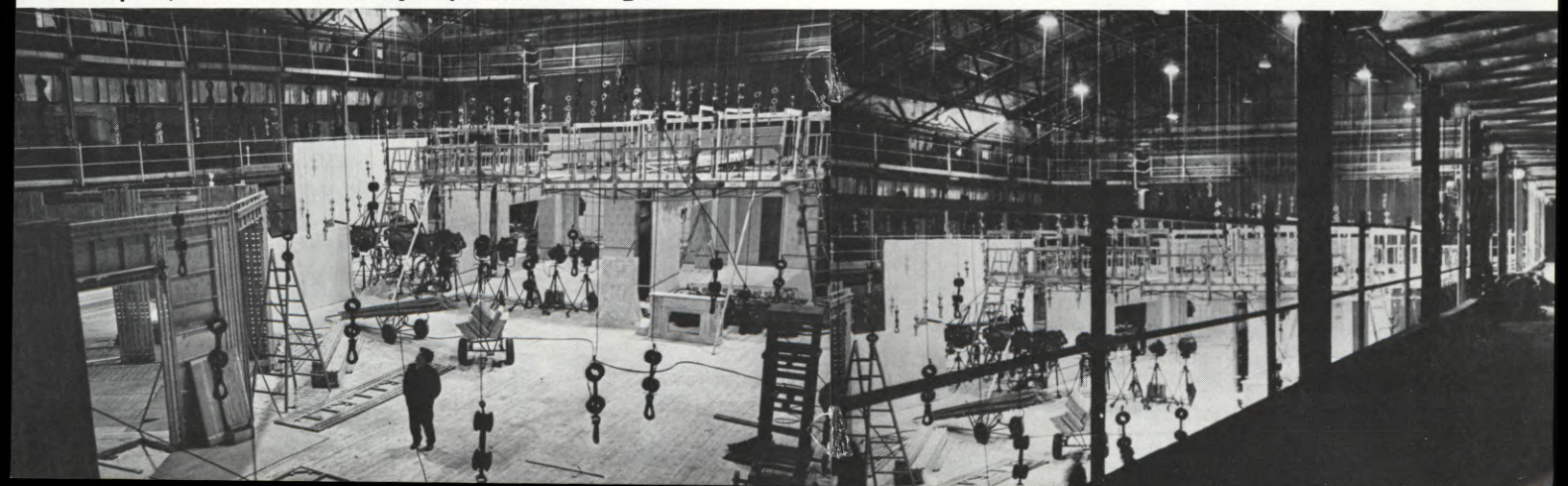
of the U.S.S.R. A considerable part of Lenfilm's work consists in providing its production facilities to other Soviet and foreign studios. To give one example of that, the Lenfilm Laboratory every year processes somewhere around 15 million meters of color and b/w film of different formats, the main portion of it being orders placed by other film and TV studios.

The Studios are subdivided into three big production offices called "Creative Units" (two of them make films for theatre distribution and one for television). There is also a section dealing with re-voicing of non-Russian language films and with sponsored advertising films and the Main Board of Story Editors, whose function it is to get scripts ready for new productions, as well as do the necessary story editing when the film is in the making. Along

with the offices that immediately direct the work of production crews, planning and financing operations, a special place is reserved for those services under the Chief Engineer which take care of all the production facilities available at the Studios. They include departments concerned with Studio policy in film technology and engineering, maintenance of buildings and other Studio constructions, its power supply and equipment, plus workshops providing for all the technical requirements of production crews.

Lenfilm has at its disposal seven Stages with the total area of 6,554 square meters. The smallest Stage covers 477 square meters and the biggest 1,192 square meters. Four of the Stages were built recently and are intended for synchronous shooting. They meet every modern requirement.

**Two views of one of the biggest studio sound stages in Sosnovaya Polyana, with an area of 1,200 square meters. (LEFT) General view of the sound stage. During rigging, scaffold units for lighting are raised from floor by cable windlasses in grid. Studios are well-equipped with portable electric forklifts and telescoping towers. (RIGHT) A birdseye view from gantry under grid of the same stage. The gantry insures speed, convenience and safety of operation from the grid.**





**A scene from the film "PETER THE GREAT", directed by Vladimir Petrov. The part of Peter the Great is played by an outstanding actor, Nikolai Simonov, shown here in an especially spirited moment. Soviet film-makers have a special flair for portraying such classic historical themes on the screen in bravura style, as witness the work of the great Sergei Eisenstein.**

The three remaining ones were radically modified to bring their specifications close to those of the main ones.

The indoor and outdoor sets are built using an original system of standard stock units developed at Lenfilm Studios. It includes a selection of frame planks, flats, windows and doors, cornices, arches, etc., which allow crews to assemble almost all of the sets one could conceivably want. The basic elements of the system — frame planks and flats — are lightweight, but quite strong. The system units are joined together by means of bolts; no nails or clamps are used. The system makes possible preassembly of separate set sections and their subsequent conveyance to the place of shooting, which speeds up the construction on the floor

and increases the effectiveness of the useful stage area.

Widely used for set finishing are new synthetic materials, such as fiberglass, fast-hardening plastics, different types of rubber, new synthetic-based varnishes and paints. Architectural details of the finish are manufactured of vacuum-moulded synthetic film. New and modern finishing materials combined with the highly efficient method of set assemblage permit improvements in the quality of sets, reducing the time required for their construction.

Lenfilm possesses a powerful generating plant operating from stabilized sources of D.C. (2140 kw.) and A.C. (3000 kw.) current, that provide for camera lighting inside the stages

and on the adjoining Studio lot. Studio lights total up to more than 2,000 lamps with the general power output of 11,200 kw., including 450 up-to-date projectors with halogen sources of light. The old-type lamps, the arc lights in particular, are being intensively replaced by the newly designed lightweight lamps with globes. All Studio lights are remotely controlled.

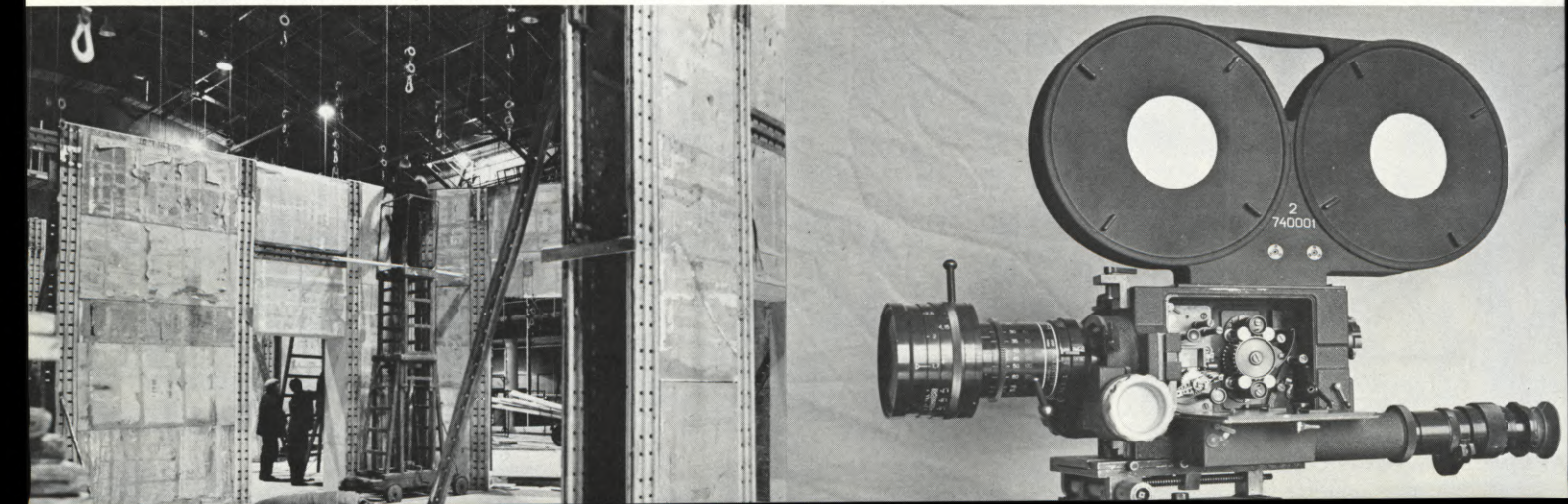
Lenfilm camera equipment numbers 100 cameras manufactured in the Soviet Union and abroad, which allow shooting of standard 35mm films, wide-screen CinemaScope films, 70mm and 16mm films. Sync studio cameras, as well as their lighter modifications for outdoor photography, hand-held, high-speed, and special process cameras are available for major formats. All cameras are complete with sets of home-made lenses manufactured in conformity with modern standards.

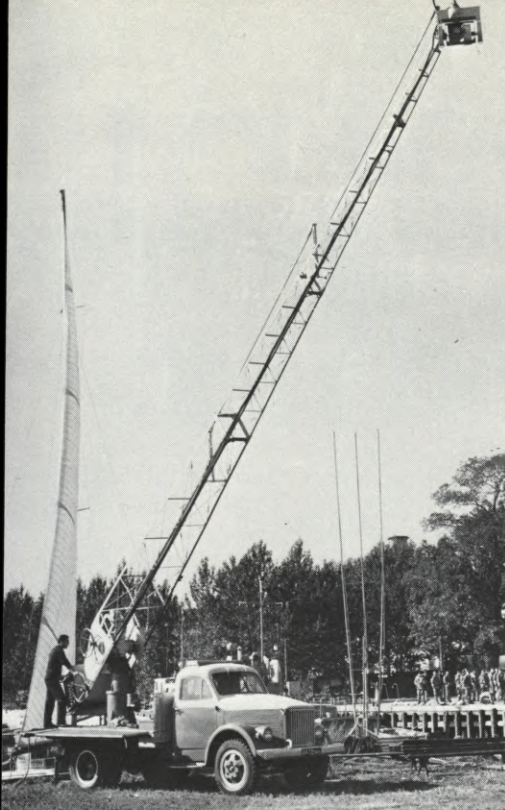
Lenfilm also has a selection of various vehicles for camera movement — cranes, dollies for steering and track operation, cable ways and other gear, which makes it possible to have the camera pan and tilt in any desired fashion.

The Photographic Effects Department has at its command a wide range of methods in special photographic effects developed during many years of film-making. The optical work is carried on color and b/w 35mm stock (for standard and CinemaScope formats) and 70mm stock.

The travelling matte system used by the Department employs an infrared screen with an area of 12 x 6 m. There are also front and back projection processes, a special effects optical printer, equipment for double exposure of 70mm films\*, matte painting systems, equipment for tracking in shots with paintings and models, single-frame projectors, modern animation stands, and many ingenious devices and apparatus designed by the Department's specialists and manu-

**(LEFT) View of wall elements of sets made up of standard stock units, which are joined together with one-sized bolts. No nails or clamps are used. The stock units are braced to the floor. (RIGHT) 2KCK variable-speed, stop-motion reflex process camera of Soviet manufacture. The camera features an additional gate for a reference strip of film, in order to facilitate linear matching of the background plate and live action. The 2KCK camera was used in production of "THE BLUE BIRD".**





**This unique 13-meter-long crane jib for location work mounts a remotely controlled motion picture camera.**

factured at the Studios. Expertise of its cameramen, artists, engineers and mechanics, plus the availability of special equipment, make it possible for the Department to handle practically all currently known methods of optical effects. The Photographic Effects Department is also doing all kinds of lettering work necessary for Studio release, making not fewer than 70 titles for feature and TV productions, dubbed (re-voiced), and advertising films per year.

The Sound Department covers all operations in sound recording for films under production from the original

studio sound track to the final print with optical sound. It comprises a big Scoring Stage measuring 3,800 cubic meters that can accommodate up to 60 musicians, three Post-Sync Theatres for speech and effects, which are also used for scoring with smaller musical groups, and two Mixing Stages. Seventy different sets of equipment are available for sound recording, more than half of which are intended for original sync sound recording on quarter-inch magnetic tape ("Perfectone", "Nagra" and Soviet-made tape recorders, "Rithm" and "Reporter").

The Film Processing Laboratory built in the 60's was at that time provided with most up-to-date developing and printing machines. However, to increase its production capacity, the Laboratory is continually modernizing its equipment and introducing processes for new types of films that are manufactured in the Soviet Union and abroad. The Laboratory is conducting systematic renewal of all its facilities. Among the equipment installed in the last years are Bell & Howell additive printers, two Hazeltine and one Soviet-made ("Zvet-2") color analyzers, "Gretag" and "Macbeth" digital read-out transmission densitometers and so on.

The continuous striving of Laboratory engineers for perfection of technological processes and methods of control, combined with the constant overhaul of equipment, ensure stable high-quality processing and have given the Laboratory a well-earned reputation of being one of the best in the Soviet Union.

All the negative and magnetic track cutting is done in the Editing Department, comprising 30 cutting rooms furnished with all the necessary facilities of Soviet production. The Department takes care of 32 full-length feature films

at the same time.

The Studios also maintain a large number of services which directly pertain to shooting. They include the Make-up Department with workshops and make-up rooms, wardrobe, sewing-shops; furniture and property stocks, stage effects, etc. More than 150 thousand costumes which belong to all periods and nations, 80 thousand pieces of furniture and props are kept in the Studio Warehouses.

An important part of the Studios' production facilities is provided by such ancillary services as the Stills Department, Engineering and Machine Shop, Special Transport Department (sound cars, truck generators, camera cranes on trucks, camera cars, etc.), Printing Office, Power House and Sanitary Engineering Department, which is responsible for ventilation, steam-and water-supply.

\* \* \*

Parallel with the enormous task of servicing films under production and maintaining in good repair all the complex Studio facilities, its equipment and other gear, serious work is done in order to ensure continuous perfection of production facilities and technology. This is achieved not only through replacing outdated equipment, but also by designing new types of equipment and initiating new processes of the Technical Department, which incorporates a team of engineer-technologists, a design office and special research laboratories.

Research and design programmes cover different areas and embrace almost every field of motion picture engineering connected with film production. Particular attention has been recently paid to the introduction of television techniques to film-making. A number of research programmes  
**Continued on Page 300**

**(LEFT) Special effects optical printer for 35mm film. Designed and manufactured at Lenfilm Studios, the optical printer is capable of performing 32 different operations. (RIGHT) Lenfilm's scoring stage for orchestra recording that can accommodate up to 60 musicians. The structure of the walls and ceiling makes for better acoustic characteristics.**



# Arri 16SR on location in tight quarters: flexible unobtrusive and fast.

"Producers like quality," says Jack Cooperman,  
"But most of them like speed even more.  
With the 16SR, I found it a lot easier than before  
to get good production quality fast."



"10mm focal length on this one," says Mr. Cooperman.  
"I had to keep my body up high, out of the shot. The  
camera's small size, light weight and adaptable finder  
let me rig the whole thing with *one* plank, and get right  
up against the ceiling. A fast setup, and *compact*."

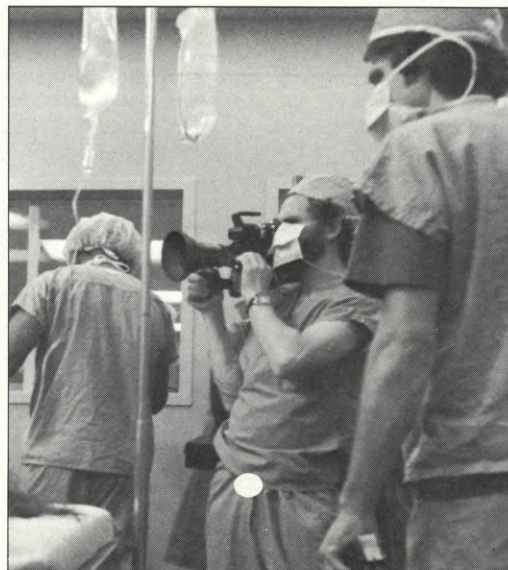
Until he shot this segment of a  
March of Dimes documentary Special, Jack Cooperman had never  
used an Arri 16SR. Here are some of  
his comments:

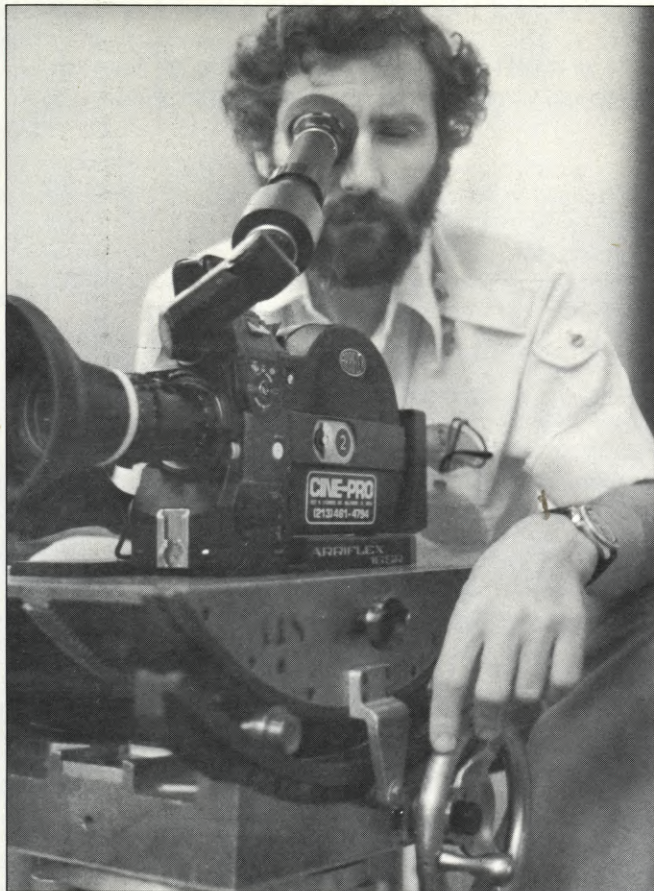
"We were shooting medical staff  
and patients at a hospital. To catch  
the action while it was spontaneous,  
*and* to keep out of everyone's way,  
we had to be fast and flexible."

"I found it *pleasurable* to work  
with that camera," says Mr. Cooper-  
man. "It's a studio-quality tool; and  
it does everything you expect, plus  
quite a few *new* things."

Produced by March of Dimes Foundation; Ed  
Franck, Director; Jack Cooperman, Director of  
Photography; Jack Green, Camera Operator.

"Shooting in the crowded Oper-  
ating Room, we had to keep out  
of everyone's way. No tripods."



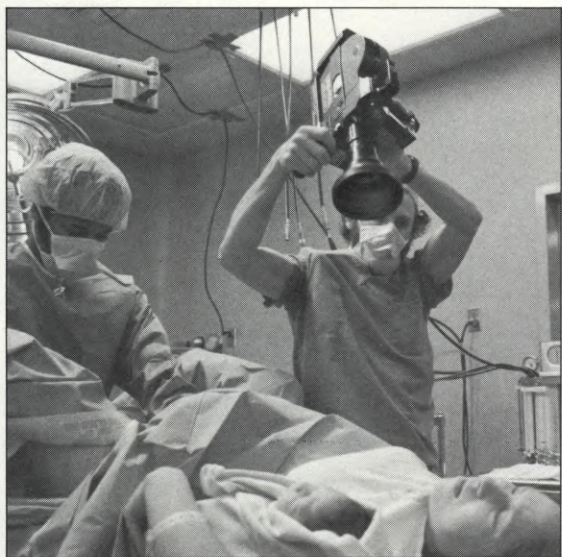


"For one move, I needed to start next to the wall," says Mr. Cooperman. "With the SR's amazing viewfinder, I could put the Worrall head *against* the wall, and still see what I was doing without mashing *my* head."

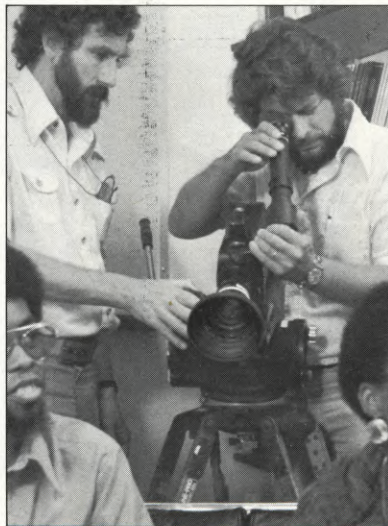


"What was important to me about this camera was the ability to keep the creative flow going at a *steady pace*. The fast setups and reloads were ideal for unscripted, spontaneous action."

"I'd lock it off, swing the finder over for the Director, swing it back, and we'd roll. *Instantly!*"



"The birth sequence required unobtrusive shooting. The cable-free battery on the camera's back helped a lot."



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# THE "COMPLEAT FILM-MAKER"—FROM TITLES TO FEATURES

The artist whose dynamic graphics introduced an exciting new dimension into motion pictures now ranges across the entire spectrum of film-making

Saul Bass has exerted a strong influence on the graphic aspects of films for nearly 25 years. He has directed short films, motion picture titles/special sequences/prologues/epilogues, television show openings and television commercials. His "WHAT MAN CREATES" was awarded an Oscar from the Academy of Motion Picture Arts & Sciences. The Bass-created "arm" symbol for "THE MAN WITH THE GOLDEN ARM" created a whole new approach to motion picture advertising and marketing, while his main title credits for such pictures as "THAT'S ENTERTAINMENT, PART 2", "SECONDS", "GRAND PRIX", "EXODUS", and "SPARTACUS", among 40 others, has given the motion picture experience a new dimension.

Recently he directed his first theatrical full-length feature film for Paramount. Time Magazine said of "PHASE IV", "... good, eerie entertainment, with interludes of such haunted visual intensity that it becomes ... a nightmare incarnate."

From his Los Angeles headquarters, Bass has also created corporate identity and packaging programs for such firms as AT&T, Alcoa, United and Continental Airlines, Quaker Oats, Hunt-Wesson Foods, Continental Baking and W. P. Fuller & Co.

In the following interview he discusses various aspects of his work:

**QUESTION:** With "CARMEN JONES" and "THE MAN WITH THE GOLDEN ARM", you revolutionized motion picture credits and trademarks. How did you get into this field in the first place?

**BASS:** Through my graphics. I began to design symbols for films. Otto Preminger wanted me to design a symbol for his film, "CARMEN JONES". I had done a symbol for Otto for the ad campaign for "THE MOON IS BLUE" and I had done the graphic work and symbols for various corporations. After the "CARMEN JONES" symbol was designed, I asked Otto, "How 'bout we make it move?" He said, "Terrific, let's make it move," and that was the beginning.

**QUESTION:** Once you were into titles, it was your approach that made the difference. How did your approaches evolve?

**BASS:** My attitude was that when the

first frame of film appears, you have begun to tell your story. That doesn't mean that you have to start your story at that point, but it means that you have to accept the notion that that first few minutes is the beginning of your presentation. The curtain is up. It doesn't go up as in the old days when the director shot his first scene. It goes up with that first frame no matter what is happening. And what you do at that point has an effect on the perception of the film.

Until then, nobody had ever really dealt with film or with the starting process from a strong graphic point-of-view. Nobody had dealt with the whole problem. And nobody had dealt with film who had come out of the graphic design discipline.

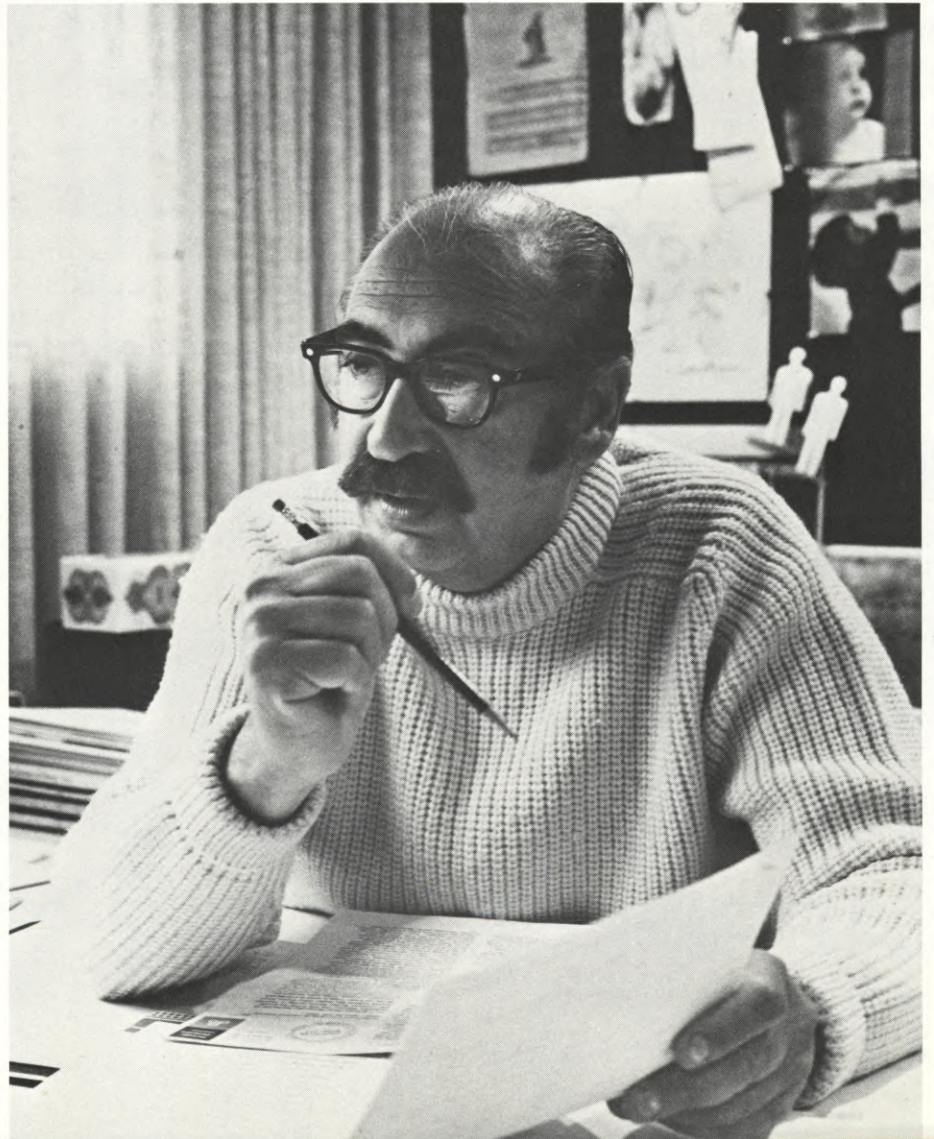
The very first pieces of film that I did, such as "CARMEN JONES" and "THE

MAN WITH THE GOLDEN ARM", were really graphic designs translated to film. Graphic designs that moved. That was a very new notion. It's not new today, not only because I've done it, but because of others who followed.

"THE MAN WITH THE GOLDEN ARM" was a title that consisted of a series of white bars on a black background that moved in an abstract way — which suggested by the jerkiness and stridency of the movement, and the extreme contrast of the forms, the kind of distortion and stridency of the film itself. Eventually, these strident, spasmodic forms evolved into the symbol of The Man With The Golden Arm, the arm. That was a new notion because nobody had successfully married the two ideas.

"CARMEN JONES" did the same thing in a slightly different way. A live-

Saul Bass, graphics designer extraordinary, got his first taste of working with film when he animated a design symbol for Otto Preminger's "CARMEN JONES" and followed it by an intricate animated title sequence for "THE MAN WITH THE GOLDEN ARM". This opened up a whole new avenue for his career and brought him fame as the foremost exponent of fluid film design. He has just completed his first feature film, "PHASE IV".





action flame over a black rose, highly overcranked, not just slightly, but 8-10 times, causing it to become a moving design rather than a flame.

**QUESTION:** So you approached this as a graphic problem, came up with a design and then translated it to film?

**BASS:** Exactly. I approached it coming from where I was. I fed into it something that was very much at my fingertips. For "THE SEVEN YEAR ITCH", I divided the screen into a series of abstract shapes and then had those shapes get cute, funny and open flat to reveal things, like words and credits. Then I had them do funny things with each other and play games like opening and closing windows, a combination of motion and design that was not characteristic at that time in titles.

My attitude toward the moving image, the realistic image as against the abstract image, is what led to "A WALK ON THE WILD SIDE". I tried to see a cat in such a way, that the cat, which was a known, became an unknown. The real job of creative people — writers, designers, filmmakers, playwrights — the real task is to deal with what we know and, therefore, no longer see or understand. To deal with it in a way that develops a freshness of view which enables us to have an insight into something that we know so well that we no longer think, or respond, or see it. It's to make the ordinary extraordinary. If we could look at the important relationships in our lives, important moments in our lives, from the point-of-view of one who sees them glancingly, we could see them freshly. If we could be without the knowledge that obscures, we would learn something very new.

What's theatre about? Do you go to a play to learn something new? There's nothing new in plays. What there is, is an insight into what you already know. That's the key. That's what film is about, what writing is about; that's what drawing and painting are about. The core problem is to deal with what you know, but to see it in a way that allows an insight about it that you didn't have before. That is what I try to do in a small way. I want to be very careful not to imply pomp or pretension. I have not created anything that is going to change the path of anyone's life. I'm raising this point with some intensity because this is at the center of what creative people do, what I do.

**QUESTION:** The title on "THAT'S ENTERTAINMENT, PART 2" is the first motion picture opening credit assignment you've accepted in nearly 10



For the title sequence of "EXODUS", Bass utilized the design symbol of a flame. He achieves impact on the screen through an exciting usage of clean, simple motifs.

**years. Why the long hiatus?**

**BASS:** Three major reasons. First, I became more interested in opportunities for creating films. My primary thrust thus became short films, TV commercials and directing major sequences of films, plus, of course, corporate identity and package design work. With all of this, I just didn't have time for titles. That's not to say I don't love doing titles. I think they are marvelous things that are really wonderful and fun to do.

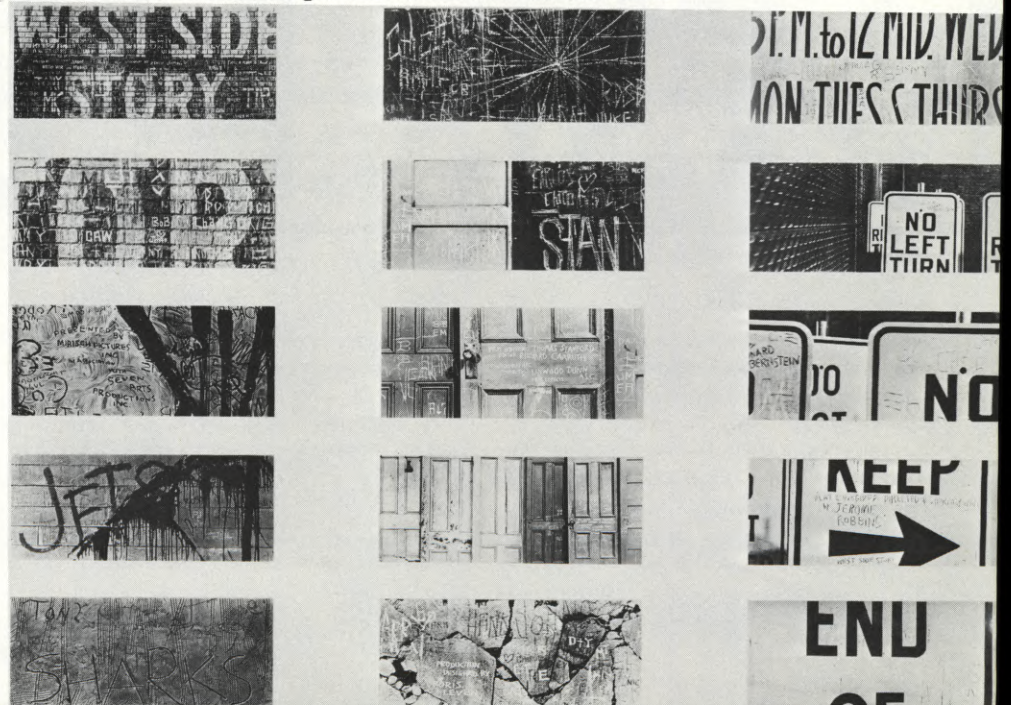
Second, with directors getting more total control over their product and recognizing that a film starts with the first frame and how important the beginning is, they tended to get into that act rather than turn it over to somebody else. Very logically and correctly,

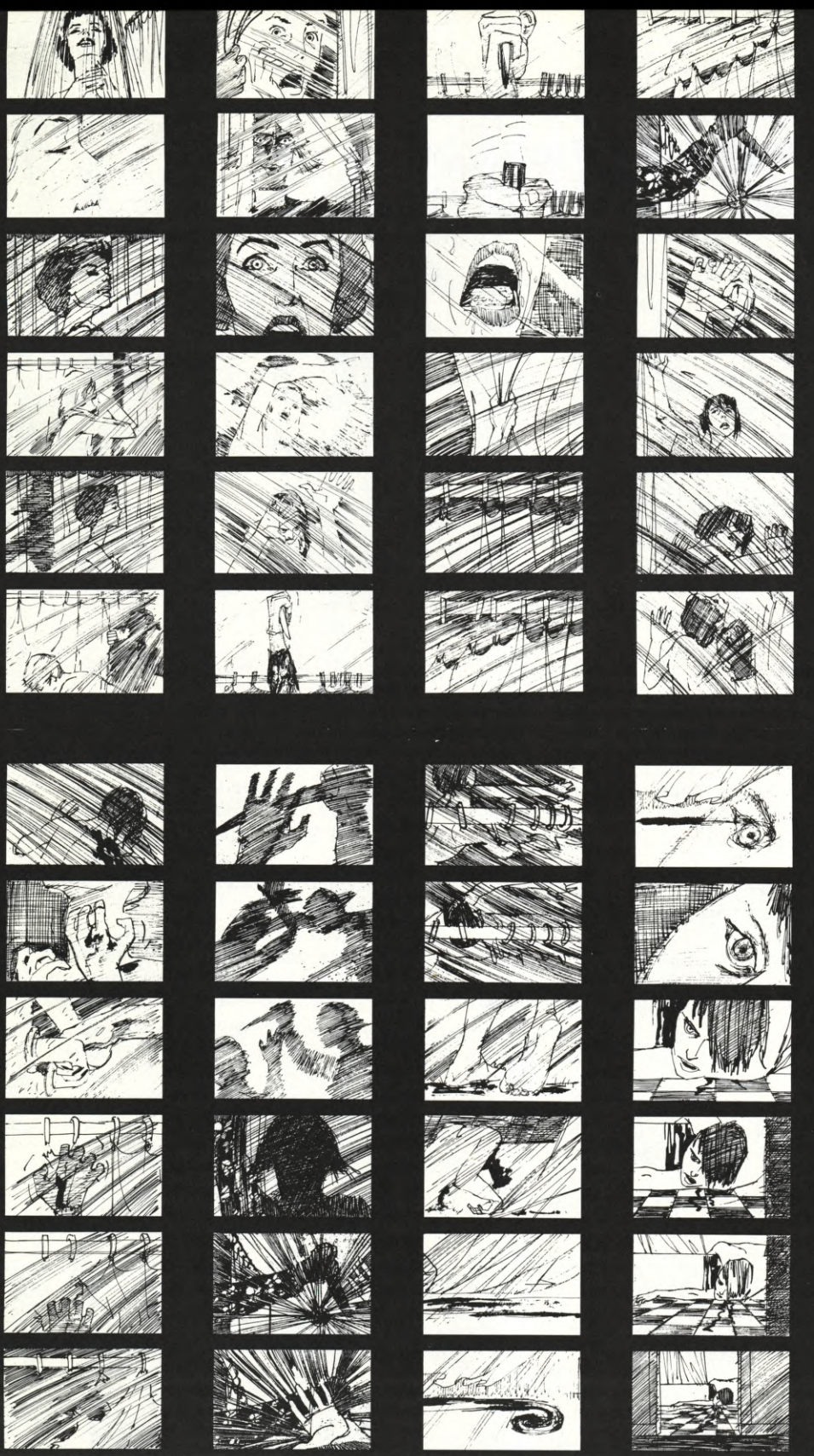
too. So my interest in titles as a separate activity diminished.

Also, the whole idea of a special title wore out its welcome. What happened was that, like everything else in our society, when something new occurs, everybody jumps on it and uses it up in two ways: by frequency and by imitating it badly.

Once the title thing happened, and its validity was established, many people saw it as a device, rather than an intrinsic element in the movie experience. They were just making "nice things" to start the film. Many producers and directors saw the title as a packaging element. They tried to enhance their product by putting a nice wrapping on it. They didn't see the process as an integral part of their intent. They didn't have a perceptive

The striking title/credits sequence for "WEST SIDE STORY" included graffiti, street signs and other visual elements indigenous to a New York tenement area.





Sequential storyboard sketches for shower stabbing sequence in Hitchcock's "PSYCHO".

enough view of what they were about, so they often glommed on to material that was irrelevant for the film. Sometimes it was good; often it was bad. Really sensitive directors and producers saw this happening and began to say, "Titles are wrong." It became bad by association. It became wrong even if it was well done and respon-

sibly conceived. Titles had become old without ever having had a youth.

**QUESTION: With all this happening, why "THAT'S ENTERTAINMENT, PART 2"?**

**BASS:** Gene Kelly, whom I've known for years and who had once done me a

great favor, asked me to do it. It was a personal request. And I thought it would be fun, too.

**QUESTION: How did you approach the task?**

**BASS:** In an odd sort of way I came full circle on this assignment. When I began doing titles, I started by re-inventing and translating the idea of openings into contemporary terms. On this picture I wound up re-creating our mythic memory of early titles. Now, you understand, I use the term "mythic memory" advisedly. I went back and looked at old titles. Our memory of them is very different in many instances from what they really were. To begin with, they are not as good as we remember them to be. When I look at them in the cold light of today, they are a little rachety — technically and visually. They're not lit well; things that should have been beautiful weren't; things that were supposed to work were technically creaky. Some were beautiful in their time. In many instances, that's 30 years ago and more. But the state of the art has developed since.

I also went by my own memory and I remembered things that were never done, at least I couldn't find them.

For example, nobody spelled out the name of a picture on a football field with a band. It's the kind of thing that should have been done, but I couldn't find it in the MGM library.

Waves washing upon the beach and obliterating names in the sand I could never find. It must have been done, it seems like a classic.

One that wasn't done was the "LASSIE" name in falling dominoes. I don't think that was done, but it is the kind of thing that should have been done.

There's an interesting note on the montage of Gene Kelly and Fred Astaire which I created out of old bits of film. I remembered that the montage seemed to be an MGM hallmark. You know, the immigrant arrives at Ellis Island, goes to work digging ditches in the street, and then comes the montage. The pages come off the calendar, the winds blow, the pitch falls, the leaves swirl, the gears turn, smoke-stacks belch smoke, pistons pump, machines go a-chung, a-chung. Dissolve. And the same man is sitting in an office high atop a great building with seven telephones on his desk. He is now a tycoon. Eight years have gone by and he is now running the country. They were wonderful, marvelous montages and I'll never forget them.

The montage I did for Kelly and As-

taire was based on that notion. It's an evocative notion, whether you remember those montages or not. They feel like they would have been done and indeed they were. I pored through Gene and Fred's family photos and brought them together on the theory that it would be wonderful for the audience to start looking at two babies intercut with show biz film clips, and at some point realize: Hey, that's Gene Kelly, that's Astaire.

**QUESTION: Did you find any you forgot?**

**BASS:** Oh, sure. One that I had completely forgotten was flower petals in "MAYTIME". I used it on the Nelson Eddy and Jeannette McDonald title. In the actual title in "MAYTIME", petals fell, spelled out the name and then dispersed. I simplified it a little. We came on with the name floating on the water and then we dispersed them with some wind.

I also saw some titles that were wild, but I couldn't re-create them. There was an aerial shot of dancers sweeping across the screen with skirts flared out. Four and five dancers sweeping across the screen, left to right, bringing on a title. They'd sweep across and there's a title on the floor, then they dance back



Sequential frame blow-ups from the actual shower stabbing sequence in "PSYCHO" indicate how closely Bass's original sketches were followed in the shooting.

and there's another title. But it was too expensive to re-create. There were some limitations.

**QUESTION: How did you set your approach to the titles?**

**BASS:** I wanted to evoke the tone and feeling of the period from which the excerpts in the film came. At first I toyed with the idea of doing the whole title in one genre. In the end that seemed to

me to be dull, because as much as we have loving memories of these things, they are memories that we have in flashes. To sit for two or three minutes and actually see a re-creation of one of those titles would really be a bore. Then the thought occurred that it would be wonderful to do a potpourri, cram as many of those devices that we can remember into one title. How did I come to that? It seems, in retrospect, Continued on Page 315

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The ultra-compact Angenieux 17.5-70mm T2.5 zoom lens is shown mounted on a CP-16R reflex camera. The matching retro-zoom attachment screws into the front of the lens, converting it to a wide-angle 12.5-50mm T2.5 zoom lens.

# REPORT FROM THE MAINE PHOTOGRAPHIC WORKSHOP

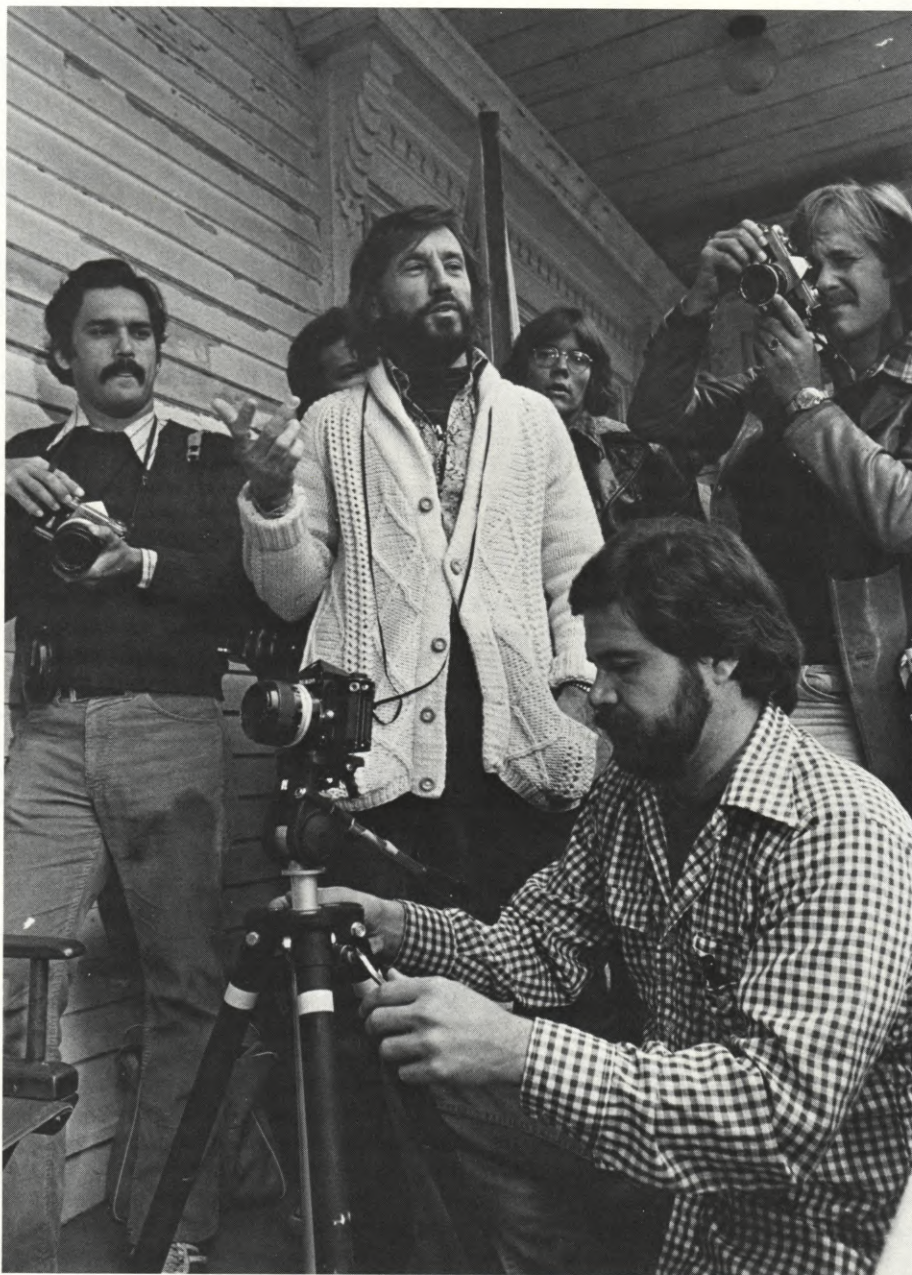
Vilmos Zsigmond, ASC, conducts an intensive one-week cinematography workshop for 65 film-makers in the fishing village of Rockport, Maine

By HOWLAND G. GOSNOLD

"This is the only place an independent filmmaker can come to get some feedback on his work, rap with his peers, talk and listen to a recognized cinematographer, and get a kick in the pants," said Al Seymour, a TV commercial cameraman from Vermont.

Al, like many independent filmmakers, finds it hard to discover an avenue for self-improvement, but at the annual workshop/seminar conducted at the Maine Photographic Workshops in Rockport, Maine, Al and 65 other professional filmmakers and cameramen (and women) found a short course that answered many of their questions. The Filmmakers' Seminar at the Maine Workshops has attracted a healthy number of cinematographers for this week-long annual program. This Fall the seminar was conducted by Vilmos Zsigmond, ASC. Last year Conrad Hall, ASC, was in residence. Next year? David H. Lyman, Director of the Main Photographic Workshops tells us that another ASC cinematographer of the caliber of Hall and Zsigmond will conduct a similar week-long program of critiques, criticism, and technical discussions. But, he adds, with the success of the past two years, he is planning on expanding the concept of short intensive film courses for professional filmmakers.

This Fall's seminar/workshop, held September 5 to 11, with Vilmos Zsigmond — like last year's session with Conrad Hall, was designed to provide professional filmmakers and some film students with serious critiques of their work, feedback, and valuable interaction among those attending. The week began with day-long screening and rap sessions. Vilmos and the 65 attending filmmakers viewed a number



(ABOVE RIGHT) Film-makers gather around Vilmos Zsigmond, ASC, as he explains a technique during Maine Photographic Workshops seminar. (BELOW LEFT) Lights and camera are set up during "hands-on" shooting session. (RIGHT) Zsigmond uses film student Cherie Hoyt, from Ryerson Polytech, as actress on simulated set to illustrate light placement and exposure calculation. Such demonstrations were an important feature of the workshop.



of shorts, features, commercial reels, experimental shorts, and TV documentaries. Vilmos gave private critiques to each filmmaker during and following the screening of his or her film. Discussion of the various films was then opened to the entire group. Some ten films were critiqued in this manner.

Each evening a different feature film photographed by Vilmos was shown. Following the evening screening, Vilmos entertained questions on technique, lighting, problems and their solution, and working relationships on the set. The discussion was generally continued the next morning before the group got down to critiquing more films. The facilities for the screenings were excellent. The Bay View Street Cinema in Camden — a popular summer resort and yachting center a mile from the Workshops in nearby Rockport — provided a modern and well-appointed facility, including a Fumeo 16mm projector, excellent sound, and plush seating. All this overlooking Camden Harbor — when not in the dark — and within a two-minute walk to a number of fine restaurants.

Critiques, questions-and-answers, and evening screenings continued for the first part of the week. On Thursday morning Brian Spruill, Technical Representative for Eastman Kodak, gave a presentation on film stocks and answered a barrage of technical questions. That afternoon was free and many seized the opportunity to charter a sloop and go sailing. Others met with John Gates from Capron Lighting in Needham, Massachusetts, for an informal lighting and grip/electrician's seminar. Others met with Eric Faulkenberg from Ecam who brought a number of Eclair cameras for demonstration. That evening there was a casual cocktail party and buffet at the Rockport Boat Club, before the screening of "SCARECROW."

Friday morning the group met at the Director's large Victorian house in Rockport and, with ample lighting equipment from Capron Lighting, began setting up film situations. Vilmos demonstrated lighting techniques, camera placement, and discussed problem-solving, exposures, light values, and the artistic possibilities of each scene. There was a late-afternoon sunset glow created on a shady porch, a day-for-night scene, and a moody murder mystery set on the staircase inside the house. Each set was lighted a variety of ways for differing effects, and shot on High-Speed Ektachrome 35mm film in still cameras. Various exposures and different filters were used. The film was processed that

Continued on Page 328



(ABOVE) The group poses for an informal "class portrait" upon completion of the intensive one-week workshop. Student and professional film-makers from far-flung areas of the United States and Canada were in attendance. (BELOW) Zsigmond indulges in some hard-earned relaxation by sailing the workshop Director's 34-foot sloop, *Quinta*. (Photographs by DAVID H. LYMAN.)



**MAN WITH A CAMERA**  
Continued from Page 279

gan Council for the Arts," the Harviths say.

"Major museum film departments supported the idea of an exhibit, but found it difficult to act alone. Thus far, the only film department to undertake the show on its own has been that of the Los Angeles County Museum of Art.

"We were disheartened by print and photography departments within major museums, which displayed stubborn resistance toward mounting a show by an unknown. One prestigious photographic figure in the museum field declared that, as far as he was concerned, Struss was not a lesser major figure, nor even an important minor figure. This on the basis of a very limited knowledge of Struss' work.

"Another declared with exasperation, 'You do have to admit that Struss' contributions to motion pictures were greater than his contributions to still photography, don't you?' We admitted nothing, but went on to produce an award-winning catalogue and an exhibition that has established Struss, in the words of Thornton, as 'one of the great photographers of New York'."

Aside from views of Europe and New York, the Harviths' exhibition focuses on Struss' early years in Hollywood (1919-30), when he did portraits of C.B. DeMille, Gloria Swanson, Bebe Daniels and George O'Brien. There are also still photographic studies done on the set of F.W. Murnau's 1927 motion picture classic "Sunrise." Struss was co-recipient (with the late Charles Rosher, ASC) of the first Academy Award for cinematography in recognition of his camera work on "Sunrise."

During the course of his 51-year career in motion pictures Struss was cinematographer for such legendary directors and stars as D.W. Griffith, Rouben Mamoulian, Orson Welles, Charles Chaplin, Mary Pickford, Lillian Gish, Mae West, Charles Laughton, Fredric March, Cary Grant and Bing Crosby. Among his best-known films are "Ben-Hur" (1925), "Abraham Lincoln" (1930), "Dr. Jekyll and Mr. Hyde" (1931), "The Sign of the Cross" (1932), "The Island of Lost Souls" (1933), "Belle of the Nineties" (1934), "The Great Dictator" (1940), and "Limelight" (1952).

"KARL STRUSS: MAN WITH A CAMERA" traveled from Los Angeles to Washington D.C.'s Phillips Collection. It has already appeared at Rochester's George Eastman House, and at New York City's International Center of Photography. ■



(ABOVE) Through the use of forced perspective sets, the Fox backlot was transformed into a gigantic city square for "SUNRISE". (BELOW) Mr. Struss early in his motion picture career.



Dance Fantasy from "SUNRISE", 1926. © Karl Struss. The almost surrealistic soft-edged split-screen effect was created totally in the camera by means of wind-back double-exposure.



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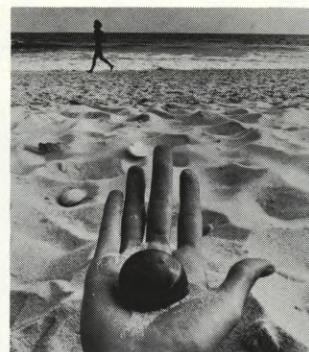
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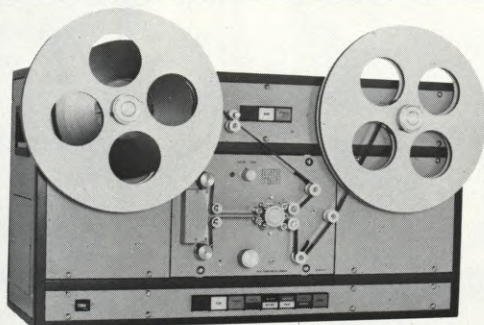
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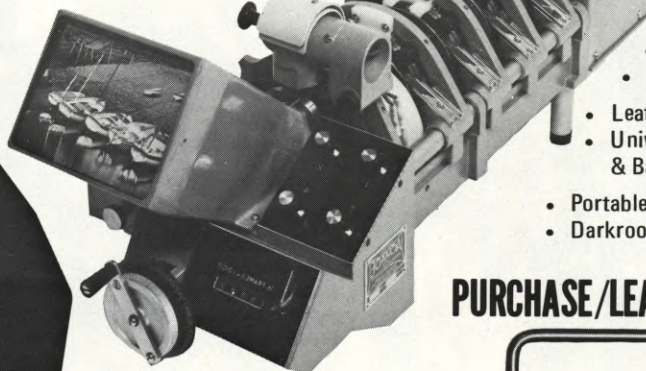
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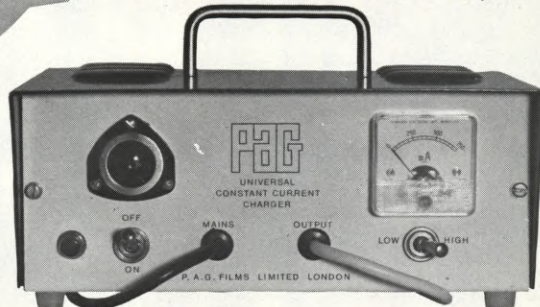
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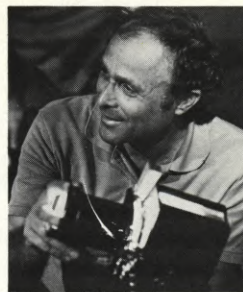
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Richard H. Kline, A.S.C.

## Fire, fire on the wall...

"Photographing the new version of 'King Kong' called for just about every cinematographic technique known to the industry—and a few that weren't," says Richard H. Kline, A.S.C., in an article in *American Cinematographer*.

He then goes on to describe the shooting of the night sequences at the wall, which presented some unusual problems: "To achieve the fire effects I utilized sheets of gold mylar placed on four-foot frames. We bounced Brutes, and sometimes 10Ks and nine-light units, into these mylar reflectors, with the slightest hand movements by the special effects people creating a marvelous fire effect that flickered on the wall and supplemented the illusion initiated by the bonfires burning in the center of the set."

Making a movie has been likened to the creation of magic. "King Kong" qualifies for that image probably

more than most. We are proud to have been one of the people who provide the tools for the magician. In this case, in fact, the tool didn't even exist. Richard Kline described the problem to us and we developed the "Thin Gold" he used to create the fire effect. It is now part of our regular line.

Usually, though, there is no need to innovate. The "Plus Green" Richard Kline refers to later in the article is one of our standard products. He used it in the "tanker" shots to balance the incandescents to the mercury vapor lamps. But that's another story...

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*The scene at the wall for the ritual of sacrifice to Kong. "King Kong", produced by Dino De Laurentiis, Director of Photography: Richard H. Kline, A.S.C.*

# FILMING "MT. ATHOS - THE FIRST THOUSAND YEARS"

Fascinating adventures and endless challenges in the production of a 60-minute documentary dedicated to capturing on film the extraordinary uniqueness of a remote monastery that prohibits women and electricity

By JOHN KESHISHOGLU

"Mt. Athos? Where in heavens is Mt. Athos?" That was the first reaction I received from one of my colleagues. I explained that Mt. Athos was a land of blue seas, of high-walled monasteries, black-robed monks, hermits, dark lush vegetation and that women are not permitted to visit this place.

"You are kidding! No women allowed there? How can they get away with a thing like that?"

Well, they do. In fact, they have been "getting away with it" for some one thousand years.

On the peninsula of Athos, in the northeastern part of Greece, exist twenty ruling monasteries, dating back to 963 A.D. and representing one of the oldest republics in the world.

In addition to the twenty ruling monasteries there are several smaller monasteries, the Sketes or Cloisters, which belong to the ruling monasteries. All land on Athos belongs to one of the ruling monasteries. No one else is permitted to own land there.

Other dependencies include Kalyvas (huts) and Kellia (cells), and individual houses. These are assigned at the discretion of the monastery to monks who apply for ownership.



The abbot and the elders of the Monastery of St. Dionysios partaking of their meager meal, one of two meals served daily. The monk standing on the right reads from the scriptures throughout the duration of the meal. This provides the monks with spiritual nourishment, as well.

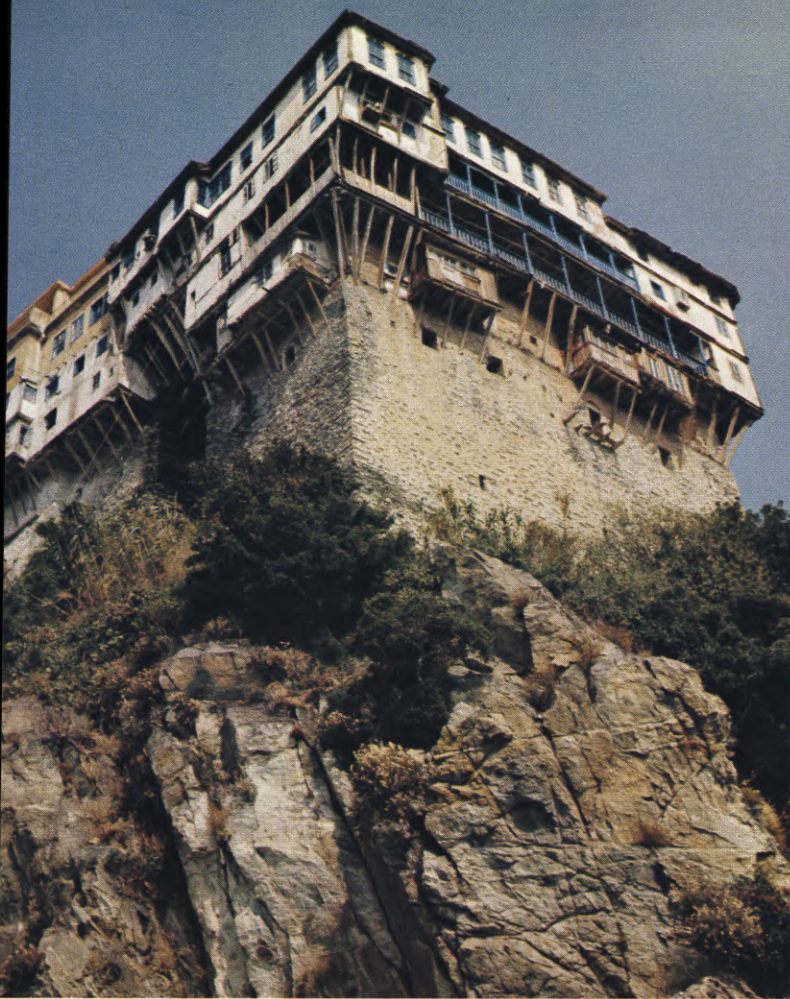
A hand-held Bolex camera, because of its small size and "low profile", came in very handy in capturing scenes of the monks at their daily work. Setting up larger cameras, lights, etc., would have tended to create resistance and ultimate withdrawal on the part of the monks.



Monks who wish to spend their lives in meditation alone occupy a Kellion, a cell, on some remote and quite inaccessible part of Athos. Several of these hermits are located in a southwest area of the peninsula called Karoulia, the Greek word for pulley. The name arose because pulleys are used to move people and food to the virtually inaccessible sites of their habitats.

The monasteries have preserved for centuries the living tradition of Athos. An astonishing variety and wealth of works of art can be viewed and studied today in the same spot where the Byzantine artists created them. Nowhere else in the world can one find the opportunity to see Byzantine art in such an astonishing collection and representing several centuries. Athos is the only living museum in the world today.

The only inhabitants of Athos are monks of the Greek Orthodox faith, including some Russian, Bulgarian and Serbian monks of the Orthodox faith. Whatever their origin, they left the world to devote themselves to their salvation by prayer, solitude and privation. They are content with thought and study and expectation. Whether



(LEFT) Perched high on a cliff, the Monastery of St. Dionysios is located in the Southwestern Part of the Athos Peninsula. It was founded in the 14th Century. (ABOVE) Two monks in the main church of the Monastery of Iviron, shown preparing for one of the four daily church services. Using the Arriflex and two 500-watt Lowel Tota-Lights, Skip Landen shoots closeups of the two Fathers.

baking bread, painting icons, serving as cook, librarian, engaged in wood carving, tending vineyards or olive groves . . . the monk is on Athos to pray, to save his soul, to save the world. The assignment is secondary. His service in the monastery is merely a means

to an end.

The charter of Athos and the Greek constitution have determined Athos to be a self-governed part of Greece under the spiritual jurisdiction of the Ecumenical Patriarch and governed by the twenty ruling monasteries under the

supervision of the Greek Government. Accordingly, a representative of the Greek government is stationed at Karyes, the capitol of Athos, as the civil governor who reports directly to the Foreign Ministry. The police force, Continued on Page 318

(LEFT) Landen and Mack Travis set up to film the procession of a "miraculous" icon in the Monastery of Iviron. (CENTER) Shooting the all-night church service at Iviron. The three 500-watt lights were fastened to the chandeliers and candelabra above, and the crew had no control over them. Fortunately, some events took place near the "target area" and were captured on 7242, boosted two stops. (RIGHT) Landen runs camera and Travis records sound during on-camera interview with one of the few English-speaking monks at Athos.



(LEFT) Using a hand-held Bolex, Mack Travis tries to maneuver back into a corner to film Father Avakios weaving a wool blanket on a hand-operated loom. (CENTER) Travis filming in the House of Daniels. (RIGHT) Skip Landen shoots closeups of the monks in the House of Thomas, as they finish various chalices, crosses, candle holders and silver book covers. The film-makers managed to capture the everyday lives of the monks on film without creating annoyance or hostility on the part of the residents.





A scene from Grigory Kozintzev's film, "HAMLET", considered by many outstanding critics to be among the finest renditions of Shakespeare's work ever interpreted on the screen. The production, filmed at Lenfilm Studios, is done in an atmospheric style with modern overtones and features superb photography. The role of Hamlet is performed by prominent Soviet actor Innokentey Smoktunovsky.

**THIS IS LENFILM STUDIOS**  
Continued from Page 285

involving the possibility of television viewing were carried out at Lenfilm. The first achievement along these lines was the system of a remotely controlled camera with a video control device. The first composite shots were made with the help of this system as far back as 1961 for a film called "THE BALTIC SKY". After some modification, the system was used for location shooting in the films "FRIENDS AND AGE" and "CHIEF OF CHUKOTKA", which completely proved its value toward artistic and technical ends.

At present a complete set of remote control equipment mounted on a crane with 13 meter jib, which is intended for outdoor work, is in successful operation at the Studios. It consists of these basic elements: panoramic telescope rotating head with a cine camera and a transmitting television camera, control panel fitted with a video control device,

a unit for remote focusing, voltage stabilizer, and connectors. The system permits separating the operator from his camera and to create new artistic possibilities, at the same time increasing the labor productivity on the floor.

An effort to extend the sphere of application for the remotely controlled camera system has led to the development of a special-purpose crane for indoor shooting. The new crane is extremely handy and provides the operator with a wide range of possibilities. It can be used not only under studio conditions, but also on location. The boom of jib represents an intricate system of hinged arms made of steel pipes and anti-friction bearings. It rests in a yoke and can pan and tilt. Specifications are:

Angle of elevation — 60 (from -15° to +45°)

Turning angle — 360°

Maximum length of boom — 4670mm

Minimum length of boom — 2020 mm

The crane is mounted on a four-wheel trolley capable of travelling both on the floor and on rails. Weight of crane with the trolley is 500 kg.

Another field of video monitoring is the system employed for guide video recording, which was designed in 1972. It consists of a studio sync camera, location camera, and a small bus mounting a high-quality TV channel, a video tape recorder, a monitor, and other auxiliary equipment. This system enables the Director and Cinematographer to follow action from camera viewpoint on the monitor screen, and also to review previous takes and rehearsed action recorded on video tape without waiting for the Laboratory to process film.

The equipment was used in films "THE PHILISTINES", "TSAREVICH PROSHA", "OLD WALLS" and others. The technical and financial analysis taken of the production indices on the film "THE OLD WALLS" showed that the output reduced the amount of days allowed for shooting by 41% and shortened the total length of the shooting period by 27%.

The television viewing and the video monitoring systems are conducive to achieving higher artistic standards of the stuff being shot due to the possibility of control over the filmed action and self-control of those involved in shooting. At the same time, they contribute to the increase of labor productivity on the floor by making easier, and thereby speeding up, shooting preparations, reducing the total amount of takes, and cutting down the number of takes to be printed by their pre-selection on the monitor screen then and there.

At present the Studios are fitting out three similar mobile cine-TV units, with the view of extending their technological potentialities by combining

(LEFT) Interior photography for sequence of a historical drama devoted to the Decembrists' Insurrection of 1825 in Russia. A remotely controlled camera is shown here mounted on an extendable scissors crane for indoor shooting. (RIGHT) Director (left) and cinematographer (right) discussing a setup for a modern drama, "THE BONUS". Current Soviet cinema deals with a wide range of historical and modern-day themes.





**(LEFT)** Video-monitoring system used on location involves a 3KSSU Cine-TV camera and monitor mounted on a collapsible trolley. The equipment is placed conveniently in a small bus and can be rigged up in a very short time for indoor and outdoor shooting. **(RIGHT)** A shot obtained by the electronic travelling matte process. The live action is shot in front of an infrared screen on a single, special-purpose film with the background exposed in optical printing steps by a narrow scanning beam.

them in one system for multi-camera shooting.

A basically new approach was taken at Lenfilm Studios to travelling matte process photography, which consisted in the employment for this purpose of electronic methods.

Application of travelling matte technique (with the exclusion of the single-film blue screen system) has been limited by the use of two separate strips of film, which is a serious disadvantage from the technological point of view. For many reasons the matching accuracy of the two films is often insufficient, which results in "fringing"; that is, poor image quality. It is quite difficult to take into account, let alone to eliminate, all the reasons causing this phenomenon. The problem has been under close study for a long time in many countries of the world, yet no ultimate solution that would guarantee precise matching of the matte and the live action, exposed on two different films, has been arrived at.

The research conducted by Lenfilm's engineers has led to the development of an electronic color travelling matte system. It is based on the utilization of TV technology at one of the

stages of composite shot execution. In this method the action is staged in front of an infrared screen. The photography of the scene is performed with a standard camera on a single special-purpose film combining color emulsion layers and a black-and-white layer, which is sensitive to the infrared part of the spectrum. After exposure the film is, for a short time (30 to 40 seconds), developed in a fast surface developer, as a result of which a light silhouette of the foreground action is formed in the infra-sensitive layer against a dark background (female matte), while the image in the other layers, undeveloped in the short span of surface processing, remains there in latent form. Super-imposition of the background scene on the film (double exposure) is made on a specially designed contact printer, which uses the principle of TV scanning. Printing is effected by means of a narrow light beam, scanning line by line over the whole area of the frame, with the background being burned in only in the sections not occupied by the live action previously shot; i.e., the scanning beam goes out when it runs through the area filled with the silhouette of the fore-

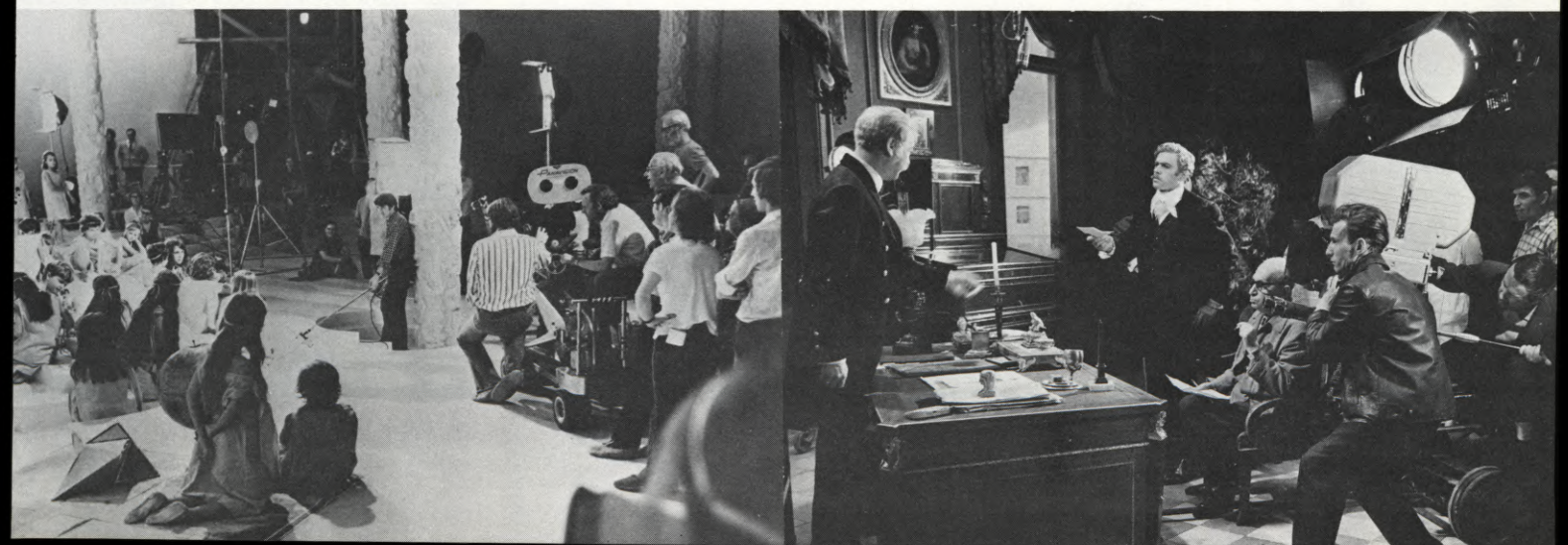
ground scene. The exposing beam is controlled by means of another beam, non-actinic towards major emulsion layers (for instance, an infrared one) which runs over the plane of the frame cophasal with the exposing beam, scanning off the image developed in the female matte as it does so by means of a photoelectric cell. As the scan-off beam travels through the area of the foreground scene silhouetted in the infrared layer, a silhouette signal is activated in the photocell circuit, which signal, after being multiplied, shaped and phased in the electric channel, operates a modulator interposed in the exposing beam in such a way that the beam is blanked.

After double-exposing the background, the film is developed in a regular color negative developer, in which process the female matte composed of metallic silver is disintegrated.

The electronic travelling matte offers a means of receiving a composite shot with high-quality matching between the images derived in the first and second exposures with the kind of technique which is more simple and reliable than any other.

**Continued on Page 324**

**(LEFT)** Studio photography of a fantasy sequence for the Soviet-American co-production of "THE BLUE BIRD", directed by George Cukor and photographed by Freddie Young, BSC. **(RIGHT)** Filming an interior scene for a co-production between the USSR and Norway, "ONE LIFE ONLY". A modern extension of Lenfilm Studios, to be built over the next five years on the Gulf of Finland, will greatly increase the Studios' production capability.



# BEHIND THE SCENES OF "RUN FOR BLUE"

By **ARTHUR L. ANNECHARICO**  
as told to **DEA BADAMI**

A first feature about western equestrian competition—shot in 16mm for blow-up to 35mm—presented a unique, but exhilarating, set of challenges

In the screening room, all producers are blessed with limitless hindsight. And when I finally saw a finished print of "RUN FOR BLUE", there were things I ached for the chance to do over. But then, if I had known before production what I know now about the problems we'd encounter, I probably would have locked myself in a room and left a wake-up call for 1978. Fortunately, I didn't do that.

"RUN FOR BLUE", a 16mm blow-up to 35mm, was the first feature-length motion picture for all of us on the production team.

For months, I cast about for an idea for a fresh cinematic product that would appeal to today's general audiences. It had to have the right blend of action, human interest and feasibility within our budget. So that's how a Manhattan film-maker who'd never seen a live horse outside Central Park ended up producing a feature about western equestrian competition.

It seems that horses are increasing

wildly as a leisure time activity in this country. They're nearing \$20 billion a year as an industry. But the hook is that 99 percent of all the little girls in the world are just plain head over heels in love with horses. "RUN FOR BLUE" is a story for them . . . for the ones out there competing for blue ribbons . . . and for those who can only dream.

For some reason unknown to me, females dominate equestrian competition of all types. In structuring the general outline of our story, we decided that western-style competition would have the broadest audience appeal. The plan was to find three real — and very different — young competitors and follow their progress over a typical year on the show circuit. What evolved over the next 12 months was a story-line that illustrated the special magic between girls and horses, and carried the timely undercurrent of females in competition . . . in what has traditionally been thought of as a male domain.

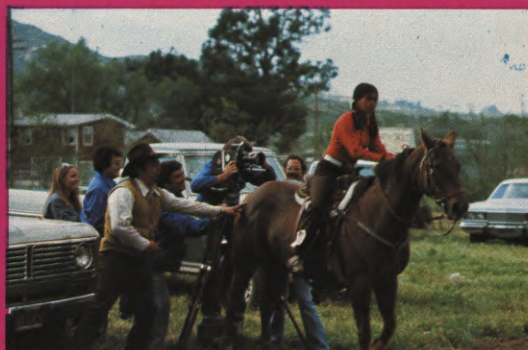
Film-making is another area con-

sidered a male domain. Not so with our production. Jan Shaw, assistant producer/director, was just one of the professional women I found myself working with. These included production coordinator, assistant editor, best "boy" and others. I really had to bury once and for all my chauvinistic attitudes when faced with females who proved extraordinarily competent in their fields.

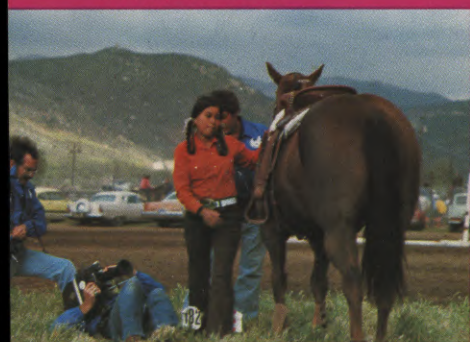
After endless auditioning, we decided on three girls who covered the full spectrum of western horse show competition: a wealthy champion rider on the class "A" show circuit, a rough-and-tumble 13-year-old barrel racer, and a 21-year-old trainer working to make it as a professional in a man's world.

With just a few weeks left before the start of the show season, we set about making the girls oblivious to the presence of cameras and wireless mikes. It was essential that the girls and their families have a relaxed, natural atti-

(LEFT) Assistant producer/director Jan Shaw slates sync-sound scene shot by crew at busy airport. (CENTER) The crew found shooting with unpredictable horses to be very difficult. Here the horse, with no appreciation for the art of the cinema, kicks over the camera, (RIGHT) Producer/director Annecharico steadies the horse, while cameraman Wayne Kennan lines up a low-angle shot with the Eclair NPR.

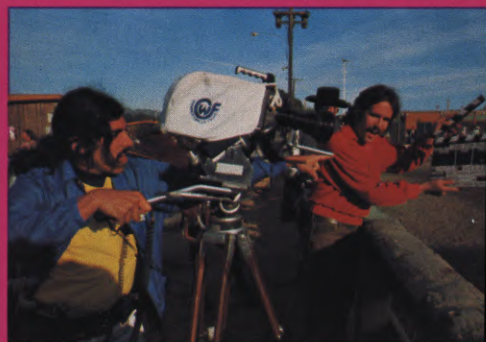


(LEFT) "RUN FOR BLUE" cameramen seemed to spend a good deal of time flat on the ground shooting up, in order to get dramatic angles of horses and riders. (CENTER) Director Annecharico shoots one of the Arriflex S cameras, while writer Rich Badami looks on. (RIGHT) Cameraman Bill Maheras, lining up the Arri S with 12mm-to-120mm zoom lens, tries to adopt his subject's point of view, as he shoots extreme closeup of a lizard.





(LEFT) Because of constant location changes and continuously shifting action patterns, cameramen were forced to shoot hand-held much of the time. (CENTER) The sound of whirring cameras annoyed the high-strung horses and made shooting especially difficult. (RIGHT) Cameraman sets up his Eclair NPR atop Landau motor home, which doubled handily as location vehicle and "travelling parallel".



(LEFT) Camera crews had to be both mobile and nimble in order to keep up with the incredibly fast action of some of the equestrian events. (CENTER) Arri S cameras were used for most of the hand-held shooting. Sometimes two or three cameras, all hand-held, were used to photograph a scene. (RIGHT) The two Eclair NPR cameras were used for all sync-sound shooting, including the effects.

tude whenever cameras were present during the next nine months — whether it was in the show ring or at the break-fast table.

The filming of "RUN FOR BLUE" promised unique challenges in technique, sound reproduction and planning. Unlike a typical feature, and unlike most documentaries, "RUN FOR BLUE" needed to capture the world of horses. This meant dealing with an animal careless in moving among tripods, seldom patient with whirring cameras, and absolutely impossible when surrounded by blazing lights. These things just wouldn't work here, so our solution was simple. No generators, no lights, no reflectors were used around the horses. Quite often, this brought on some horrendous filming conditions.

Like any documentary, the three stories in "RUN FOR BLUE" had to be allowed to tell themselves. Whether or not each girl fulfilled her competitive goal at the end of the year was left to fate. What we did know, however, were the kinds of events and goings-on we wanted to show. Fortunately, our writer, Rich Badami, is a horse owner. His wife, Dea, served as technical advisor . . . she had ridden on the show circuit herself. So, in order to plan for most contingencies of competition, they

often worked out as many as three different approaches to the scenario of any particular sequence.

There might be a script for the expected outcome of a national horse show, one to cover a threatening rain-storm which could alter the telling of the story, and yet another to handle the possibility of a loss, instead of the championship victory we expected. We held weekly story conferences, and in many cases re-writes were necessary after the outcome of an event. This proved invaluable during final editing, when our updated script conformed perfectly to the film logs.

Our basic equipment consisted of two Eclair NPR cameras, which were responsible for all our sync shots, and two Arriflex 16S units . . . one of which shot at 48 frames during much of our filming. Occasionally, an Action-Master high-speed unit was needed. With the film shot in 16mm, using a 1:1.85 flat format, I felt it was necessary to send our cameras to F&B Ceco to have the ground glasses scribed with 1-to-1.85 mattes, so that the operators could keep the crop in mind. We used ECO 7252 stock for almost all our film work.

After our first location filming, we realized there was a tremendous problem. There were times when I

needed to personally direct several cameras, perhaps shoot one myself. The crew might be spread over as much as a mile of area. Typical walkie-talkies were not the answer. Cameramen needed to talk, shoot camera, and take direction without disturbing the action in front of them. Most important, hands had to remain free for shooting. When you're filming races, rodeos and horse shows, retakes are impossible. If you don't get a shot, it's gone forever. Communications were vital, to say the least. So I got together with Motorola and, after a trial-and-error period, we were finally able to come up with a unique VOX system. Each cameraman, and a few other production people, wore strapped to their belts a voice-activated walkie-talkie unit. A mini-headset with microphone left our hands free. Work continued without interruption, and I was able to direct from a strategic vantage point. Headquarters for our communications network was a monstrous Landau motor home. Since all scenes were shot on location, we needed a mobile headquarters. Shoots lasting twelve or more hours were not uncommon, so we also needed a comfortable place to relax whenever we got a break. Inside

*Continued on Page 312*

# THE PHOTOGRAPHY OF "RUN FOR BLUE"

By **WILLIAM MAHERAS**,  
*Director of Photography,*  
and **WAYNE KENNAN**, *Cameraman*

Filming in the ring with red-eyed bulls, in the ocean with seawater up to their tripod, and hanging on for dear life in a wild chariot race . . . All in the day's work for the intrepid camera crew that photographed this film

"RUN FOR BLUE" was filmed as a low-budget feature-length documentary. It was a 16mm, 35mm blow-up to wide-screen in a 1-to-1.85 aspect ratio, depicting a one-year period in the lives of three girls and their horses as they were involved in the Western Horse Show Competition. A variety of locations throughout the Western United States, including forays into California, Utah, and Las Vegas, Nevada, were used. Art Annecharico, Producer/Director and many times on camera; William Maheras, Director of Photography, and Cameraman Wayne Kennan dealt with a wide spectrum of problems, some scripted, others entirely spontaneous.

One of the first problems we had was interpreting the script in terms of creating mood and tempo of the very high and very low points in the lives of each of our leading ladies. We had to show not only the excitement of winning those blue ribbons, but also the bitter disappointment of having the ribbon elude the girl by maybe only a fraction of a second.

ECO 7252 film stock was used exclusively, except when we used EF 7242 for an emotional effect that we

wanted to portray. For example, during the auction, a sequence that was almost from the horse's point of view, the horse seemed to know that if some little girl didn't get her parents to buy that horse, the horse meat purchaser would have the necessary cash. We also used 7242 at the Cow Palace in San Francisco. The film characteristics of low contrast and grainy pattern worked as an "effect" when the low point of a loss was emphasized.

In the course of the movie, we managed to roll 55,000 feet of film through four main cameras. By using two Eclair NPR cameras for all of the sync shots, and two Arriflex 16S units, we were afforded the opportunity of shooting from many angles. And because we were on a very close budget, having four cameras to catch all the action saved a lot of time and energy.

Since the wide-screen format of 1-1.85 was chosen, scribe lines on the ground glass viewfinders were a necessity. All the cameras were scribed, and this was a big help. If you happen to be shooting in dusty, low-light conditions as we often were, have those scribe lines put on good and dark, or they'll be next to invisible.

With the wide-screen aspect ratio of 1-1.85 requiring a higher degree of enlargement than for a standard 35mm blow-up, the 16mm original underwent an even greater degree of magnification. The blow-up from 16mm to 35mm was handled extremely well, another ten points in favor of ECO. Shooting 16mm was vital to our budget versatility, so getting such a fine blow-up to wide-screen 35mm was especially satisfying.

We used prime lenses as much as possible. Although there were times when there weren't enough to go around, such as during a very big shoot with more than four cameras, we could then fill in with zooms. The artistic flexibility of zooms was great for action that happened so fast . . . too fast . . . and there was no going back on much of the footage and staging something we might have missed.

Many times long lenses and zoom shots were used because of necessity. We couldn't always get into the ring. Our presence would have distracted the riders and the horses, endangering them as well as ourselves. Yet, we wanted to maintain a close contact with our subjects during competition.

To stay as close to our subjects as possible, three basic camera positions were used. High-angle, sideline or 90-degree cut camera, and roving positions covered the action inside out. The roving camera caught spontaneous action, and was usually hand-held. The zoom was used primarily on the stationary camera, at a high angle. The side-line and roving cameras had the fixed lenses because they could get closer to the action and, if necessary, get out of the way quickly.

Two of our favorite lenses were the 150mm and 300mm Kilfitt telephotos, as well as the Schneider Cine Xenons and Cooke fixed lenses, which worked as well as the primes. The Angenieux 12-120 zoom was also a frequently used lens that we wouldn't hesitate to use again. Some very interesting and safe shots came from the high camera with these long lenses. We were at the All-Girl Rodeo in Las Vegas, Nevada. Who wants to be in the ring with red-eyed bulls and broncs besides the rodeo clowns and our director, Art Annecharico, close-up camera in hand? These wild west animals detest bright lights and camera whirring, so

Director of Photography Bill Maheras (left) operates the Arriflex for one of the few stationary (tripod) setups in "RUN FOR BLUE", while Jay Skidmore (right) operates the Eclair NPR. Walkie-talkies, of the type seen on Jay's belt, proved invaluable for keeping the constantly roving cameramen in touch with the "communication headquarters" (Landau motor home) and with each other.





we opted for the saner vantage of cranes and rooftops, made possible with our zoom lenses.

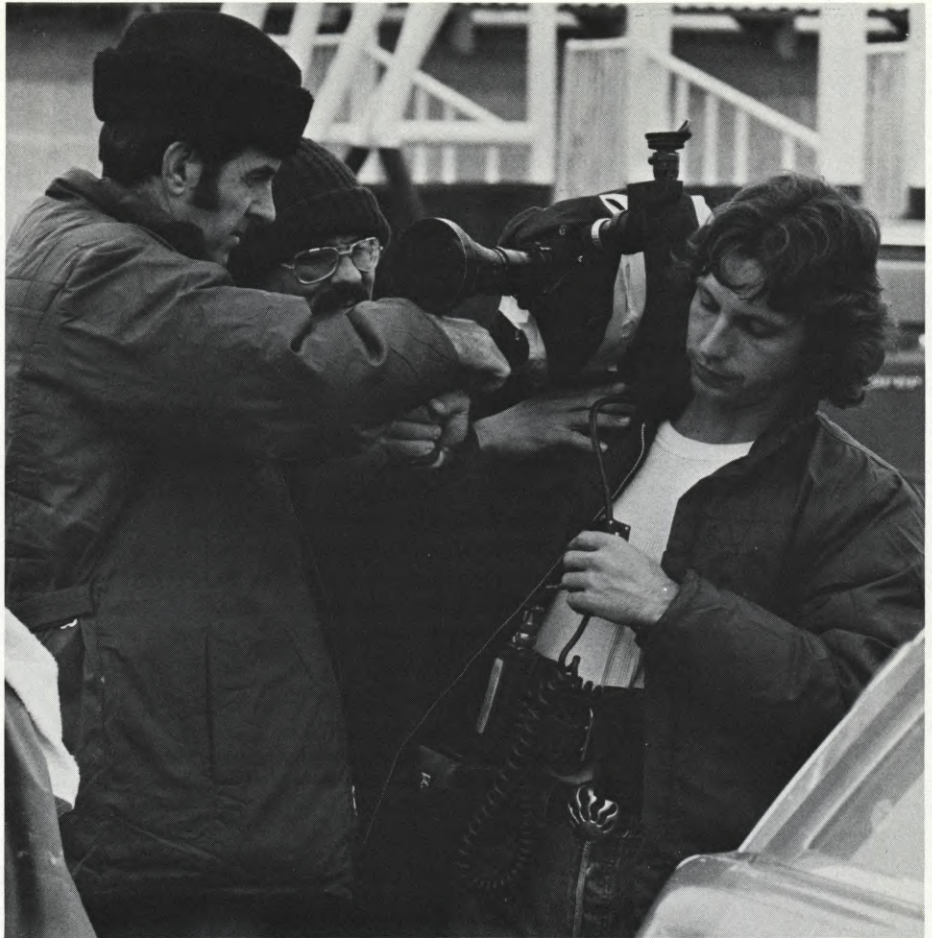
Art Annecharico is very aware and meticulous concerning sound. Therefore, recording on "RUN FOR BLUE" was handled to capture the sounds that made the film so real. A detailed, exaggerated presence track was important for the overall effect in the film. With the emphasis on exaggeration and detailed location sounds, the emotional impact was strengthened throughout the film.

When animals are a central theme in a story, the script may prove useless if the critter decides not to cooperate as planned. When we first encountered the related problems of filming horses and sundry livestock, we noticed that a horse at full gallop on film at normal filming speed looked like a contender for the Kentucky Derby. So, we used different rates of slow-motion, with sometimes three main cameras running at three different rates. Normal speed was sometimes shot at 30 fps instead of 24 fps. Twice speed, and sometimes three times the speed, were both used to our advantage in conveying the feeling of a horse in motion.

One sequence, the chariot races, filmed in Tremonton, Utah, was a very trying shoot. We shot from the horse's point of view, the official's point of view, and most scarily, from the chariot driver's viewpoint. Believe us, riding in that rickety little chariot is not for the weak of heart or knees. At the end of the ride, the camera was loose, wet, and as caked with mud as the rest of the track and us! But the sight of quarterhorse's hooves going forty miles per hour in slow motion is a rare and dynamic scene, uncommon in the average movie viewing experience. Shot at 500 fps, that scene made all the mud worthwhile. Our Action-Master High-Speed camera made it easier to create tension and suspense.

Another sequence that required lots of care was when we shot Barbara, the professional horse trainer, at the beach. The camera was on a tripod on a platform in about three feet of very salty water. There was a constant fear that a big swell would come through at any time and wash all the equipment with salt water, but the scene was shot and came out beautifully.

One of the biggest time savers on "RUN FOR BLUE" was the Motorola VOX system we used. It was unique in that it left our hands free to work with the film equipment. Because it is voice-activated with a mini-headset, work rolled smoothly with few interruptions. We could work like a TV crew, since the director could tell everyone when to



**Cameraman Wayne Kennan (right) with high-speed Actionmaster camera, prepares to shoot at 500 frames per second during the chariot-racing sequence, while the assistants jury-rig a barney for the Actionmaster to keep the camera noise from disturbing the horses — a hazard camera crew members rarely have to worry about in the normal course of shooting.**

roll, what to film, and when who had to be where. Locations that involved large expanses could be coordinated. General scripting hassles were eliminated, because after each cameraman shot a scene, they'd just radio into the script girls at our Landau headquarters, and tell them what they just shot.

Art Annecharico, the director, could watch from a good vantage point and direct a cameraman to the action and tell him on his way to the scene just what to film. Jan Shaw, the assistant director, was often in the judges' booth and could cue the cameras to roll when one of our girls would win the blue ribbon. This enabled us again to catch the spontaneity. Being linked together with seven communication systems gave us fourteen "eyes."

The Landau mobile home was also an invaluable asset to crew coordination. It served as a home on the road, meeting place, communication headquarters and traveling poker room. We held crew briefing sessions, entertained guests on the set and loaded and unloaded equipment and magazines in dust-ridden locations. Transporting a large crew and lots of

equipment would have been ridiculous without the Landau. Its mobility got us close to the sets where we often had a base for auxiliary power hook-ups which we used in conjunction with the generator in the Landau for lighting.

We also had two International Scout four-wheel-drive units that supplemented the Landau. These were so good to have because the director could radio a camera to action perhaps one mile away from the main action and the camera would be there ready to roll within minutes. No runners or messengers, just our trusty radios and Scouts. It never failed to make the shots more smooth and flexible.

Filming a feature-length documentary has to be one of the most difficult artistic endeavors. Keeping the story real and vital to the audience, satisfying our own artistic goals—it all had to come together. Trying to maintain the elusive quality of objectivity was hardest of all. When you are involved with the lives of three girls, their hopes and dreams, their fears and realities of coping with life, you are no longer just filming a story about three champions. You run for the blue yourself. ■

# THE SURREALISTIC SHOOTING OF "LE PINK GRAPEFRUIT"

Making a film "starring" world-famed artist Salvador Dali turns out to be a far wackier project than any of Fellini's fantasies

By LENNY LIPTON

I spent a surrealistic September in Spain recording sound for Roundhouse Productions' film, "LE PINK GRAPEFRUIT". Why the fruity title? Well, it turns out that pink grapefruit is the favorite food of world-famed artist Salvador Dali, and the film is about Dali, naturally enough. It's probably the color he finds most attractive, since he also serves pink champagne at his frequent *soirées*. A tribute to the man's wisdom is that he himself will not drink any of this champagne. I'm with him. In my opinion, our worst domestic champagne is better than this soda pop.

What is there to say about Dali that has not already been said? It's easy to call him a fascist, because he supported the four-decade dictatorial reign of Franco, and before the Second World War he was an admirer of Hitler. For this transgression he was booted out of the surrealist movement. At present he proudly characterizes himself as a monarchist, in all earnestness waiting for the return of kingdoms in Europe. This probably sounds quaint to most American ears, especially so close to the year of our Bicentennial. No matter

what troubles we may have, we don't have a king.

Dali has been involved with film for nearly fifty years, and his association with the great Luis Bunuel produced the very much admired film, "THE ANDALUSIAN DOG" (1929). Dali had a fling at Hollywood, in the forties, and contributed an intriguing dream sequence for Hitchcock's "SPELLBOUND", and for a time he worked with Walt Disney to create an animated film which, unfortunately, never got made.

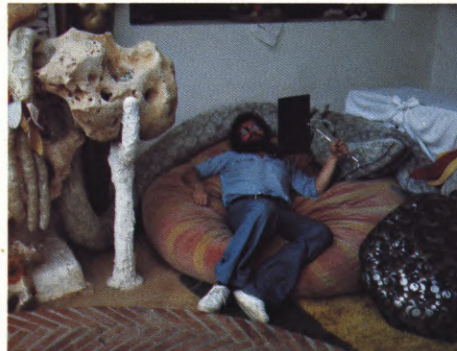
At 73, Dali simply doesn't show his years, and he is still active in film projects. It would seem that he is always the subject of a documentary, and while we were in Spain he was being filmed by Austrian TV, after which he worked on a TV commercial for a Japanese beer company.

Dali's public style, which he uses before the cameras, must have been firmed up in the twenties, from the look of it, and I came to think of it as Tango Style. His performance for professional film crews is not all that different from the show he puts on for the tour-

ist with Instamatic in hand (whatever happened to the Brownie?). He thrusts his chin back, and with eyes bulging, glares directly into the lens. In these moments he resembles a refugee from my mother's photo album, perhaps one of her departed uncles.

Dali may well be one of the few remaining practitioners of this half-century-old style of posing, yet I have to admit he's more regal than ridiculous. Dali is a clown, at least in public, but he conducts himself with stately decorum. He may be a screwball prince, but he is a *prince* all the same, as most everyone in Catalonia would agree.

For the camera crew he will stage events and provide extras. But he will not allow himself to be filmed in the style we usually call *cinema verité*. Unguarded or candid moments simply are not permitted to be filmed. His carefully crafted image, developed many years ago, down to the waxed mustache, precludes showing the public any mundane aspect of his life. Dali must be shown to be extraordinary all the time. His mercurial and taciturn wife Gala, it is said, helped



(LEFT) Director Halprin looks on, as cinematographer Ryan and sound recordist Lipton (red jacket) work themselves into their daily froth, a constant phenomenon of "LE PINK GRAPEFRUIT". (CENTER) Exhausted, Lipton waves a French flag, while reclining on Dali's massive pillow. (RIGHT) Dali's aura pervades Cadequez, his home town. Lipton is recording the reactions of Marine (a young French tourist) to the mystique of the artist. (BELOW) Dali, very chic in silver gown and red parasol, stages a *soirée* in his garden for "Le Crew". Because of his bizarre hijinks, some tend to forget that Dali is one of the world's greatest living artists.



create this image for her husband, as part of a public relations effort to make him famous.

The public Dali may be flamboyant and eccentric, or perhaps a caricature of an eccentric, but the private Dali is well-behaved, and he speaks good English, too. In public he affects the damndest accent, sometimes perfectly incomprehensible, intermixed with what sounds like French idioms, or what may well be expressions of his own devising as he invents a new language. When we were alone with Dali he spoke English perfectly.

Dali is, or was, a great painter. Many of his early paintings are brilliant, as can be directly appreciated in the Teatro Museo Dali in Figueras. I should qualify that. There's one room in particular, a red-plush-lined treasure vault in this year-old museum, filled with Dali-owned originals such as *Galarina*, *El Espectro de la Libido*, and *Cesta de Pan*. The rest of the museum is actually in continual flux, displaying unfinished works and art of uneven quality. We spent two days filming in the Museum, which is about a forty-minute drive from Dali's home in Port Lligat. Port Lligat is actually the northeastern end of the town of Cadaquès, where we spent two weeks filming Dali's activities, and his environment.

We passed our first and last weeks in Spain in Barcelona, at the Ritz, that terminal resting place of the rich come in out of the smog. Dali maintains a suite in the Ritz, and holds nightly *soirées*, which are MC'd by one *Verité*, who allegedly runs a model agency. *Verité* provides the "extras" for the *soirées*, which take place in the early evening, right before dinner (dinner never comes too early in Spain).

Usually there are only two or three people at the *soirées* whom Dali considers to be of any importance, and the rest of the cast is there for effect. Filmmakers make perfect extras, and *Verité* provides models and flamenco dancers and many persons of outright weirdness, so long as he, she, or it is passably *chic*.

And who is that gorgeous French blonde, high-cheekboned and full-breasted? Why, it's Amanda. Ten years ago she was a top Paris model, and before that Amanda was a man, they tell us. Now that you mention it, although I would never have suspected . . . or is this just a Dali put-on, some ploy designed to make us doubt the sexual origins of everyone present?

"Señor Dali, we'd like to introduce our soundman, Lenny Lipton," . . . and it's my first Dali handshake. Dali briefly touches the tips of his fingers to mine,

while looking to his left, I guess at somebody else waiting in line to shake hands.

From time to time I have wondered at the reason for my existence, and this handshake has opened the question for discussion once more. I have to catch myself to avoid falling forward, but a *faux pas* is so completely out of the question that I maintain perfect balance.

I shouldn't take any of this personally. Why take life personally if you can help it? Collectively Dali calls us *Le Crew*. He calls the director of the film, landscape architect Lawrence Halprin, *Le Architect*, which is understandable enough, and Sue Yung Li Ikeda he calls *Le Chinese* (not even *La Chinese*), and cinematographer Paul Ryan gets dubbed *Polaroid*.

*Le Architect* is designing the Dali museum to be built in Cleveland, which will hold some 90 original oils and other Dali works valued at some \$25,000,000. The collection is owned by plastics-machine manufacturer Reynolds Morse, and Morse and his wife Eleanor were present during filming.

It was Morse who relayed to *Le Crew* ideas and instructions from Dali. Dali had many suggestions about what we should shoot, and he was actually quite pleased to have a film crew willing to spend time exploring his environment, and the landscape that helped to shape his painterly sensibility. This is one of the goals of the film, which, in the language of the production, will become a resource of the Cleveland museum, where it will be shown on a daily basis, I assume.

So it was that we spent a good part of our time trekking to places that Dali said were important to him, where he and his family visited when he was a youth, such as the Roman ruins of Ampurius, a pond adjacent to a church outside of Figueras where Dali went potty as a three-year-old, or to the great tourist attraction of the Monastery of Montserrat.

It was at Montserrat that Reynolds and Eleanor Morse were lost somewhere at the top of the mountain. Just as the monks were ready to begin their search, at the fall of night, the Morses appeared singing and laughing. Although we had waited for them for hours, they did not consider themselves to be lost, since they knew where they were all the time. I can see Reynolds and Eleanor skipping across the mountains of Spain, like a pair of spry mountain goats, while we followed, burdened with five hundred pounds of gear. First-rate guides, the Morses, but they don't like to stop to let you take pictures.

The reader may have noticed that this article is titled *Filming Le Pink Grapefruit*, and a few words about the production itself may be in order, although I will concentrate on sound, since that's what I did. Cinematographer Ryan used an Eclair NPR for almost all of the photography, with an occasional assist from a Bolex and a Beaulieu, often fitted with an Angenieux 5.9mm wide-angle lens. The Eclair was used, for the most part, with an Angenieux 9.5mm-to-95mm zoom lens. The entire film was shot on Eastman 7247 color negative stock. Tests conducted by Ryan before production started kept us from pushing more than a few hundred feet of the film.

Most of the production was shot with available light, but extensive set-ups were required within the Dali Teatro Museo, using Lowel lights, with transformers to turn the European 220-volt current into a usable 120 volts for our American units.

Most of my experience as a filmmaker has involved doing all of the production and post production work myself. So concentrating on a specialty like recording sound was a new challenge for me. My insights may be too green to help most experienced sound persons, but beginners may possibly find what I have to say to be of some value.

Like everybody else making movies I have great respect for the Nagra recorders, but I didn't relish lugging a hefty sixteen pounds across Spain. After two days of test shooting before we left for Europe, I knew the Nagra was too much of a burden, as the pain in my shoulder told me. So I investigated the possibility of using a Stellavox SP7, and the people I asked about this alternative Swiss machine said terrible things about it. Now it's curious that this attitude should be so widespread, since nobody I asked — people with strong opinions I might add — had ever used a Stellavox, which looks a lot like a Nagra, but is half its thickness and weight.

The SP7 I selected had a crystal reference for the pilot channel built in, and monaural heads, although there are two mike channels which can be mixed without an accessory mixer. Stellavox recorders are available in head configurations of two channels and three channels, and there are other options, as well. The SP7 will also directly supply power for mikes like the Sennheiser 815 shotgun, which requires nine volts of DC. One feature is a low-frequency roll-off control which is useful, for example, for suppressing traffic noise, and which should always

**Continued on Page 330**

## SPECIAL EQUIPMENT

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With a flat port, the lens sees the subject much as the eye sees the subject through a mask — magnified considerably. Indeed, viewed through a flat plane, a mouse in a swimming pool would look magnified. By using a hemisphere of a specific curve, you can enable the lens to retain its inherently designed angle, as opposed to encountering magnification. For example, a 30mm Panavision lens would become almost a 40mm lens with that magnification factor, but by using the hemisphere, we eliminate that effect, increase colour saturation and come up with an optically much superior photograph. The housing will take an Arriflex 2C camera with either spherical or anamorphic lenses and we have adapted the Panavision gearing system for aperture and focus so that their follow-focus system will work with the Panavision lenses, as well as any of the spherical lenses in Panavision mounts.

**QUESTION: Can you tell me a bit more about the reflex viewing system on this unit?**

**GIDDINGS:** It includes a reflex extender which we have designed. This was done with the help of Dan Brower, an optical man that I have worked with for about ten years. Essentially, it brings the image back much farther and enlarges it probably three-fold, giving you enough eye relief when you put your mask up against the back of the housing. Of course, your eye is not there at the eyepiece of the camera, so you need eye relief to compensate for the depth of the mask — and that's what we've done with the addition of this extender. We take the standard door, remove the standard eyepiece, retain the ground glass, and focus on that ground glass with binocular objective lenses in such a way as to come up with a greatly magnified picture that gives us really fine reflex capabilities. In this picture Peter Guber and Peter Yates wanted extreme closeups — fingers coming in and removing a splinter from a child's finger, a coin coming out of the sand, and so on — and such shots can only be done with a macro-Panavision lens and reflex viewing, so that you can frame and focus properly.

**QUESTION: How deep is it possible to dive with these camera units?**

**GIDDINGS:** The housings are good for probably 300 feet. We built three of the units. The standard motor will run up to 30 frames per second. Then there is



Because island authorities, strictly controlling traffic in Bermuda, would not permit the highly-sophisticated Samcine camera car to be imported, an ordinary bus of the type generally used for mass transport on the island was partially gutted and fitted out as an improvised camera car — hardly an ideal setup, but part of the "make do" nature of filming in this location.

another motor setup that will permit shooting from 30 to 100 frames per second.

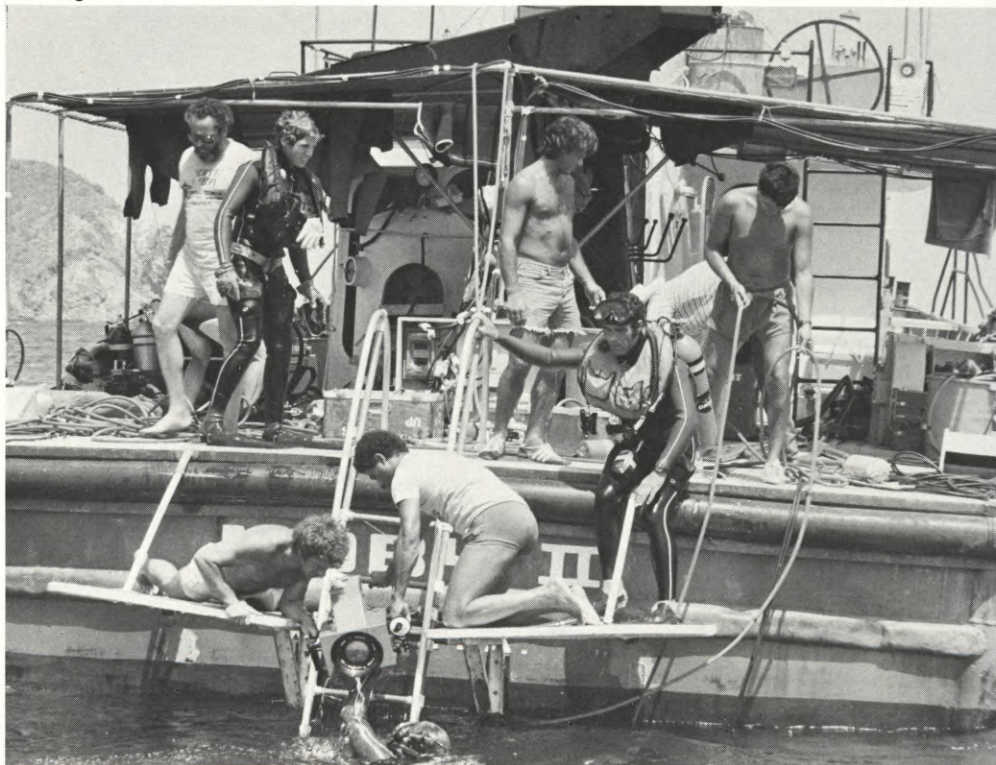
**QUESTION: Have you thought of putting video inside, so that scenes could be viewed from topside, or so that you could have "instant dailies"?**

**GIDDINGS:** I really didn't consider that

very seriously. It would require a whole second system, including the cables and monitors and all the other things necessary to run such a system. Also, it would have eliminated the mobility we needed when shooting on the real wreck, R.M.S. RHONE. We were working at 80 feet there, and inside the ship. It was a very complicated business just

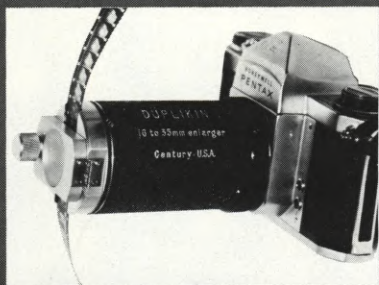
Continued on Page 332

The special underwater housing/Arriflex 2C camera unit is lowered into the water from the support vessel. Three of these units were constructed because much of the complicated sub-sea action had to be photographed with multiple cameras. A unique reflex viewfinder system on the unit enlarges the image threefold, providing eye relief when the mask is up against the housing.



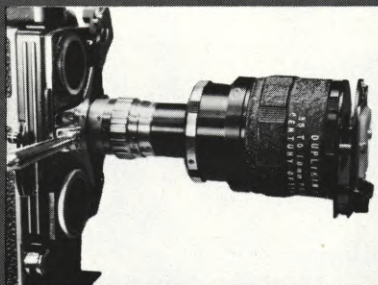
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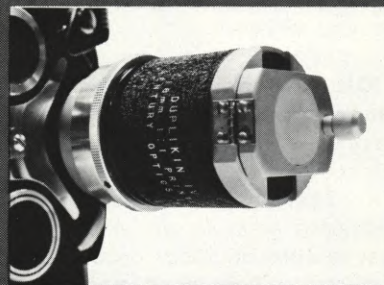
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**PRODUCTION DESIGN**  
Continued from Page 277

to occupy it. So we moved in and built the sets. We are absolutely sound-proofed and our offices are there also. We really had a film studio going there and it worked very well.

**QUESTION:** Do you think they are going to capitalize on it after you leave?

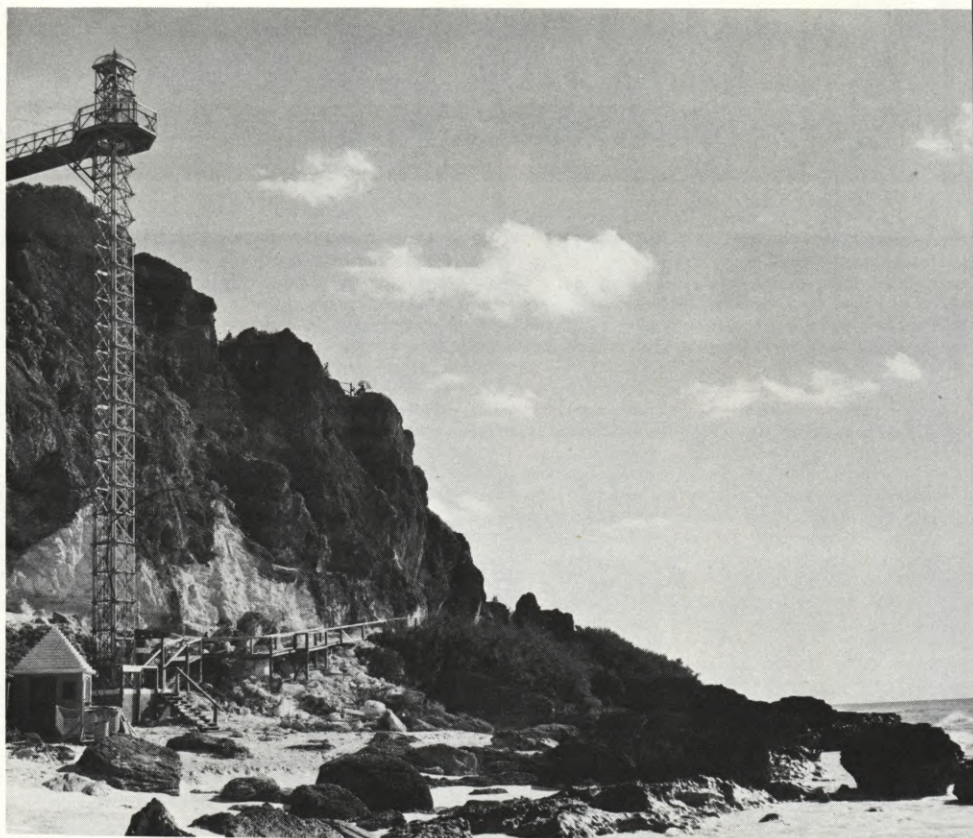
**MASTERS:** They're all thinking about it, and wondering what to do about it. What they're worrying about, of course, is the upkeep — how much money it would cost to keep a shell available for people to come in and make a film. Even to preserve the hole and the underwater set for future films, it would be necessary to keep water in it. Otherwise it would all fall to pieces. Therefore, it would have to have maintenance, and all that costs money. They're debating whether they can afford that kind of thing.

**QUESTION:** What can you tell me about the elevator?

**MASTERS:** The elevator was written about by Peter Benchley in his book. When I spoke to Peter and asked where this elevator was located, he said, "Well, I don't know. I think it's at Marley Beach. I'm sure there's one at Marley Beach somewhere." So I thought I'd go and have a look. I did and, of course, found that there's no elevator like that anywhere on the island. Peter said, "Oh, well — that was a slight error." So we were stuck with the business of having to build one ourselves, and that was much better, because we built exactly what we wanted, one that would suit our action. It's a pretty hairy-looking thing. We have a fight on it and all sorts of exciting things happen.

**QUESTION:** And the lighthouse — did you find that here?

**MASTERS:** Well, we looked at all the lighthouses on the island and they were



The steel elevator shown here was written into his novel by Peter Benchley, who thought one like it actually existed on the island. It didn't — so Tony Masters designed and built one from scratch. He welcomed the opportunity, because he was able to design a structure that would exactly suit the scripted action, instead of having to settle for what was already there. The elevator serves as a focal point for much exciting action.

very nice, but they really didn't quite work. Once again, we had to appraise these lighthouses in terms of how they would look through the viewfinder and, finally, on the screen. They were all too tall for the anamorphic format. If you were to try to get a shot of one of them, there's no way you could get back far enough to see it as a single element. As a result, we built our own lighthouse — a special one, not quite so tall. We built a house attached to it and all that kind of thing, and ended up with exactly what we wanted, instead of having to make do with what already existed.

**QUESTION:** Aren't you a bit frightened that a ship may use it for navigational purposes and end up on the coral reef?

**MASTERS:** No — because everybody knows so much about it. Every ship in the area keeps coming close to show the people on it that a film unit has built a strange lighthouse, and on every plane that lands, the pilot announces: "On our right we have the lighthouse built for 'THE DEEP'." And all the passengers lean out the windows to look at it. Everybody knows about our lighthouse.

**QUESTION:** This is a small island and they have various laws about the number of vehicles that are permitted. Obviously, this could create a problem that you don't encounter when you are working at Shepperton or Pinewood. Did this problem directly affect you?

**MASTERS:** Well, yes. Originally, of course, transportation was a problem because there wasn't any, but a lot of us have learnt to drive and we have actually passed the test and have bought or rented cars. I've got a car.

**QUESTION:** Are you allowed to rent a car?

**MASTERS:** Well, I don't quite know. I think the Company rented one or two, but you are not allowed to rent them  
Continued on Page 336

Cast and crew of "THE DEEP" pose for group picture. After months of shooting they had become a close-knit family, drawn together by the unique experience of having worked on a motion picture project like none ever attempted before.



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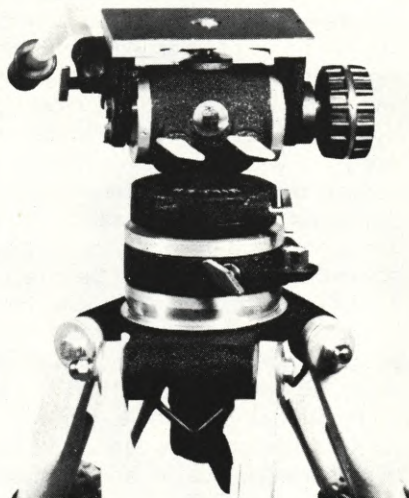
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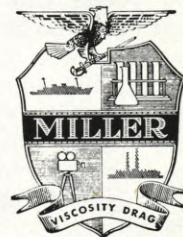
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## "RUN FOR BLUE"

Continued from Page 303

the motor home, camera positions and script requirements were communicated to each cameraman. Without this VOX system, filming "RUN FOR BLUE" would have been an impossibility.

With the communications problem solved, we began filming in earnest. Crews of up to thirty people covered the western horse show circuit. The three parallel stories within "RUN FOR BLUE" sent us all over the Western United States. For additional action and drama, we included vignettes on an all-girl rodeo, winter chariot racing, a horse auction and cowboy polo. Bill Maharis was my Director of Photography. In the beginning, I worried about using young cameramen, but this turned out to be an advantage. These guys could adjust to abrupt changes in script and sudden revisions in camera settings. There was virtually no time to set lighting or stage shots. No time to run the action through once. Not only did our young technicians flourish working under these unpredictable conditions, they began taking some ini-

tiative. Although I would love to take the credit, "RUN FOR BLUE" is definitely NOT totally a producer/director film. It took many inputs. If the crew didn't understand my philosophy, we just didn't get the shot.

Everything had to be flexible. Last-minute changes became so common that we no longer worried about thinking ahead. Each shot was the most important. Every sound the most vital. You had to be there to appreciate what everyone went through filming those horse shows. With the riders lined up in the center of the arena, waiting for the win announcement, one camera would cover the action wide. I'd be directing two or three other cameras. One for an intercut, another on an extreme close-up of our rider . . . the one our film audience expected to win. Then the announcer would receive the list of winners. Immediately, Jan would relay this information to me and I'd have a maximum of ten, maybe fifteen seconds to set or reset both closeup cameras. The problem was that we never knew the winner until that point. We had to capture that split second when our rider realized she had won

. . . or lost. In addition, we had to get a fairly close shot of any rider who won, should our girl face defeat. At first, this kind of teamwork just wasn't there . . . but it began to develop before long. After a while, everything began to come together. Everyone functioned as a unit. In some cases, a cameraman would make an independent decision that would save the scene.

As I said, flexibility was the key. Tripods were left behind many times in an effort to move quickly. Hand-held cameras were the rule for filming action events.

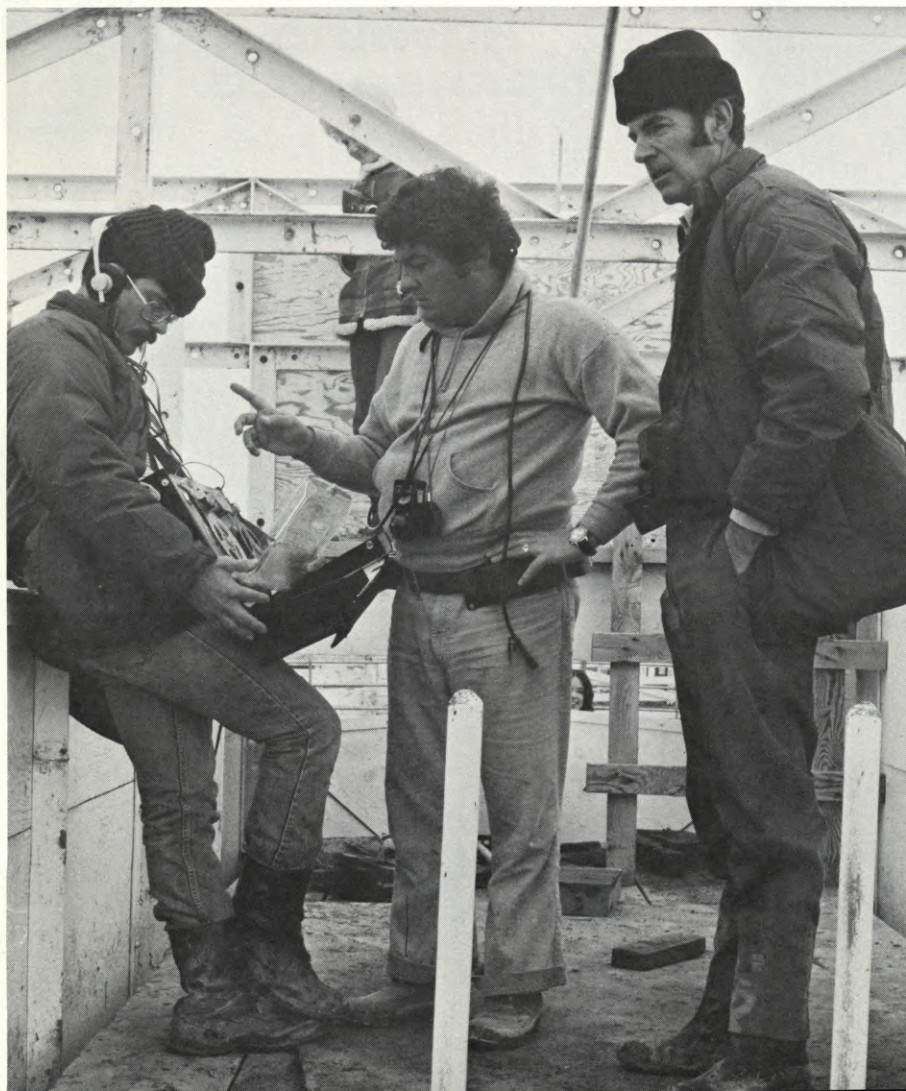
Sound reproduction is extraordinarily important to me. Many years ago, before I became a horse-lover, I started in this business as a soundman. So it's understandable that it's still my first love. The quality of the tracks for this film concerned me constantly, waking and sleeping. My patient and persistent sound recordist, spent hour after hour after hour with me. We'd sit and talk . . . argue . . . discuss . . . and otherwise try to figure out ways to get the best possible quality from a particular scene. Equipment consisted of two Nagra IV recorders . . . one for each NPR.

Unlike most producer/directors, I was just as concerned with the sound as the picture. Maybe the reason for this is the documentary nature of "RUN FOR BLUE". A realistic, believable sound track was a must, in my mind. Sync sound recorded on location was, quite often, the only way we could get the quality of sound we wanted so badly. The amazing thing about this film is that every single effect heard on the finished track was shot in sync or wild, on location. You might be seeing a close-up of a saddle being cinched up. The creak of leather, the stomp of a horse's hoof, the clicking of a bit in the horse's mouth . . . all these sounds are real. Nothing canned here. The sounds are really there, right out front. This really makes me feel good.

Some things, though, don't make me feel so good. Like the dust. The dust and dirt at a horse show are second only to a sandstorm in the Gobi Desert. And when you're getting shot after shot, with no time to spare, it's pretty hard to keep the equipment clean. I'd be willing to bet we set a world's record for use of lens-cleaning supplies. And it paid off — not one dirty frame in the film.

One of our most challenging scenes, shot up in Utah, was of a chariot race. That's right . . . like in "BEN-HUR". This kind of racing is fast and furious. Over a 440-yard track, you could blink and miss a big portion of the event; the horses are that fast. What we did here was some 500 fps camerawork. Mud

With the temperature hovering near 0° Fahrenheit, Director Art Annecharico (center) listens to playback with soundman Wayne Ruple (left) and cameraman Don Gundry during filming of wild chariot race sequence shot in Treedmonton, Utah. This sequence provided some of the most exciting action for the film.





and dirt everywhere . . . in the cameras, in the mikes. We got sound from the horses, from the chariots. One of our cameramen filmed the race from the best possible vantage place . . . perched on the tiny platform of a chariot traveling 40 miles an hour. That Utah shoot took a lot of patience, and some bravery, too.

Another great shot was inspired by my love for flying, and my desire that the film have a very special ending. Using a Hughes 500 helicopter, with a Tyler mount, we went up to shoot a four-and-a-half-minute continuous-run sequence. Beginning just three feet from the ground, the chopper rose gradually, following a truck five-and-a-half miles downwind through a canyon, keeping the truck in the center of the frame at all times, while making a very gradual 180-degree turn and rising to 3700 feet. Complicated, but spectacular. And someone was watching over us that day . . . one take did it. This is really one of the most spectacular shots in the whole movie. Maybe that's because I poured myself into everything from the creation to the filming. I guess you could say I'm just proud of it.

When filming ended, the work really began. Editing brought us a whole new set of problems. Again, it boiled down to the subject matter . . . horses.

First we went to an established, well-known editor, only to discover that the subject matter was much too specialized to be understood by someone unfamiliar with horses. What we needed was an inborn knowledge . . . a "feeling" for the way horses react, the way they move. We needed someone who had been on all the locations. I decided to go it alone and began to edit 55,000 feet of 16mm film. I edited many major sections myself and acted as supervising editor with the assistance of Jan Shaw, Wayne Kennan and Ann Grodzicki (all crew members) on the benches. When we finally completed our last cut and 35mm blow-up, we had 8,000 feet of film. Bear in mind that we usually utilized three cameras at one time with a total film ratio of 16:1.

Meanwhile, the sound was condensed down to twelve tracks because of studio limitations. It was in the area of sound that our original budget was reconsidered. We had planned a contingency fund, and I felt at this point we should go ahead with the extra money. It took some serious thought, but the quality of the film we had thus far demanded that extra time and development be spent on the sound tracks. Now I look back and realize that this decision was important in determining the total quality of the film.

We selected our narrator, Rex Allen,



Soundman Ruple (left) tapes a microphone to one of the chariots in order to get authentic sound effects of the race. The producer/director insisted that all sound effects be the real thing and that they be shot in sync with the action. The sound equipment used was based around two Nagra IV recorders, one for each of the Eclair NPR cameras.

for his image. Western easygoing and believable. Rex was the natural choice, and did a great job on the narration of "RUN FOR BLUE".

Tanya Tucker was another natural choice for the vocals of a 32-track all-original-score musical production. Written by Steve Hoffman, we experienced no problems with narration, music or vocals.

All told, it was 18 months of hard work. Five and a half months in post-production. And we came in right on budget.

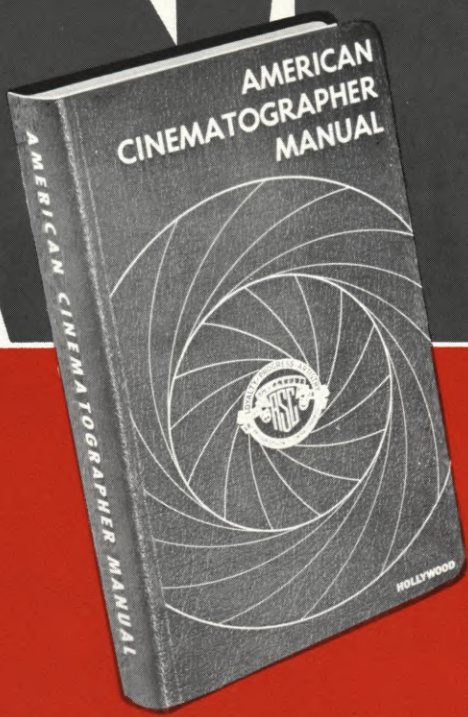
I kind of hate to put "RUN FOR BLUE" in the documentary category . . . it's such a narrow one. This film turned out to be much more than what you figure a documentary ought to be. It's a beautiful, warm story, told in an entertaining way. I don't know . . . I guess I'm so close to it all that I'm no longer a good critic.

This project proved to be the most difficult one I've ever attempted. But looking back now, I can see that everything seemed to fall into place for us. Maybe Lady Luck is trying to break into the business. ■

A triumph for Women's Lib? Assistant producer/director Jan Shaw gets to trudge through the mud while carrying the Eclair camera.



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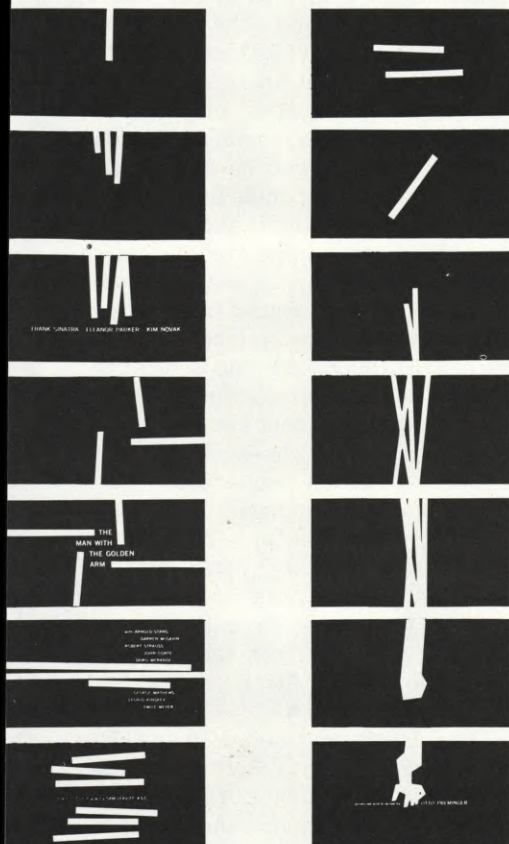
**"COMPLEAT FILM-MAKER"**  
Continued from Page 291

obvious. What else could you do? That's one of the nice things about hindsight. When the thing is right, one way of knowing is that it has a sense of inevitability. That's not only true of a title, it's true of any creative effort. When it looks as though, if you were doing it yourself, you would wind up doing something like that, it's probably right. You have the feeling it rolled off the tongue or the pen.

The object in this case was to take a deliberately fragmented approach to the title. After all, the film itself is composed of fragments. It's appropriate. It affectionately spoofs the artifacts of the



Standing next to a motion picture camera, Saul Bass appears to be in his true element. Of the current trend of his career, he says: "I'm going to make more features. I'm going to make more of everything. Short films, features, commercials, industrials. I'm a film-maker who is interested in making all kinds of film. And that's what I intend to continue doing."



Saul Bass title sequence design for "THE MAN WITH THE GOLDEN ARM".

past. I very carefully treaded the line between affection and camp. I avoided camp because you then become cruel, patronizing and you diminish it.

**QUESTION: Were there any technical problems?**

**BASS:** In most cases we used traditional techniques. One technique is doing exactly what you see — no tricks. Like a bottle washed up on the beach, with some names in it. It's just ocean, beach and waiting for the wave . . . the old-fashioned way. Waves wiping out names written in the sand. We waited

for the wave. We did it when the tide was coming up. When it didn't work we were able to move up the beach until we got a wipeout that worked. The marching band; get the band out on the field and find a roost from which you can shoot. I couldn't put up a platform so I had to find a field and a building and a window from which to shoot. It happened to work out down at USC. Nothing fancy; all very straightforward, really.

The only one that was tricky was getting those petals to disperse. The way that was done was the people at MGM made a construction in which there was a bottom layer of sand and rocks, which was dry. Then a slab of water and plexiglass on top of which were the petals. With the water slightly agitated, and the petals softly blown with a slight wind, they would move. The rippling water showing through gave the illusion the petals were actually floating on the water. When they dispersed it appeared as though they were

drifting on the water. The water action didn't stir up the sand and obscure the shot because the sand was actually dry and only seen through the water.

Although we used existent means, we had to be careful. We were especially careful with lighting, because if we lit it too well and made it too contemporary, we'd lose some of the charm and sense of the past. In the case of the petals, I lit it naively, for lack of a better word, because that's the way those things were lit. For instance, I had some leaves poking into the shot over the water. If one were shooting this today, you would likely throw the leaves out of focus to get a soft effect and center attention on the petals in the water. But in those days the idea of anything being out of focus was a nervous notion. Everything was hard-edged. To have done otherwise would have updated the shot in such a way that it would have lost the charm of the old title.

Continued on Page 325

**Stunning title sequence design for "WALK ON THE WILD SIDE" utilized a prowling cat as motif, featured low-key atmospheric lighting and rhythmically paced action.**



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## ON LOCATION WITH "THE DEEP"

Continued from Page 267

into the unpredictable reef-ravaged depths, racing against the ticking time-bomb of Cloche's vicious and relentless encroachment, in an effort to recover the historically-elusive trove of Spanish treasure and to prevent the morphine from falling into Cloche's hands.

The dramatic currents culminate in a final explosive conclusion beneath the sea . . . in *The Deep*.

### About the Locations . . .

*The British Virgin Islands Location* — the filming in the BVI, concentrated on sequences in and around an actual shipwreck. It is located at Salt Island, just off Peter Island. The wreck has been there since 1865. Once the R.M.S. Rhone (Royal Mail Ship), it sank in a hurricane with a loss of 125 lives among its 135 crew members. The ship split in half, dragged its anchor, and finally came to rest on its present spot, encrusted with coral and sponges. Over the years, it has split further so that the current wreck site includes a number of pieces, angled from thirty to eighty feet below the surface.

In "THE DEEP," the ship is called the Goliath, and the company has kept the derelict virtually intact and has had to do little to make it "film-worthy."

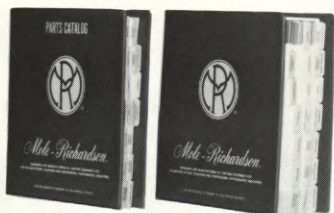
For the unique sequences, Robert Shaw, Jacqueline Bisset, Nick Nolte, and Lou Gossett all were diving in the water, and director Yates and his underwater crew were down there to capture the excitement and adventure that can only result from the dive into a real underwater mystery.

★

*The Bermuda Location* — The Company moved to Bermuda at the beginning of August to complete the production schedule. The company was headquartered in Southampton with filming sites at various locales on and off the island throughout August, September and October.

In addition to the live-action locations, key underwater sequences have been filmed in the largest underwater set ever constructed. It is 30 feet deep, 120 feet across and takes one million gallons of salt water to fill. The underwater set has been stocked with the fish that would be found in the comparable reefs off Bermuda. At any given moment, more than twenty species of fish could be seen in the water.

Among the sites that have been utilized for the Bermuda sequences were the lighthouses at Coney Island, the Coral Beach Club, Ireland Island, as



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well as sites on the roads, beaches and docks throughout the island. Interiors also have been shot in Bermuda on sets constructed for the film.

### An Over-cranked Island

Bermuda is an island of 48 frames-per-second. No motor vehicles are ever permitted to travel faster than 20 miles-per-hour, and in the cities even that brings a ticket, as the speed limit in those zones is only 15 miles-per-hour. Everything moves slowly, as if the camera were being over-cranked.

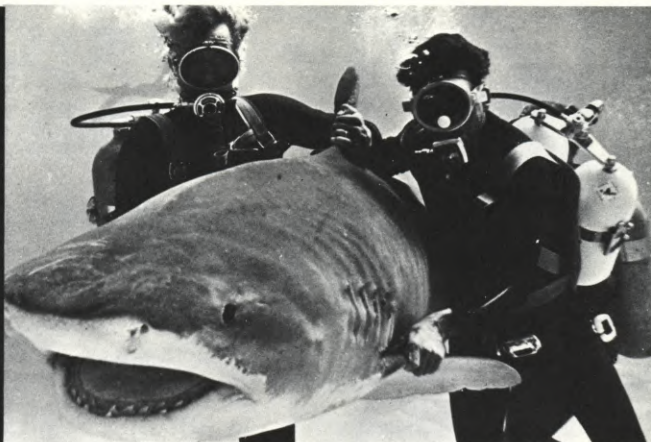
However, Bermuda is an ideal spot for filming. Scenically beautiful, it is a collection of many, many small islands, all joined together by causeways and bridges. The water is the most beautiful turquoise blue — as clear seawater as you will ever find. You have only to put your head three inches below the surface in order to see the most fantastic array of tropical fish — and they seem even more interested in you than you in them.

The biggest problem in Bermuda during shooting of "THE DEEP" was that of transportation. The film crew was unable to bring with them their usual array of camera cars, sound and prop trucks, etc. The only things that could be hired to get around in were either an antiquated taxi that might take two hours to travel from one tip of the island to the other (a distance of only 30 miles), or a very tired Moped from the local rent-a-Moped company. This vehicle found that it liked the weight of my daughter better than it liked the weight of me and, consequently, whenever I went up the slightest incline I had to pedal furiously, much to the amusement of the film crew and everybody else who saw me approaching.

The film crew, deprived of its accustomed sophisticated camera car, had to hire a local bus. The bus company was happy to provide one of their oldest vehicles, which they decked out with old camera boxes sitting on the seats like a collection of patient passengers. In the bus was a sign that indicated that you were not permitted to smoke or eat hamburgers. Actually, it was meant to inform you that you mustn't eat *anything* on the bus, but the sign had a diagram of a hamburger with a cross drawn through it — which amused the crew.

In the pages that follow are excerpts from interviews which I conducted on location in Bermuda with several key members of the filming crew — including Director of Photography Christopher Challis, BSC, Production Designer Tony Masters, and In Charge of Underwater Production/2nd Unit Director Al Giddings. ■

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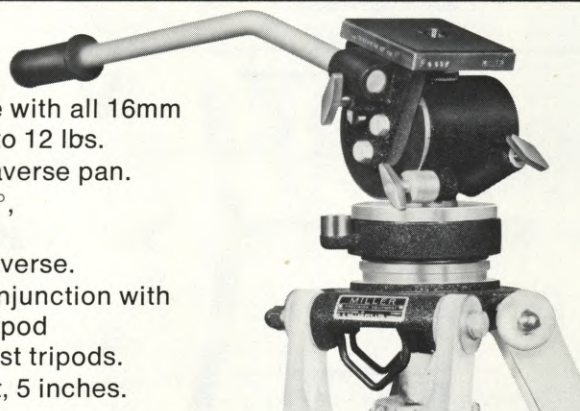
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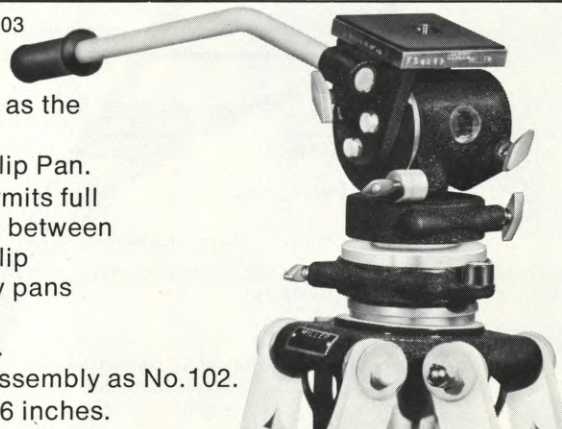
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**Perfect registration fast. The CIRO makes its own perforations in the splicing tape, and trims the edges automatically.**

**L**ay the cut film along the recessed splicing block. (Its position pins hold the ends in precise registration.) Pull the tape across the open splice. Lower the chopper. Done.

### Effortless accuracy

A perfect splice. Tape perfers exactly where they should be. Film and tape dead straight. No protruding edges. No effort.

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In 16mm, both tape edges are on the frame line. Workprints look cleaner. On TV news footage, the splice is effectively invisible at 24 frames per second.

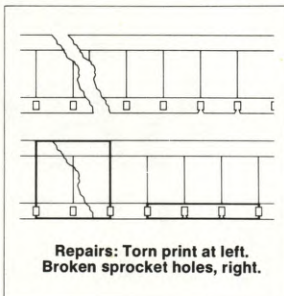
### No frame loss

If you change the cut, there's no frame lost, of course. And since you made the original cut on the CIRO's block, ends match exactly.

### Instant repairs

Broken sprocket-holes can be rebuilt with no tape in the image

area! (See illustration.) With the CIRO, film libraries can repair torn release prints without a jump cut.



Repairs: Torn print at left. Broken sprocket holes, right.

### Easily through the gate

A cement splice almost doubles the film's thickness at that point. CIRO tape on both sides of the film

increases it from about 72/1000 inch to 75/1000 inch! (Horizontal editing machines let you use tape on one side only.) CIRO splices run through projectors smoothly.

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Because it's not perforated, high-quality CIRO tape costs about a third the price of pre-perforated tape. Not a big item — but it adds up. After about thirty rolls, your tape savings have paid for the splicer. (CIRO tape, incidentally, is guaranteed not to telescope.)

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# CIRO

"THE FIRST THOUSAND YEARS"  
Continued from Page 299

customs and forest officials serve under him.

Each of the twenty ruling monasteries annually elects one representative to the ruling body called "Holy Community." The four-man executive body, the "Holy Epistasia," perhaps can be compared to a cabinet of ministers. One of the four serves as the "Protos" — the first among equals of the entire group.

Each one of the monasteries maintains its own "konaki" or embassy at Karyes, which serves as the official residence of its representative to the ruling body. The only exception to this is the Monastery of Koutloumousiou which is located at the outskirts of Karyes.

The one-thousand-year history of Athos is interwoven with tradition and legend. Its treasures are priceless. The beauty of the place leaves one breathless. And no female — human or animal — is allowed to set foot on Athos!

Together with my colleagues, Skip Landen and Mack Travis of the Department of Cinema Studies and Photography at Ithaca College, I became involved in the production of a 60-minute documentary dedicated to capturing on film the extraordinary uniqueness of this place. One small detail, however, tended to complicate things: The shooting of movies is not allowed on Athos!

After two years, and following extensive consultations and negotiations with the Ecumenical Patriarchate of Constantinople, as well as the Government of Greece and, thanks to my many acquaintances with the Monastic leadership of Athos, this rule was, shall we say, bent a little. A grant from the National Endowment for the Humanities provided the financial backing for the 60-minute documentary. All was ready for the expedition. Well . . . not quite.

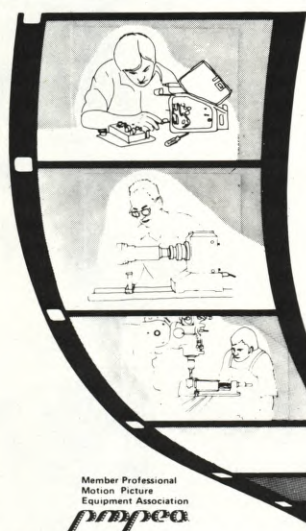
The forty-six-mile-long peninsula of Athos has no electricity. There are no roads and, of course, automobiles are not permitted there — with one exception: an old bus. It connects the port city of Daphne with the mountain city of Karyes. It takes one hour for the run at an average speed of less than ten miles per hour. The monks have for centuries denied themselves modern conveniences. Traditionally, the Byzantine monastic life has been austere and simple — solitary prayer, praying in churches, work, and in what little time is left, sleeping and eating. Modern conveniences are considered dis-

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ruptive of this routine.

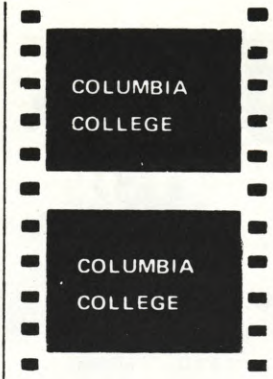
Travel on the mountainous terrain of Athos is by mule, or on foot. A "kaiki" (a native boat) is also used, depending on weather conditions and the location one wishes to visit. The absence of electricity and automobiles creates considerable difficulties for a movie crew, but then again, the shooting of movies is not permitted on Athos. Anyone who might sneak past the several check points with a movie camera runs the risk of being arrested.

In addition to all these drawbacks, one has to overcome yet another problem. Monks have always shied away from bright lights and cameras, which are strange to them. It is virtually impossible to get them to go about their daily routine in the presence of such disruptions. And not many of them like to be filmed. Their daily routine is such that any disruption is met with hostility. They take their mission seriously. They spend a great deal of time in the church. There are three or four daily church services beginning at 2 A.M., each lasting two or more hours.

Since there is no electricity there, we had to carry our own generator. And no matter how muffled, a generator makes noise. In the quiet of Athos, any little noise tends to sound like thunder. And this disrupts the daily prayers of the monks who, in the first place, don't like to be filmed. And on it goes . . . the odds of coming away with footage good enough to tell the real story of this place were overwhelmingly against us. Furthermore, the Holy Community, the ruling body of Athos, had made it clear that the success of the project was directly related to the amount of disruption we would cause in the ordinary life of a monk. And believe me, that doesn't provide much leeway. "Undoubtedly many Fathers will object to your activities," we were told, "and if we receive several complaints, we will have to ask you to leave." The message came through loud and clear.

We assembled all of the necessary gear on the sound stage of the School of Communications at Ithaca College. These included an Arri BL with several extra magazines and battery packs, an Auricon Cine-Voice, a Bolex Rex 5, a Nagra, two cassette recorders, two sets of Lowel-Light kits, a tripod, shoulder brace, mikes, a variety of lenses, filters and other accessories. As for the film, we decided to take with us thirty thousand feet of Ektachrome 7252 and 7242. Naturally we wanted to get the equipment to Greece in the most economical way. We decided to rent a Honda generator in Greece. It is small, portable and not very noisy.

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snaps around each piece so that they could be packed in alpine backpacks. The foam provided safety for the various pieces of equipment packed together. Mules were used to transport the gear to inland monasteries and, of course, we made great use of the native boat - the "kaiki." On occasion the eighty-pound backpacks were carried on . . . the back.

Half of the film was packed in a fire-proof, waterproof metal case. The case was also designed to . . . float! It was shipped separately via air freight. The rest we took with us.

Much like every film crew on location, we experienced our own share of technical problems and frustrations. When setting up for our first shot on Athos we found that we had the wrong Arri-to-Nagra sync cord. We had brought the Nagra III and the sync cord for the Nagra IV. Skip had to make some on-the-spot modifications and eventually soldered the cord to the tape recorder. Luck helped pick up the right red and black wire-match and it worked. From then on we did not worry about losing or misplacing the cord.

Prior to departure for Greece, we converted all our electrical plugs to the European format. When we went to pick up the generator, we discovered it had an American-type receptacle! After an eight-hour search in the city of Thessaloniki, we were unable to locate a 25-cent regular two-prong American 110-volt plug. We were about to call the USA for help when one was located at the local ESSO-PAPPAS Refinery. Their electrical shop was also kind enough to loan us another 100 feet of extension cord.

One of the serious problems we had on Athos was photographing interiors. Church interiors and, to a lesser extent, sanctuaries, libraries, and refectories, were covered with glittering gold and silver icons located next to dark centuries-old murals. The high contrast of such scenes and the limited lights we had necessitated radical changes in our shooting. Close-ups were substituted for long shots; pans were eliminated and stills were taken for back-up.

We suffered a substantial light loss when we used the Dichroic filters on the Lowel-Lights to balance for daylight. We often tended to forget the limited output of our small generator. As a result, several of our shots were underexposed and required "boosting" in the lab. And then there was an occasion, when the monks, breaking completely with their centuries-old tradition and rules, permitted us to film an all-night service in the main church. How does one illuminate a church interior (walls

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Pan:  $360^\circ$   
Dimensions:  
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Weight: 8.5 lbs.  
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Pan:  $360^\circ$   
Dimensions:  
6 x 5 x 6 in.  
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covered with colored frescoes) using three 500-watt lights, powered by a small generator which disrupted the service and drowned out the chanting? And on top of all this, how does one record the chanting and psalms of the service?

We placed the generator as far away as the 300-foot cord would permit. We always tried to find a room or some other enclosure to muffle the sound. We also tried closing the church windows but soon the temperature inside the church reached the 90's and we had to open them on the side opposite the generator. The lights were fastened on chandeliers and candelabra high above the floor. That meant that we could not change their position during the all-night service. It also meant that we could only film the action that was taking place in the illuminated area. Finally we had to persuade one or two priests to perform at least part of the service in the target area. This in turn would bring other monks, however reluctantly, in front of the camera.

Passage of time on Athos is quite different than in any other place on earth. Monasteries follow the Julian calendar, which is thirteen days behind the rest of the world. With one exception, they follow the Byzantine time. A day begins at sunset . . . thus, their clocks show twelve o'clock at that moment. This however, did not create difficulties. One gets used to it.

The monasteries of Athos have preserved for centuries the living tradition of the Byzantine Empire. Nowhere in the Christian world can one find so many masterpieces of art. Biblical manuscripts handwritten on parchment, royal decrees (chrysoboules) bearing the handwritten signatures of their authors, religious relics, mosaics, an astonishing variety of works of art covering many centuries. We spent several weeks filming virtually everything we had planned to include in the documentary. We developed an excellent rapport with the monks. They were accommodating and, in spite of their feelings about being filmed, they put up with us. They granted on-camera interviews and permitted us to film them as they went about their daily activities. We came away with nine thousand feet of film.

The civil governor summed it all up. "In the course of the year," he explained to me, "the monks receive numerous requests from all over the world for permission to film on Athos. They have never honored one until now. They think very highly of you."

The film is currently in release and is available through the film library of Ithaca College. ■



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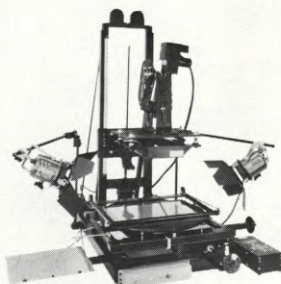
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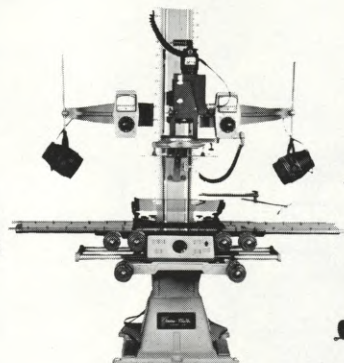
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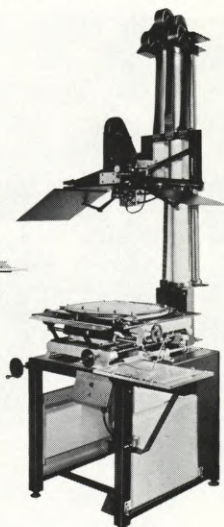
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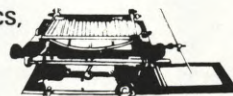
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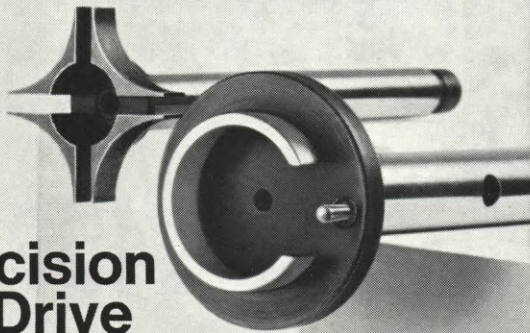
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### PHOTOGRAPHING "THE DEEP" Continued from Page 273

someone the other day, "The ideal way of lighting an underwater set is to light it first and then flood it with water — and the next best way is to get as near to that effect as you physically can."

**QUESTION:** When you are with an electrician underwater you can't very well tell him to make the barndoors Chinese fashion or anything like that. How do you get on?

*CHALLIS:* Well, you either have to just swim in and do it yourself or you have to come up to the surface and tell him there — or point. You develop a sort of deaf-and-dumb language after a while, and you can communicate quite a bit, but otherwise you just have to surface every time.

**QUESTION:** Can you tell me about some of the transport problems you've been having here in Bermuda?

*CHALLIS:* There have been tremendous transport problems, but some of them have turned out to be quite amusing. For instance, we wanted to bring out a regular Samuelson camera car, which is a very sophisticated car with everything built into it. The fact is that although it carries a great deal of equipment, it isn't very large. Well, we were turned down absolutely flat because of the dimensions of the car. They said, "We won't allow a vehicle of that size on the road in Bermuda. There's no hope. You'll have to use what we can find, whatever is available in Bermuda." The result is that we've ended up actually with a bus that is, I should say, two-and-a-half times the size of the camera car that we wanted in the first place, but because it belongs to the government it is allowed to travel on the roads. So we have this bus, which we've put racks and shelves in, and it has to be driven by a licensed bus driver from the depot. We can't have a regular driver, so we have a different driver every day — whoever happens to be on our route.

**QUESTION:** I understand that you've been shooting interiors in what has turned out to be a very good local studio. Can you tell me about that?

*CHALLIS:* Yes. We've actually got a complete studio complex, which was set up by the production designer, Tony Masters. We've got carpenter shops, plasterers, everything that we need. The whole thing, including the actual stage, is located in the old Naval dockyard, which was built, I think,

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something like 200 years ago and, in fact, is completely constructed with stone that was brought out from England in sailing ships. I believe it was built by French prisoners of war. They're really beautiful buildings, most of them, and our particular stage is, or was, an old sail loft. It's incredibly hot, I may say, when we're working inside it, but we have masses of space and we've constructed quite a large and complex set in there to represent the interior of the lighthouse.

**QUESTION: Is it soundproof?**

**CHALLIS:** Reasonably so, because there isn't much sound around there. I mean, the place where it's located in this large dockyard area is fairly quiet. The only aircraft are at the other end of the island, so we haven't really had any trouble with the sound at all.

**QUESTION: A lot of the scenes in this film seem to be day-for-night. Does that fact fill you with pleasure?**

**CHALLIS:** It fills me with absolute horror, because I've spent my whole professional life trying to avoid ever doing it, if I possibly can, and I think most cameramen would feel exactly the same way. The problem is made worse here in Bermuda by the fact that the island is a place of extremely high contrast, with pretty well all the buildings painted white. They also have white roofs, by law, because they're lime-washed for use in collecting their water supplies. So everywhere you look there's white against very, very deep blue skies and seas, with sort of puffy trade wind clouds. And, of course, at sea, where we have to do a great deal of day-for-night, everything is on the move — which means that I can't use graduated filters or anything like that. I haven't really tackled the main problem yet, although I've shot some tests. I'm maneuvering to try to cover the sky wherever I can — on the boats with awnings, or shooting through windows or from inside wheelhouses — anything to sort of get myself out of trouble. It's going to be quite a problem, I think.

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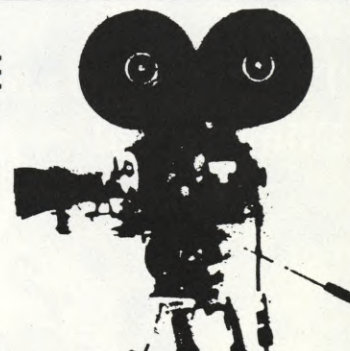
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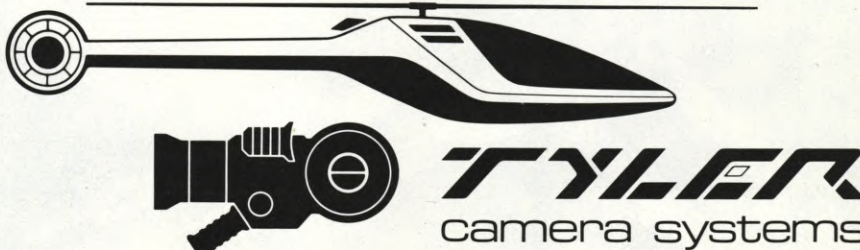
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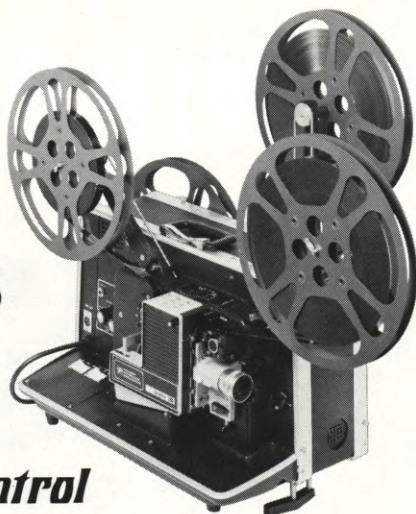
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## THIS IS LENFILM STUDIOS Continued from Page 301

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An important trend of technological development is the wide introduction of equipment that would allow the automating of certain labor-consuming procedures in shooting. An example of this can be the new system of Studio remote control lights devised at Lenfilm, which is characterized by its fast response and smaller size of control members compared to other conventional systems. At present it has been introduced on all Studio Stages.

Still greater effect in the sphere of automation is to be expected from the data processing center equipped with the latest model computer, which is being organized at the Studios. At present programmes are under development both for computerized control of production processes (specifically, Laboratory processes) and for improvement of management operations.

\* \* \*

The modern Lenfilm Studios is a big and booming enterprise capable of supporting a large-scale production of any complexity. A good example of that was the first Soviet-American film "THE BLUE BIRD".

It is rewarding to know that for all the difference of their production methods, this co-operation between the film-makers of both countries turned out to be not only feasible, but what is more — fruitful.

Lenfilm is certainly not free from its own problems, which mainly arise from the fact that the main body of the Studios is situated in the center of the city. With the fast growth of film production it became necessary to build a new production complex, as the limited area of the main Studio grounds does not permit erecting new constructions, or even thoroughly reconstructing the old ones.

To solve this problem, the current Five Year Plan envisages accelerated construction of new and modern facilities to a total sum of a few tens of million roubles in a natural setting on the coast of the Gulf of Finland, where the Processing Laboratory and two Sound Stages are already in full operation. ■

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**"COMPLEAT FILM-MAKER"**

Continued from Page 315

**QUESTION:** How long did it take to put the titles together?

*BASS: Interminable. Normally, whatever technique you use to do a title is the technique you use all the way through. Once you figure out how to do it, you keep doing that thing and you do two minutes or so of it, with variations, as the case may be. Here, every ten seconds we were into something different. It was not that each one was so complicated, but it would take a half-day or a day to shoot. Once it was set up and running, we could have shot the whole title in that technique with very little extra effort. Once you have gold letters manufactured and you have red velvet laid out, you can just take one set of letters off and put another on. But for one set of letters, you still had to get the red velvet, the gold letters manufactured, lay them out, check the filter and light to get the starburst, etc. And by the time you've got everything worked out, it was a half-day, or a day. And that was 10 seconds. Each idea would normally have been a title. The nature of the concept reduced it to a fragment in this title.*

**QUESTION:** You were on "THAT'S ENTERTAINMENT, PART 2" from the beginning. Is that how you usually get involved?

*BASS: Normally I get the script in advance, read it, and begin to work on the title while the director is shooting the picture. If there were a fast release date and I began after shooting was finished, there wouldn't be enough time. Also, I would then be able to take advantage of the facilities available if I needed some live action shots.*

Take "THE BIG COUNTRY", for example. My opening, among other things, involved a stagecoach going across a vast undifferentiated plain, where the coach was so small that you would almost not identify it except for the cloud of dust that it was churning up. That was intercut with closeups of wheels, horses' heads, hubs. This intercutting of the closeups of the furious action of horses and coach and the slowness of the little dot slowly creeping across the vast plain, created the dynamics of that title.

**QUESTION:** You said that you get a look at the script and begin to work on the title. Before that, do you also sit down with the director and go over his concept?

*BASS: I have to. The script is only the*

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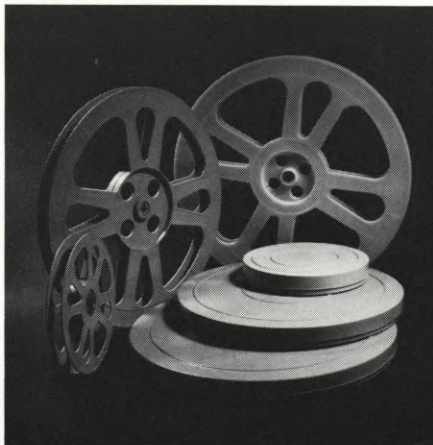
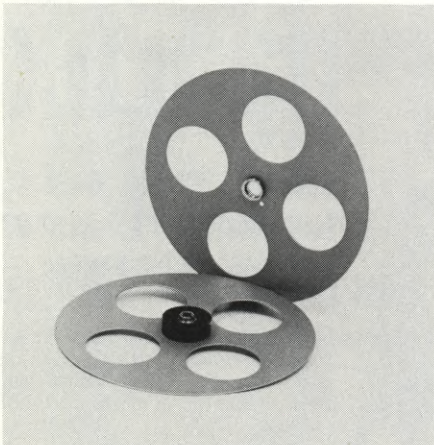
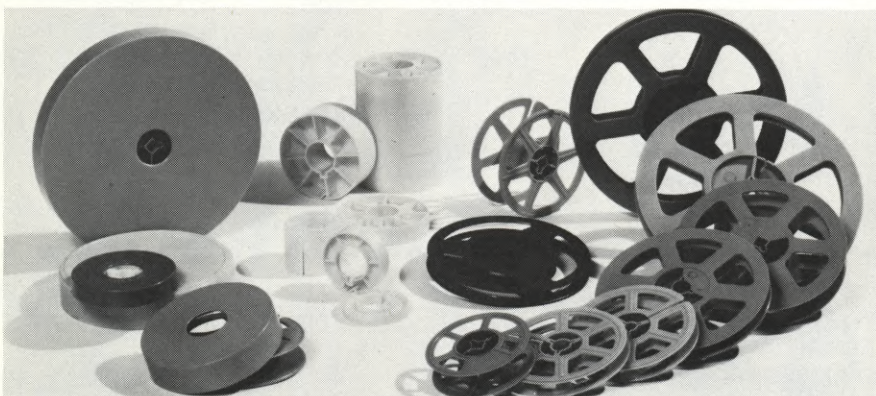
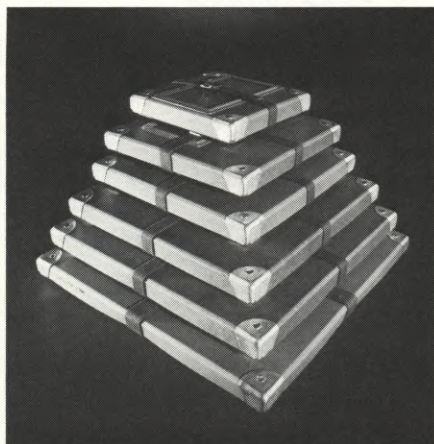
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bones. I must know how he is going to flesh it out, what his point-of-view is and how he is going to articulate that script. So, I have to have a good long talk with the producer or director or producer/director and get a good feel for his attitude toward the picture. What is he trying to say? My work was always preceded by very, very thorough discussions with the director. Not about what I was going to do, but about what he was going to do, so that I could understand it, be responsive to it, to support it. A title can get the audience set for the film. That's its broad function. Within that framework there are several ways to achieve it. One is to summarize the film . . . find a symbolic summary of the film that conveys the mood and attitude and tone of the picture. The other is to create a prologue to the film. Perhaps take a literal sequence of the time before the film starts and make that set up the film. Again, let's use "THE BIG COUNTRY" as an example. The film actually starts with the stagecoach pulling into town with Gregory Peck inside. Then the story begins. What I did in the title was to invent a little prologue. I established the notion of the vastness of the country and the tininess of this little town, in this sea of land, and the length of time it took to cross. Because of the contrast between the closeups and the terrifically long, long, long shot, you realized that with all that furious action, the dot has only moved an eighth of an inch across the screen. Then you are back to furious motion, and it moves another eighth of an inch. It intensified the relationship of effort and time that it took to cross the country. Months in those days. That set up the notion of BIG country, and helped establish the underlying sense that these people were really living on an island in the social ocean of America. I had to understand Wyler's view of the film to arrive at this position.

**QUESTION:** Which was the first sequence you directed?

**BASS:** The "PSYCHO" shower sequence. Then the racing sequences in "GRAND PRIX".

An interesting minor note on "PSYCHO". Hitchcock had to do something about the house on the hill to give it an ominous feel. It was only a house. Usually you make it ominous by music, lighting or shoot it from a low angle. I came up with the notion of changing the sky behind the house. I matted in a time-lapse footage of a moonlit, cloudy sky. The clouds moved at a faster than normal rate. For the few seconds at a time that you saw the scene, you were

not aware that the sky was moving at that rate because you tended to concentrate on the house. But you came away with the feeling it was strange. You didn't know why; it just was.

**QUESTION:** Why were you on "PSYCHO" to begin with, what had you been hired to do?

**BASS:** Hitchcock called me in and said there are a number of things he wanted me to do. To work on the shower sequence, do something special about the house and a few other things. I had done the title for "NORTH BY NORTH-WEST" and "VERTIGO" for Hitch previously. We got along very well. He thought I could contribute in a number of areas.

**QUESTION:** Is your creative process approach to sequences basically the same one you take to titles?

**BASS:** Yes. I'm coming from the director's view of the picture. If I take the position that a title has to be responsive to his view of the picture, then a sequence has to be equally responsive to his view of the picture.

**QUESTION:** Can you sum up your philosophy toward all aspects of your filmmaking?

**BASS:** I don't believe in being different, in any of my work, for the sake of being different. I believe in dealing with the logical and emotional requirements of a situation and then finding an unusual and innovative way to do it. You start with what you are trying to accomplish in the storytelling process and then you find the most interesting, exciting, innovative or, for that matter, quiet way to do it. You tailor the form for the content requirements.

**QUESTION:** You've made five major short films and one full-length theatrical film in the past few years. What's next?

**BASS:** I'm going to make more features. I'm going to make more of everything. Short films, features, commercials, industrials. I'm a filmmaker who is interested in making all kinds of film. And that's what I intend to continue doing. ■



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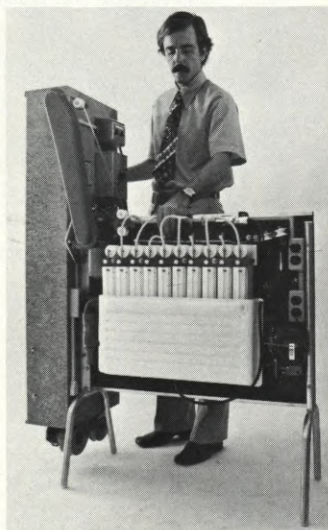
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## MAINE WORKSHOP Continued from Page 293

evening at the Workshops and reviewed the following morning at the Bay View Street Cinema. The results of the different filters and exposures were analyzed and discussed at length. A set of the test frames, with a description of the various exposures and filters, is being made available to those who attended the seminar.

Harrison and Harrison of Hollywood provided a full complement of filters, including a complete set of fog filters, low-contrast screens, diffusion filters, and one variable-contrast filter.

Saturday afternoon the lighting workshop moved inside to a simulated sound stage at the Maine Photographic Workshops' main building. There, a number of different problems were staged and solved, including a candlelit scene. That evening the entire group, with the van of lighting equipment, moved to downtown Camden to photograph two simulated street night scenes. All went well until the local police got wind of the project and arrived on the "set" with the Camden Town Manager, and a stern request for the film company to "move." The police stated that a number of town ordinances were being violated, such as assembling a crowd of over 30 without a permit, obstructing a public right-of-way, and so on. It was easy to understand the officials' concern when a party of 65 filmmakers grew to around 150, including curious bystanders.

The "film company" then moved to private land at a cluster of harbor-side condominiums in Rockport to continue night lighting projects.

Later that evening, those still awake followed Vilmos back to the Workshops' sound stage and set up a rear-screen-projection problem and completed shooting for the day. By then the afternoon "rushes" were processed and were screened and analyzed. Saturday's night shooting was screened the following Sunday morning, at which time Vilmos gave a few personal comments to the group and wished all a hearty farewell.

(Vilmos then collected his daughter, who was attending one of the Maine Photographic Workshops' still courses, and spent the remainder of the day sailing on the Director's 34-foot sloop QUINTA.)

There were some 65 filmmakers enrolled in the one-week seminar/workshop, many from such places as Canada, The Virgin Islands and California.

"This is not really a film festival," said Dick McLernon a scriptwriter, "in fact,

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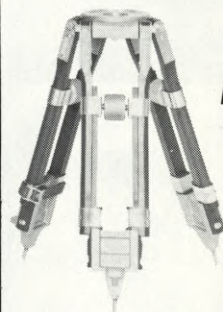
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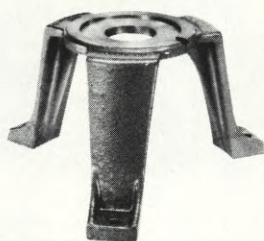
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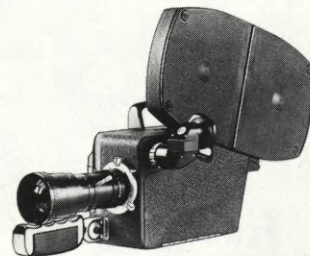
it's really an *anti*-film festival. There are no competitions, no awards, no ego trips. Fact is, this type of a program can be very damaging to a filmmaker's ego . . ."

Lee Bowman, an independent filmmaker from upstate New York, said he found the week "most rewarding . . . I'll be shooting two TV commercials differently next week, due to what I've experienced here this week."

"I can't say enough about Vilmos," said one filmmaker. "He's a very special person and kept on giving of himself all week. I don't know how he kept up that pace." He didn't. Director Lyman reports that Vilmos begged-off on a sailing invitation for Thursday afternoon and slept. "This is harder work than filming a feature . . ." Vilmos was heard to say at one point.

"The program they've put together here at Rockport is unique. Outside of a university or college film program, this is the only educational program available — and the only one geared to filmmakers who have only a week or two to devote to upgrading their skills and knowledge," said Jim Ruddy, a cameraman from Detroit.

"Most worthwhile, and a lot of fun. A good place to meet and talk film with others," said David McNicoll, a feature filmmaker from Ottawa, Canada. This is the second seminar for David, and he said he'd be back for next year's, "if they don't up the price." David was only one of a dozen repeats from the previous year's seminar with Conrad Hall. David Lyman, Director, said that a 20 percent return was most gratifying, and that while he was planning on expanding the film courses next year, he would retain the seminar/workshop/critique format just about as it is. "It's obvious that these filmmakers want more exposure to lighting situations and to work under a recognized cinematographer like Vilmos. Our tentative plans for next summer are to hold a one-week film critique, just as we have in the past. To this we will add a number of seminars and representations on such topics as film distribution, markets, finding funds for films, proposal writing, and technical representations by Kodak and the hardware people. We'll be expanding the lighting workshop to a full week next summer and are inviting Vilmos back to conduct it. In addition to lighting, Vilmos will work in a film unit, swapping responsibilities on each set, shooting stills for evening critique, and film footage for future editing workshops. The first day, Vilmos will demonstrate techniques, but from then on will comment on how the 'student filmmakers' set up each scene. We find that this



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works better than simply watching Vilmos. It gets the students involved, and they learn from their mistakes, rather than just copying down what Vilmos does."

The third week will cover both editing and sound recording for films. Next summer's program is scheduled for June, according to Lyman.

The film workshops are geared for professional filmmakers who desire a short course to upgrade their skills and are unable to enroll in an extended university film course. At this point no Hollywood filmmakers have been named to conduct the various sessions, but Lyman assures us that those selected for next summer's program will be of the caliber of Hall and Zsigmond.

In addition to courses for filmmakers, the Workshops offer a variety of still workshops in fine art, photo-journalism, studio lighting, commercial and scientific photography. The summer's master workshop series includes one-week courses with Ernst Haas, Elliot Porter, Mary Ellen Mark, Arnold Newman, George Tice, Elliott Erwitt, Ralph Gibson and a number of photographers from the NATIONAL GEOGRAPHIC.

For a schedule of next summer's filmmakers' Workshop, write the Maine Photographic Workshops, Rockport, Maine 04856. ■

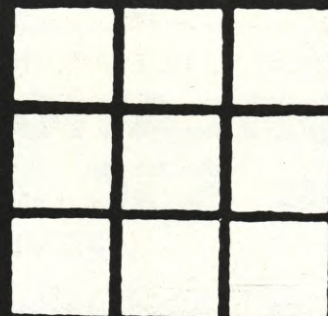
### "LE PINK GRAPEFRUIT" Continued from Page 307

be used with the 815, since it has a tendency to emphasize unwanted lows, and to produce whooshing sounds itself when in motion. I used the Sennheiser and Stellavox for 95% of the sound recording, and it was a pleasing combination, to say the least. The Stellavox worked great!

Despite the fact that the Sennheiser can make good recordings of comparatively distant subjects, and pick out wanted sound from background noise, like every other mike it must be used in as closely as possible to get the best recordings. So I was left with the usual contradictory requirement of miking in close, but keeping myself and the mike out of the shot. My years of experience working a camera helped me guess what focal lengths Ryan was using with the zoom lens. I had more trouble staying out of the shot when he was using the 5.9mm Angenieux, because of its wide coverage, but things worked out pretty well with a practically subliminal system of gestures and signals.

There is something about recording sound that lends itself to coolness and

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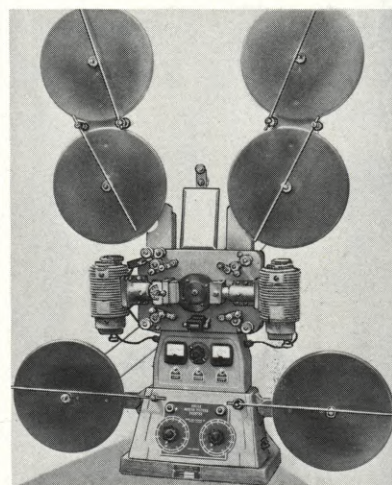
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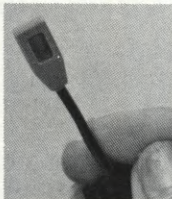
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detachment. Hearing seems to take place deep inside the head, something fostered by those damned earphones you have to wear to insure success. They may let you hear what the tape hears, but they create a barrier between the soundperson and the world.

The soundman also stands in a position which is somewhat more precarious with the director, than the cameraman. Part of the reason for this is that, unlike the cinematographer, he can immediately hear any technical failure in recording. Often the film itself cannot be viewed for days (and, in our particular case, for weeks), and if anything has gone wrong it is discovered in the cutting or screening room when it is too late.

Recording in the field is hazardous to say the least, if top quality sound is the goal. Witness all of the post-sync dubbing that is used in feature films shot on location, despite the fact that these crews usually use two or three people specializing in sound, and equipment far more elaborate than anything we had.

Nevertheless, it was a dreadful moment for me when I had to tell the director that we were getting lousy sound, either because of weirdly-functioning equipment, or because of terribly loud background sounds made by one of the world's numerous machines.

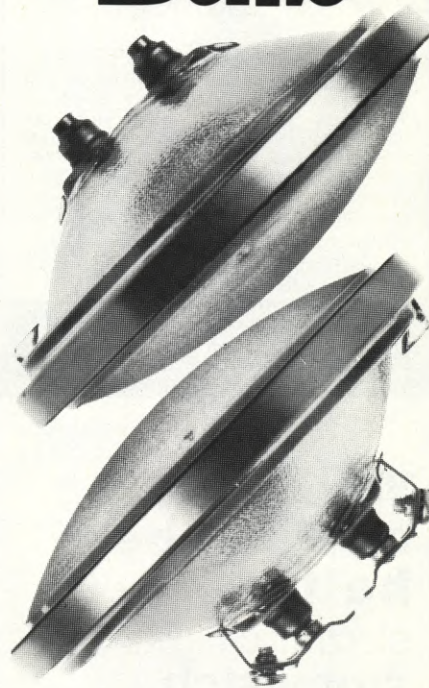
Sound stands in a stepchild relationship to image. The soundman doesn't often get praised for recording brilliant sound. It just rarely happens that anybody recognizes the importance of excellent sound until they hear really loused-up recordings. Superlatives are saved for great photography.

It's probably best to let the subject of our film have the final words here. I recall our last conversation with Dali in his outrageous garden at his home in Port Lligat. The garden looks like a set that has been dressed to make it appear to be part of a hippie pad, featuring plastic plants intermixed with live plants, a telephone booth near the barbecue pit, a Michy Michelin white plastic statue and, in general, kitschy junk scattered here and there.

There he was — Dali, seated at the far end of the pool under a little canopied shelter, on a great big stuffed pillow, telling us: "After all of your suffering, you should throw the film in the garbage."

Not satisfied with having communicated this wisdom once, he repeated his message several times, in perfect English — clear enough for anyone to understand. ■

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## SPECIAL EQUIPMENT

Continued from Page 308

getting onto that location and shooting with cables attached to all three cameras — which we ran simultaneously perhaps 60 per cent of the time. The video system would have been nice to have, and it could have been applied, but it would have been pretty complicated, so we didn't get into that.

**QUESTION: Have you been operating one of the cameras yourself?**

*GIDDINGS: I have been shooting, along with Stan Waterman and Chuck Nicklin from San Diego. Stan and I have been directing underwater, with Peter Yates' good help and a lot of help from Chris Challis, who is really far more experienced in the theatrical world than all three of us put together. Most of our experience has been in natural history filming.*

**QUESTION: You've obviously done a lot of underwater filming in the past, but have you done much work with actors, in the theatrical sense?**

*GIDDINGS: On two or three occasions. As big pictures go, this is really the first time out with people like Robert Shaw and Jacqueline Bisset. But we have worked on theatrical films before — like a mad thing last year, "SHARK'S TREASURE", with Cornel Wilde. We did fine with respect to the shark action, although it certainly wasn't a picture of the magnitude of this one.*

**QUESTION: Do you find working with actors to be a very different ball-game?**

*GIDDINGS: I find it very different, but very rewarding in this case, because Robert Shaw, Jacqueline Bisset and Nick Nolte have gotten sort of caught up in an interest in the sea. We have become a great family unit with very close ties. Everyone is sort of flat out to produce the very finest product. In the beginning we thought that there might be some areas of difficulty to bridge, but it hasn't been that way at all. It's been, in fact, a very pleasant experience and an exciting one for everyone.*

**QUESTION: Obviously, lighting underwater becomes more difficult when you are trying to match the natural light that you have in the Virgin Islands with the artificial light that you are using here. Can you tell me about those problems?**

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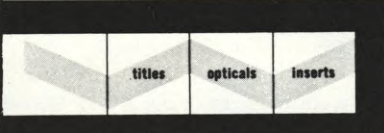
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**GIDDINGS:** The main problem is not really one of matching exteriors and interiors; it's one of lighting interiors so that you have a good balance between the slight ambient light and the full light that illuminates the action. We are really learning a lot from Chris Challis on that and applying our lights much differently than we have in the past. In the Virgin Islands we were pressed to fill a bit and get those faces — which is mechanically not a difficult job here. But in the Virgin Islands we faced another situation — that of swimming, at times, with ten 1,000-watt quartz lamps and everything else but the kitchen sink, and getting all those cables inside a ship which is 80 feet down, with the surge of the boat going up and down. We often had as many as 17 people involved in a single shot, involving ten cables and two air hoses going to the bottom. It is an exercise. Each setup is an adventure in itself.

At this point, the two men were joined by Stan Waterman, co-director and cameraman, working in an equal capacity with Al Giddings on the underwater portion of the filming. The interview continues with Waterman:

**QUESTION:** How long have you been doing underwater photography?

**WATERMAN:** Well, I started in 1954, but I have been skin diving since 1938. Jules Verne consulted me on his book, "20,000 Leagues Under the Sea".

**QUESTION:** Is this the first time you have worked with actors on a scripted story?

**WATERMAN:** Yes, one that is as fully scripted as this is — a really feature-scripted shoot. Some eight years ago I did a film called "BLUE WATER, WHITE DEATH", with Peter Gimbel and Ronald Taylor. That was not a scripted film, but rather a documentary feature for theatrical release. This is really, in my experience, the first one with a scripted shoot, and it's Al's second on a feature film.

**QUESTION:** How do you find working with stars underwater?

**WATERMAN:** These, I think, have spoiled us for the prima donnas that we are going to meet later on, because they are such splendid people. I've heard Al say that they came to diving "unborn" — meaning that they'd had no previous experience. Jacquie Bisset was very frightened when she first started to dive, but Al worked very gently and patiently with her; we were

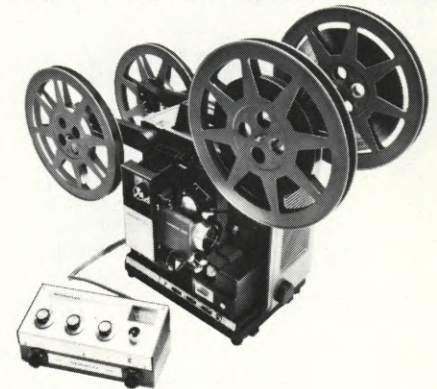
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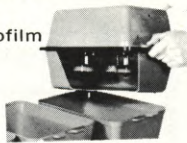
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all very much with her. Nick Nolte took to it naturally, and by the time we had finished our Virgin Islands shooting, they were tigers. They loved the new environment and just wanted to do everything. Robert Shaw also gets in and does it and grits his teeth. They are splendid people and working with them has been a marvelous experience for us.

**QUESTION: Did I hear you speak of strobe lighting being used at one stage of the filming?**

**WATERMAN:** Well, Nick Nolte, who's playing the part of David, carries a still camera and strobe — which is entirely normal for today's holiday diver, photography having become such a large part of sport diving. Later it becomes a plot vehicle, a means for a very artistic and dramatic confrontation. When he first encounters the eel, the strobe falls to the bottom of the compartment and starts triggering itself. In those drastic moments, in a series of intense flashes, we see the animal moving about and toward him and so on. It becomes a device that's very dramatic indeed.

**QUESTION: Have you synchronized the strobe to the film camera shutter?**

**WATERMAN:** We have experimented in the Virgin Islands with three different intensities for the flashing lights, and we still want to do more, but we've not had a problem with synchronizing the strobe. One way, of course, would be to increase the filming speed to 48 frames, which would have the effect of lengthening the duration of the strobe flash — and I think that wouldn't be an impediment. So far in our experiments, the flash hasn't been as intense as we want it, but we'll work it out.

**QUESTION: Are you having to put gelatines on the lights you are using in the tank?**

**WATERMAN:** Oh yes, more than we anticipated actually. Here again, Chris Challis, who is a very seasoned surface photographer, has been really so helpful with suggestions. We're using 1/4 blues and 1/2 blues to create the ambient light. As a result, instead of total darkness on the screen, the audience sees something that looks like a darkened room. Then, as the divers head for the compartments with their hand lights, we fade in the other lights that are not filtered and then we light up to the full camera exposure. It's like the dramatic license used for lighting rooms when people enter carrying flashlights.

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 Continued from Page 240

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## PRODUCTION DESIGN Continued from Page 310

*individually. However, so long as you are staying in a house that doesn't have a car allocated to it, you can get a car for the house you are staying in — which I did. One of the most frightening things I've ever had to do was to pass the Bermudan driving test. I was shaking with fright for three days, but succeeded. Finally, once we were a little bit mobile, we found that in a very short time we knew every contractor and every shop and every store on the island. As you say, it's a small place and it really didn't take very long to get around and see what was there and know where to go for everything.*

**QUESTION: Have you been able to get the materials that you need?**

*MASTERS: Up to a point. We have used large quantities of all sorts of things — like lumber, for example. We cleaned the island out inside of a week and had to start importing more, and there were people complaining that they couldn't even buy a packet of nails because we had got them all. We really did clean the island dry of almost everything.*

**QUESTION: I understand that there's going to be a big fish in this film. Is that so?**

*MASTERS: Well, there's an eel — a moray eel.*

**QUESTION: And will that be a model?**

*MASTERS: No, he's going to be a real eel. We are going to do some trick stuff, but basically speaking, he will be a real moray eel and he will appear to be very big. The fact that he actually isn't you won't realise.*

**QUESTION: And all the other fish in the underwater studio — who auditions them?**

*MASTERS: Well, they are managed by our friend, Teddy Tucker, who is working with us. He is one of the local divers who has been put in charge of all sorts of things — one of which is finding fish. I have no idea how he catches them. How he keeps coming back with a boatload of live fish I am not quite sure, but he does and they are all in the tank. We have between 60 and 100 fish in there now, all different sorts, including some nurse sharks, a grouper or two, and also a couple of barracudas which we are a little bit nervous about, but they don't seem to bite anybody.* ■

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ARRIFLEX S/B, mint condition, Angenieux 12/120 zoom. Total production package plus dolly. Excellent price, under \$8000. DOUG KIEFER, Rt #1, River Falls, WI 54022 (715) 425-7981.

ARRIFLEX 16S outfit. 10, 25, 50mm Schneider lenses, constant speed motor, matte box, two 400' magazines, torque motor, battery and charger, power cable, filter kit, and type "B" case, \$3500. GARY HEILMAN, (701) 852-2476 evenings.

NPR, new Alcon crystal, 2-400' mag, 9-95 Angenieux, battery, Barney, brace. Uher 1000. Excellent. (617) 492-5509 eve.

MITCHELL NC OUTFIT — body, 4 Baitars, 3-1000 ft. mags., matte box, motor, 3 cases, \$2400. KODAK Cine-special — body w/1 — 100 ft magazine, \$200. 100' magazines, \$100. 200' magazines, \$240. BILL DORSEY, 630 9th Avenue, NY 10036 (212) 541-9295.

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COMPLETE Arri S outfit, variable speed motor, 400' mag. w/torque motor, matte box, 10-25-50mm Schneider lenses, Angenieux 12-120 zoom, 230mm Tele-Athena, Cine-60 power belt, Arri tripod w/friction head, aluminum case, double shoulder pod, Lowel Vari-flector, changing bag, filters. All in excellent condition. \$3800 firm. (413) 733-4182.

PURCHASE of another studio leaves equipment for sale, Nagra, Arri-S, Eclair-NPR, Arri-35, Moviola and much more. Send for list. SWARTWOUT PRODUCTIONS, 6736 East Avalon Drive, Scottsdale, AZ 85251 (602) 994-4774.

SELLING 35mm ARRIFLEX BL, Canon high-speed aspheric lenses 24mm, 35mm, 55mm, 85mm T1.4s plus Canon 18mm with special lens housing and BNC hard front adapter, LED digital tach and foot-candle counter, original Arri-front to reconvert if desired. Many other accessories including padded cases, batteries, cables, etc. New price \$57,000, will sell for \$50,000. HASKELL WEXLER (213) 851-2070, 716 Alfred, Los Angeles, CA 90069.

MITCHELL NC camera with accessories, excellent, \$4995. (213) 829-2132, 870-8661.

BELL & HOWELL 16mm Filmosound projector, good condition, \$175. 4-gang 16mm synchronizer with mag head, amplifier, 16mm Bolex splicer, mint condition, \$200. (213) 463-5022.

35 BL #35056 ARRIFLEX  
5 prime Zeiss lenses, converted 12-120 Angenieux zoom lens, 2-400' mags, cases, matte boxes, filter, etc. \$24,995. (415) 941-8720.

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ECLAIR NPR 12-120 Angenieux w/Vicon power zoom, 2 mags, sync motor, cradle, 2 batteries, 10mm, 15mm, 25mm, 75mm C/mount Angenieux lenses. Barney and grip, filters, all in cases, mint condition. T.P.H., 1900 Main St. Sarasota, FL 33577, (813) 365-0507.

35 MITCHELL Mark 2, \$5000. B&H J printer, Peterson fader \$2000. (609) 799-1382 NJ.

NEW Eclair ACL 400' English mags, \$1,500. Also ACL bodies (604) 733-2854.

BELL & HOWELL Model J printer, super-hi head, roller gate, perfect condition. YALE LAB. (213) 464-6181.

ARRI 35mm 2B, sync motor, wild motor, 75mm Schneider, 3 mags, \$1900. (602) 994-4774.

## STUDIO PRODUCTION EQUIPMENT

MITCHELL BNCR mint condition, belt drive, mirror reflex. Mitchell NC, 6 lenses, 4 magazines, 2 motors, 6 carrying cases, excellent condition, \$5000. Mitchell GC complete outfit includes variable and high-speed motors, \$1750. Mitchell Std. camera w/4 Cooke Panthro lenses including a stop motion motor for single & multiple frames, \$2250. Moy geared head includes 2 tilt plates, \$1850. Moviola picture head model "D", \$350. CINE/PRECISION ENGINEERING CO., 1038 No. Highland Ave., Hollywood, CA 90038. (213) 462-8787.

ARRI 16 BL 12-120 Angenieux lens, crystal-sync motor, built-in Apoc exposure meter, 2 400-ft magazines, Cine-60 battery belt, 2 viewfinders, matte box, filters, O'Connor head, tripod. Not used much. Excellent condition. Best offer over \$9,500. Call evenings (212) UN1-7030.

ECLAIR NPR and Angenieux 9.5-95, in like new condition. One-owner camera with many accessories, Eclair contour handle, data rings, battery belt, extra cables, shoulder brace, push-pull zoom, Pentax-C mount adapter, prime lenses. P.O. BOX 237, Durham, NH 03824 or (603) 862-1047.

2 BNC CAMERAS BRAND NEW — NEVER USED Rackover Type #362, 364. Complete outfits with 7 Cooke speed Panthro lenses, 18mm, 25mm (series 3) 32, 40, 50, 75, 100mm (series 2). 4-1000 ft. mags, 110v, 220v and 96v multi-duty motors, viewfinder with cams, sunshade, matte box, cases, cables, filter holders. All in original condition. Today's value well over \$30,000. each. Cameras available for inspection in New York. Please mail an offer. AC #1798.

400 Ft. AURICON complete sound outfit, camera, magazine, MA-11 Filmagnetic amplifier and head, Angenieux 12-120 lens, \$2195. 90-day warranty on all. Arri 16BL, 12-120, Jensen crystal, case, 1 magazine, recently overhauled, \$7295. GORDON YODER (214) 357-3045.

ARRIFLEX 16M, 200' magazine, variable speed motor, 12-120 Angenieux lens, 7 volt battery with charger, power cable, aluminum Arri case, all perfect. \$10,605. New. \$5850 FIRM. (213) 274-8888.

ARRIFLEX 16BL, 12-120 Angenieux, 1-400 mag, \$3000 as is. Also single system module, 2-1200 mags, excellent condition. BOB BOYER (202) 686-6190.

BEAULIEU 16mm R16. 12-120mm Angenieux, 200 ft mag., battery, Mint, \$1400. (212) 777-8335. SAM.

FOR SALE — CAMERAS: Item 1: 16mm sound camera, Auricon/Ceco flattop 400 ft conversion, with 2 Mitchell 400 ft mags, 17/85 F2.2 Pancinor, Auricon MA11C single system amp and magnetic heads, Frezzolini 1000DX power, Pro tripod with friction head, all cables, mikes, carrying cases, \$3000. Item 2: Auricon Cinevoice, two piggyback 400 ft B&H mags., 17/68 Angenieux 2.2, Frezzolini 1000DX power, professional transistorized magnetic amp and heads, all cables, mics, cases, \$1250. All operating. Both items separately, or take \$4000 for the lot. Call (904) 261-6285 for appointment to inspect or Write: 118 North 15th, Fernandina Beach, FL.

COMPLETE 16mm optical sound track production set-up, Module "E" Maurer Film recording system and Eastman Kodak Viscomat processor set-up for sound tracks. Now in operation — Excellent condition. JACK SKY PRODUCTIONS, INC., Cherry Hill, NJ (609) 424-5870.

16 BOLEX M-5 camera — 10mm F1.6 Switar, under-water housing case, \$995. JONES (713) 524-5594.

ORIENTABLE viewfinder: Angenieux SN/721. Two years old. Will fit NPR, CP-16R or other American reflexes. Cashiers check only, \$650. ALLEN S. FACEMIRE, 232 Lawrenceville St., Norcross, GA 30091 (404) 448-3181.

EXCELLENT French made Eclair NPR serial #550, with 20-hour-old Perfectone crystal sync variable speed motor, 12-120 Angenieux and 25mm Kinoptik (including Tiffin filters and shades), end caps, 2-400' magazines, 2 aluminum Eclair carrying cases, Eclair maxi-pack Nicad battery with built-in charger, battery cable, Barney, Miller fluid head and tripod, \$10,500. JOHN ROBERT PRODUCTIONS, 186 Francisco St., San Francisco, CA 94133 or call (415) 392-8408.

## STUDIO PRODUCTION EQUIPMENT

FOR SALE: Arriflex 16BL-1-339-466 scene marking cable; 1-339-204 magazine core adapter; 1-339-422 power cable 6' 12 pin. Arriflex 16S 1-339-320 torque motor; 7-339-404 power cable 6' 5 pin; 2-339-420 ground cable; 1-339-202 magazine opening cover. This equipment is brand new. All priced for \$411.20 Write or call PAUL B. ODOM, JR., 7204 S. Pennsylvania, Okla. City, OK 73159 (405) 685-5541.

EASTMAN Model 25 professional 16mm projector with arc lamp and intermittent movement, no amplifier, very good condition, \$3,500, pair available for \$6,500. Pair Bell & Howell 16mm Filmoarc projectors, complete \$750. CINEVISION, 1677 Tully Circle, NE., Suite 106, Atlanta, GA 30329 (404) 321-6333.

SKINNER 16mm optical recorder, \$1750. RCA 16mm optical recorder, solid state amp \$5000. RCA 35/32mm optical recorder, solid state amp, \$5000. Bell & Howell 35mm model D printer, \$1500. BILL LEHR, 1808 S. Joplin, Pittsburg, KS (316) 232-2698.

REDUCED PRICES: Auricon Conversion takes 400 or 1200 magazines, automatic shutoff when film runs out. Amplifier, case, mic, 400 mag., excellent \$850. Auricon tripod springhead, dolly, \$150. Zoom 17-85 \$300. 1200 magazine, \$95. Package deal \$1200. WINKLER PICTURES, 73 Spring St., Garfield, NJ 07026. (201) 478-2339.

NAGRA III, excellent condition, case and ElectroVoice RE-10 microphone, \$1800. (213) 385-6367. MR. LEE.

BOLEX REX 4 Reflex, 2-lenses, \$475. Graflex optical sound projector, self-contained, \$225. L&F Super-8, 16mm printer, \$225. 16mm printer, \$100. 16mm editor, \$35. (812) 537-0257. LAWRENCEBURG, IN.

MITCHELL NC camera w/accessories. Sell/trade/offer? (213) 829-2132, 870-8661 (9-5 PM).

BOLEX H-16 EL, crystal sync., complete accessories. (314) 781-9554.

ECLAIR NPR, 12-120, 2-400' mags, sync motor, battery, cases, \$5600. (602) 994-4774.

DOUBLE SYSTEM Auricon conversion (Yoder), power pack, 400' Mitchell magazine, Angenieux 12-120 with 7½" finder, Miller Pro fluid head tripod (ball leveling) with Arri legs, \$3400. FRUGAL FILMS, 174 Ellsworth Ave., New Haven, CT 06511. (203) 865-8563.

NAGRA III with carrying case, \$1000. (602) 994-4774.

ARRI-S, 12-120, 2-400' mags, torque motor, wild motor, matte box, battery, cases, zoom motor, \$3500. (602) 994-4774.

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## RENTAL

NAGRAS for rent, Nagra IV-L, QSLI, Crystal, \$85 a week, \$225 a month, Nagra III, with crystal, \$50 a week, 150 a month — call Peter Scharff (212) 548-1439.

EDITING ROOM, Downtown D.C. ST 1900, all amenities. Transfer equipment in studio. \$175/wk. GORDONFILMS (202) 462-5121.

CINEMONTA/STEENBECK RENTALS, 8-plate, 16mm & 35mm delivered to your premises. KLM ASSOC., INC. W/Coast (213) 931-6151. E/Coast (301) 299-7259.

1977 Rental Catalog available... Production equipment at sensible prices. For more information on rentals, sales or service write: CINELEASE, INC., 209B Old Durham RD., Killingworth, CT 06417 or call (203) 663-2222.

KEM Rentals in Hollywood, HORIZONTAL EDITING STUDIOS (213) 461-4643.

## WANTED

WANTED TO BUY: Used 4 or 6-plate KEM or Steenbeck in the Chicago area, must be in very good condition. Call (312) 498-4518 or write D. M. GUGGENHEIM AND ASSOCIATES, 2419 Center Street, Northbrook, IL 60062.

COMPLETE DOIFLEX Camera Outfit. IMAGE DEV. CO., Box 1313, Pittsburg, KS 66762 (316) 232-2698.

IF YOU WANT TO SELL YOUR EQUIPMENT THIS SHOULD MAKE SENSE — Place it on consignment with F&B/CECO where hundreds of shoppers visit our New York and Hollywood showrooms every day. Our used equipment price lists are mailed to over 30,000 potential buyers. We'll get your price for it — and even arrange a cash advance if you require it. Remember, our sales total over \$6 million yearly — we sell more used equipment than any other dealer. In the East call Hy Roth in New York, (212) 586-1420. In the West, call Bob Kaplan at (213) 466-9361. F&B/CECO, 315 W. 43rd St., New York, NY 10028, 7051 Santa Monica, Hollywood, CA 90038.

WANTED: Auricon Cinevoice cameras, CM-72A, converted or unconverted, any condition. Best prices. Call (201) 427-1160 or (212) 594-2294.

WANTED: Professional motion picture equipment, 16mm and 35mm, cameras, lenses, lights, sound, editing, projection, lab, for outright purchase or consignment. Supply complete technical description and price for immediate reply. Ted Lane, ALAN GORDON ENTERPRISES INC., 1430 Cahuenga, 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 (7240) mag. stripe. FILMEX (filmbrokers) (416) 964-7415 collect.

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T-SHIRTS FOR FILMMAKERS. Sixteen popular professional film equipment designs. Send for free brochure. ALAN GORDON ENTERPRISES INC., 1430 Cahuenga Blvd., Hollywood, CA 90028. Attn: Dept TS.

## WORKSHOPS

SUMMER '77 WORKSHOP SERIES: Four one-week workshops and symposiums for professional filmmakers in small sea-coast village. **THE CINEMATOGRAPHER**, June 6-11, Critiques and dialog with major ASC Cinematographer. **FILM PRODUCTION**, June 13-18 with **VILMOS SZIGMOND, ASC**: lighting, camera angles and movement, production problems. **EDITING, SOUND RECORDING and ANIMATION**, June 20-25 with top New York pros. **THE DIRECTOR**, June 27 to July 2, critiques and dialog with a major Hollywood director. Also, three-month filmmaker course begins Sept. 26, 1977. Write for details: THE MAINE PHOTOGRAPHIC WORKSHOPS, Rockport, ME 04856.

## SITUATIONS WANTED

ASSISTANT CAMERAMAN, operator, grip, electrician, stills, portraits, seeks free-lance or staff position. 16 and 35mm feature credits, multi-talents. CLYDE E. BRYAN, JR., Box 471, Lineville, AL 36266 (205) 396-2564.

## SERVICES AVAILABLE

RON HAYES, Wildlife Photographer. Photographer of "Alaskan Safari" and "North Country" accepting any film assignments in Alaska. Wildlife stock footage available. 16mm. RON HAYES, Box 1711, Anchorage, AK 99510 (907) 272-0051.

B&H Filmos slotted w/2 holders \$52.50. 3-day service. GORDON YODER, INC. 2911 Ladybird Lane, Dallas, TX 75220.

SHOOTING IN CANADA? Complete 16mm production. 16/35 editing. Cameras, sound & lighting crews. Commercial, documentary & feature. CREATIVE ASSOCIATES, 133-10th Ave., SE, Calgary, Alberta. (403) 264-6242.

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WANTED: Writer/producer. Our Milwaukee-based company has a national reputation for the production of outstanding major-market TV station promo commercials. We provide all creative from concept to release and need to expand to meet client demand. Must have experience or at least have been beaten up a couple of times. Write to us, and tell us why we should share all of this fun with you. THE JERRY SMITH STUDIO, INC. 205 West Highland Ave., Milwaukee, WI 53203.

Highly qualified and experienced motion picture soundman/editor/cinematographer wanted to fill responsible position in a Midwestern university's film unit. Must be fully competent to perform these three tasks equally well. Position also requires consultation with faculty and clients on the design and treatment of mediated materials. Reasonable supervisory experience is desirable. Salary based on experience and qualifications. Resumes to I.M.C., Michigan State University, East Lansing, MI 48824. MSU IS AN EQUAL OPPORTUNITY EMPLOYER.

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Copy deadline for classified advertising is the 1st of month, preceding publication date. Mail copy and remittance to cover cost to

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## INDUSTRY ACTIVITIES

Continued from Page 256

### ANGENIEUX AWARDS

The 18th annual Industrial Photography Film Award, "Indy", for inplant production, was highlighted by the presentation of the Angenieux Award for Outstanding, Creative Cinematography.

POISE, a 12 minute film produced by Honeywell's Government and Aeronautical Products Division, was the recipient of the 6th Angenieux Award. The coveted Angenieux trophy was presented at ceremonies held at the Eastman Kodak Building in New York to Honeywell Film Services Director, William Steinbicker, who wrote and produced this very graphic film.

William Steinbicker (second from left), Honeywell Film Services Director, examines the Angenieux trophy awarded at recent Industrial Film Awards Presentation. Barry Ancona (left), Editor of Industrial Photography Magazine, Mrs. Evelyn Lowe and Bern Levy of Angenieux Corporation of America look on.



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